

Handling technology 1

THE KNOW-HOW FACTORY

THE KNOW-HOW FACTORY

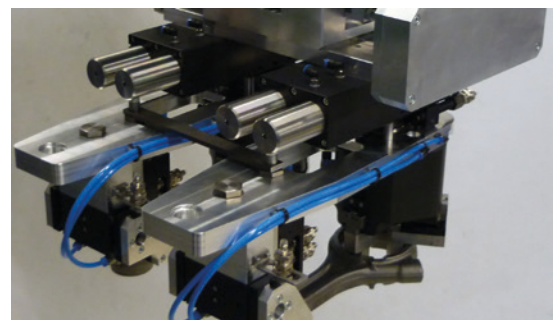
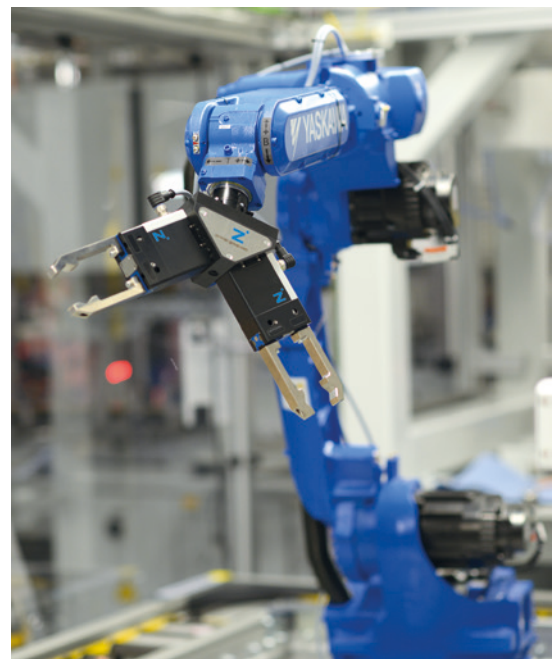
ZIMMER GROUP COMMITTED TO OUR CUSTOMERS

WE HAVE SUCCEEDED FOR YEARS BY OFFERING OUR CUSTOMERS INNOVATIVE AND INDIVIDUALIZED SOLUTIONS. ZIMMER HAS GROWN CONTINUOUSLY AND TODAY WE HAVE REACHED A NEW MILESTONE: THE ESTABLISHMENT OF THE KNOW-HOW FACTORY. IS THERE A SECRET TO OUR SUCCESS?

Foundation. Excellent products and services have always been the foundation of our company's growth. Zimmer is a source of ingenious solutions and important technical innovations. This is why customers with high expectations for technology frequently find their way to us. When things get tricky, Zimmer Group is in its best form.

Style. We have an interdisciplinary approach to everything we do, resulting in refined process solutions in six technology fields. This applies not just to development but to production. Zimmer Group serves all industries and stands ready to resolve even the most unique and highly individualized problems. Worldwide.

Motivation. Customer orientation is perhaps the most important factor of our success. We are a service provider in the complete sense of the word. With Zimmer Group, our customers have a single, centralized contact for all of their needs. We approach each customer's situation with a high level of competence and a broad range of possible solutions.



TECHNOLOGIES



HANDLING TECHNOLOGY

MORE THAN 30 YEARS OF EXPERIENCE AND INDUSTRY KNOWLEDGE: OUR PNEUMATIC, HYDRAULIC AND ELECTRICAL HANDLING COMPONENTS AND SYSTEMS ARE GLOBAL LEADERS.

Components. More than 2,000 standardized grippers, swivel units, robotic accessories and much more. We offer a complete selection of technologically superior products that are ready for rapid delivery.

Semi-standard. Our modular approach to design enables custom configurations and high rates of innovation for process automation.



DAMPING TECHNOLOGY

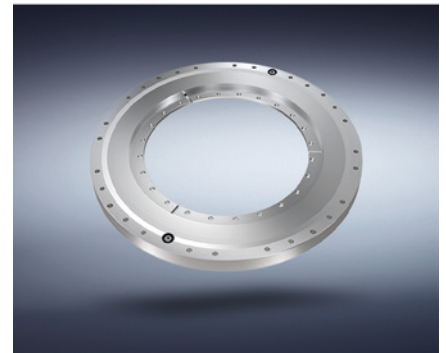
INDUSTRIAL DAMPING TECHNOLOGY AND SOFT CLOSE PRODUCTS EXEMPLIFY THE INNOVATION AND PIONEERING SPIRIT OF THE KNOW-HOW FACTORY.

Industrial damping technology.

Whether standard or customized solutions, our products stand for the highest cycle rates and maximum energy absorption with minimal space requirements.

Soft Close. Development and mass production of pneumatic and fluid dampers with extraordinary quality and rapid delivery.

OEM and direct. Whether they need components, returning mechanisms or complete production lines – we are the trusted partner of many prestigious customers.

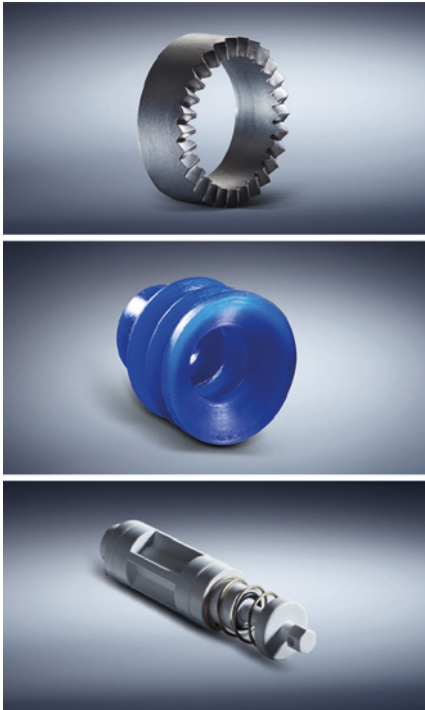


LINEAR TECHNOLOGY

WE DEVELOP LINEAR COMPONENTS AND SYSTEMS THAT ARE INDIVIDUALLY ADAPTED TO OUR CUSTOMERS' NEEDS.

Clamping and braking elements. We offer you more than 4,000 types for profiled and round rails as well as for a variety of guide systems from all manufacturers. It makes no difference whether you prefer manual, pneumatic, electric or hydraulic drive.

Flexibility. Our clamping and braking elements ensure that movable components such as Z-axes or machining tables maintain a fixed position and that machines and systems come to a stop as quickly as possible in an emergency.



PROCESS TECHNOLOGY

MAXIMUM EFFICIENCY IS ESSENTIAL FOR SYSTEMS AND COMPONENTS USED IN PROCESS TECHNOLOGY. HIGH-LEVEL CUSTOM SOLUTIONS ARE OUR TRADEMARK.

A rich reservoir of experience. Our know-how ranges from the development of materials, processes and tools through product design to production of series products.

Deep production capabilities. The Zimmer Group pairs these capabilities with flexibility, quality and precision, even when making custom products.

Series production. We manufacture demanding products out of metal (MIM), elastomers and plastics with flexibility and speed.



MACHINE TECHNOLOGY

ZIMMER GROUP DEVELOPS INNOVATIVE METAL, WOOD AND COMPOSITE MATERIAL PROCESSING TOOL SYSTEMS FOR ALL INDUSTRIES. NUMEROUS CUSTOMERS CHOOSE US AS THEIR SYSTEMS AND INNOVATION PARTNER.

Knowledge and experience. Industry knowledge and a decades-long development partnership in exchangeable assemblies, tool interfaces and systems make us bound for new challenges around the world.

Components. We deliver numerous standard components from stock and develop innovative, customized systems for OEM and end customers – far beyond the metal and wood processing industries.

Variety. Whether you have machining centers, lathes or flexible production cells, the power tools, holders, assemblies and drilling heads of Zimmer Group are ready for action.



SYSTEM TECHNOLOGY

ZIMMER GROUP IS ONE OF THE LEADING SPECIALISTS IN THE DEVELOPMENT OF CUSTOMIZED SYSTEM SOLUTIONS WORLDWIDE.

Customized. A team made up of more than 20 experienced designers and project engineers develop and produce customized solutions for special tasks in close collaboration with end customers and system integrators. It doesn't matter if it is a simple gripper and handling solution or a complex system solution.

Solutions. These system solutions are used in many industries, from mechanical engineering to the automotive and supplier industries to plastics engineering and consumer goods industries, all the way to foundries. The Know-how Factory helps countless companies to thrive competitively by increasing automation efficiency.

HANDLING TECHNOLOGY 1





OVERVIEW OF SERIES

1 GRIPPERS

10 - 279


2-JAW PARALLEL GRIPPERS

PNEUMATIC


	Series MGP800	14
	Series GP	36
	Series GP400	50
	Series GP200	76

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

PNEUMATIC




	Series MGH8000	80
	Series GPH8000	104

ELECTRICAL

	Series GEH8000	130
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3-JAW CONCENTRIC GRIPPERS

PNEUMATIC

	Series MGD800	134
	Series GD300	156
	Series GD	182



3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE

PNEUMATIC

	Series GD500	186
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2-JAW ANGULAR GRIPPERS

PNEUMATIC

	Series MGW800	190
	Series GZ1000	212

2-JAW RADIAL GRIPPER

PNEUMATIC

	Series GK	216
	Series GG4000	236

2-JAW PARALLEL ROTARY GRIPPER

PNEUMATIC

	Series DGP400	240
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2-JAW ANGULAR ROTARY GRIPPER

PNEUMATIC

	Series DGK	244
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GRIPPERS FOR SPECIFIC TASKS



PNEUMATIC

	Series ST	248
	Series GS	256
	Series LGS	268
	Series LG1000	270
	Series LGG	272
	Series RG	274
	Series SCH	276
	Series HM1000	278

2 SWIVEL AND ROTARY MODULES

280 - 417

ROTARY CYLINDERS



PNEUMATIC

	Series PRN	284
	Series SH	286

FLAT SWIVEL UNITS



PNEUMATIC

	Series SF-C	290
	Series MSF	364



ELECTRICAL

	Series DES	368
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ANGLE PIVOT UNITS



PNEUMATIC

	Series SW	372
	Series SWM1000	390

SWIVEL JAWS





























PNEUMATIC

	Series SB	394
	Series SBZ	404

HANDLING TECHNOLOGY 1

OVERVIEW OF SERIES

3	LINEAR MODULES	418 - 435
	LINEAR CYLINDERS	
	 PNEUMATIC	
	 Series SHX	420
	 Series LI	422
	LINEAR RAIL SLIDES	
	 PNEUMATIC	
	 Series LS	426
	 Series LSF	428
	 Series LSX	430
	LIFTING CYLINDERS	
	 PNEUMATIC	
	 Series HZ	434
4	CUTTING TONGS	436 - 441
	 PNEUMATIC	
	 Series ZK1000	438
	 Series ZK	440
5	SEPARATORS	442 - 447
	 PNEUMATIC	
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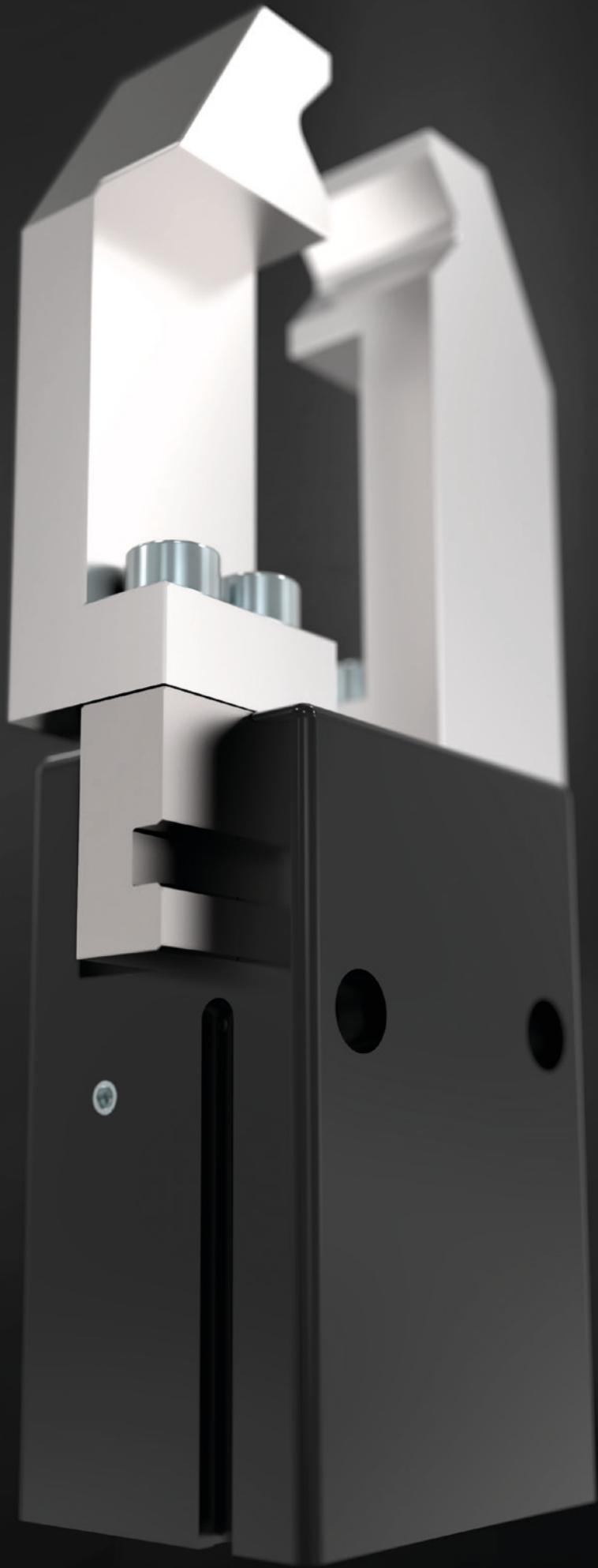
GRIPPERS

THE SERIES AT A GLANCE

1

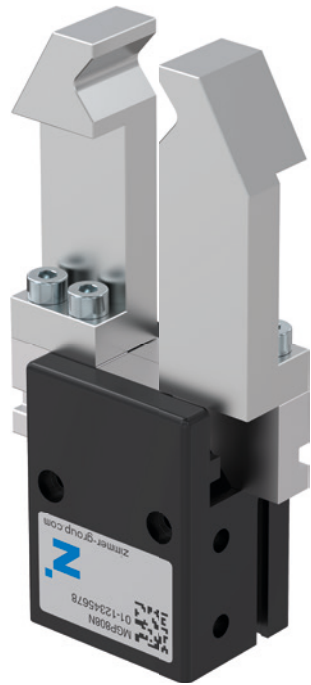
Products	Gripping force [N]	Stroke per jaw [mm]	Number of installation sizes
2-jaw parallel grippers pneumatic Page 12			
Series MGP800	6 400	1-12	●●●●●●●●
Series GP	4 5250	3-13	●●●●●●●
Series GP400	85 19275	3-30	●●●●●●●●●●
Series GP200	170 4500	6-40	●●●●
2-Jaw Parallel Grippers with Long Stroke pneumatic Page 78			
Series MGH8000	60 910	10 100	●●●●
Series GPH8000	900-3300	60 220	●●●
2-Jaw Parallel Grippers with Long Stroke electric Page 128			
Series GEH8000	~200 3200	0 60	●
3-jaw concentric grippers pneumatic Page 132			
Series MGD800	30 1420	1-12	●●●●●●●●
Series GD300	200 34700	3-30	●●●●●●●●●●
Series GD	24 530	11-33	●●●
3-Jaw Concentric Grippers with Long Stroke pneumatic Page 184			
Series GD500	1300-2480	30-60	●●●
	Gripping force [N]	Stroke per jaw	Number of installation sizes
2-Jaw Angular Grippers pneumatic Page 188			
Series MGW800	5 325	37,5°	●●●●●●●●
Series GZ1000	62-315	8°-10°	●●●
2-jaw radial gripper pneumatic Page 214			
Series GK	70 4250	0° 90°	●●●●●●●
Series GG4000	430-4000	20° 90°	●●●●●●●
2-jaw parallel rotary gripper pneumatic Page 238			
Series DGP400	115-155	4mm	●
2-jaw angular rotary gripper pneumatic Page 242			
Series DGK	150	90°	●

Control			Position sensing			Options					Safety characteristics			Maintenance
IO-Link	Digital I/O	Multibus	Inductive sensor	Magnetic field sensor	Integrated sensing	Temperature-resistant	High-strength S	Protected against corrosion	Purged air	IP class	Spring closing C	Spring opening O	Self locking mechanism	Maintenance-free cycles (max.)
				•						40	•			10 million
			•							30	•			10 million
			•	•					•	40	•	•		10 million
			•	•					•	40	•			10 million
			•	•						54				10 million
			•							54				5 million
		•			•					54			•	10 million
				•						40	•			10 million
			•	•			•		•	40	•	•		10 million
			•							40				10 million
			•							40				10 million
				•						30	•			10 million
			•							30				2 million
				•						20	•		•	10 million
			•	•			•		•	64	•			10 million
				•						40	•	•		1.5 million
				•						20				1.5 million



2-JAW PARALLEL GRIPPERS

OVERVIEW OF SERIES



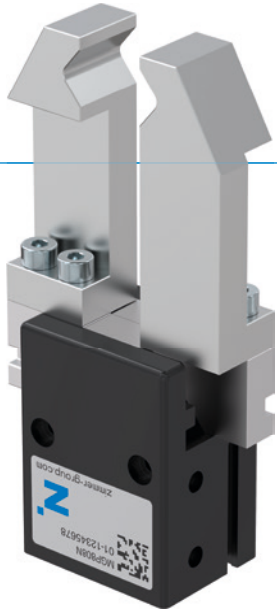
PNEUMATIC

	Series MGP800	14
	Series GP	36
	Series GP400	50
	Series GP200	76

2-JAW PARALLEL GRIPPERS

SERIES MGP800






▶ PRODUCT ADVANTAGES



“The powerful”

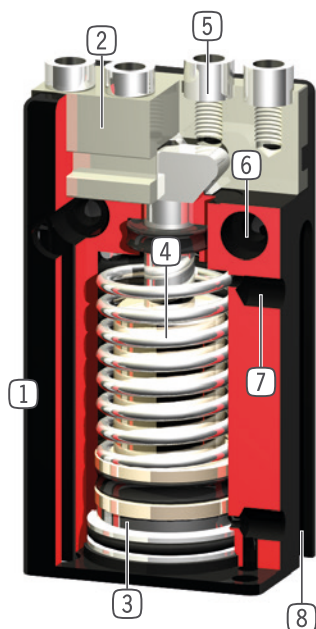
- ▶ **Over 40% more powerful than the benchmark**
Optimisation of weight and force reduces your application costs since all components can have a smaller scale
- ▶ **Gripper jaws up to 50% longer than the benchmark**
The highest force and torque measurement enables flexible use for maximum dynamics
- ▶ **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
	N	NC
MGP8XX		
 Spring closing C		●
 10 million maintenance-free cycles (max.)	●	●
 Magnetic field sensor	●	●
 Clean room certified	●	●
 IP40	●	●



BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Gripper jaw**
- individual gripper finger mounting
- ③ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ④ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage (from size 803 upwards)
- ⑤ **Removable centering sleeves**
- quick and economical positioning of the gripper fingers
- ⑥ **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ⑦ **Energy supply**
- possible from several sides
- ⑧ **Sensing slot**
- mounting and positioning of magnetic field sensors

TECHNICAL DATA

Installation size	Stroke per jaw	Gripping force	Weight	IP class
	[mm]	[N]	[kg]	
MGP801	1	6 - 8	0,008	IP40
MGP802	2	16 - 19	0,016	IP40
MGP803	3	35 - 55	0,025 - 0,035	IP40
MGP804	4	60 - 90	0,05 - 0,07	IP40
MGP806	6	100 - 140	0,1 - 0,11	IP40
MGP808	8	170 - 220	0,16 - 0,18	IP40
MGP810	10	270 - 350	0,28 - 0,32	IP40
MGP812	12	320 - 400	0,41 - 0,46	IP40

FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

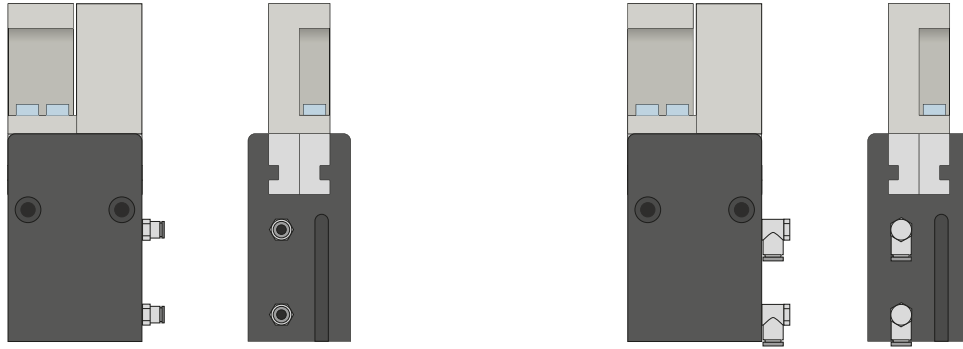
2-JAW PARALLEL GRIPPERS

SERIES MGP800 FUNCTIONAL DESCRIPTION

1

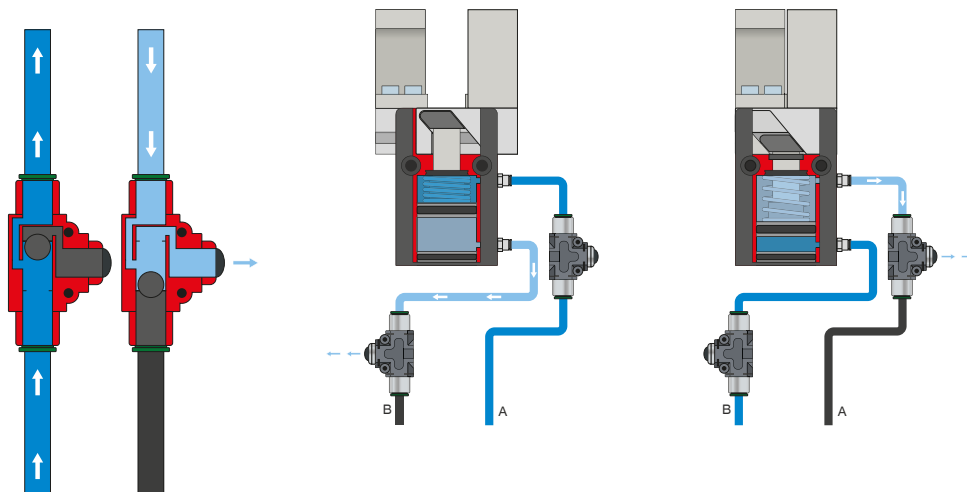


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



Quick exhaust valve – DEV

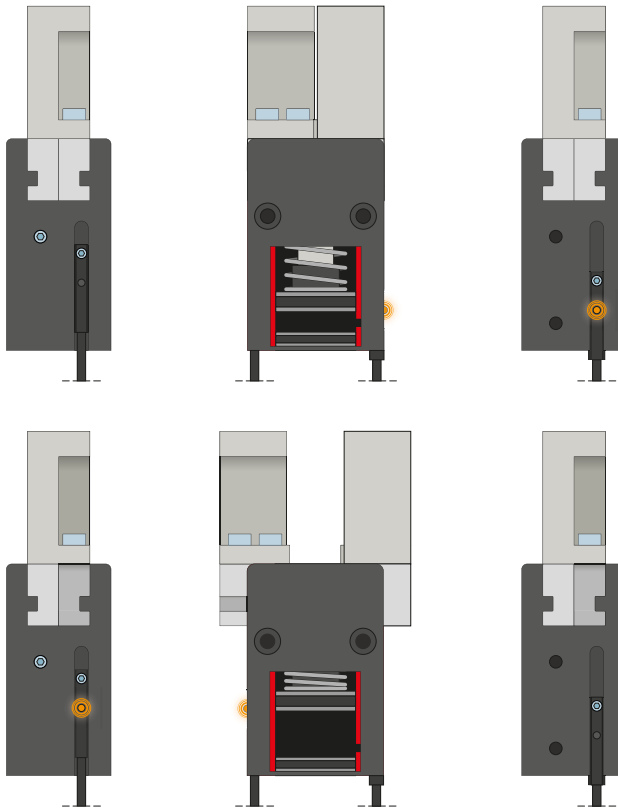
For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.

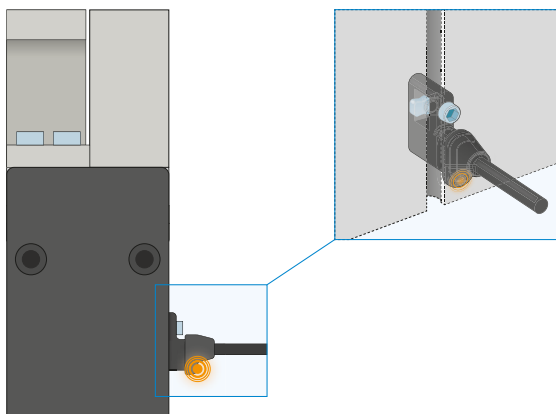


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

2-JAW PARALLEL GRIPPERS

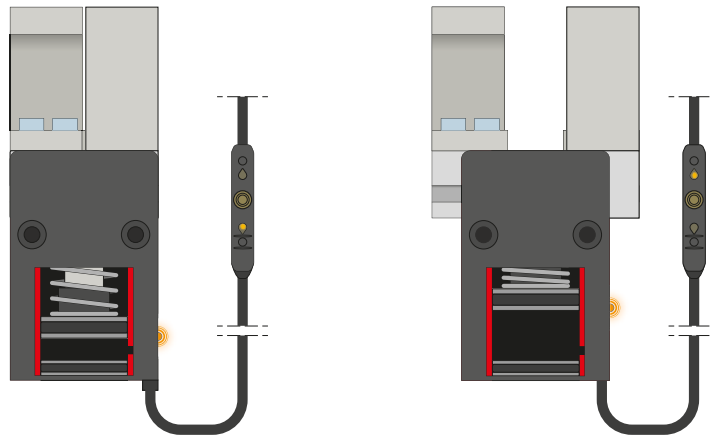
SERIES MGP800 FUNCTIONAL DESCRIPTION

1

Series MGP800 / 2-Jaw Parallel Grippers / pneumatical / Grippers



SENSORS



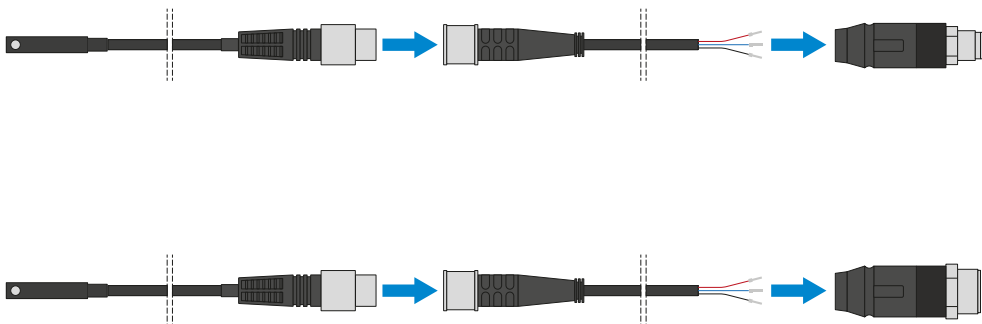
2-point magnetic field sensors - MFS

With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



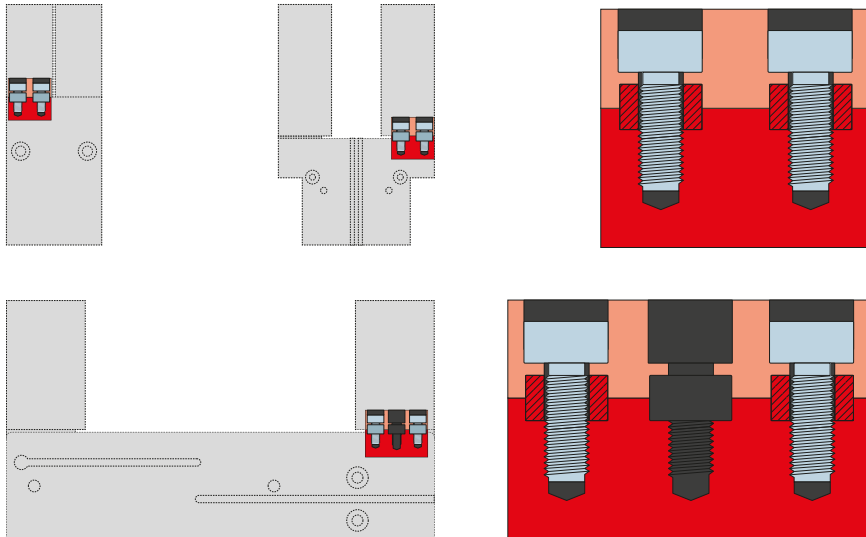
Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP801

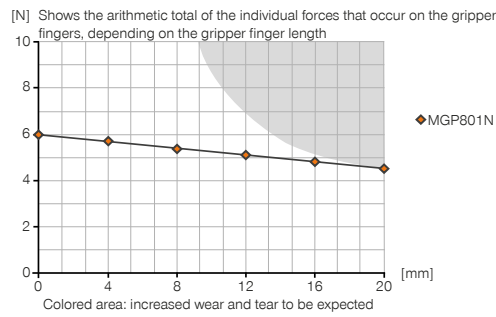
1

Installation size MGP801 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

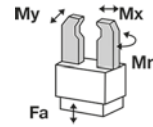


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1
Mx [Nm]	2
My [Nm]	1
Fa [N]	54

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80100

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB801ST
L-jaw (pair)



ENERGY SUPPLY



WVM3
Angled Fittings - Barb Style Connection



ENERGY SUPPLY

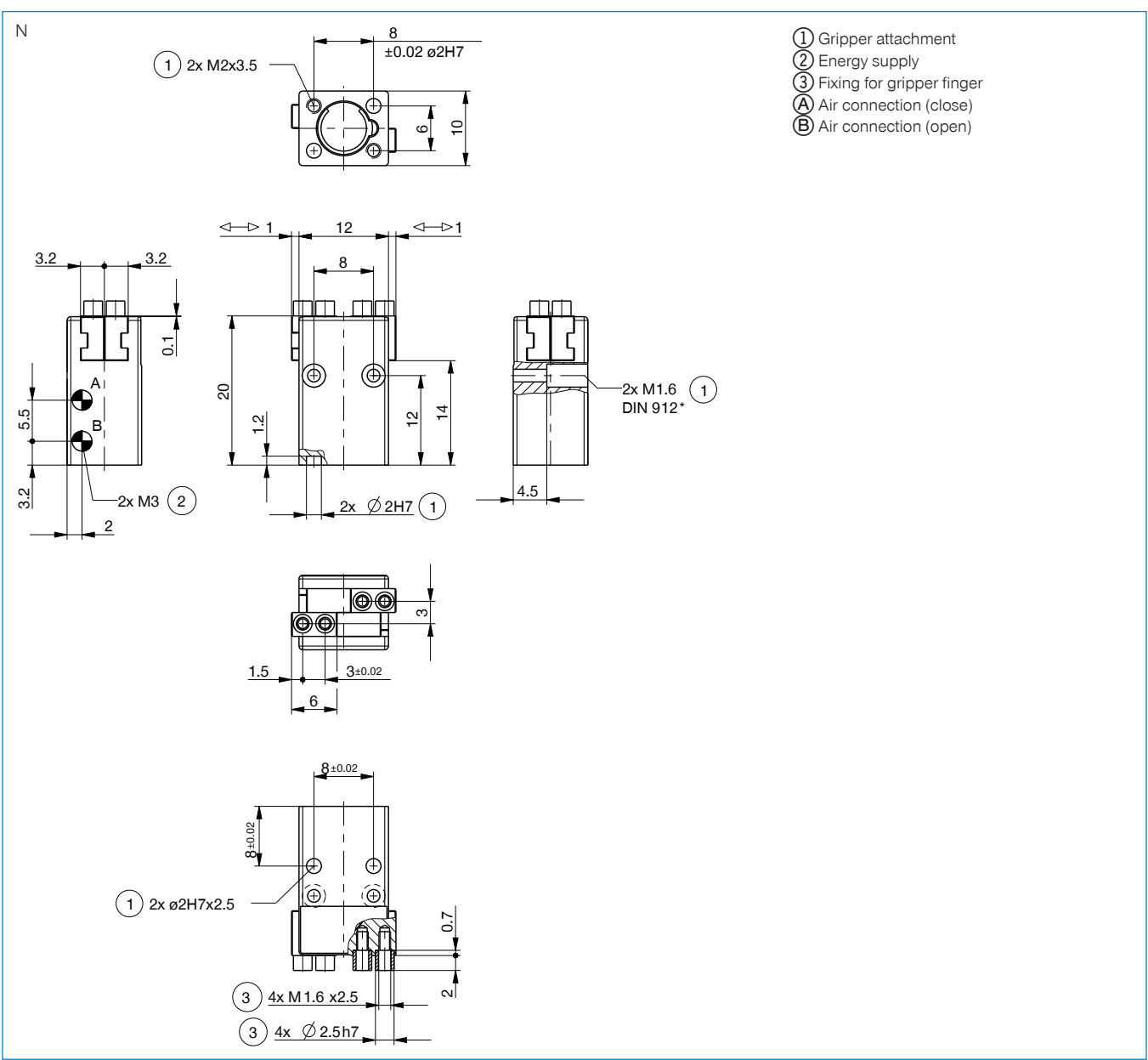


GVM3
Straight Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve

Order no.	Technical data
	MGP801N
Stroke per jaw [mm]	1
Gripping force in closing [N]	6
Gripping force in opening [N]	8
Gripping force secured by spring min. [N]	
Closing time [s]	0.01
Opening time [s]	0.01
Dead weight of mounted gripper finger max. [kg]	0.01
Length of the gripper fingers max. [mm]	20
Repetition accuracy +/- [mm]	0.025
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.1
Clean room applications according to DIN EN ISO 14644-1	6
Protection to IEC 60529	IP40
Weight [kg]	0.008



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP802

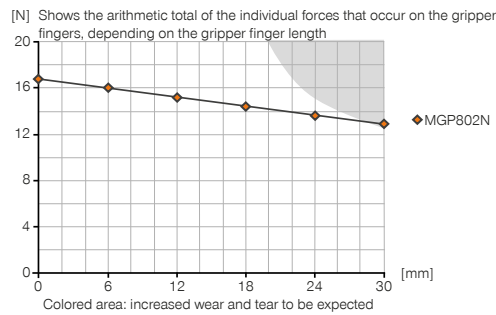
1

Installation size MGP802 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

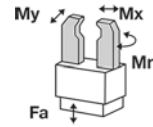


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1
Mx [Nm]	3
My [Nm]	2
Fa [N]	90

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80200

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB802ST
L-jaw (pair)



ENERGY SUPPLY



WVM3
Angled Fittings - Barb Style Connection



ENERGY SUPPLY

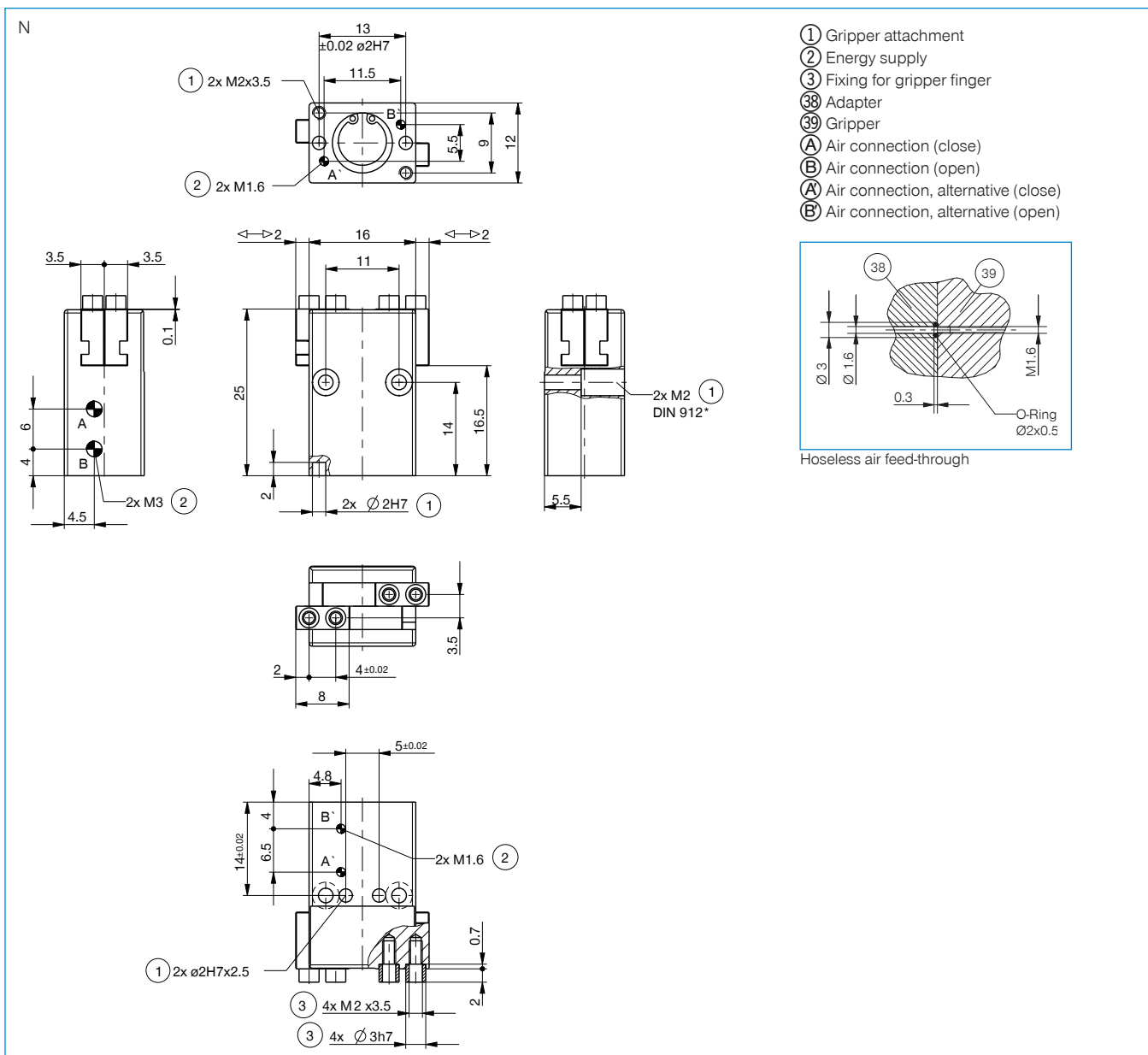


GVM3
Straight Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve

Order no.	Technical data
	MGP802N
Stroke per jaw [mm]	2
Gripping force in closing [N]	16
Gripping force in opening [N]	19
Gripping force secured by spring min. [N]	
Closing time [s]	0.01
Opening time [s]	0.01
Dead weight of mounted gripper finger max. [kg]	0.02
Length of the gripper fingers max. [mm]	30
Repetition accuracy +/- [mm]	0.025
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.3
Clean room applications according to DIN EN ISO 14644-1	6
Protection to IEC 60529	IP40
Weight [kg]	0.016



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP803

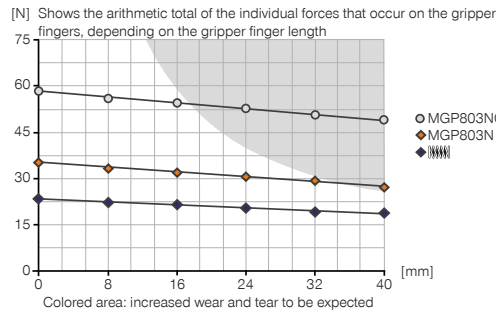
1

Installation size MGP803 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

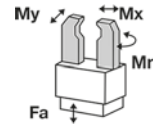


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	2
Mx [Nm]	5
My [Nm]	2
Fa [N]	140

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80320

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB803ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



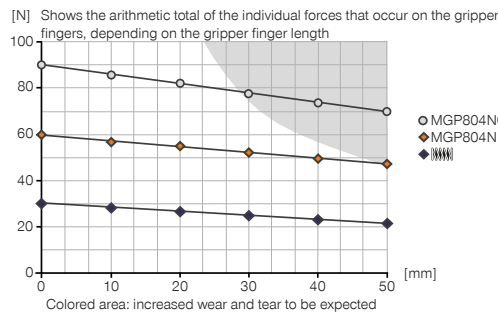
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP804

▶ PRODUCT SPECIFICATIONS

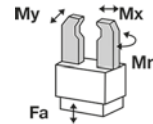


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	3
Mx [Nm]	7
My [Nm]	3
Fa [N]	230

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB804ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



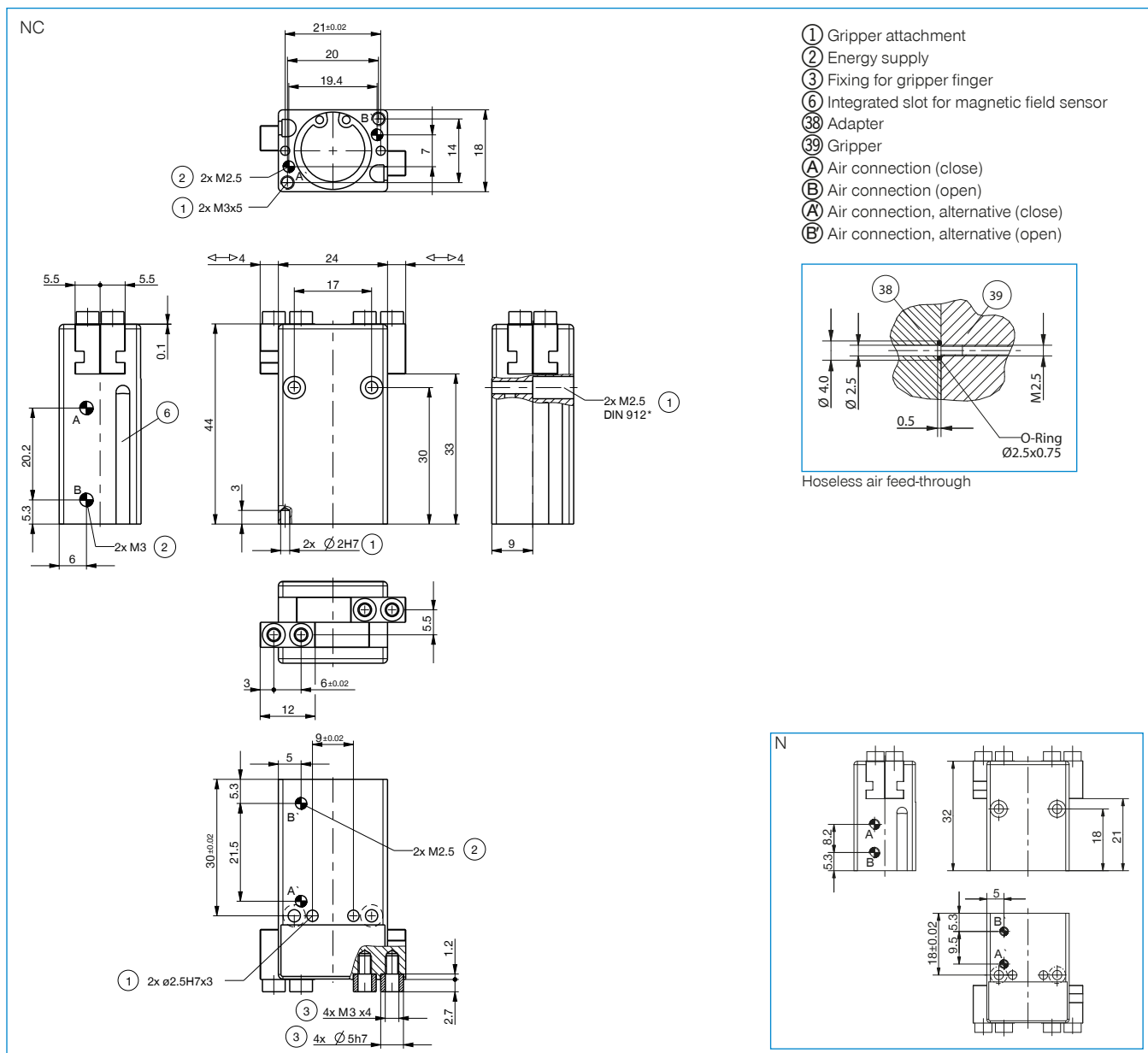
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



Order no.	► Technical data	
	MGP804N	MGP804NC
Stroke per jaw [mm]	4	4
Gripping force in closing [N]	60	90
Gripping force in opening [N]	65	
Gripping force secured by spring min. [N]		30
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Dead weight of mounted gripper finger max. [kg]	0.05	0.05
Length of the gripper fingers max. [mm]	50	50
Repetition accuracy +/- [mm]	0.025	0.025
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	1.9	2.5
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.05	0.07



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP806

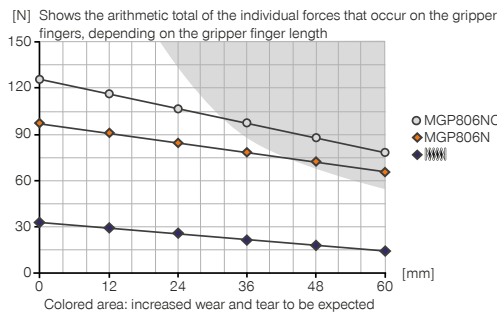
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Installation size MGP806 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

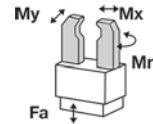


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	4
Mx [Nm]	14
My [Nm]	5
Fa [N]	330

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB806ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



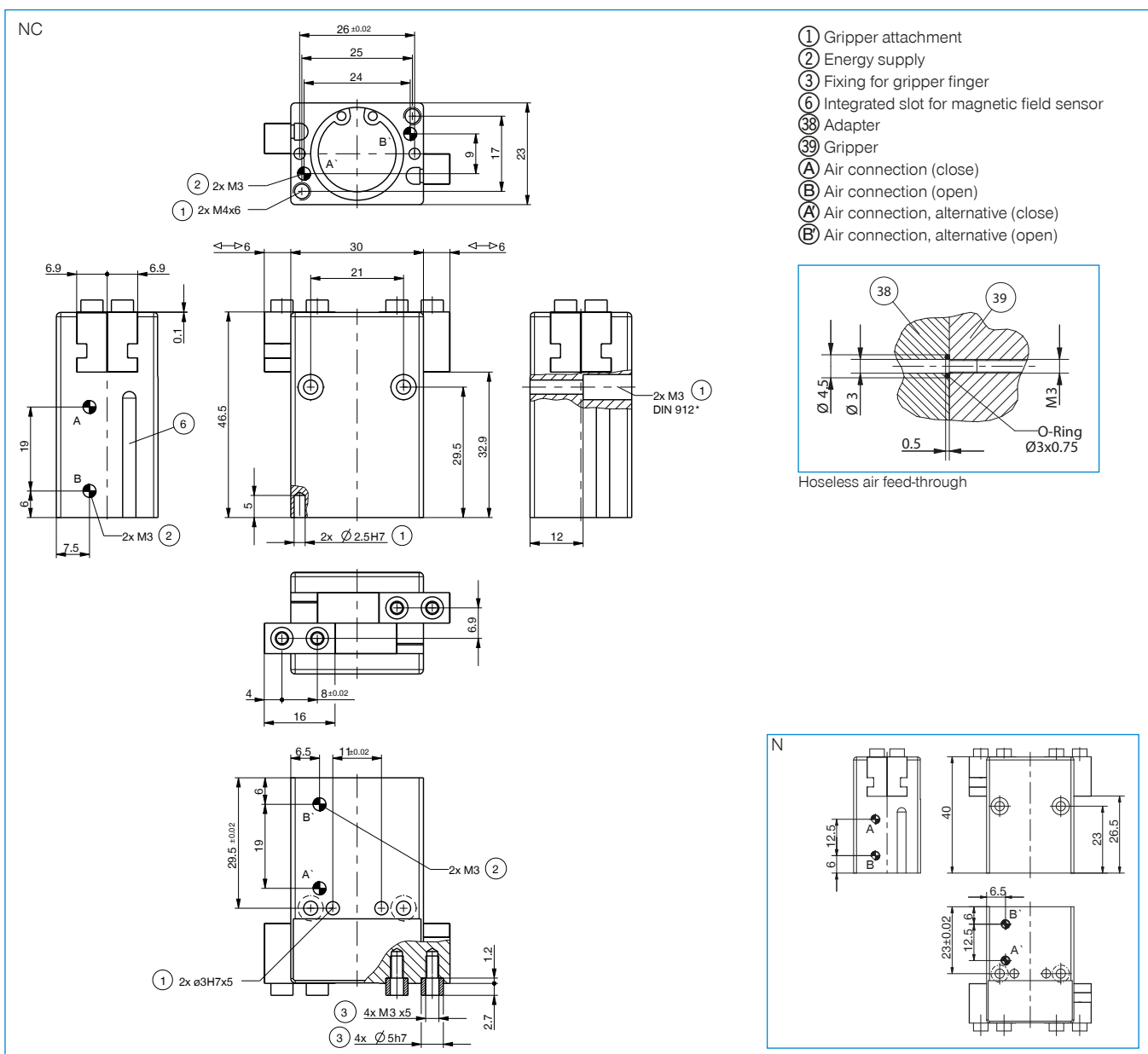
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



Order no.	► Technical data	
	MGP806N	MGP806NC
Stroke per jaw [mm]	6	6
Gripping force in closing [N]	100	140
Gripping force in opening [N]	120	
Gripping force secured by spring min. [N]		40
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Dead weight of mounted gripper finger max. [kg]	0.08	0.08
Length of the gripper fingers max. [mm]	60	60
Repetition accuracy +/- [mm]	0.025	0.025
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	4.2	5.4
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.1	0.11



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP808

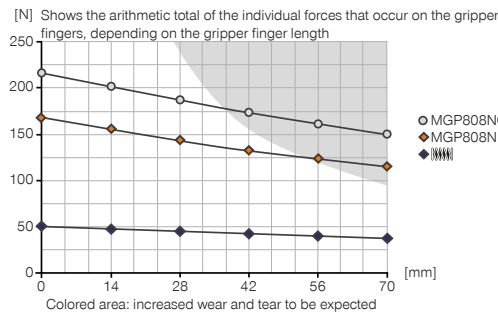
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Installation size MGP808 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

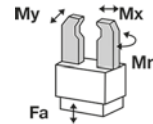


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	6
Mx [Nm]	21
My [Nm]	7
Fa [N]	450

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40600

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB808ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



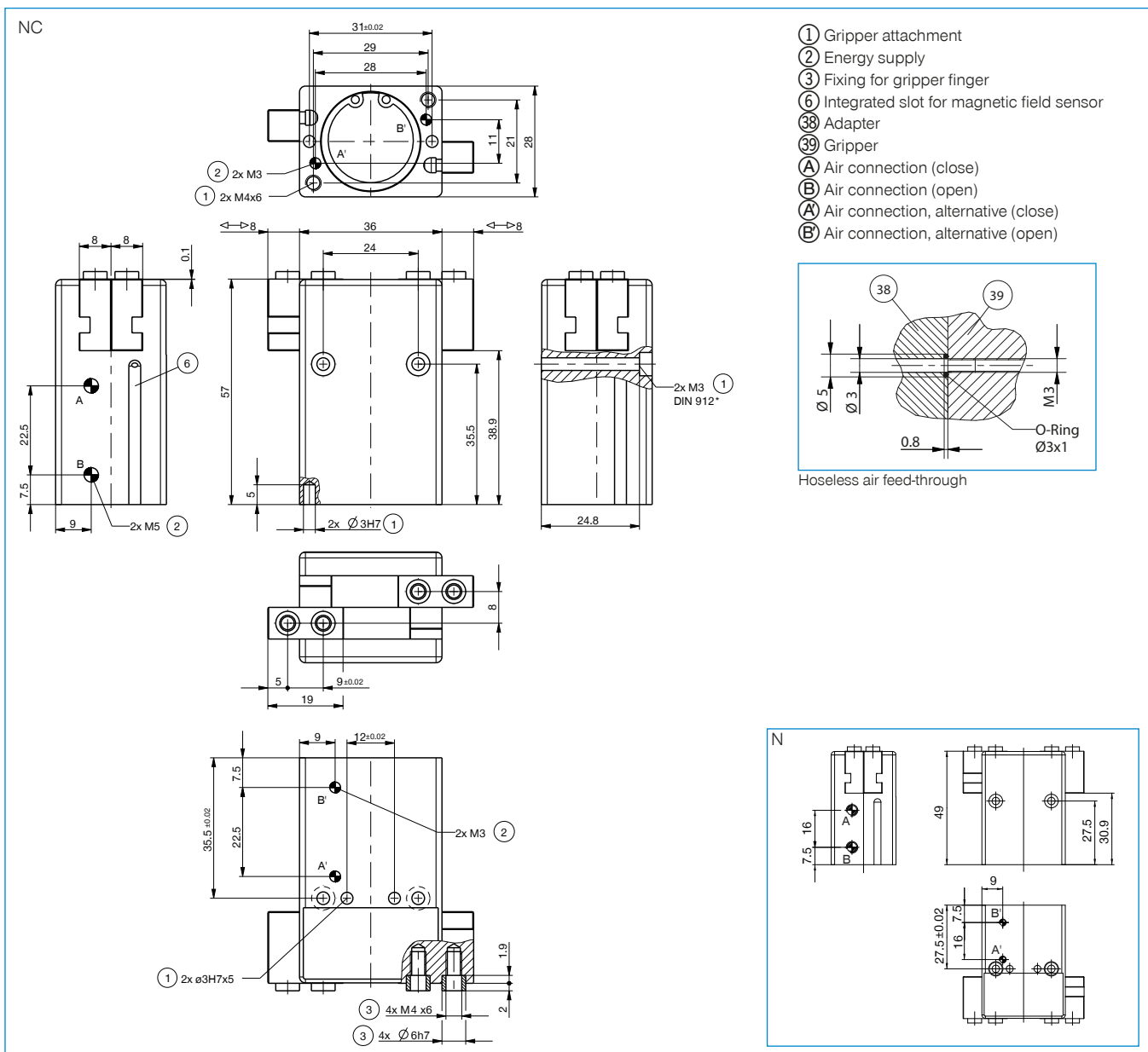
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



Order no.	▶ Technical data	
	MGP808N	MGP808NC
Stroke per jaw [mm]	8	8
Gripping force in closing [N]	170	220
Gripping force in opening [N]	190	
Gripping force secured by spring min. [N]		50
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Dead weight of mounted gripper finger max. [kg]	0.16	0.16
Length of the gripper fingers max. [mm]	70	70
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	8.4	11
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.16	0.18



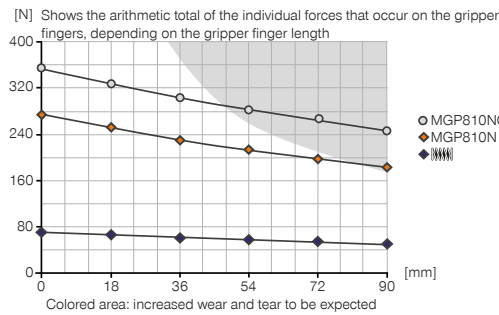
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP810

▶ PRODUCT SPECIFICATIONS

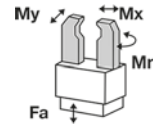


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	9
Mx [Nm]	32
My [Nm]	12
Fa [N]	590

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB810ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



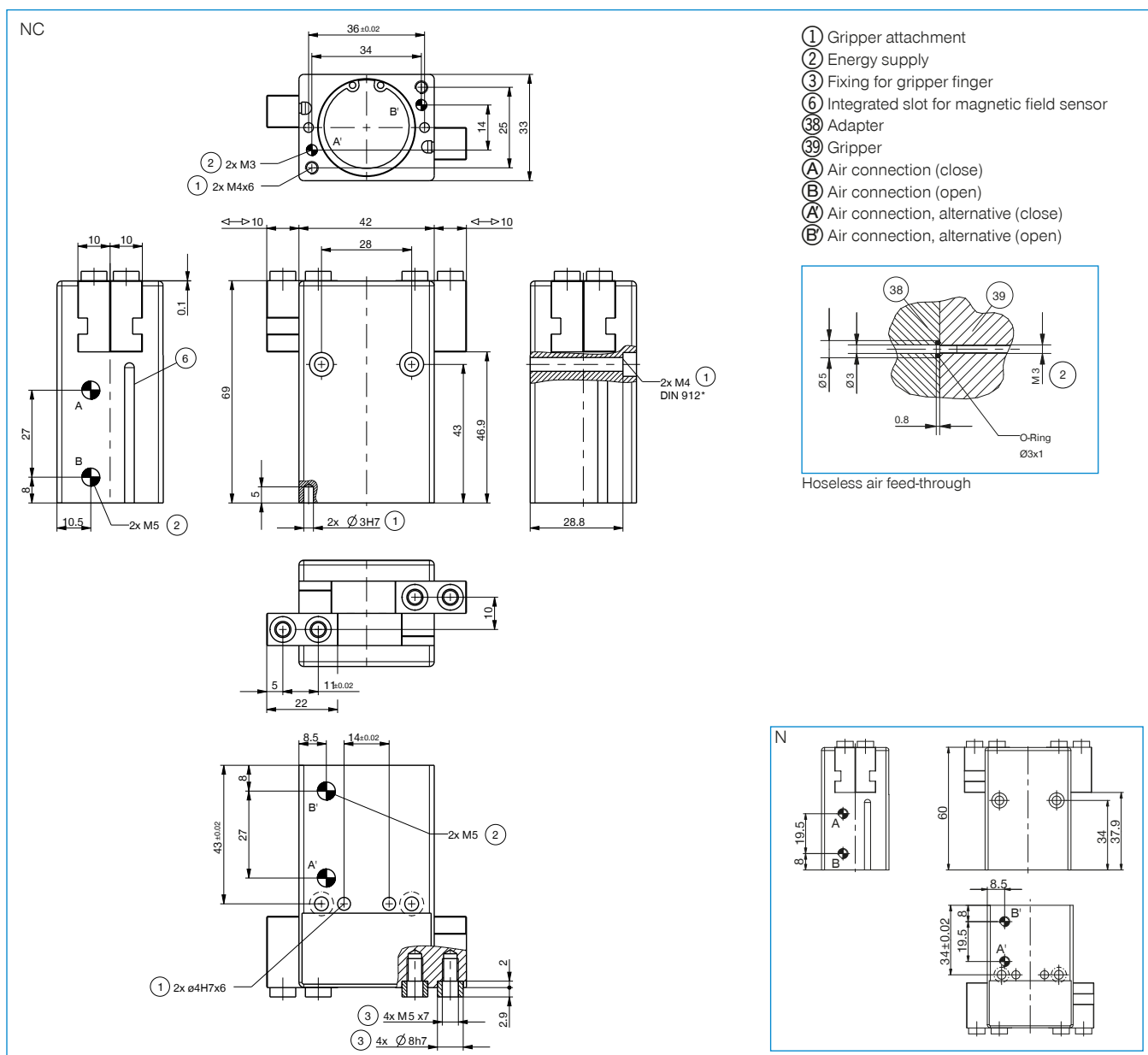
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



Order no.	► Technical data	
	MGP810N	MGP810NC
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	270	350
Gripping force in opening [N]	310	
Gripping force secured by spring min. [N]		80
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Dead weight of mounted gripper finger max. [kg]	0.25	0.25
Length of the gripper fingers max. [mm]	90	90
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	15	21
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.28	0.32



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP812

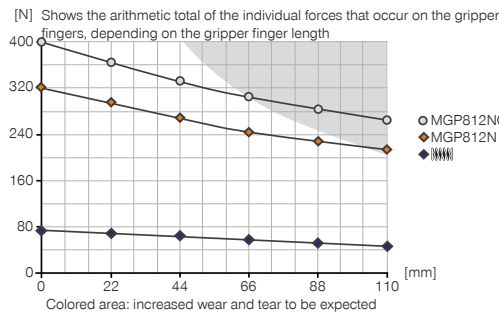
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Installation size MGP812 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

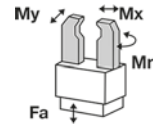


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	11
Mx [Nm]	42
My [Nm]	16
Fa [N]	790

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



LB812ST
L-jaw (pair)



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



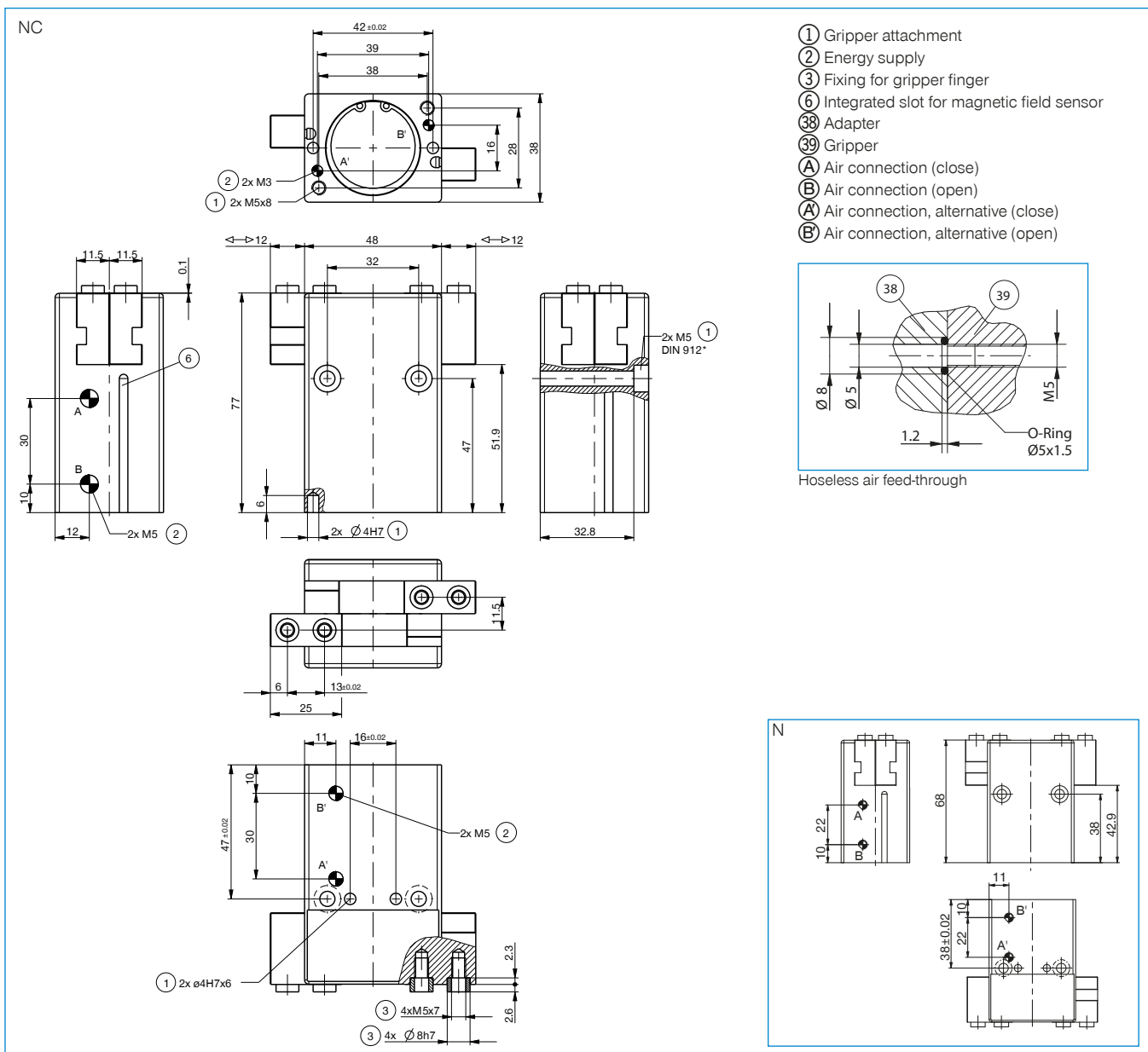
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



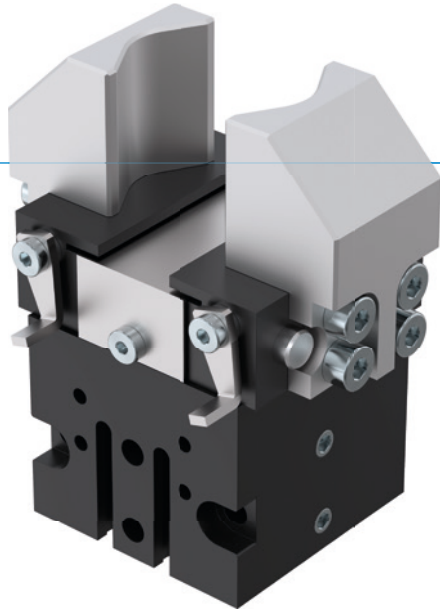
Order no.	▶ Technical data	
	MGP812N	MGP812NC
Stroke per jaw [mm]	12	12
Gripping force in closing [N]	320	400
Gripping force in opening [N]	350	
Gripping force secured by spring min. [N]		80
Closing time [s]	0.06	0.06
Opening time [s]	0.06	0.08
Dead weight of mounted gripper finger max. [kg]	0.3	0.3
Length of the gripper fingers max. [mm]	110	110
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	22	28
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.41	0.46



2-JAW PARALLEL GRIPPERS

SERIES GP

▶ PRODUCT ADVANTAGES



“The enduring”

▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you







▶ Very short cycle times

Low-friction circular guides enable very short cycle times and, therefore, high component output for your machine

▶ Failure-free continuous operation

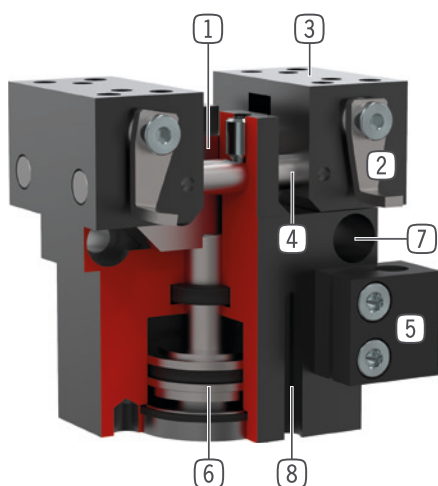
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
GPXXX	-C/D	S-C/D
 Spring closing C		•
 High-strength S		•
 10 million maintenance-free cycles (max.)	•	•
 Inductive sensor	•	•
 Magnetic field sensor	•	•
 IP30	•	•



► BENEFITS IN DETAIL



- ① **Wedge hook mechanism**
 - synchronized the movement of the gripper jaws
 - high force transfer
- ② **Adjustable switch cam**
 - for position sensing
- ③ **Gripper jaw**
 - individual gripper finger mounting
- ④ **Roller slide**
 - for low wear movement sequence
- ⑤ **Mounting block**
 - mounting for inductive proximity switch
- ⑥ **Drive**
 - double-acting pneumatic cylinder
- ⑦ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑧ **Sensing slot**
 - mounting and positioning of magnetic field sensors

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP12	3	8,4	0.033	IP30
GP19	4	36	0.081	IP30
GP30	5	94	0.15	IP30
GP45	5	118 - 190	0.255 - 0.3	IP30
GP75	10	220 - 275	0.45 - 0.5	IP30
GP100	8 - 13	450 - 5250	1.3	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

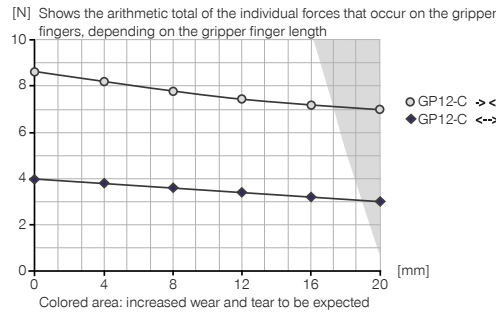
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP12

▶ PRODUCT SPECIFICATIONS

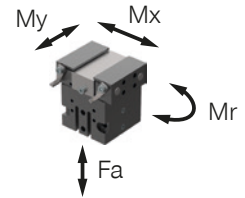


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.15
Mx [Nm]	0.15
My [Nm]	0.15
Fa [N]	15

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB12
Universal jaw set aluminium



SENSORS



NJ3-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



WVM3
Angled Fittings - Barb Style Connection



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



DEV04
Quick Exhaust Valve



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



DSV1-8
Pressure safety valve



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



DSV1-8E
Pressure safety valve with quick exhaust



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



SENSORS



KB3M
Mounting block

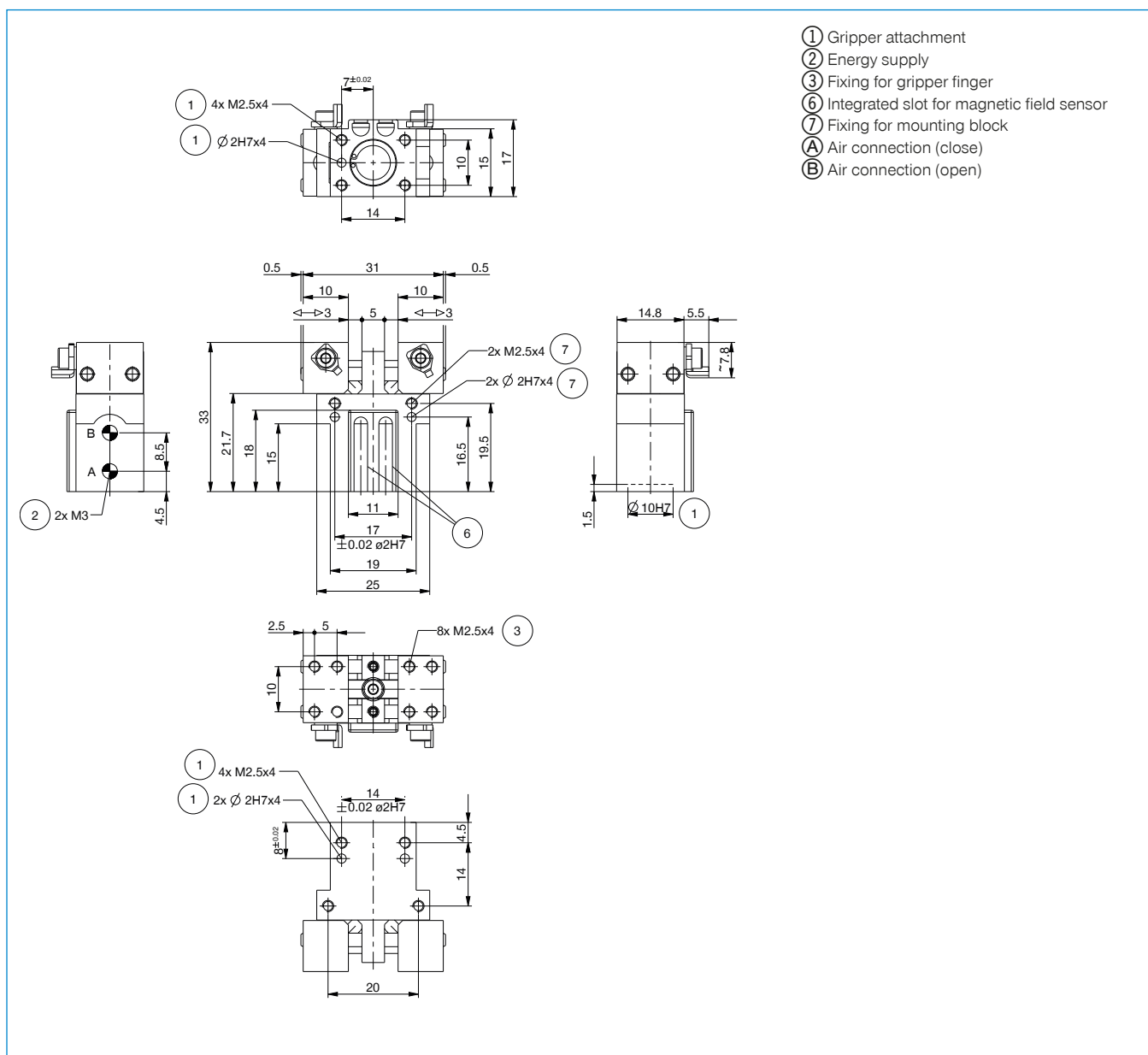


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE10H7X6
Centering Disc

Order no.	GP12-C
Stroke per jaw [mm]	3
Gripping force in closing [N]	8.4
Gripping force in opening [N]	4
Gripping force secured by spring min. [N]	
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.4
Protection to IEC 60529	IP30
Weight [kg]	0.033



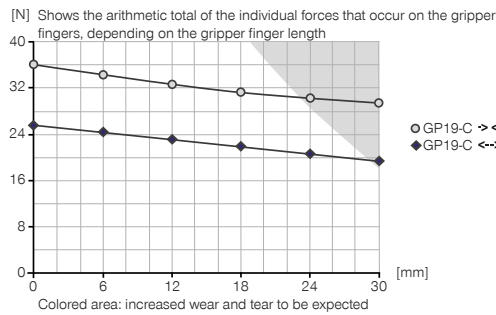
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP19

▶ PRODUCT SPECIFICATIONS

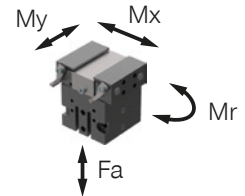


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.8
Mx [Nm]	0.8
My [Nm]	0.8
Fa [N]	40

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB19
Universal jaw set aluminium



SENSORS



NJ3-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE12H7X4
Centering Disc



SENSORS



KB3
Mounting block

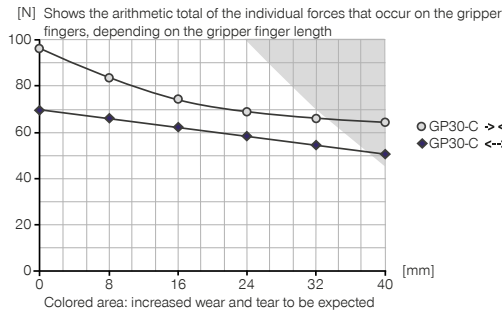
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP30

▶ PRODUCT SPECIFICATIONS

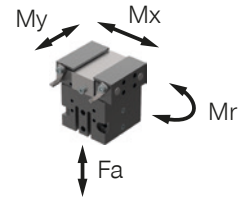


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	2
Mx [Nm]	2
My [Nm]	2
Fa [N]	80

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB30
Universal jaw set aluminium



SENSORS



NJ5-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



NJ5-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



WVM5
Angled Fittings - Quick Connect Style



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



DEV04
Quick Exhaust Valve



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



DSV1-8
Pressure safety valve



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



DSV1-8E
Pressure safety valve with quick exhaust



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



SENSORS



KB5
Mounting block

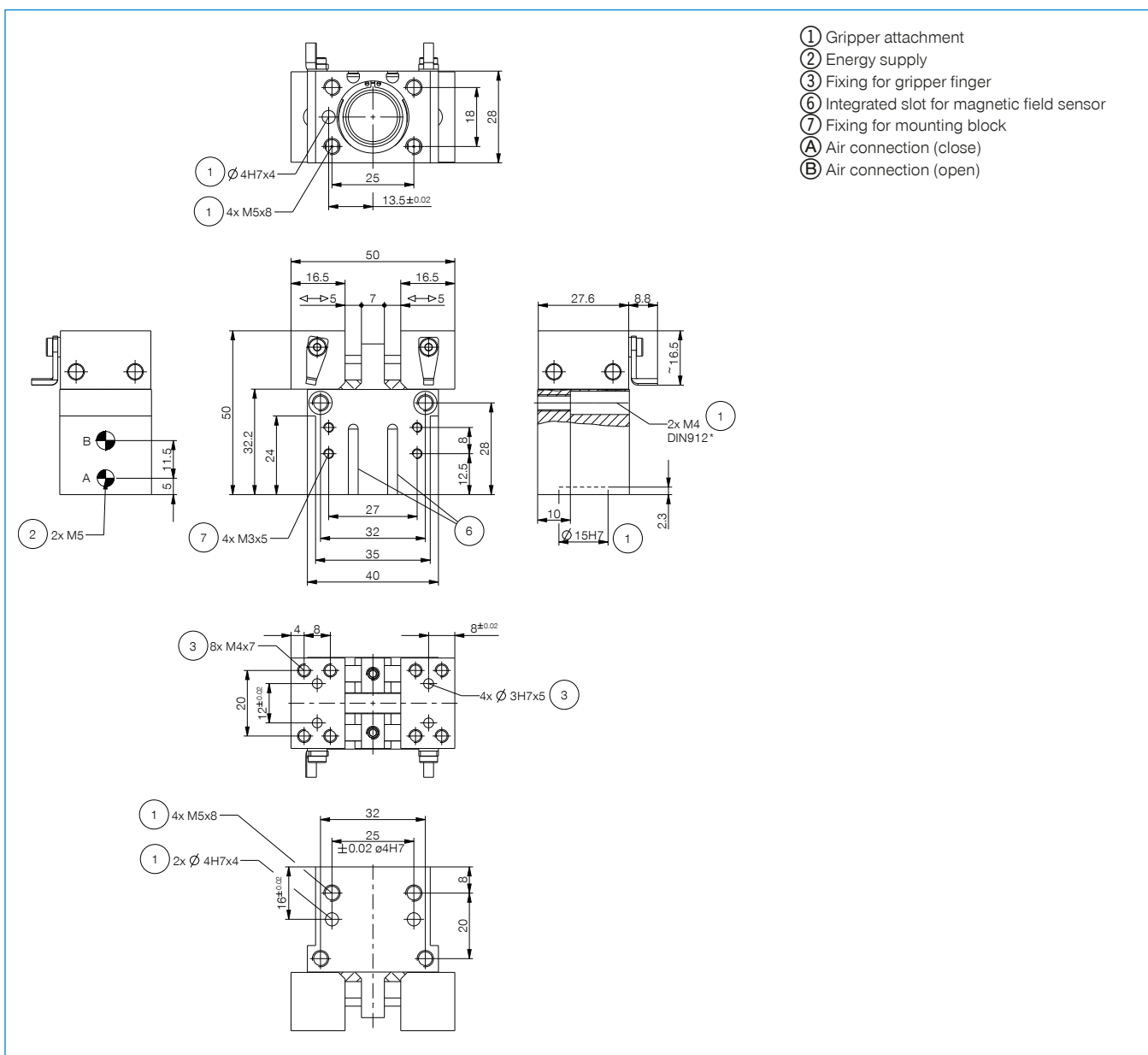


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE15H7X4
Centering Disc

Order no.	GP30-D
Stroke per jaw [mm]	5
Gripping force in closing [N]	94
Gripping force in opening [N]	76
Gripping force secured by spring min. [N]	
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	3.0
Protection to IEC 60529	IP30
Weight [kg]	0.15



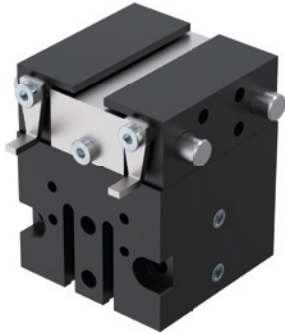
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP45

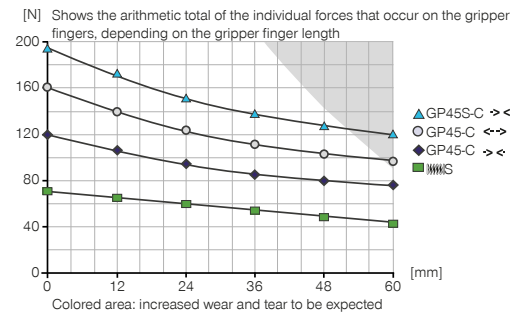
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Installation size GP45 / 2-Jaw Parallel Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

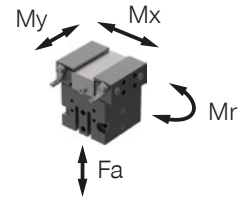


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	4
Mx [Nm]	4
My [Nm]	4
Fa [N]	160

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB45
Universal jaw set aluminium



SENSORS



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



NJ6.5-E2S
Inductive proximity switch - Connector M8



WVM5
Angled Fittings - Quick Connect Style



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



DEV04
Quick Exhaust Valve



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



DSV1-8
Pressure safety valve



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



DSV1-8E
Pressure safety valve with quick exhaust



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



SENSORS



KB6.5
Mounting block



CONNECTIONS / OTHER

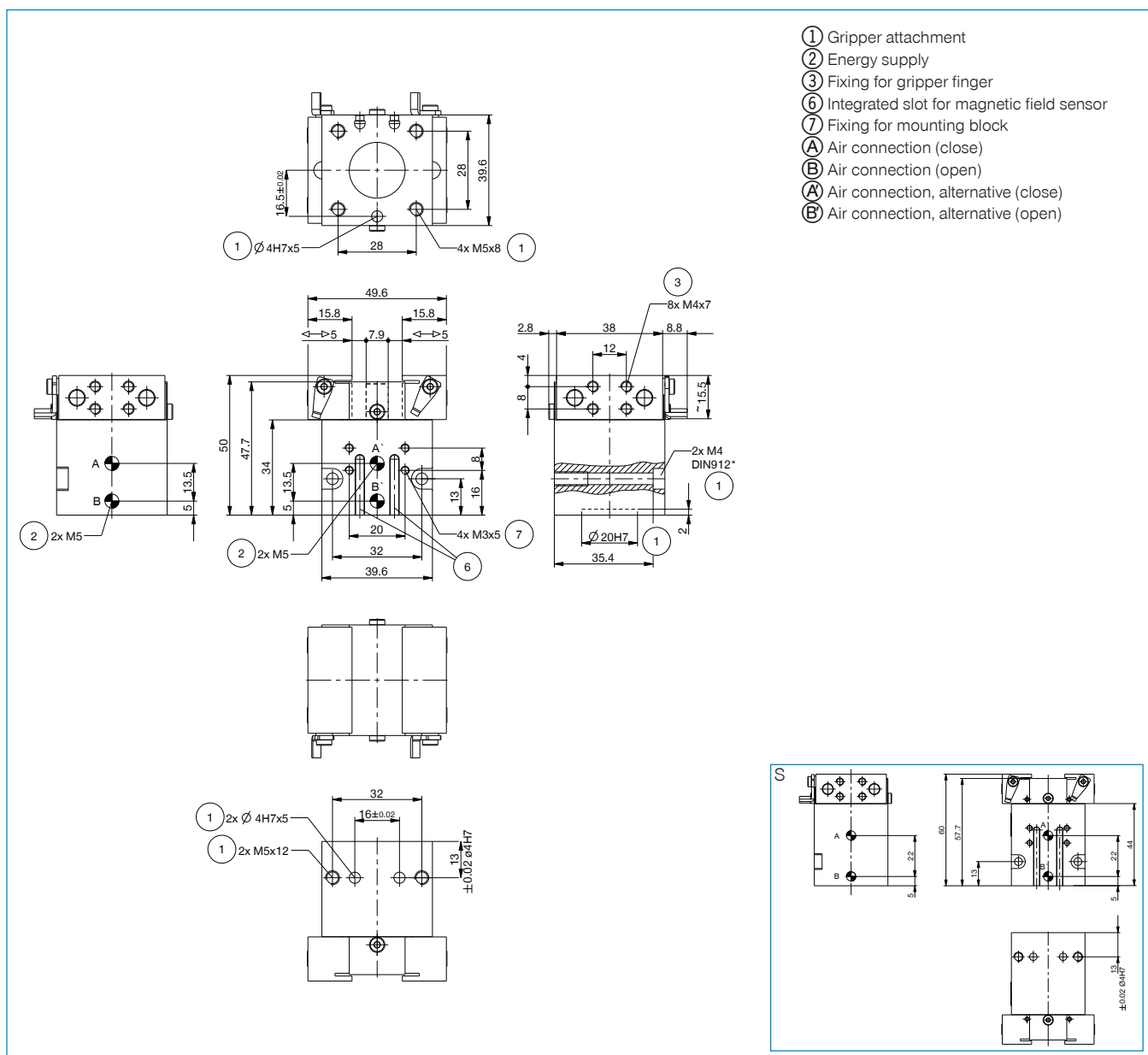


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE20H7X4
Centering Disc

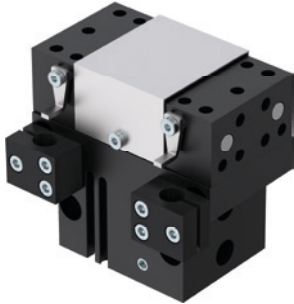
Order no.	► Technical data	
	GP45-C	GP45S-C
Stroke per jaw [mm]	5	5
Gripping force in closing [N]	118	190
Gripping force in opening [N]	155	
Gripping force secured by spring min. [N]		75
Closing time [s]	0.03	0.04
Opening time [s]	0.03	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	4.0	8.0
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.255	0.3



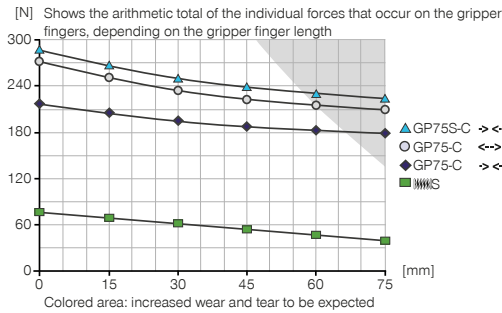
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP75

▶ PRODUCT SPECIFICATIONS

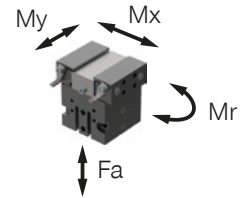


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	5
Mx [Nm]	5
My [Nm]	5
Fa [N]	180

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB75
Universal jaw set aluminium



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DEV08
Quick Exhaust Valve



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER

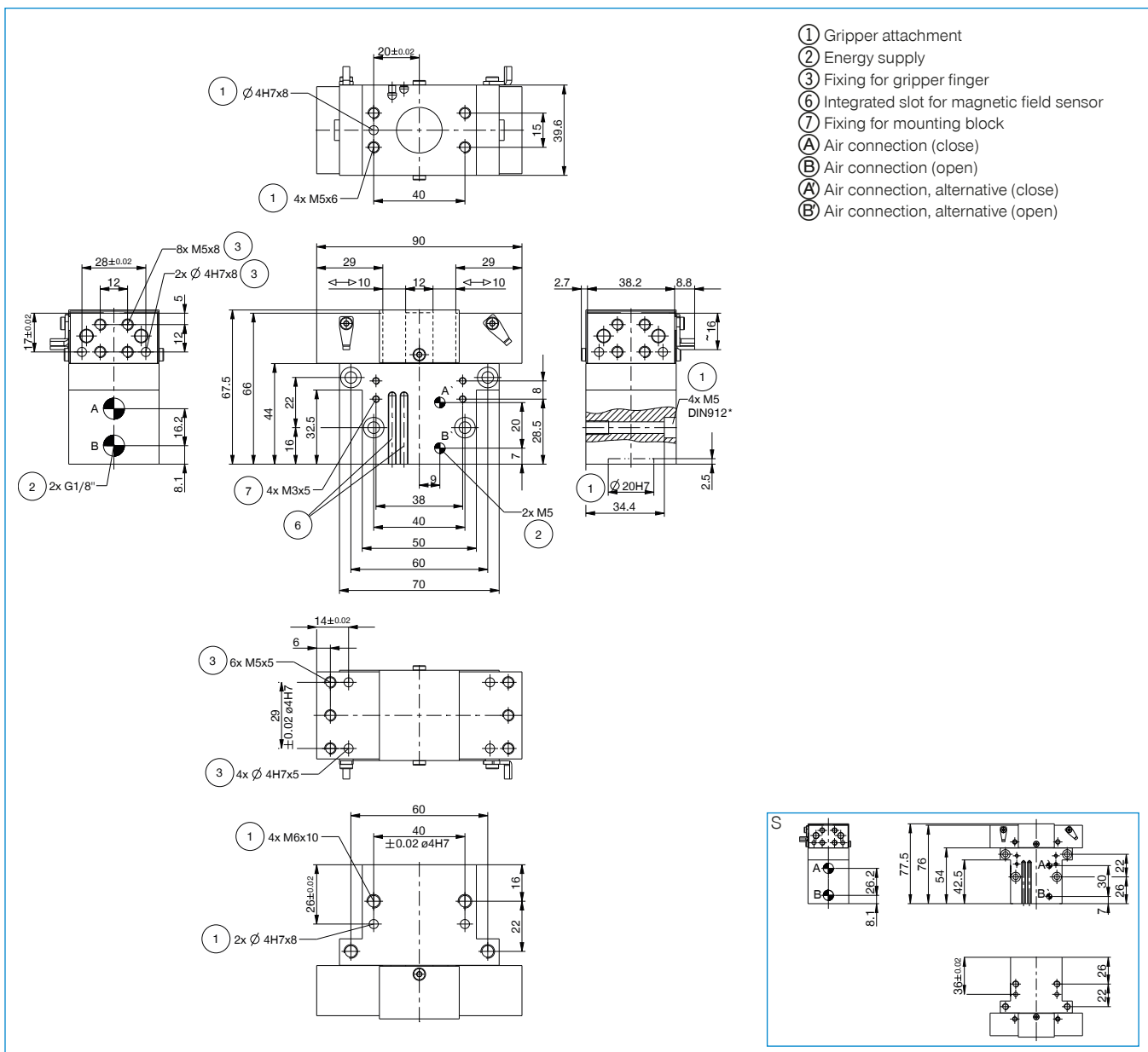


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE20H7X4
Centering Disc

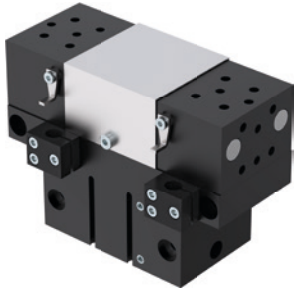
Order no.	▶ Technical data	
	GP75-C	GP75S-C
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	220	275
Gripping force in opening [N]	260	
Gripping force secured by spring min. [N]		63
Closing time [s]	0.03	0.04
Opening time [s]	0.03	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	13	19
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.45	0.5



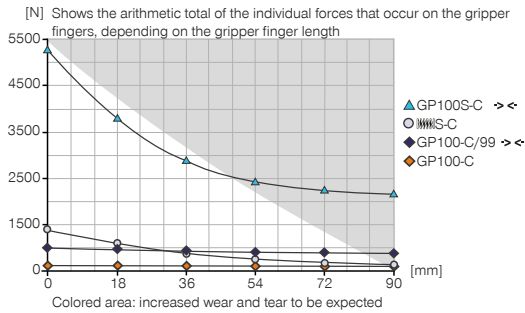
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP100

▶ PRODUCT SPECIFICATIONS

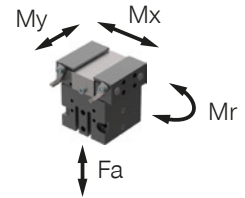


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	10
Mx [Nm]	10
My [Nm]	10
Fa [N]	400

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB100
Universal jaw set aluminium



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DEV08
Quick Exhaust Valve



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER

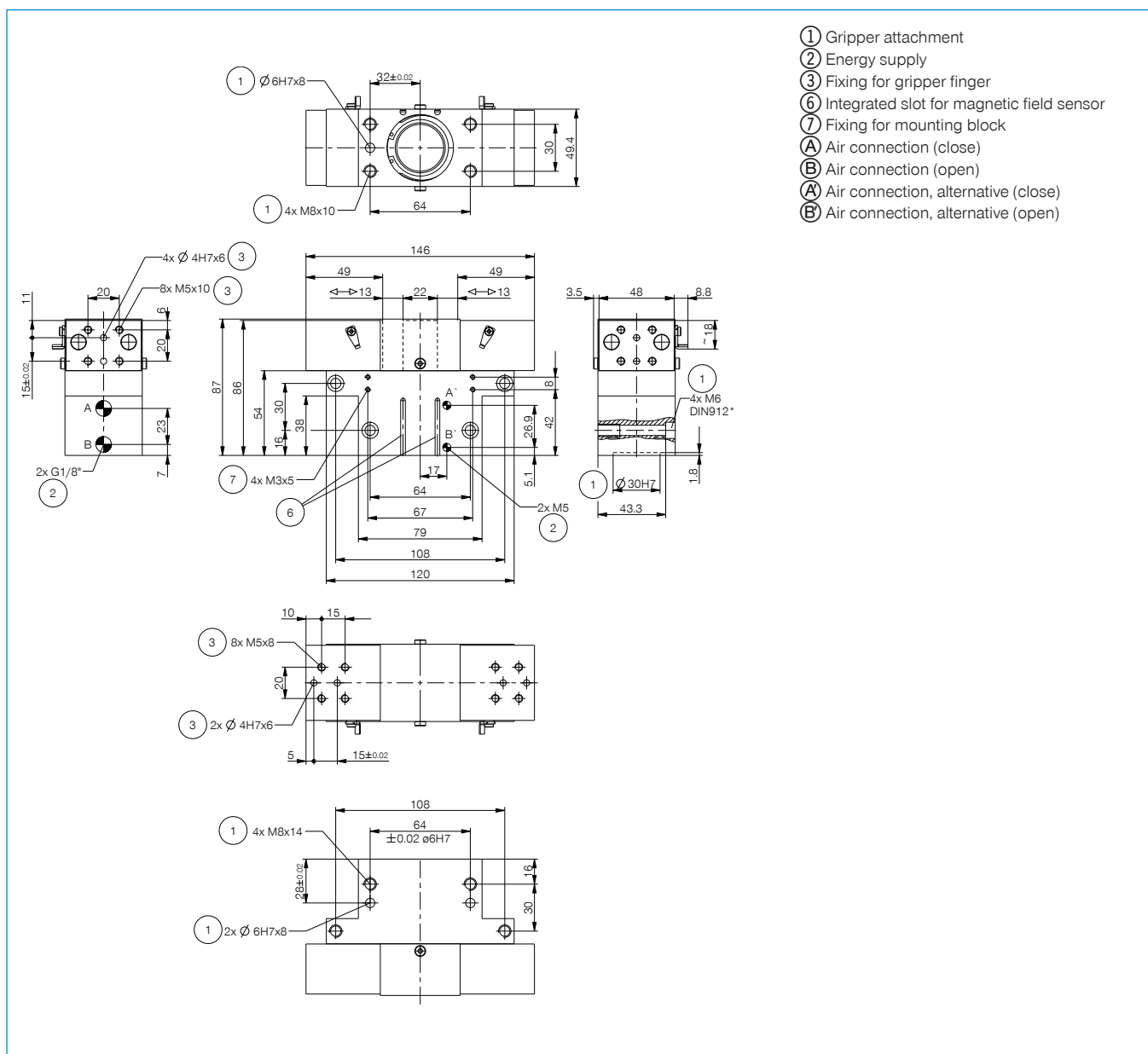


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE30H7X4
Centering Disc

Order no.	► Technical data		
	GP100-D	GP100-D-99	GP100S-D
Stroke per jaw [mm]	13	13	8
Gripping force in closing [N]	520	450	5250
Gripping force in opening [N]		450	
Gripping force secured by spring min. [N]	70		250
Closing time [s]	0.05	0.04	0.05
Opening time [s]	0.05	0.04	0.05
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure min. [bar]	5	4	5
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm ³]	30	30	30
Protection to IEC 60529	IP30	IP30	IP30
Weight [kg]	1.3	1.3	1.3



2-JAW PARALLEL GRIPPERS

SERIES GP400

1

Series GP400 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs









▶ Proven T slot guide

This established and proven guiding technology stands for the highest process reliability like no other

▶ Compact structure

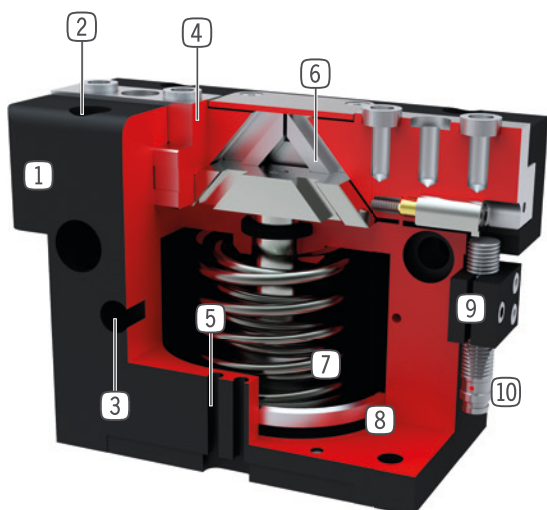
Reduces the interference contours for your application

▶ SERIES CHARACTERISTICS

Installation size	Version					
GP4XX	N	NC	NO	S	SC	SO
 Spring closing C		•			•	
 Spring opening O			•			•
 High-strength S				•	•	•
 10 million maintenance-free cycles (max.)	•	•	•	•	•	•
 Inductive sensor	•	•	•	•	•	•
 Magnetic field sensor	•	•	•	•	•	•
 Purged air	•	•	•	•	•	•
 IP 40	•	•	•	•	•	•



► **BENEFITS IN DETAIL**



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ③ **Energy supply**
- possible from several sides
- ④ **Gripper jaw**
- individual gripper finger mounting
- ⑤ **Sensing slot**
- mounting and positioning of magnetic field sensors
- ⑥ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- ⑦ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage
- ⑧ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑨ **Mounting block**
- mounting for inductive proximity switch (10)

► **TECHNICAL DATA**

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP403	3	85 - 115	0,08 - 0,1	IP40
GP404	2 - 4	170 - 500	0,14 - 0,16	IP40
GP406	3 - 6	300 - 950	0,27 - 0,32	IP40
GP408	4 - 8	550 - 1660	0,5 - 0,57	IP40
GP410	5 - 10	740 - 2340	0,85 - 1	IP40
GP412	6 - 12	1290 - 4130	1,5 - 1,78	IP40
GP416	8 - 16	1860 - 5780	2,9 - 3,4	IP40
GP420	10 - 20	3175 - 9400	5,5 - 6,7	IP40
GP430	15 - 30	6675 - 19275	14 - 18,9	IP40

► **FURTHER INFORMATION IS AVAILABLE ONLINE**



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

2-JAW PARALLEL GRIPPERS

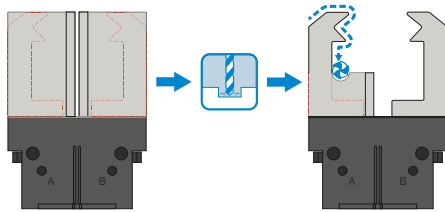
SERIES GP400 FUNCTIONAL DESCRIPTION

1

Series GP400 / 2-Jaw Parallel Grippers / pneumatical / Grippers



GRIPPING COMPONENTS



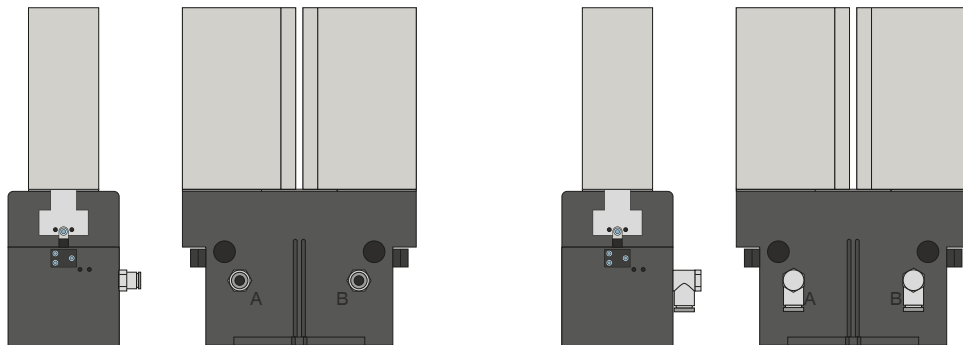
Universal jaws – UB400

Can be used immediately or for individual reprocessing

The gripper blanks are available in an aluminum (AL) and also in a steel (ST) version and are installed directly on the gripper using the screws in the scope of delivery. The fits for the centering sleeves are already in place for this purpose. One universal jaw set is required for each gripper.



ENERGY SUPPLY



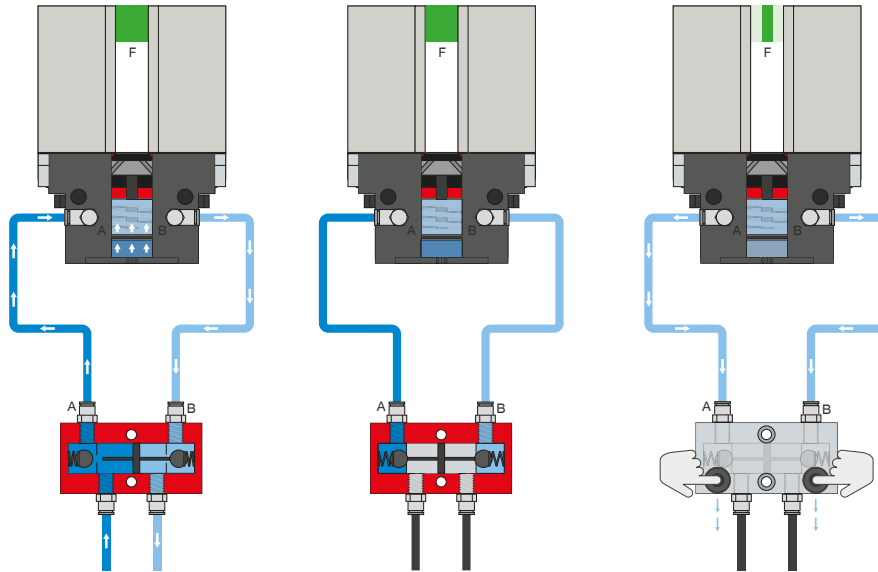
Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



ENERGY SUPPLY

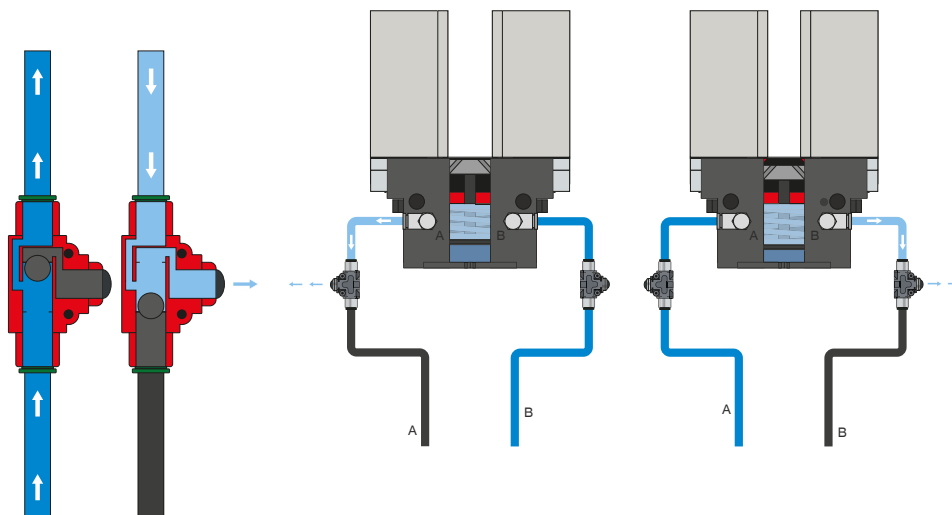
1



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.



Quick exhaust valve – DEV

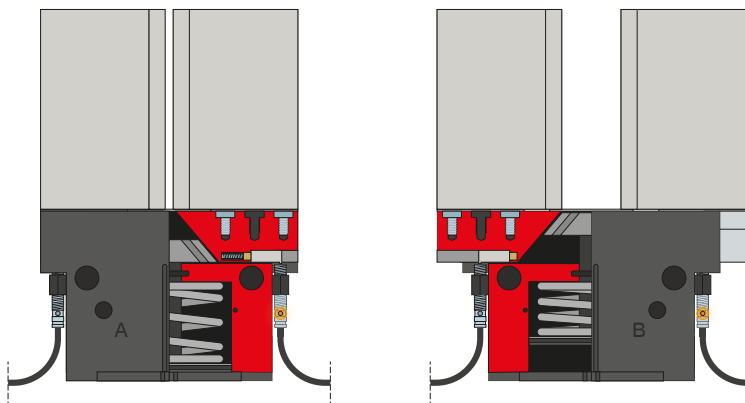
For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.

2-JAW PARALLEL GRIPPERS

SERIES GP400 FUNCTIONAL DESCRIPTION

SENSORS



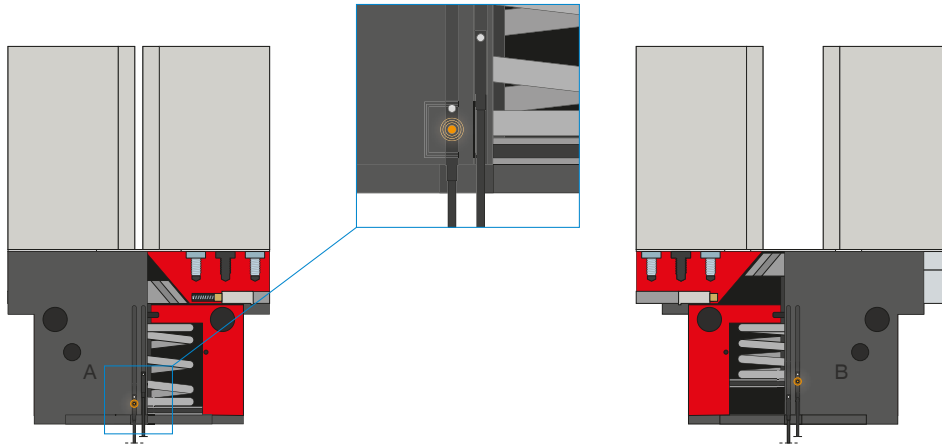
Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

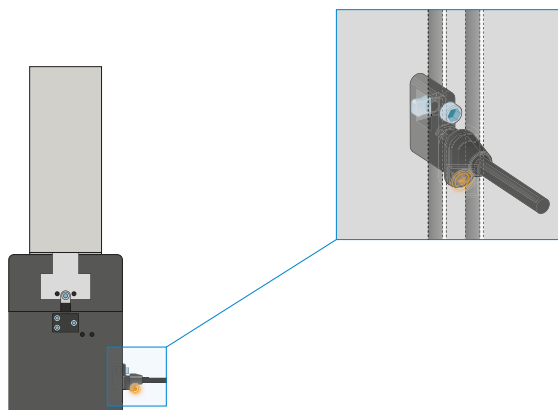


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

2-JAW PARALLEL GRIPPERS

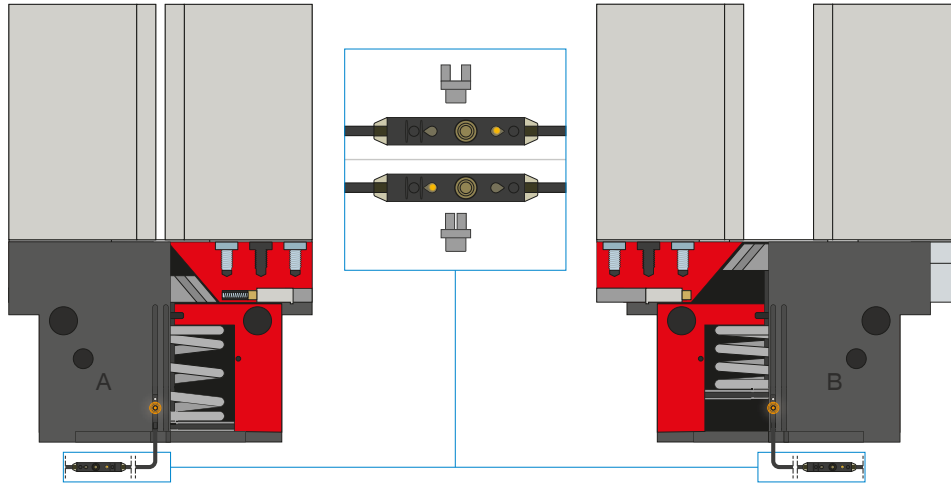
SERIES GP400 FUNCTIONAL DESCRIPTION

1

Series GP400 / 2-Jaw Parallel Grippers / pneumatical / Grippers



SENSORS



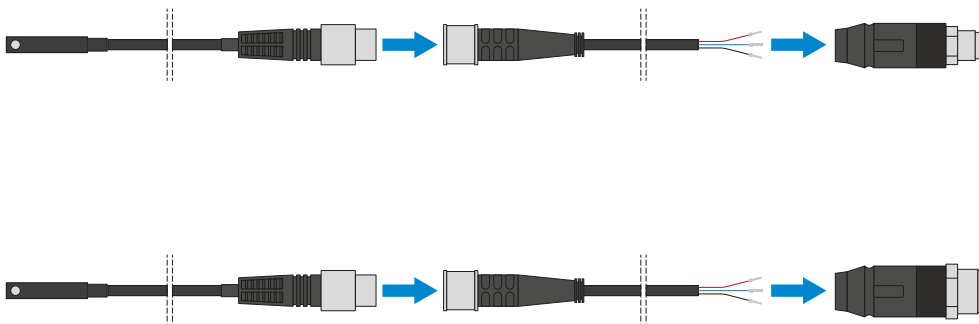
2-point magnetic field sensors - MFS

With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



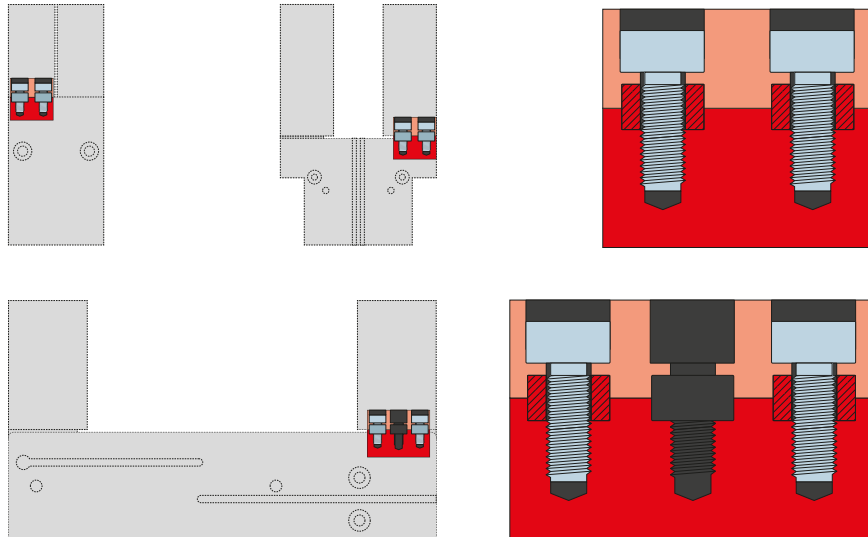
Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



CONNECTIONS / OTHER



Centering sleeves

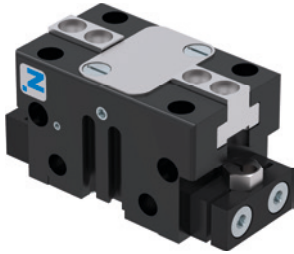
For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

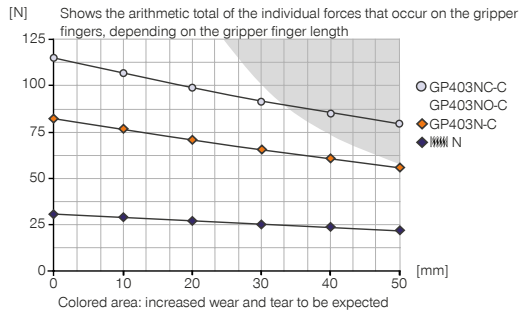
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP403

▶ PRODUCT SPECIFICATIONS

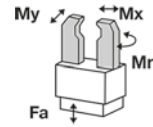


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	6
Mx [Nm]	9
My [Nm]	12
Fa [N]	500

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-03



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB403
Universal jaw set aluminium



UB403ST
Universal jaw set steel



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

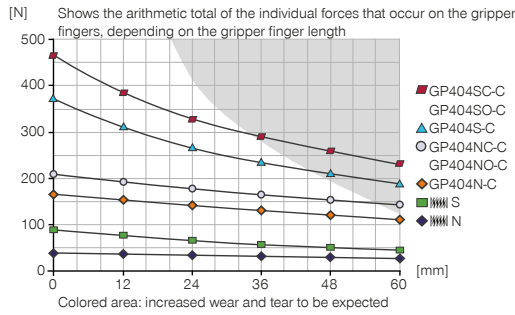
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP404

▶ PRODUCT SPECIFICATIONS

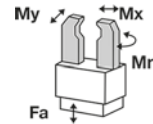


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	8
Mx [Nm]	15
My [Nm]	15
Fa [N]	700

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-08



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB404
Universal jaw set aluminium



UB404ST
Universal jaw set steel



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



CONNECTIONS / OTHER

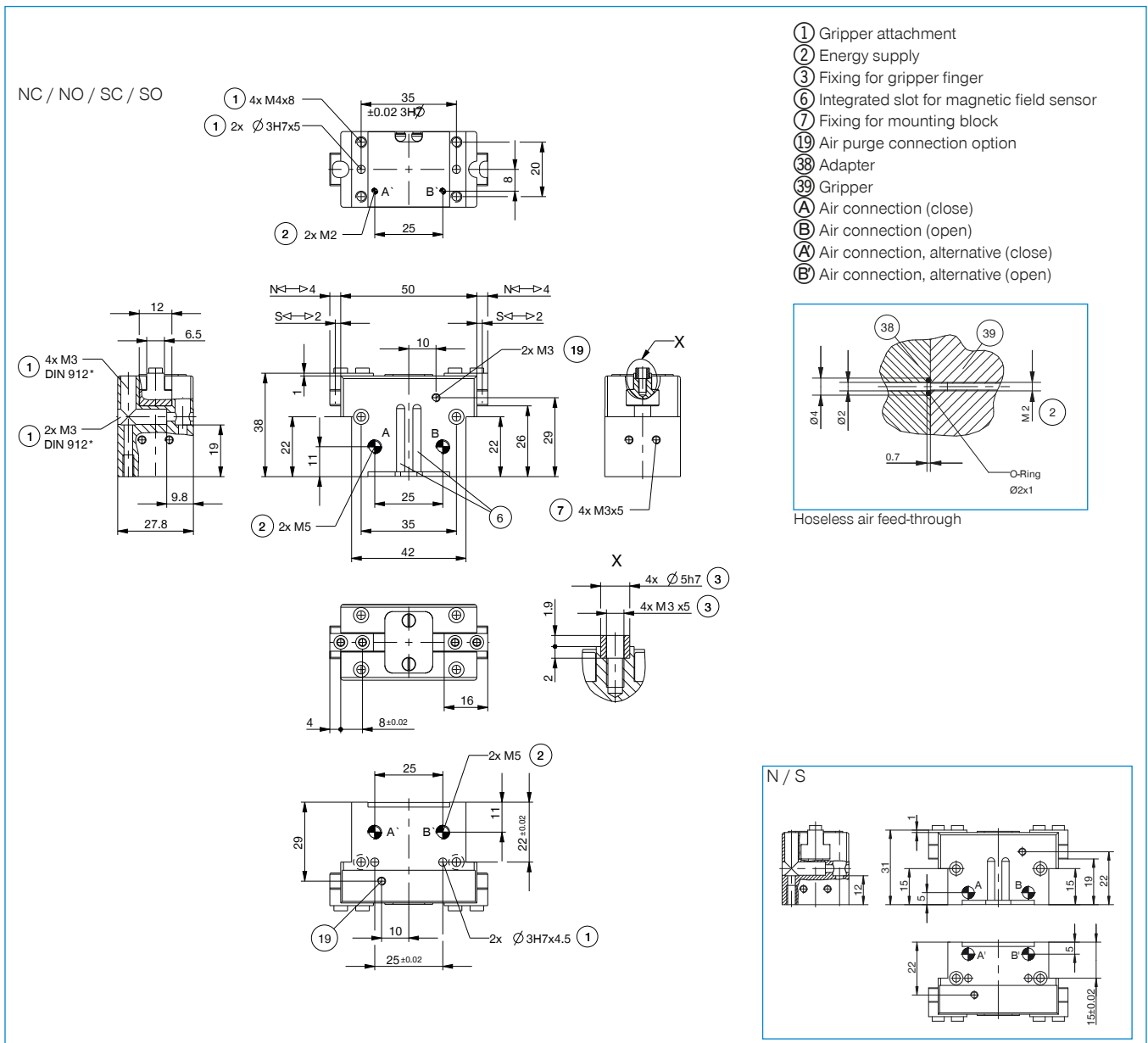


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



WFR01
Angle flange

Order no.	▶ Technical data					
	GP404N-C	GP404NC-C	GP404NO-C	GP404S-C	GP404SC-C	GP404SO-C
Stroke per jaw [mm]	4	4	4	2	2	2
Gripping force in closing [N]	170	210		375	465	
Gripping force in opening [N]	185		225	410		500
Gripping force secured by spring min. [N]		40	40		90	90
Closing time [s]	0.02	0.015	0.025	0.02	0.015	0.025
Opening time [s]	0.02	0.025	0.015	0.02	0.025	0.015
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	4.1	6.9	6.9	4.1	6.9	6.9
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.14	0.16	0.16	0.14	0.16	0.16



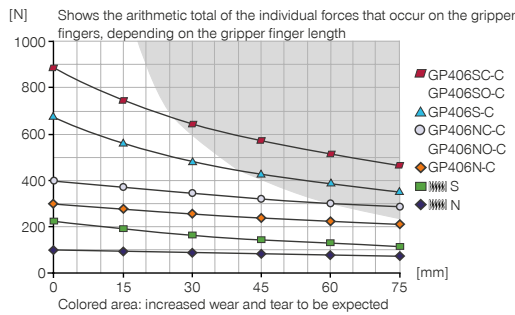
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP406

PRODUCT SPECIFICATIONS

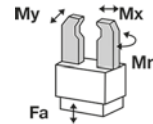


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	35
Mx [Nm]	50
My [Nm]	45
Fa [N]	1200

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB406
Universal jaw set aluminium



UB406ST
Universal jaw set steel



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

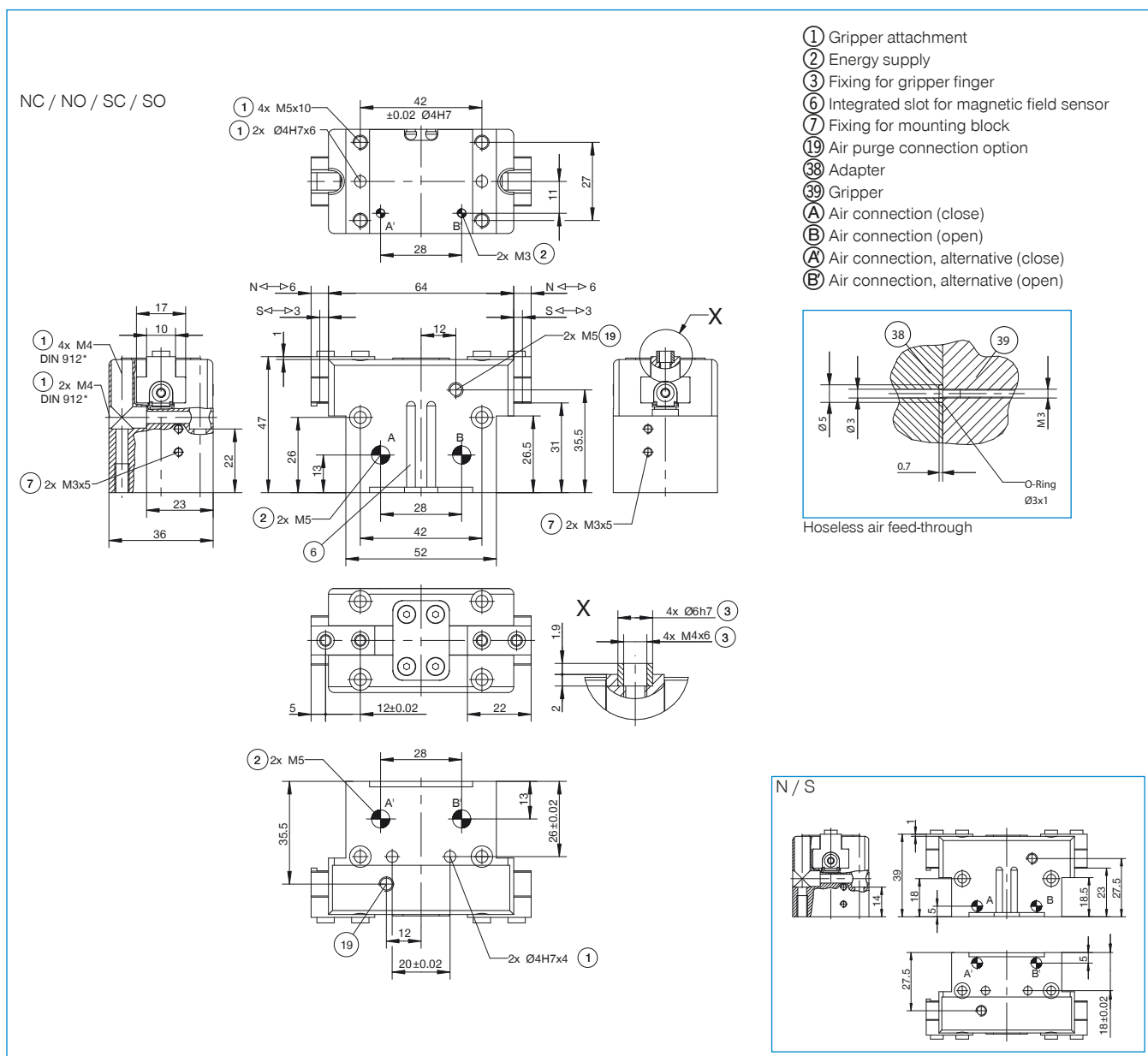


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



WFR01
Angle flange

Order no.	Technical data					
	GP406N-C	GP406NC-C	GP406NO-C	GP406S-C	GP406SC-C	GP406SO-C
Stroke per jaw [mm]	6	6	6	3	3	3
Gripping force in closing [N]	300	400		670	900	
Gripping force in opening [N]	325		425	725		950
Gripping force secured by spring min. [N]		100	100		230	230
Closing time [s]	0.03	0.025	0.04	0.03	0.025	0.04
Opening time [s]	0.03	0.04	0.025	0.03	0.04	0.025
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	10	16	16	10	16	16
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.27	0.32	0.32	0.27	0.32	0.32



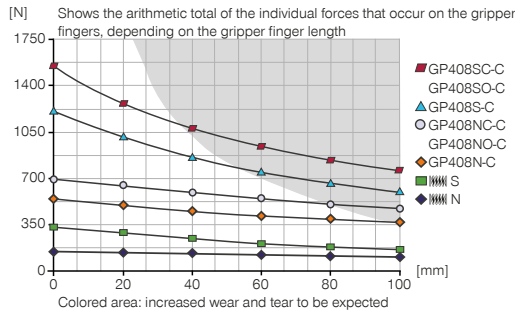
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP408

▶ PRODUCT SPECIFICATIONS

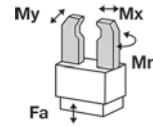


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	50
Mx [Nm]	80
My [Nm]	60
Fa [N]	1800

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST40800

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB408
Universal jaw set aluminium



UB408ST
Universal jaw set steel



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

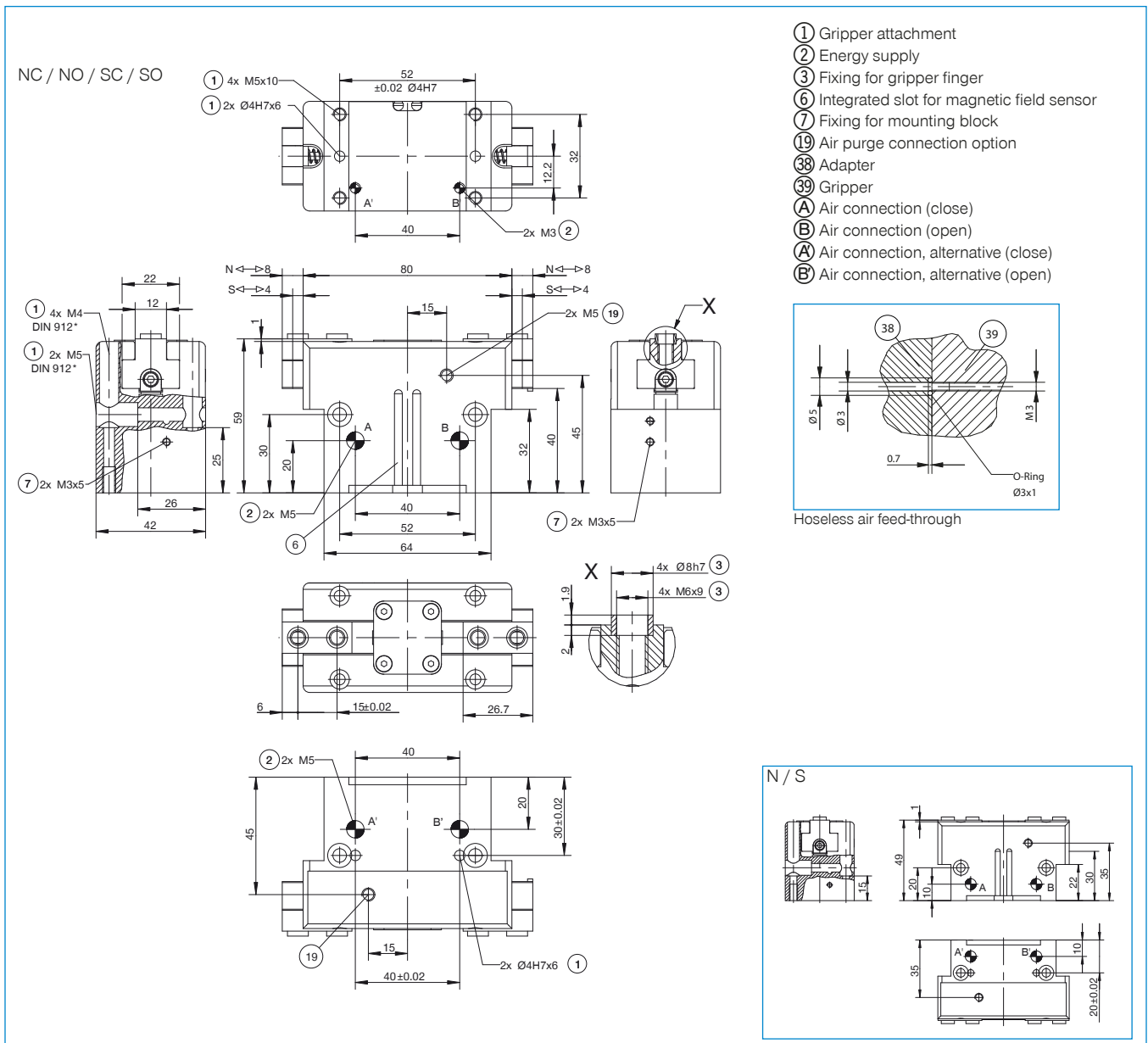


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



WFR02
Angle flange

Order no.	▶ Technical data					
	GP408N-C	GP408NC-C	GP408NO-C	GP408S-C	GP408SC-C	GP408SO-C
Stroke per jaw [mm]	8	8	8	4	4	4
Gripping force in closing [N]	550	700		1230	1570	
Gripping force in opening [N]	590		740	1320		1660
Gripping force secured by spring min. [N]		150	150		340	340
Closing time [s]	0.04	0.03	0.05	0.04	0.03	0.05
Opening time [s]	0.04	0.05	0.03	0.04	0.05	0.03
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	24	36	36	24	36	36
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.5	0.57	0.57	0.5	0.57	0.57



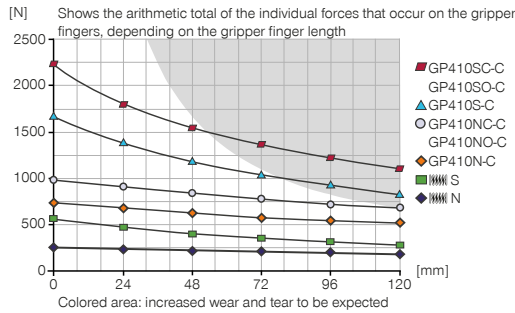
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP410

▶ PRODUCT SPECIFICATIONS

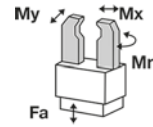


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	75
Mx [Nm]	100
My [Nm]	90
Fa [N]	2500

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41000

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB410
Universal jaw set aluminium



UB410ST
Universal jaw set steel



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

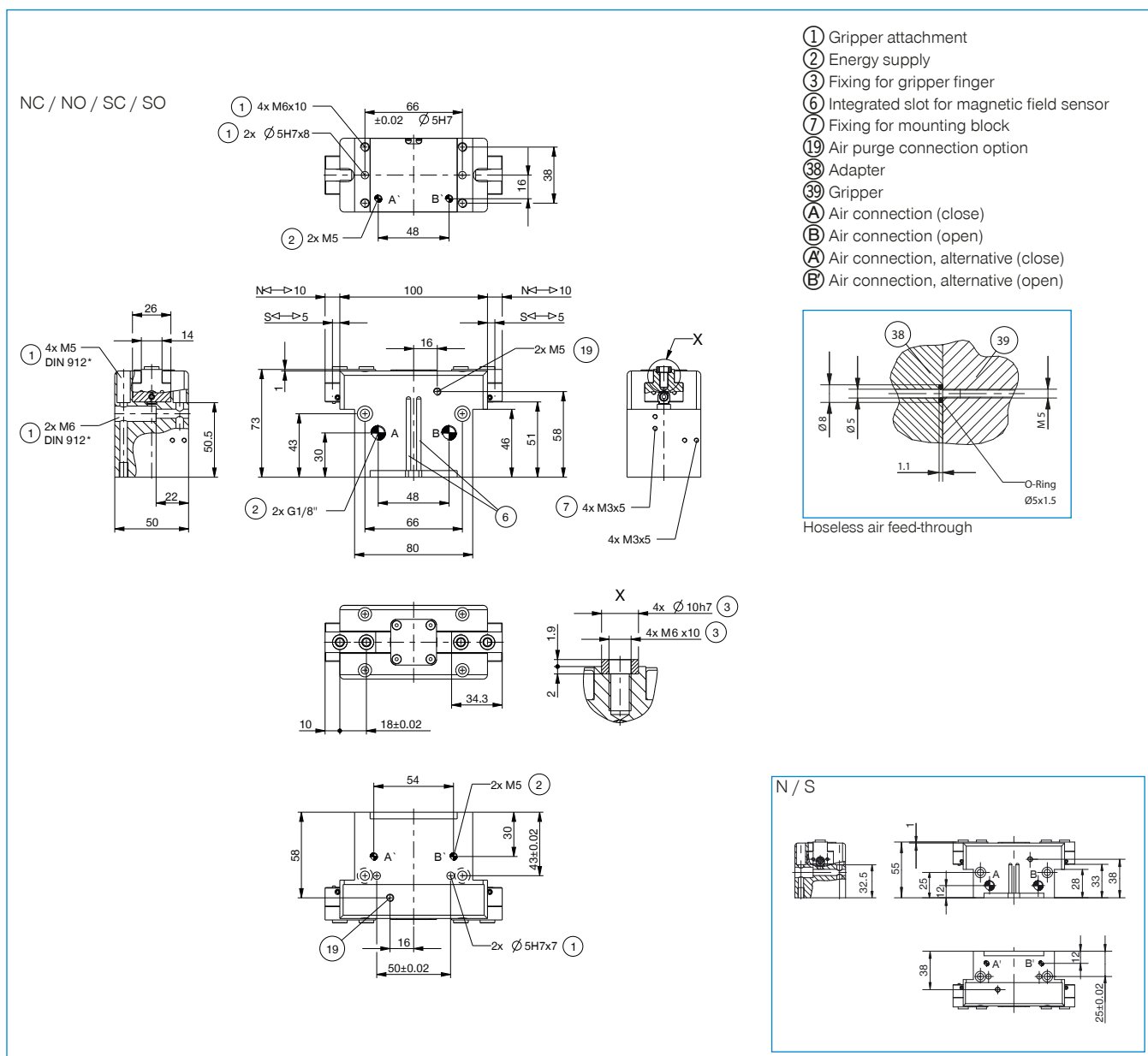


S8-G-3
Plug-in connector customizable Straight - Connector M8



WFR02
Angle flange

Order no.	► Technical data					
	GP410N-C	GP410NC-C	GP410NO-C	GP410S-C	GP410SC-C	GP410SO-C
Stroke per jaw [mm]	10	10	10	5	5	5
Gripping force in closing [N]	740	990		1650	2215	
Gripping force in opening [N]	795		1050	1770		2340
Gripping force secured by spring min. [N]		250	250		570	570
Closing time [s]	0.07	0.06	0.09	0.07	0.06	0.09
Opening time [s]	0.07	0.09	0.06	0.07	0.09	0.06
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	39	67	67	39	67	67
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.85	1	1	0.85	1	1



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑩ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



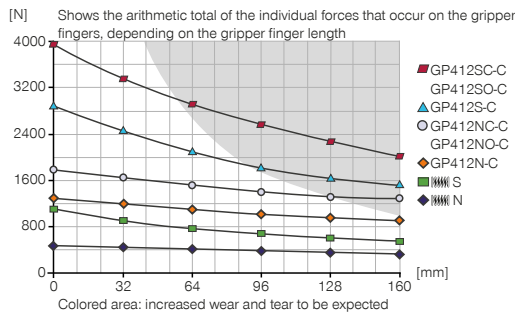
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP412

▶ PRODUCT SPECIFICATIONS

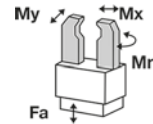


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	100
Mx [Nm]	120
My [Nm]	120
Fa [N]	3200

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41000

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB412
Universal jaw set aluminium



UB412ST
Universal jaw set steel



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



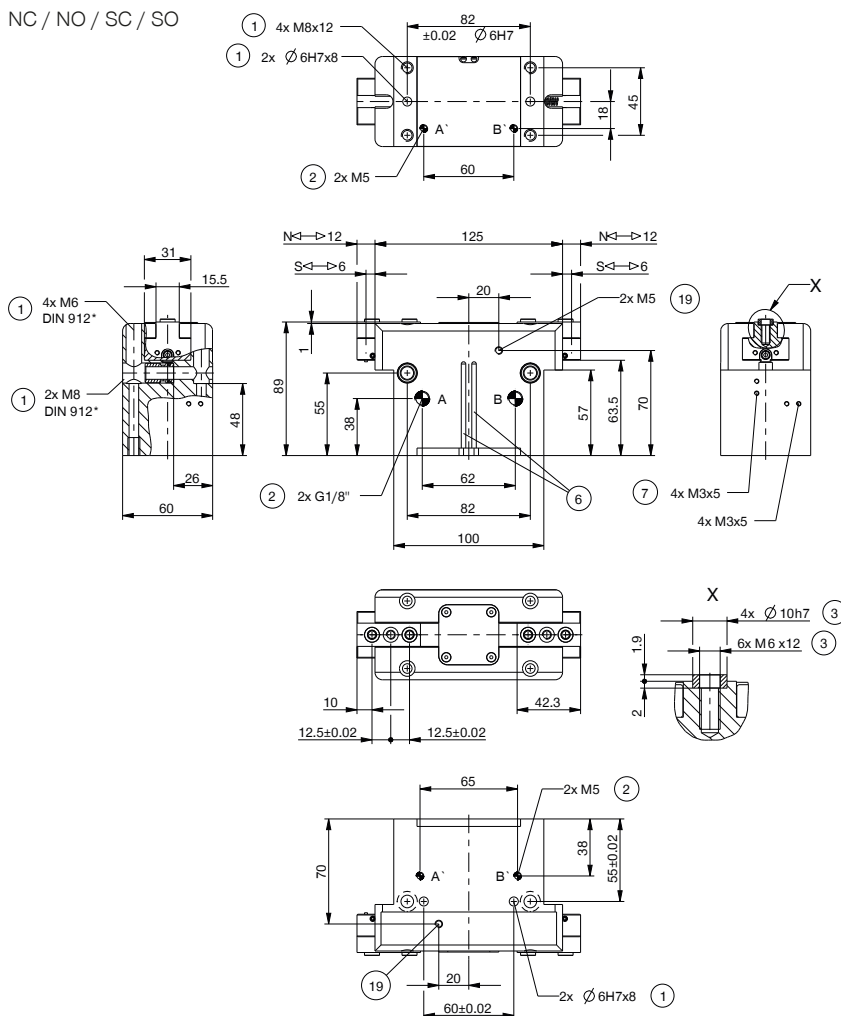
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



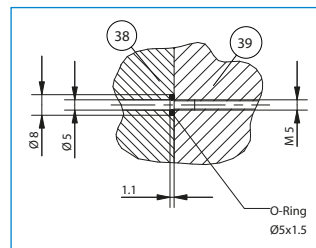
S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	▶ Technical data					
	GP412N-C	GP412NC-C	GP412NO-C	GP412S-C	GP412SC-C	GP412SO-C
Stroke per jaw [mm]	12	12	12	6	6	6
Gripping force in closing [N]	1290	1780		2890	3960	
Gripping force in opening [N]	1370		1850	3050		4130
Gripping force secured by spring min. [N]		490	490		1080	1080
Closing time [s]	0.1	0.08	0.12	0.1	0.08	0.12
Opening time [s]	0.1	0.12	0.08	0.1	0.12	0.08
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	80	148	148	80	148	148
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	1.5	1.78	1.78	1.5	1.78	1.78

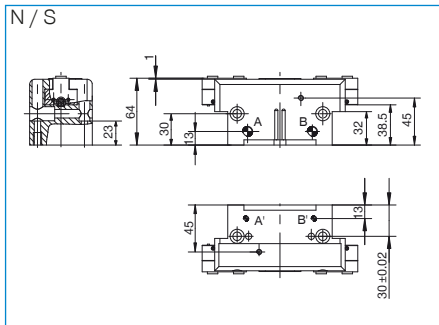
NC / NO / SC / SO



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑬ Air purge connection option
- ⑳ Adapter
- ㉑ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP416

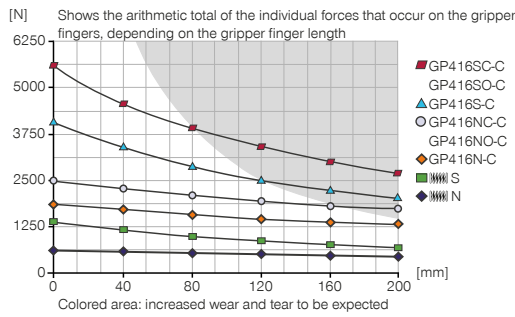
1

Installation size GP416 / 2-Jaw Parallel Grippers / pneumatic / Grippers

PRODUCT SPECIFICATIONS

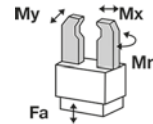


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	140
Mx [Nm]	160
My [Nm]	180
Fa [N]	5000

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41600

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB416
Universal jaw set aluminium



UB416ST
Universal jaw set steel



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

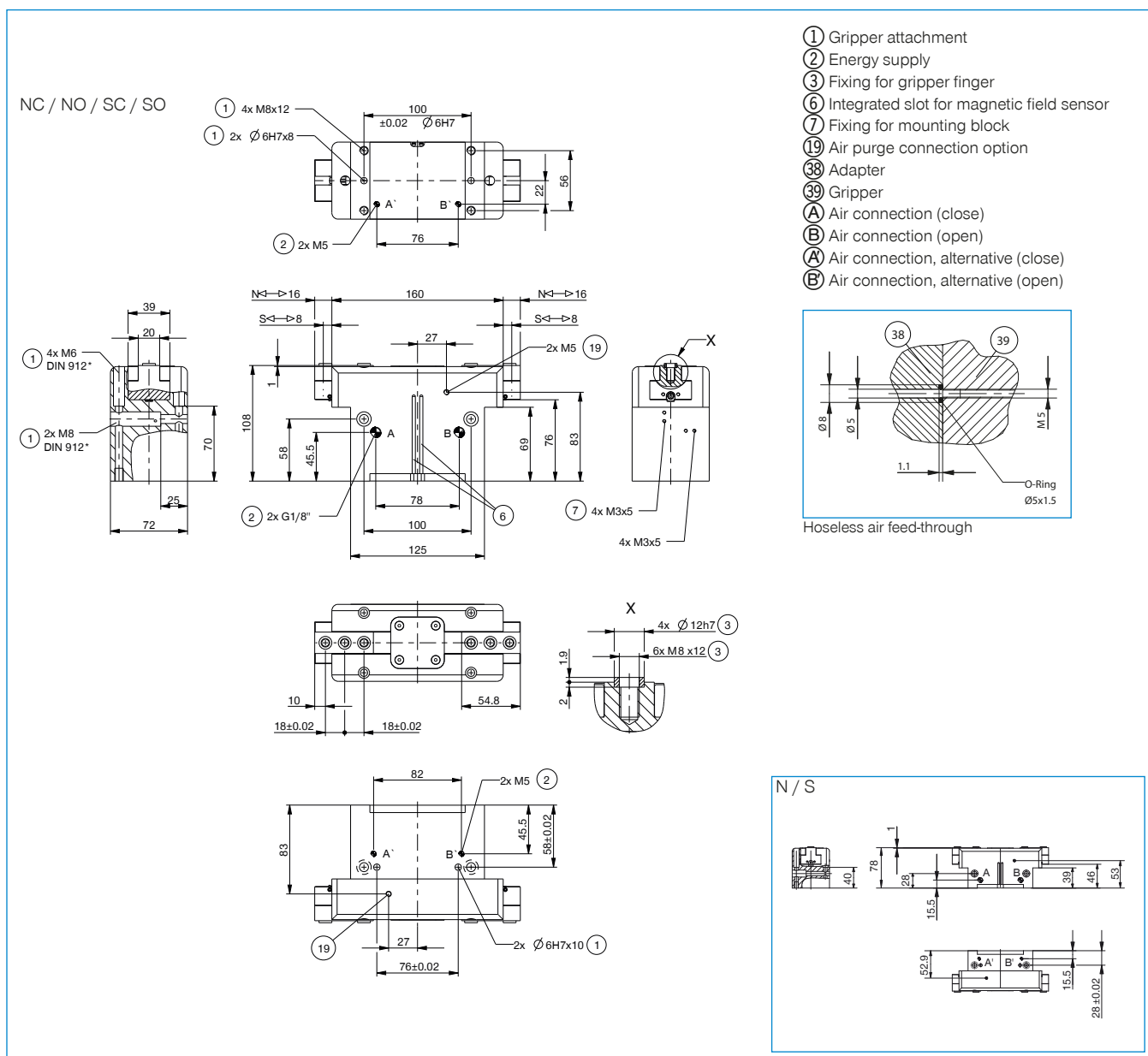


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

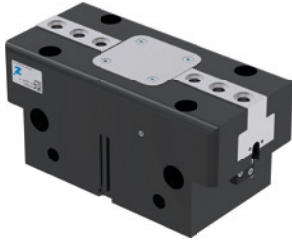
Order no.	► Technical data					
	GP416N-C	GP416NC-C	GP416NO-C	GP416S-C	GP416SC-C	GP416SO-C
Stroke per jaw [mm]	16	16	16	8	8	8
Gripping force in closing [N]	1860	2490		4160	5560	
Gripping force in opening [N]	1960		2590	4390		5780
Gripping force secured by spring min. [N]		630	630		1400	1400
Closing time [s]	0.2	0.15	0.25	0.2	0.15	0.25
Opening time [s]	0.2	0.25	0.15	0.2	0.25	0.15
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	268	477	477	268	477	477
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	2.9	3.4	3.4	2.9	3.4	3.4



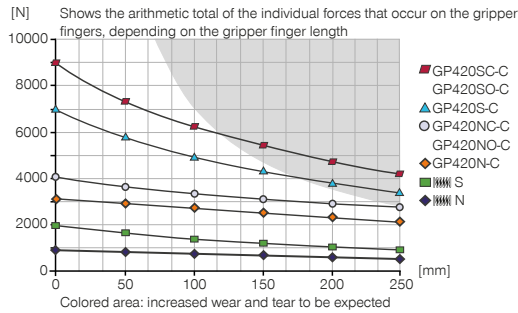
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP420

▶ PRODUCT SPECIFICATIONS

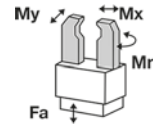


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	170
Mx [Nm]	180
My [Nm]	220
Fa [N]	7000

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST42000

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB420
Universal jaw set aluminium



UB420ST
Universal jaw set steel



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

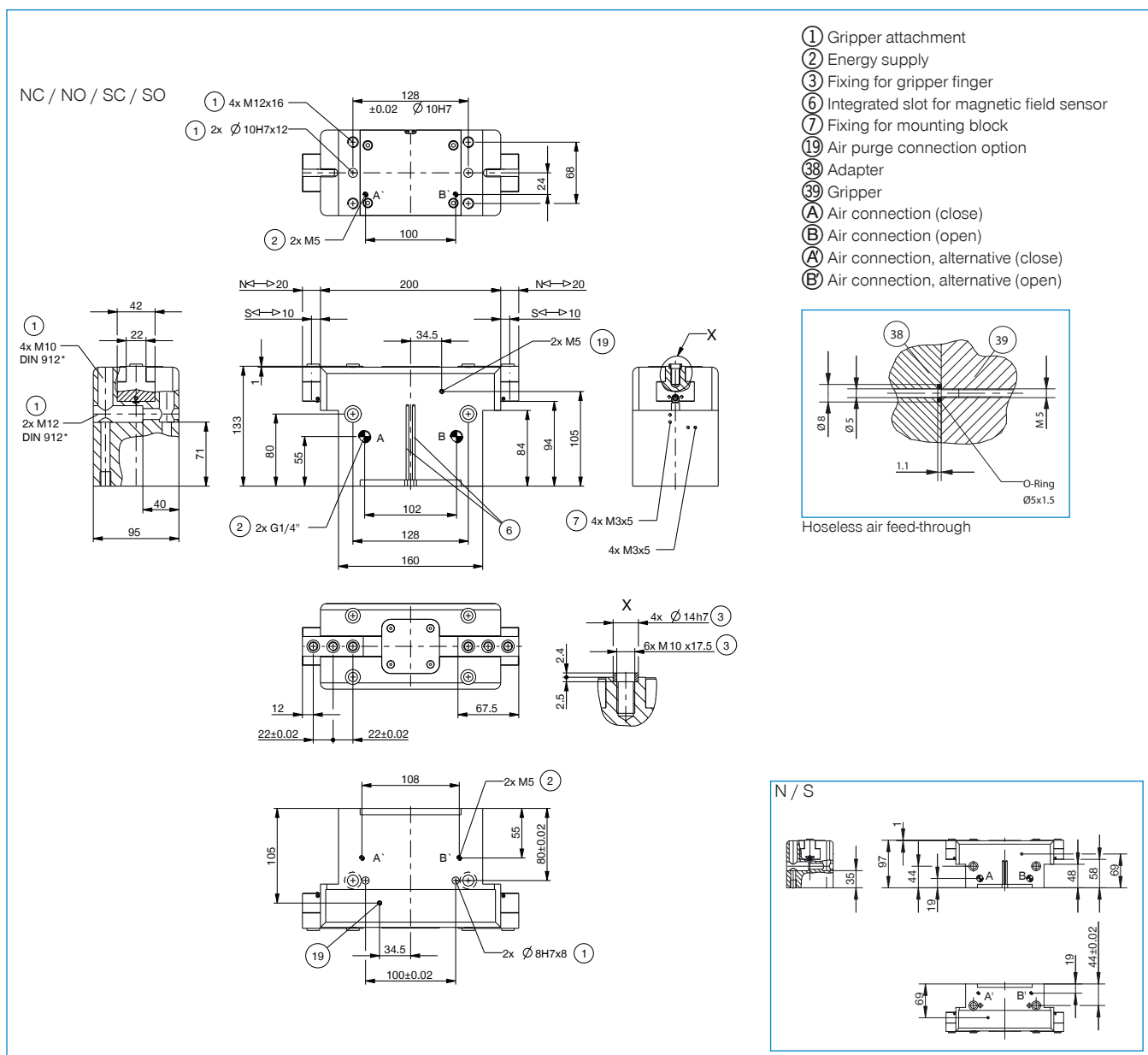


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

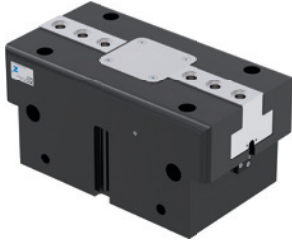
Order no.	Technical data					
	GP420N-C	GP420NC-C	GP420NO-C	GP420S-C	GP420SC-C	GP420SO-C
Stroke per jaw [mm]	20	20	20	10	10	10
Gripping force in closing [N]	3175	4060		7080	9060	
Gripping force in opening [N]	3330		4215	7430		9400
Gripping force secured by spring min. [N]		900	900		1975	1975
Closing time [s]	0.35	0.3	0.4	0.35	0.3	0.4
Opening time [s]	0.35	0.4	0.3	0.35	0.4	0.3
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	320	590	590	320	590	590
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	5.5	6.7	6.7	5.5	6.7	6.7



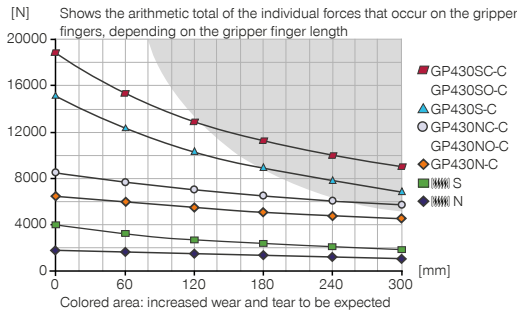
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP430

▶ PRODUCT SPECIFICATIONS

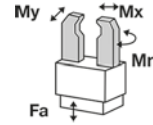


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	200
Mx [Nm]	275
My [Nm]	300
Fa [N]	9000

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST43000

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB430
Universal jaw set aluminium



UB430ST
Universal jaw set steel



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

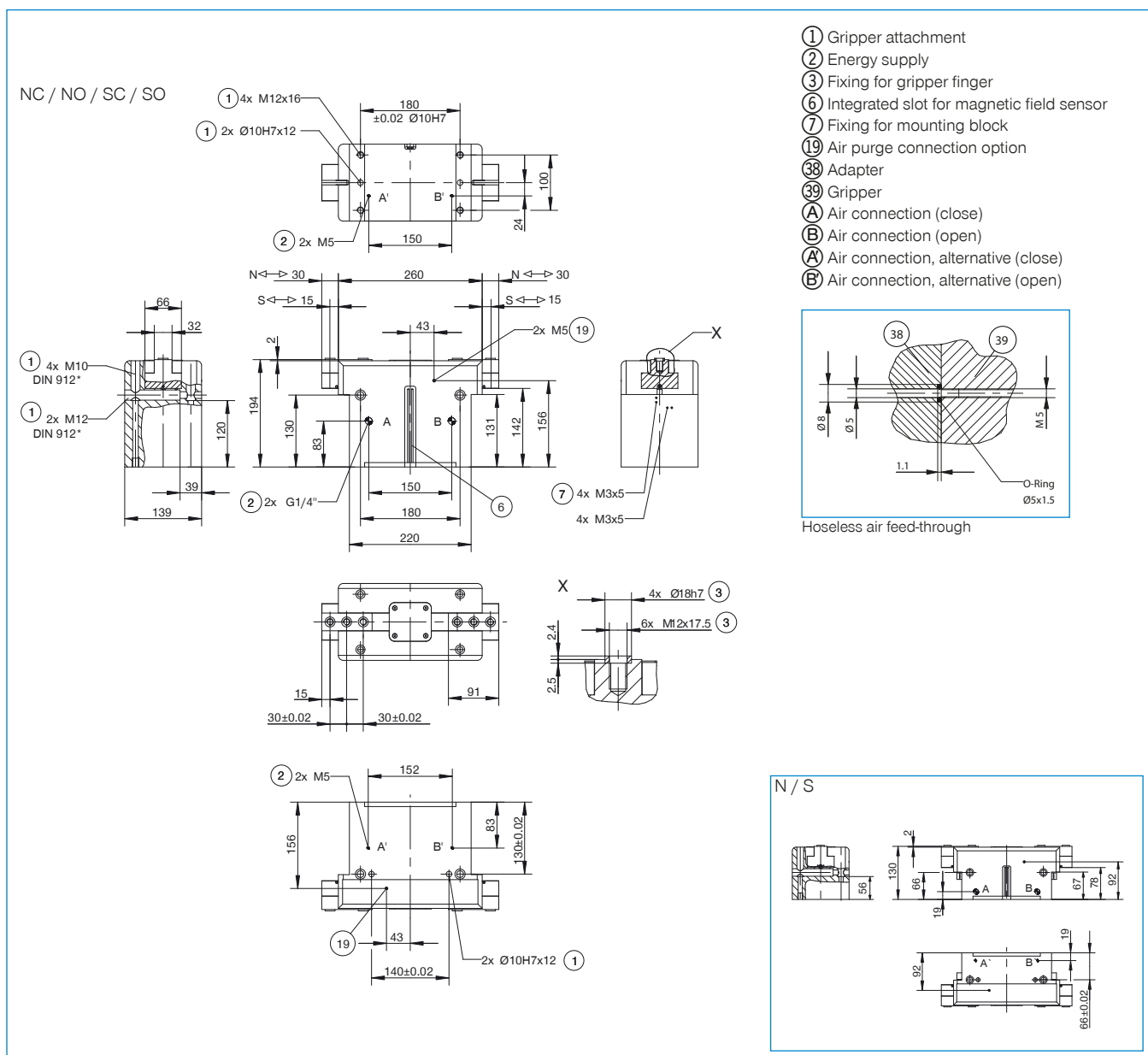


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	Technical data					
	GP430N-C	GP430NC-C	GP430NO-C	GP430S-C	GP430SC-C	GP430SO-C
Stroke per jaw [mm]	30	30	30	15	15	15
Gripping force in closing [N]	6675	8480		14900	18930	
Gripping force in opening [N]	6830		8640	15250		19275
Gripping force secured by spring min. [N]		1800	1800		4030	4030
Closing time [s]	0.4	0.4	0.8	0.4	0.4	0.8
Opening time [s]	0.4	0.8	0.4	0.4	0.8	0.4
Repetition accuracy +/- [mm]	0.01	0.01	0.01	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	980	1850	1850	980	1850	1850
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	14	18.9	18.9	14	18.9	18.9



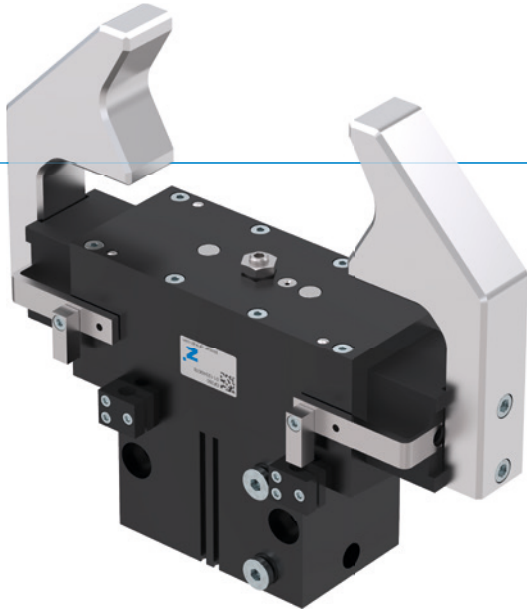
2-JAW PARALLEL GRIPPERS

SERIES GP200

1

Series GP200 / 2-Jaw Parallel Grippers / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



“The variable”

▶ Smooth stroke configuration

An adjusting screw allows you to adjust the stroke to your specific application








▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you

▶ Dirt protection

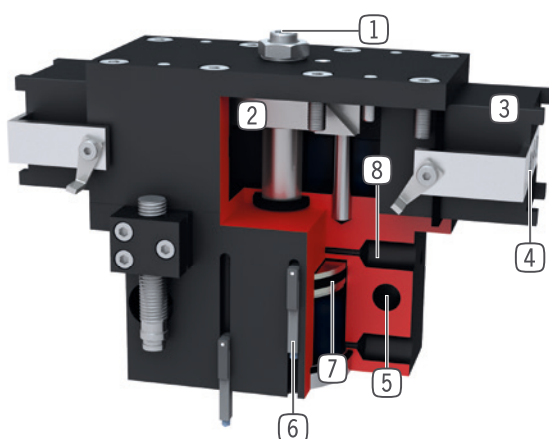
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

▶ SERIES CHARACTERISTICS

Installation size	Version			
	GP2XX	-	-99	S
 Spring closing C	•		•	
 High-strength S			•	•
 10 million maintenance-free cycles (max.)	•	•	•	•
 Inductive sensor	•	•	•	•
 Magnetic field sensor	•	•	•	•
 Purged air	•	•	•	•
 IP40	•	•	•	•



► BENEFITS IN DETAIL



- 1 Stroke adjustment**
 - infinitely adjustable in „open“ movement
 - adjusting screw in delivery
- 2 Wedge hook mechanism**
 - synchronized the movement of the gripper jaws
 - high force transfer
- 3 Square guide**
 - high forces and moments capacity
- 4 Gripper jaw**
 - individual gripper finger mounting
- 5 Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- 6 Sensing slot**
 - mounting and positioning of magnetic field sensors
- 7 Drive**
 - double-acting pneumatic cylinder
- 8 Energy supply**
 - possible from several sides

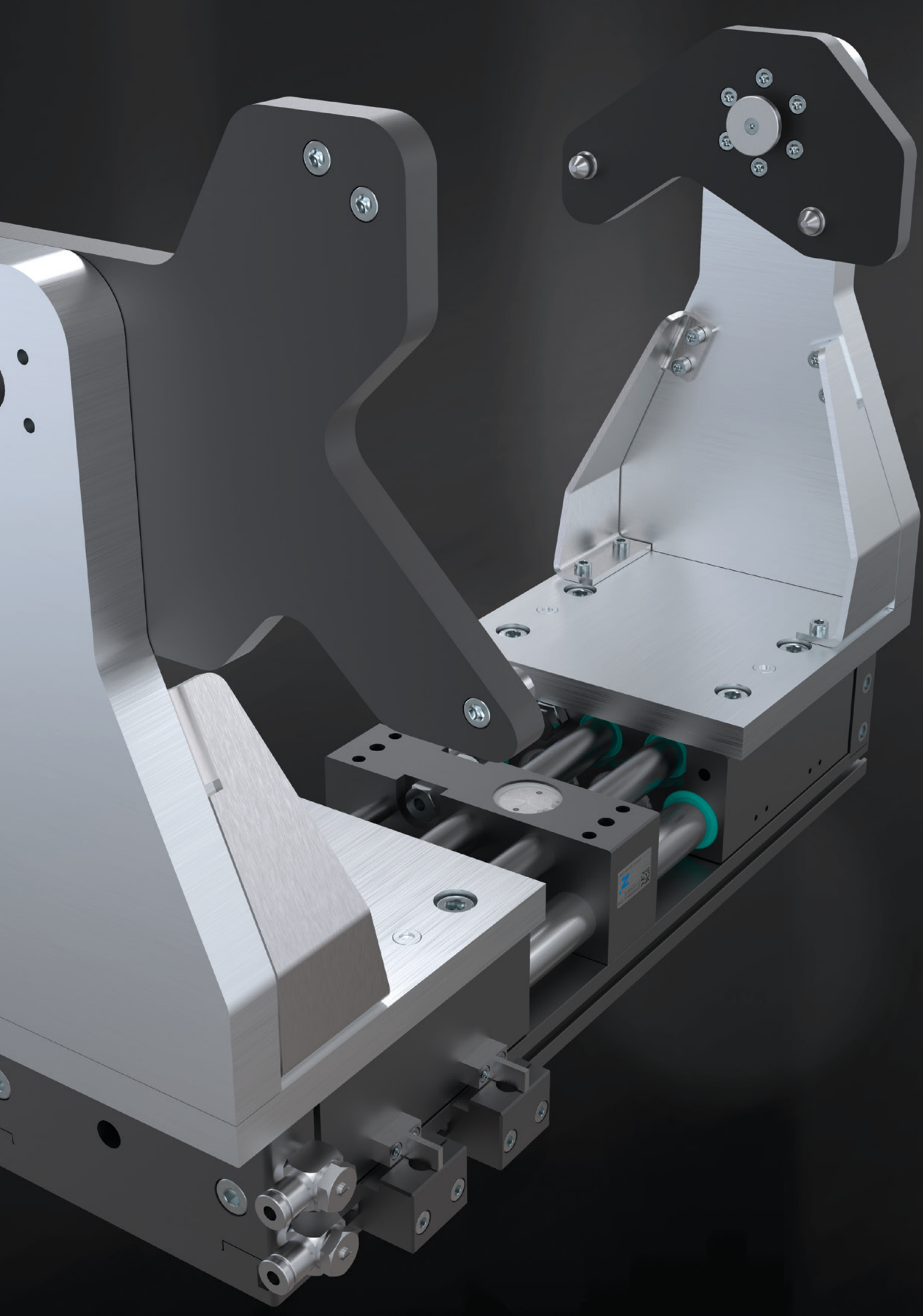
► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP224	6 - 12	170 - 335	0,33	IP40
GP240	8 - 20	510 - 1290	1,2	IP40
GP260	10 - 30	800 - 2480	2,9	IP40
GP280	15 - 40	1690 - 4500	8,3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

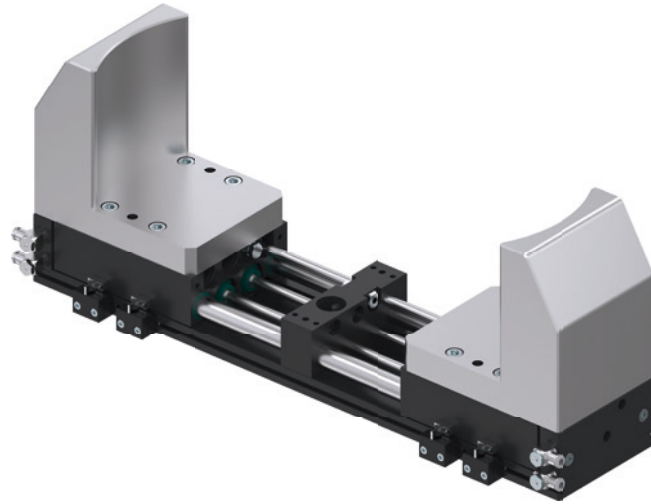


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

OVERVIEW OF SERIES



PNEUMATIC



Series MGH8000

80

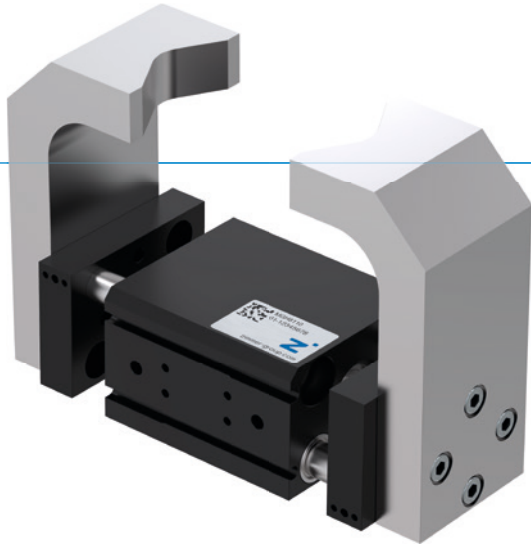


Series GPH8000

104

2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES MGH8000

▶ PRODUCT ADVANTAGES



“The compact”

▶ Reduced interference contours

Low-profile designs and versatile screw connection options enable simple integration into your design

▶ Dirt protection

Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

▶ Failure-free continuous operation

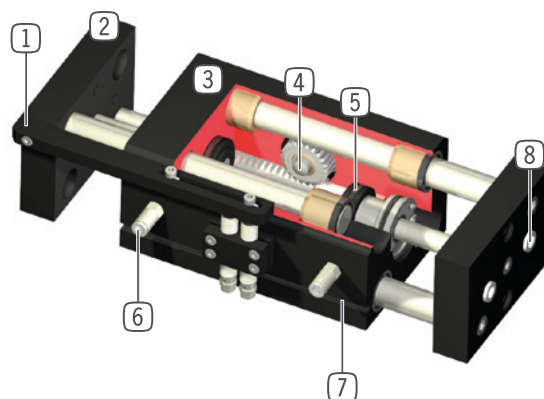
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	
MGH80XX	
10 million maintenance-free cycles (max.)	●
Inductive sensor	●
Magnetic field sensor	●
IP54	●



► BENEFITS IN DETAIL



- ① **Attachment kit (cam switch and clamping block)**
 - for sensing position by means of proximity switch (optional feature)
- ② **Gripper jaw**
 - individual gripper finger mounting
- ③ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ④ **Synchronization**
 - via rack and pinion
- ⑤ **Drive**
 - two double-acting pneumatic cylinders
- ⑥ **Energy supply**
 - possible from several sides
- ⑦ **Integrated groove**
 - mounting and positioning of magnetic field sensors
- ⑧ **Removable centering sleeves**
 - quick and economical positioning of the gripper fingers

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
MGH8000	10 - 20	60 - 90	0,35 - 0,5	IP54
MGH8100	10 - 20	180 - 220	0,7 - 0,85	IP54
MGH8200	30 - 40	500 - 570	2,4 - 2,9	IP54
MGH8300	50 - 100	800 - 910	5,1 - 7,3	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE



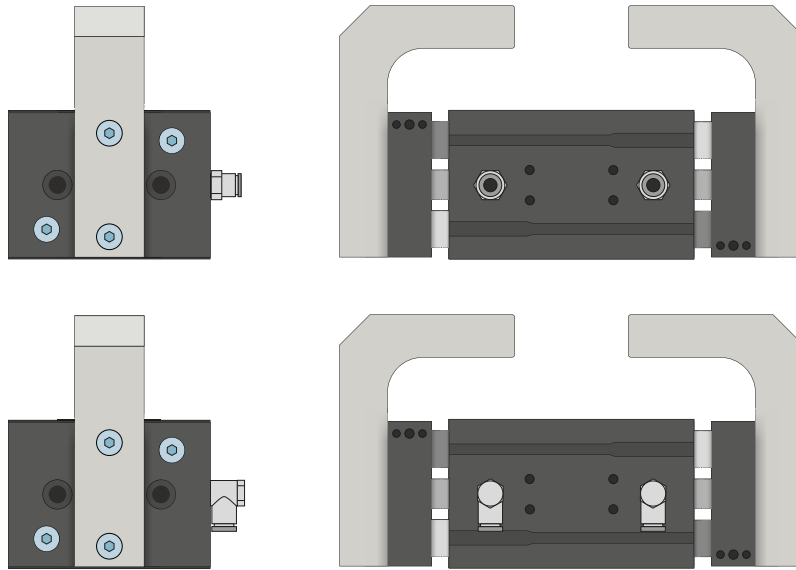
All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES MGH8000 FUNCTIONAL DESCRIPTION

1

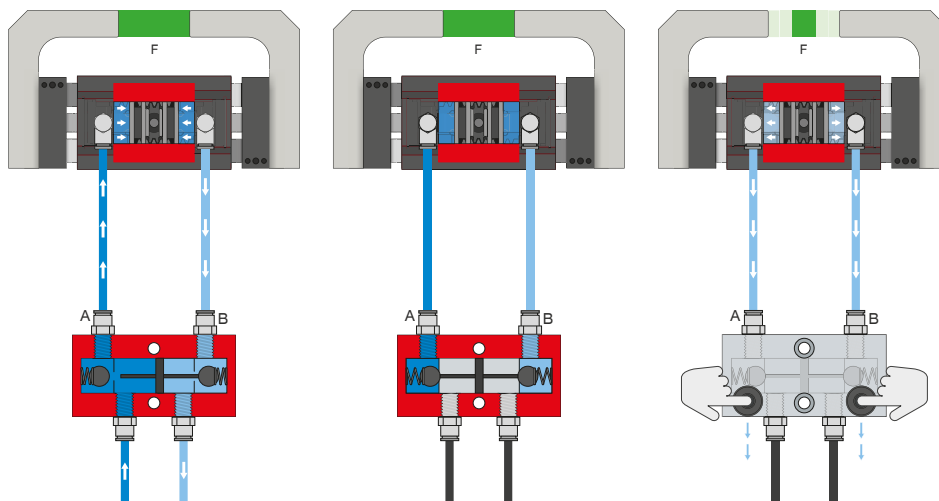


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



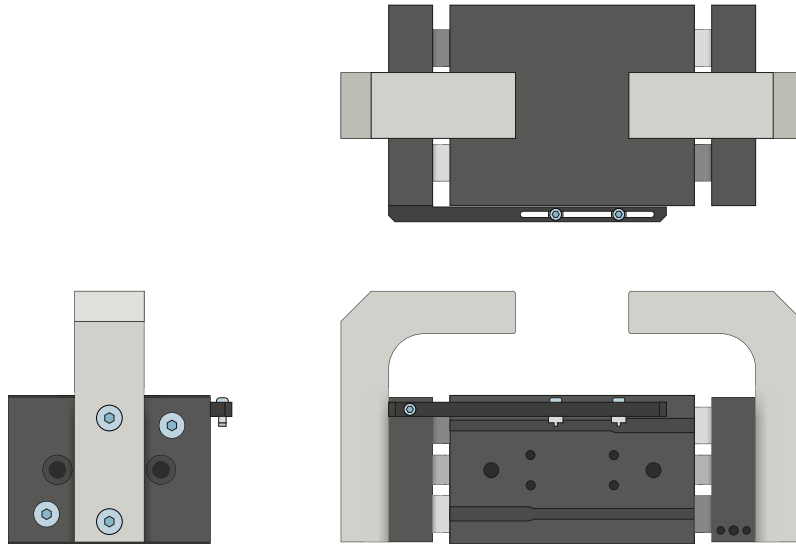
Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

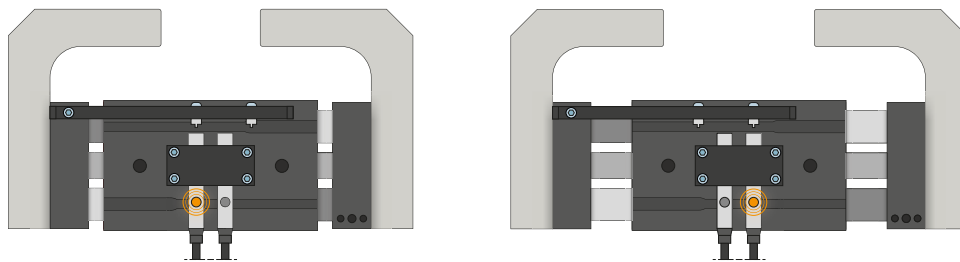


SENSORS



Attachment kit

The attachment kit is installed on the gripper using the fastening material included in the scope of delivery. The attachment kit enables sensing of the gripper positions via inductive proximity switches.



Inductive sensors – NJ

The sensor is guided into the mounting block and fixed in place according to its switching distance. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES MGH8000 FUNCTIONAL DESCRIPTION

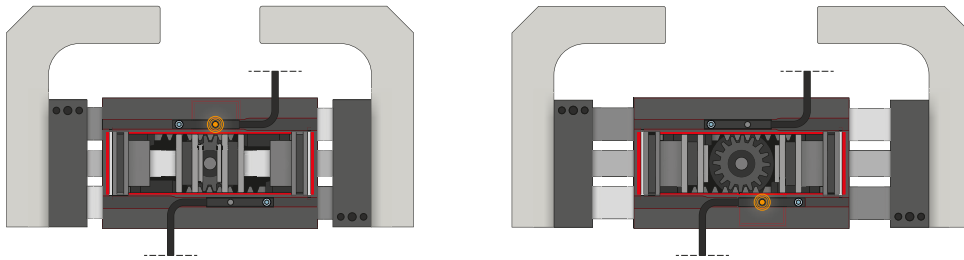
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Series MGH8000 / 2-Jaw Parallel Grippers with Long Stroke / pneumatical / Grippers

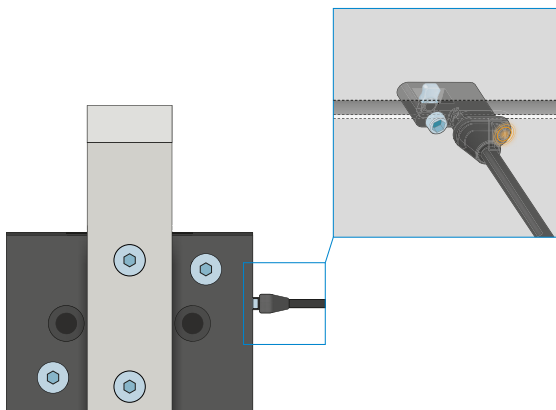


SENSORS

MFS02



MFS01



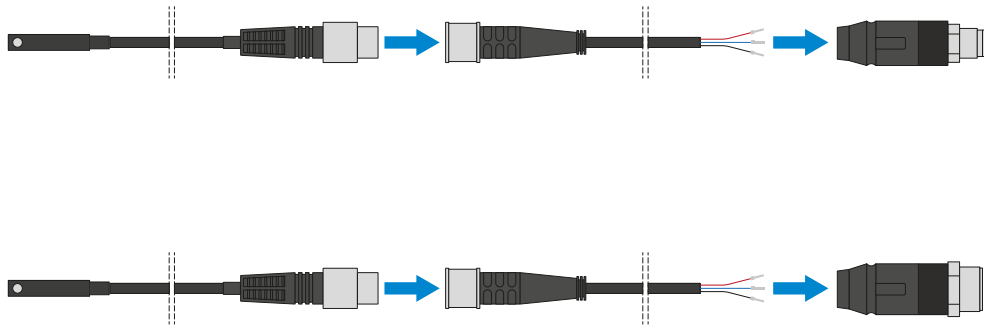
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



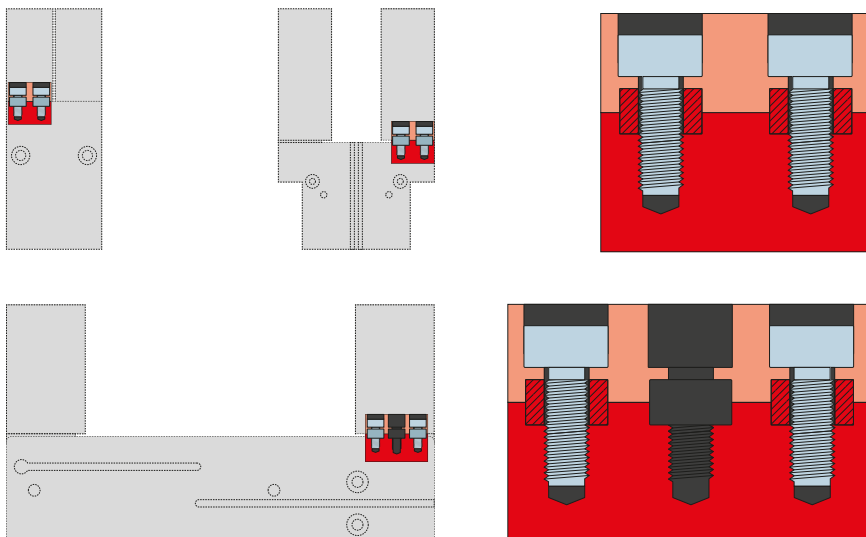
CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE MGH8010

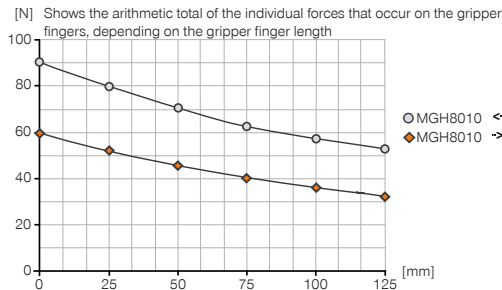
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Installation size MGH8010 / 2-Jaw Parallel Grippers with Long Stroke / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

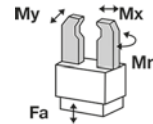


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	8
Fa [N]	260

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0027
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ4-E2-01
Inductive proximity switch - Cable 5 m



NJ4-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

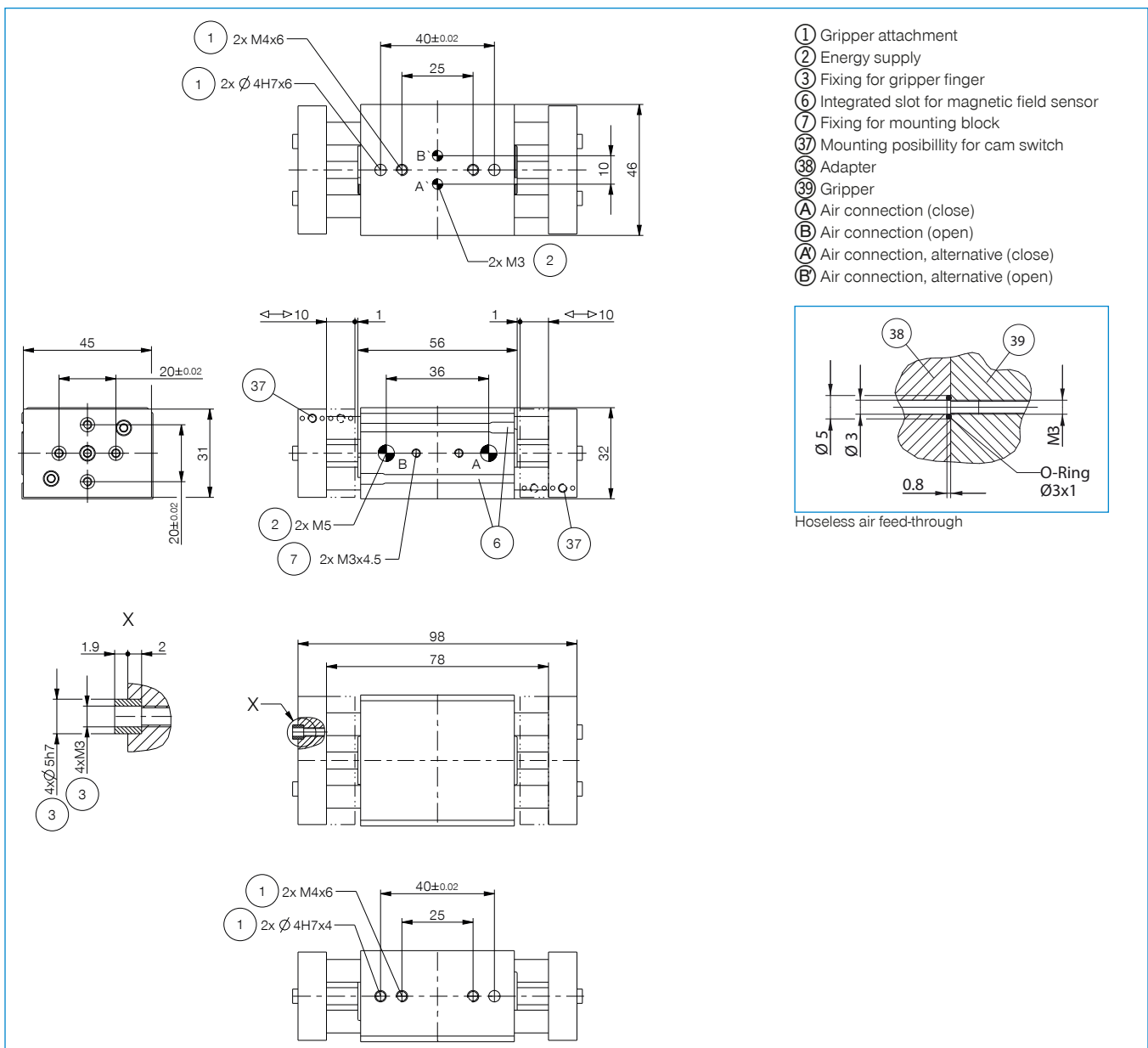


MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8010
Stroke per jaw [mm]	10
Gripping force in closing [N]	60
Gripping force in opening [N]	90
Closing time [s]	0.07
Opening time [s]	0.04
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	4.0
Protection to IEC 60529	IP54
Weight [kg]	0.35

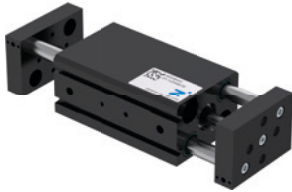


2-JAW PARALLEL GRIPPERS WITH LONG STROKE

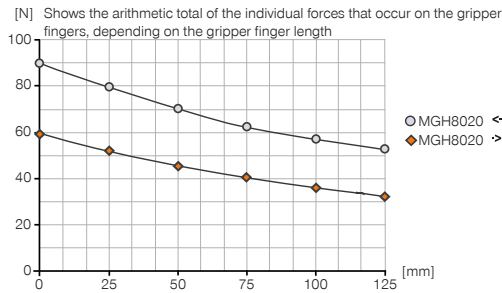
INSTALLATION SIZE MGH8020

1

▶ PRODUCT SPECIFICATIONS

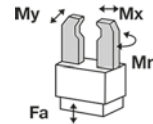


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	8
Fa [N]	260

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0028
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ4-E2-01
Inductive proximity switch - Cable 5 m



NJ4-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

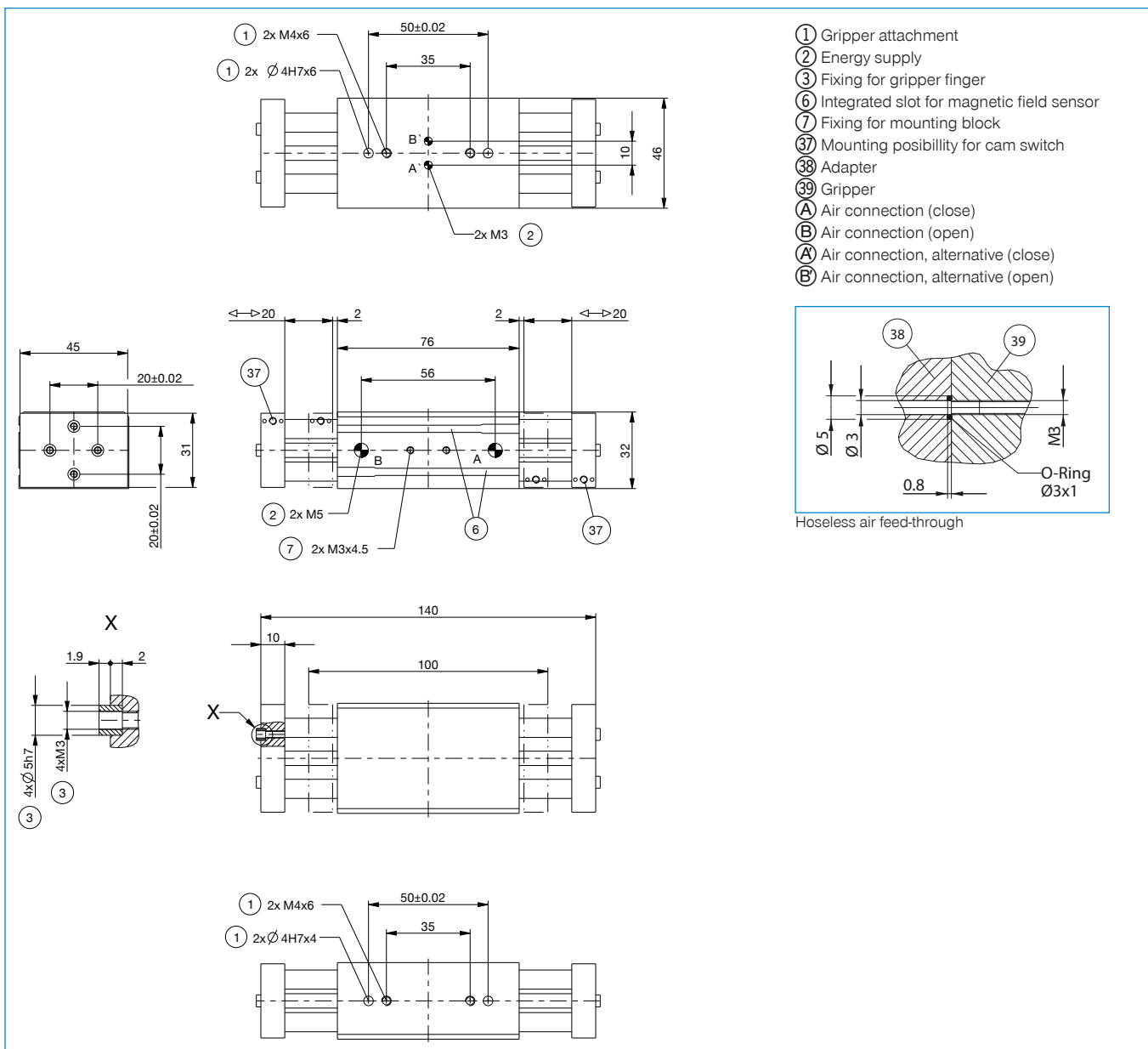


MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8020
Stroke per jaw [mm]	20
Gripping force in closing [N]	60
Gripping force in opening [N]	90
Closing time [s]	0.09
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	8.0
Protection to IEC 60529	IP54
Weight [kg]	0.5



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

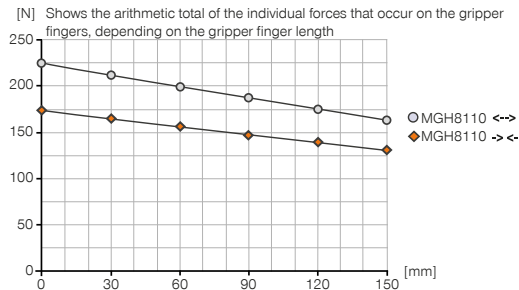
INSTALLATION SIZE MGH8110

1

▶ PRODUCT SPECIFICATIONS

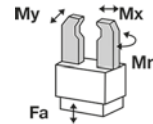


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	20
Mx [Nm]	20
My [Nm]	18
Fa [N]	435

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40800

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0020
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

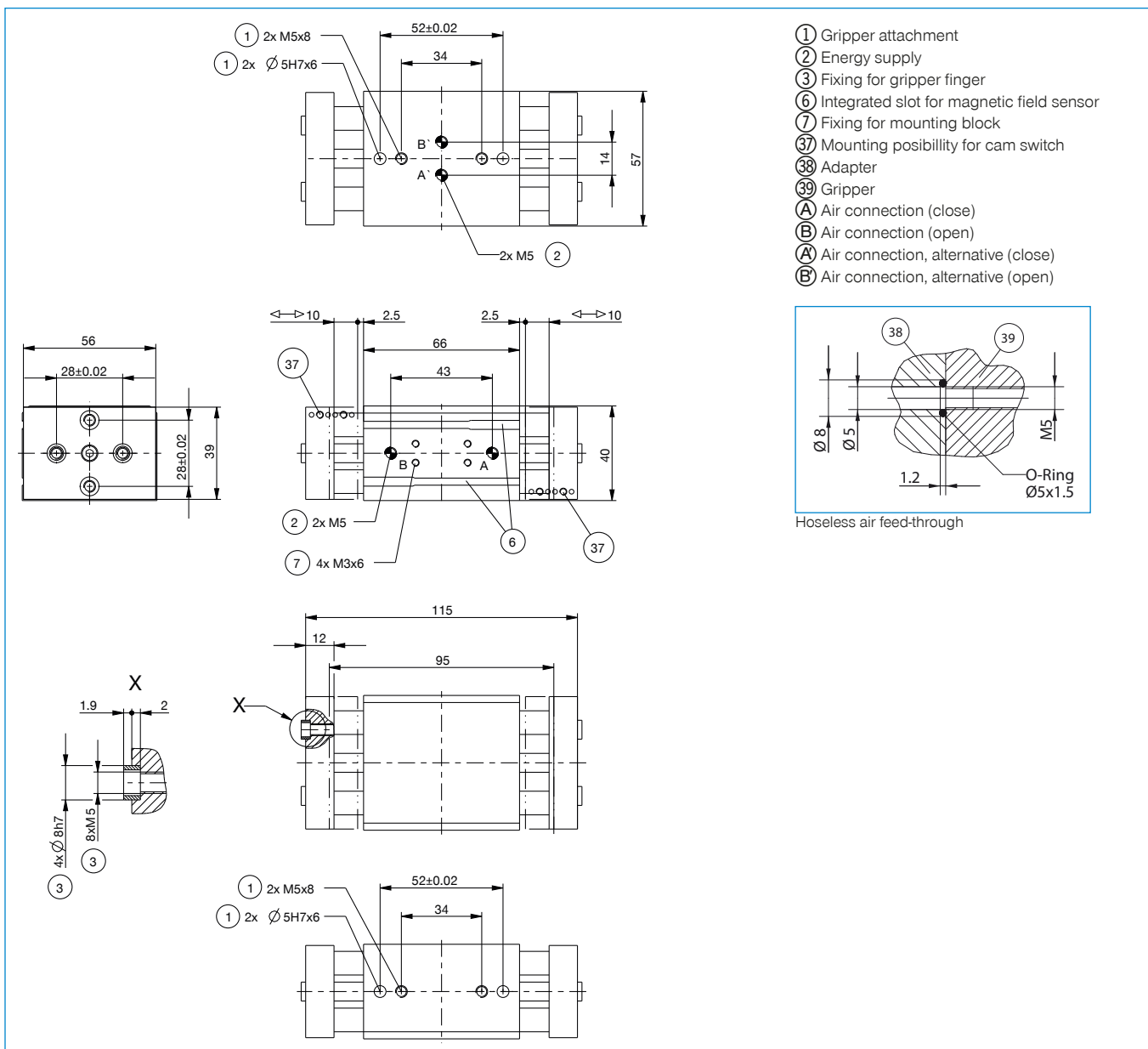


MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8110
Stroke per jaw [mm]	10
Gripping force in closing [N]	180
Gripping force in opening [N]	220
Closing time [s]	0.08
Opening time [s]	0.04
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	9.2
Protection to IEC 60529	IP54
Weight [kg]	0.7



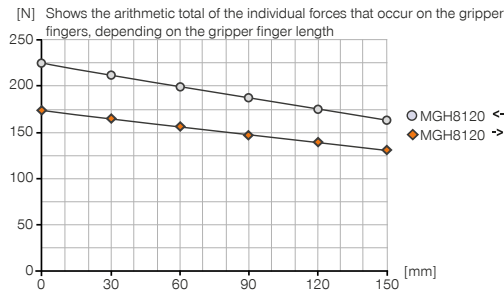
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8120

▶ PRODUCT SPECIFICATIONS

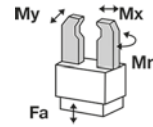


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	20
Mx [Nm]	20
My [Nm]	18
Fa [N]	435

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40800

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0021
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

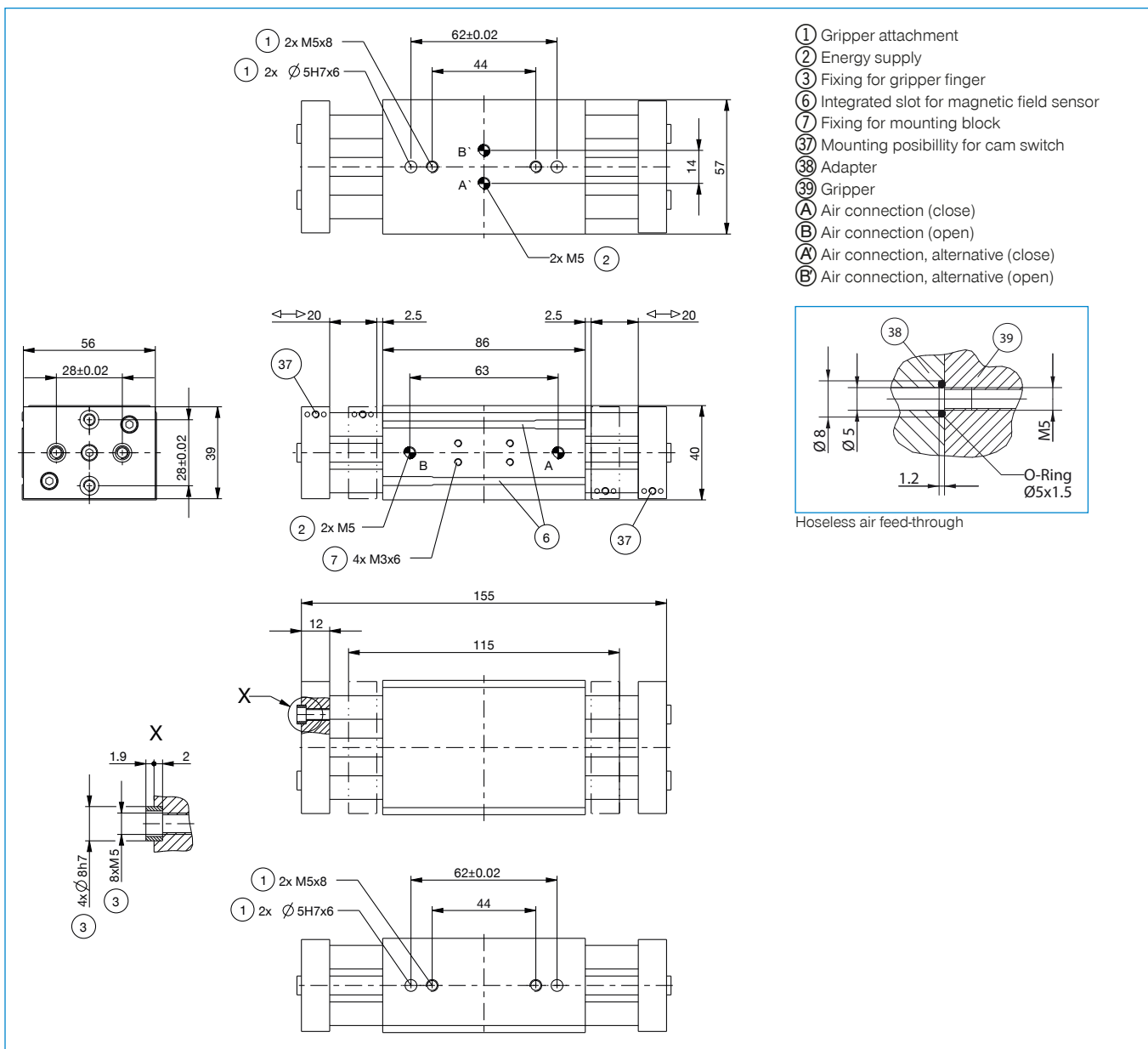


MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8120
Stroke per jaw [mm]	20
Gripping force in closing [N]	190
Gripping force in opening [N]	220
Closing time [s]	0.1
Opening time [s]	0.06
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	18
Protection to IEC 60529	IP54
Weight [kg]	0.85



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8230

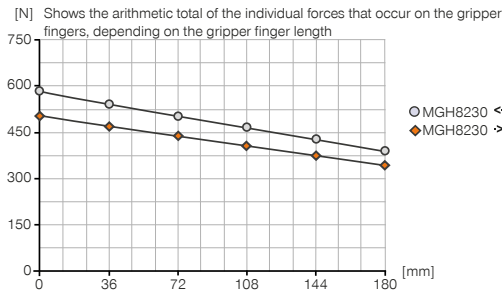
1

Installation size MGH8230 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

▶ PRODUCT SPECIFICATIONS

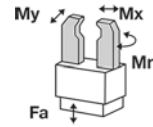


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	64
Mx [Nm]	64
My [Nm]	45
Fa [N]	760

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41000

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0022
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

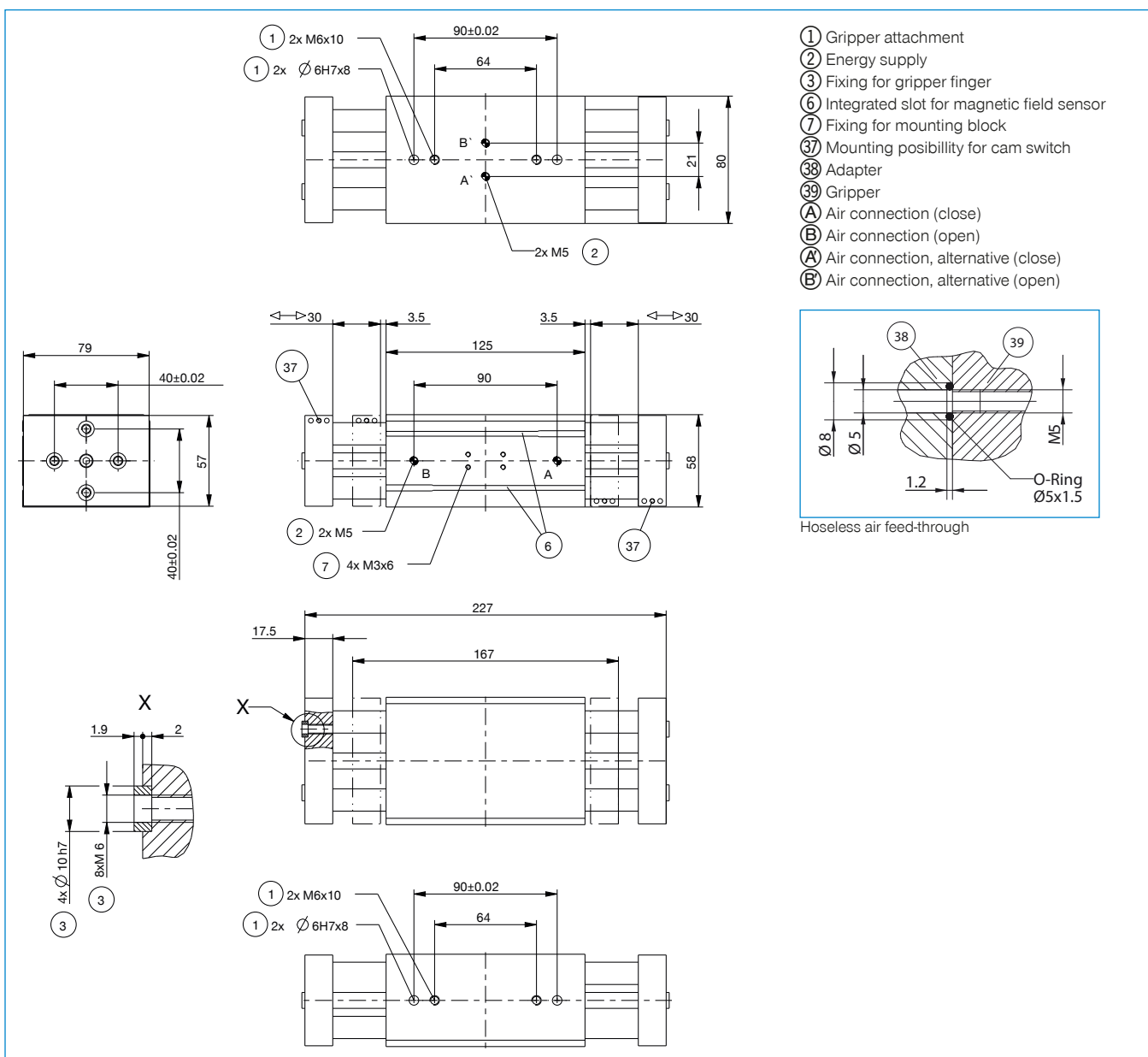


MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8230
Stroke per jaw [mm]	30
Gripping force in closing [N]	500
Gripping force in opening [N]	570
Closing time [s]	0.14
Opening time [s]	0.1
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	64
Protection to IEC 60529	IP54
Weight [kg]	2.4



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8240

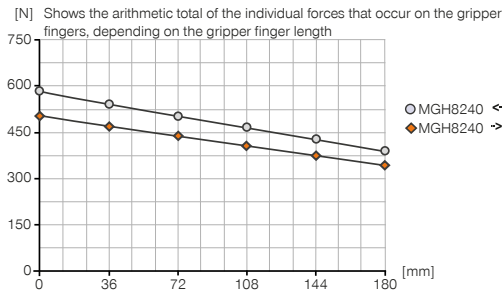
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Installation size MGH8240 / 2-Jaw Parallel Grippers with Long Stroke / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

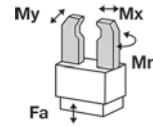


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	64
Mx [Nm]	64
My [Nm]	45
Fa [N]	760

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41000

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0023
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



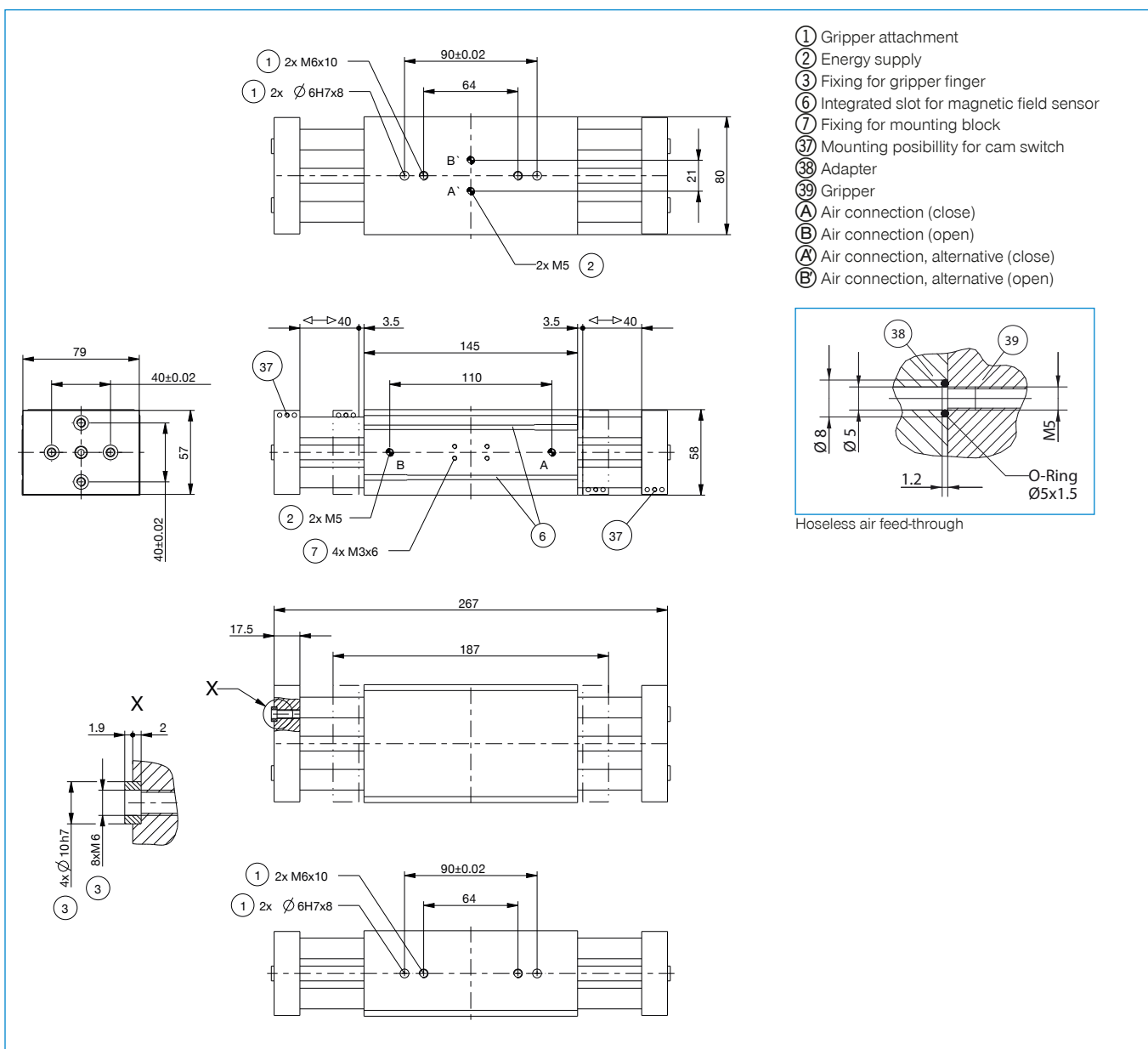
MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8240
Stroke per jaw [mm]	40
Gripping force in closing [N]	500
Gripping force in opening [N]	570
Closing time [s]	0.18
Opening time [s]	0.14
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	128
Protection to IEC 60529	IP54
Weight [kg]	2.9

► Technical data



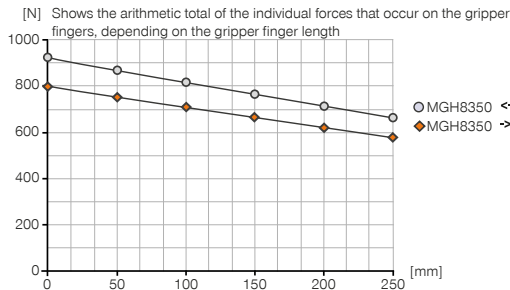
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8350

▶ PRODUCT SPECIFICATIONS

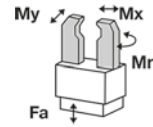


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0024
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



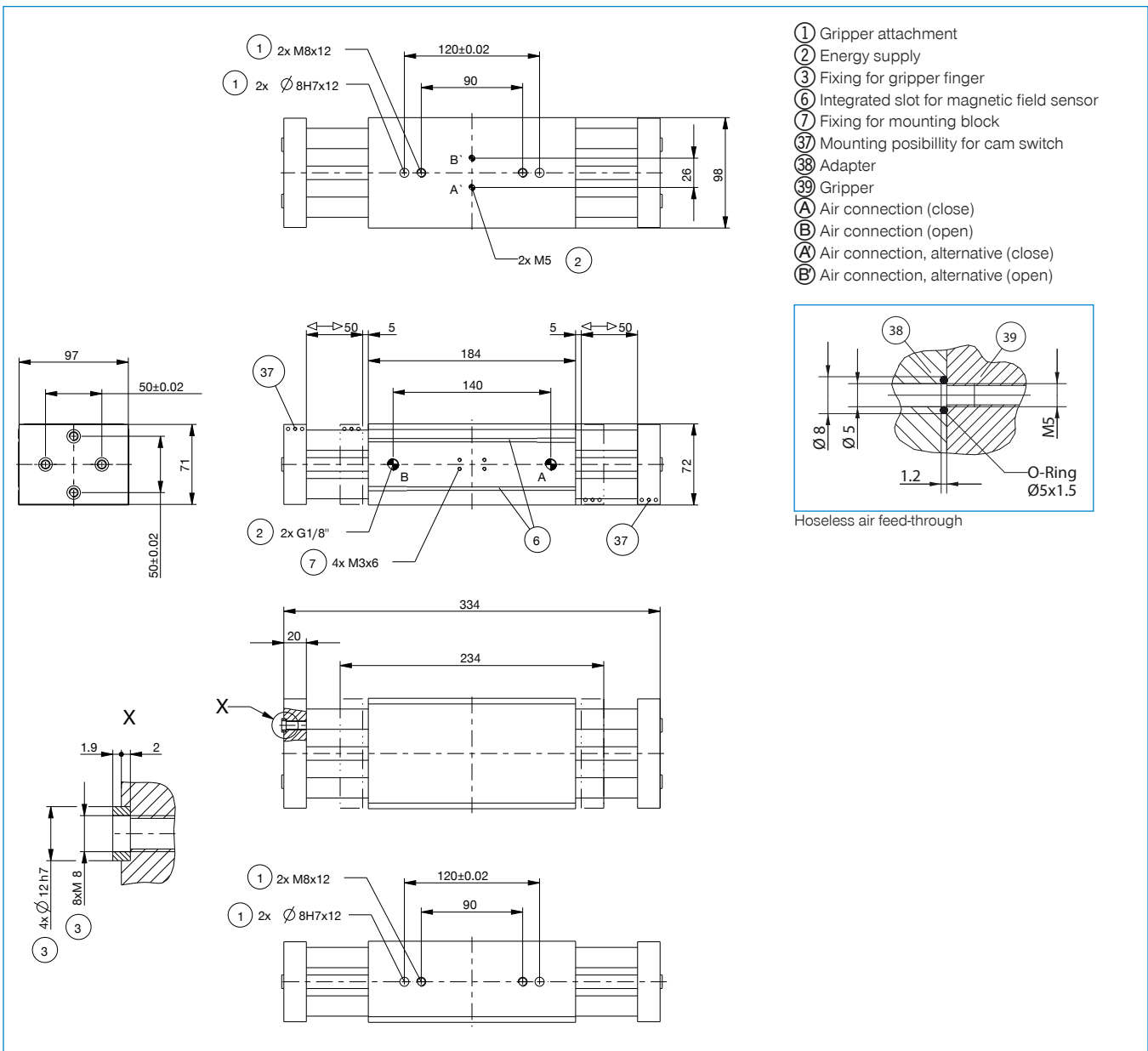
MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



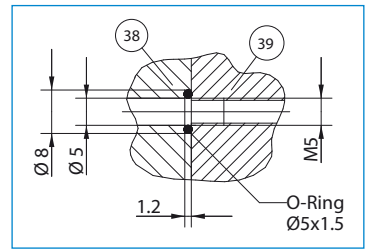
KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8350
Stroke per jaw [mm]	50
Gripping force in closing [N]	800
Gripping force in opening [N]	910
Closing time [s]	0.3
Opening time [s]	0.25
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	170
Protection to IEC 60529	IP54
Weight [kg]	5.1

► Technical data



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑦ Mounting possibility for cam switch
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8375

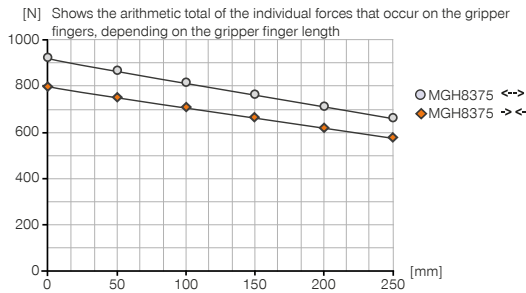
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Installation size MGH8375 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

▶ PRODUCT SPECIFICATIONS

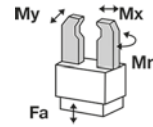


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0025
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



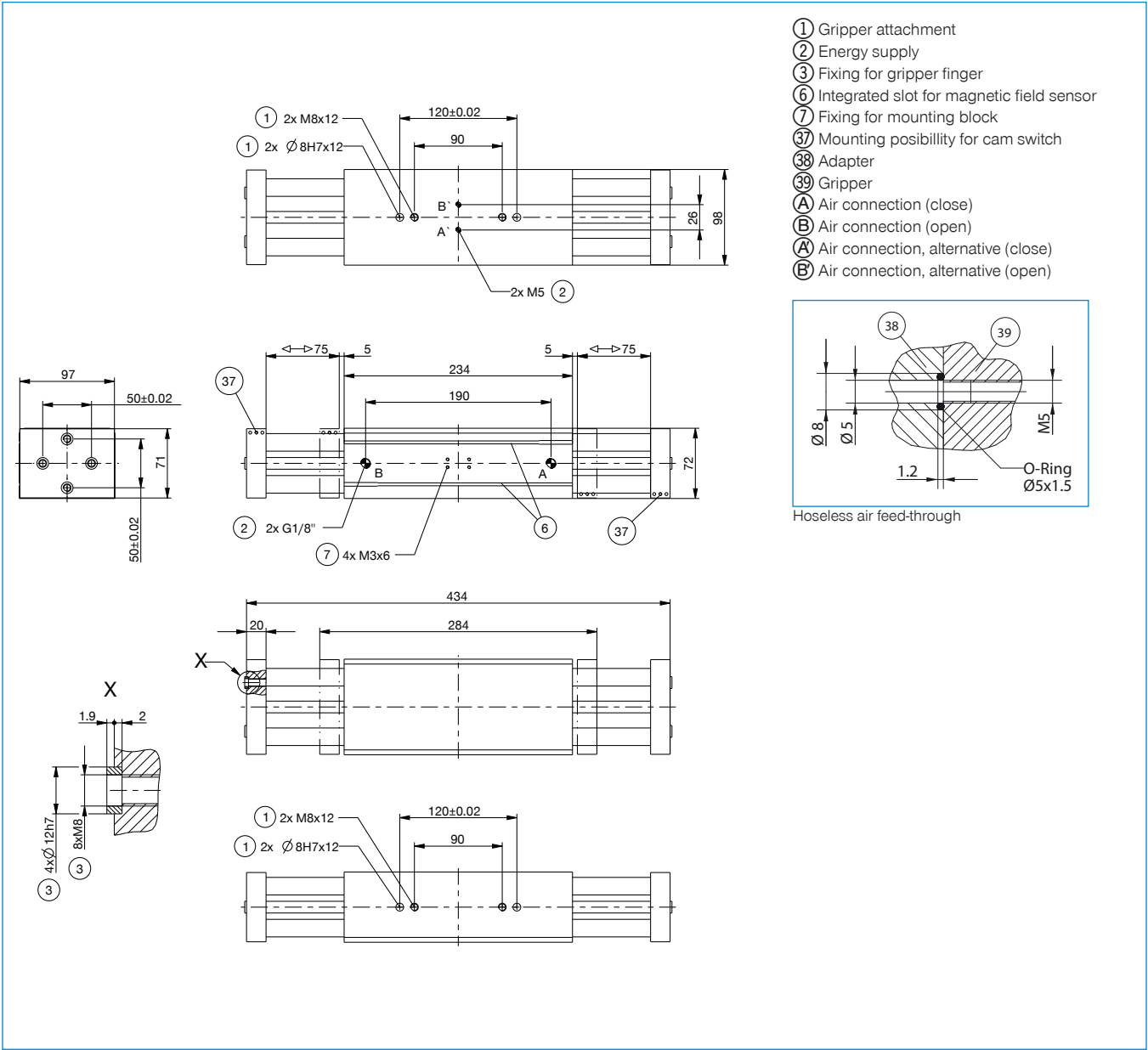
MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8375
Stroke per jaw [mm]	75
Gripping force in closing [N]	800
Gripping force in opening [N]	910
Closing time [s]	0.4
Opening time [s]	0.35
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	255
Protection to IEC 60529	IP54
Weight [kg]	6.2

► Technical data



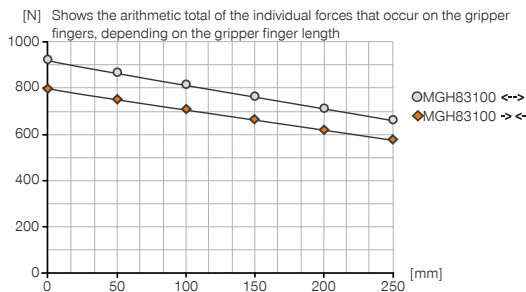
2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE MGH83100

1

▶ PRODUCT SPECIFICATIONS

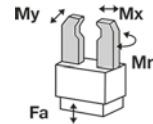


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



ANS0026
Attachment Kit for Inductive Proximity Switch



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m

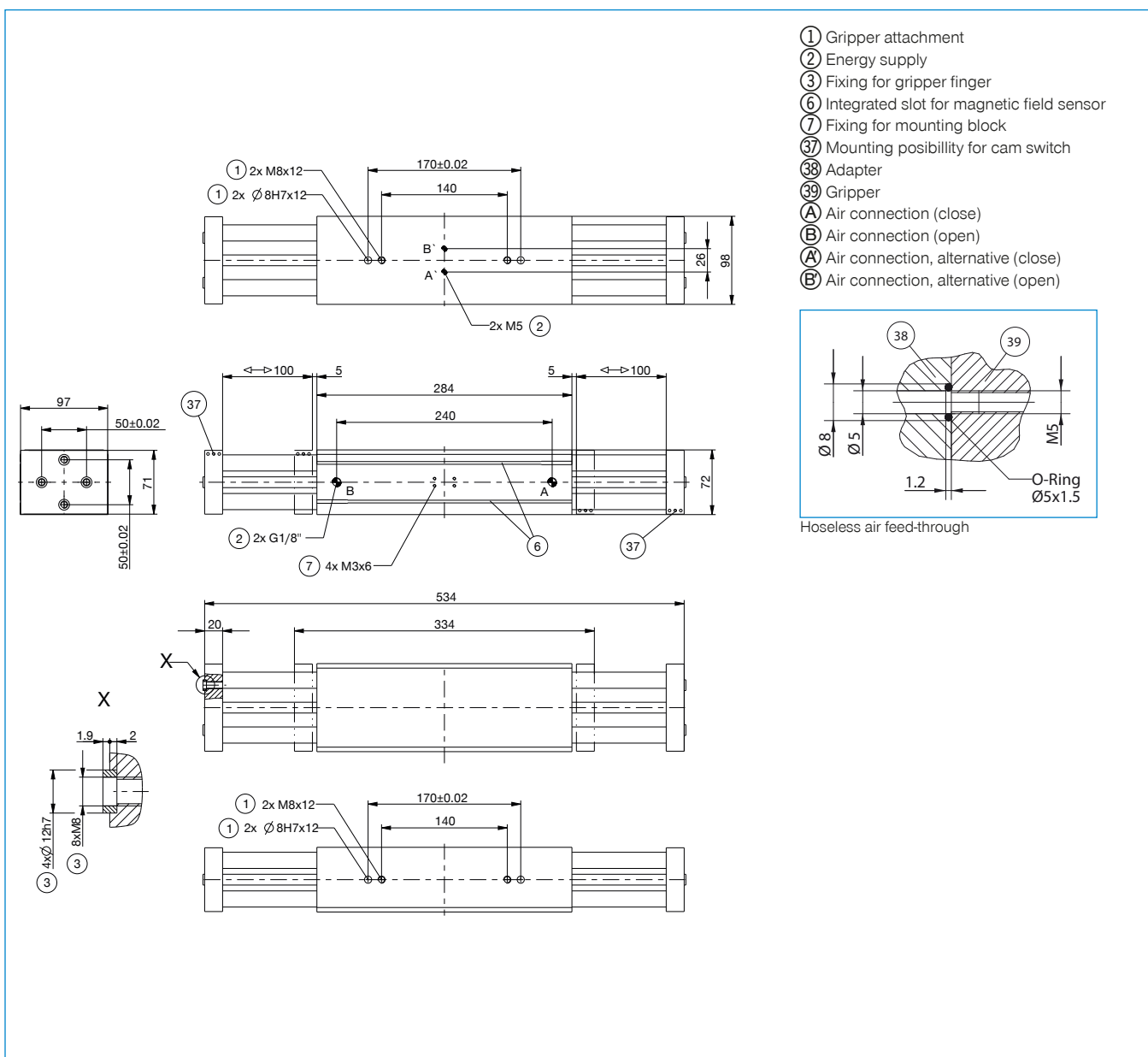


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH83100
Stroke per jaw [mm]	100
Gripping force in closing [N]	800
Gripping force in opening [N]	910
Closing time [s]	0.5
Opening time [s]	0.4
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	340
Protection to IEC 60529	IP54
Weight [kg]	7.3

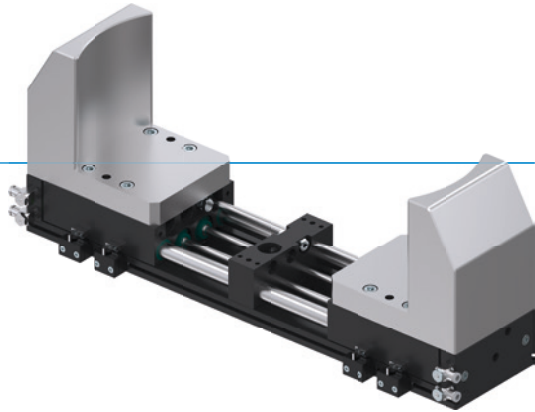
► Technical data

MGH83100



2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES GPH8000







▶ PRODUCT ADVANTAGES



“The powerful”

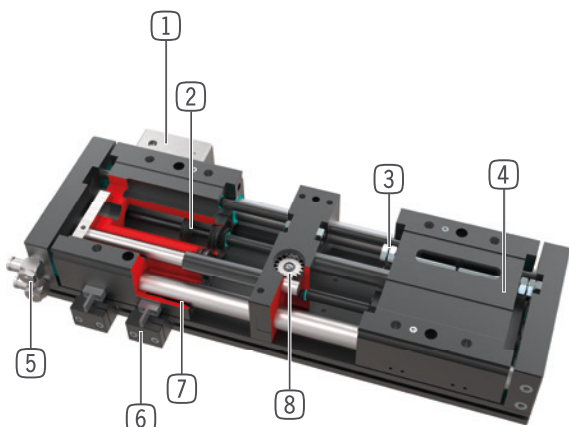
- ▶ **Extremely long and heavy gripper fingers possible**
Despite their flat structural design, one of the features of the gripper fingers is that there are virtually no limitations where it comes to loading the machine with engine blocks or rims.
- ▶ **Synchronous, asynchronous and securing the work-piece**
Select between synchronous or asynchronous gripper finger movement and increase process safety by using the integrated clamping element to secure the workpiece in the event of a drop in pressure
- ▶ **Dirt protection**
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

▶ SERIES CHARACTERISTICS

Installation size	Version			
	GPH8XXX	N-00	CL-00	CL-30
 Gripper jaws are synchronized	●	●		
 Position maintenance by means of clamping element			●	●
 5 million maintenance-free cycles (max.)	●	●	●	●
 Inductive sensor	●	●	●	●
 Protected against corrosion	●	●	●	●
 IP 54	●	●	●	●



BENEFITS IN DETAIL



- ① **Clamping element**
 - Workpiece secured in the event of a drop in pressure
- ② **Drive**
 - two double-acting pneumatic cylinders
- ③ **Stroke adjustment**
 - possible on both sides via stroke adjustment screws
- ④ **Gripper jaw**
 - individual gripper finger mounting
- ⑤ **Energy supply**
 - possible from several sides
 - CAUTION: always operate long stroke gripper with supplied exhaust air flow control valve (speed regulation)
- ⑥ **Mounting block**
 - mounting for inductive proximity switch
- ⑦ **Roller slide**
 - sealed round guide for harsh environmental conditions
 - Maintenance-free plain bearing bushes
- ⑧ **Synchronization**
 - By means of gear and rack
 - Encapsulated and protected against dirt
 - Also available as an asynchronous variant

TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GPH8200	60 - 100	900	5,7 - 8,3	IP54
GPH8300	62,5 - 150	2000	15,2 - 21,4	IP54
GPH8400	80 - 220	3300	33,9 - 51	IP54

FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

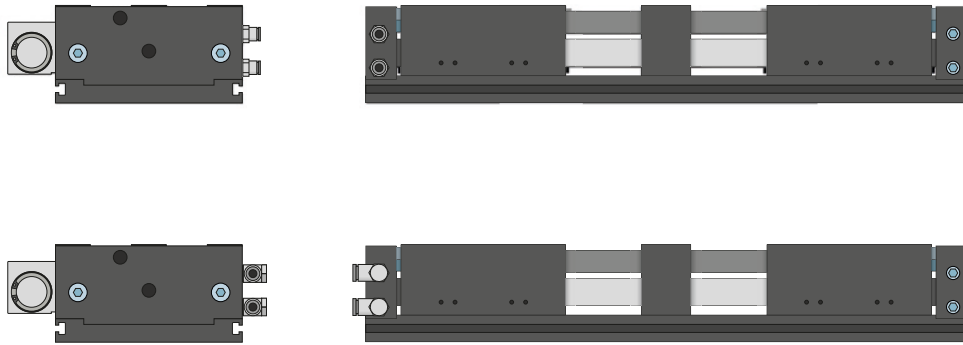
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES GPH8000 FUNCTIONAL DESCRIPTION

1



ENERGY SUPPLY

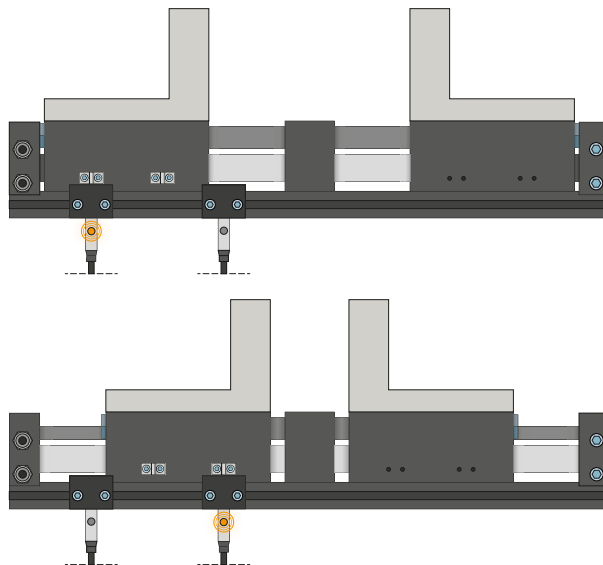


Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



SENSORS

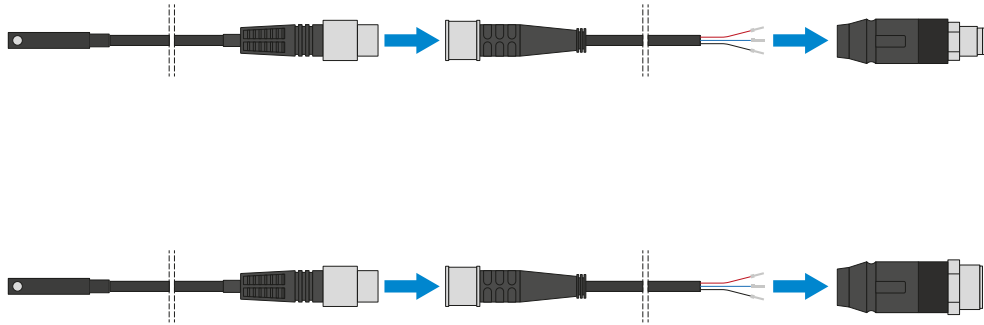


Inductive sensors – NJ

The mounting block is aligned to the cam switch, and the sensor is guided into the mounting block until the required switching distance to the cam switch is reached. Fine adjustment can be made by moving the mounting block again. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



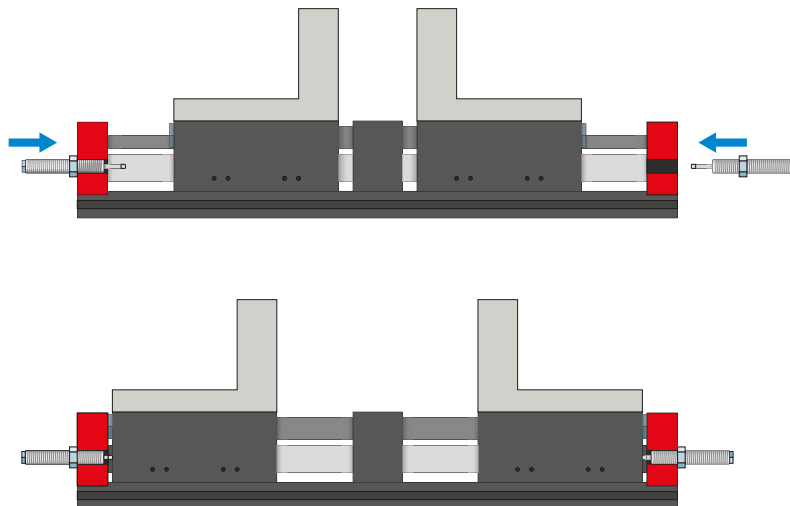
CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



PowerStop shock absorber

For soft absorption of kinetic energy

The shock absorbers are used primarily in fast, unthrottled jaw movements. They are equally suitable for long gripper fingers, high jaw mass and for cycle time optimization. The energy is absorbed by means of a hydraulic industrial shock absorber.

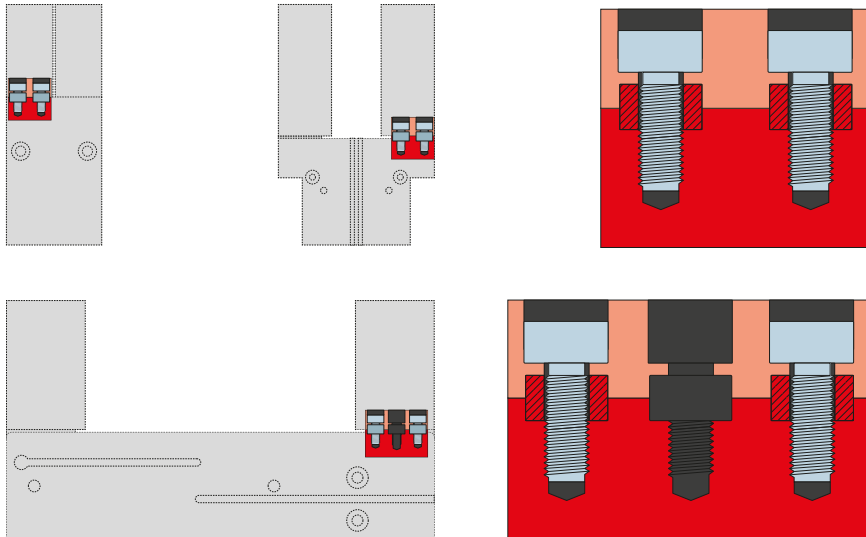
2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES GPH8000 FUNCTIONAL DESCRIPTION

1

Series GPH8000 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

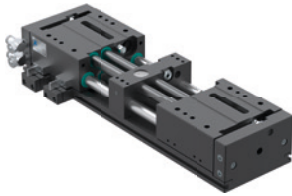
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH82060

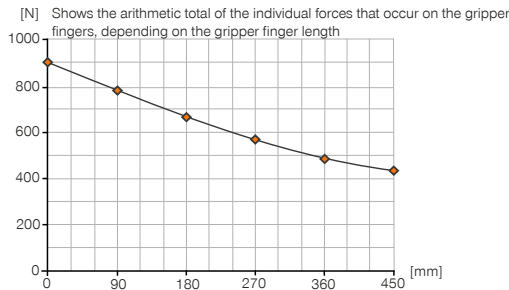
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Installation size GPH82060 / 2-Jaw Parallel Grippers with Long Stroke / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

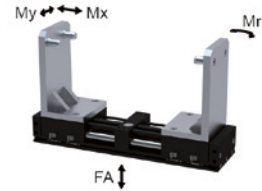


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	400
Mx [Nm]	400
My [Nm]	400
Fa [N]	8000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000002



2 [piece]
Centering Disc
DST41000



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000002



2 [piece]
Centering Disc
DST41000



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



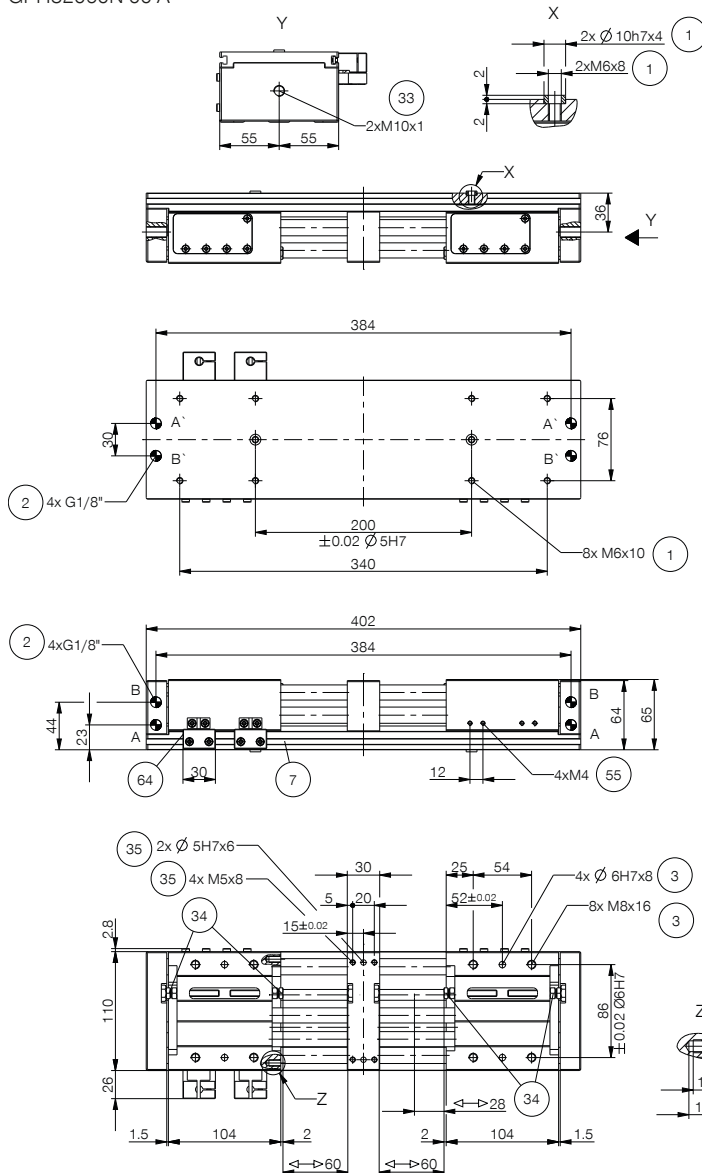
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE10X10NHDD-A
Shock Absorbers

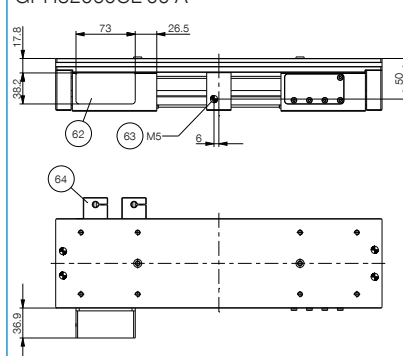
Order no.	Technical data		
	GPH82060N-00-A	GPH82060CL-00-A	GPH82060CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		1050	1050
Stroke per jaw [mm]	60	60	60
Gripping force in closing / opening [N]	900 / 900	900 / 900	900 / 900
Closing time [s]	0.3	0.3	0.3
Opening time [s]	0.3	0.3	0.3
Dead weight of mounted gripper finger max. [kg]	13	13	13
Length of the gripper fingers max. [mm]	450	450	450
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm ³]	220	220	220
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	5.7	6.4	6.85

GPH82060N-00-A

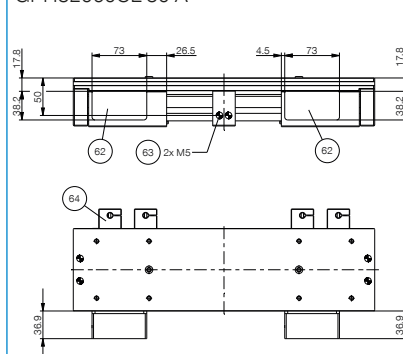


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH82060CL-00-A

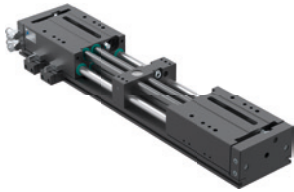


GPH82060CL-30-A

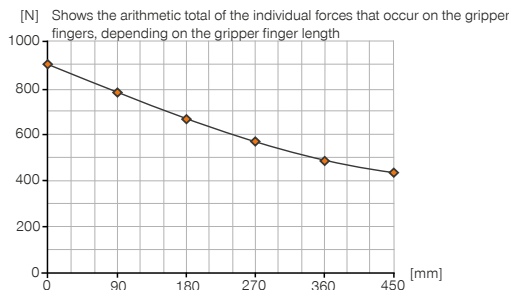


2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE GPH82100

▶ PRODUCT SPECIFICATIONS

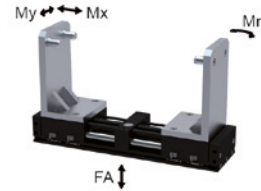


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	400
Mx [Nm]	400
My [Nm]	400
Fa [N]	8000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000002



2 [piece]
Centering Disc
DST41000



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000002



2 [piece]
Centering Disc
DST41000



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



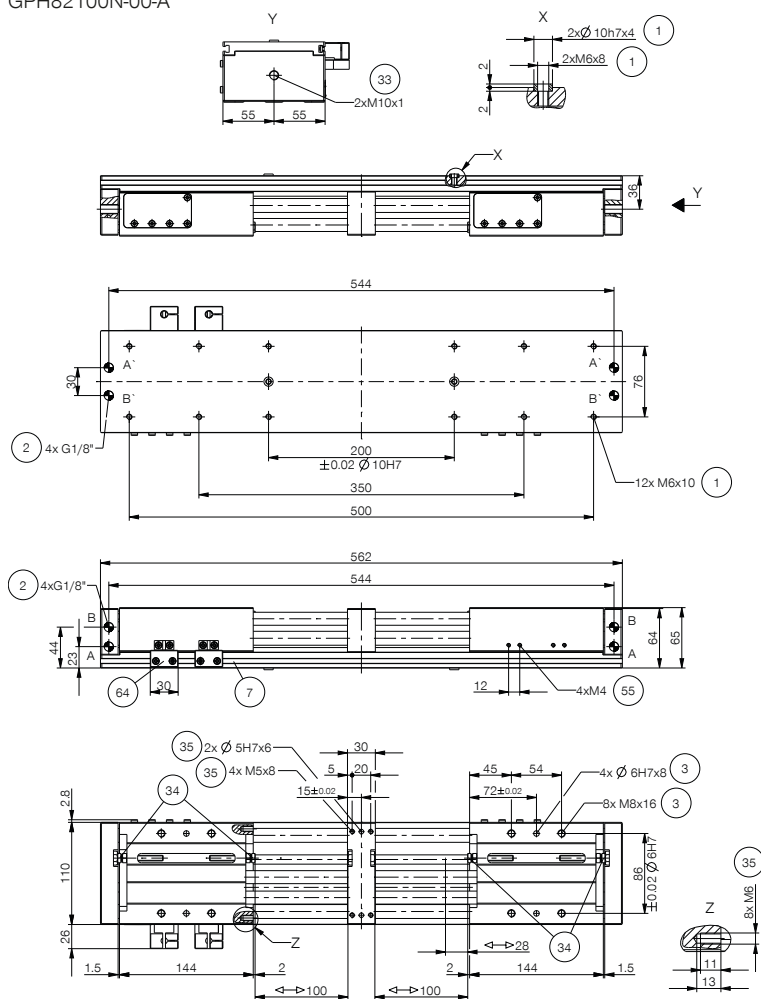
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE10X10NHDD-A
Shock Absorbers

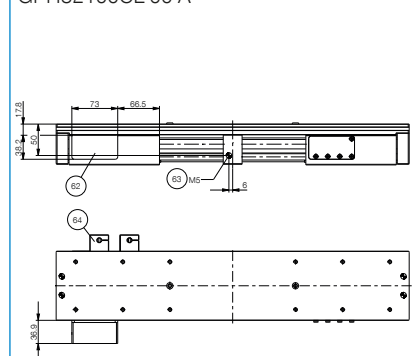
Order no.	Technical data		
	GPH82100N-00-A	GPH82100CL-00-A	GPH82100CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		1050	1050
Stroke per jaw [mm]	100	100	100
Gripping force in closing / opening [N]	900 / 900	900 / 900	900 / 900
Closing time [s]	0.5	0.5	0.5
Opening time [s]	0.5	0.5	0.5
Dead weight of mounted gripper finger max. [kg]	13	13	13
Length of the gripper fingers max. [mm]	450	450	450
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm ³]	360	360	360
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	7.3	8.1	8.3

GPH82100N-00-A

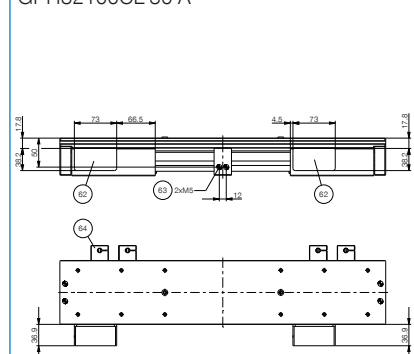


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- A Air connection (close)
- B Air connection (open)
- A' Air connection, alternative (close)
- B' Air connection, alternative (open)

GPH82100CL-00-A



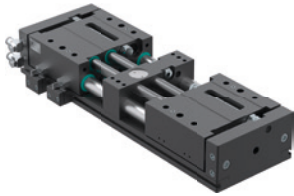
GPH82100CL-30-A



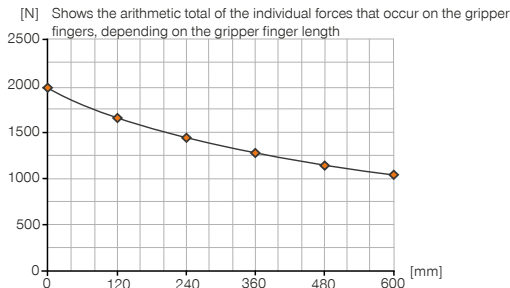
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83063

▶ PRODUCT SPECIFICATIONS

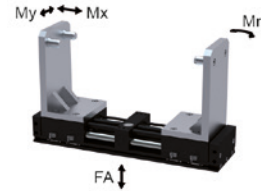


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



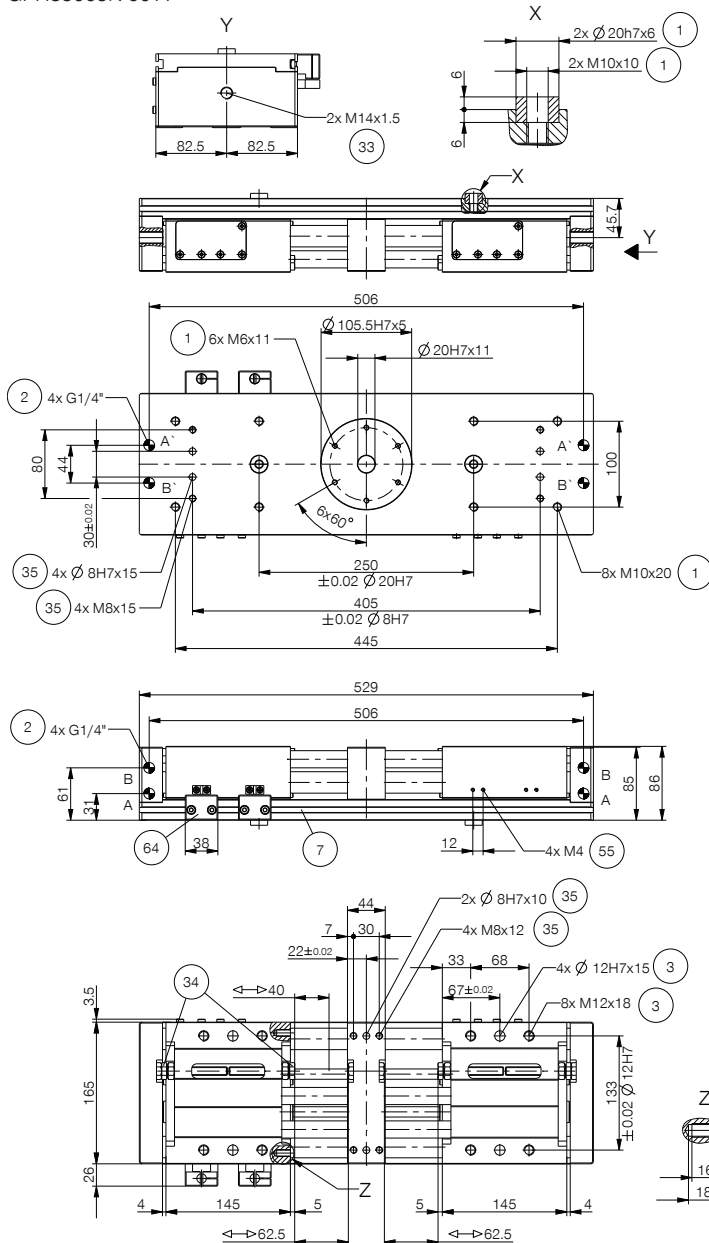
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE14X15NHDD-A
Shock Absorbers

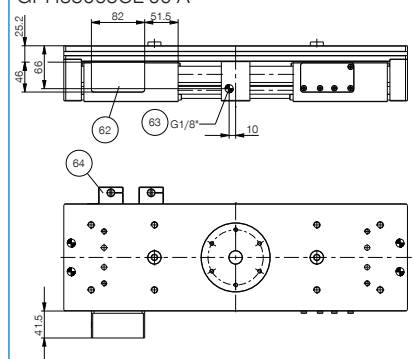
Order no.	▶ Technical data		
	GPH83063N-00-A	GPH83063CL-00-A	GPH83063CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	62.5	62.5	62.5
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.32	0.32	0.32
Opening time [s]	0.32	0.32	0.32
Dead weight of mounted gripper finger max. [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	586	586	586
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	15.2	16.1	16.3

GPH83063N-00-A

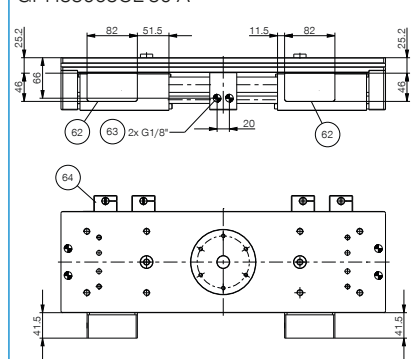


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH83063CL-00-A



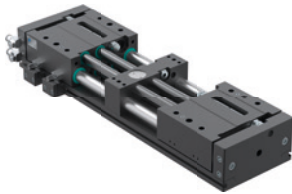
GPH83063CL-30-A



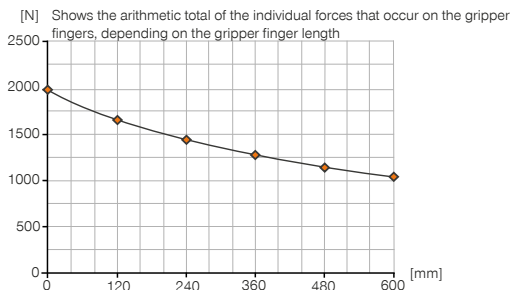
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83100

▶ PRODUCT SPECIFICATIONS

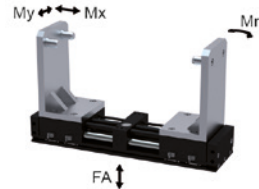


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



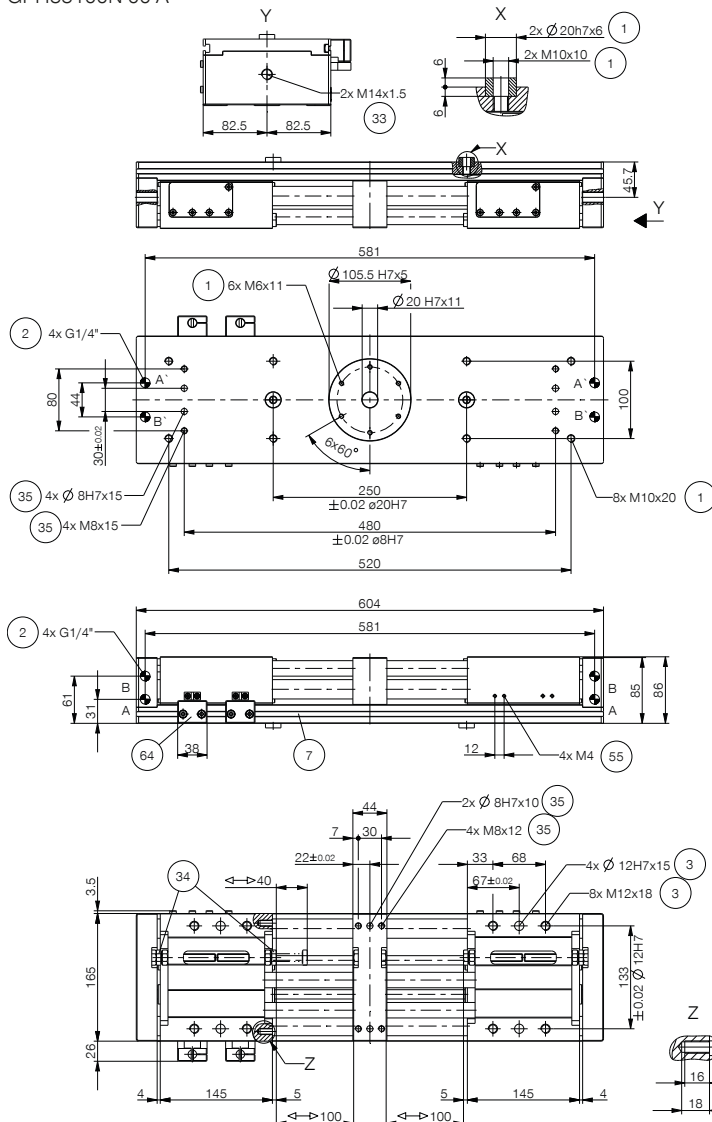
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE14X15NHDD-A
Shock Absorbers

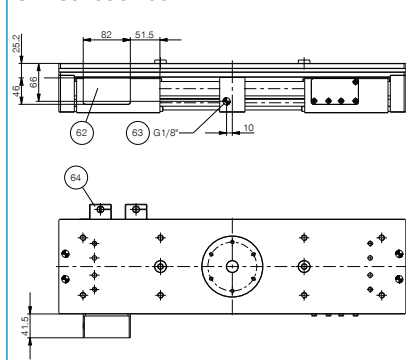
Order no.	Technical data		
	GPH83100N-00-A	GPH83100CL-00-A	GPH83100CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	100	100	100
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.5	0.5	0.5
Opening time [s]	0.5	0.5	0.5
Dead weight of mounted gripper finger max. [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	714	714	714
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	16.1	17.1	17.1

GPH83100N-00-A

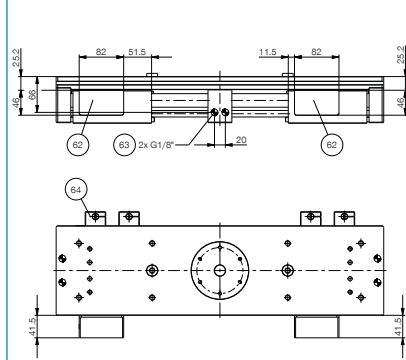


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH83100CL-00-A

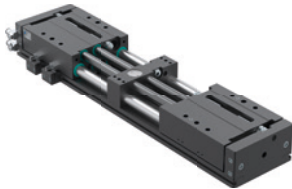


GPH83100CL-30-A

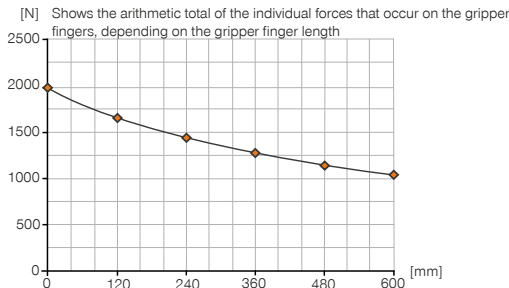


2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE GPH83125

▶ PRODUCT SPECIFICATIONS

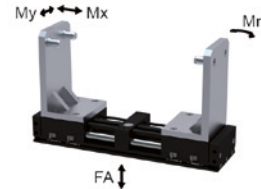


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



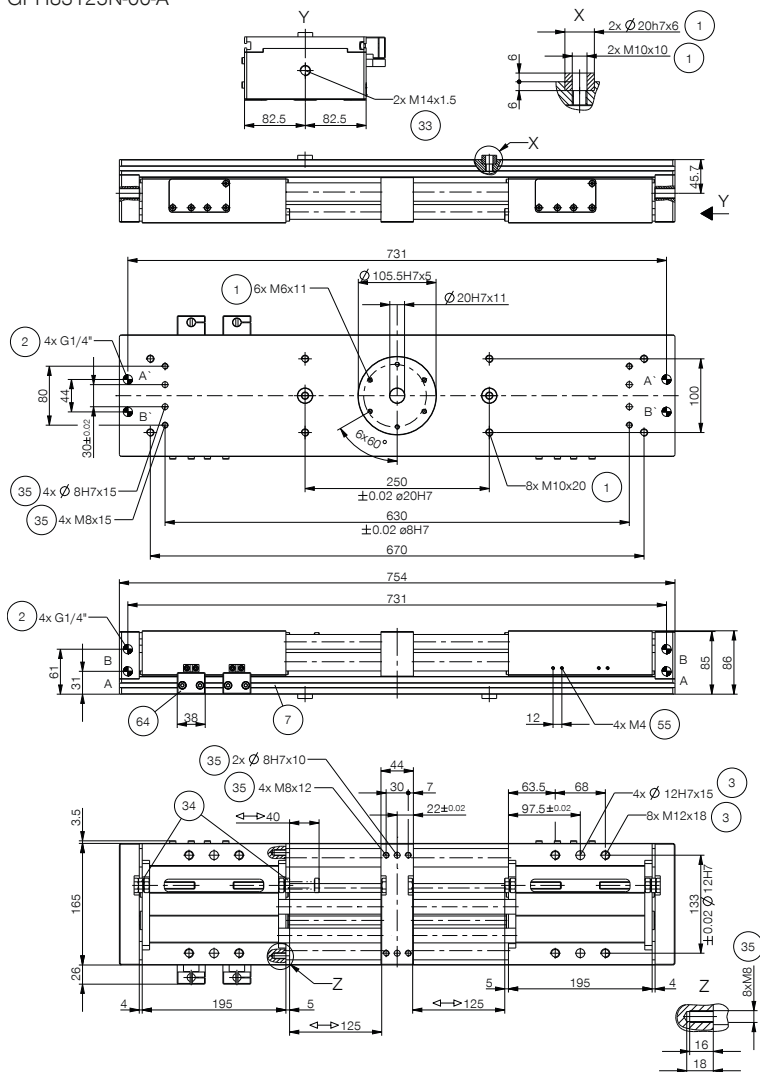
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE14X15NHDD-A
Shock Absorbers

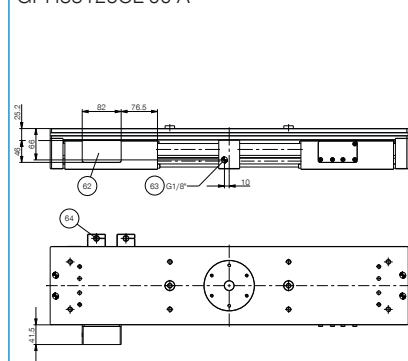
Order no.	► Technical data		
	GPH83125N-00-A	GPH83125CL-00-A	GPH83125CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	125	125	125
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.625	0.625	0.625 </td
Opening time [s]	0.625	0.625	0.625
Dead weight of mounted gripper finger max. [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	968	968	968
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	19.7	20.8	20.6

GPH83125N-00-A

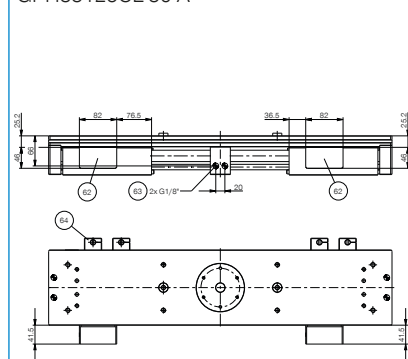


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH83125CL-00-A



GPH83125CL-30-A

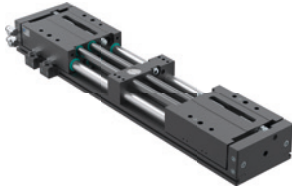


2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE GPH83150

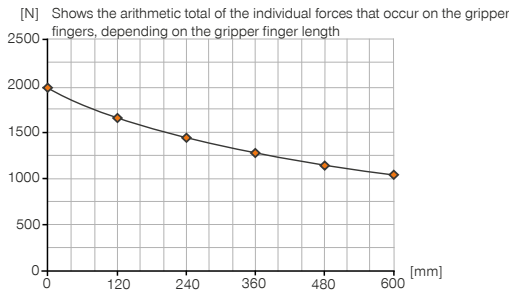
1

Installation size GPH83150 / 2-Jaw Parallel Grippers with Long Stroke / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

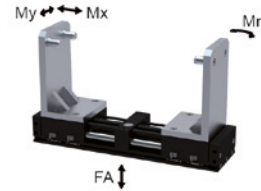


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



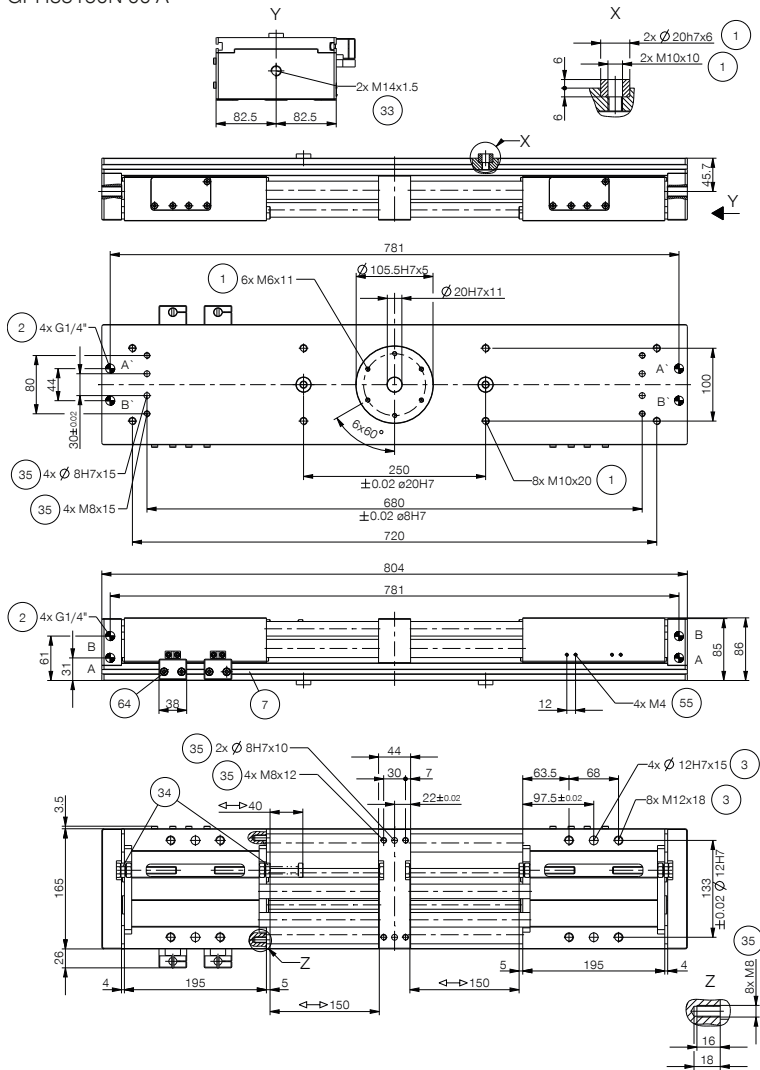
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE14X15NHDD-A
Shock Absorbers

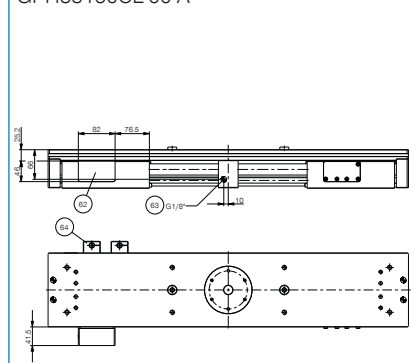
Order no.	Technical data		
	GPH83150N-00-A	GPH83150CL-00-A	GPH83150CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	150	150	150
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.75	0.75	0.75
Opening time [s]	0.75	0.75	0.75
Dead weight of mounted gripper finger max. [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	1053	1053	1053
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	20.4	21.4	21.1

GPH83150N-00-A

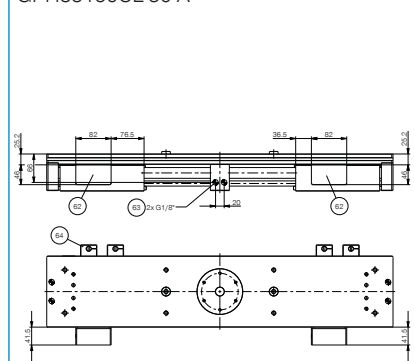


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- A Air connection (close)
- B Air connection (open)
- A' Air connection, alternative (close)
- B' Air connection, alternative (open)

GPH83150CL-00-A



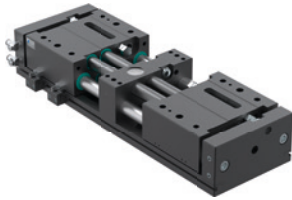
GPH83150CL-30-A



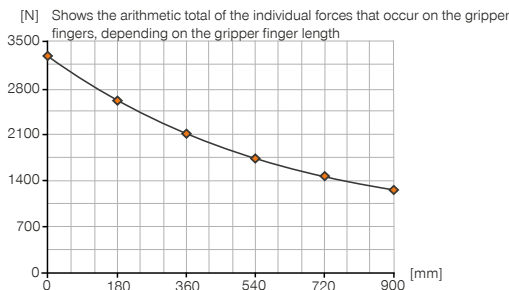
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH84080

▶ PRODUCT SPECIFICATIONS

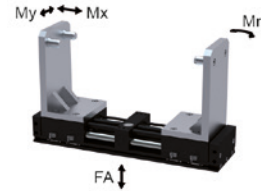


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1500
Mx [Nm]	1500
My [Nm]	1500
Fa [N]	24000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
113663



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
113663



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



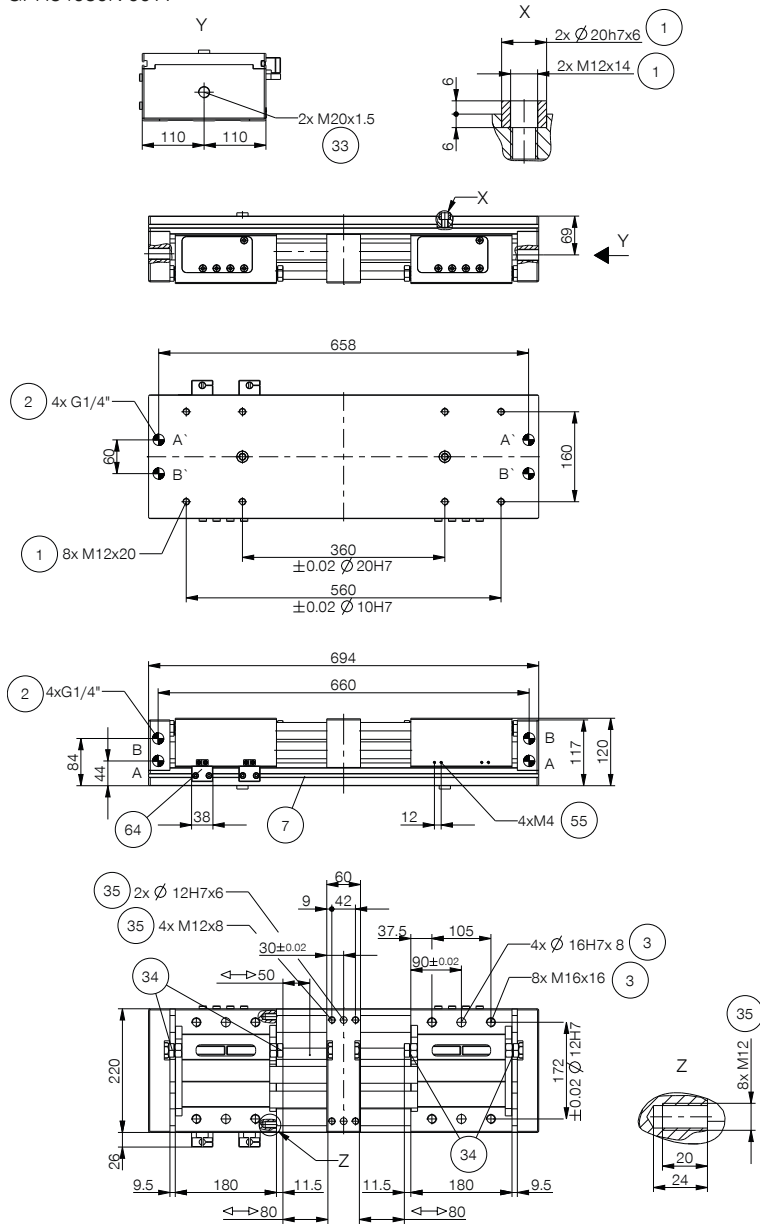
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE20X15NHDD-A
Shock Absorbers

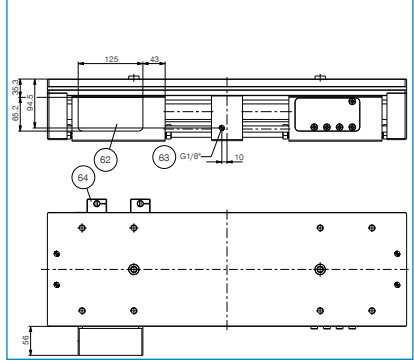
Order no.	▶ Technical data		
	GPH84080N-00-A	GPH84080CL-00-A	GPH84080CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		4000	4000
Stroke per jaw [mm]	80	80	80
Gripping force in closing / opening [N]	3300 / 3300	3300 / 3300	3300 / 3300
Closing time [s]	0.9	0.9	0.9
Opening time [s]	0.9	0.9	0.9
Dead weight of mounted gripper finger max. [kg]	45	45	45
Length of the gripper fingers max. [mm]	900	900	900
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	1215	1215	1215
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	33.9	36.5	36

GPH84080N-00-A

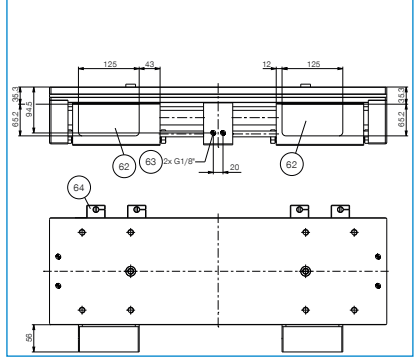


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH84080CL-00-A

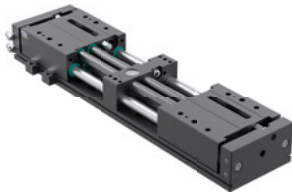


GPH84080CL-30-A

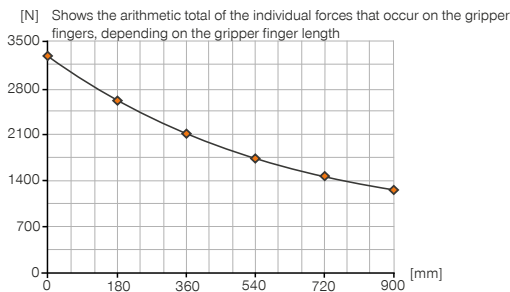


2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE GPH84160

▶ PRODUCT SPECIFICATIONS

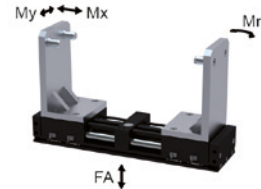


▶ Gripping force diagram





▶ Forces and moments


Displays static forces and moments that can also have an effect, besides the gripping force.





Mr [Nm]	1500
Mx [Nm]	1500
My [Nm]	1500
Fa [N]	24000


▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)

	2 [piece] Mounting block ANS000001
	2 [piece] Flow Control Valves - with Swivel joint DRV1-4X8

	2 [piece] Centering Disc 113663
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▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)

	4 [piece] Mounting block ANS000001
	4 [piece] Flow Control Valves - with Swivel joint DRV1-4X8

	2 [piece] Centering Disc 113663
---	--

▶ RECOMMENDED ACCESSORIES

SENSORS

	NJ12-E2 Inductive proximity switch - Cable 5 m
	NJ12-E2S Inductive proximity switch - Connector M8

CONNECTIONS / OTHER

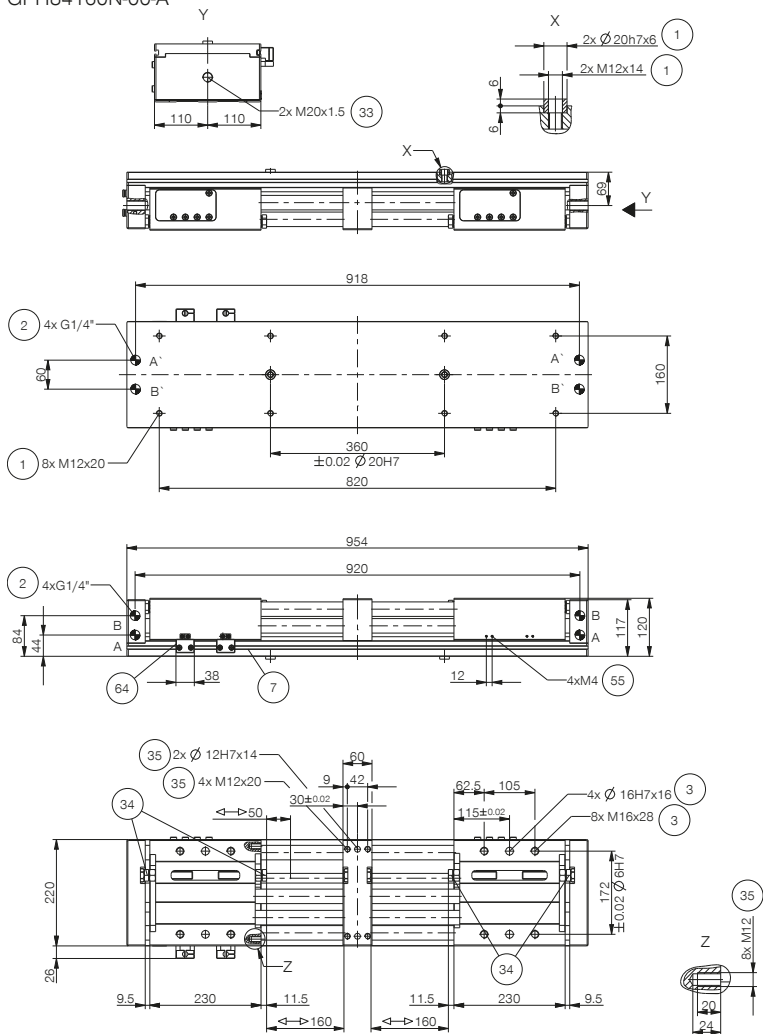
	KAW500 Plug-in connector Angled Cable 5m - Socket M8 (female)
	S8-G-3 Plug-in connector customizable Straight - Connector M8
	S12-G-3 Plug-in connector customizable Straight - Connector M12
	PHE20X15NHDD-A Shock Absorbers

CONNECTIONS / OTHER

	KAG500 Plug-in connector Straight Cable 5m - Socket M8 (female)
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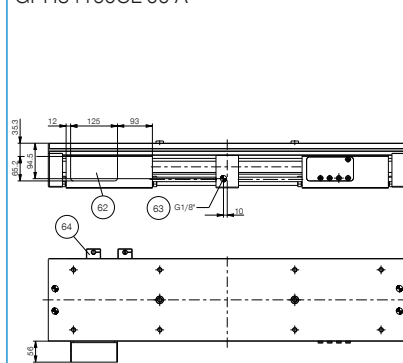
Order no.	▶ Technical data		
	GPH84160N-00-A	GPH84160CL-00-A	GPH84160CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		4000	4000
Stroke per jaw [mm]	160	160	160
Gripping force in closing / opening [N]	3300 / 3300	3300 / 3300	3300 / 3300
Closing time [s]	1.8	1.8	1.8 </td
Opening time [s]	1.8	1.8	1.8
Dead weight of mounted gripper finger max. [kg]	45	45	45
Length of the gripper fingers max. [mm]	900	900	900
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm³]	2390	2390	2390
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	40.7	43.5	43

GPH84160N-00-A

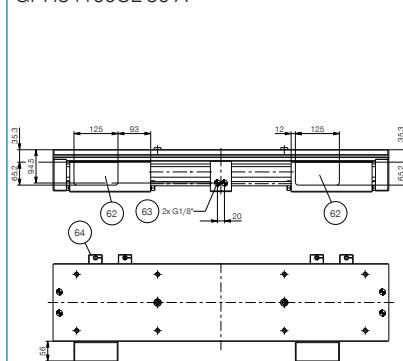


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- A Air connection (close)
- B Air connection (open)
- A Air connection, alternative (close)
- B Air connection, alternative (open)

GPH84160CL-00-A



GPH84160CL-30-A

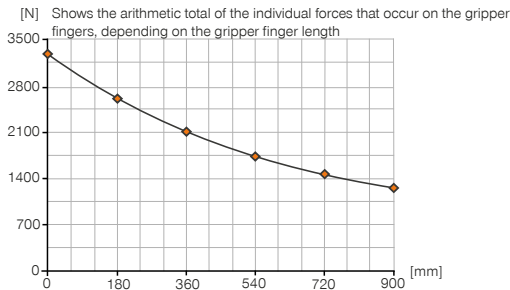


2-JAW PARALLEL GRIPPERS WITH LONG STROKE INSTALLATION SIZE GPH84220

▶ PRODUCT SPECIFICATIONS

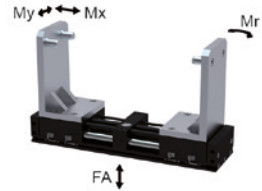


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1500
Mx [Nm]	1500
My [Nm]	1500
Fa [N]	19000

▶ INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
113663



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
113663



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



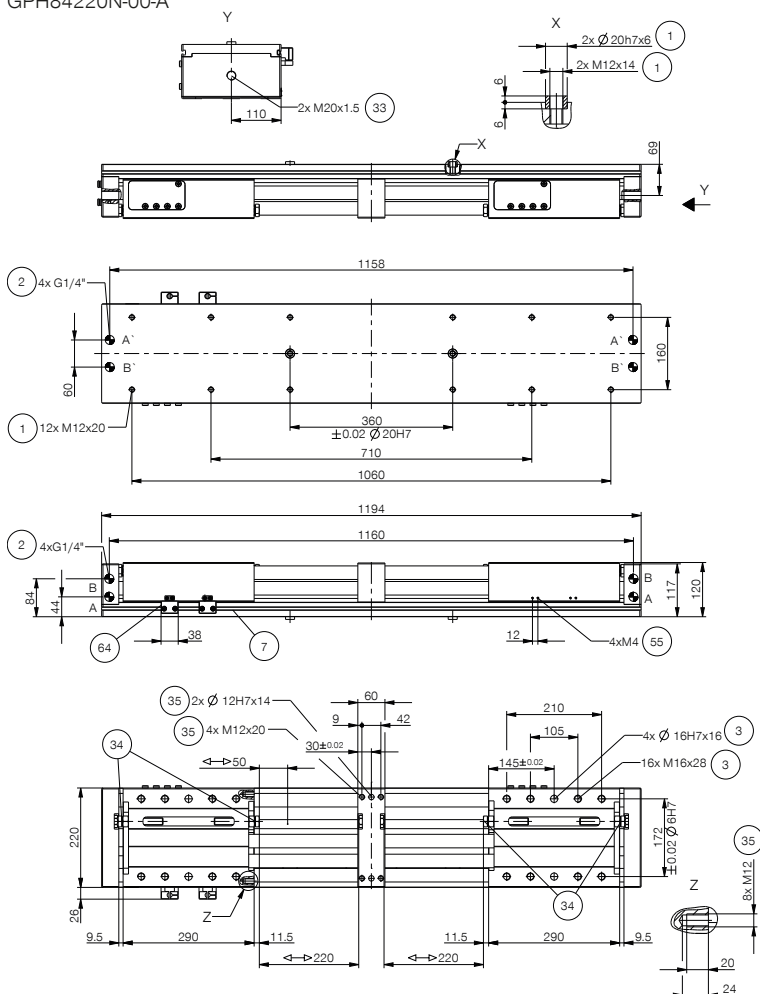
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



PHE20X15NHDD-A
Shock Absorbers

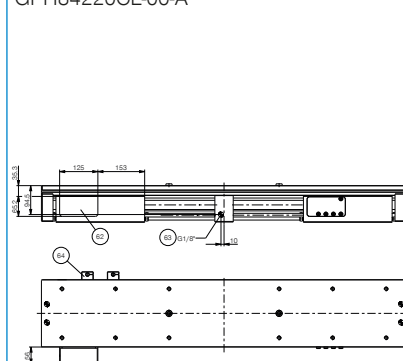
Order no.	▶ Technical data		
	GPH84220N-00-A	GPH84220CL-00-A	GPH84220CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	0	1	2
Holding force per clamping element [N]		4000	4000
Stroke per jaw [mm]	220	220	220
Gripping force in closing / opening [N]	3300 / 3300	3300 / 3300	3300 / 3300
Closing time [s]	2.5	2.5	2.5
Opening time [s]	2.5	2.5	2.5
Dead weight of mounted gripper finger max. [kg]	45	45	45
Length of the gripper fingers max. [mm]	900	900	900
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	+5 ... +80	+5 ... +80	+5 ... +80
Air volume per cycle [cm ³]	3500	3500	3500
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	48	51	50

GPH84220N-00-A

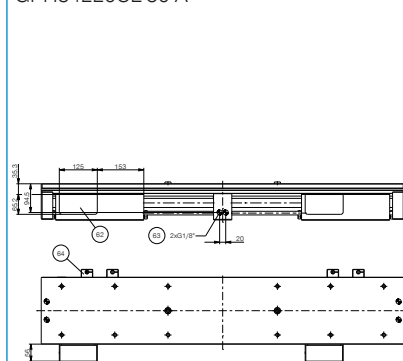


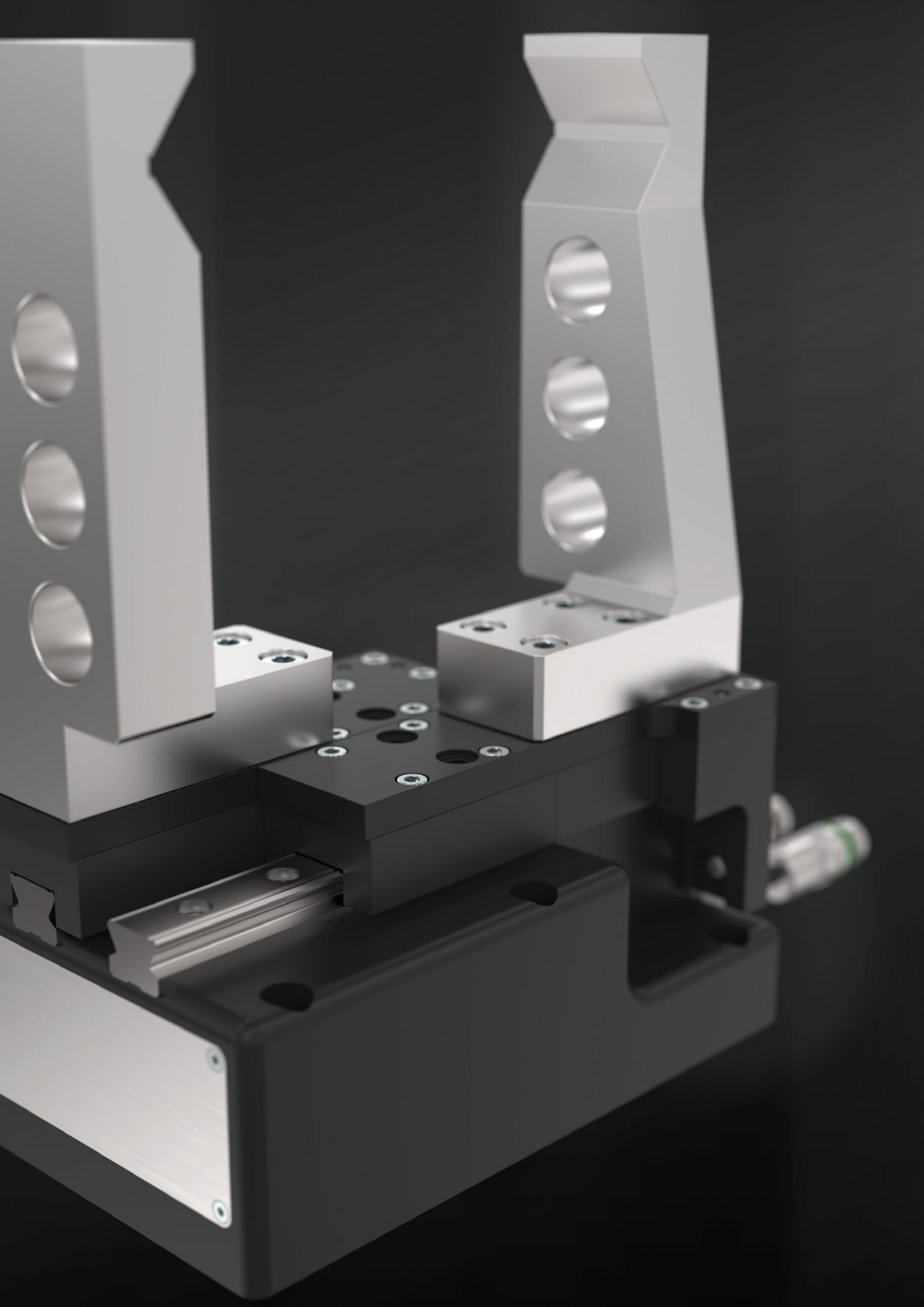
- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH84220CL-00-A



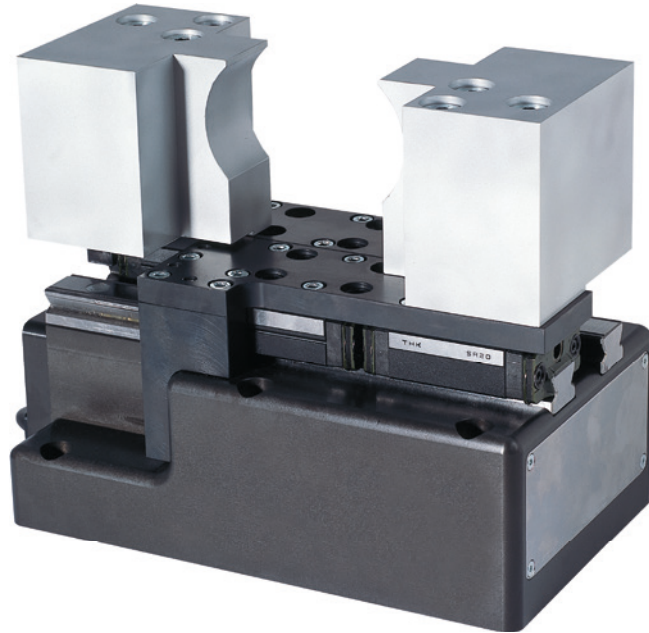
GPH84220CL-30-A





2-JAW PARALLEL GRIPPERS WITH LONG STROKE

OVERVIEW OF SERIES



 ELECTRICAL

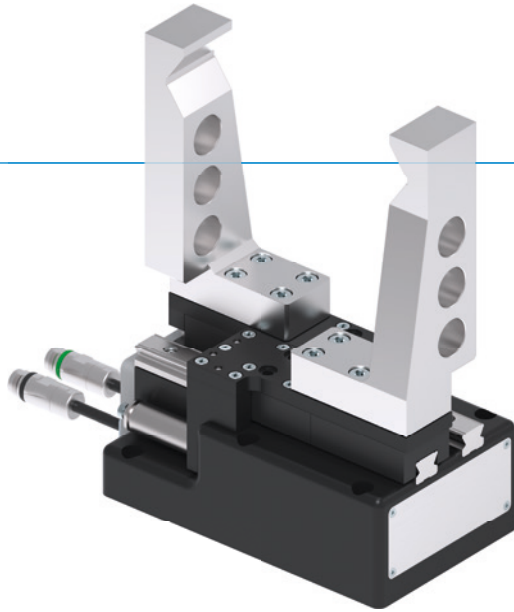


Series GEH8000

130

2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES GEH8000

▶ PRODUCT ADVANTAGES



“The strong”

▶ High gripping force

Using the high gripping force, you can safely handle even the heaviest workpieces

▶ Servo drive

Position, speed and force control in combination with a mechanical self locking mechanism guarantee the highest functionality

▶ Multibus

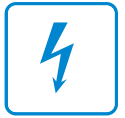
How you stay flexible: PROFIBUS, SERCOS III, PROFINET IO, EtherNet/IP or EtherCat - You decide what harmonises best with your system

▶ SERIES CHARACTERISTICS

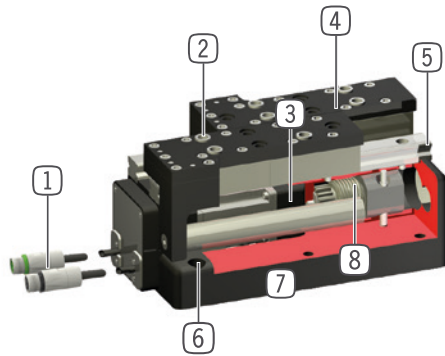
Installation size

GEH86XX-B

 PB Profibus	●
 PN Profinet, EtherCat, EtherNet/IP, Sercos	●
 10 million maintenance-free cycles (max.)	●
 Integrated sensing	●
 Self locking mechanism	●
 IP 54	●



► BENEFITS IN DETAIL



- 1 Energy supply**
 - motor cable, male
 - encoder cable, female
- 2 Removable centering sleeves**
 - quick and economical positioning of the gripper fingers
- 3 Drive**
 - AC servo motor
- 4 Gripper jaw**
 - hardened steel
 - individual gripper finger mounting
- 5 Precise linear guide**
 - high forces and moments capacity
 - guide wagon with wiper for harsh environments
- 6 Mounting and positioning**
- 7 Robust, lightweight housing**
 - Hard-coated aluminum alloy
- 8 Synchronization**
 - via rack and pinion

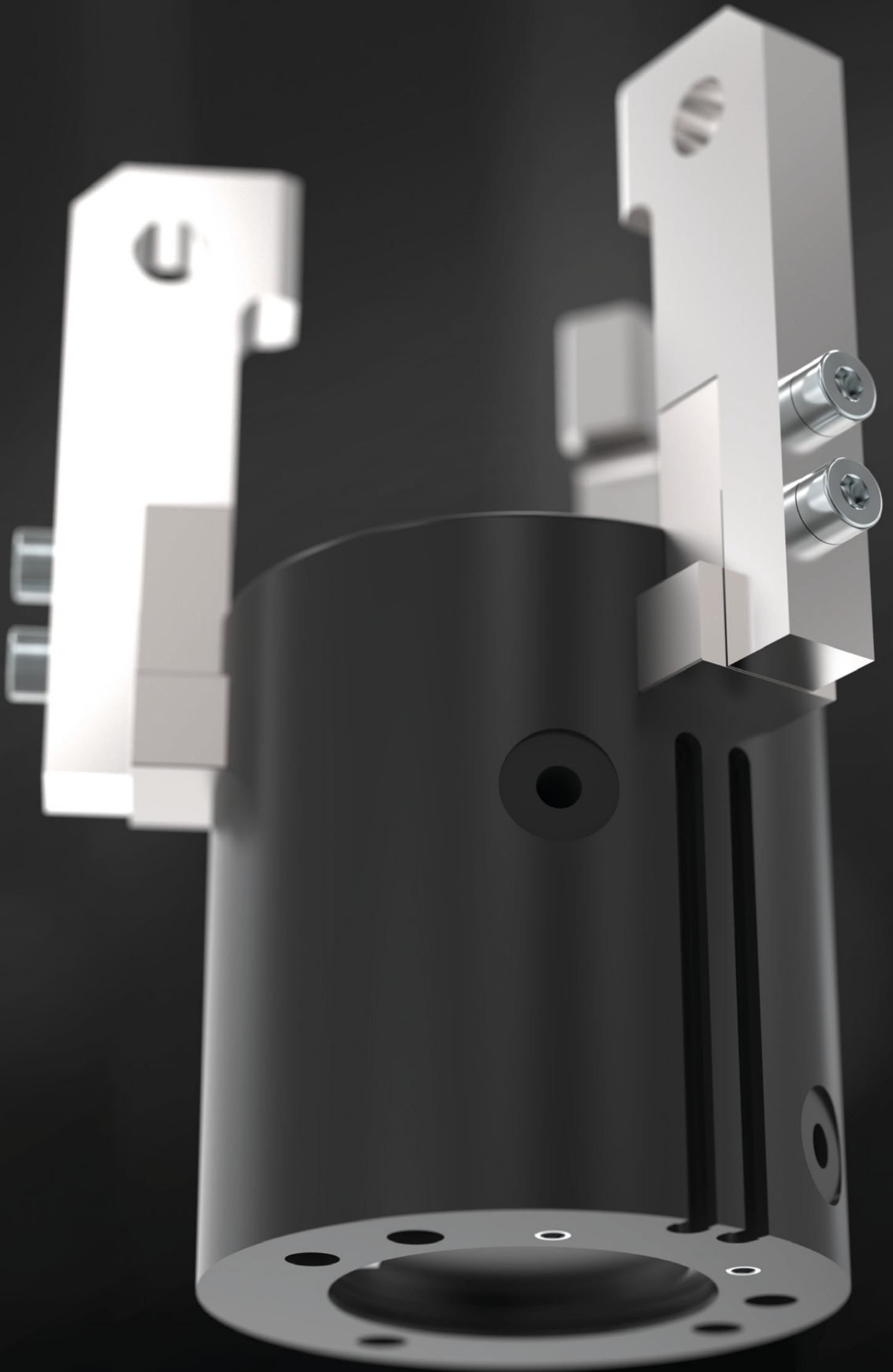
► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Holding force [N]	Weight [kg]	IP class
GEH8660	60	200 - 3200	10	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



3-JAW CONCENTRIC GRIPPERS

OVERVIEW OF SERIES



PNEUMATIC



Series MGD800

134



Series GD300

156



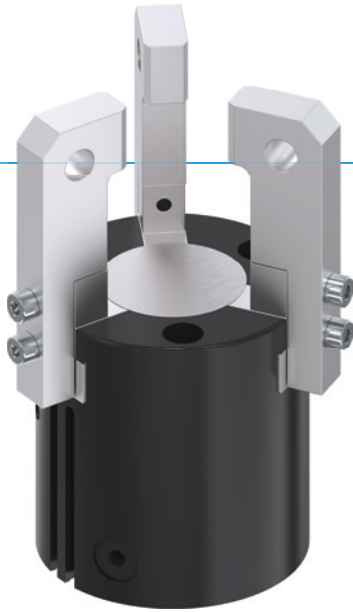
Series GD

182

3-JAW CONCENTRIC GRIPPERS

SERIES MGD800

▶ PRODUCT ADVANTAGES



“The superior”

▶ **Gripper jaws may be almost 100% longer in comparison to the benchmark**

The highest force and torque measurement enables flexible for maximum dynamics






▶ **Best price/performance ratio**

Reduces your investment costs and speeds the ROI for your application

▶ **Failure-free continuous operation**

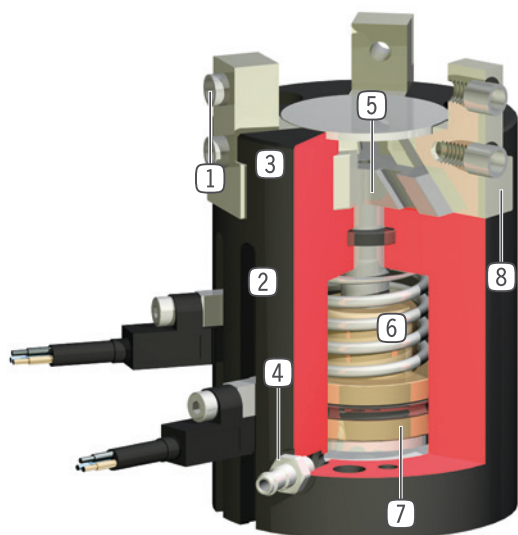
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
	N	NC
MGD8XX		
 Spring closing C		●
 10 million maintenance-free cycles (max.)	●	●
 Magnetic field sensor	●	●
 Clean room certified	●	●
 IP40	●	●



► BENEFITS IN DETAIL



- ① **Removable centering sleeves**
- quick and economical positioning of the gripper fingers
- ② **Sensing slot**
- mounting and positioning of magnetic field sensors
- ③ **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ④ **Energy supply**
- possible from several sides
- ⑤ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- ⑥ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage (from size 803 upwards)
- ⑦ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑧ **Precise T-Slot guide**
- high forces and moments capacity

► TECHNICAL DATA

Installation size	Stroke per jaw	Gripping force	Weight	IP class
	[mm]	[N]	[kg]	
MGD801	1	30 - 34	0,025	IP40
MGD802	2	40 - 45	0,05	IP40
MGD803	3	78 - 110	0,08 - 0,115	IP40
MGD804	4	125 - 160	0,14 - 0,18	IP40
MGD806	6	240 - 295	0,26 - 0,35	IP40
MGD808	8	415 - 560	0,47 - 0,65	IP40
MGD810	10	740 - 920	0,98 - 1,16	IP40
MGD812	12	1130 - 1420	1,67 - 2	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

3-JAW CONCENTRIC GRIPPERS

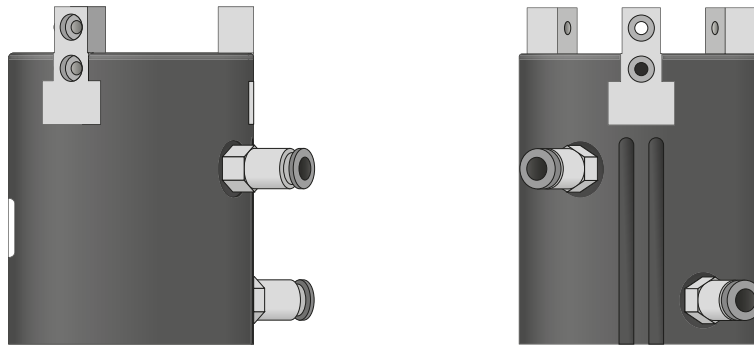
SERIES MGD800 FUNCTIONAL DESCRIPTION

1

Series MGD800 / 3-Jaw Concentric Grippers / pneumatical / Grippers

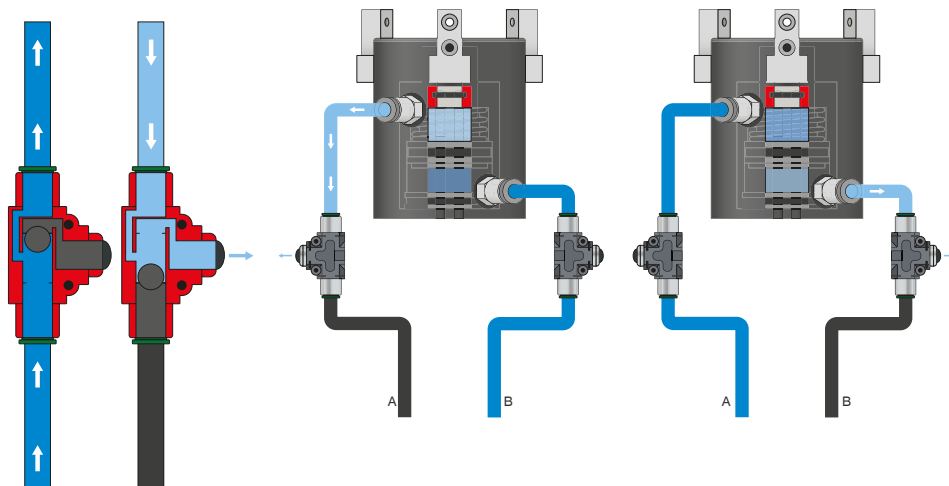


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



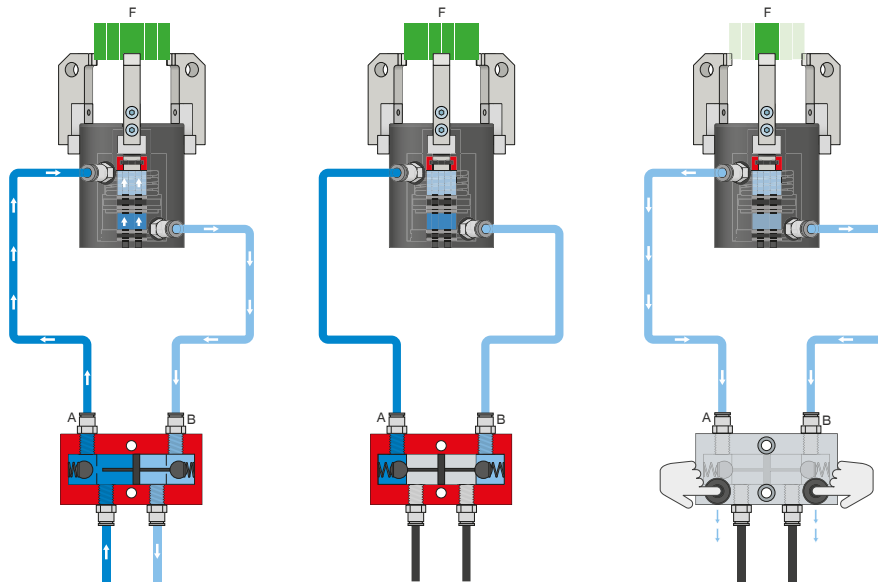
Quick exhaust valve – DEV

For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.



ENERGY SUPPLY



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

3-JAW CONCENTRIC GRIPPERS

SERIES MGD800 FUNCTIONAL DESCRIPTION

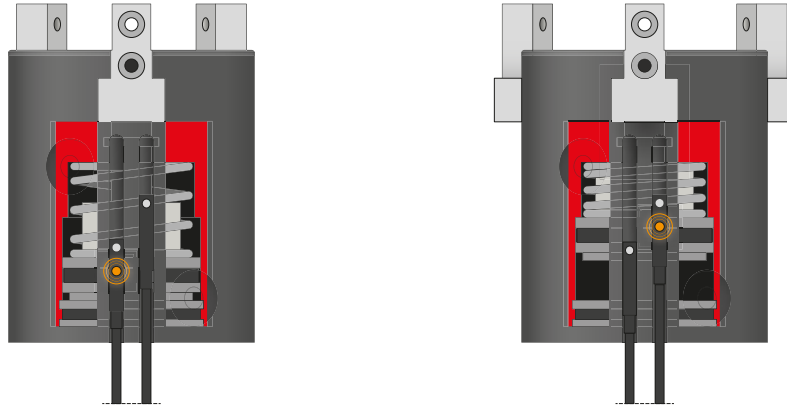
1

Series MGD800 / 3-Jaw Concentric Grippers / pneumatical / Grippers

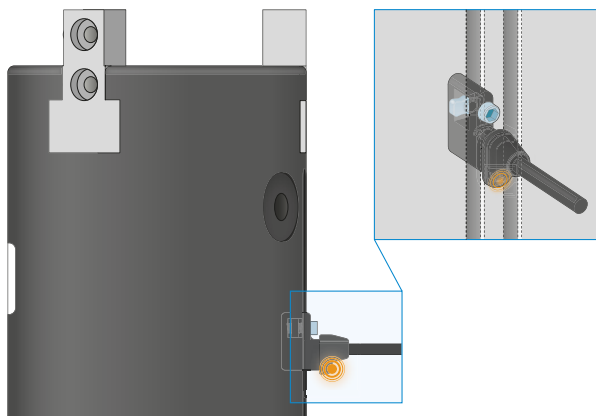


SENSORS

MFS02



MFS01



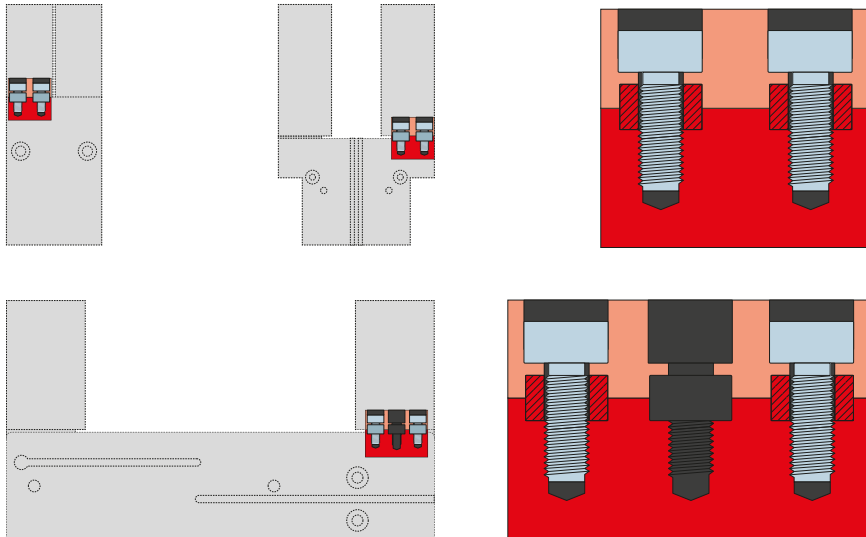
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD801

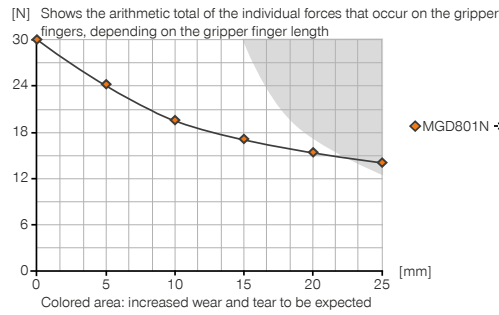
1

Installation size MGD801 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

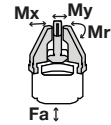


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	2
Mx [Nm]	2
My [Nm]	4
Fa [N]	58

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80200

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



ENERGY SUPPLY

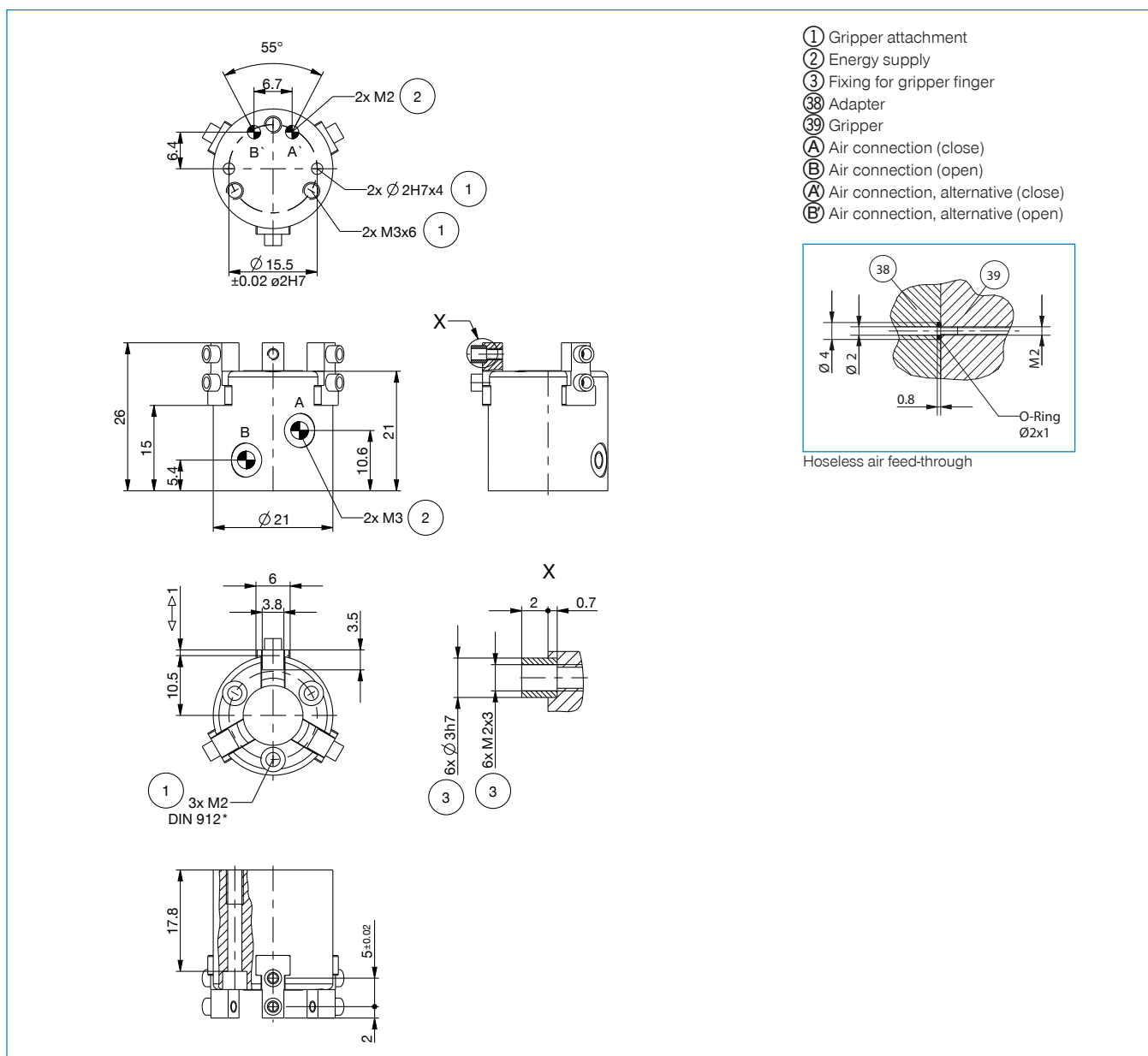


DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

Order no.	MGD801N
Stroke per jaw [mm]	1
Gripping force in closing [N]	30
Gripping force in opening [N]	34
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.02
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.2
Clean room applications according to DIN EN ISO 14644-1	6
Protection to IEC 60529	IP40
Weight [kg]	0.025



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD802

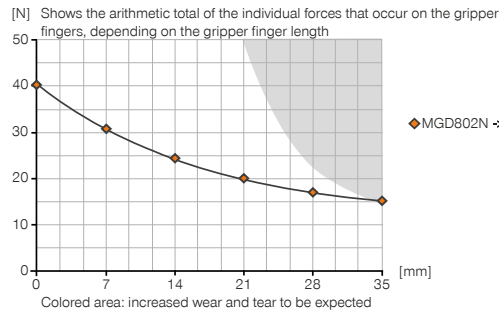
1

Installation size MGD802 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

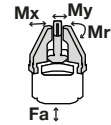


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	4
Mx [Nm]	4
My [Nm]	6
Fa [N]	100

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80200

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



ENERGY SUPPLY

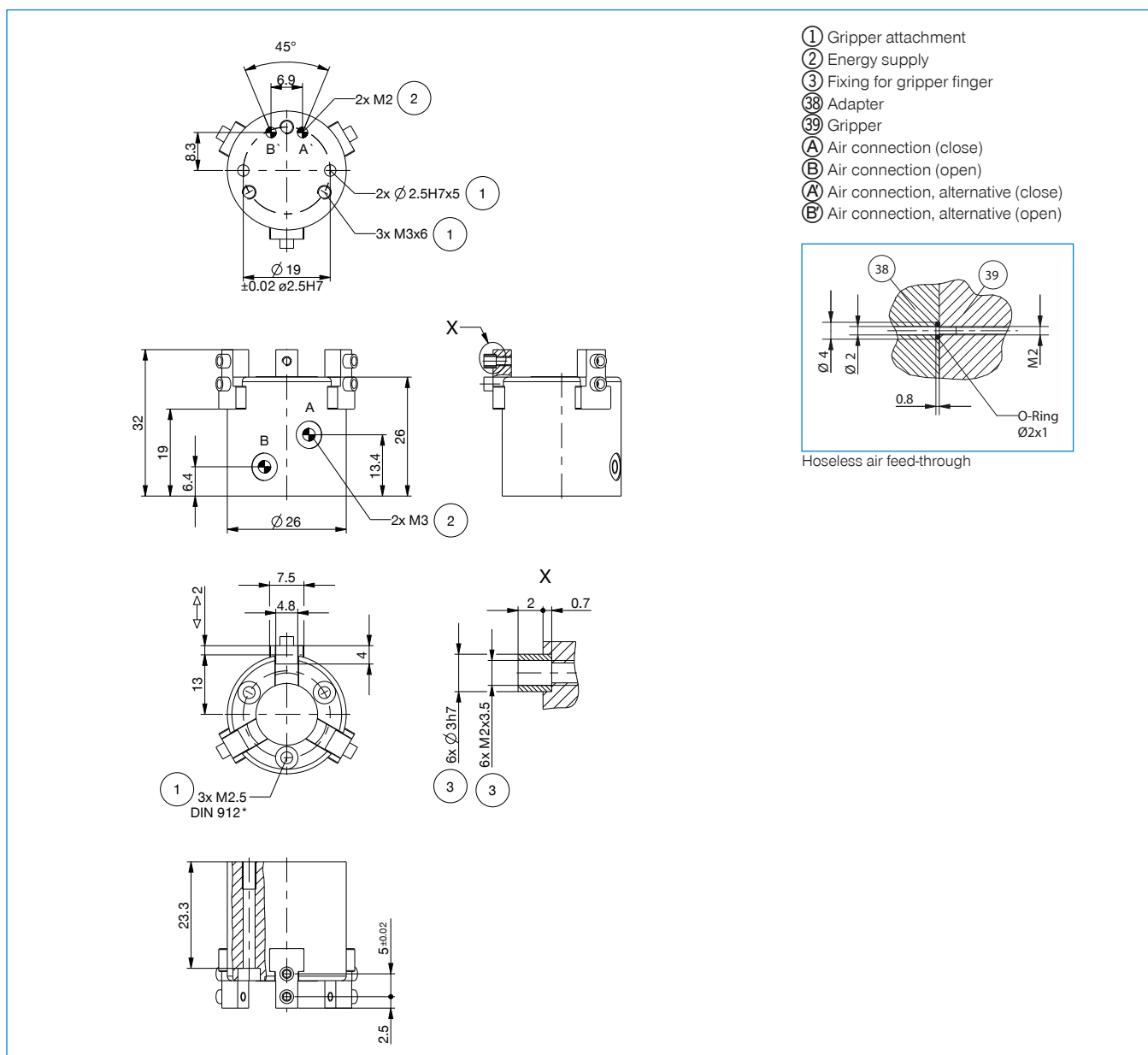


DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

Order no.	MGD802N
Stroke per jaw [mm]	2
Gripping force in closing [N]	40
Gripping force in opening [N]	45
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.02
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	+5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.3
Clean room applications according to DIN EN ISO 14644-1	6
Protection to IEC 60529	IP40
Weight [kg]	0.05



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD803

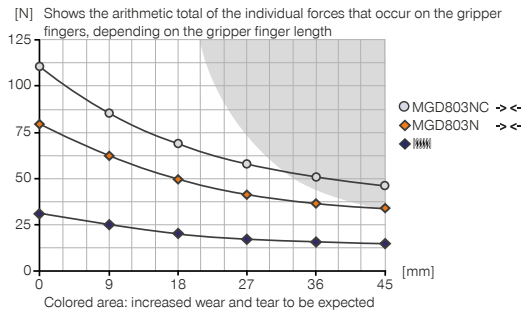
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Installation size MGD803 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

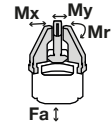


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	5
Mx [Nm]	5
My [Nm]	8
Fa [N]	155

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80310

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

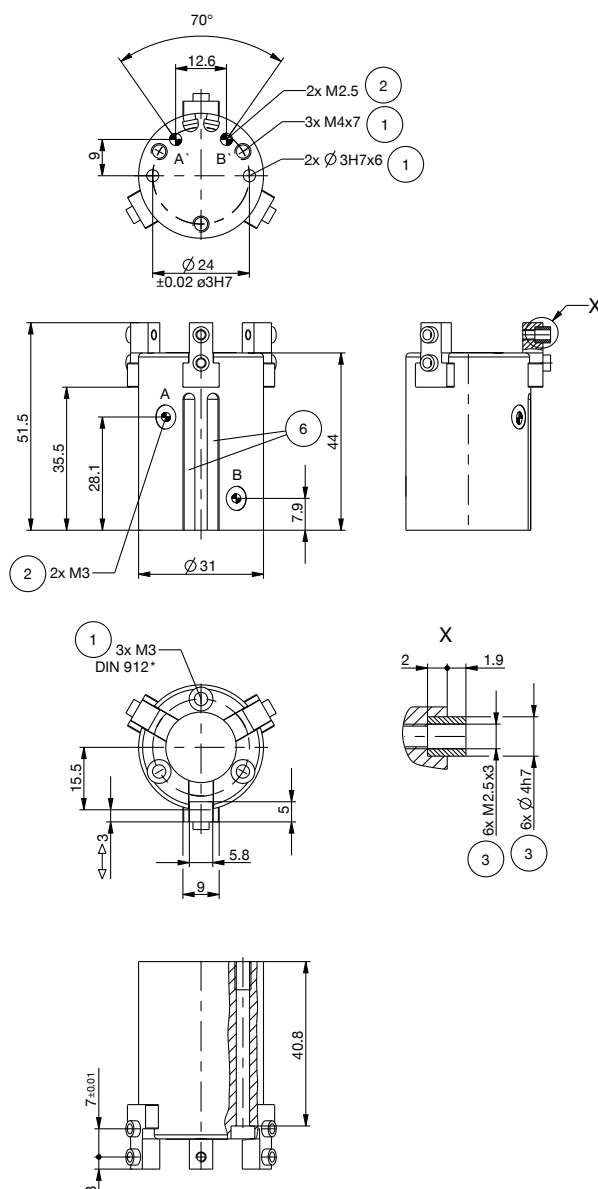


MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

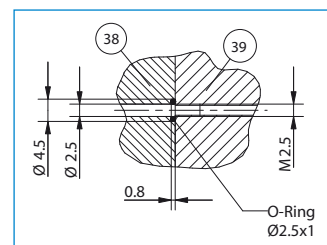


Order no.	► Technical data	
	MGD803N	MGD803NC
Stroke per jaw [mm]	3	3
Gripping force in closing [N]	78	110
Gripping force in opening [N]	87	
Gripping force secured by spring min. [N]		32
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.03
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	1.5	2.4
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.08	0.115

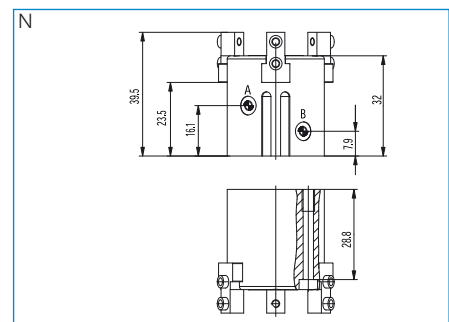
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD804

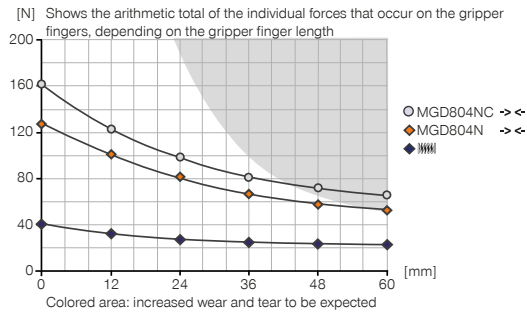
1

Installation size MGD804 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

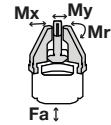


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	8
Mx [Nm]	8
My [Nm]	12
Fa [N]	250

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST06510

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



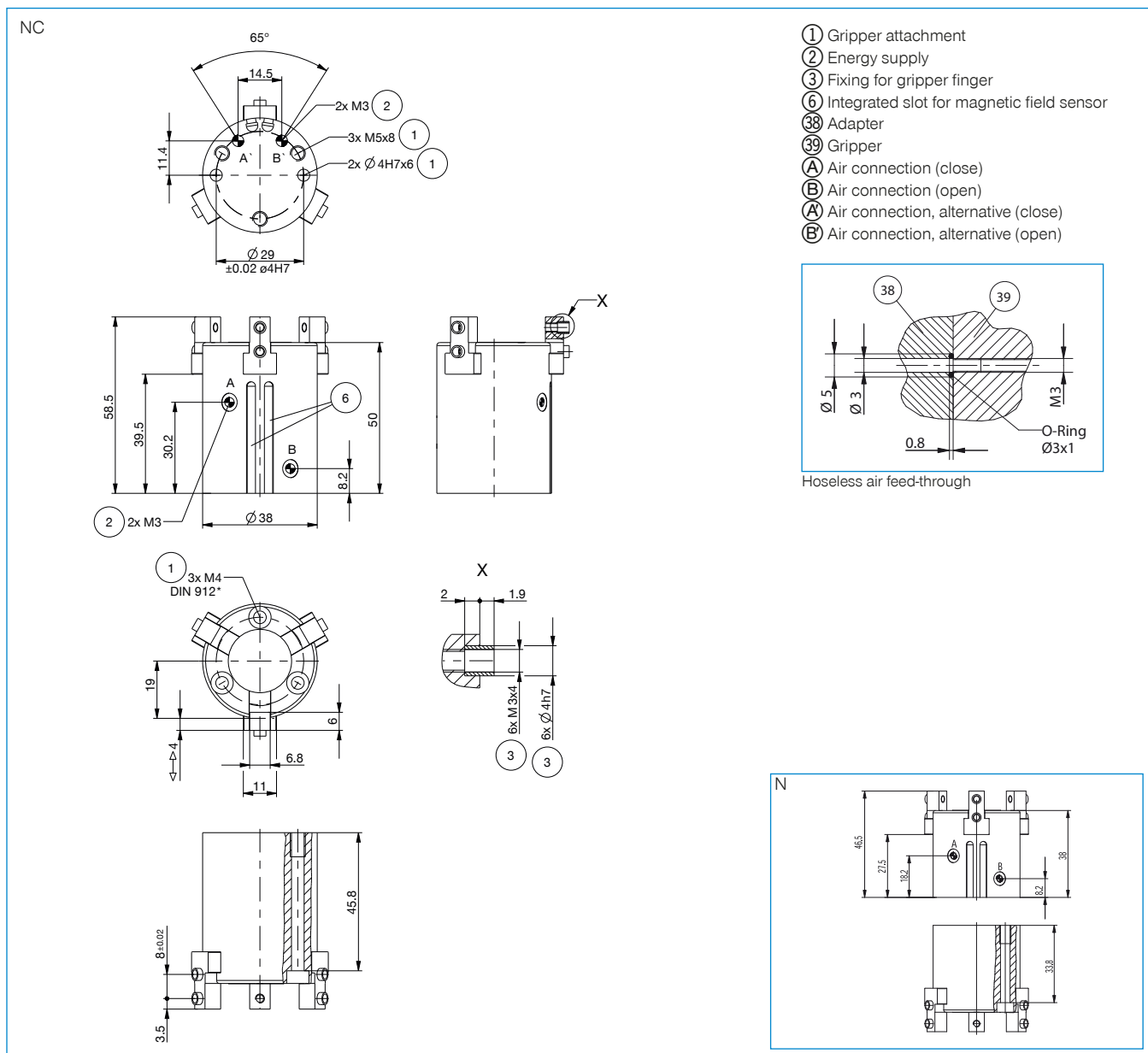
MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



Order no.	► Technical data	
	MGD804N	MGD804NC
Stroke per jaw [mm]	4	4
Gripping force in closing [N]	125	160
Gripping force in opening [N]	140	
Gripping force secured by spring min. [N]		35
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.03
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	2.9	4.5
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.14	0.18



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD806

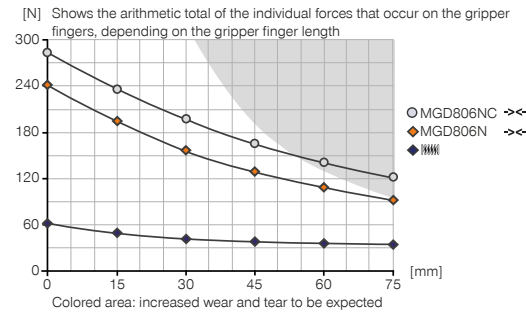
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Installation size MGD806 / 3-Jaw Concentric Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

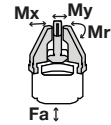


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	18
Fa [N]	420

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



DEV04
Quick Exhaust Valve



SENSORS



DSV1-8
Pressure safety valve



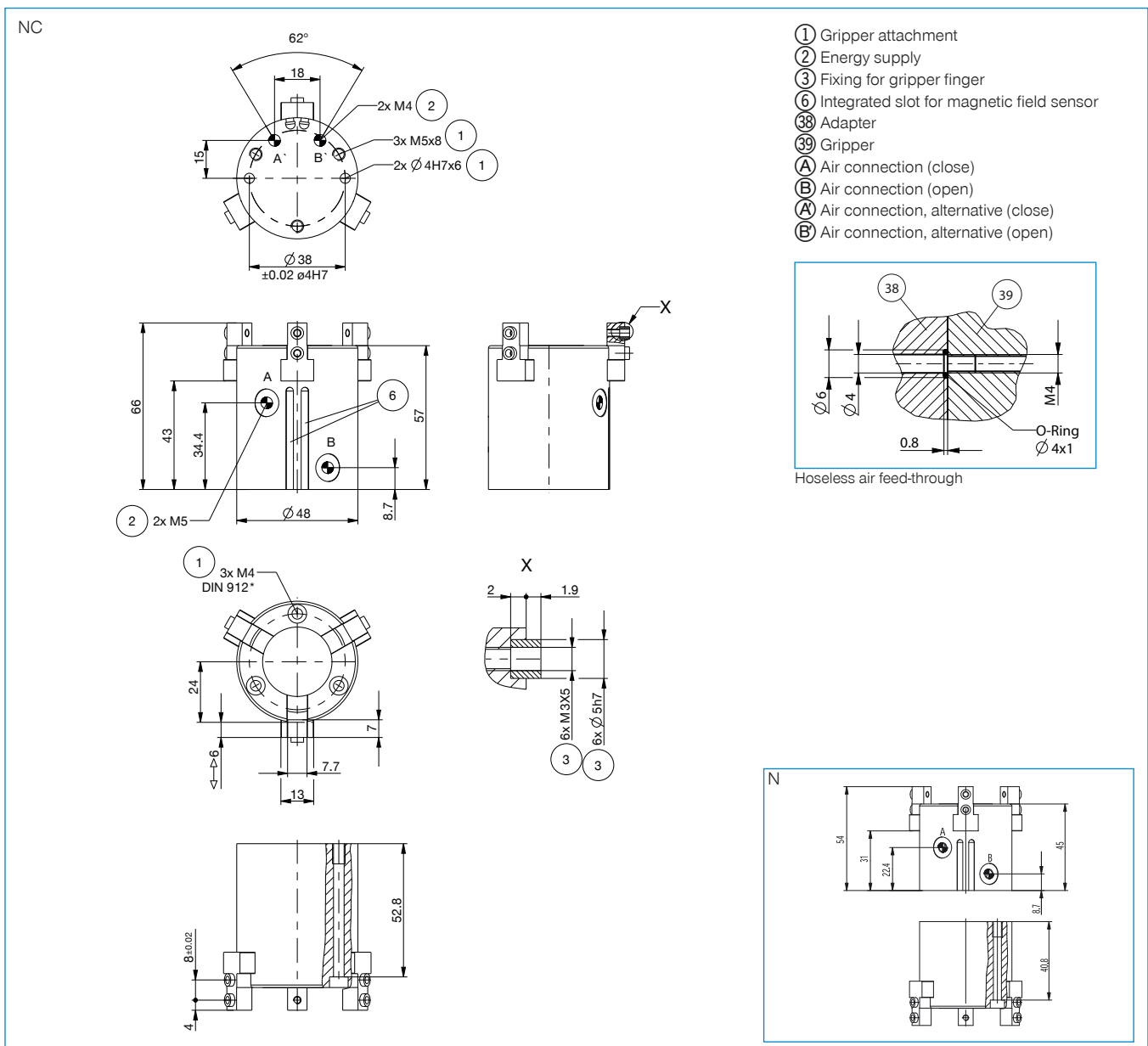
MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



Order no.	► Technical data	
	MGD806N	MGD806NC
Stroke per jaw [mm]	6	6
Gripping force in closing [N]	240	295
Gripping force in opening [N]	265	
Gripping force secured by spring min. [N]		55
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	8.0	11
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.26	0.35



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD808

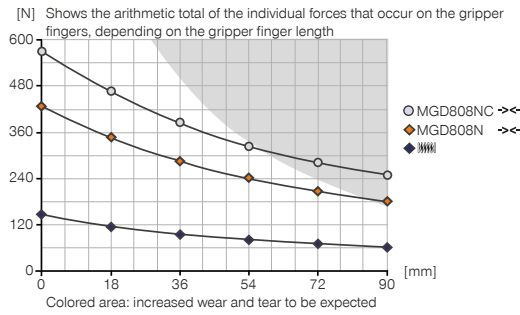
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Installation size MGD808 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

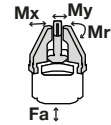


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	18
Mx [Nm]	19
My [Nm]	29
Fa [N]	660

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST40600

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



DEV04
Quick Exhaust Valve



SENSORS



DSV1-8
Pressure safety valve



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

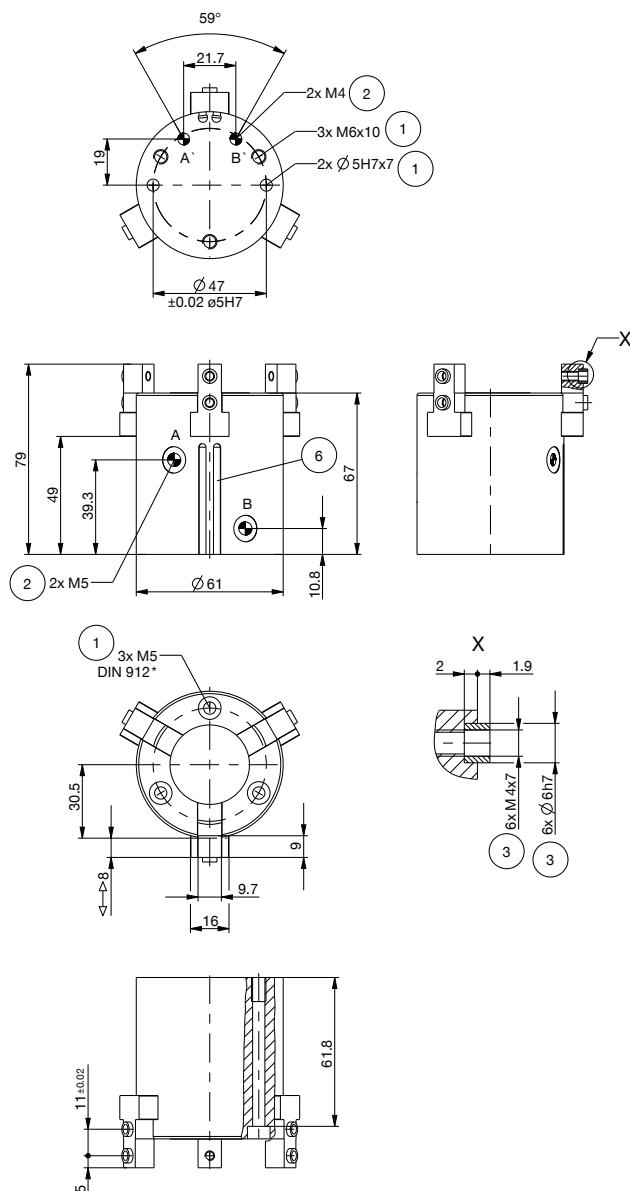


MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

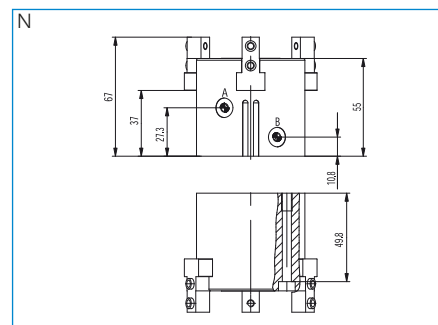
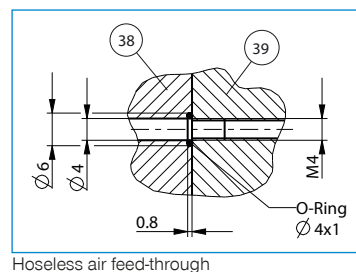


Order no.	► Technical data	
	MGD808N	MGD808NC
Stroke per jaw [mm]	8	8
Gripping force in closing [N]	415	560
Gripping force in opening [N]	450	
Gripping force secured by spring min. [N]		145
Closing time [s]	0.09	0.08
Opening time [s]	0.09	0.13
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	18	26
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.47	0.65

NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD810

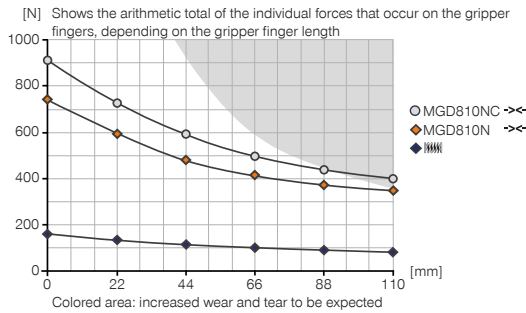
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Installation size MGD810 / 3-Jaw Concentric Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

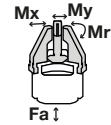


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	27
Mx [Nm]	29
My [Nm]	43
Fa [N]	960

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST07540

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



DEV04
Quick Exhaust Valve



SENSORS



DSV1-8
Pressure safety valve



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

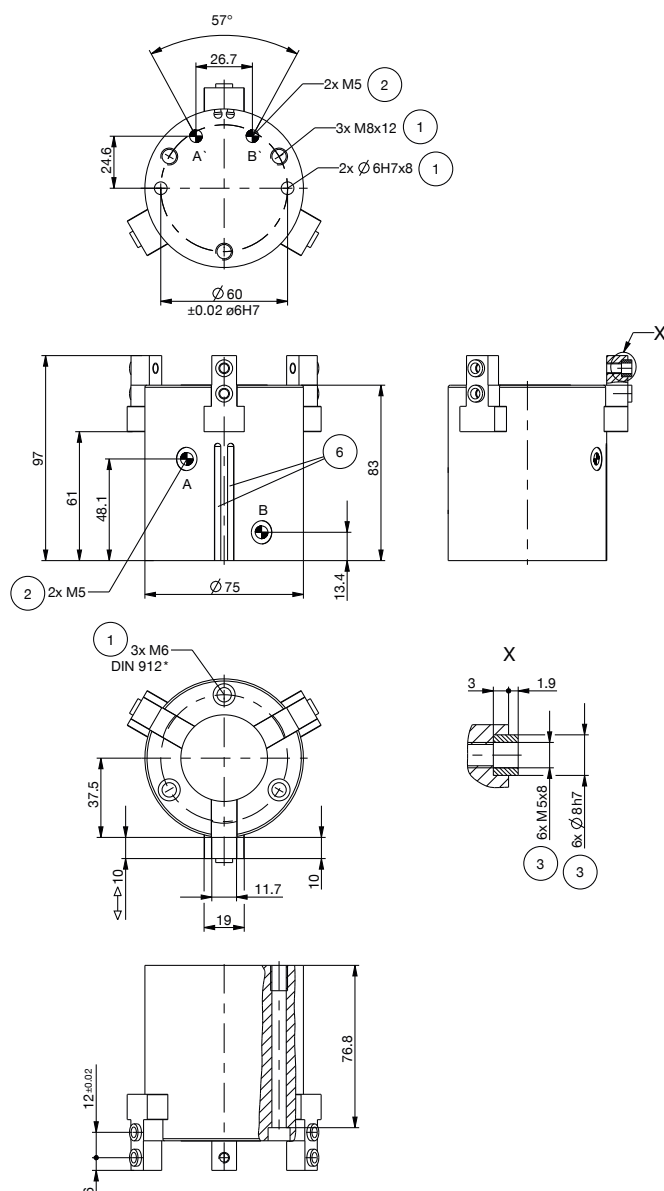


MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

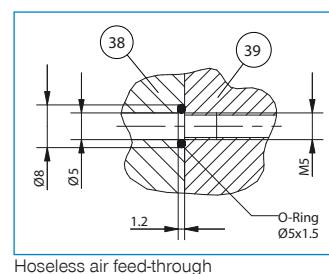


Order no.	▶ Technical data	
	MGD810N	MGD810NC
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	740	920
Gripping force in opening [N]	790	
Gripping force secured by spring min. [N]		180
Closing time [s]	0.1	0.1
Opening time [s]	0.1	0.15
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	37	50
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	0.98	1.16

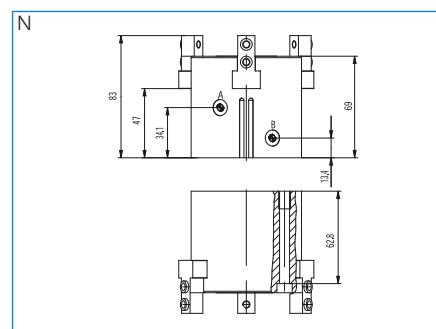
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



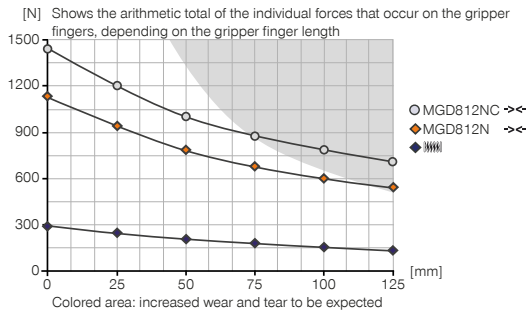
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD812

▶ PRODUCT SPECIFICATIONS

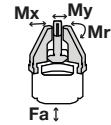


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	41
Mx [Nm]	45
My [Nm]	65
Fa [N]	1500

▶ INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST41000

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



DEV08
Quick Exhaust Valve



SENSORS



DSV1-8
Pressure safety valve



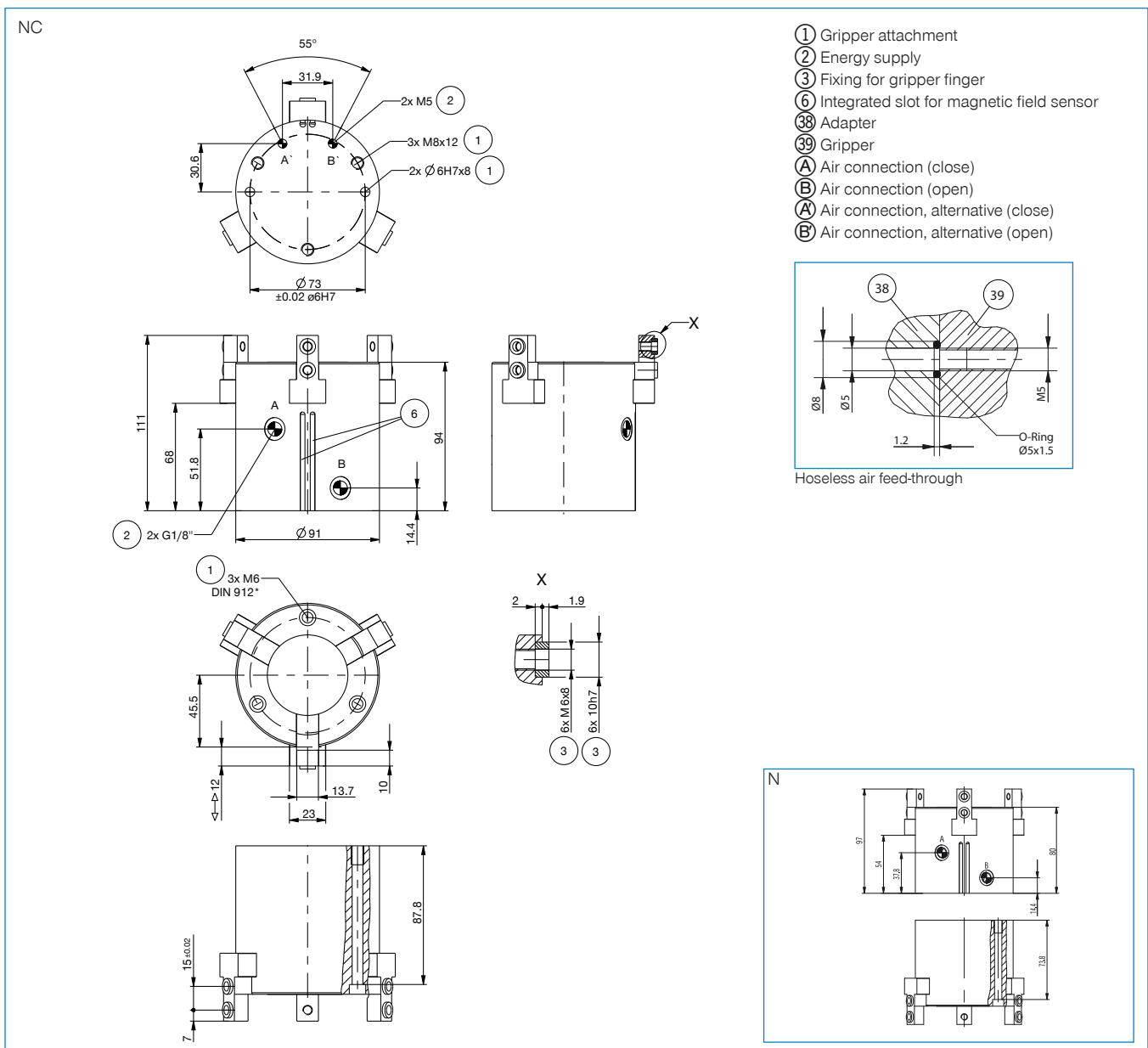
MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



Order no.	▶ Technical data	
	MGD812N	MGD812NC
Stroke per jaw [mm]	12	12
Gripping force in closing [N]	1130	1420
Gripping force in opening [N]	1200	
Gripping force secured by spring min. [N]		290
Closing time [s]	0.12	0.12
Opening time [s]	0.12	0.17
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	69	97
Clean room applications according to DIN EN ISO 14644-1	6	6
Protection to IEC 60529	IP40	IP40
Weight [kg]	1.67	2



3-JAW CONCENTRIC GRIPPERS

SERIES GD300

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs









▶ Proven T slot guide

This established and proven guiding technology stands for the highest process reliability like no other

▶ Compact structure

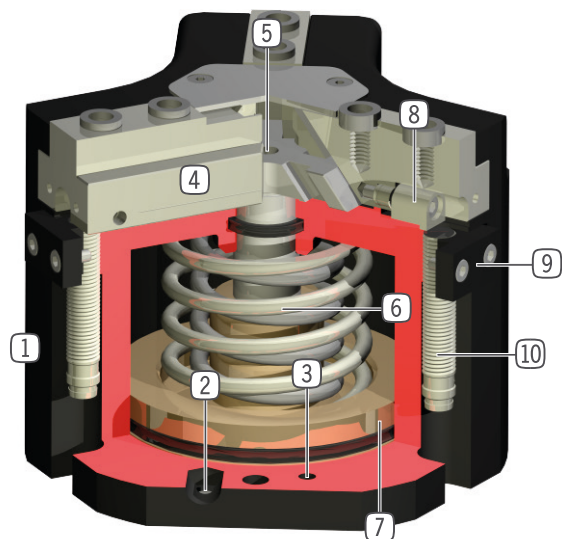
Reduces the interference contours for your application

▶ SERIES CHARACTERISTICS

Installation size		Version					
GD3XX		N	NC	NO	S	SC	SO
 Spring closing C			•			•	
 Spring opening O				•			•
 High-strength S					•	•	•
 10 million maintenance-free cycles (max.)		•	•	•	•	•	•
 Inductive sensor		•	•	•	•	•	•
 Magnetic field sensor		•	•	•	•	•	•
 Purged air		•	•	•	•	•	•
 IP 40		•	•	•	•	•	•



► BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Energy supply**
- possible from several sides
- ③ **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ④ **Gripper jaw**
- individual gripper finger mounting
- ⑤ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- high force transfer
- ⑥ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage
- ⑦ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑧ **Integrated, adjustable switch cam**
- for direct position sensing of the gripper jaw
- ⑨ **Mounting block**
- mounting for inductive proximity switch (10)

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GD303	3	200 - 300	0,13 - 0,16	IP40
GD304	2 - 4	450 - 1500	0,22 - 0,28	IP40
GD306	3 - 6	750 - 2300	0,5 - 0,65	IP40
GD308	4 - 8	1200 - 4000	0,85 - 1,2	IP40
GD310	5 - 10	2000 - 6400	1,6 - 2,2	IP40
GD312	6 - 12	3500 - 9250	2,7 - 3,8	IP40
GD316	8 - 16	6500 - 19100	5,1 - 8	IP40
GD320	10 - 20	8200 - 18700	9,6	IP40
GD330	15 - 30	15300 - 34700	24	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

3-JAW CONCENTRIC GRIPPERS

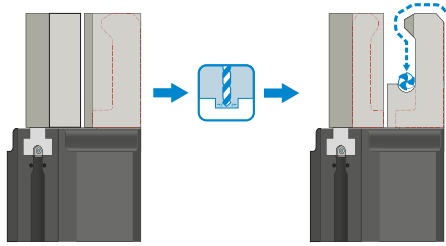
SERIES GD300 FUNCTIONAL DESCRIPTION

1

Series GD300 / 3-Jaw Concentric Grippers / pneumatical / Grippers

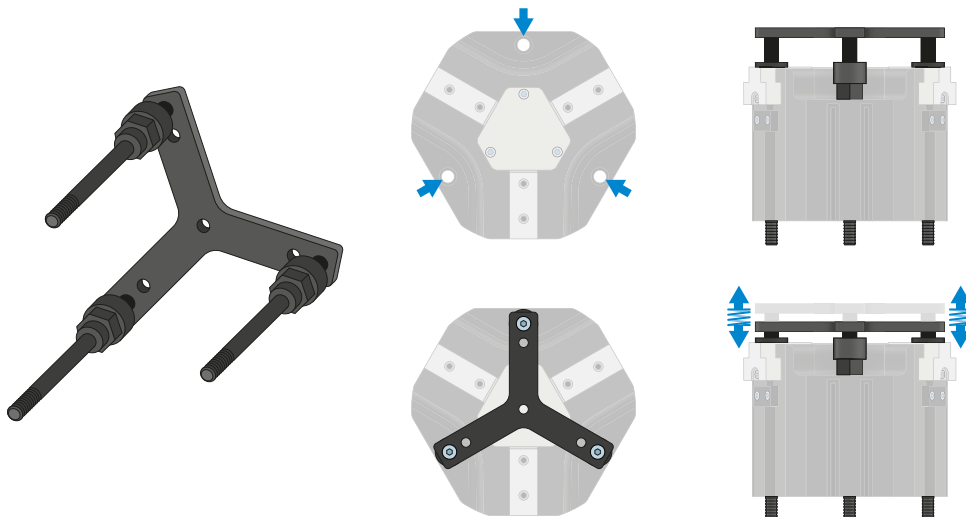


GRIPPING COMPONENTS



Universal jaws – UB300

When the gripper fingers are open, the pressure piece is used for spring-supported positioning of the workpiece against a limit stop. This greatly reduces the loads on the gripper that arise during joining.



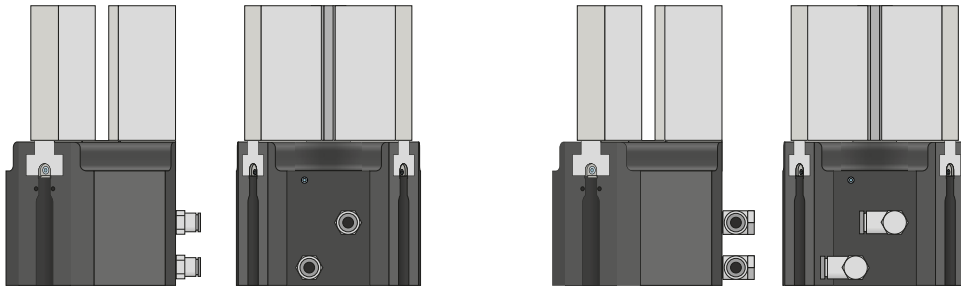
Pressure piece – ADS300

When the gripper fingers are open, the pressure piece is used for spring-supported positioning of the workpiece against a limit stop. This greatly reduces the loads on the gripper that arise during joining.



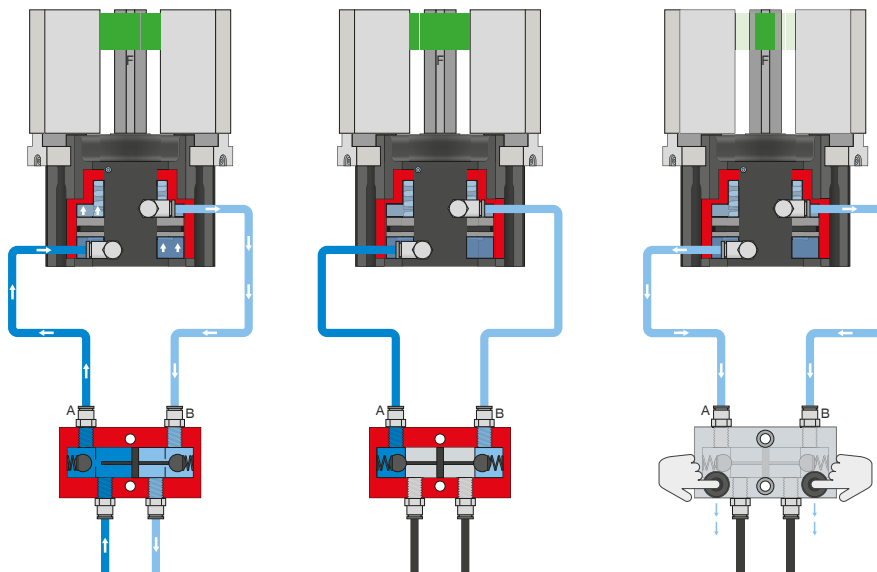
ENERGY SUPPLY

1



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



Pressure safety valve – DSV

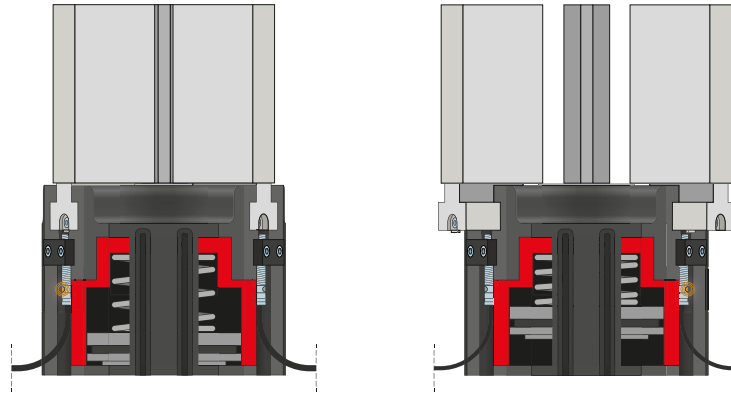
Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

3-JAW CONCENTRIC GRIPPERS

SERIES GD300 FUNCTIONAL DESCRIPTION

SENSORS



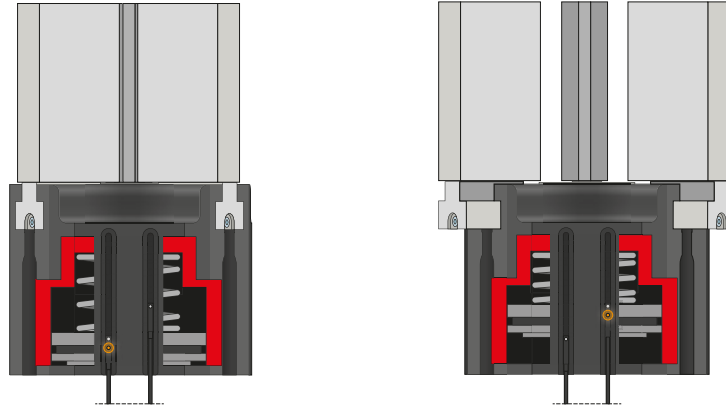
Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

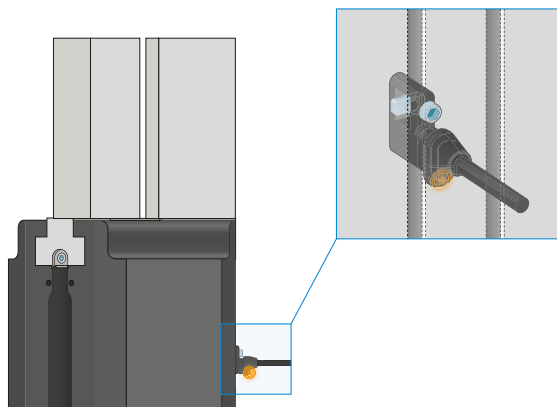


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

3-JAW CONCENTRIC GRIPPERS

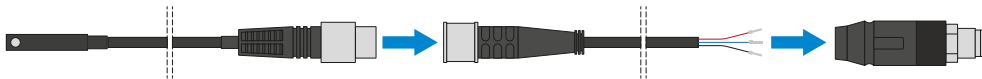
SERIES GD300 FUNCTIONAL DESCRIPTION

1

Series GD300 / 3-Jaw Concentric Grippers / pneumatical / Grippers



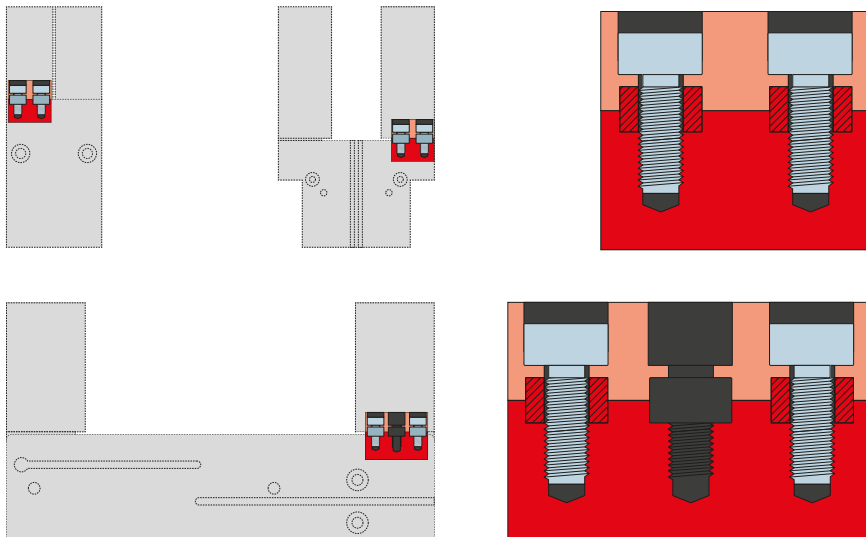
CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines

Cables with a length of 10 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M12. A 5 m long cable with connector / socket is available for the IO-Link connection.



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD303

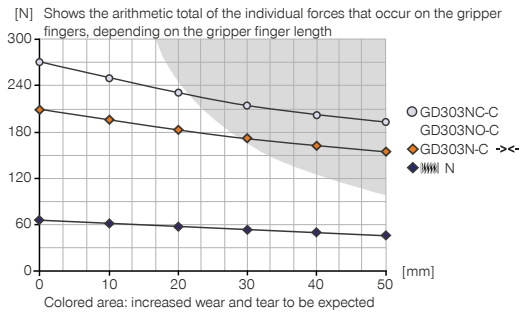
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Installation size GD303 / 3-Jaw Concentric Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

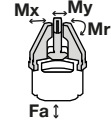


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	6
Mx [Nm]	9
My [Nm]	12
Fa [N]	500

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-07



6 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB303
Universal jaw set aluminium



UB303ST
Universal jaw set steel



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



CONNECTIONS / OTHER

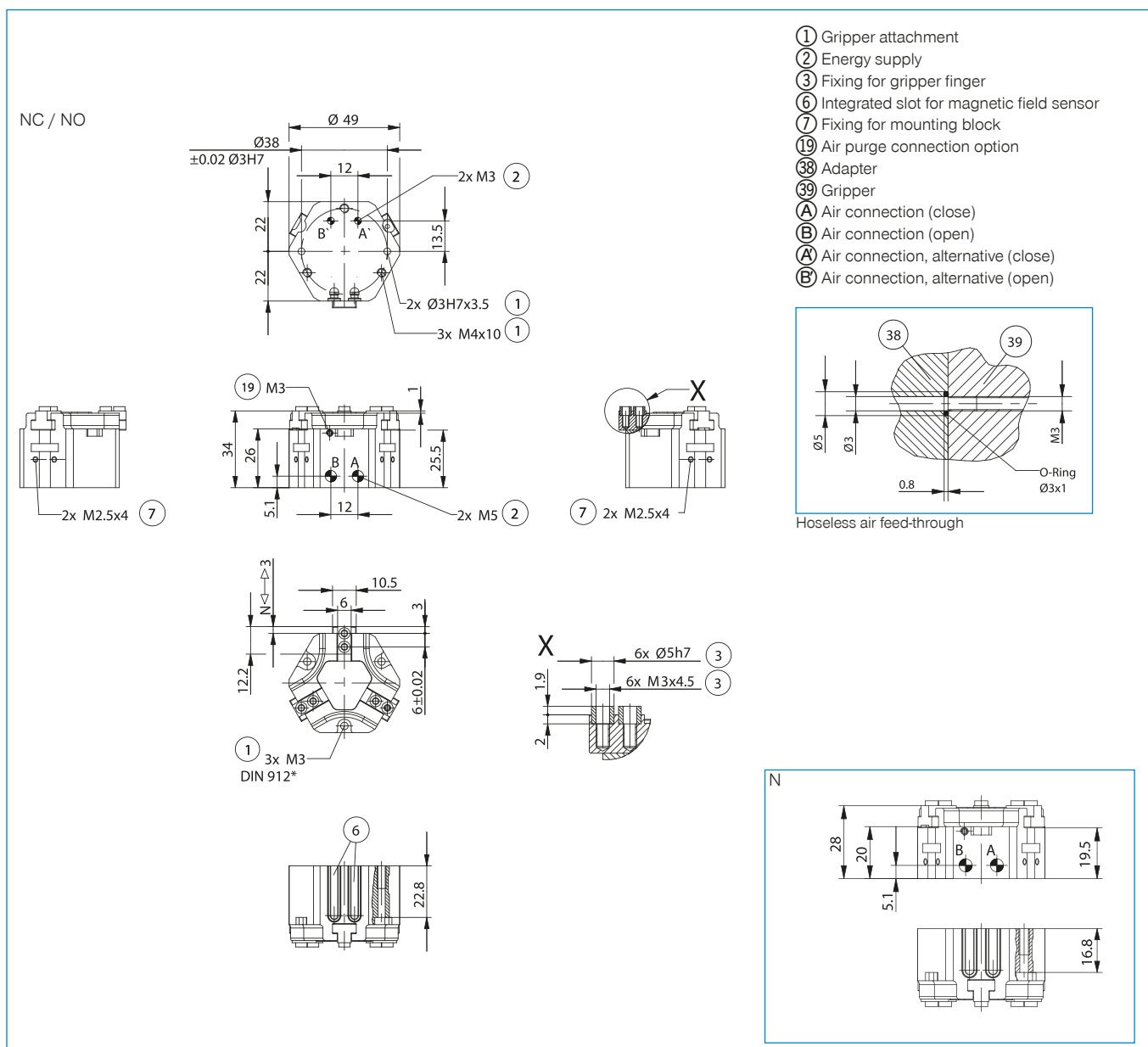


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data		
	GD303N-C	GD303NC-C	GD303NO-C
Stroke per jaw [mm]	3	3	3
Gripping force in closing [N]	200	270	
Gripping force in opening [N]	230		300
Gripping force secured by spring min. [N]		70	70
Closing time [s]	0.02	0.02	0.03
Opening time [s]	0.02	0.03	0.02
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm ³]	3.5	6.7	6.7
Protection to IEC 60529	IP40	IP40	IP40
Weight [kg]	0.13	0.16	0.16



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD304

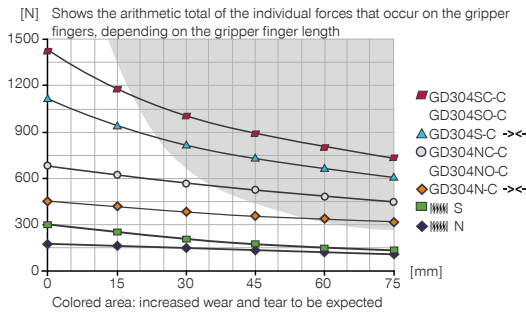
1

Installation size GD304 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

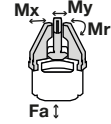


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	8
Mx [Nm]	15
My [Nm]	15
Fa [N]	700

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-08



6 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB304
Universal jaw set aluminium



UB304ST
Universal jaw set steel



ADS304N-S
Pressure piece N / S



ADS304C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



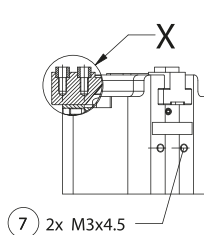
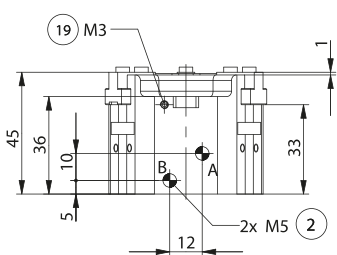
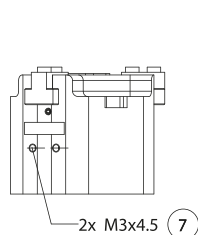
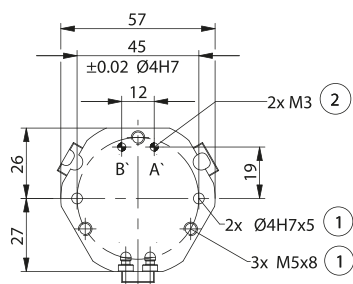
GVM5
Straight Fittings - Quick Connect Style



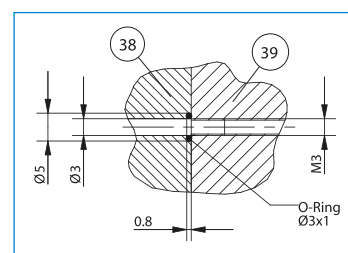
WVM5
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD304N-C	GD304NC-C	GD304NO-C	GD304S-C	GD304SC-C	GD304SO-C
Stroke per jaw [mm]	4	4	4	2	2	2
Gripping force in closing [N]	450	650		1000	1400	
Gripping force in opening [N]	500		700	1100		1500
Gripping force secured by spring min. [N]		200	200		400	400
Closing time [s]	0.025	0.02	0.03	0.025	0.02	0.03
Opening time [s]	0.025	0.03	0.02	0.025	0.03	0.02
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	9.2	19	19	9.2	19	19
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.22	0.28	0.28	0.22	0.28	0.28

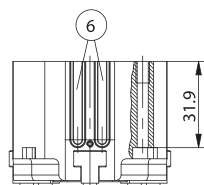
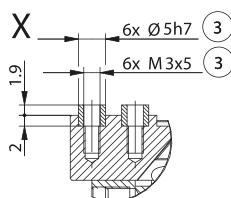
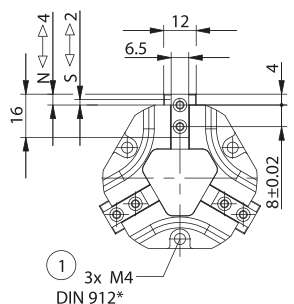
NC / NO / SC / SO



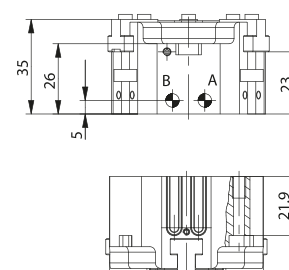
- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑦ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- A Air connection (close)
- B Air connection (open)
- A Air connection, alternative (close)
- B Air connection, alternative (open)



Hoseless air feed-through



N / S



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD306

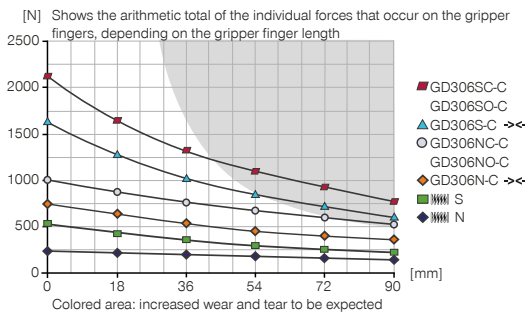
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Installation size GD306 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

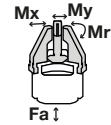


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	35
Mx [Nm]	50
My [Nm]	45
Fa [N]	1200

▶ INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB3-39



6 [piece]
Centering Disc
DST40600

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB306
Universal jaw set aluminium



UB306ST
Universal jaw set steel



ADS306N-S
Pressure piece N / S



ADS306C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



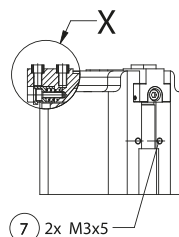
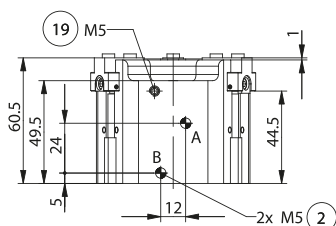
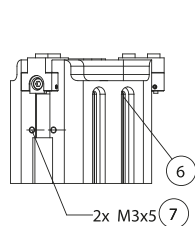
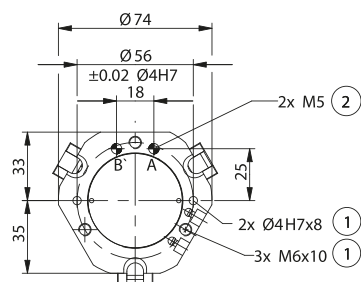
GVM5
Straight Fittings - Quick Connect Style



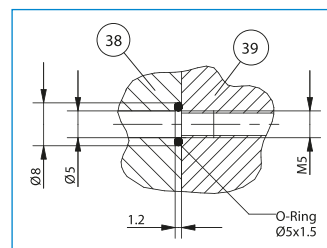
WVM5
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD306N-C	GD306NC-C	GD306NO-C	GD306S-C	GD306SC-C	GD306SO-C
Stroke per jaw [mm]	6	6	6	3	3	3
Gripping force in closing [N]	750	1000		1600	2150	
Gripping force in opening [N]	800		1050	1750		2300
Gripping force secured by spring min. [N]		250	250		550	550
Closing time [s]	0.03	0.03	0.05	0.03	0.03	0.05
Opening time [s]	0.03	0.05	0.03	0.03	0.05	0.03
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	22	48	48	22	48	48
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.5	0.65	0.65	0.5	0.65	0.65

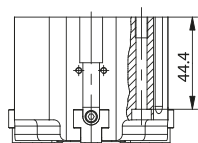
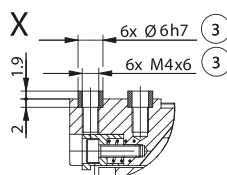
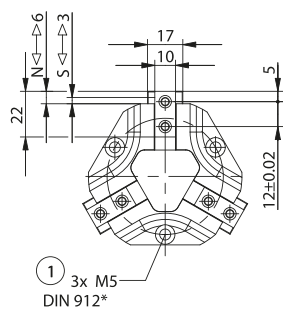
NC / NO / SC / SO



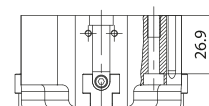
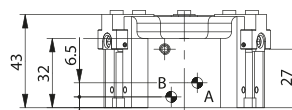
- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑨ Air purge connection option
- ⑩ Adapter
- ⑪ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



N / S



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD308

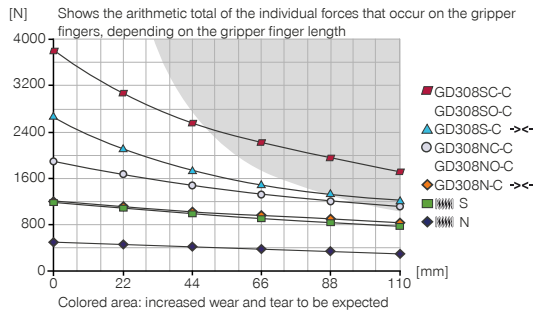
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Installation size GD308 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

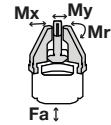


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	50
Mx [Nm]	80
My [Nm]	60
Fa [N]	1800

▶ INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-30



6 [piece]
Centering Disc
DST40800

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB308
Universal jaw set aluminium



UB308ST
Universal jaw set steel



ADS308N-S
Pressure piece N / S



ADS308C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY

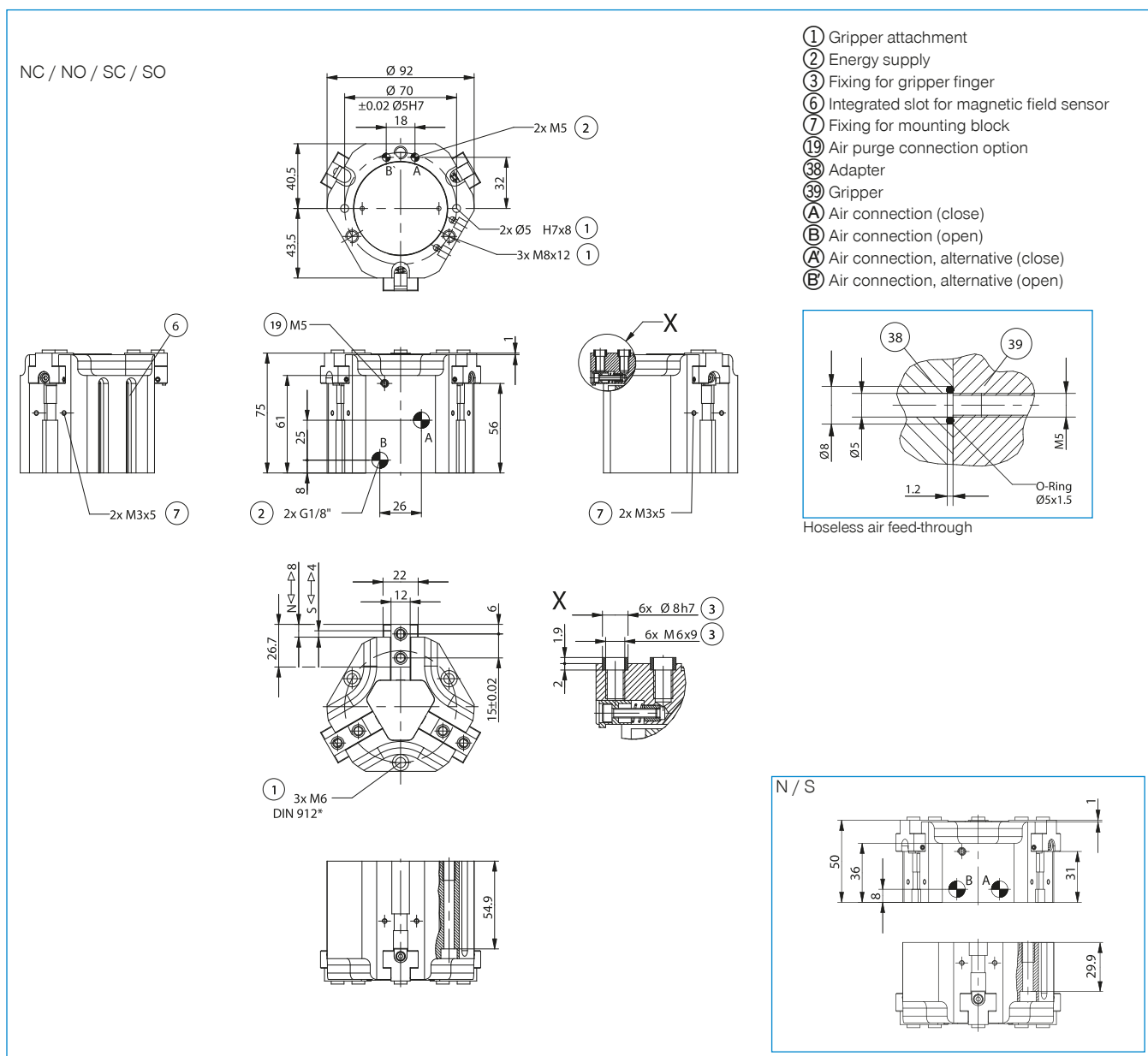


GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD308N-C	GD308NC-C	GD308NO-C	GD308S-C	GD308SC-C	GD308SO-C
Stroke per jaw [mm]	8	8	8	4	4	4
Gripping force in closing [N]	1200	1800		2600	3800	
Gripping force in opening [N]	1300		1900	2800		4000
Gripping force secured by spring min. [N]		600	600		1200	1200
Closing time [s]	0.05	0.03	0.06	0.05	0.03	0.06
Opening time [s]	0.05	0.06	0.03	0.05	0.06	0.03
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	47	108	108	47	108	108
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	0.85	1.2	1.2	0.85	1.2	1.2



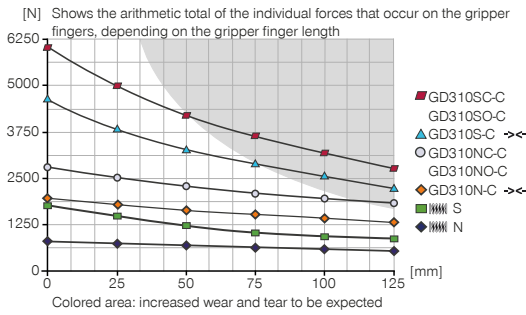
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD310

PRODUCT SPECIFICATIONS

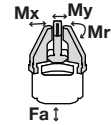


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	75
Mx [Nm]	100
My [Nm]	90
Fa [N]	2500

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB310
Universal jaw set aluminium



UB310ST
Universal jaw set steel



ADS310N-S
Pressure piece N / S



ADS310C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style

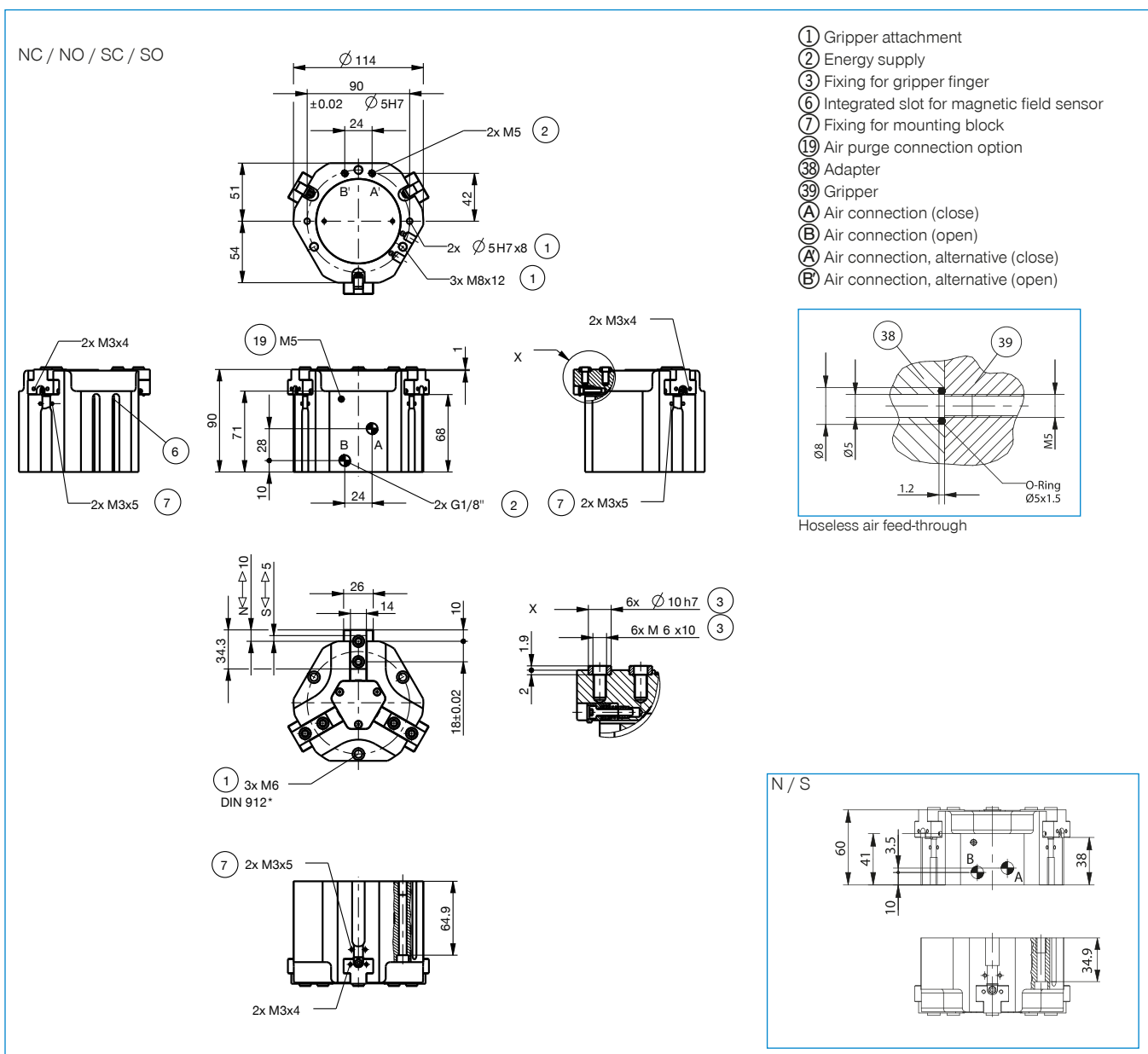


CONNECTIONS / OTHER



S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	▶ Technical data					
	GD310N-C	GD310NC-C	GD310NO-C	GD310S-C	GD310SC-C	GD310SO-C
Stroke per jaw [mm]	10	10	10	5	5	5
Gripping force in closing [N]	2000	2800		4400	6200	
Gripping force in opening [N]	2100		2900	4600		6400
Gripping force secured by spring min. [N]		800	800		1800	1800
Closing time [s]	0.1	0.07	0.2	0.1	0.07	0.2
Opening time [s]	0.1	0.2	0.07	0.1	0.2	0.07
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	100	220	220	100	220	220
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	1.6	2.2	2.2	1.6	2.2	2.2



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD312

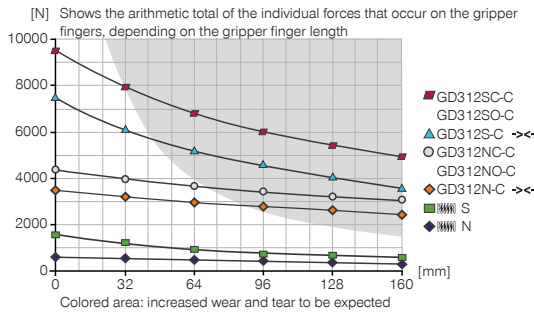
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Installation size GD312 / 3-Jaw Concentric Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

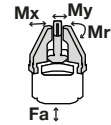


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	100
Mx [Nm]	120
My [Nm]	120
Fa [N]	3200

INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-32



6 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB312
Universal jaw set aluminium



UB312ST
Universal jaw set steel



ADS312N-S
Pressure piece N / S



ADS312C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



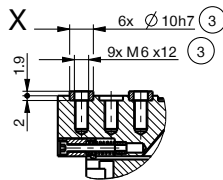
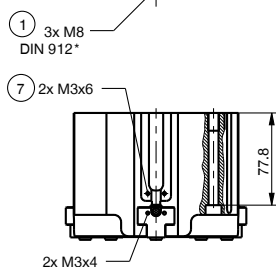
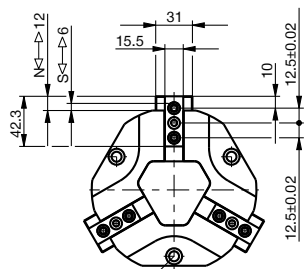
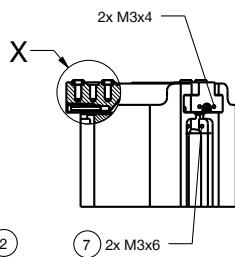
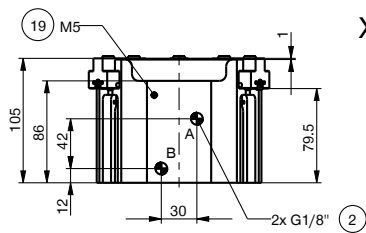
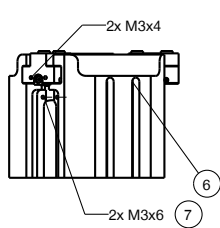
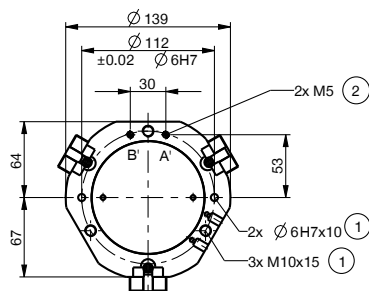
CONNECTIONS / OTHER



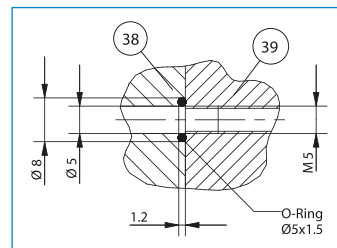
S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	Technical data					
	GD312N-C	GD312NC-C	GD312NO-C	GD312S-C	GD312SC-C	GD312SO-C
Stroke per jaw [mm]	12	12	12	6	6	6
Gripping force in closing [N]	3500	4150		7600	9000	
Gripping force in opening [N]	3600		4250	7850		9250
Gripping force secured by spring min. [N]		650	650		1400	1400
Closing time [s]	0.2	0.15	0.35	0.2	0.15	0.35
Opening time [s]	0.2	0.35	0.15	0.2	0.35	0.15
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	190	420	420	190	420	420
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	2.7	3.8	3.8	2.7	3.8	3.8

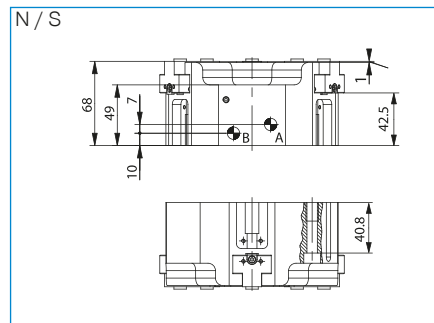
NC / NO / SC / SO



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑨ Air purge connection option
- ⑩ Adapter
- ⑪ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



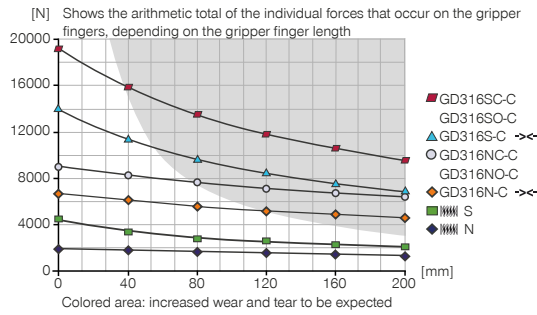
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD316

▶ PRODUCT SPECIFICATIONS

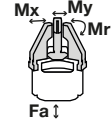


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	140
Mx [Nm]	160
My [Nm]	180
Fa [N]	5000

▶ INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-33



6 [piece]
Centering Disc
DST41600

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB316
Universal jaw set aluminium



UB316ST
Universal jaw set steel



ADS316N-S
Pressure piece N / S



ADS316C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve

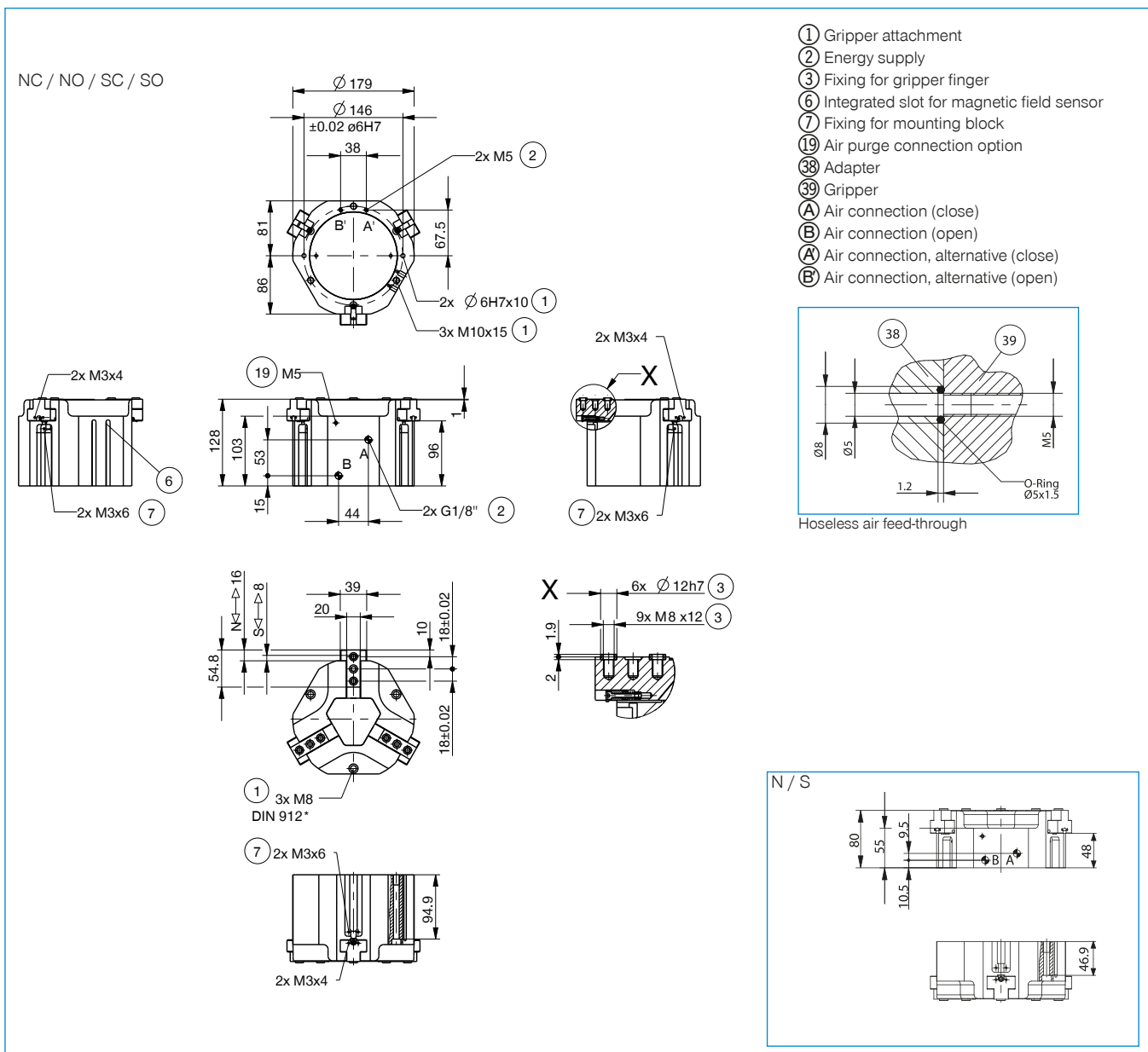


CONNECTIONS / OTHER



S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	Technical data					
	GD316N-C	GD316NC-C	GD316NO-C	GD316S-C	GD316SC-C	GD316SO-C
Stroke per jaw [mm]	16	16	16	8	8	8
Gripping force in closing [N]	6500	8600		14000	18700	
Gripping force in opening [N]	6600		8700	14400		19100
Gripping force secured by spring min. [N]		2100	2100		4700	4700
Closing time [s]	0.25	0.2	0.4	0.25	0.2	0.4
Opening time [s]	0.25	0.4	0.2	0.25	0.4	0.2
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	+5	+5	+5	+5	+5	+5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	470	960	960	470	960	960
Protection to IEC 60529	IP40	IP40	IP40	IP40	IP40	IP40
Weight [kg]	5.1	8	8	5.1	8	8



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD320

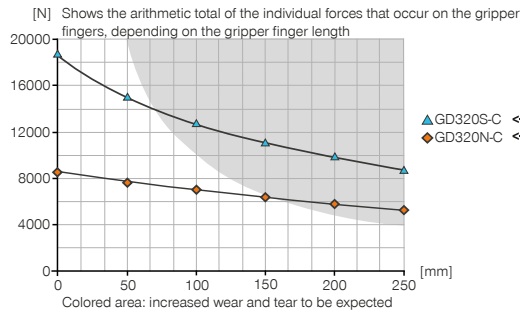
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Installation size GD320 / 3-Jaw Concentric Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

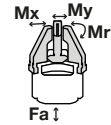


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	170
Mx [Nm]	180
My [Nm]	220
Fa [N]	7000

▶ INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-34



6 [piece]
Centering Disc
DST42000

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB320
Universal jaw set aluminium



UB320ST
Universal jaw set steel



ADS320N-S
Pressure piece N / S



ADS320C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

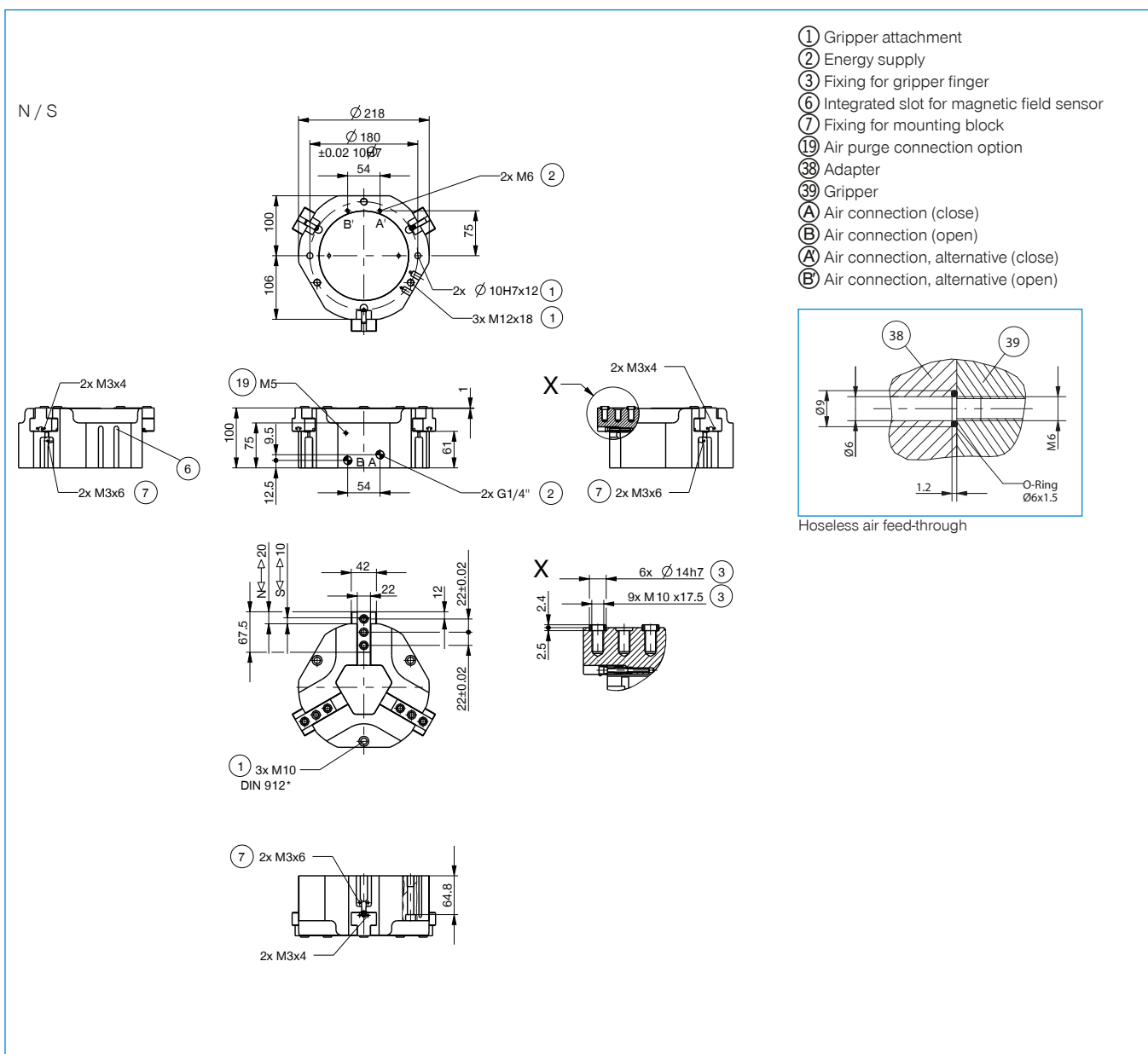


CONNECTIONS / OTHER



S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	▶ Technical data	
	GD320N-C	GD320S-C
Stroke per jaw [mm]	20	10
Gripping force in closing [N]	8200	18150
Gripping force in opening [N]	8450	18700
Gripping force secured by spring min. [N]		
Closing time [s]	0.35	0.35
Opening time [s]	0.35	0.35
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	2	2
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	825	825
Protection to IEC 60529	IP40	IP40
Weight [kg]	9.6	9.6



3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD330

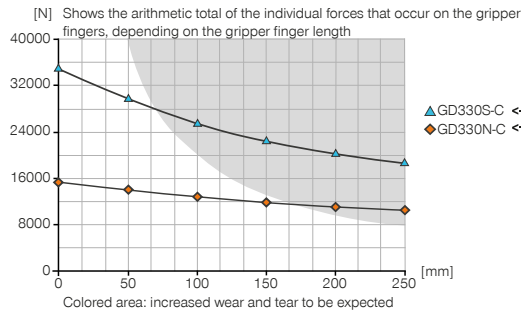
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Installation size GD330 / 3-Jaw Concentric Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

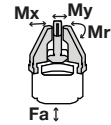


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	200
Mx [Nm]	275
My [Nm]	300
Fa [N]	9000

INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-34



6 [piece]
Centering Disc
DST43000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB330
Universal jaw set aluminium



UB330ST
Universal jaw set steel



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



WV1-4X8
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



CONNECTIONS / OTHER

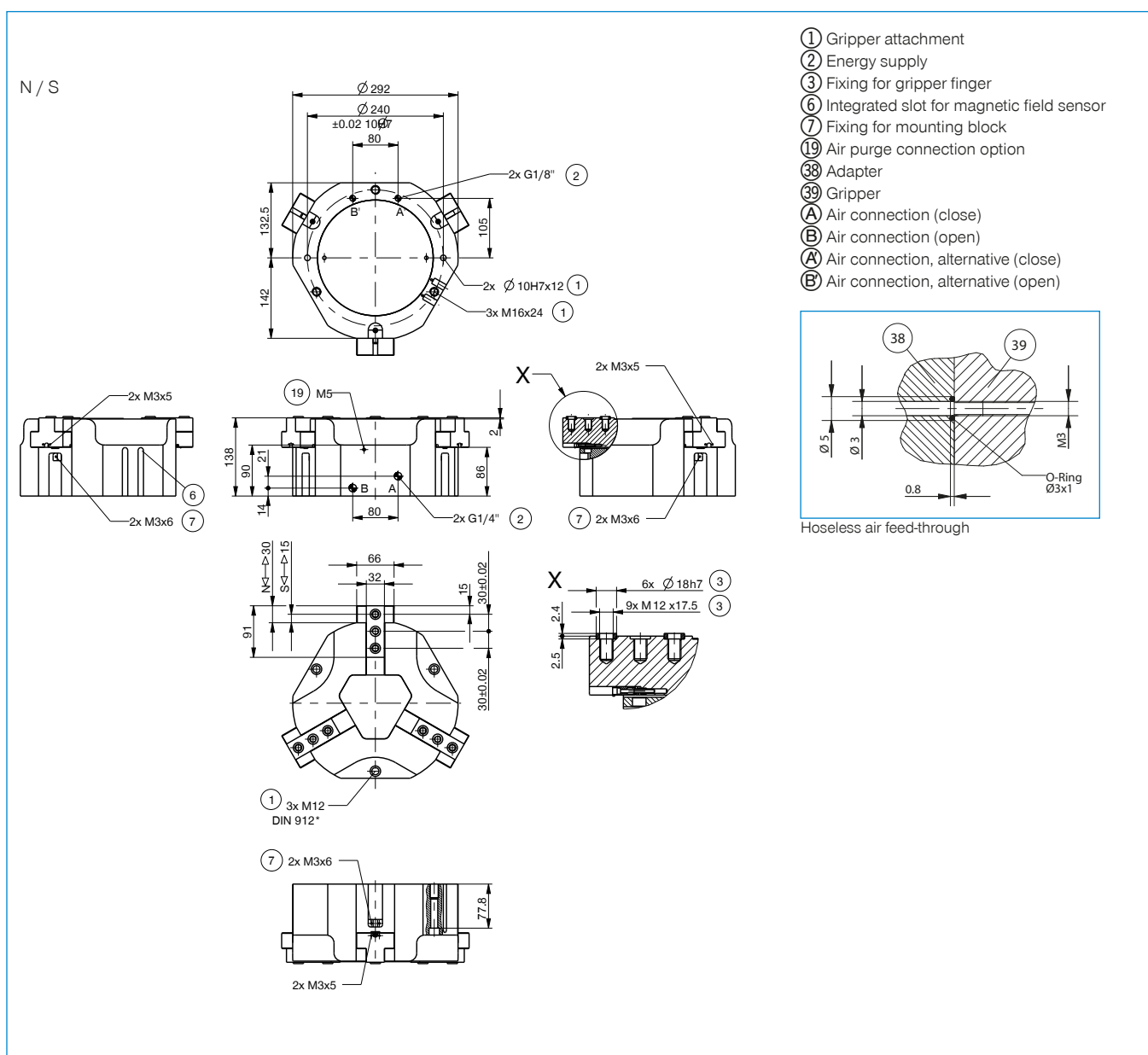


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

Order no.	▶ Technical data	
	GD330N-C	GD330S-C
Stroke per jaw [mm]	30	15
Gripping force in closing [N]	15300	34150
Gripping force in opening [N]	15550	34700
Gripping force secured by spring min. [N]		
Closing time [s]	0.8	0.8
Opening time [s]	0.8	0.8
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	2	2
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	+5	+5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	2270	2270
Protection to IEC 60529	IP40	IP40
Weight [kg]	24	24



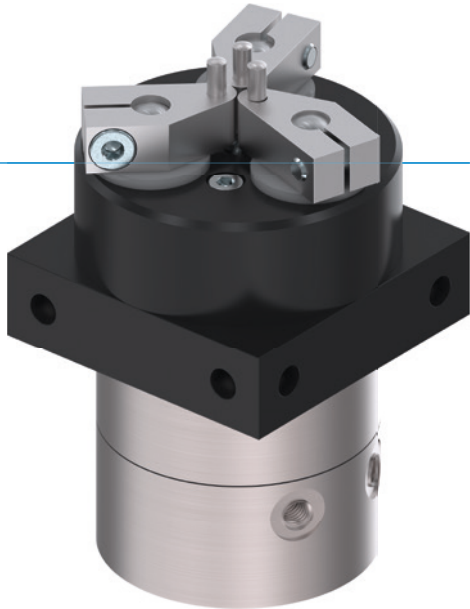
3-JAW CONCENTRIC GRIPPERS

SERIES GD

1

Series GD / 3-Jaw Concentric Grippers / pneumatical / Grippers




▶ PRODUCT ADVANTAGES



“The flexible”

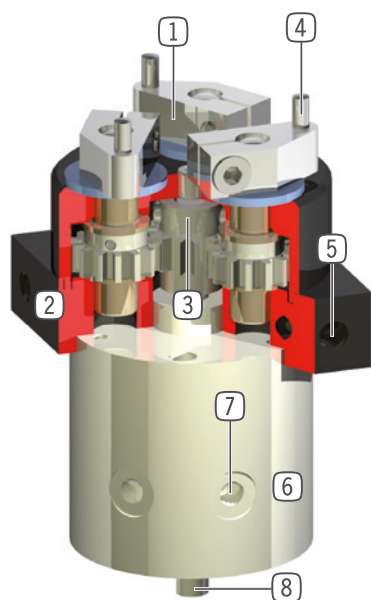
- ▶ **Largest stroke in small installation space**
You can cover numerous application variants with just one gripper type
- ▶ **Gripper jaws included in the delivery**
Reduces your design effort, manufacturing costs and setup time
- ▶ **Smooth stroke configuration**
Using the optionally available stroke limit, you can customise the stroke to your application, even stroke sensing is possible

▶ SERIES CHARACTERISTICS

Installation size	
GDXX	
 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Gripping movement on rotation**
 - for various workpiece diameters
- ② **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ③ **Planetary transmission**
 - synchronized the movement of the gripper jaws
- ④ **Standard pins serve as gripper jaw**
- ⑤ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑥ **Drive**
 - double-acting pneumatic cylinder
- ⑦ **Energy supply**
 - possible radial and axial
- ⑧ **Shaft projection**
 - for accessory assembly e.g. sensors

► TECHNICAL DATA

Installation size	Stroke [°]	Gripping moment [Nm]	Weight [kg]	IP class
GD1	130	0,12	0.08	IP40
GD10	180	1	0.35	IP40
GD50	120	9	2	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

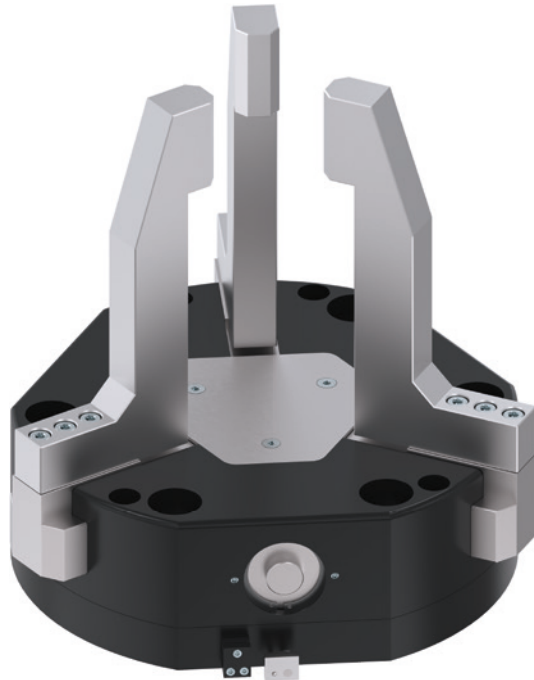


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE

OVERVIEW OF SERIES



PNEUMATIC

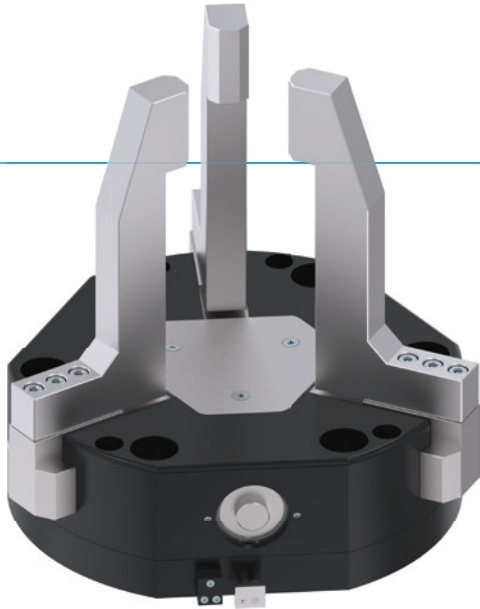


Series GD500

186

3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE SERIES GD500




▶ PRODUCT ADVANTAGES



“The flat”

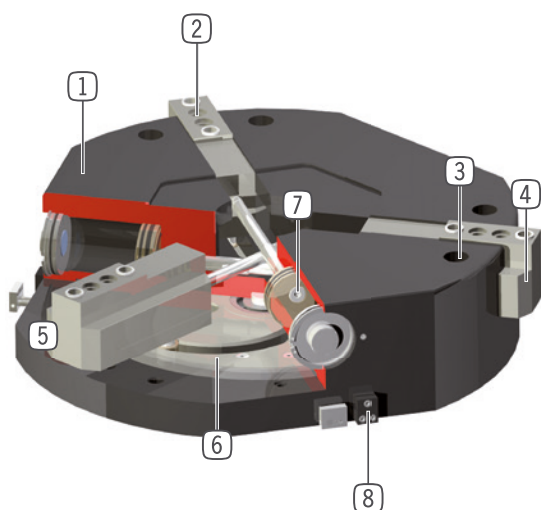
- ▶ **Reduced installation height due to horizontal drive**
Reduces the interference contours for your application
- ▶ **Proven T slot guide**
This established and proven guiding technology stands for the highest process reliability like no other
- ▶ **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	
GD5XX	
 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 IP 40	●



► BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ② **Removable centering sleeves**
 - quick and economical positioning of the gripper fingers
- ③ **Mounting and positioning**
- ④ **Gripper jaw**
 - ground, hardened steel
 - individual gripper finger mounting
- ⑤ **Precise T-Slot guide**
 - high forces and moments capacity
- ⑥ **Cam**
 - synchronized jaw movement
- ⑦ **Drive**
 - three double-acting pneumatic cylinders
- ⑧ **Mounting block**
 - mounting for inductive proximity switch

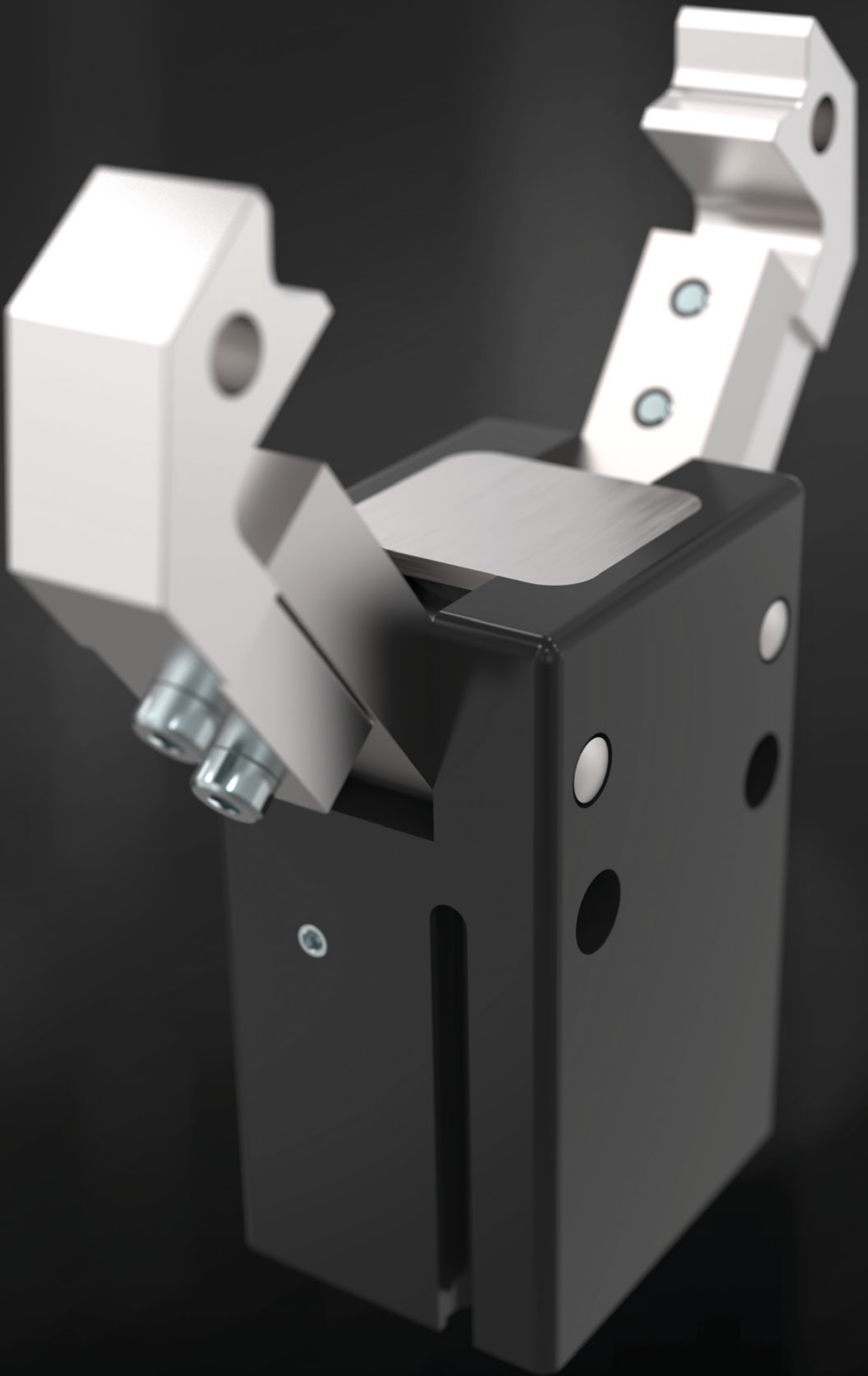
► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GD530	30	1300	7.4	IP40
GD540	40	2480	22.3	IP40
GD560	60	2480	34.3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



2-JAW ANGULAR GRIPPERS

OVERVIEW OF SERIES



PNEUMATIC



Series MGW800

190



Series GZ1000

212

2-JAW ANGULAR GRIPPERS

SERIES MGW800

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs





▶ High moment load

The optimally designed angular gear box provides the highest durability for your application

▶ Failure-free continuous operation

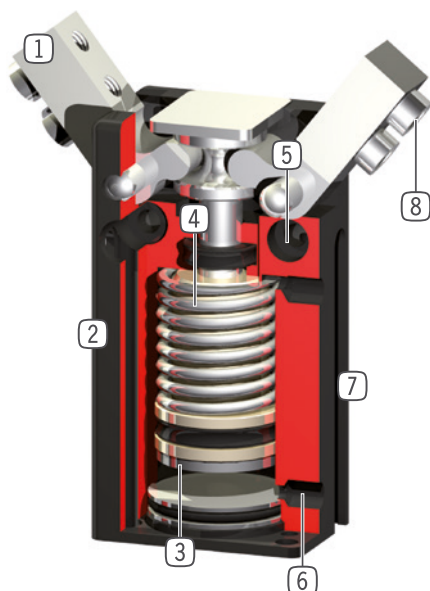
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
MGW8XX	N	NC
 Spring closing C		●
 10 million maintenance-free cycles (max.)	●	●
 Magnetic field sensor	●	●
 IP30	●	●



► BENEFITS IN DETAIL



- ① **Gripper jaw**
- individual gripper finger mounting
- ② **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ③ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ④ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage (from size 803 upwards)
- ⑤ **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ⑥ **Energy supply**
- possible from several sides
- ⑦ **Sensing slot**
- mounting and positioning of magnetic field sensors
- ⑧ **Removable centering sleeves**
- quick and economical positioning of the gripper fingers

► TECHNICAL DATA

Installation size	Stroke [°]	Gripping force [N]	Weight [kg]	IP class
MGW801	37.5	5 - 7,5	0,01	IP30
MGW802	37.5	9 - 10	0,015	IP30
MGW803	37.5	33 - 49	0,025 - 0,04	IP30
MGW804	37.5	51 - 72	0,05 - 0,08	IP30
MGW806	37.5	91 - 118	0,1 - 0,12	IP30
MGW808	37.5	148 - 190	0,18 - 0,19	IP30
MGW810	37.5	205 - 270	0,28 - 0,31	IP30
MGW812	37.5	255 - 325	0,4 - 0,45	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

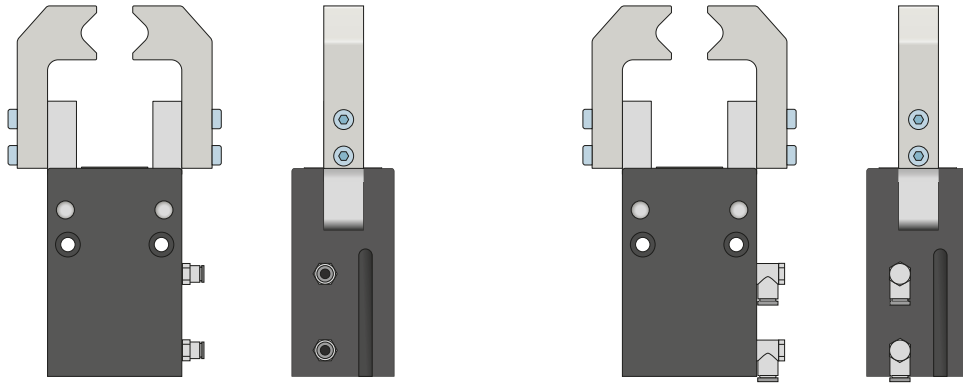
2-JAW ANGULAR GRIPPERS

SERIES MGW800 FUNCTIONAL DESCRIPTION

1

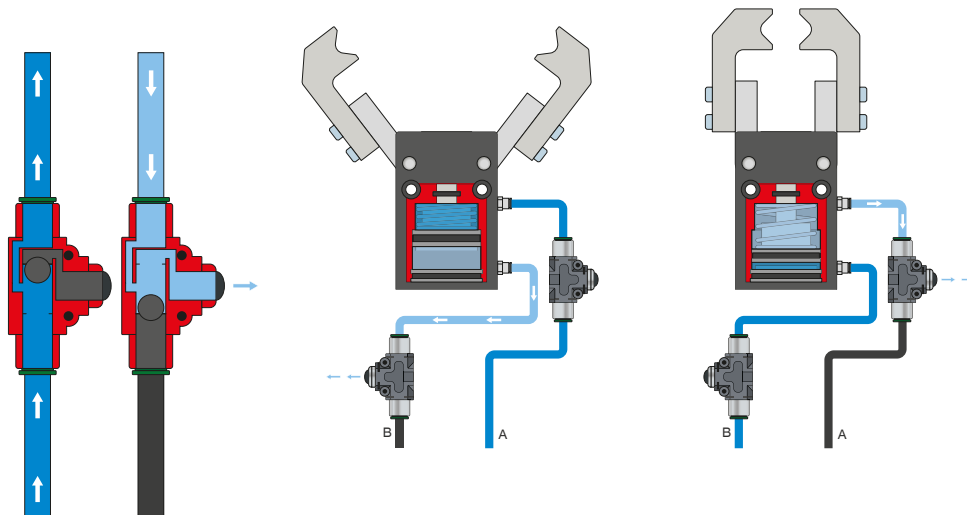


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



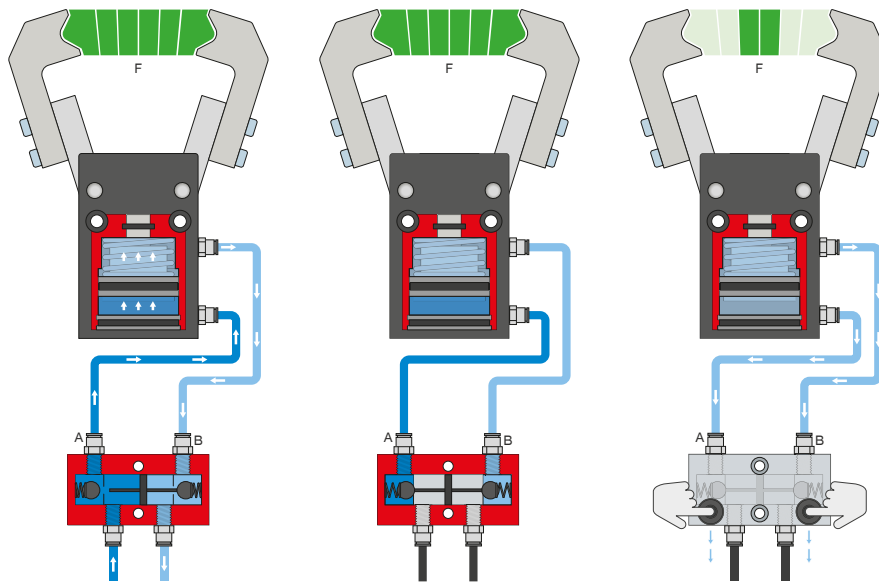
Quick exhaust valve – DEV

For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.



ENERGY SUPPLY



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

2-JAW ANGULAR GRIPPERS

SERIES MGW800 FUNCTIONAL DESCRIPTION

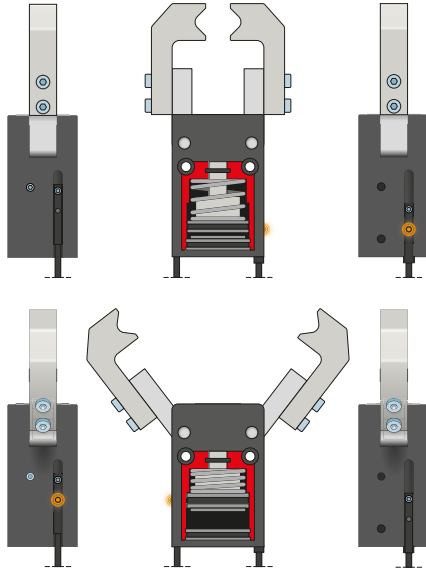
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Series MGW800 / 2-Jaw Angular Grippers / pneumatical / Grippers

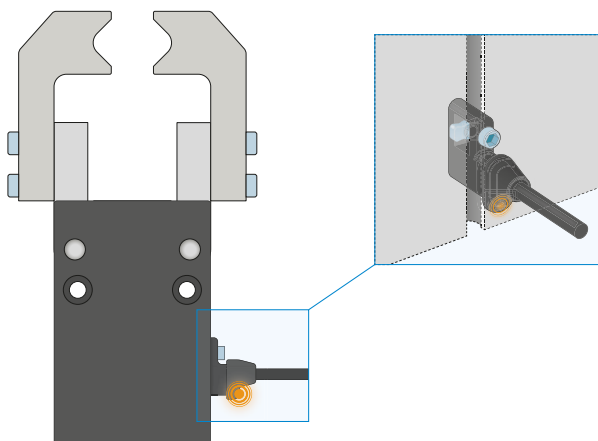


SENSORS

MFS02



MFS01



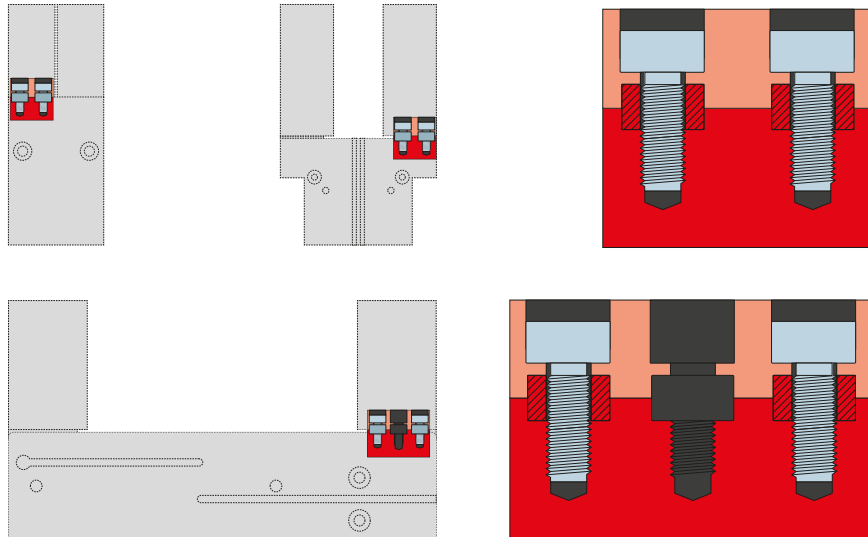
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW801

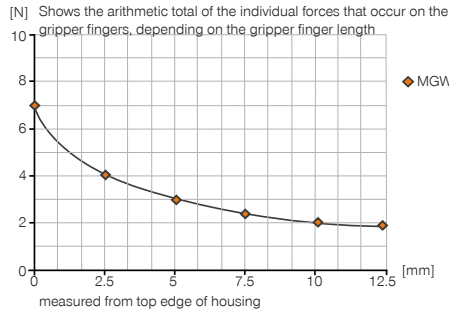
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Installation size MGW801 / 2-Jaw Angular Grippers / pneumatic / Grippers

▶ PRODUCT SPECIFICATIONS

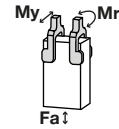


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.2
My [Nm]	0.2
Fa [N]	37

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



ENERGY SUPPLY

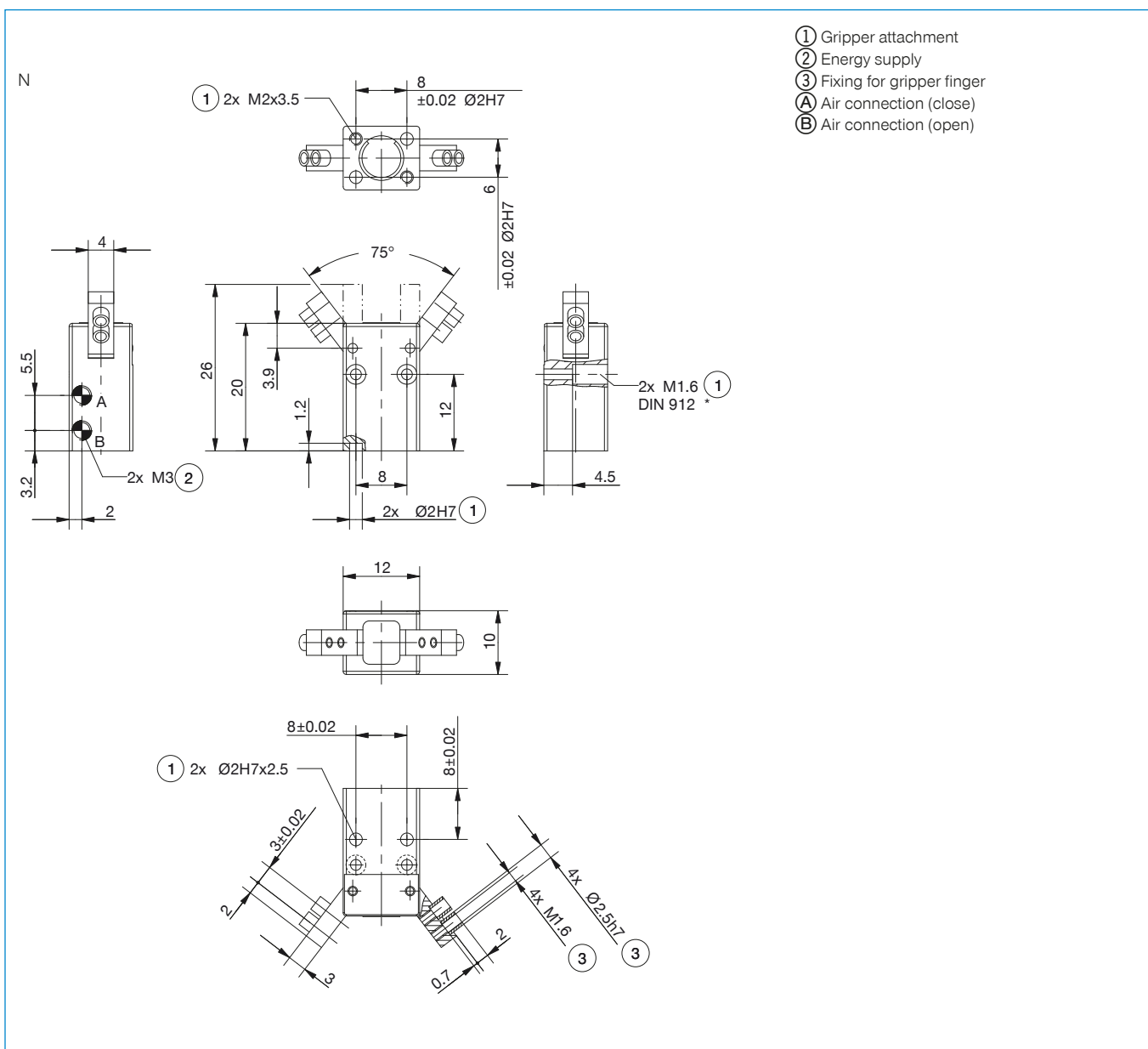


DEV04
Quick Exhaust Valve



WVM3
Angled Fittings - Barb Style Connection

Order no.	Technical data
	MGW801N
Stroke per jaw [°]	37.5
Gripping moment in closing [Nm]	0.025
Gripping moment in opening [Nm]	0.03
Gripping moment secured by spring min. [Nm]	
Gripping force in closing [N]	5
Gripping force in opening [N]	7.5
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.14
Protection to IEC 60529	IP30
Weight [kg]	0.01



2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW802

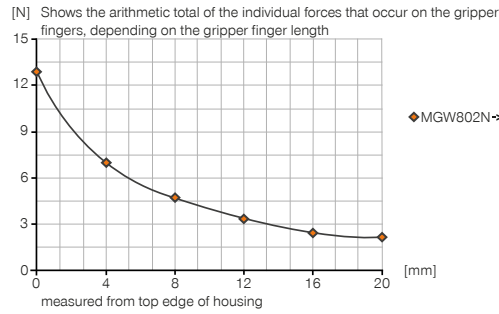
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Installation size MGW802 / 2-Jaw Angular Grippers / pneumatic / Grippers

▶ PRODUCT SPECIFICATIONS

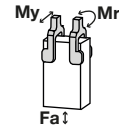


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.3
My [Nm]	0.3
Fa [N]	60

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80200

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



ENERGY SUPPLY

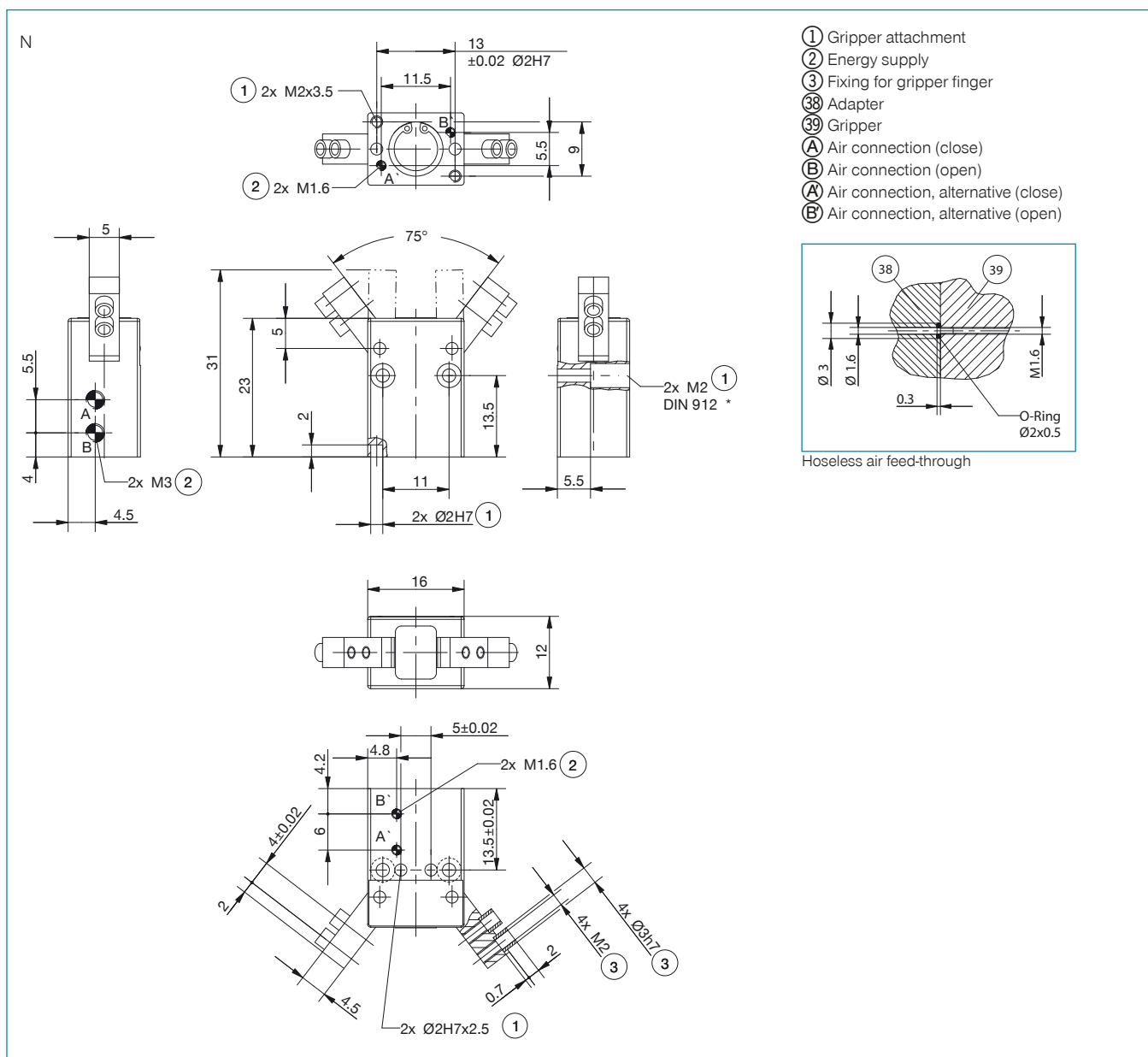


DEV04
Quick Exhaust Valve



WVM3
Angled Fittings - Barb Style Connection

Order no.	MGW802N
Stroke per jaw [°]	37.5
Gripping moment in closing [Nm]	0.045
Gripping moment in opening [Nm]	0.05
Gripping moment secured by spring min. [Nm]	
Gripping force in closing [N]	9
Gripping force in opening [N]	10
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.22
Protection to IEC 60529	IP30
Weight [kg]	0.015



2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW803

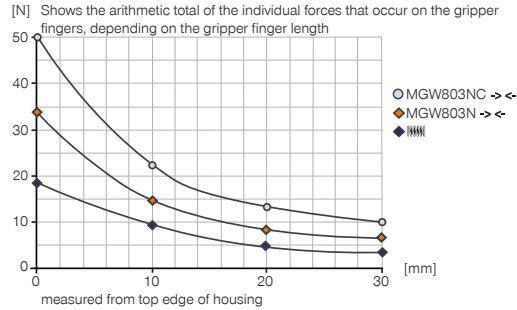
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Installation size MGW803 / 2-Jaw Angular Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

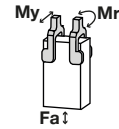


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.4
My [Nm]	0.4
Fa [N]	90

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80320

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

2-JAW ANGULAR GRIPPERS

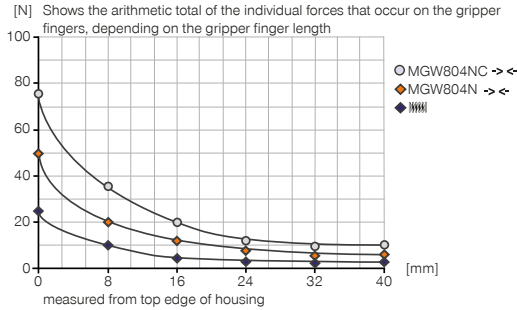
INSTALLATION SIZE MGW804

1

▶ PRODUCT SPECIFICATIONS

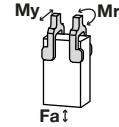


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.5
My [Nm]	0.5
Fa [N]	150

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

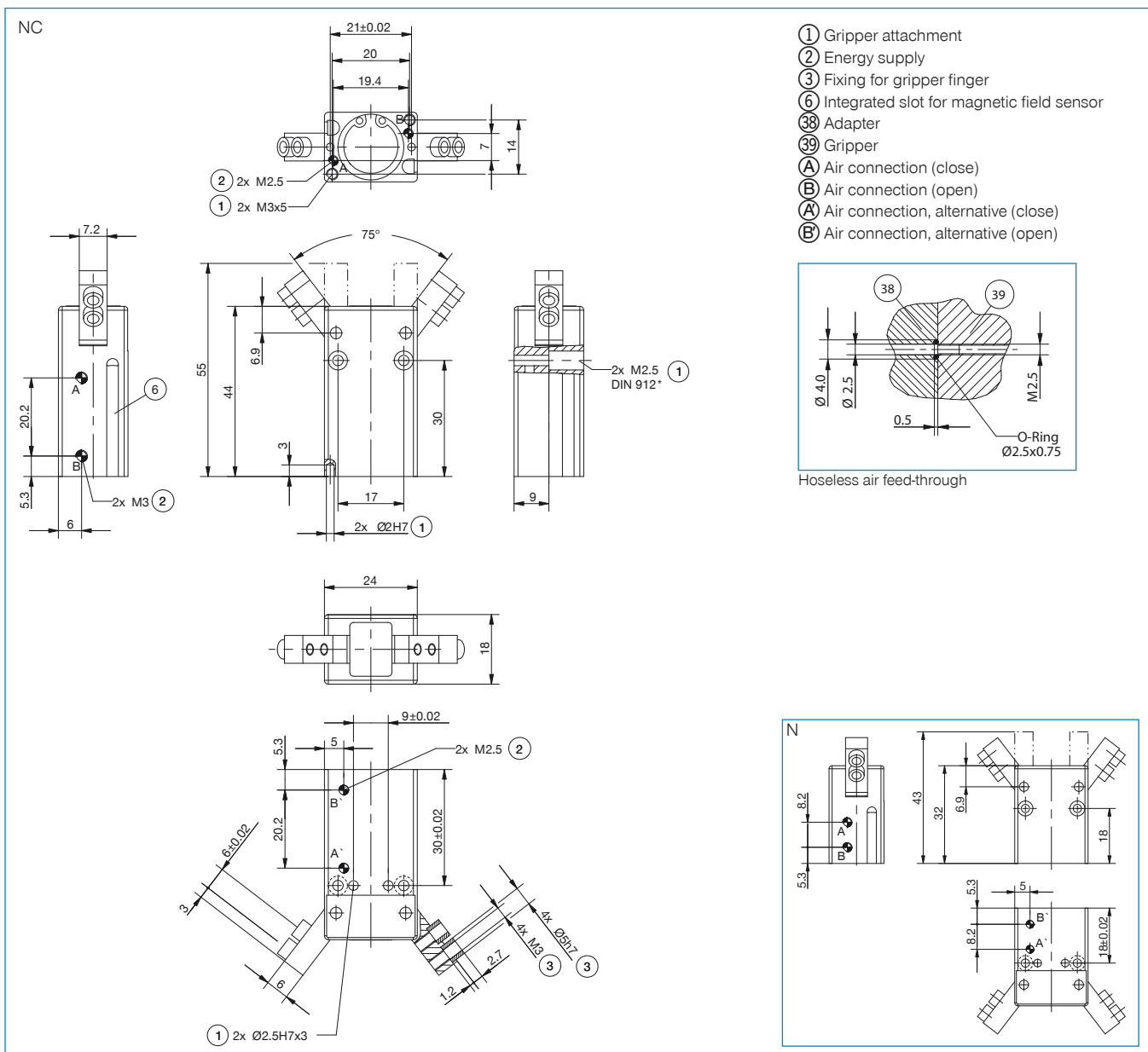


MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

Order no.	▶ Technical data	
	MGW804N	MGW804NC
Stroke per jaw [°]	37.5	37.5
Gripping moment in closing [Nm]	0.35	0.5
Gripping moment in opening [Nm]	0.41	
Gripping moment secured by spring min. [Nm]		0.15
Gripping force in closing [N]	51	72
Gripping force in opening [N]	59	
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.03
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	1.4	2
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.05	0.08



2-JAW ANGULAR GRIPPERS

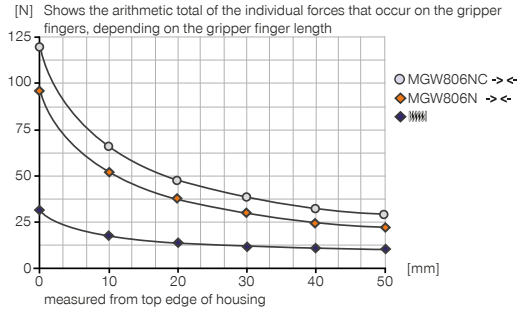
INSTALLATION SIZE MGW806

1

PRODUCT SPECIFICATIONS

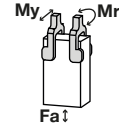


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.7
My [Nm]	0.7
Fa [N]	260

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

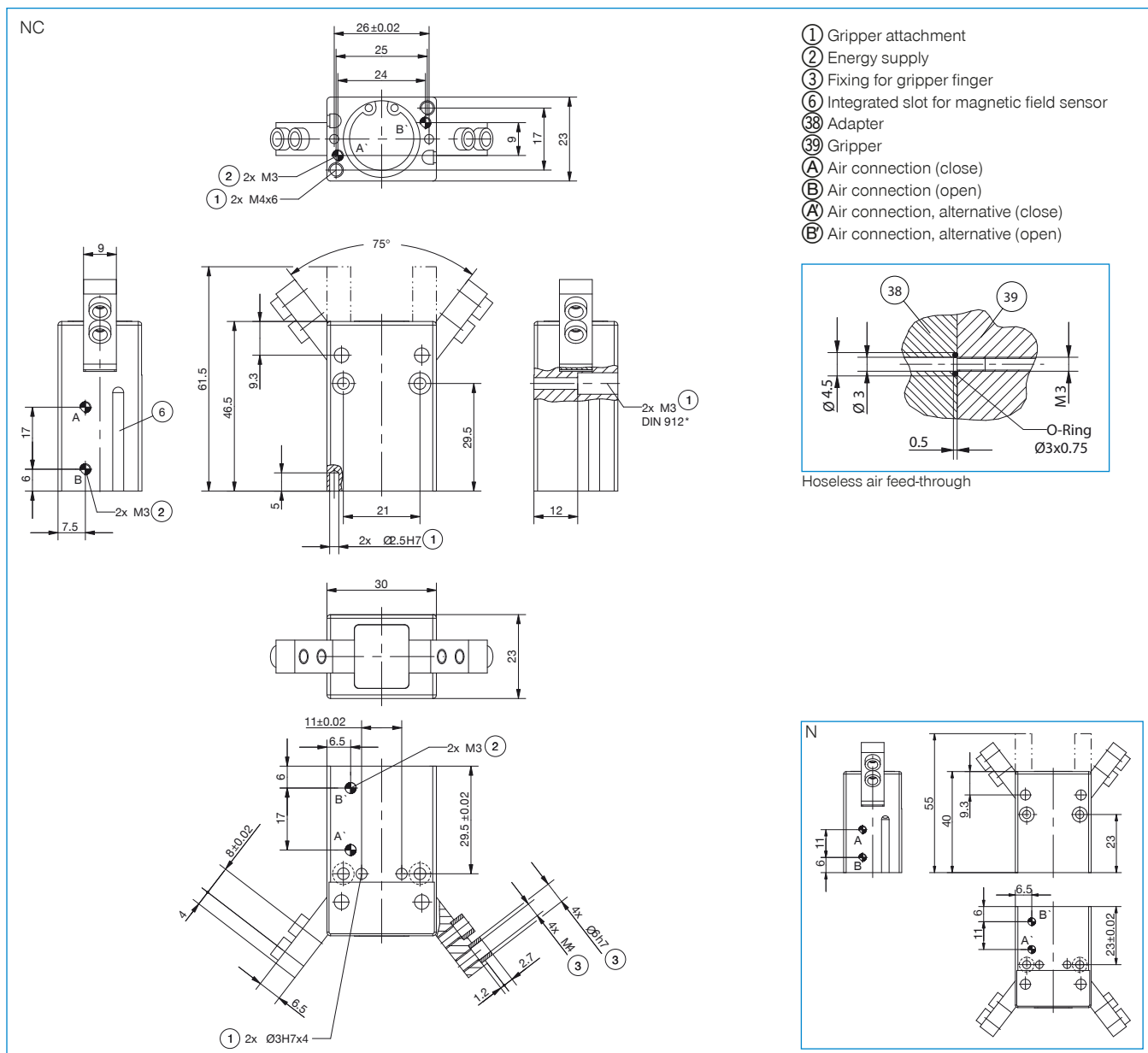


MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

Order no.	► Technical data	
	MGW806N	MGW806NC
Stroke per jaw [°]	37.5	37.5
Gripping moment in closing [Nm]	0.85	1.1
Gripping moment in opening [Nm]	1.02	
Gripping moment secured by spring min. [Nm]		0.25
Gripping force in closing [N]	91	118
Gripping force in opening [N]	110	
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	2.4	3.4
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.1	0.12



2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW808

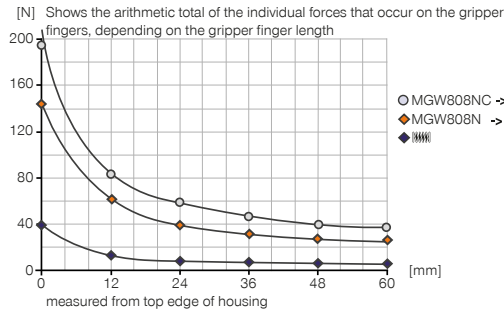
1

Installation size MGW808 / 2-Jaw Angular Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

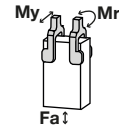


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1.3
My [Nm]	1.3
Fa [N]	430

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40600

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

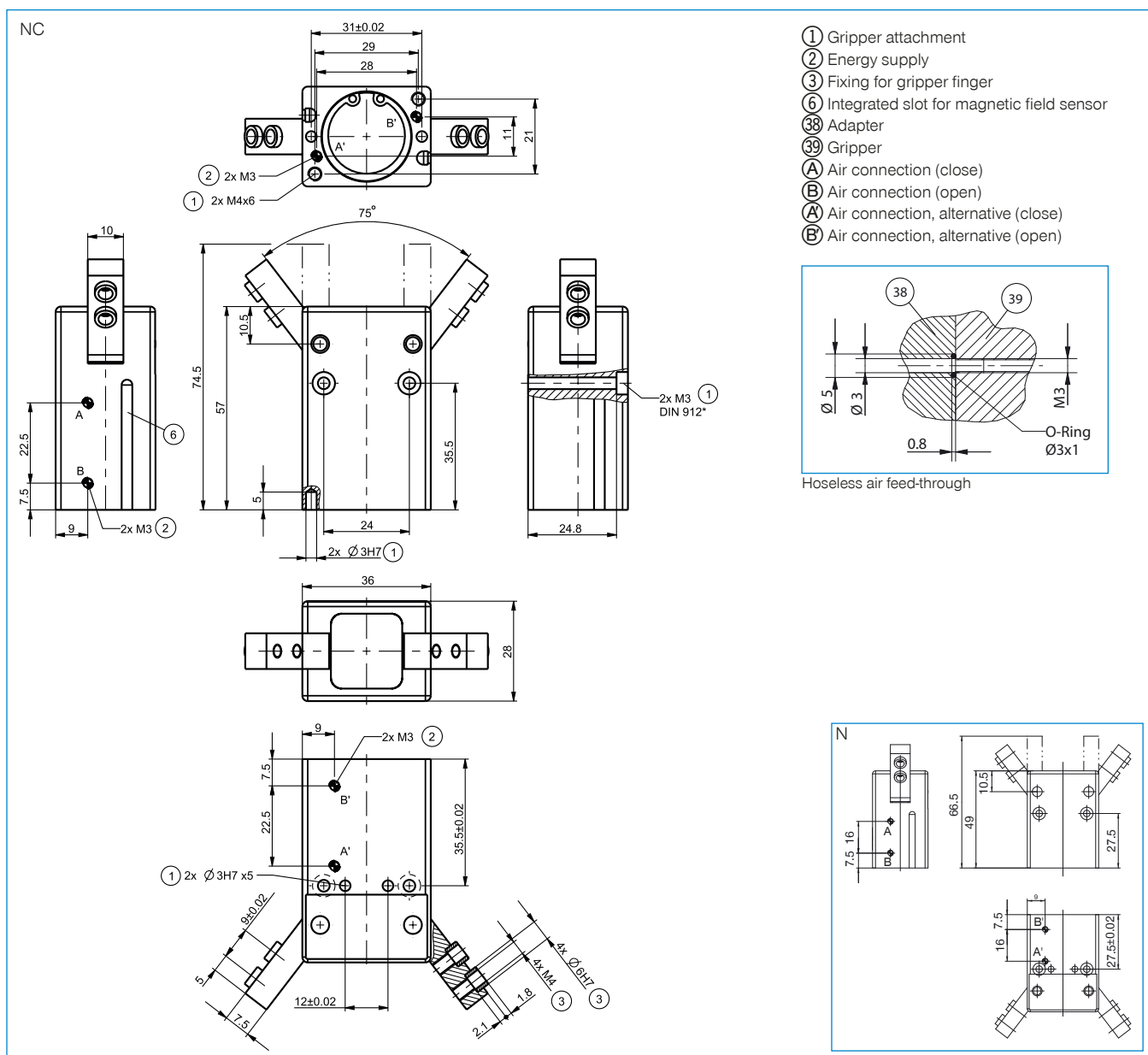


MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

Order no.	► Technical data	
	MGW808N	MGW808NC
Stroke per jaw [°]	37.5	37.5
Gripping moment in closing [Nm]	1.55	2
Gripping moment in opening [Nm]	1.76	
Gripping moment secured by spring min. [Nm]		0.45
Gripping force in closing [N]	148	190
Gripping force in opening [N]	168	
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	8.1	10.5
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.18	0.19



2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW810

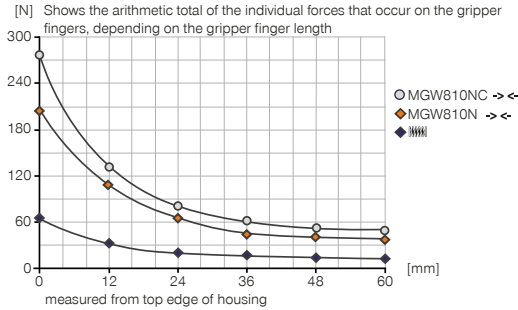
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Installation size MGW810 / 2-Jaw Angular Grippers / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS

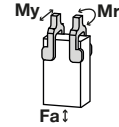


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	1.6
My [Nm]	1.6
Fa [N]	500

▶ INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

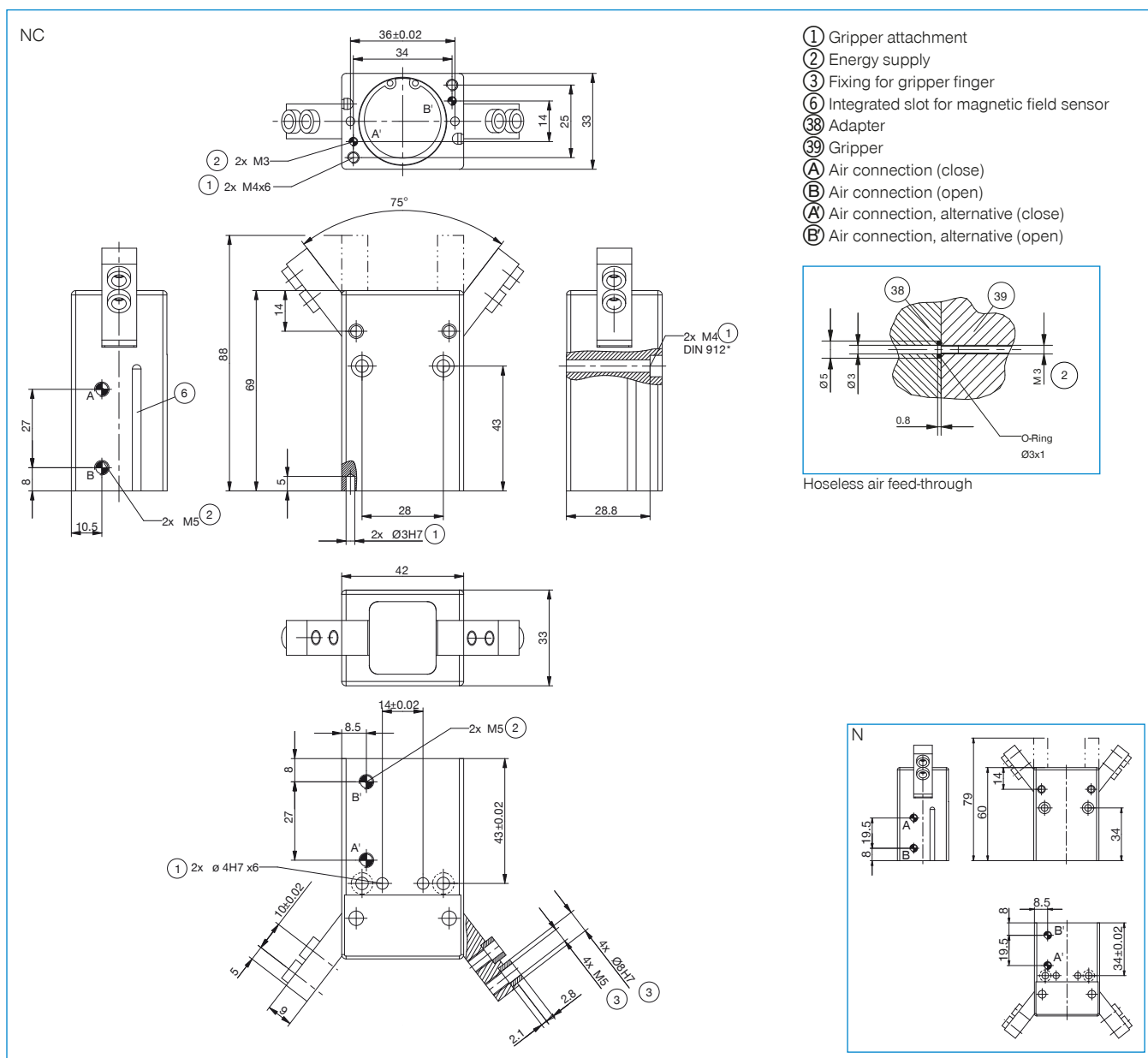


MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

Order no.	► Technical data	
	MGW810N	MGW810NC
Stroke per jaw [°]	37.5	37.5
Gripping moment in closing [Nm]	2.9	3.8
Gripping moment in opening [Nm]	3.3	
Gripping moment secured by spring min. [Nm]		0.9
Gripping force in closing [N]	205	270
Gripping force in opening [N]	235	
Closing time [s]	0.03	0.03
Opening time [s]	0.03	0.06
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	14.1	18.4
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.28	0.31



2-JAW ANGULAR GRIPPERS

INSTALLATION SIZE MGW812

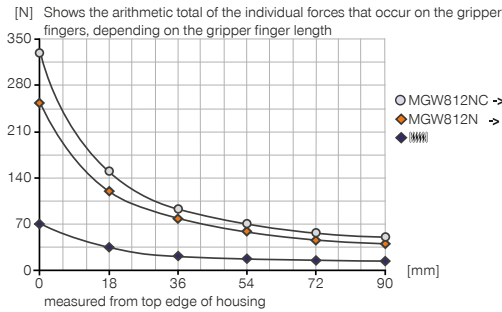
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Installation size MGW812 / 2-Jaw Angular Grippers / pneumatical / Grippers

PRODUCT SPECIFICATIONS

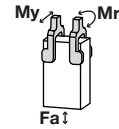


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	2.3
My [Nm]	2.3
Fa [N]	720

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector

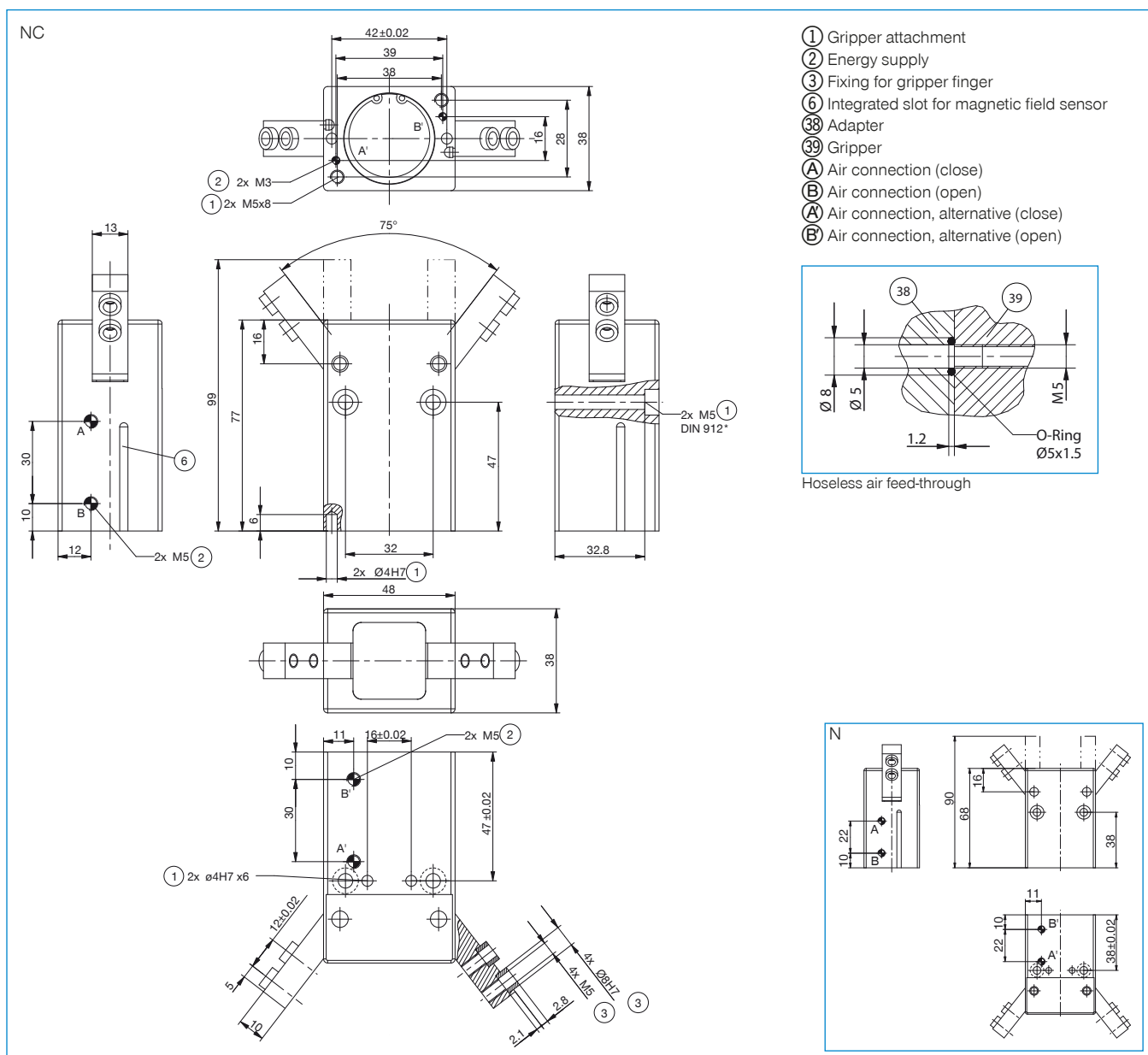


MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

Order no.	► Technical data	
	MGW812N	MGW812NC
Stroke per jaw [°]	37.5	37.5
Gripping moment in closing [Nm]	4.1	5.2
Gripping moment in opening [Nm]	4.55	
Gripping moment secured by spring min. [Nm]		1.1
Gripping force in closing [N]	255	325
Gripping force in opening [N]	285	
Closing time [s]	0.03	0.03
Opening time [s]	0.03	0.06
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	22.1	27.6
Protection to IEC 60529	IP30	IP30
Weight [kg]	0.4	0.45



2-JAW ANGULAR GRIPPERS

SERIES GZ1000

1

Series GZ1000 / 2-Jaw Angular Grippers / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



“The top of the line”

▶ Unique quality meets functionality

This is one of the best angular grippers on the market, enabling you to make your application more cost-effective and functional







▶ Variable attachment

Decide for yourself whether you want use screws, lock-nuts or a toolkit clamping system for fastening

▶ Sensing with process reliability

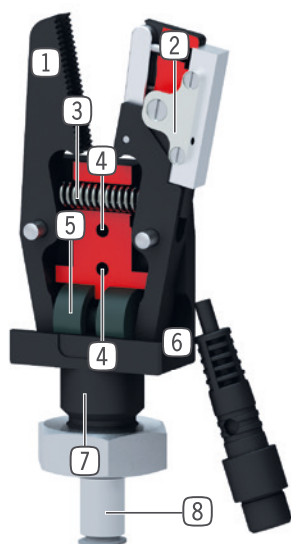
Unlike many other established products on the market, you can even differentiate between “Component present” and “Component not present”

▶ SERIES CHARACTERISTICS

Installation size	Version		
	GZ10XX	-01	-02
 Saw tooth jaw without query	●		
 Saw tooth jaw with query		●	
 Version for attaching customer-specific gripper fingers			●
 2 million maintenance-free cycles (max.)	●	●	●
 Inductive sensor		●	
 IP30	●	●	●



► BENEFITS IN DETAIL



- ① **Gripper jaw**
- available in different versions
- ② **Position sensing**
- via inductive proximity switch
- ③ **Return spring**
- to open the gripper jaws
- ④ **Mounting and positioning**
- via thread / through-hole
- ⑤ **Drive**
- single-acting pneumatic cylinder
- ⑥ **Housing**
- hard coated surface for increased durability
- ⑦ **Mounting and positioning**
- via fit, thread and lock nut
- ⑧ **Energy supply**

► TECHNICAL DATA

Installation size	Stroke [°]	Gripping force [N]	Weight [kg]	IP class
GZ1020	8	62	0,015 - 0,03	IP30
GZ1030	11	130	0,046 - 0,063	IP30
GZ1040	10	315	0,105 - 0,125	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE

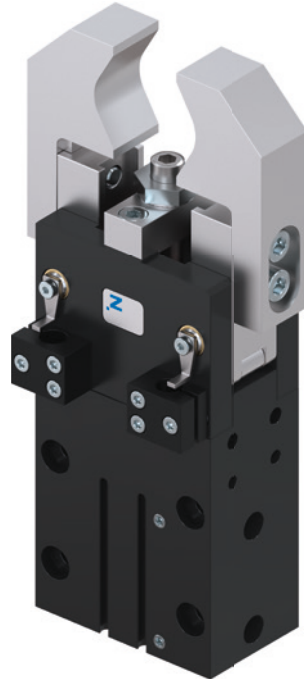


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



2-JAW RADIAL GRIPPER

THE SERIES AT A GLANCE



PNEUMATIC



Series GK

216



Series GG4000

236

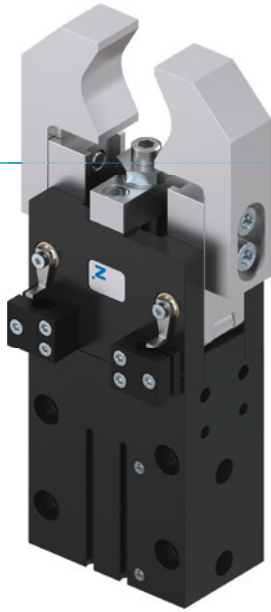
2-JAW RADIAL GRIPPER

SERIES GK

1

Series GK / 2-jaw radial gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



“The compact”

▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you






▶ Best force/installation space ratio

Force transmission using the toggle lever enables high gripping force while optimally utilizing the installation space

▶ Smooth stroke configuration

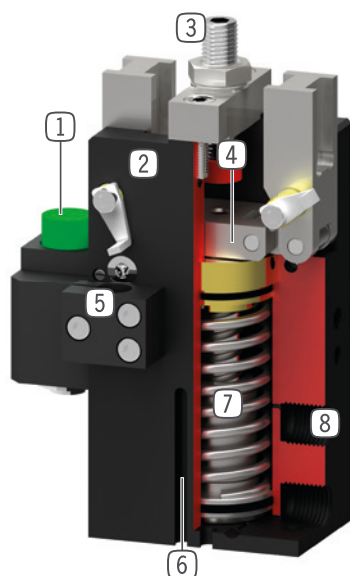
You can adjust the 180° opening angle to be unique to your application using an adjusting screw

▶ SERIES CHARACTERISTICS

Installation size	Version	
GKXX	N	NC
 Spring closing C		●
 10 million maintenance-free cycles (max.)	●	●
 Magnetic field sensor	●	●
 Self locking mechanism	●	●
 IP 20	●	●



► BENEFITS IN DETAIL



- ① **Buffer stop**
 - absorption of kinetic energy for heavy and long gripper fingers
- ② **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ③ **Stroke adjustment screw**
 - Infinitely adjustable opening stroke
- ④ **Guided toggle lever mechanism**
 - synchronized the movement of the gripper jaws
 - mechanically self-locking
- ⑤ **Mounting block**
 - mounting for inductive proximity switch
- ⑥ **Sensing slot**
 - mounting and positioning of magnetic field sensors
- ⑦ **Integrated gripping force safety device**
 - spring integrated into cylinder as energy storage
- ⑧ **Energy supply**
 - possible from several sides

► TECHNICAL DATA

Installation size	Stroke [°]	Gripping force [N]	Weight [kg]	IP class
GK15	90	70 - 100	0,1 - 0,12	IP20
GK20	90	150 - 210	0,23 - 0,3	IP20
GK25	90	440 - 610	0,42 - 0,58	IP20
GK35	90	950 - 1250	0,9 - 1,2	IP20
GK40	90	1400 - 1820	1,7 - 2,2	IP20
GK50	90	3500 - 4250	3,5 - 4,1	IP20

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

2-JAW RADIAL GRIPPERS

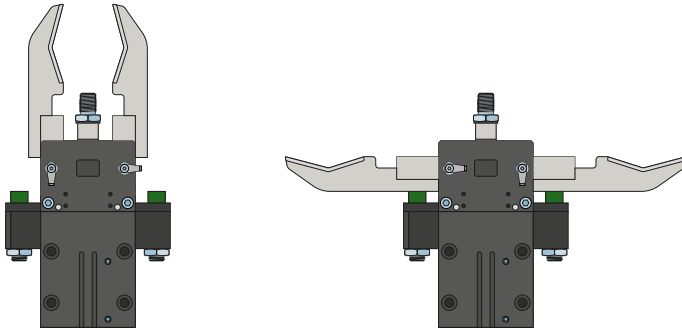
SERIES GK FUNCTIONAL DESCRIPTION

1

Series GK / 2-jaw radial gripper / pneumatical / Grippers



GRIPPING COMPONENTS



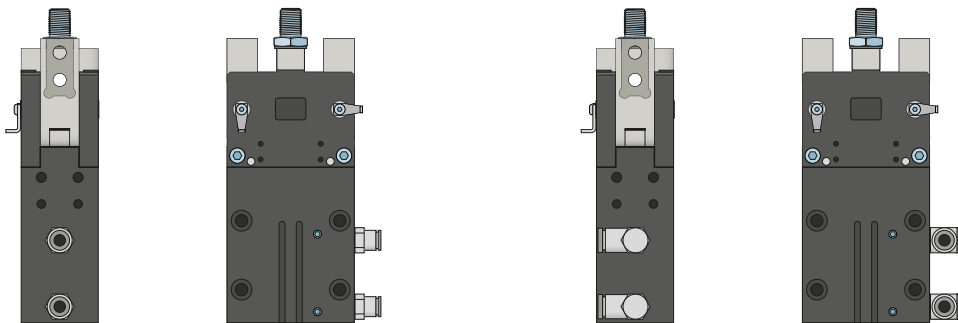
Buffer stop – PB

Absorption of kinetic energy for heavy and long gripper fingers

The buffer stops are used primarily for fast, unthrottled jaw movements. They are equally suitable for long gripper fingers, high jaw mass and for cycle time optimization. The energy is absorbed by an elastomer damper.



ENERGY SUPPLY

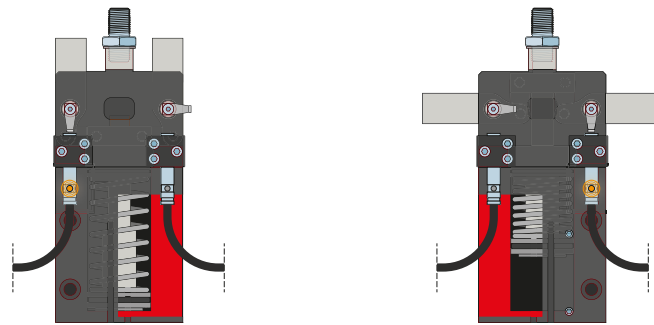


Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



SENSORS



Inductive sensors – NJ

The mounting block is aligned to the cam switch, and the sensor is guided into the mounting block until the required switching distance to the cam switch is reached. Fine adjustment can be made by moving the mounting block again. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

2-JAW RADIAL GRIPPERS

SERIES GK FUNCTIONAL DESCRIPTION

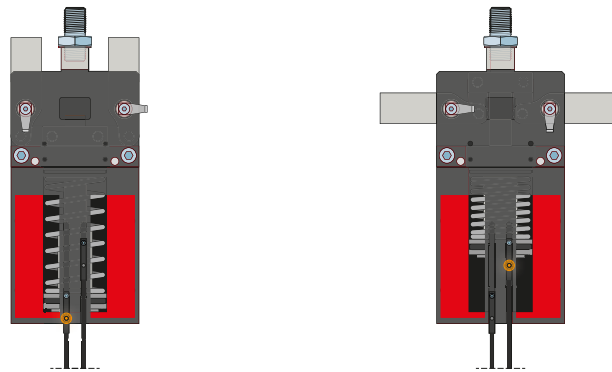
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Series GK / 2-jaw radial gripper / pneumatical / Grippers

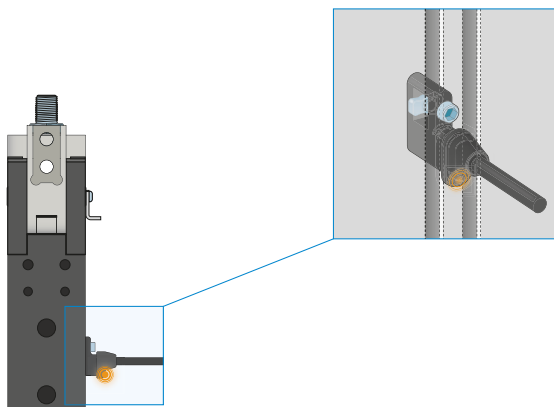


SENSORS

MFS02



MFS01



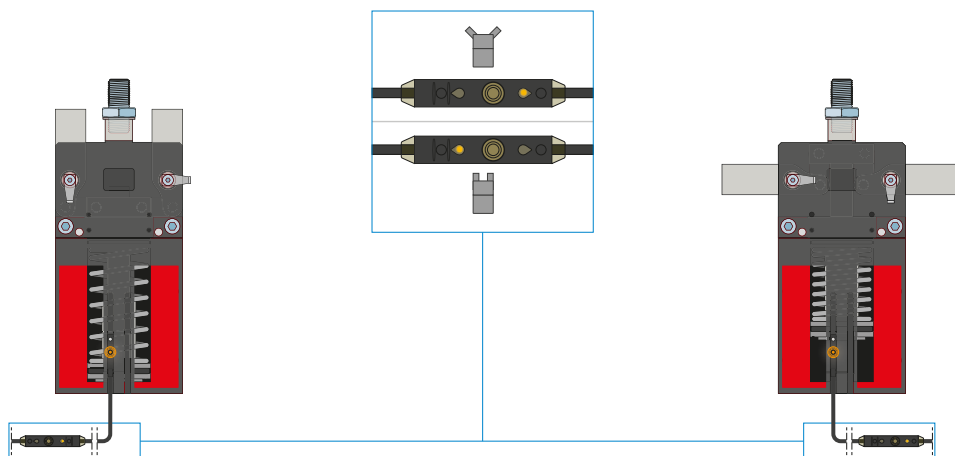
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



SENSORS



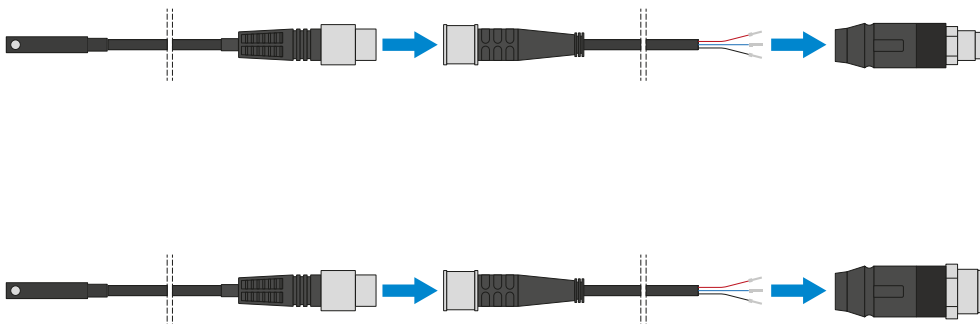
2-point magnetic field sensors - MFS

With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

2-JAW RADIAL GRIPPERS

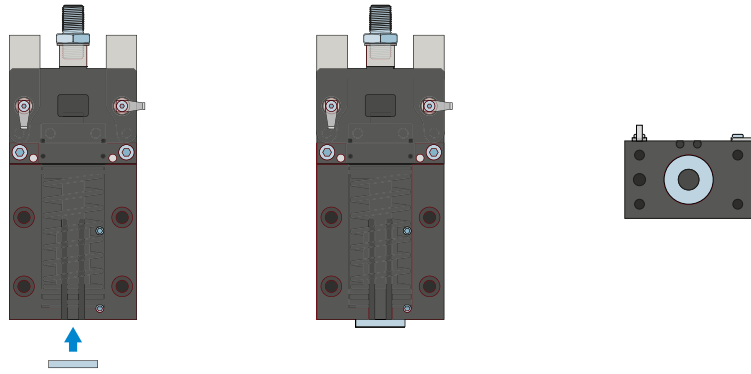
SERIES GK FUNCTIONAL DESCRIPTION

1

Series GK / 2-jaw radial gripper / pneumatical / Grippers



CONNECTIONS / OTHER



Centering disk

Is required in connection with an alignment pin to define the position of the gripper.

2-JAW RADIAL GRIPPER

INSTALLATION SIZE GK15

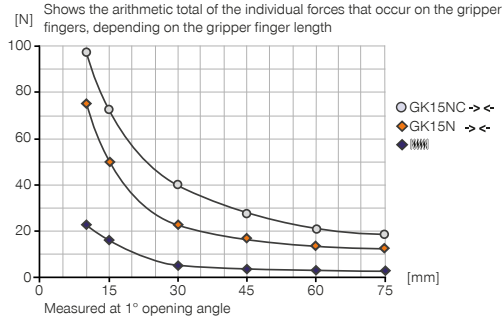
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Installation size GK15 / 2-jaw radial gripper / pneumatic / Grippers

PRODUCT SPECIFICATIONS

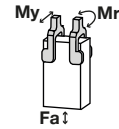


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.4
My [Nm]	0.4
Fa [N]	75

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



PB15N
Buffer stop



SENSORS



MFS01-K-KHC-P2-PNP
2-point sensor, cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



MFS01-S-KHC-P2-PNP
2-point sensor angled, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



SENSORS



KB3
Mounting block



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



NJ3-E2
Inductive proximity switch - Cable 5 m



KAG500B4
Plug-in connector Straight Cable 5m - Socket M8 (female)



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



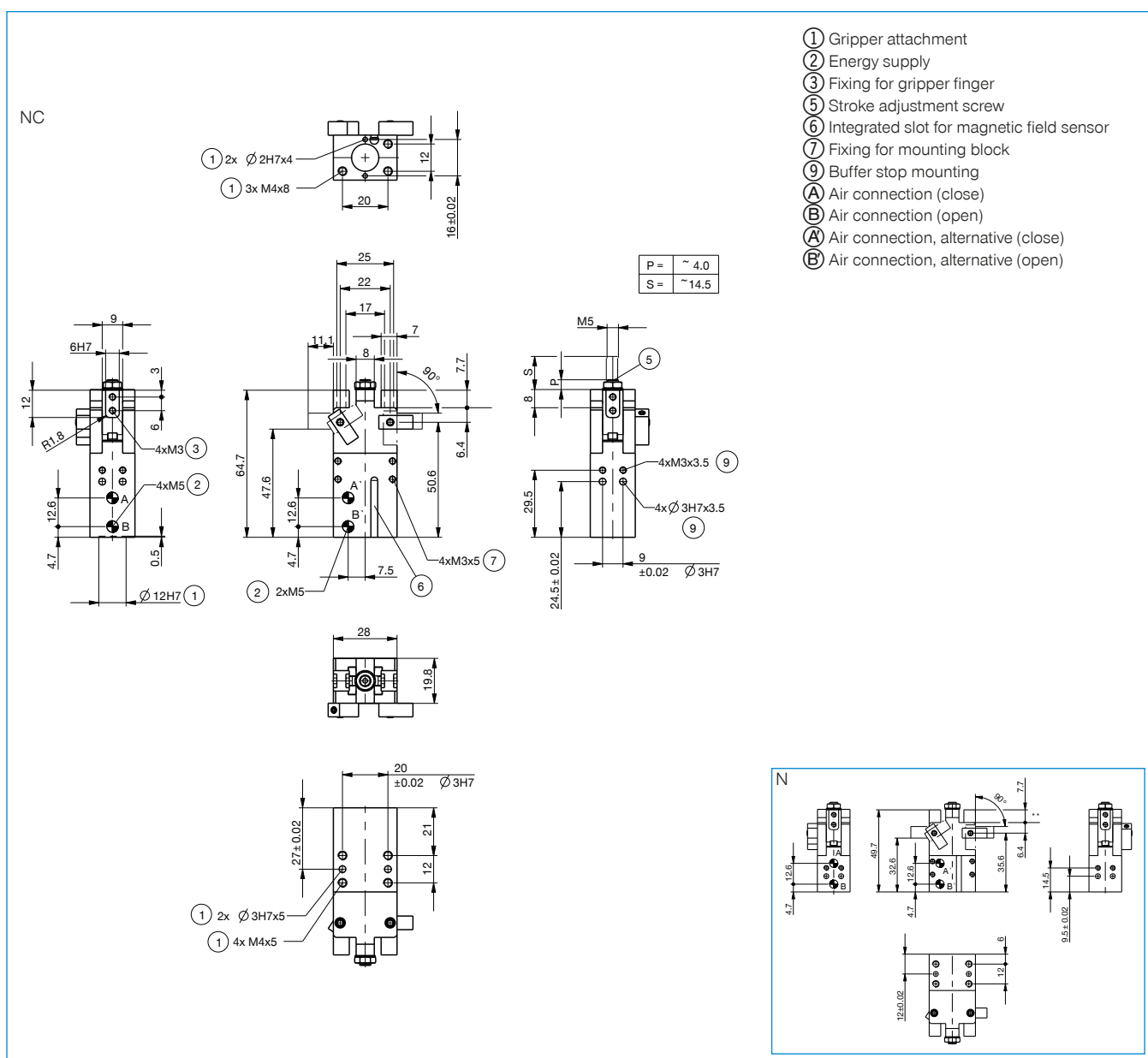
KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



ZE12H7X4
Centering Disc

Order no.	▶ Technical data	
	GK15N-B	GK15NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	1.2	1.6
Gripping moment secured by spring min. [Nm]		0.4
Gripping force in closing [N]*	70	100
Closing time [s]	0.1	0.2
Opening time [s]	0.1	0.2
Repetition accuracy +/- [mm]	0.06	0.06
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	2	2.4
Protection to IEC 60529	IP20	IP20
Weight [kg]	0.1	0.12

*Measured from top edge of housing



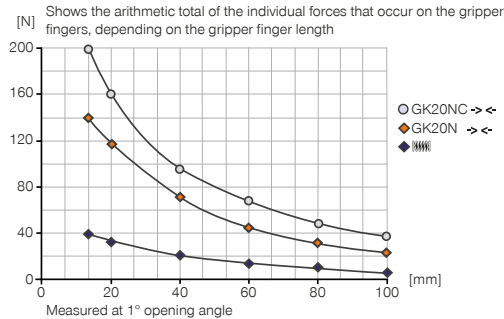
2-JAW RADIAL GRIPPER

INSTALLATION SIZE GK20

▶ PRODUCT SPECIFICATIONS

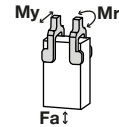


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	0.8
My [Nm]	1
Fa [N]	150

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



PB20N
Buffer stop



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



ENERGY SUPPLY



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



DRVM5X4
Flow Control Valves - with Swivel joint



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



SENSORS



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2
Inductive proximity switch - Cable 5 m



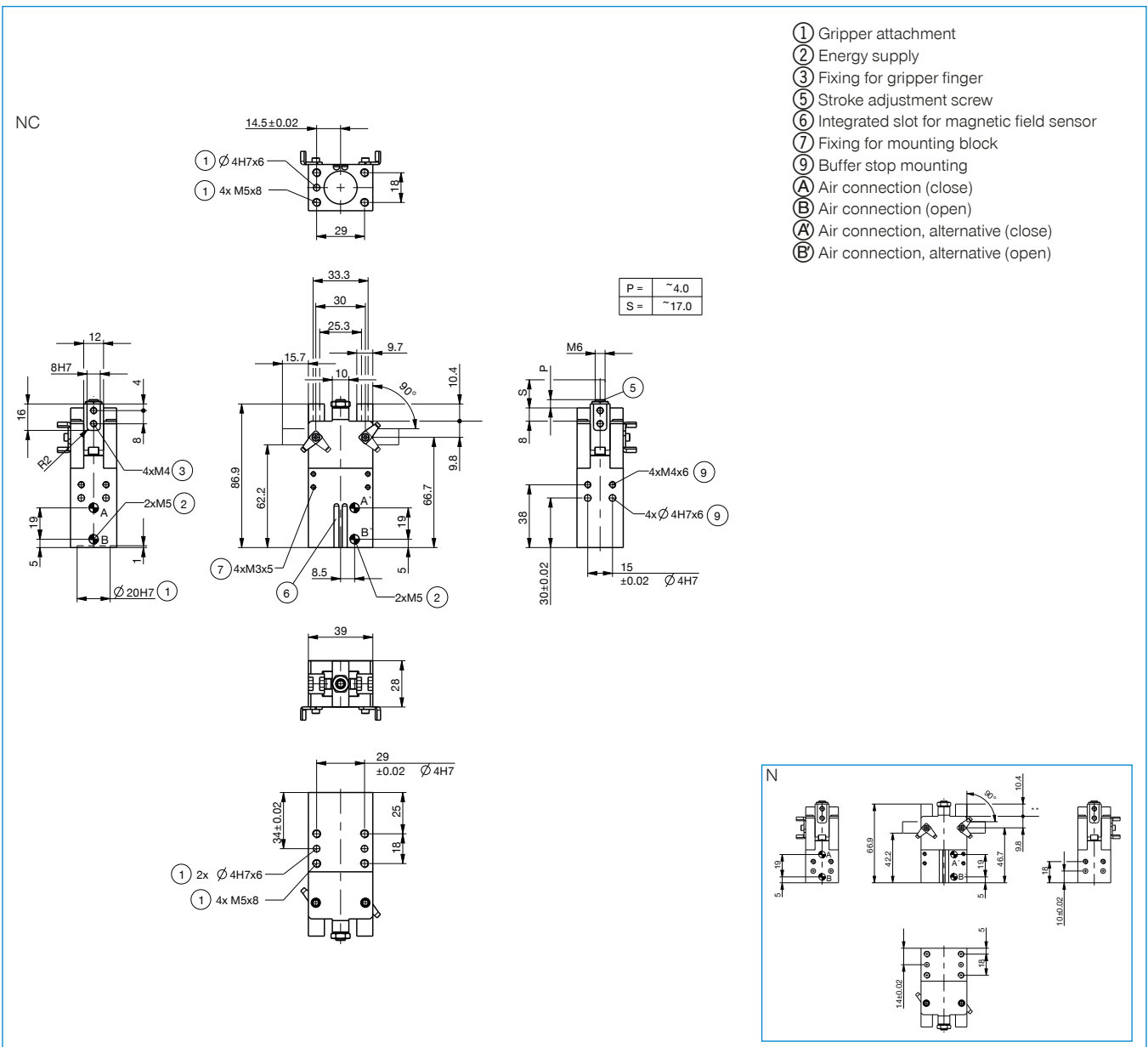
NJ8-E2S
Inductive proximity switch - Connector M8



ZE20H7X4
Centering Disc

Order no.	▶ Technical data	
	GK20N-B	GK20NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	3	4.2
Gripping moment secured by spring min. [Nm]		1.2
Gripping force in closing [N]*	150	210
Closing time [s]	0.1	0.2
Opening time [s]	0.1	0.2
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	9	11
Protection to IEC 60529	IP20	IP20
Weight [kg]	0.23	0.3

*Measured from top edge of housing



2-JAW RADIAL GRIPPER

INSTALLATION SIZE GK25

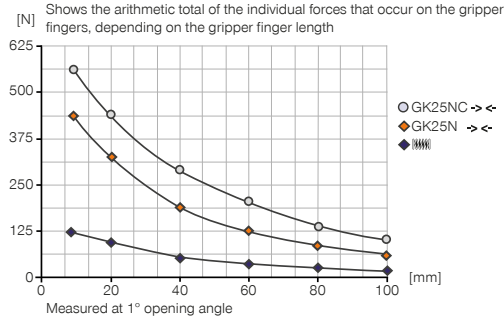
1

Installation size GK25 / 2-jaw radial gripper / pneumatic / Grippers

▶ PRODUCT SPECIFICATIONS

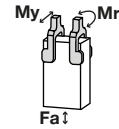


▶ Gripping force diagram



▶ Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	2.5
My [Nm]	4
Fa [N]	250

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



PB25N
Buffer stop



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



ENERGY SUPPLY



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



DRV5M4
Flow Control Valves - with Swivel joint



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



SENSORS



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2
Inductive proximity switch - Cable 5 m



ZE20H7X4
Centering Disc

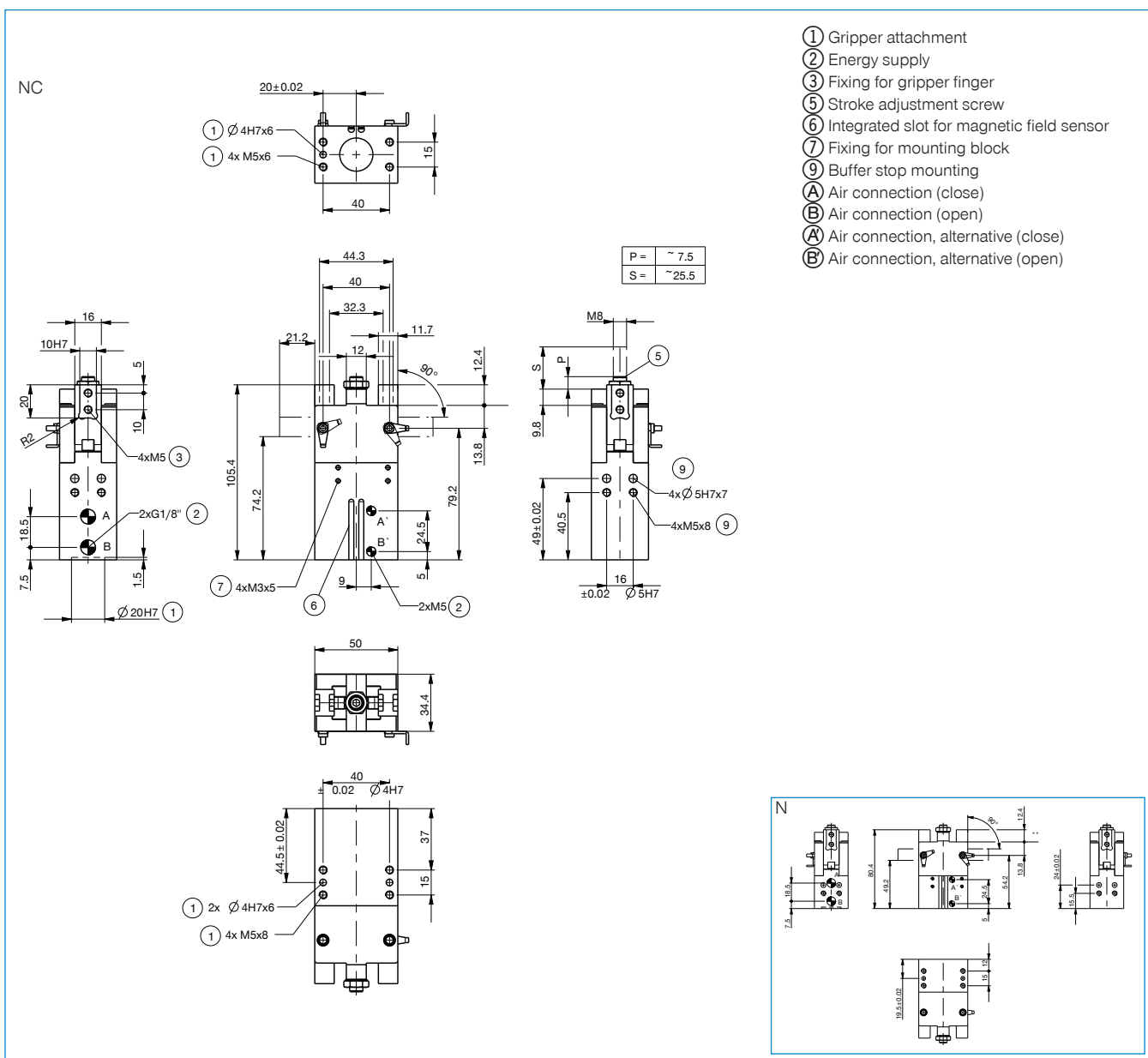


NJ8-E2S
Inductive proximity switch - Connector M8



Order no.	▶ Technical data	
	GK25N-B	GK25NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	10.5	14.5
Gripping moment secured by spring min. [Nm]		4
Gripping force in closing [N]*	440	610
Closing time [s]	0.15	0.25
Opening time [s]	0.15	0.25
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	18	21
Protection to IEC 60529	IP20	IP20
Weight [kg]	0.42	0.58

*Measured from top edge of housing



2-JAW RADIAL GRIPPER

INSTALLATION SIZE GK35

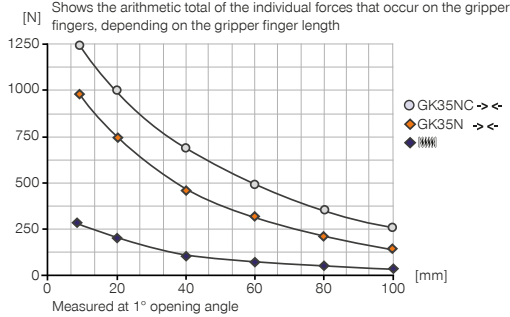
1

Installation size GK35 / 2-jaw radial gripper / pneumatic / Grippers

PRODUCT SPECIFICATIONS

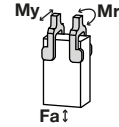


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	12
My [Nm]	20
Fa [N]	400

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



PB35N
Buffer stop



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



ENERGY SUPPLY



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



DRVM5X4
Flow Control Valves - with Swivel joint



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



SENSORS



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2
Inductive proximity switch - Cable 5 m



ZE25H7X6
Centering Disc

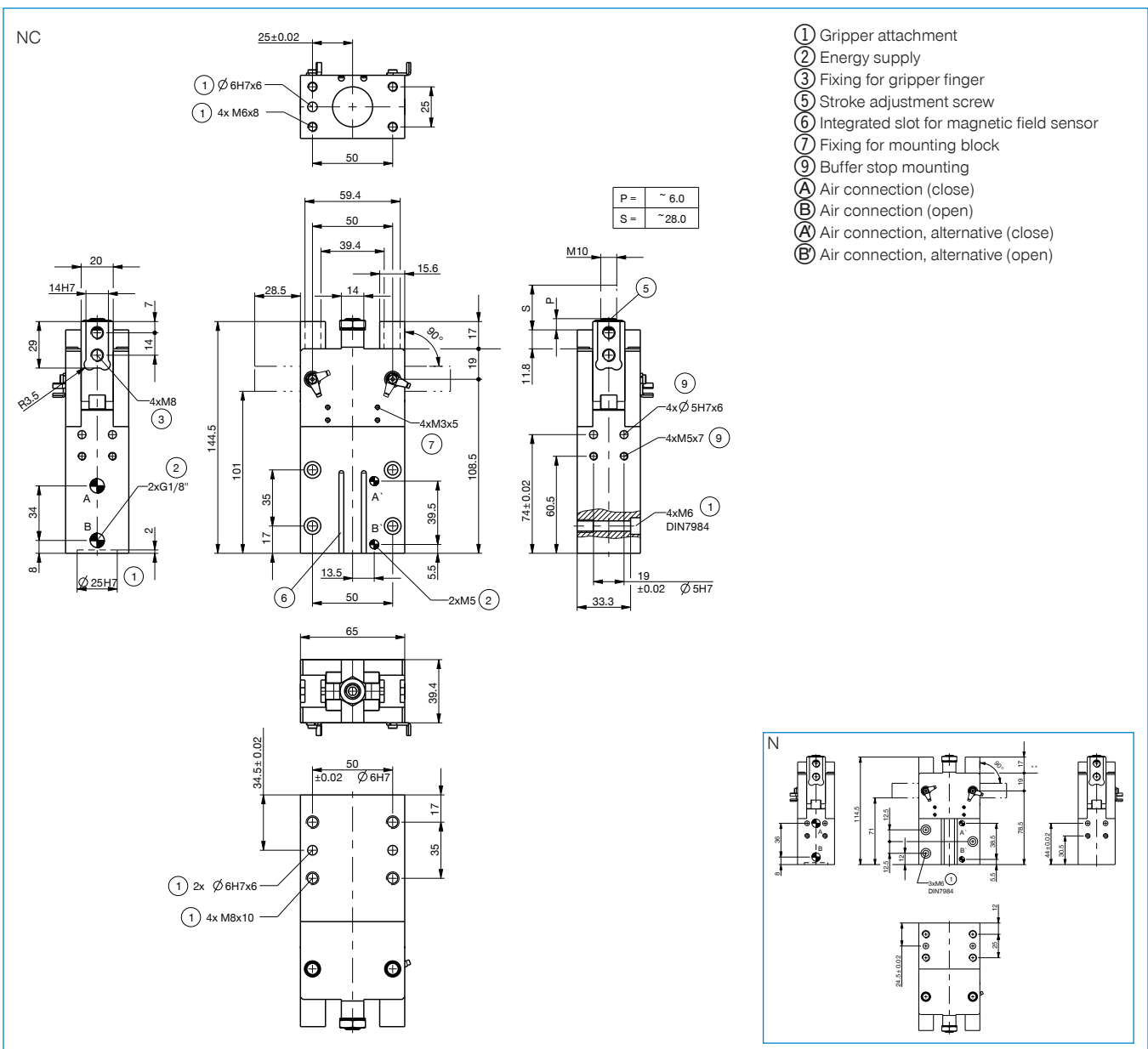


NJ8-E2S
Inductive proximity switch - Connector M8



Order no.	▶ Technical data	
	GK35N-B	GK35NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	27.5	36.5
Gripping moment secured by spring min. [Nm]		9
Gripping force in closing [N]*	950	1250
Closing time [s]	0.25	0.35
Opening time [s]	0.25	0.35
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	43	50
Protection to IEC 60529	IP20	IP20
Weight [kg]	0.9	1.2

*Measured from top edge of housing



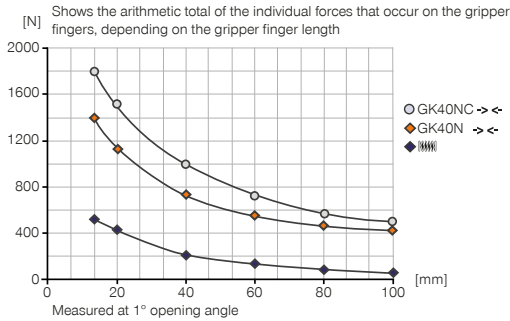
2-JAW RADIAL GRIPPER

INSTALLATION SIZE GK40

PRODUCT SPECIFICATIONS

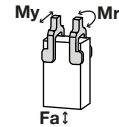


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	17
My [Nm]	30
Fa [N]	600

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



PB40N
Buffer stop



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



ENERGY SUPPLY



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



DRVM5X4
Flow Control Valves - with Swivel joint



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



SENSORS



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2
Inductive proximity switch - Cable 5 m



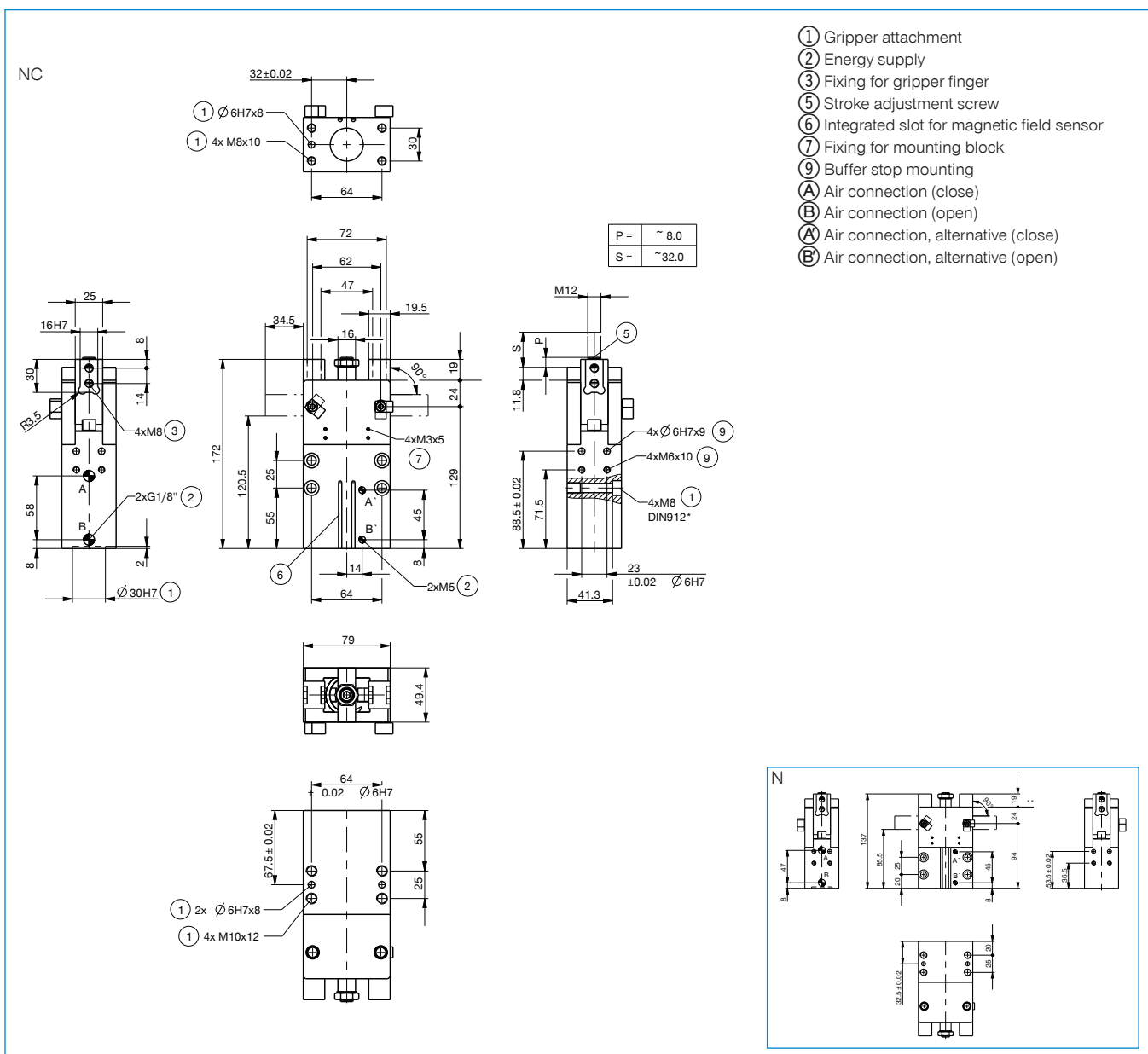
NJ8-E2S
Inductive proximity switch - Connector M8



ZE30H7X4
Centering Disc

Order no.	▶ Technical data	
	GK40N-B	GK40NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	47	62
Gripping moment secured by spring min. [Nm]		15
Gripping force in closing [N]*	1400	1820
Closing time [s]	0.25	0.35
Opening time [s]	0.25	0.35
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	78	90
Protection to IEC 60529	IP20	IP20
Weight [kg]	1.7	2.2

*Measured from top edge of housing



2-JAW RADIAL GRIPPER

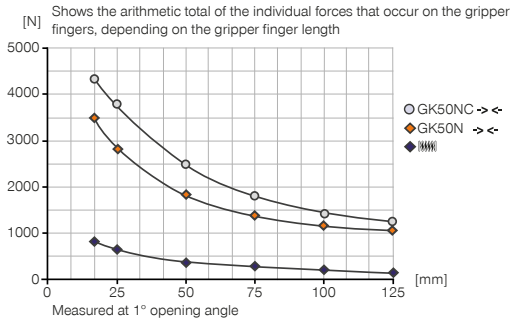
INSTALLATION SIZE GK50

1
Installation size GK50 / 2-jaw radial gripper / pneumatical / Grippers

PRODUCT SPECIFICATIONS

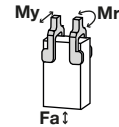


Gripping force diagram



Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	28
My [Nm]	40
Fa [N]	800

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



DRV1-8X6
Flow Control Valves - with Swivel joint



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PPN
Magnetic field sensor angled, cable 0.3 m - M8 connector



SENSORS



MFS02-S-KHC-P1-PPN
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



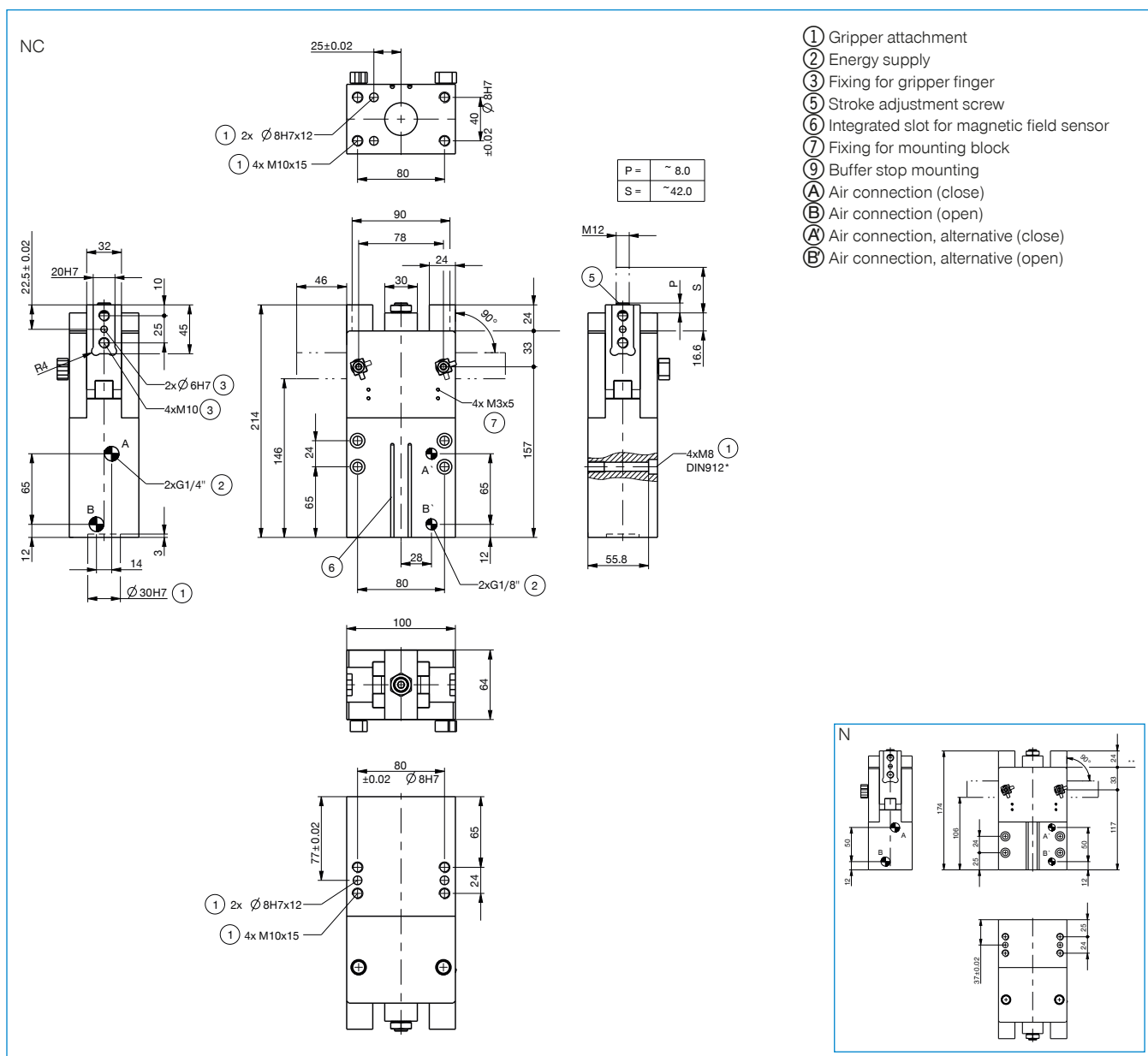
S8-G-3
Plug-in connector customizable Straight - Connector M8



ZE30H7X6
Centering Disc

Order no.	► Technical data	
	GK50N-B	GK50NC-B
Stroke per jaw [°]	90	90
Gripping moment in closing [Nm]	150	183
Gripping moment secured by spring min. [Nm]		33
Gripping force in closing [N]*	3500	4250
Closing time [s]	0.4	0.5
Opening time [s]	0.4	0.5
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	160	200
Protection to IEC 60529	IP20	IP20
Weight [kg]	3.5	4.1

*Measured from top edge of housing



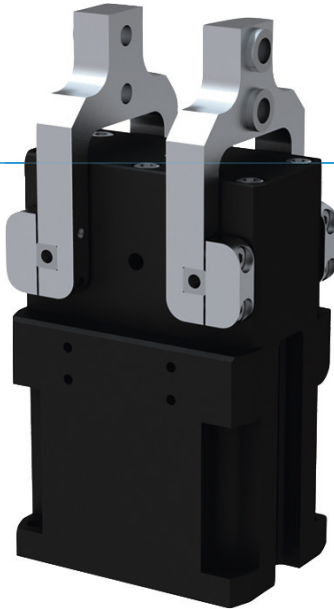
2-JAW RADIAL GRIPPER

SERIES GG4000

1

Series GG4000 / 2-jaw radial gripper / pneumatic / Grippers

▶ PRODUCT ADVANTAGES



“The sealed”

▶ Suitable for use under extreme conditions

The sealed rotation axis guarantees process reliability even under the harshest conditions








▶ Smooth stroke configuration

You can adjust the 180° opening angle to be unique to your application using an adjusting screw

▶ Failure-free continuous operation

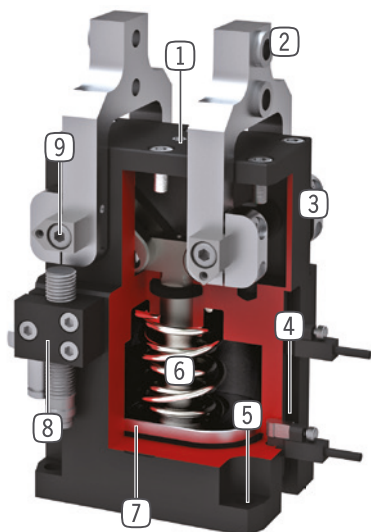
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
	NC	SC
GG40XX		
 Spring closing C	●	●
 High-strength S		●
 10 million maintenance-free cycles (max.)	●	●
 Inductive sensor	●	●
 Magnetic field sensor	●	●
 Purged air	●	●
 IP 64	●	●



► BENEFITS IN DETAIL



- ① **Stroke adjustment screw**
 - Infinitely adjustable opening stroke
- ② **Removable centering sleeves**
 - individual gripper finger mounting
- ③ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ④ **Sensing slot**
 - mounting and positioning of magnetic field sensors
- ⑤ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑥ **Integrated gripping force safety device**
 - spring integrated into cylinder as energy storage
- ⑦ **Position sensing**
 - permanent magnet for direct monitoring of piston movement
- ⑧ **Mounting block**
 - mounting for inductive proximity switch
- ⑨ **Sealed rotation point**
 - for use under extreme conditions

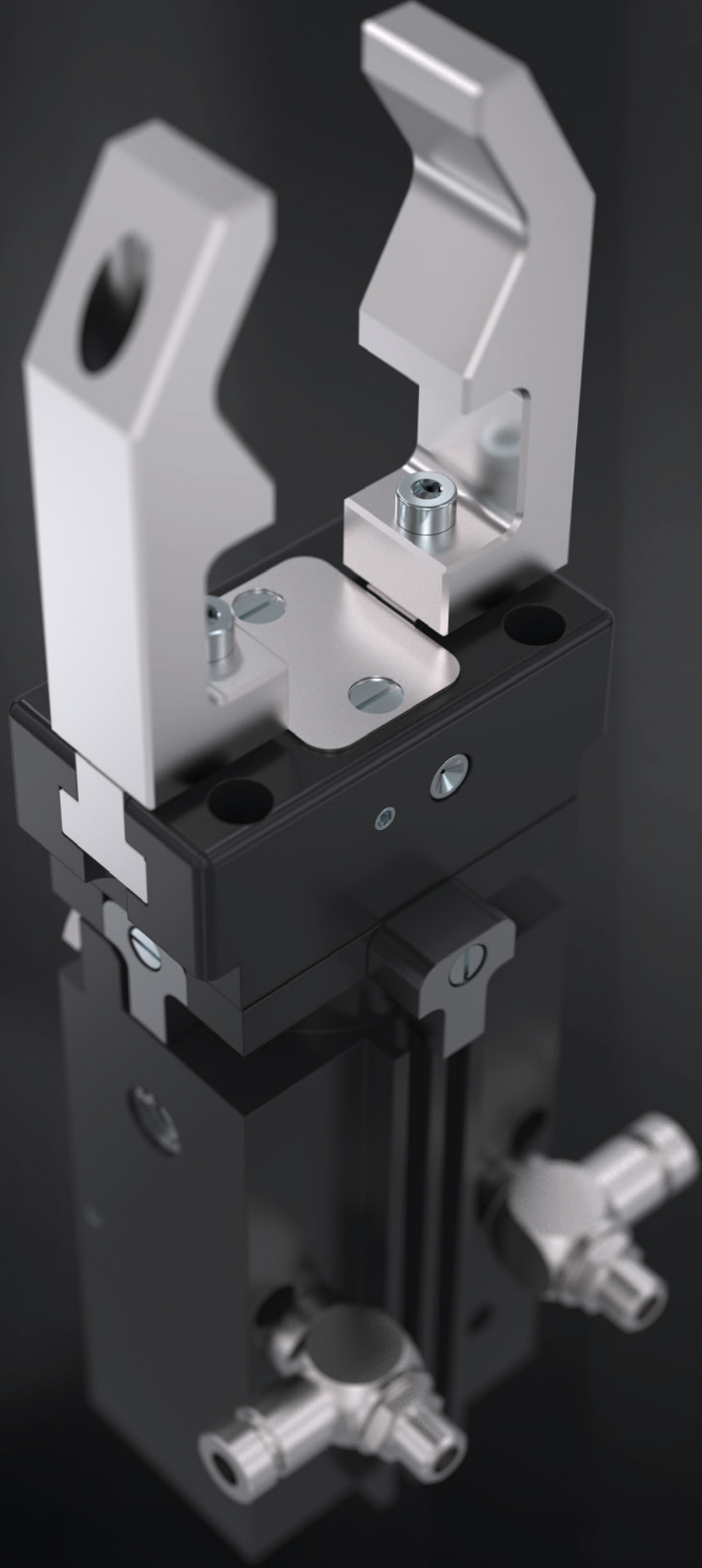
► TECHNICAL DATA

Installation size	Stroke per jaw (+/-)	Gripping force	Weight	IP class
	[°]	[N]	[kg]	
GG4032	20 - 90	430 - 460	0,25	IP64
GG4040	20 - 90	700 - 800	0,5	IP64
GG4049	20 - 90	1000 - 1150	0,85	IP64
GG4058	20 - 90	1650 - 1900	1,4	IP64
GG4072	20 - 90	1950 - 2700	2,45	IP64
GG4084	20 - 90	3500 - 4000	4,5	IP64

► FURTHER INFORMATION IS AVAILABLE ONLINE

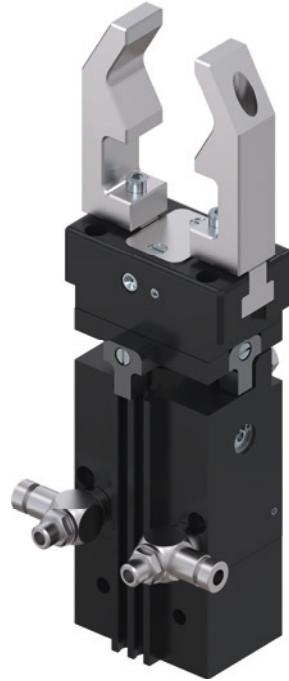


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



ANGULAR GRIP & ROTATE MODULES

OVERVIEW OF SERIES



PNEUMATIC



Series DGP400

240

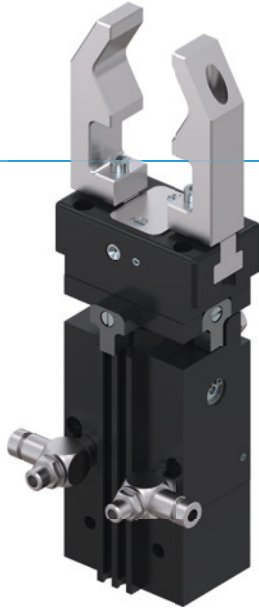
2-JAW PARALLEL ROTARY GRIPPERS

SERIES DGP400

1

Series DGP400 / 2-Jaw Parallel Rotary Grippers / pneumatical / Rotary Grippers

▶ PRODUCT ADVANTAGES



“TWO in ONE”

▶ Proven T slot guide

This established and proven guiding technology stands for the highest process reliability like no other








▶ 2 in 1

Gripping and swivelling in a module allows optimum utilisation of the installation space

▶ Individually adjustable

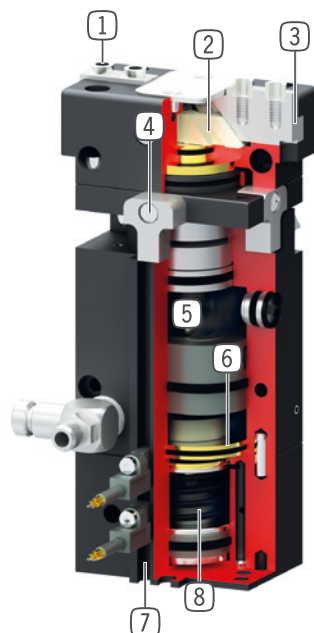
How you stay flexible: 90° or 180° swivel angle - You decide what your application requires on site

▶ SERIES CHARACTERISTICS

Installation size		Version		
DGP40X		N	NC	NO
 1.5 million maintenance-free cycles (max.)		•	•	•
 Spring closing C			•	
 Spring opening O				•
 Magnetic field sensor		•	•	•
 Rotation angle 90°		•	•	•
 Rotation angle 180°		•	•	•
 IP 40		•	•	•



► BENEFITS IN DETAIL



- ① **Removable centering sleeves**
 - quick and economical positioning of the gripper fingers
- ② **Wedge hook mechanism**
 - synchronized the movement of the gripper jaws
- ③ **Precise T-Slot guide**
 - high forces and moments capacity
- ④ **Endposition 0°/90°/180° adjustment**
 - endstops for 0°/90°/180° included with purchase
- ⑤ **Rotating-drive mechanism**
 - robust, wear-resistant
- ⑥ **Drive**
 - two double-acting pneumatic cylinders
- ⑦ **Slot for magnetic field sensor**
 - sensing of the rotational position and gripper jaw position
- ⑧ **Integrated gripping force safety device**
 - optional via integrated spring (C or O models)

► TECHNICAL DATA

	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
Installation size DGP404	4	115 - 155	0,44 - 0,48	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

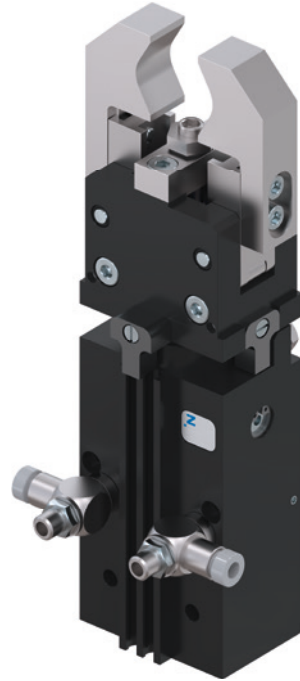


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ANGULAR GRIP & ROTATE MODULES

OVERVIEW OF SERIES



PNEUMATIC



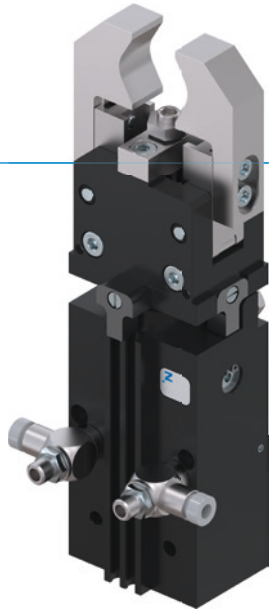
Series DGK

244

2-JAW ANGULAR ROTARY GRIPPERS

SERIES DGK

▶ PRODUCT ADVANTAGES



“TWO in ONE”

▶ Smooth stroke configuration

You can adjust the 180° opening angle to be unique to your application using an adjusting screw

▶ 2 in 1

Gripping and swivelling in a module allows optimum utilisation of the installation space

▶ Individually adjustable

How you stay flexible: 90° or 180° swivel angle - You decide what your application requires on site

▶ SERIES CHARACTERISTICS

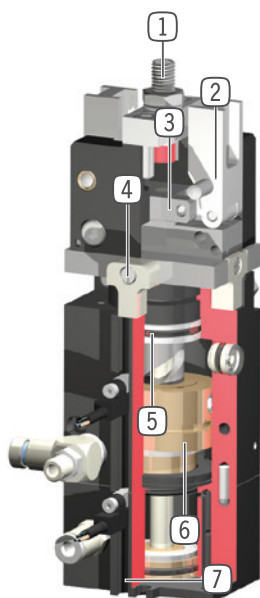
Installation size

DGK20N

 1.5 million maintenance-free cycles (max.)	●
 Magnetic field sensor	●
 Rotation angle 90°	●
 Rotation angle 180°	●
 IP 20	●



► BENEFITS IN DETAIL



- ① **Stroke adjustment screw**
 - Infinitely adjustable opening stroke
- ② **Gripper jaw**
 - individual gripper finger mounting
- ③ **Guided toggle lever mechanism**
 - synchronized the movement of the gripper jaws
 - mechanically self-locking
- ④ **Endposition 0°/90°/180° adjustment**
 - endstops for 0°/90°/180° included with purchase
- ⑤ **Rotating-drive mechanism**
 - robust, wear-resistant
- ⑥ **Drive**
 - two double-acting pneumatic cylinders
- ⑦ **Slot for magnetic field sensor**
 - sensing of the rotational position and gripper jaw position

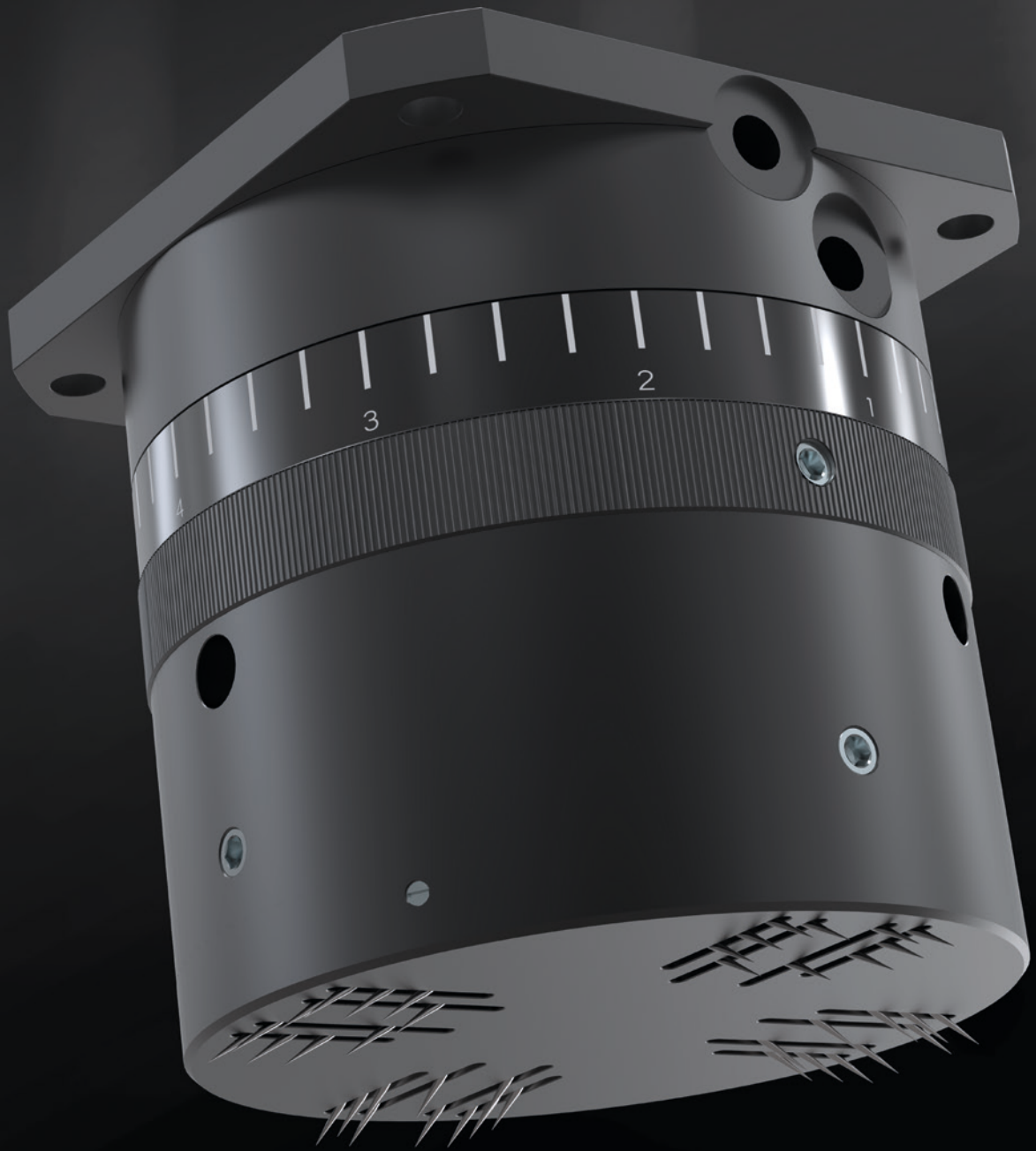
► TECHNICAL DATA

	Stroke	Gripping force	Weight	IP class
Installation size	[°]	[N]	[kg]	
DGK20	90	150	0.55	IP20

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



GRIPPERS FOR SPECIFIC TASKS

OVERVIEW OF SERIES



PNEUMATIC

	Series ST	248
	Series GS	256
	Series LGS	268
	Series LG1000	270
	Series LGG	272
	Series RG	274
	Series SCH	276
	Series HM1000	278

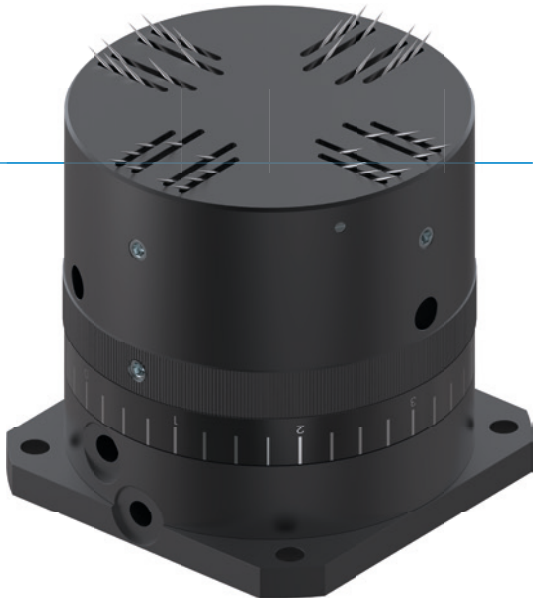
NEEDLE GRIPPER

SERIES ST

1

Series ST / Needle gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ Smooth stroke configuration

Customise the stroke for your application with infinitely variable adjustment using an adjusting dial

▶ Workpiece drain function

This function guarantees the quick and reliable deposit of the workpiece and prevents disruptions to the process sequence

▶ Query about magnetic field sensor technology

Detecting the end position allows you to have shorter cycle times and an integrated control system

▶ SERIES CHARACTERISTICS

Installation size

STXX



5 Mio 5 million maintenance-free cycles (max.)



Magnetic field sensor

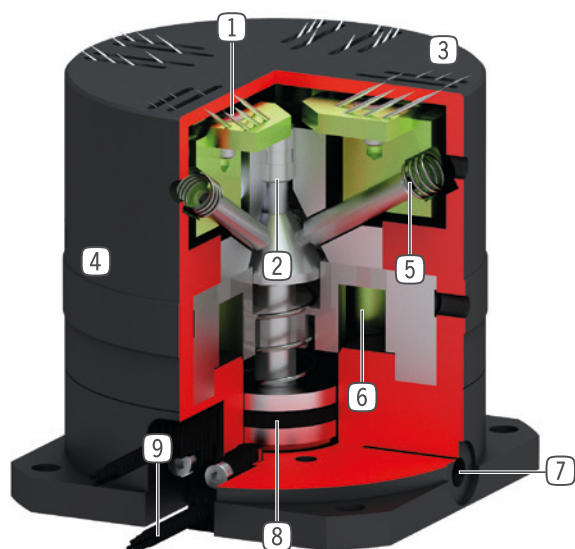


IP30





► BENEFITS IN DETAIL



- ① **Extending needles**
 - gripping by penetration
- ② **Force transfer**
 - via hardened steel taper pin
- ③ **Needle wiper**
 - helps wiping the workpiece
- ④ **Stroke adjustment**
 - adjustment of the needle stroke
- ⑤ **Integrated spring**
 - for return
- ⑥ **Blow off air connection**
 - to reject the workpiece with air
- ⑦ **Energy supply**
 - possible from several sides (size ST40)
- ⑧ **Drive**
 - single-acting pneumatic cylinder with spring return
- ⑨ **Sensing slot**
 - mounting and positioning of magnetic field sensors

► TECHNICAL DATA

Installation size	Needle stroke adjustable [mm]	Needle diameter [mm]	Weight [kg]	IP class
ST36	0 - 1,5	0.7	0.21	IP30
ST40	0 - 2	0.7	0.49	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

NEEDLE GRIPPERS

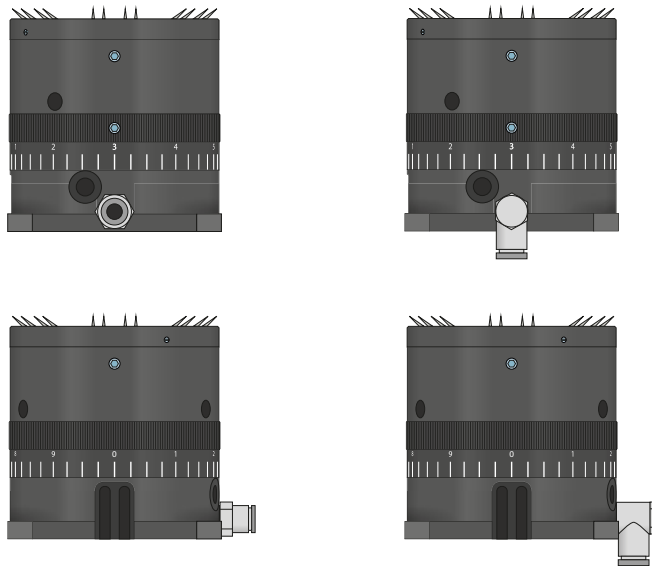
SERIES ST FUNCTIONAL DESCRIPTION

1

Series ST / Needle gripper / pneumatical / Grippers



ENERGY SUPPLY



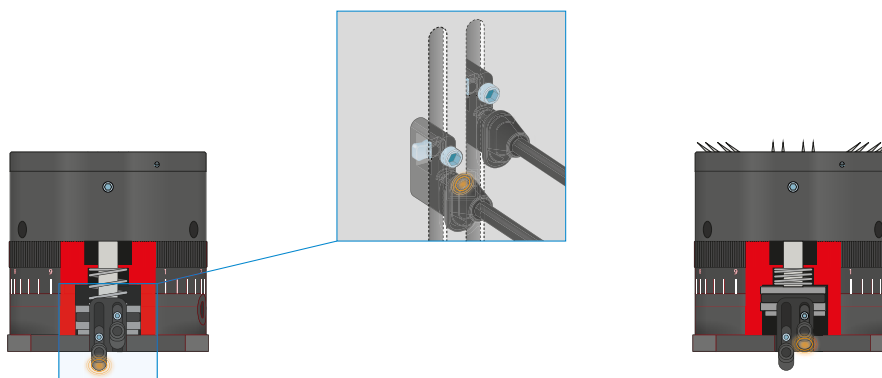
Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



SENSORS

MFS01



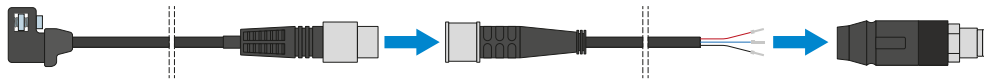
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

The sensor is clamped in the C-groove of the gripper and detects the magnet attached to the gripper jaws. The MFS01 is available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

NEEDLE GRIPPER

INSTALLATION SIZE ST36

1

Installation size ST36 / Needle gripper / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS



▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



S8-G-3
Plug-in connector customizable Straight - Connector M8



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



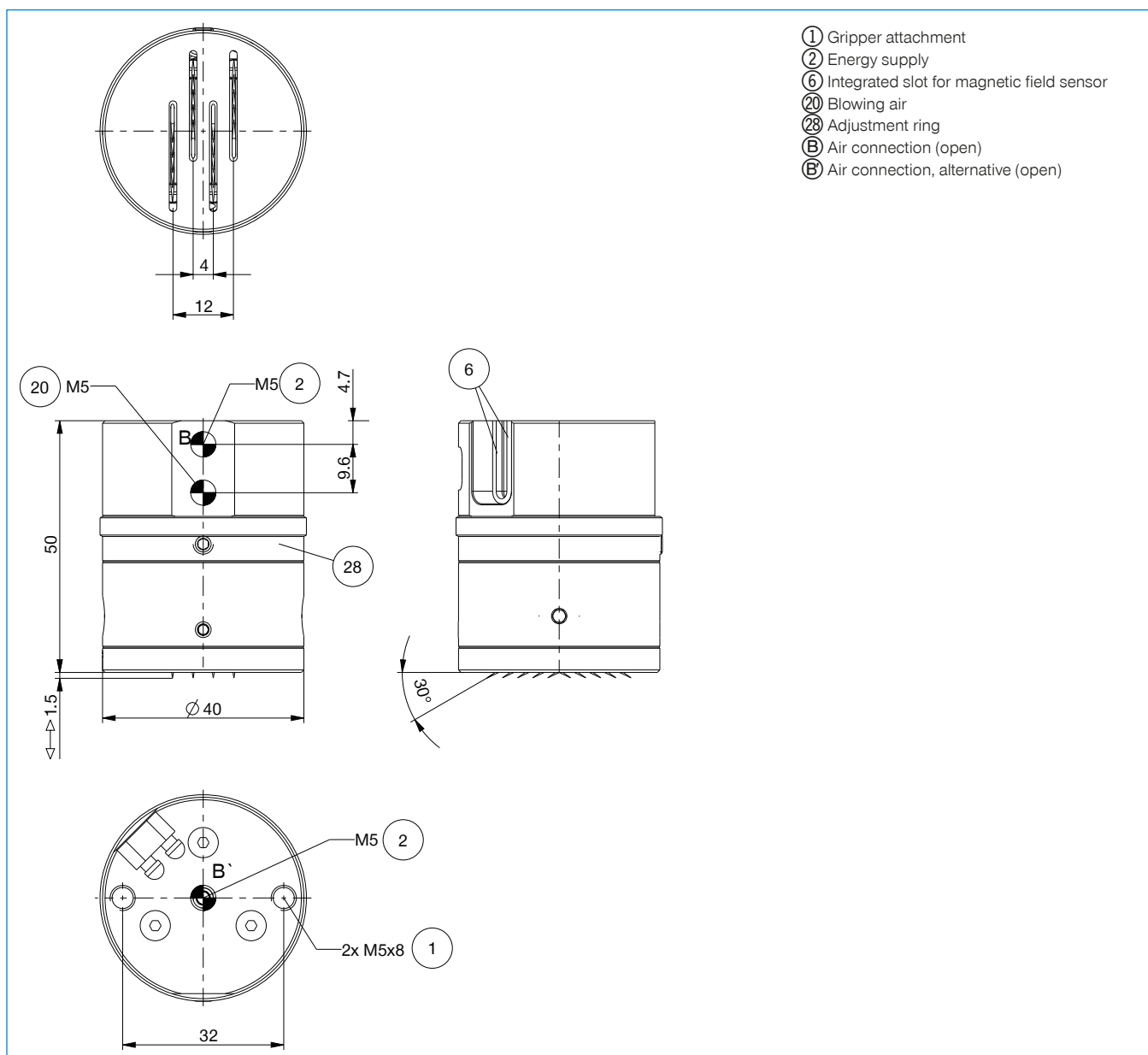
S12-G-3
Plug-in connector customizable Straight - Connector M12



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



Order no.	Technical data
	ST36-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	1.5
Number of needles [piece]	20
Needle diameter [mm]	0.7
Retract time / Extend time [s]	0.03
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	1
Protection to IEC 60529	IP30
Weight [kg]	0.21



NEEDLE GRIPPER

INSTALLATION SIZE ST40

1

▶ PRODUCT SPECIFICATIONS



▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



CONNECTIONS / OTHER



S8-G-3
Plug-in connector customizable Straight - Connector M8



SENSORS



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



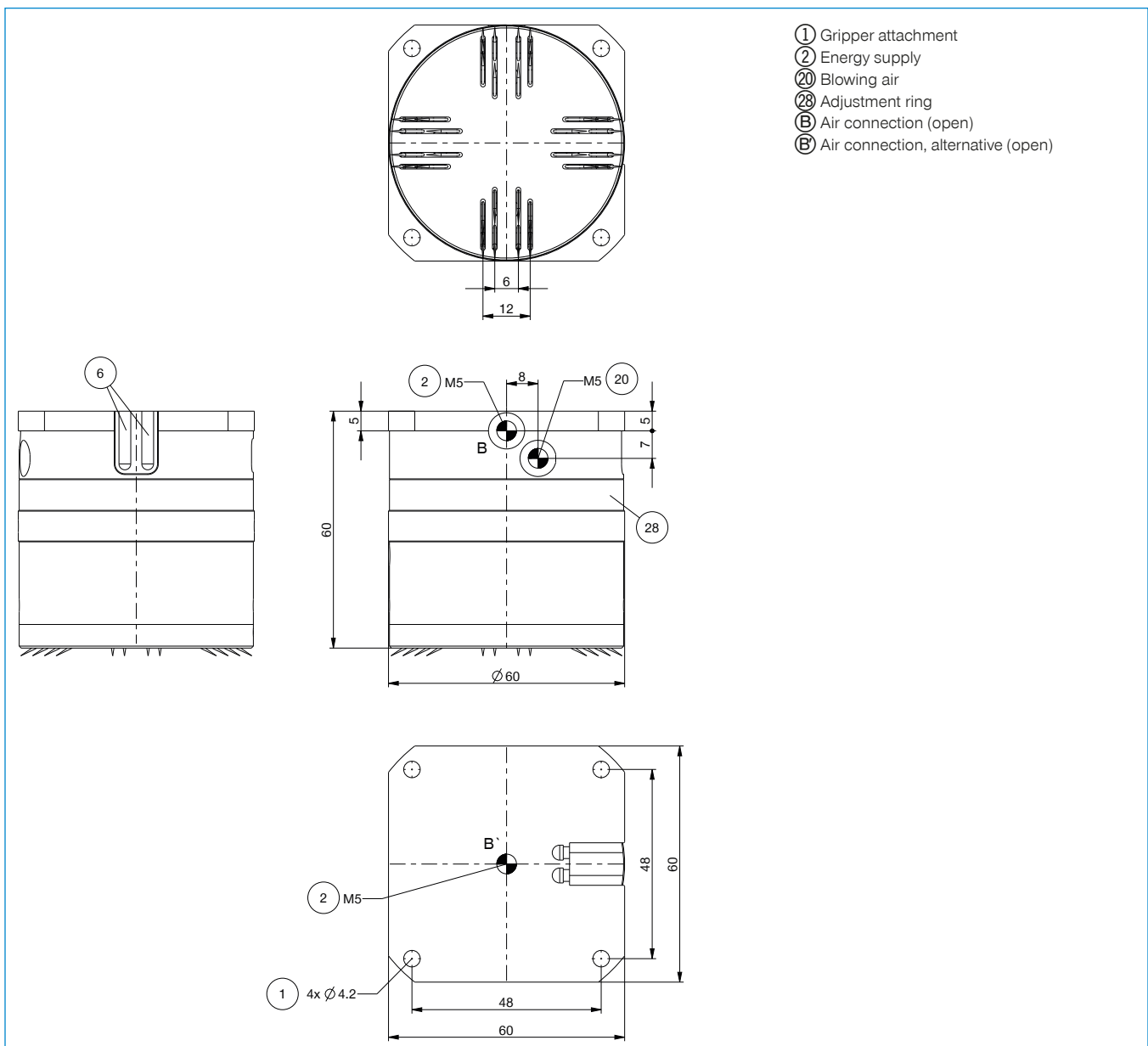
MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



S12-G-3
Plug-in connector customizable Straight - Connector M12



Order no.	Technical data
	ST40-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	2
Number of needles [piece]	40
Needle diameter [mm]	0.7
Retract time / Extend time [s]	0.03
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	3
Protection to IEC 60529	IP30
Weight [kg]	0.49



O-RING ASSEMBLY GRIPPER, OUTER

SERIES GS

1

Series GS / O-ring assembly gripper, outer / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ **Proven technology**

We have more than 20 years of proven reliability, which ensures uninterrupted production for you





▶ **Adjustable expanding stroke**

Prevents the O-ring from overexpanding and ensures consistent production quality

▶ **Query about magnetic field sensor technology**

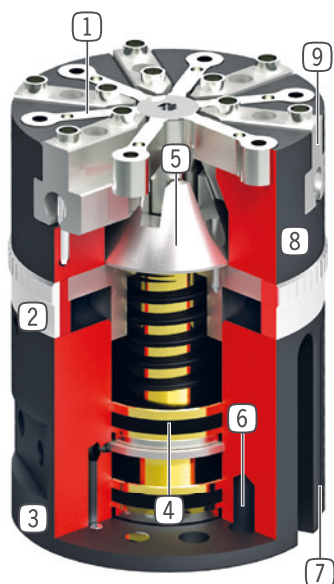
Detecting the end position allows you to have shorter cycle times and an integrated control system

▶ SERIES CHARACTERISTICS

Installation size	
GSXXXX	
 5 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 Magnetic field sensor	●
 IP30	●



► BENEFITS IN DETAIL



- ① **Ejector jaw**
 - to shift off the O-ring
- ② **Stroke adjustment**
 - for adjustment of the spread stroke
- ③ **Energy supply**
 - possible from several sides
- ④ **Drive**
 - two single-acting pneumatic cylinders
- ⑤ **Force transfer**
 - direct via taper
- ⑥ **Mounting and positioning**
 - axial, on the gripper bottom
- ⑦ **Sensing slot**
 - mounting and positioning of magnetic field sensors
- ⑧ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑨ **Gripper jaw**
 - individual gripper finger mounting

► TECHNICAL DATA

	Opening stroke adjustable per jaw	Recommended O-ring diameter	Weight	IP class
Installation size	[mm]	[mm]	[kg]	
GS65	3 - 6	4 - 60	0.5	IP30
GS810	4 - 8	30 - 120	2.5	IP30
GS1015	1.6 - 10	40 - 150	5.4	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



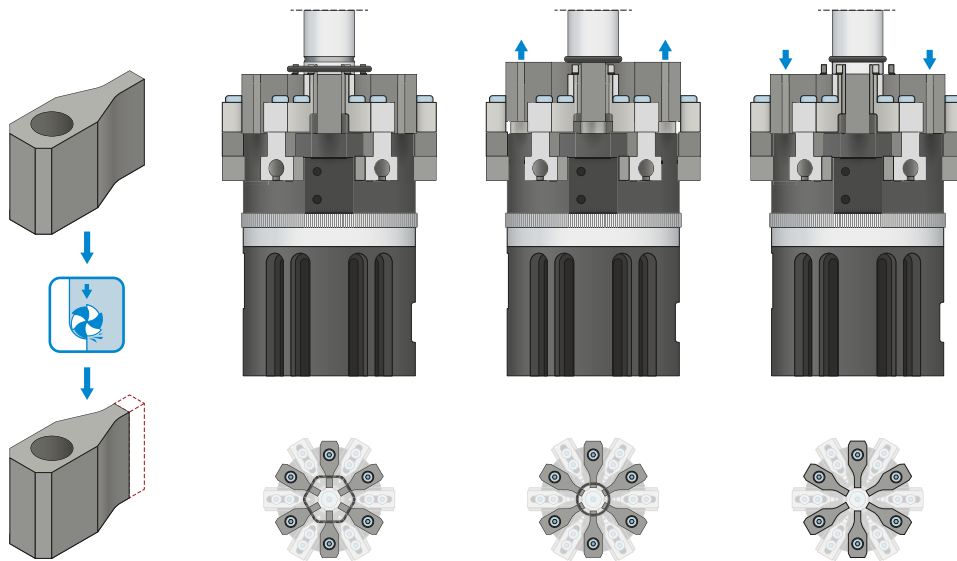
All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

O-RING ASSEMBLY GRIPPER, OUTER

SERIES GS FUNCTIONAL DESCRIPTION

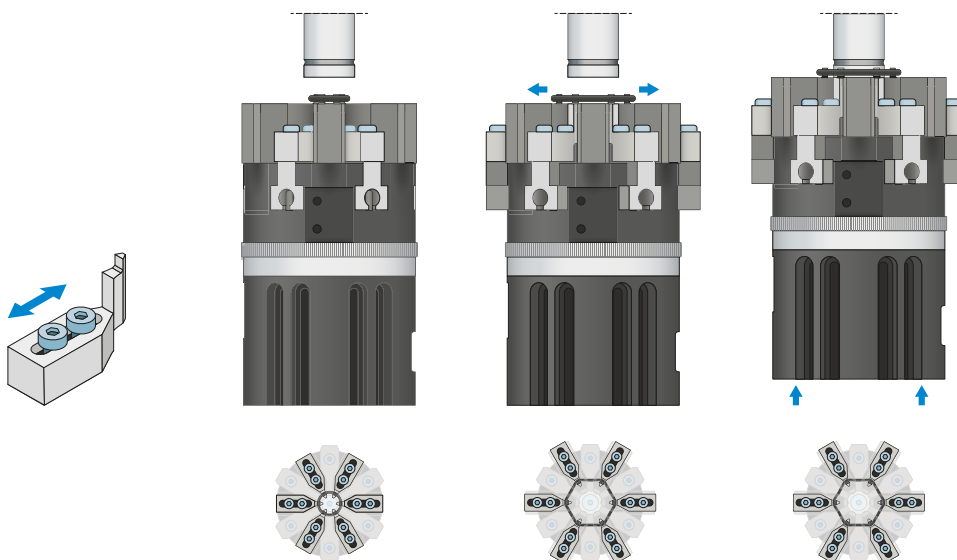


GRIPPING COMPONENTS



Removal jaws

The removal jaws remove the spread O-ring on the workpiece.

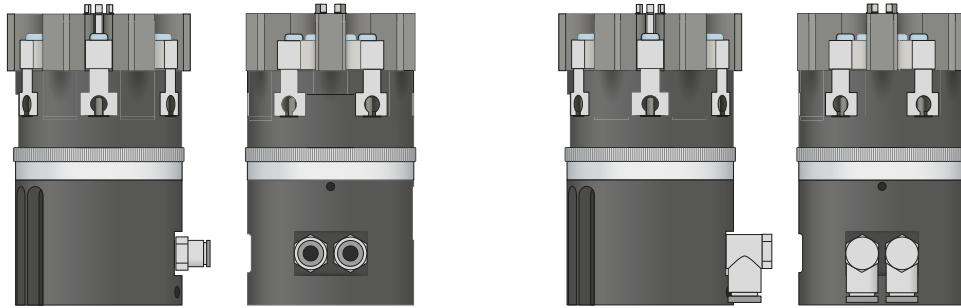


Clamping jaws

Using the clamping jaws, the O-ring is expanded to the expanding stroke set previously on the gripper via the adjustment ring.



ENERGY SUPPLY

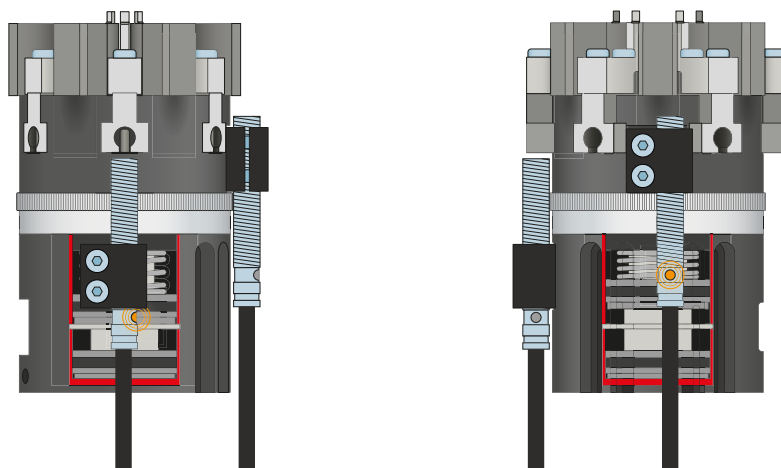


Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



SENSORS



Inductive sensors – NJ

The expanding stroke can be sensed using an inductive sensor in combination with a mounting block. The cam switch must be manufactured on an application-specific basis.

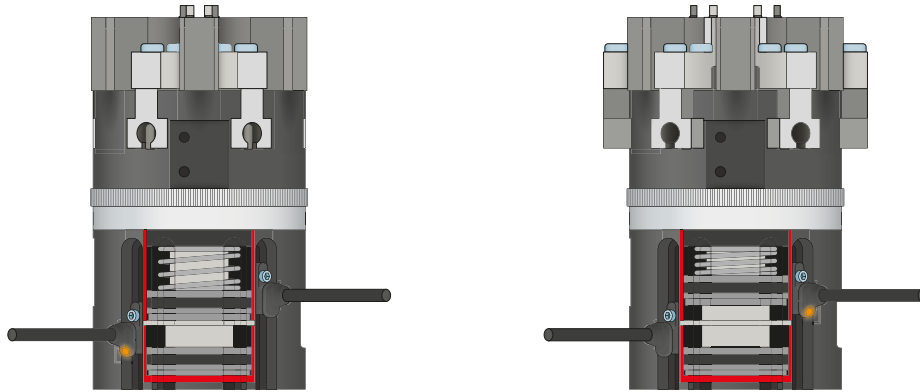
O-RING ASSEMBLY GRIPPER, OUTER

SERIES GS FUNCTIONAL DESCRIPTION



SENSORS

MFS01



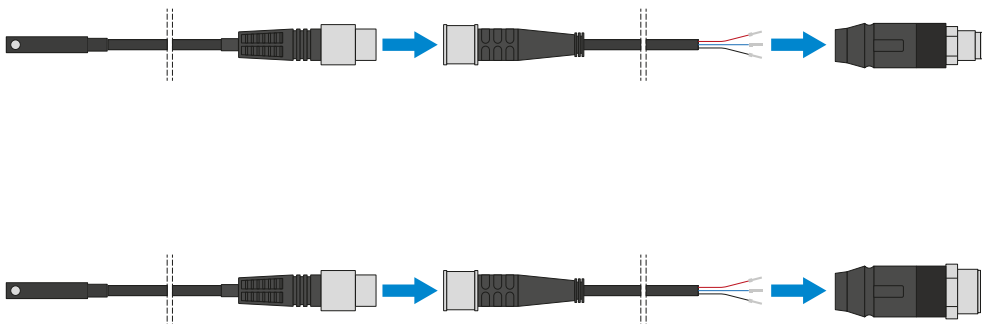
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

The sensor is clamped in the C-groove of the gripper and detects the magnet attached to the gripper jaws. The MFS01 is available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



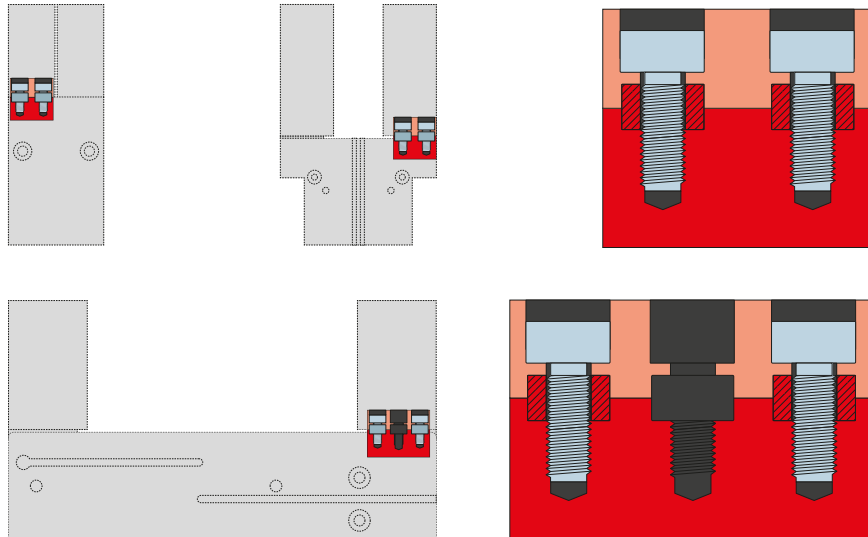
Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the spread jaws

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the spread jaws. The centering sleeves are comparable to a pin connection.

O-RING ASSEMBLY GRIPPER, OUTER

INSTALLATION SIZE GS65

1

Installation size GS65 / O-ring assembly gripper, outer / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



12 [piece]
Centering Disc
DST06510

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB65-3
Ejector jaw set aluminium
6 [piece]



UB65-4
Expanding jaw set steel
6 [piece]



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



KB6.5-02
Mounting block



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



SENSORS



NJ6.5-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



CONNECTIONS / OTHER

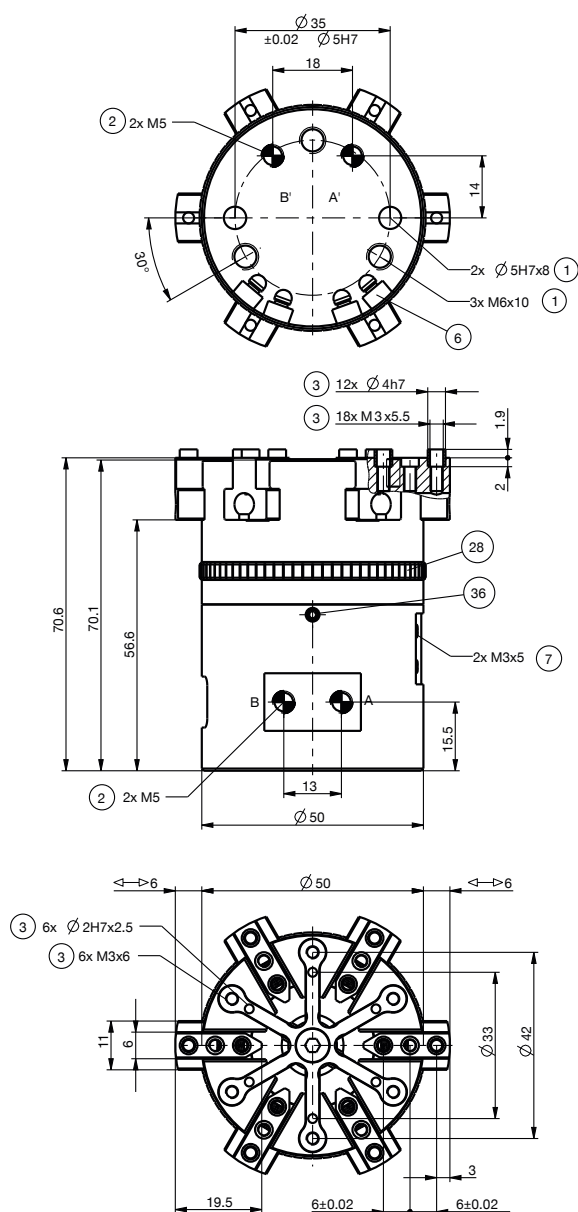


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

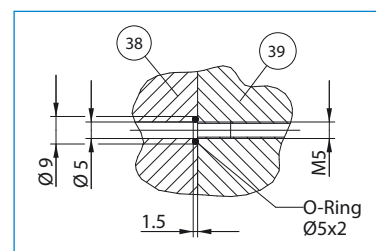


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data
	GS65-B
Opening stroke adjustable per jaw min. [mm]	3
Opening stroke adjustable per jaw max. [mm]	6
Stripping stroke [mm]	5
Opening force [N]	300
Recommended O-ring diameter min. [mm]	4
Recommended O-ring diameter max. [mm]	60
Number of gripping jaws [Quantity]	6
Closing time [s]	0.05
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Protection to IEC 60529	IP30
Weight [kg]	0.5



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Adjustment ring
- ⑩ Arrestor for adjustment ring
- ⑪ Adapter
- ⑫ Gripper
- Ⓐ Air connection (expanding stroke)
- Ⓑ Air connection (ejector stroke)
- Ⓒ Air connection alternate (expanding stroke)
- Ⓓ Air connection alternate (ejector stroke)



Hoseless air feed-through



O-RING ASSEMBLY GRIPPER, OUTER

INSTALLATION SIZE GS810

1

Installation size GS810 / O-ring assembly gripper, outer / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



16 [piece]
Centering Disc
DST40600

▶ RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB810-3
Ejector jaw set aluminium
8 [piece]



UB810-4
Expanding jaw set steel
8 [piece]



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



KB8K
Mounting block



NJ8-E2
Inductive proximity switch - Cable 5 m



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor angled, cable 5 m



MFS01-S-KHC-P1-PNP
Magnetic field sensor angled, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



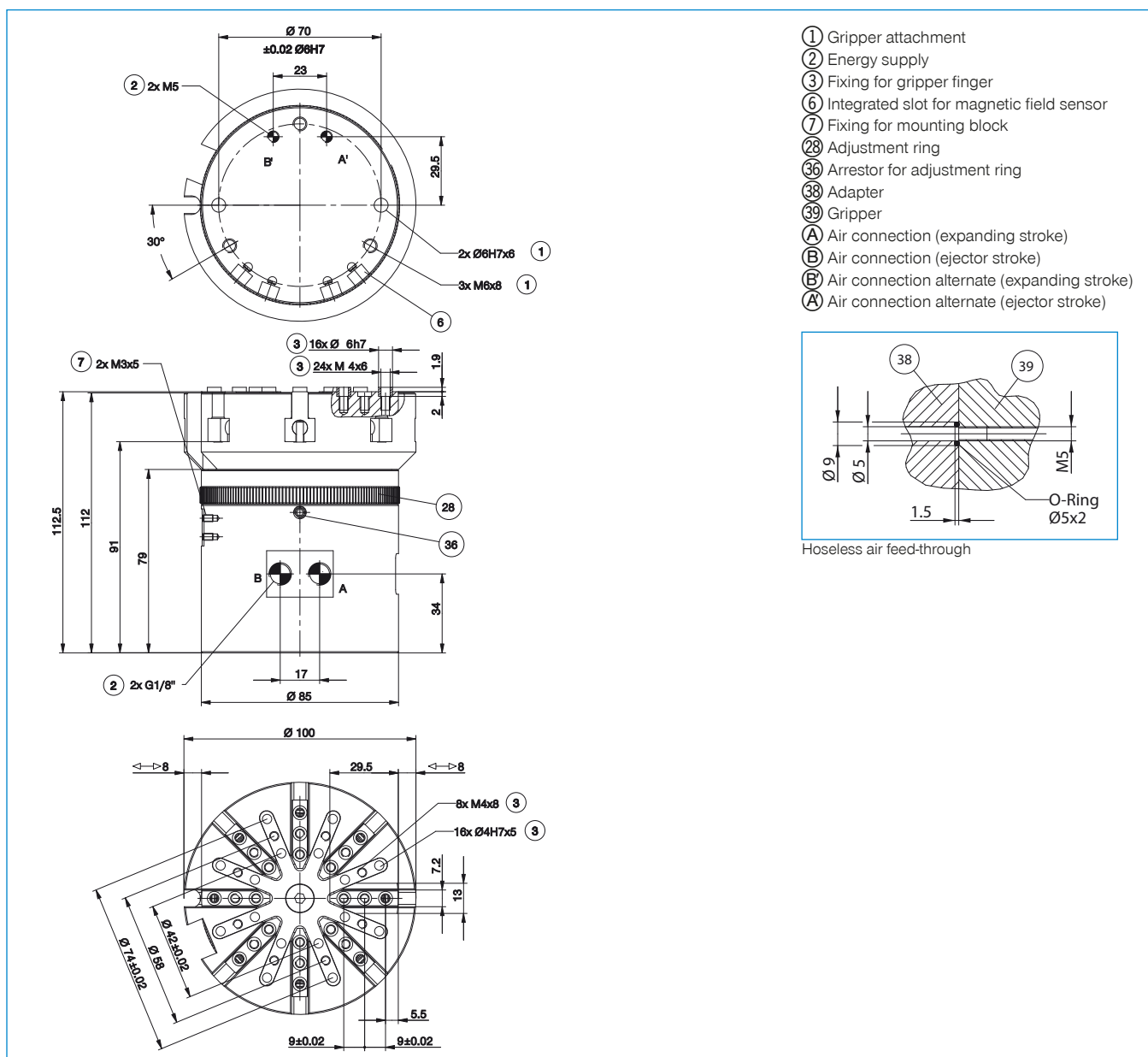
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



Order no.	Technical data
	GS810-B
Opening stroke adjustable per jaw min. [mm]	4
Opening stroke adjustable per jaw max. [mm]	8
Stripping stroke [mm]	10
Opening force [N]	1200
Recommended O-ring diameter min. [mm]	30
Recommended O-ring diameter max. [mm]	120
Number of gripping jaws [Quantity]	8
Closing time [s]	0.05
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Protection to IEC 60529	IP30
Weight [kg]	2.5



O-RING ASSEMBLY GRIPPER, OUTER



INSTALLATION SIZE GS1015

1 Installation size GS1015 / O-ring assembly gripper, outer / pneumatical / Grippers

▶ PRODUCT SPECIFICATIONS





▶ INCLUDED IN DELIVERY



	2 [piece] Mounting block KB8K		20 [piece] Centering Disc DST60800
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▶ RECOMMENDED ACCESSORIES

GRIPPING COMPONENTS

	UB1015-3 Ejector jaw set aluminium 10 [piece]
	UB1015-4 Expanding jaw set steel 10 [piece]




SENSORS

	MFS01-K-KHC-P1-PNP Magnetic field sensor angled, cable 5 m
	MFS01-S-KHC-P1-PNP Magnetic field sensor angled, cable 0.3 m - M8 connector



ENERGY SUPPLY

	GV1-8X8 Straight Fittings - Quick Connect Style
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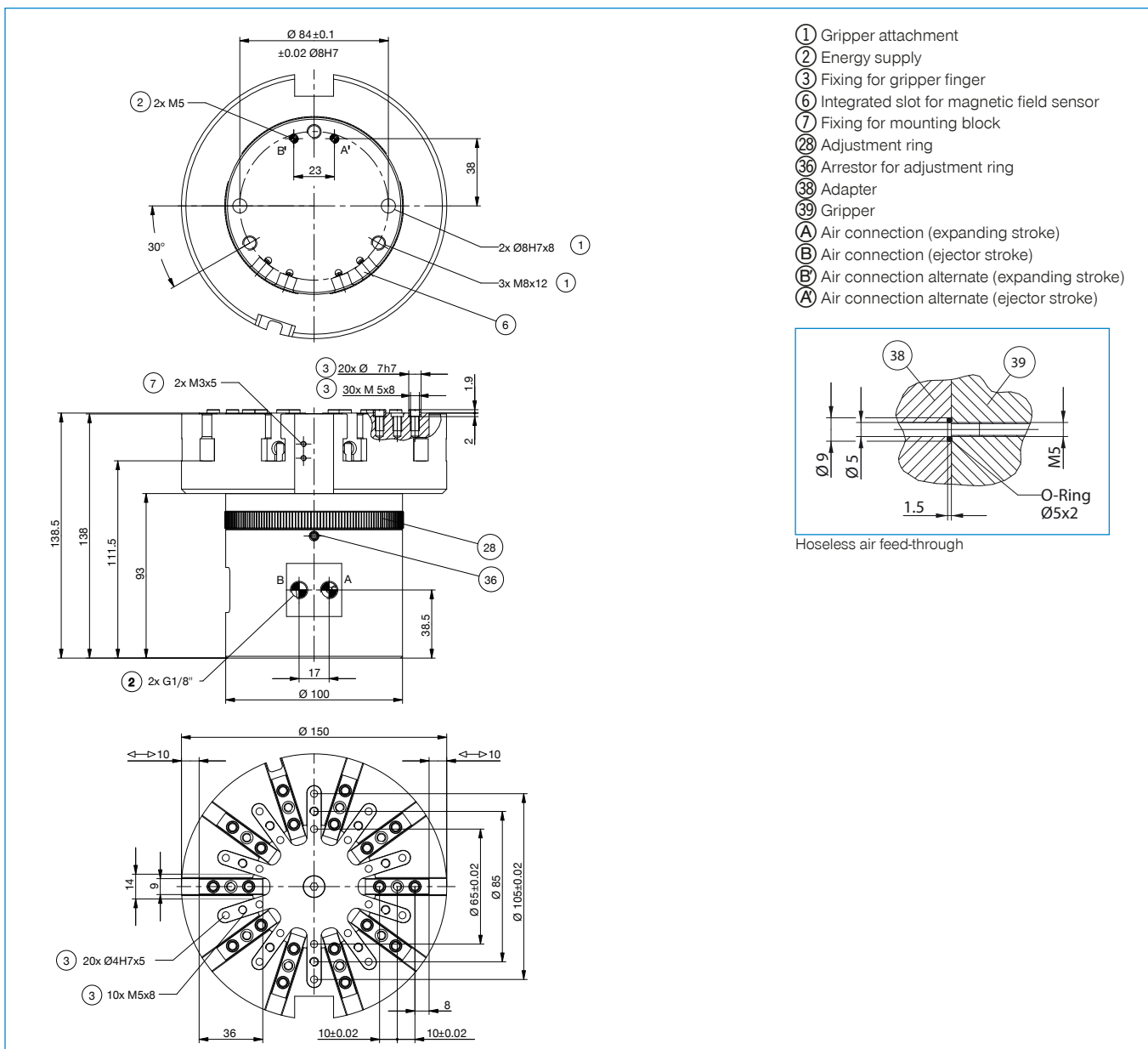
CONNECTIONS / OTHER

	KAG500 Plug-in connector Straight Cable 5m - Socket M8 (female)
	KAW500 Plug-in connector Angled Cable 5m - Socket M8 (female)
	S8-G-3 Plug-in connector customizable Straight - Connector M8

SENSORS

	NJ8-E2 Inductive proximity switch - Cable 5 m
	NJ8-E2S Inductive proximity switch - Connector M8

Order no.	GS1015-B
Opening stroke adjustable per jaw min. [mm]	1.6
Opening stroke adjustable per jaw max. [mm]	10
Stripping stroke [mm]	15
Opening force [N]	1450
Recommended O-ring diameter min. [mm]	40
Recommended O-ring diameter max. [mm]	150
Number of gripping jaws [Quantity]	10
Closing time [s]	0.05
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Protection to IEC 60529	IP30
Weight [kg]	5.4



INTERNAL GRIPPER

SERIES LGS

1

Series LGS / Internal gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs





▶ Individually machinable clamping jaws

You have never adjusted a gripper to your application this quickly and easily

▶ Direct drive

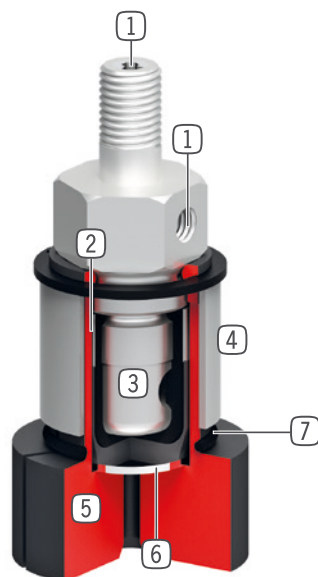
The control system with only one pneumatic line reduces installation effort and interference contours

▶ SERIES CHARACTERISTICS

Installation size	Version	
LGXX-XX	-	V
 Collet Chuck	•	
 Extended collet chuck		•
 Maintenance free	•	•
 IP40	•	•



► BENEFITS IN DETAIL



- ① **Energy supply**
 - axial and radial possible
- ② **Protective membrane**
 - between collet chuck and function membrane
- ③ **Direct drive with membrane**
 - only one pneumatic line required
- ④ **Stroke limit**
 - prevents damage by overstretching with empty strokes
- ⑤ **Collet chuck**
 - for individual machining
- ⑥ **Steel protective cover**
 - protects the membrane against puncturing
- ⑦ **O-ring for backstroke**
 - gripper close movement after venting

► TECHNICAL DATA

Installation size	Total stroke in Ø [mm]	Gripping moment [Nm]	Weight [kg]	IP class
LG4-20	1.0	0,5	0,075 - 0,115	IP40
LG20-30	1.0	2	0,16 - 0,29	IP40
LG30-50	1.0	3	0,46	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

INTERNAL GRIPPER

SERIES LG1000

1

Series LG1000 / Internal gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ Individually adjustable

The design of the gripper enables you to grip not only cylindrical gripping surfaces, but also conical and square ones with process reliability





▶ Integrated air or vacuum feedthrough

Use this option for applications such as leak tests, purging or vacuuming your part

▶ Surface protection provided by silicone membrane

In addition to covering a vast range of gripping diameters, the membrane provides ideal protection from damage

▶ SERIES CHARACTERISTICS

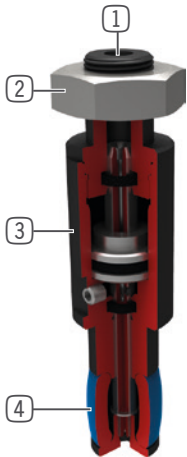
Installation size	Version	
	-01SI	-02SI
 Axial energy supply	●	
 Radial energy supply, through-hole		●
 Maintenance free	●	●
 IP54	●	●



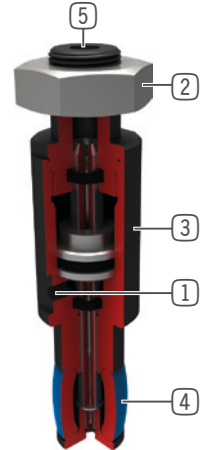
► BENEFITS IN DETAIL

1

Version-01

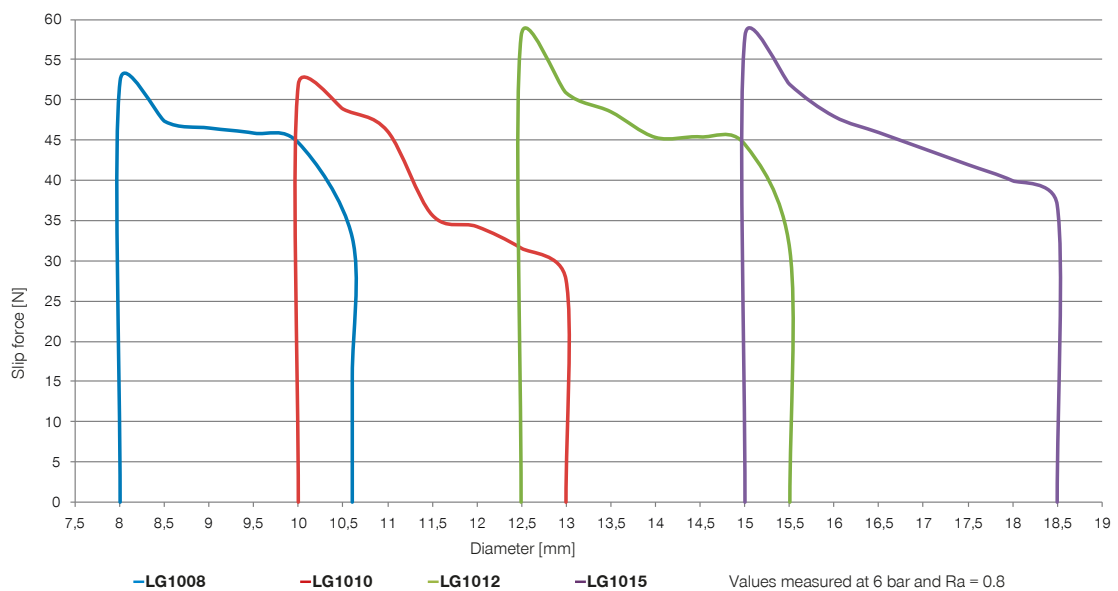


Version-02



- ① **Energy supply**
 - Axial (version-01) or radial (version-02)
- ② **Mounting and positioning**
 - via fit, thread and lock nut
- ③ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ④ **Direct gripping with rubber membrane**
 - High holding force due to high friction value
 - reset when venting
- ⑤ **Through-hole**
 - Compressed air or vacuum connection for cooling the workpieces or testing them for leaks (version-02)

► SLIP FORCE DIAGRAM



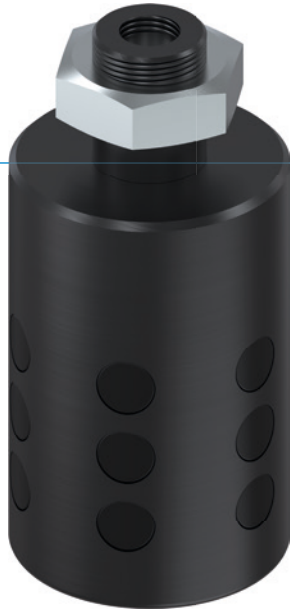
INTERNAL GRIPPER

SERIES LGG

1

Series LGG / Internal gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ Surface protection with rubber knobs

Continuously protect the surface of your workpieces and minimise rejections in the process

▶ Secure hold

The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

▶ Direct drive

The control system with only one pneumatic line reduces installation effort and interference contours

▶ SERIES CHARACTERISTICS

Installation size

LGXX-XX



Maintenance free

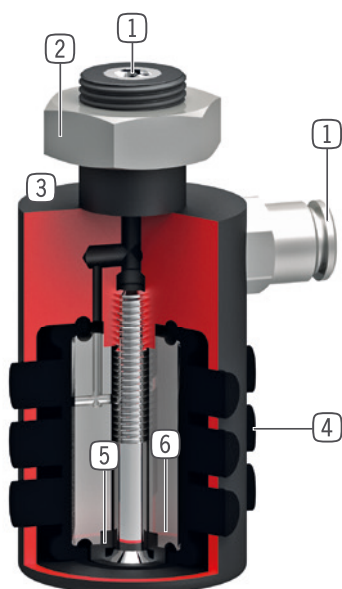


IP54





► BENEFITS IN DETAIL



- ① **Energy supply**
 - axial
 - axial and radial from LG35-39
- ② **Fixing**
 - by fit, thread and locknut
- ③ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
 - no overstretching of the rubber membrane at empty stroke
- ④ **Direct gripping with rubber knobs**
 - high retention force due to good friction value, approx. 0.5 with rubber
- ⑤ **Gripping with single-acting rubber membranes**
 - low actuate effort
 - reset when venting
 - adjustable force with operating pressure (2 - 6 bar)
- ⑥ **Inner core**
 - saves air volume and cycle time (from LG35-39)

► TECHNICAL DATA

Installation size	Total stroke in Ø	Gripping force	Weight	IP class
	[mm]	[N]	[kg]	
LG15-18	2.5	100	0.031	IP54
LG18-22	4.0	100	0.035	IP54
LG22-26	4.0	150	0.051	IP54
LG26-30	4.0	150	0.071	IP54
LG30-35	5.0	200	0.09	IP54
LG35-39	4.5	300	0.13	IP54
LG40-45	6.5	400	0.178	IP54
LG46-51	6.0	500	0.26	IP54
LG51-56	7.0	750	0.37	IP54
LG56-62	7.5	900	0.373	IP54
LG63-70	8.0	1100	0.53	IP54
LG71-80	10.5	1500	0.69	IP54
LG76-84	8.5	1700	0.8	IP54
LG81-90	11.0	2000	1	IP54
LG91-100	10.0	2500	1.3	IP54
LG100-110	11.0	2800	1.9	IP54
LG110-120	11.0	3500	2.3	IP54
LG120-135	16.0	3500	2.7	IP54

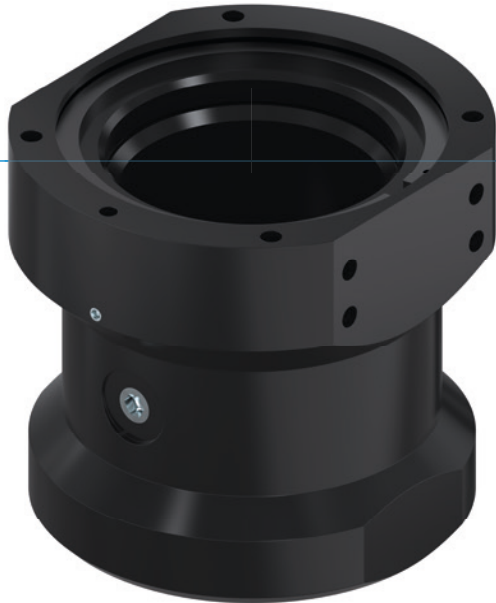
EXTERNAL GRIPPER

SERIES RG

1

Series RG / External gripper / pneumatic / Grippers

▶ PRODUCT ADVANTAGES



▶ Surface protection with rubber knobs

Continuously protect the surface of your workpieces and minimise rejections in the process

▶ Secure hold

The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

▶ Direct drive

The control system with only one pneumatic line reduces installation effort and interference contours

▶ SERIES CHARACTERISTICS

Installation size

RGXX-XX



Maintenance free

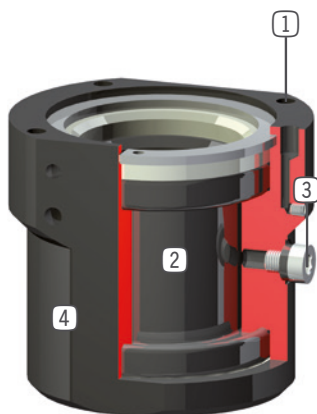


IP67





► BENEFITS IN DETAIL



- ① **Mounting and positioning**
- ② **Drive**
 - direct via rubber membrane
- ③ **Energy supply**
 - possible from several sides
- ④ **Robust, lightweight housing**
 - Hard-coated aluminum alloy

► TECHNICAL DATA

Installation size	Gripper hole diameter	Gripping force	Weight	IP class
		[N]	[kg]	
RG0-30	0 - 28	350	0.28	IP67
RG10-60	10 - 58	1000	0.85	IP67

► FURTHER INFORMATION IS AVAILABLE ONLINE

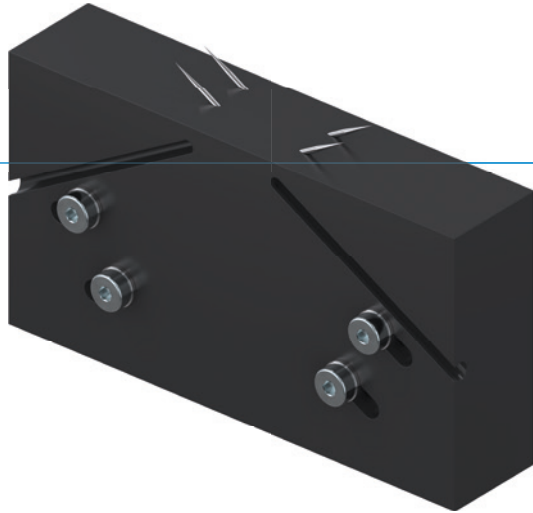


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NEEDLE GRIPPER

SERIES SCH

▶ PRODUCT ADVANTAGES



▶ Smooth stroke configuration

Adjust the needle stroke individually and smoothly via the direct needle setting

▶ Flat structure

Due to its compact design, you save precious space in your machine

▶ Query about magnetic field sensor technology

Detecting the end position allows you to have faster cycle times and an integrated control system

▶ SERIES CHARACTERISTICS

Installation size

SCHXX



5 million maintenance-free cycles (max.)



Magnetic field sensor

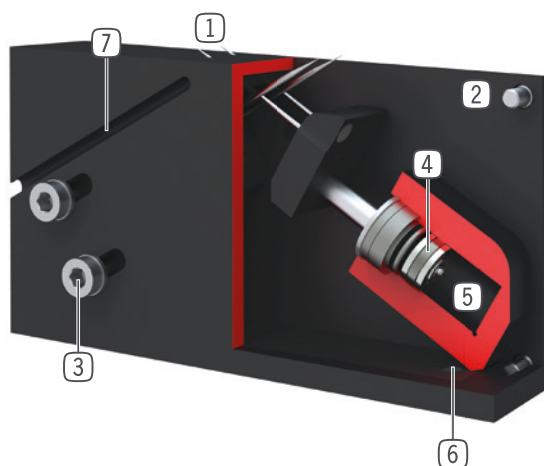


IP30





► BENEFITS IN DETAIL



- ① **Extending needles**
 - gripping by penetration
- ② **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ③ **Stroke adjustment**
 - by shifting in an elongated hole
- ④ **Drive**
 - two double-acting pneumatic cylinders
- ⑤ **Energy supply**
- ⑥ **Mounting and positioning**
- ⑦ **Sensing slot**
 - mounting and positioning of magnetic field sensors

► TECHNICAL DATA

	Needle stroke adjustable	Needle diameter	Weight	IP class
Installation size	[mm]	[mm]	[kg]	
SCH20	0 - 6	1.2	0.35	IP30
SCH23	0 - 6	3	0.37	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

MAGNETIC GRIPPER

SERIES HM1000

1

Series HM1000 / Magnetic gripper / pneumatical / Grippers

▶ PRODUCT ADVANTAGES



▶ **Secure hold during EMERGENCY STOP**

Magnets attached to springs ensure your workpiece remains secure, even during a drop in pressure



▶ **Contact plate that increases friction value**

The replaceable O-ring ensures the high dynamics in your application and protection of your workpiece

▶ **Residual holding force < 1N**

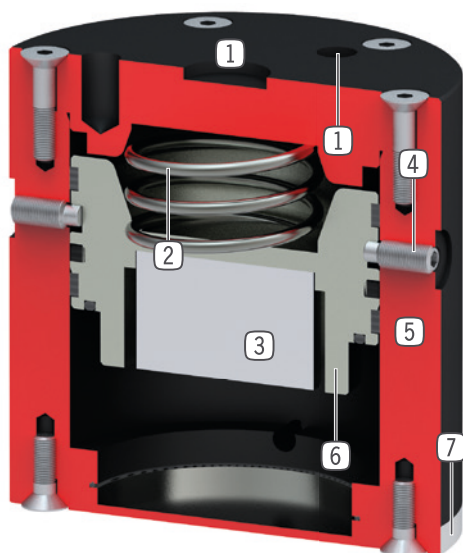
The demagnetised contact surface safeguards the process reliability of dropping off your workpiece

▶ SERIES CHARACTERISTICS

Installation size	Version
HM10XX	NC
 5 million maintenance-free cycles (max.)	●
 IP30	●



► BENEFITS IN DETAIL



- ① **Mounting and positioning**
 - via centering sleeve and thread
- ② **Spring**
 - for piston return
 - secured holding even in drop pressure
- ③ **Permanent magnet**
 - requires no power supply
 - high holding forces
- ④ **Transport safeguarding**
- ⑤ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑥ **single-acting pneumatic cylinders**
 - only one pneumatic line required
 - Spring return
- ⑦ **Contact plate**
 - easy replaceable
 - embedded O-ring to increase the friction coefficient

► TECHNICAL DATA

Installation size	Adhesive force max.	Weight	IP class
	[N]	[kg]	
HM1030	27	0.06	IP30
HM1046	65	0.28	IP30
HM1078	220	1.2	IP30
HM1097	450	2.2	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



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SWIVEL- AND ROTARY MODULES

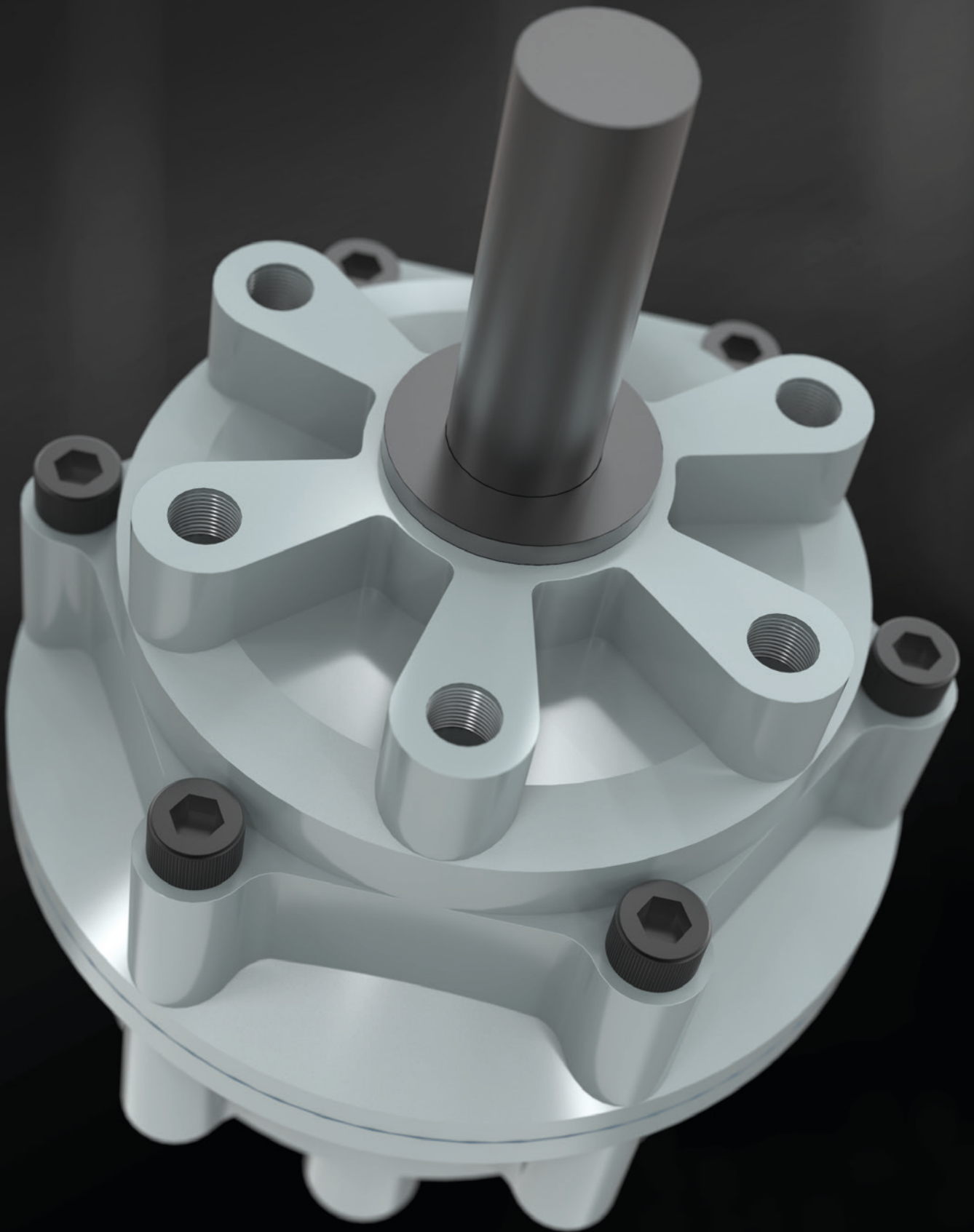
OVERVIEW OF SERIES

2

Products	Torque [Nm]	Swivel angle [°]	Number of installation sizes
Rotary Cylinders pneumatic Page 282			
Series PRN	0,15 247	90 270	●●●●●●●●
Series SH	0,59-7,2	0 360	●●
Flat Swivel Units pneumatic Page 288			
Series SF-C	1,5 130	0 180	●●●●●●
Series MSF	0,3-1,2	90-180	●●●
Flat Swivel Units electric Page 366			
Series DES	10 64	∞	●●
Angle Pivot Units pneumatic Page 370			
Series SW	1,5 120	180	●●●●●●
Series SWM1000	7 150	90	●●●●●●
Swivel Jaws pneumatic Page 392			
Series SB *	0,1-1,6	90-180	●●●
Series SBZ	1,2 57	90-180	●●●●●●

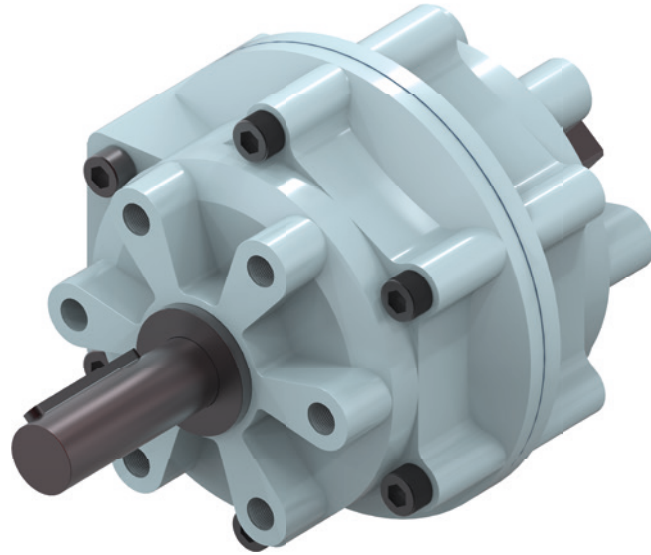
*Specifications for setup in pairs

Control	Position sensing			Positionability				Options						Safety characteristics	Maintenance	
	Inductive sensor	Magnetic field sensor	Integrated sensing	Positionability, 2 positions	Positionability, 3 positions	Positionability, 4 positions	Positionability freely selectable	Elastomer end position damping	PowerStop end position damping	Adjustable swivel angle	IP class	Fluid feed-through	Electrical feed-through		Self locking mechanism	Maintenance-free cycles (max.)
	•			•		•				•	54				1.5 million	
										•	54				1.5 million	
	•	•		•	•				•	•	64	•			10 million	
		•		•				•	•	•	41	•			10 million	
•			•				•			•	54	•	•	•		5 million
	•	•		•							64	•			10 million	
		•		•					•		30				10 million	
	•			•				•			54				10 million	
	•			•					•		54				10 million	



ROTARY CYLINDERS

OVERVIEW OF SERIES



PNEUMATIC



Series PRN

284



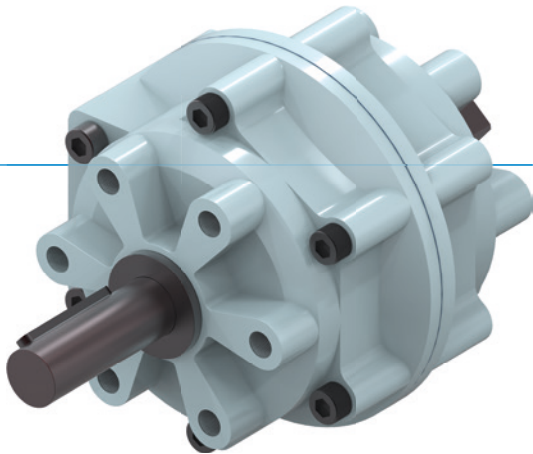
Series SH

286

ROTARY CYLINDERS

SERIES PRN

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of swivelling reduces your production costs








▶ Dampened end position

Using the hydraulic brake allows you to move up to the end positions gently, increasing the process reliability and durability of your application

▶ Forged drive shaft

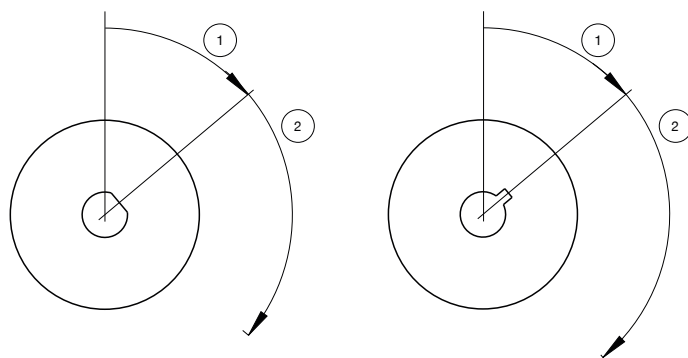
This shaft is not only robust, but can be individually adjusted

▶ SERIES CHARACTERISTICS

Installation size		Version				
PRNXXX		-90	-100	-180	-270	-280
 1.5 million maintenance-free cycles (max.)		•	•	•	•	•
 IP54		•	•	•	•	•
 Inductive sensor		•	•	•	•	•
 Positionability - 2 positions		•	•	•	•	•
 Rotation angle 90°		•				
 Rotation angle 180°				•		
 Rotation angle 270°					•	



▶ STARTING ANGLE



- ① Starting angle
- ② Swivel angle



Installation size

PRN1	PRN20
PRN3	PRN30
PRN10	PRN50
	PRN150
	PRN300
	PRN800

▶ TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
PRN1	90 - 270	0,15	0,04	IP54
PRN3	90 - 270	0,38	0,07	IP54
PRN10	90 - 270	1,2	0,14	IP54
PRN20	90 - 270	2,1	0,25	IP54
PRN30	90 - 270	4,1	0,5	IP54
PRN50	90 - 270	5,9 - 12,8	0,75 - 0,8	IP54
PRN150	90 - 270	18 - 41,5	1,6 - 1,9	IP54
PRN300	90 - 270	34,5 - 83	3,6 - 4,1	IP54
PRN800	90 - 270	123 - 247	11 - 12,5	IP54

▶ FURTHER INFORMATION IS AVAILABLE ONLINE



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ROTARY CYLINDERS

SERIES SH

▶ PRODUCT ADVANTAGES



“The flexible”

▶ Movable to four positions

The two separately or jointly controlled rotors provide you with the greatest flexibility in positioning your work-pieces

▶ High torque rating

The optimal ratio of installation space and torque reduces interference contours and creates precious space in your application

▶ 360° swivel angle

Do you want your application to be flexible and individualised? The infinitely variable 360° adjustable swivel angle lets you!

▶ SERIES CHARACTERISTICS

Installation size

SH-XX



1.5 million maintenance-free cycles (max.)



IP54



Positionability - 4 positions

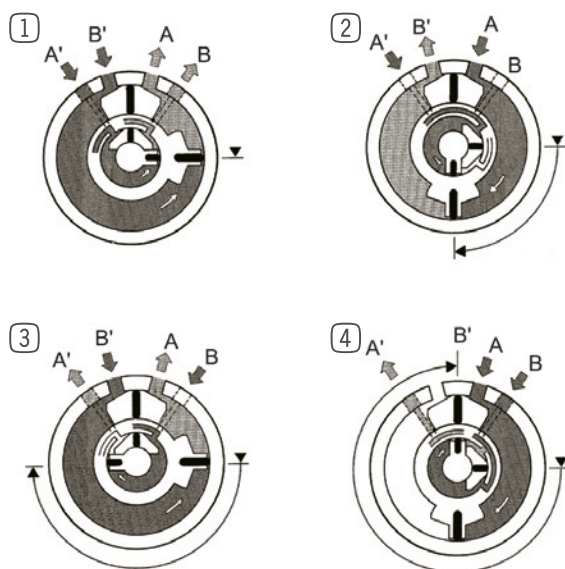


Adjustable swivel angle





BENEFITS IN DETAIL



- ① **0-position**
 - High-pressure air in 1B and 2B: Internal- and external blades go to the 0-position
- ② **First 90°-intermediate adjustment**
 - High-pressure air A and A': The external blade swivel up to the external limit stop (Stopper) at 90 °.
- ③ **Second 90°-intermediate setting**
 - High-pressure air B and B': The external blade swivels with the internal 90° limit stop to the 0-position. The internal blade swivel 180° set opposite each other.
- ④ **Third 90°-intermediate adjustment**
 - High-pressure air A and B: The external blade swivels with the internal blade in the movement direction at 90°.

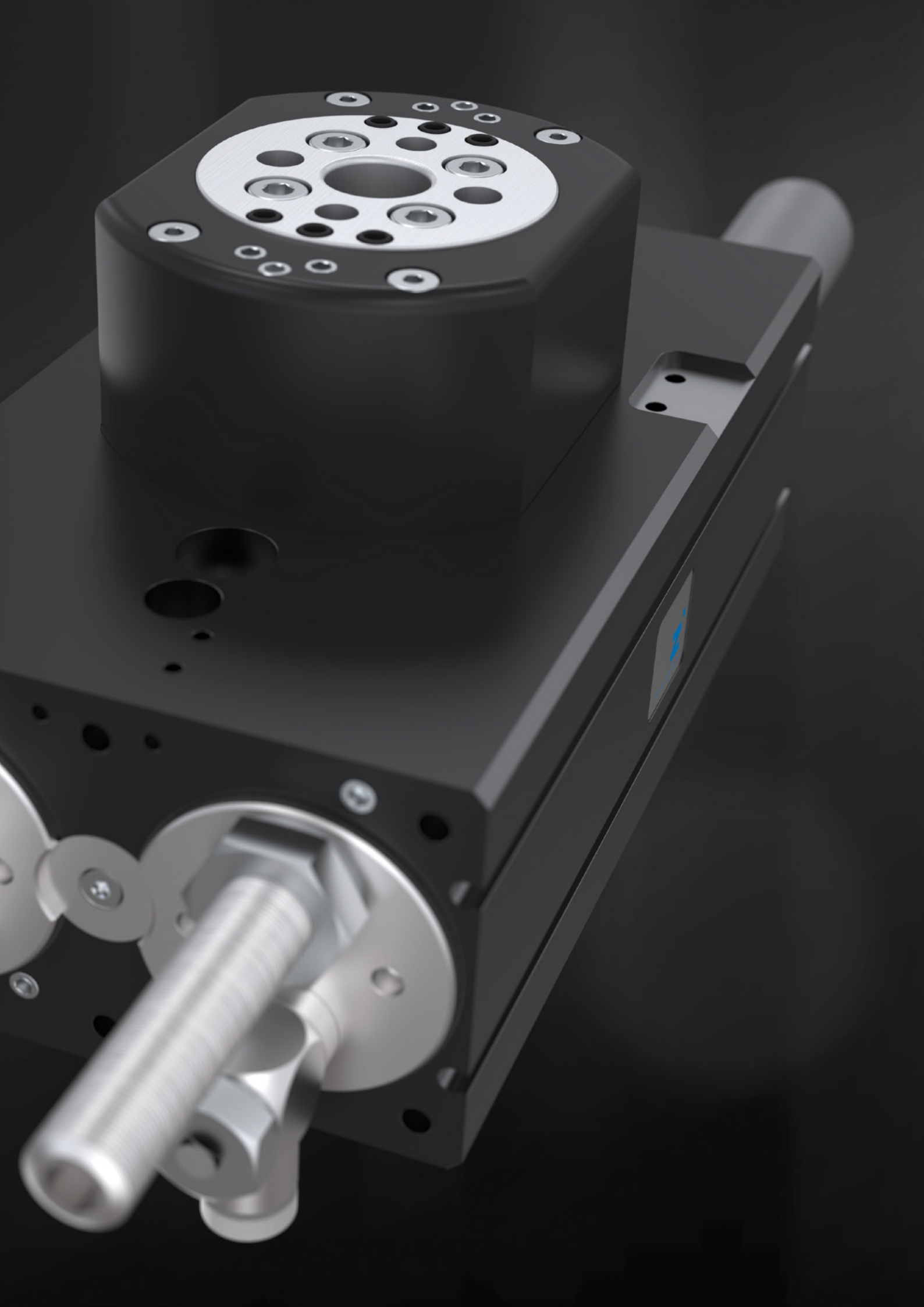
TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
SH-5	360	0,59 - 2,73	0.52	IP54
SH-20	360	2,35 - 7,2	1.13	IP54

FURTHER INFORMATION IS AVAILABLE ONLINE

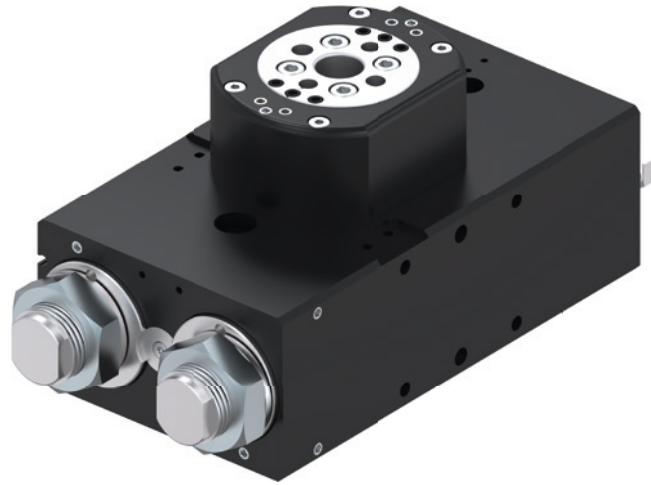


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FLAT SWIVEL UNITS

OVERVIEW OF SERIES



PNEUMATIC



Series SF-C

290



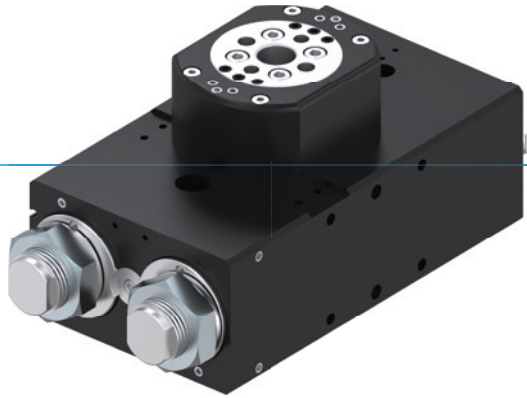
Series MSF

364

FLAT SWIVEL UNITS

SERIES SF-C

▶ PRODUCT ADVANTAGES



“The superior”

▶ Up to 100% more performance than the benchmark

Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine's component output

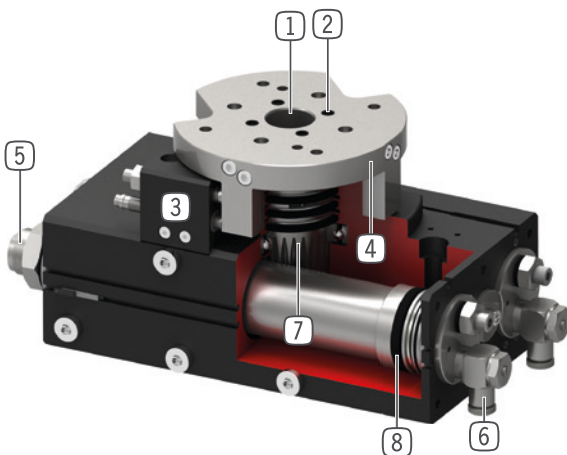
▶ Large centre bore

Reduce the interference contours in your application by placing your power supply line directly through the middle of the rotary flange

▶ More than 100% higher radial bearing load than the benchmark

The generously scaled bearings stand for robustness and long service life and provide the highest process reliability for your application

▶ BENEFITS IN DETAIL



① Two way ball bearing hollow shaft

- for feedthrough cables and hoses
- high forces and moments capacity

② Up to 8 way integrated air feed-through

- for hoseless air transfer
- hose package does not have to be pivoted

③ Adjustable end position

- +/- 3° adjustable end position

④ Large, precise locating flange

- simple tool connection

⑤ Integrated shock absorbers with spiral groove technology

- adjustable end position damping
- heating is prevented through installation in pneumatic pressure chamber

⑥ Air flow control valve

- for speed regulation (included in the delivery)

⑦ Force transfer

- rack and pinion

⑧ Drive

- two double-acting pneumatic cylinders
- high torque rating



► SERIES CHARACTERISTICS

Installation size		Version									
SFXXX		-90N	-180N	N	-90DX	-180DX	DX	ML	MLDX	M	MDX
	10 million maintenance-free cycles (max.)	●	●	●	●	●	●	●	●	●	●
	IP64	●	●	●	●	●	●	●	●	●	●
	Inductive sensor	●	●	●	●	●	●	●	●	●	●
	Magnetic field sensor	●	●	●	●	●	●	●	●	●	●
	Flange	●	●	●	●	●	●	●	●	●	●
	Powerstop end position damping	●	●	●	●	●	●	●	●	●	●
	End positions adjustable +/- 3	●	●	●	●	●	●	●	●	●	●
	Positionability - 2 positions	●	●	●	●	●	●				
	Positionability - 3 positions							●	●		
	Positionability - 3 positions locked									●	●
	Rotation angle 90°	●			●			●	●	●	●
	Rotation angle 180°		●			●		●	●	●	●
	Swivel angle 180° freely adjustable			●			●				
	Fluid feed-through				●	●	●		●		●

► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
SF50	0 - 180	1,5 - 2,4	0,6 - 1,14	IP64
SF74	0 - 180	4,5 - 7,3	1,6 - 2,6	IP64
SF100	0 - 180	13 - 20	3,7 - 5,8	IP64
SF125	0 - 180	32 - 38	8,8 - 12,9	IP64
SF155	0 - 180	54 - 62	15 - 21,8	IP64
SF195	0 - 180	120 - 130	27,5 - 41,1	IP64

► FURTHER INFORMATION IS AVAILABLE ONLINE



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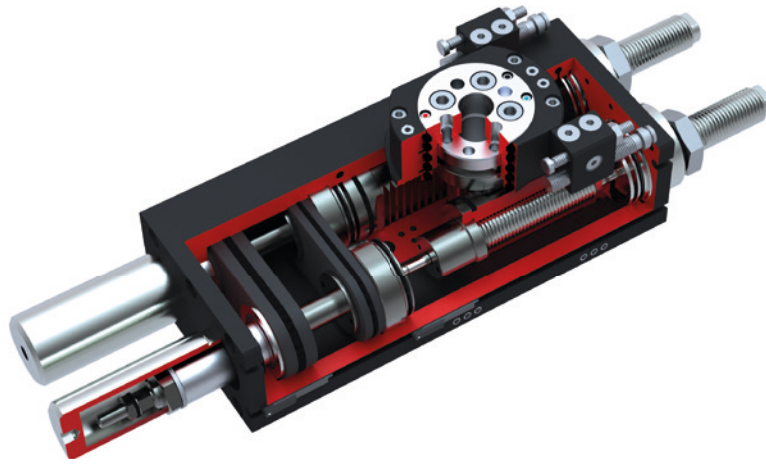
FLAT SWIVEL UNITS

SERIES SF-C

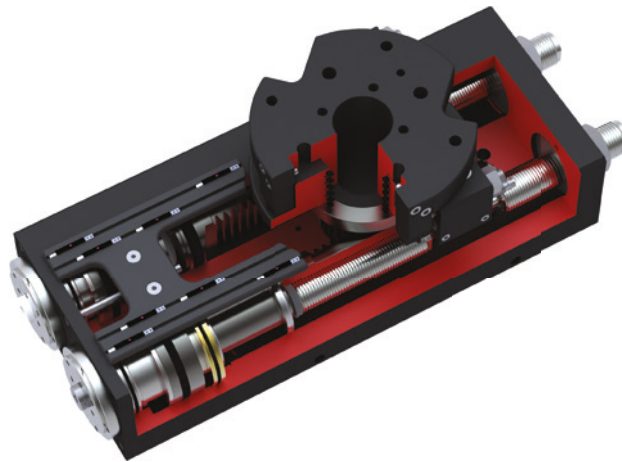
▶ HOW TO ORDER CORRECTLY

Order no.	SF	<input type="checkbox"/>	<input type="checkbox"/>	-C
Flat swivel units				
Installation size		50		
Installation size		74		
Installation size		100		
Installation size		125		
Installation size		155		
Installation size		195		
Swivel angle 0° - 180°, infinitely variable			N	
Integrated hoseless pneumatic feed-through, 4-way			D4	
Integrated hoseless pneumatic feed-through, 6-way			D6	
Integrated hoseless pneumatic feed-through, 8-way			D8	
Rotation angle 90°			-90N	
Integrated hoseless pneumatic feed-through, 4-way			-90D4	
Integrated hoseless pneumatic feed-through, 6-way			-90D6	
Integrated hoseless pneumatic feed-through, 8-way			-90D8	
Rotation angle 180°			-180N	
Integrated hoseless pneumatic feed-through, 4-way			-180D4	
Integrated hoseless pneumatic feed-through, 6-way			-180D6	
Integrated hoseless pneumatic feed-through, 8-way			-180D8	
Version: ML (Size SF50 / SF74 / SF100)				
<ul style="list-style-type: none"> ▶ At -90° and +90° position, mechanical and shock-absorbed fixed stop ▶ 0° position is not locked, as opposed to the M version ▶ For these units, the driven pistons move against dominant limit stop pistons and, like for the locked center position, undergo shock absorption while moving into end position ▶ Simplified activation for horizontal rotary movements 				
Swivel angle -90° - 0° - +90°			ML	
Integrated hoseless pneumatic feed-through, 4-way			MLD4	
Integrated hoseless pneumatic feed-through, 6-way			MLD6	
Integrated hoseless pneumatic feed-through, 8-way			MLD8	
Version: M (Size SF125 / SF155 / SF195)				
<ul style="list-style-type: none"> ▶ All three positions for mechanical and shock-mounted fixed stop ▶ 0° center position using two stopper pistons with integrated shock absorbers ▶ A mechanical fixed stop is generated using ratchet bolts that are pushed through arrester pistons into the ring groove of the stopper piston 				
Swivel angle -90° - 0° - +90°			M	
Integrated hoseless pneumatic feed-through, 4-way			MD4	
Integrated hoseless pneumatic feed-through, 6-way			MD6	
Integrated hoseless pneumatic feed-through, 8-way			MD8	

► VERSION: ML (SIZE SF50 / SF74 / SF100)



► VERSION: M (SIZE SF125 / SF155 / SF195)

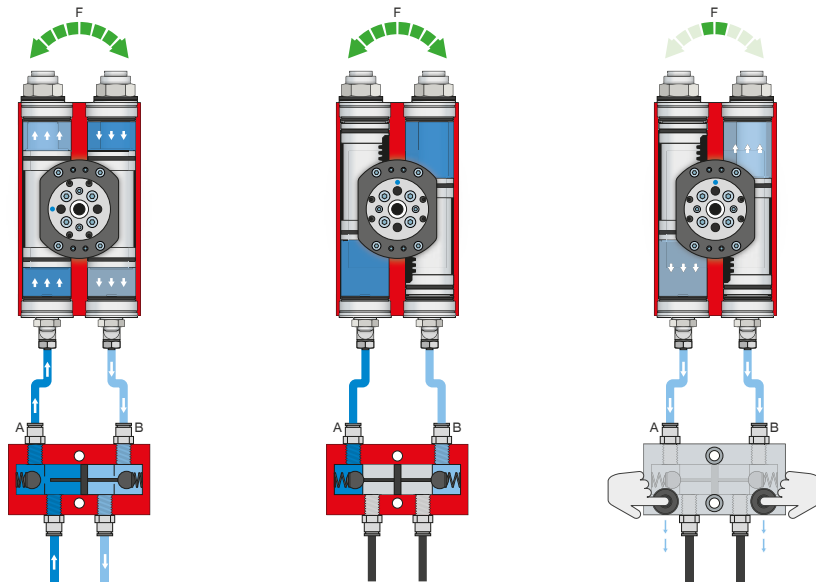


FLAT SWIVEL UNITS

SERIES SF-C FUNCTIONAL DESCRIPTION



ENERGY SUPPLY



Pressure safety valve – DSV

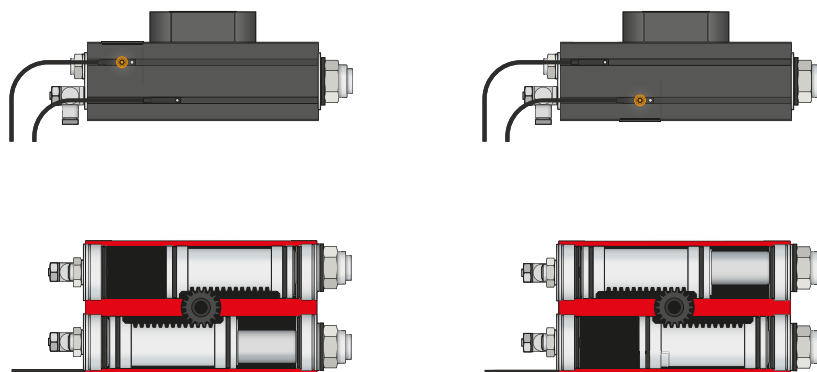
Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the swivel unit in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the swivel unit's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the swivel unit.



SENSORS

MFS02



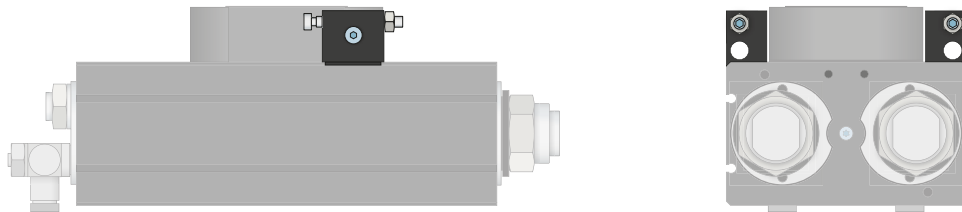
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are clamped in the C-groove of the swivel unit and detect the magnet attached to the piston of the swivel unit. To ensure use in a wide variety of space conditions, the sensors are available in two versions. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the swivel unit almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

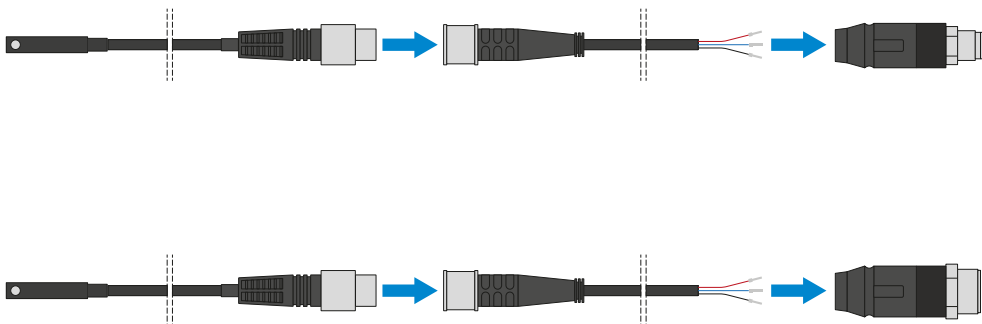


CONNECTIONS / OTHER



Attachment kit

The attachment kit is mounted on the pivot unit by the mounting hardware included in the scope of delivery and serves as an external stop. Thanks to the external stop, the force is dispersed through the housing and prevents the rack and pinion from being overloaded. The attachment kit also makes it possible to sense the end positions via inductive proximity switches.



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

FLAT SWIVEL UNITS

INSTALLATION SIZE SF50N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0006
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

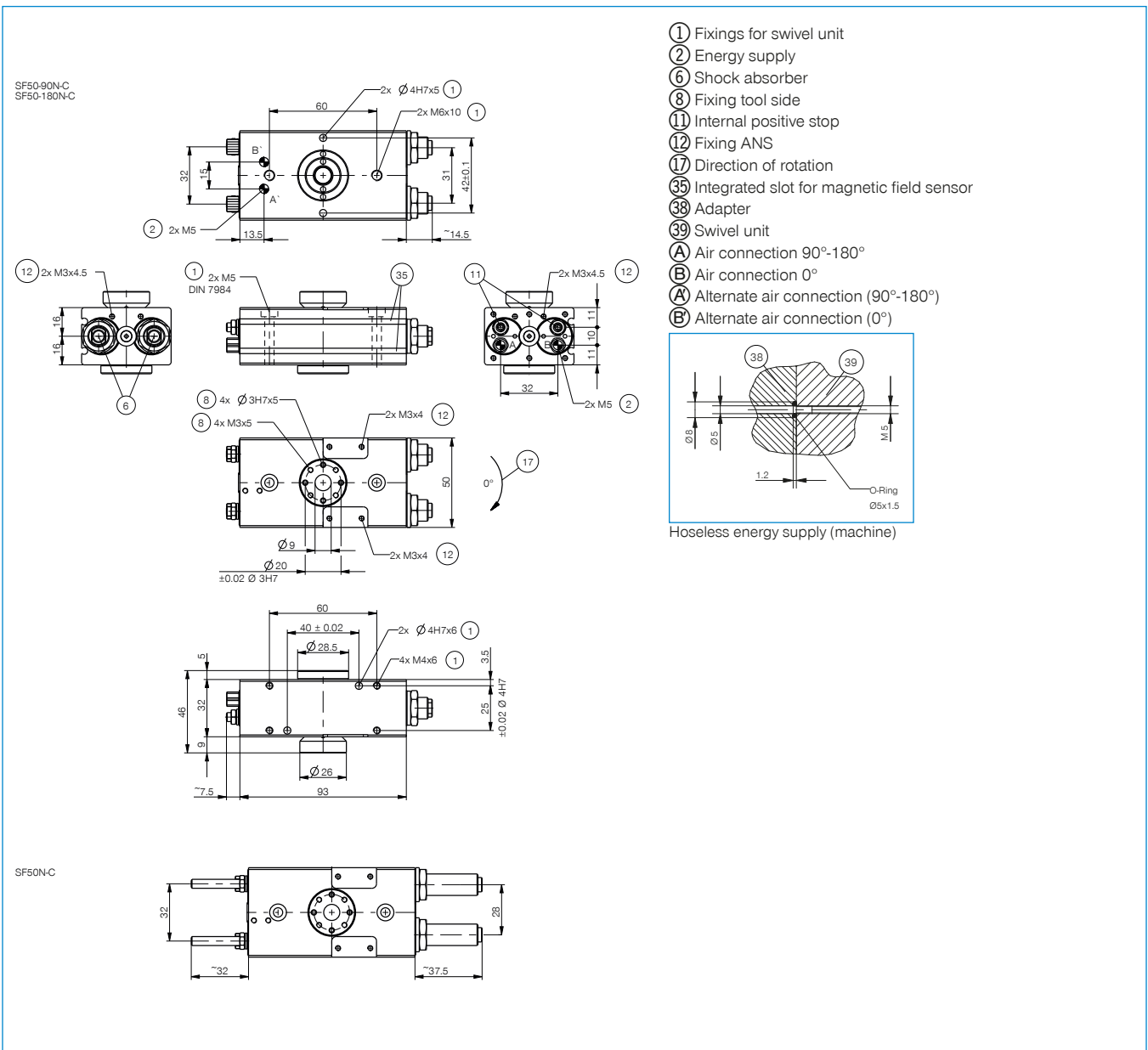


NJ8-E2S
Inductive proximity switch - Connector M8



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	► Technical data		
	SF50-90N-C	SF50-180N-C	SF50N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	2.4	2.4	2.4
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	9	9	9
Axial bearing load [N]	490	490	490
Radial bearing load [Nm]	24	24	24
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	14	28	28
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	0.6	0.6	0.6



FLAT SWIVEL UNITS

INSTALLATION SIZE SF50D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4



4 [piece]
O-Ring
COR0020100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0008
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

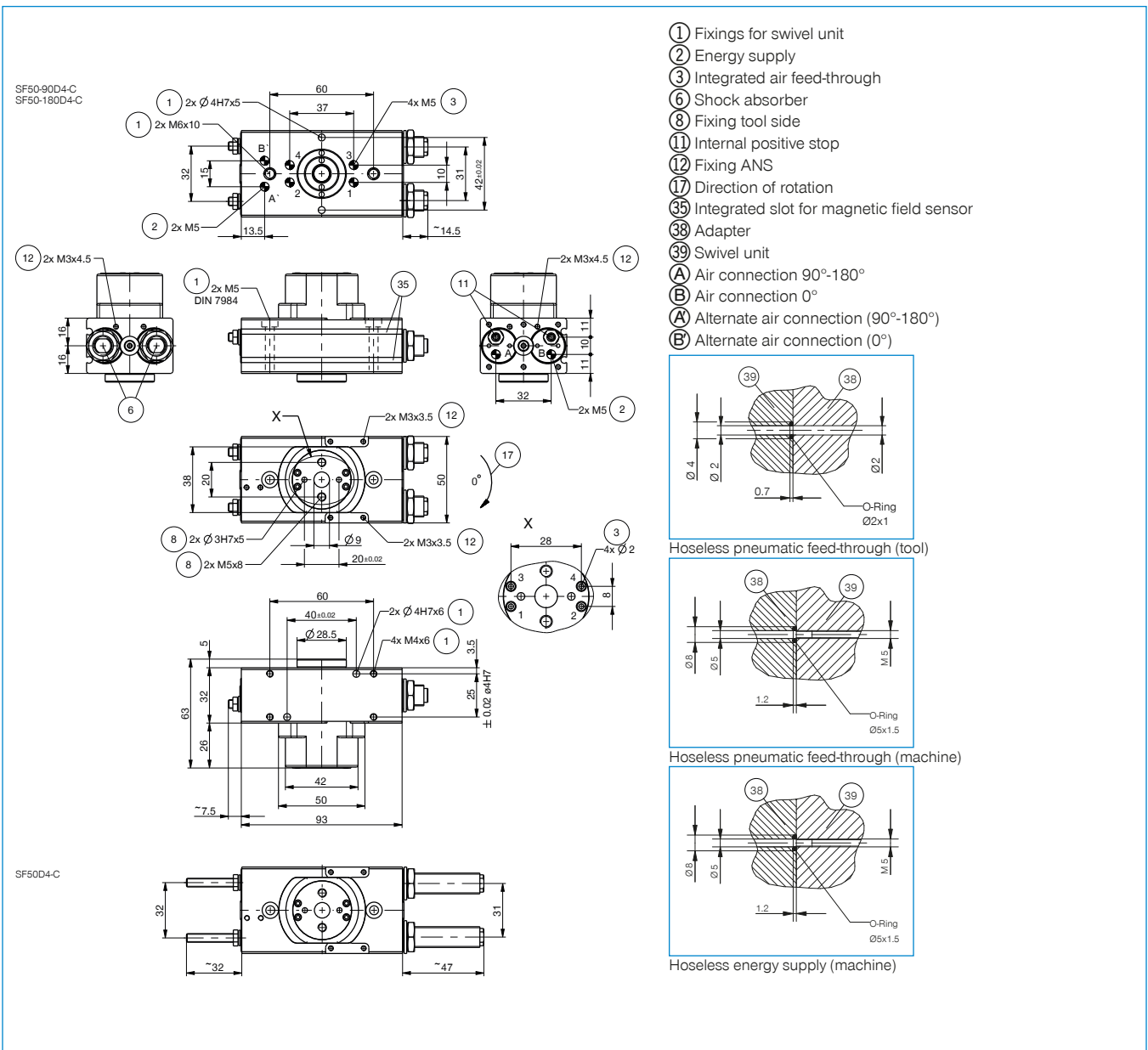


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	► Technical data		
	SF50-90D4-C	SF50-180D4-C	SF50D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	1.5	1.5	1.5
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	9	9	9
Axial bearing load [N]	490	490	490
Radial bearing load [Nm]	24	24	24
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	14	28	28
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	0.76	0.76	0.76



FLAT SWIVEL UNITS

INSTALLATION SIZE SF74ML-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



1 [piece]
Attachment Kit
ANS0068



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

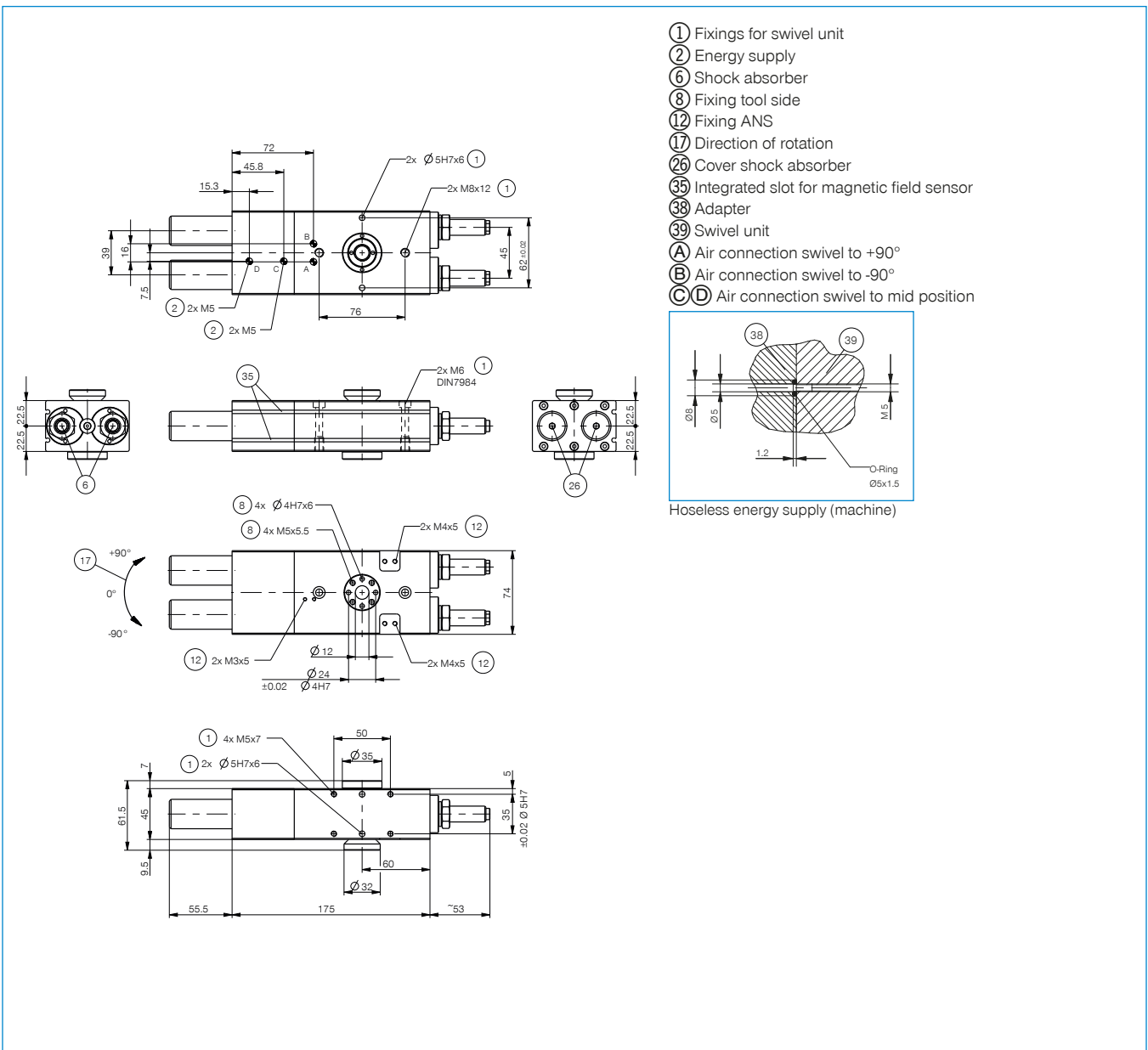


NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ6.5-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
	SF74ML-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	7.3
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	12
Axial bearing load [N]	1120
Radial bearing load [Nm]	88
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	125
Protection to IEC 60529	IP64
Weight [kg]	2.8



FLAT SWIVEL UNITS

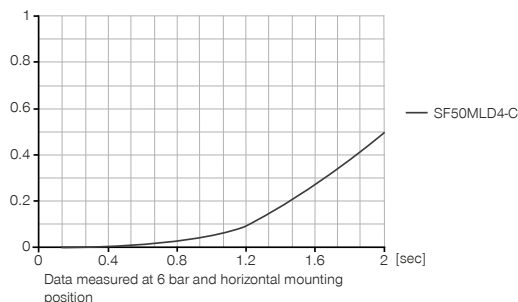
INSTALLATION SIZE SF50MLD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4



4 [piece]
O-Ring
COR0020100



1 [piece]
Attachment Kit
ANS0067



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ3-E2
Inductive proximity switch - Cable 5 m

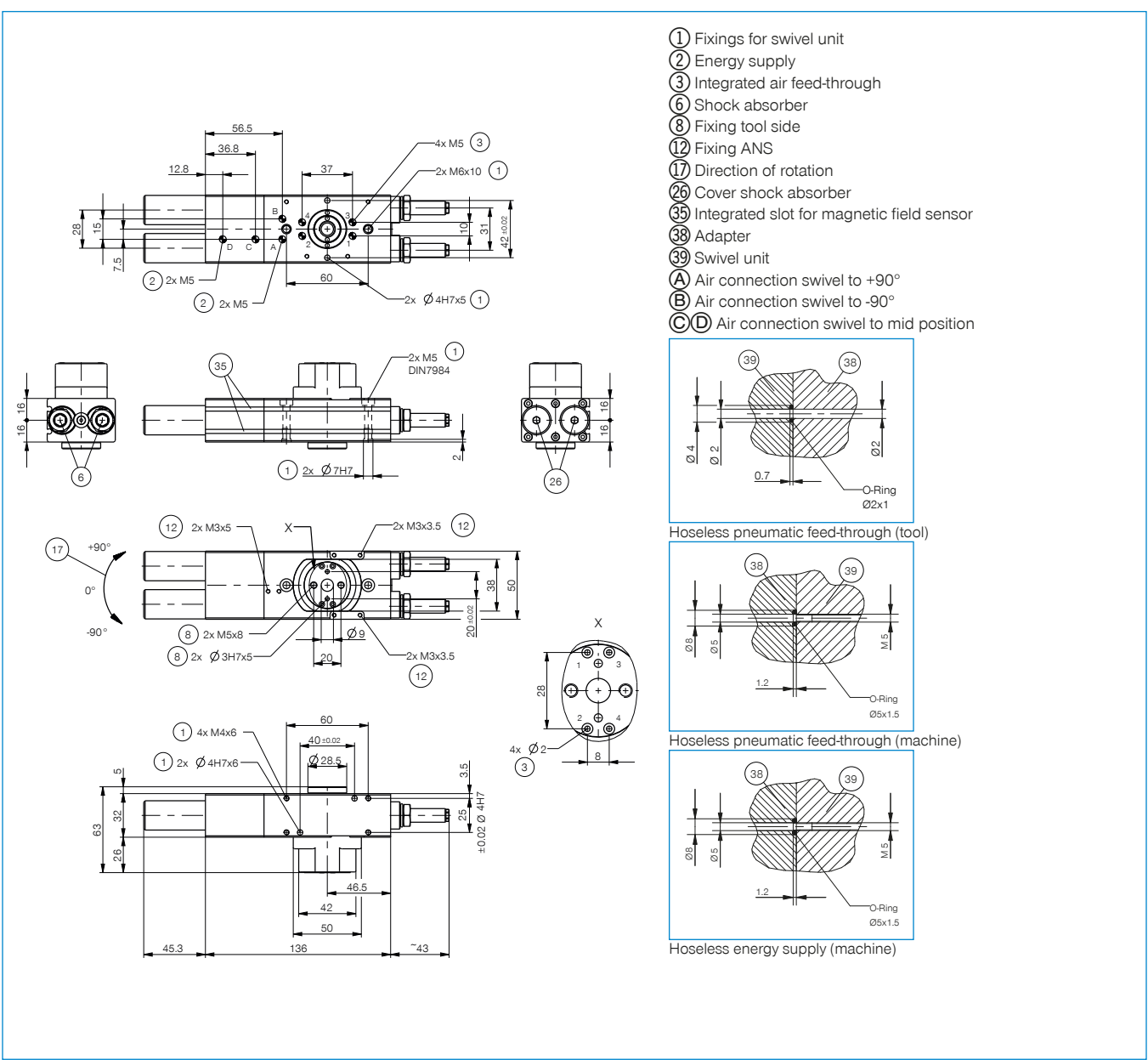


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8

Order no.	Technical data
	SF50MLD4-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	1.5
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	9
Axial bearing load [N]	490
Radial bearing load [Nm]	24
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	44
Protection to IEC 60529	IP64
Weight [kg]	1.14



FLAT SWIVEL UNITS

INSTALLATION SIZE SF74N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0010
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ8-E2
Inductive proximity switch - Cable 5 m

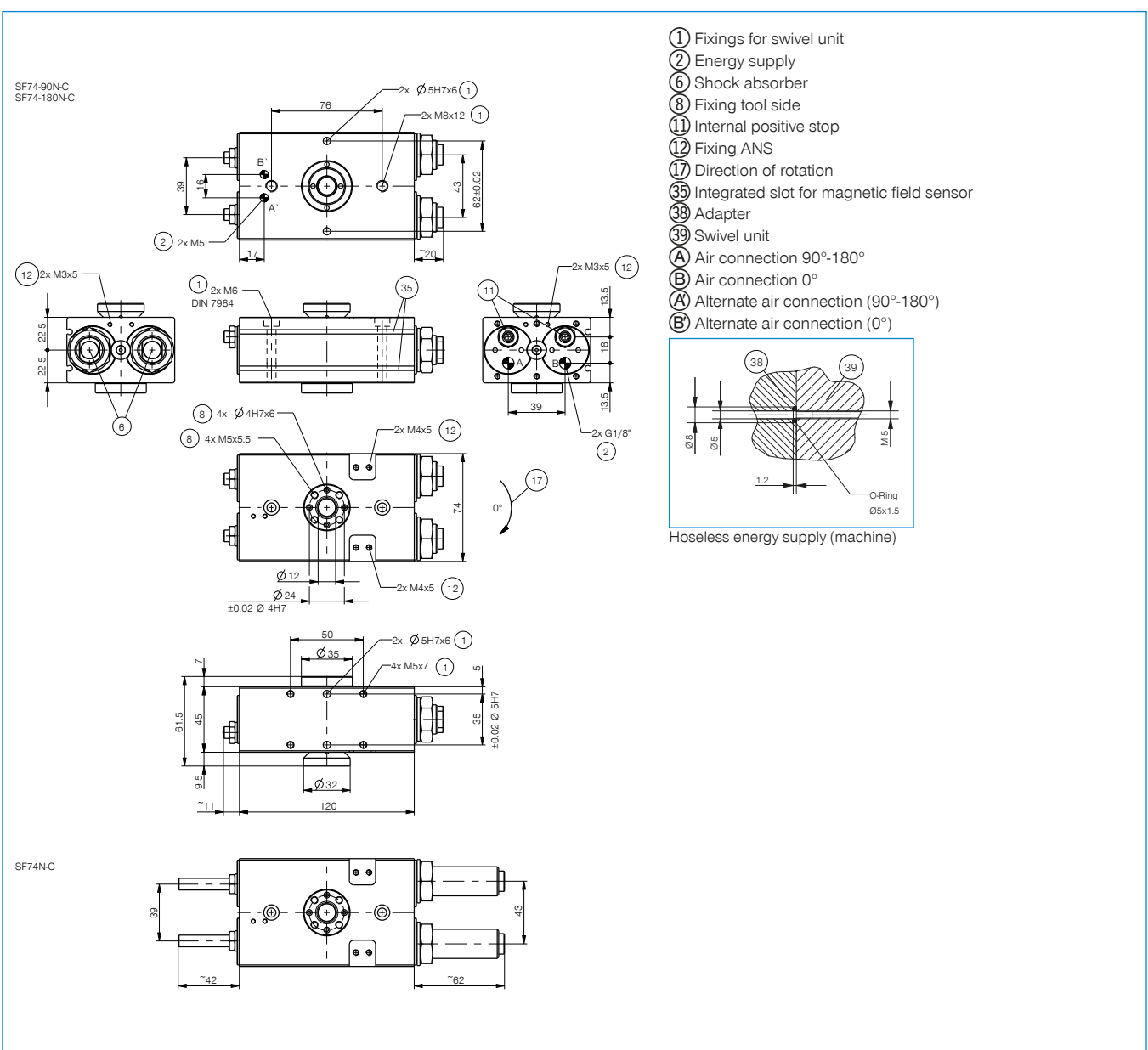


NJ6.5-E2S
Inductive proximity switch - Connector M8



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	▶ Technical data		
	SF74-90N-C	SF74-180N-C	SF74N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	7.3	7.3	7.3
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	12	12	12
Axial bearing load [N]	1120	1120	1120
Radial bearing load [Nm]	88	88	88
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	42	84	84
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	1.8	1.8	1.9



FLAT SWIVEL UNITS

INSTALLATION SIZE SF74D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0020100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0012
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ8-E2
Inductive proximity switch - Cable 5 m

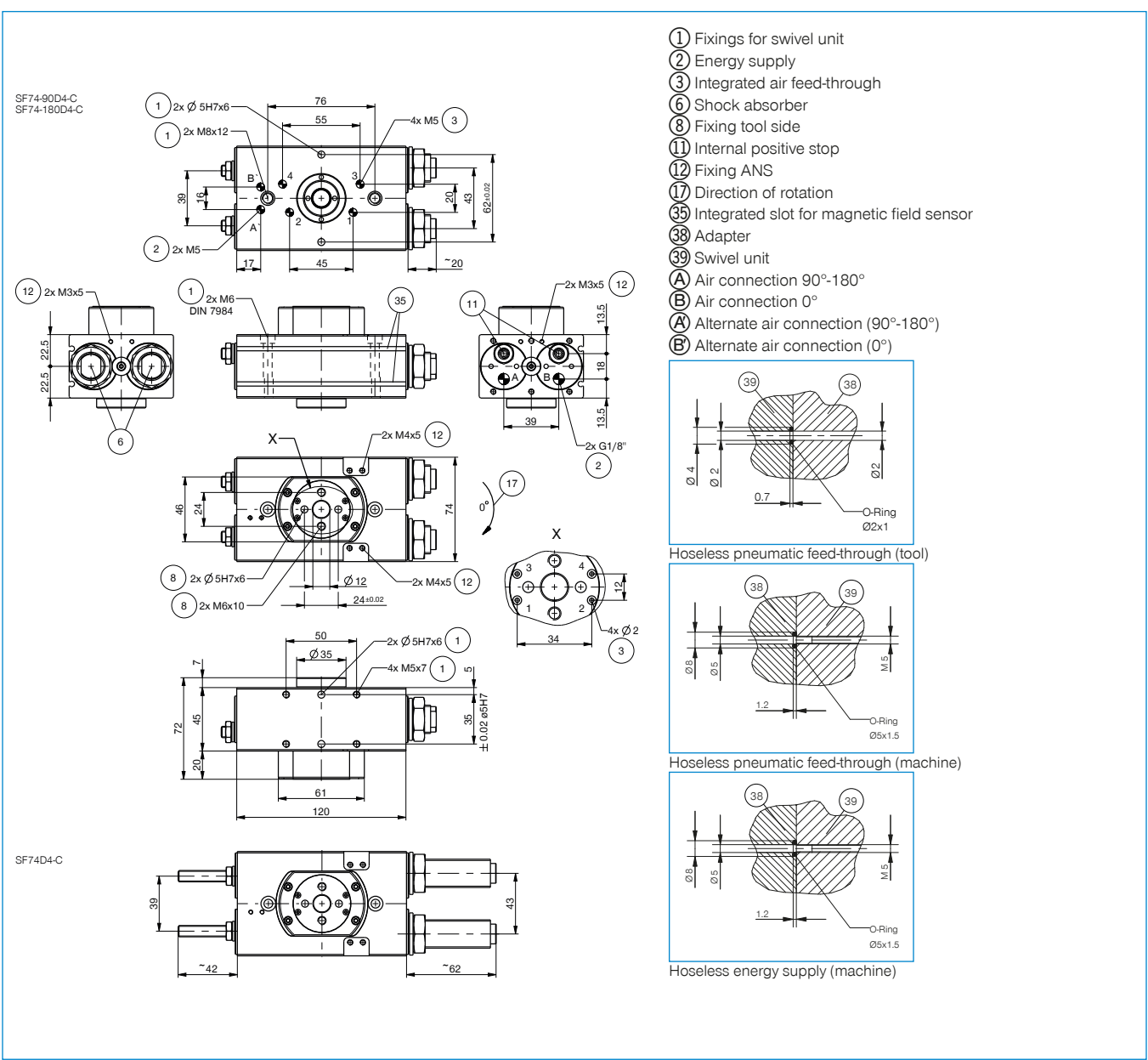


NJ6.5-E2S
Inductive proximity switch - Connector M8



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	► Technical data		
	SF74-90D4-C	SF74-180D4-C	SF74D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	5.5	5.5	5.5
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	12	12	12
Axial bearing load [N]	1120	1120	1120
Radial bearing load [Nm]	88	88	88
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	42	84	84
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	1.9	1.9	2.1



FLAT SWIVEL UNITS

INSTALLATION SIZE SF74D6-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



6 [piece]
O-Ring
COR0020100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



MFS02-S-KHC-P2-PNP
2-point sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0012
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ8-E2
Inductive proximity switch - Cable 5 m

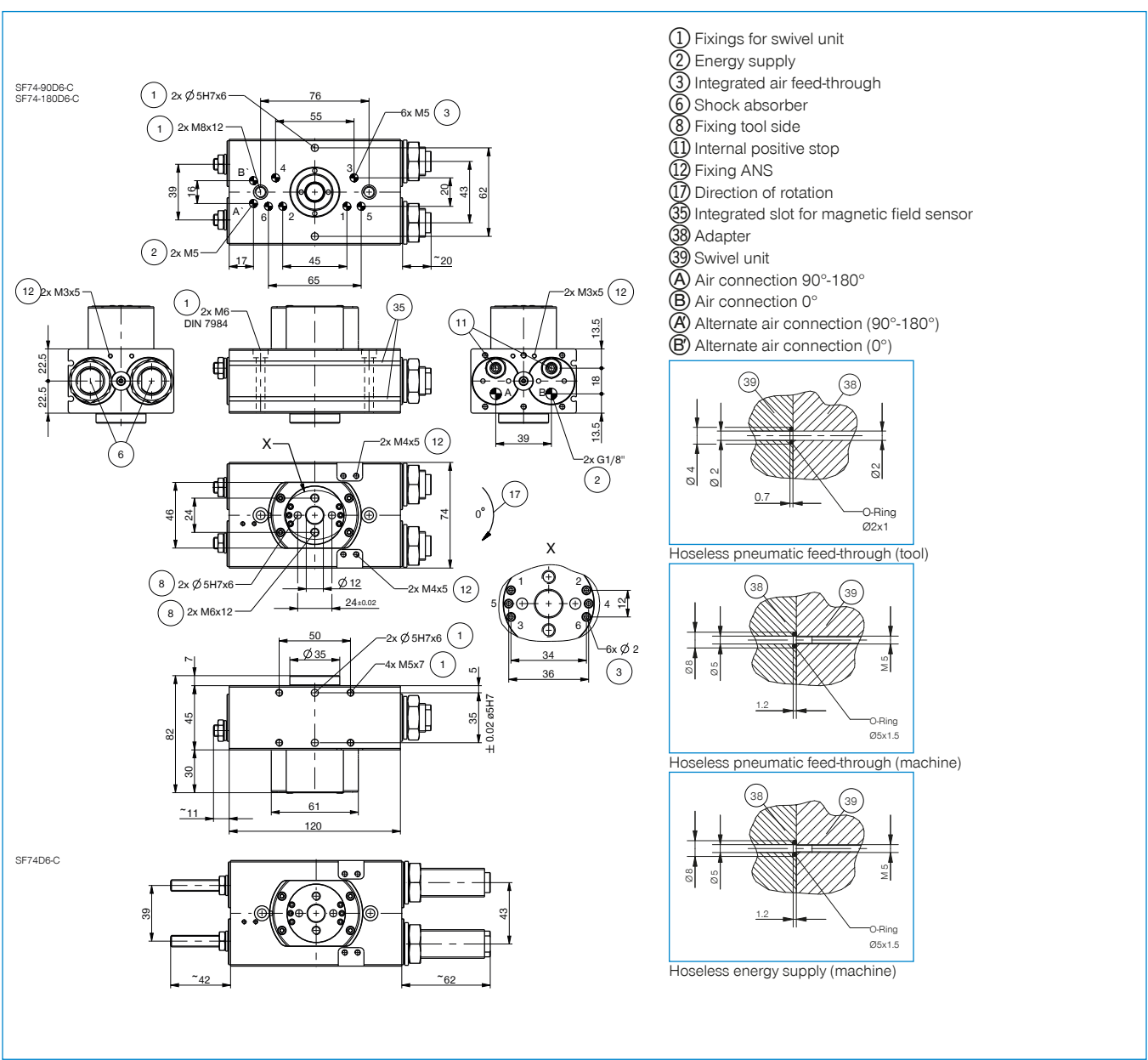


NJ6.5-E2S
Inductive proximity switch - Connector M8



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data		
	SF74-90D6-C	SF74-180D6-C	SF74D6-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	4.5	4.5	4.5
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	12	12	12
Axial bearing load [N]	1120	1120	1120
Radial bearing load [Nm]	88	88	88
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	42	84	84
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	2.1	2.1	1.8



FLAT SWIVEL UNITS

INSTALLATION SIZE SF74ML-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



1 [piece]
Attachment Kit
ANS0068



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

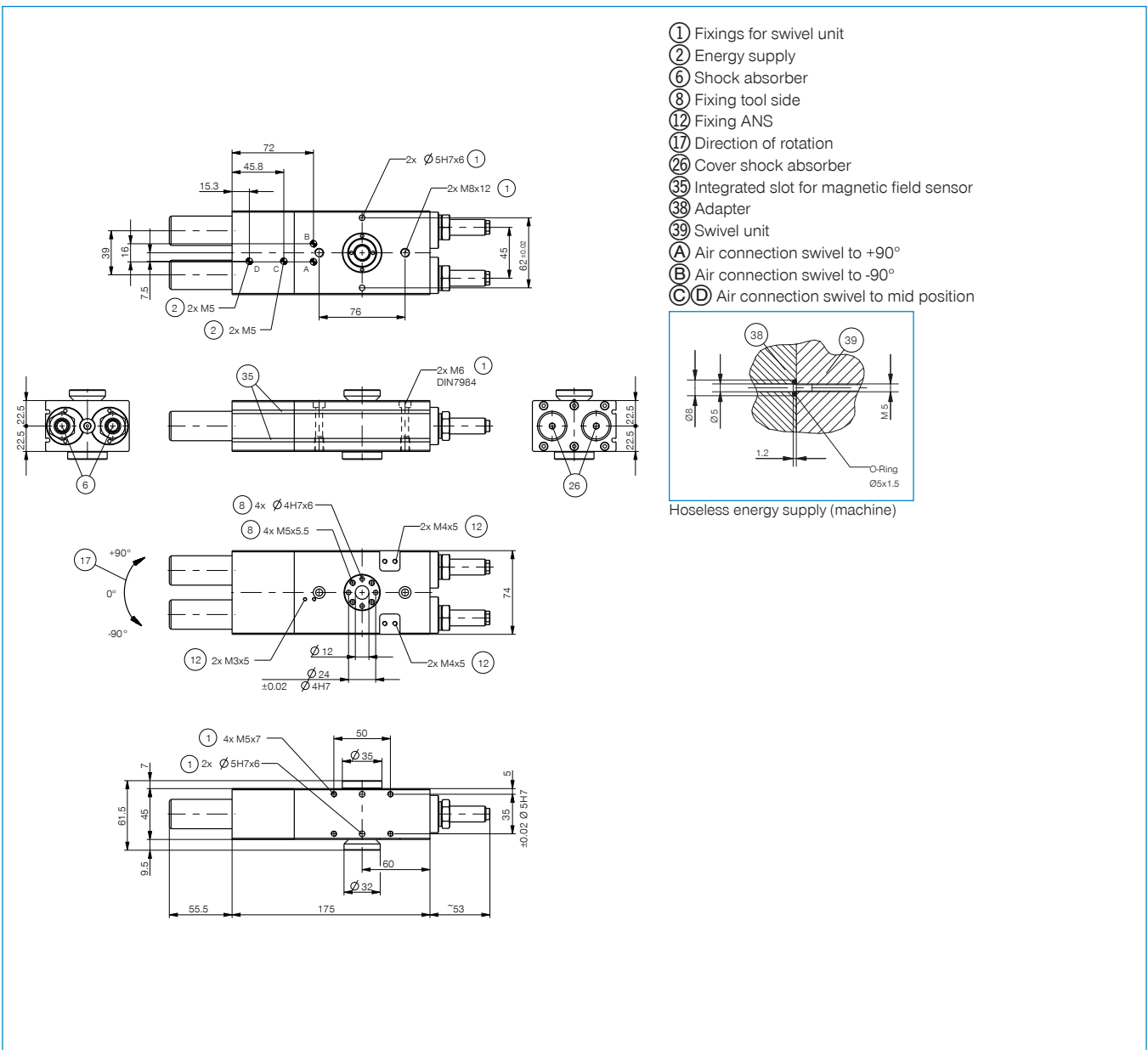


NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ6.5-E2S
Inductive proximity switch - Connector M8

Order no.	► Technical data
	SF74ML-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	7.3
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	12
Axial bearing load [N]	1120
Radial bearing load [Nm]	88
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	125
Protection to IEC 60529	IP64
Weight [kg]	2.8



FLAT SWIVEL UNITS

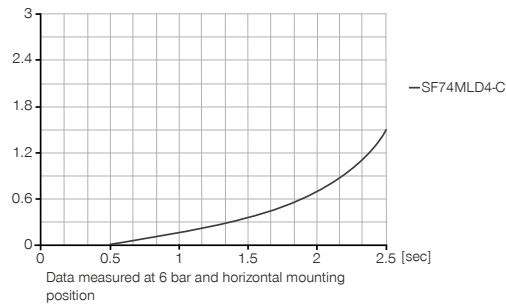
INSTALLATION SIZE SF74MLD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0020100



1 [piece]
Attachment Kit
ANS0069



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

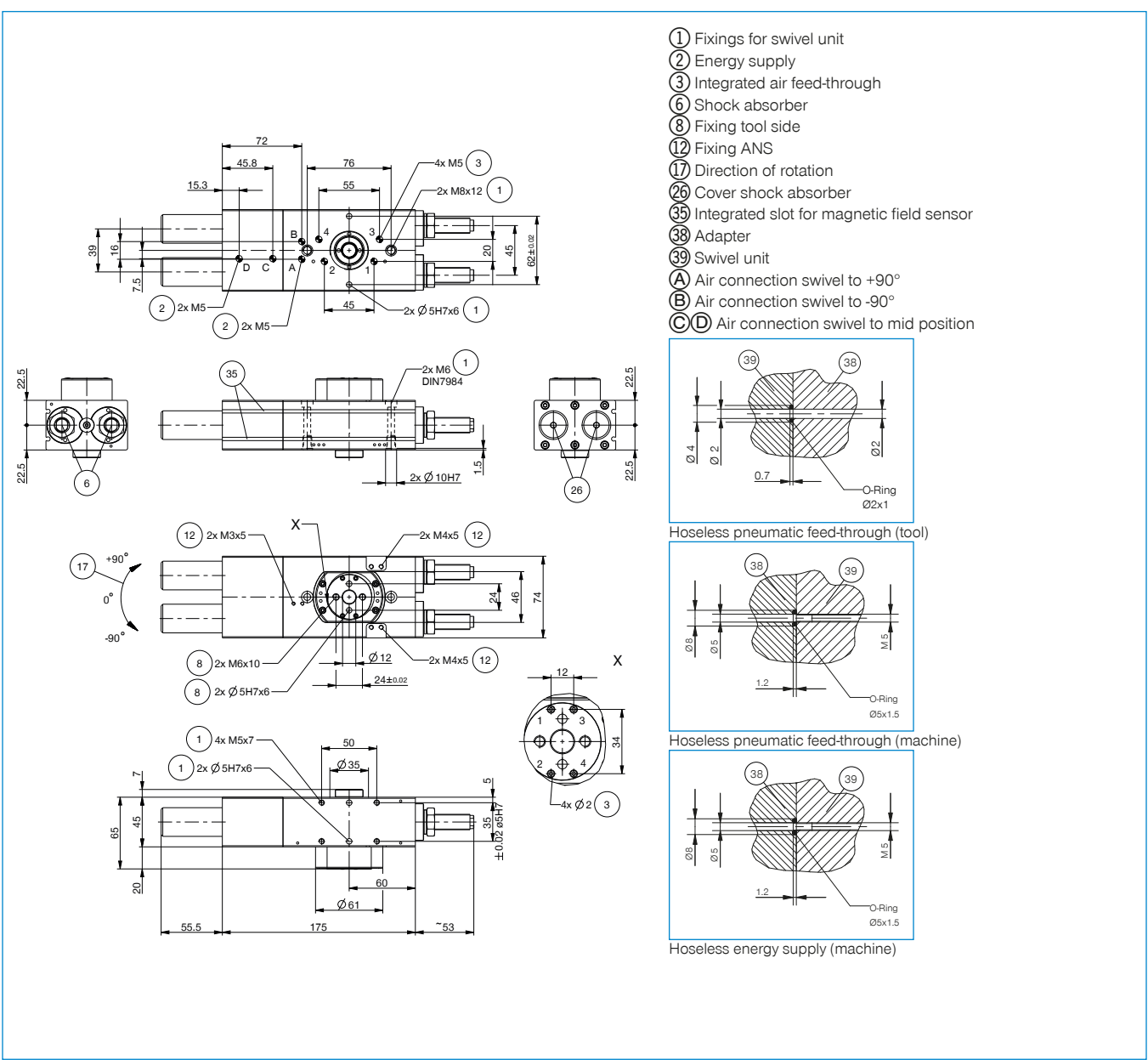


NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ6.5-E2S
Inductive proximity switch - Connector M8

Order no.	▶ Technical data
	SF74MLD4-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	5.5
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	12
Axial bearing load [N]	1120
Radial bearing load [Nm]	88
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	125
Protection to IEC 60529	IP64
Weight [kg]	2.6



- ① Fixings for swivel unit
- ② Energy supply
- ③ Integrated air feed-through
- ⑥ Shock absorber
- ⑧ Fixing tool side
- ⑫ Fixing ANS
- ⑰ Direction of rotation
- ⑳ Cover shock absorber
- ㉓ Integrated slot for magnetic field sensor
- ㉔ Adapter
- ㉕ Swivel unit
- A Air connection swivel to +90°
- B Air connection swivel to -90°
- C D Air connection swivel to mid position



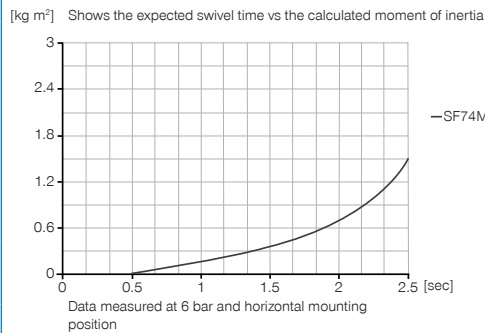
FLAT SWIVEL UNITS

INSTALLATION SIZE SF74MLD6-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY

	2 [piece] Flow Control Valves - with Swivel joint DRV1-8X6		6 [piece] O-Ring COR0020100
	1 [piece] Attachment Kit ANS0070		1 [piece] Commissioning USB 052650

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

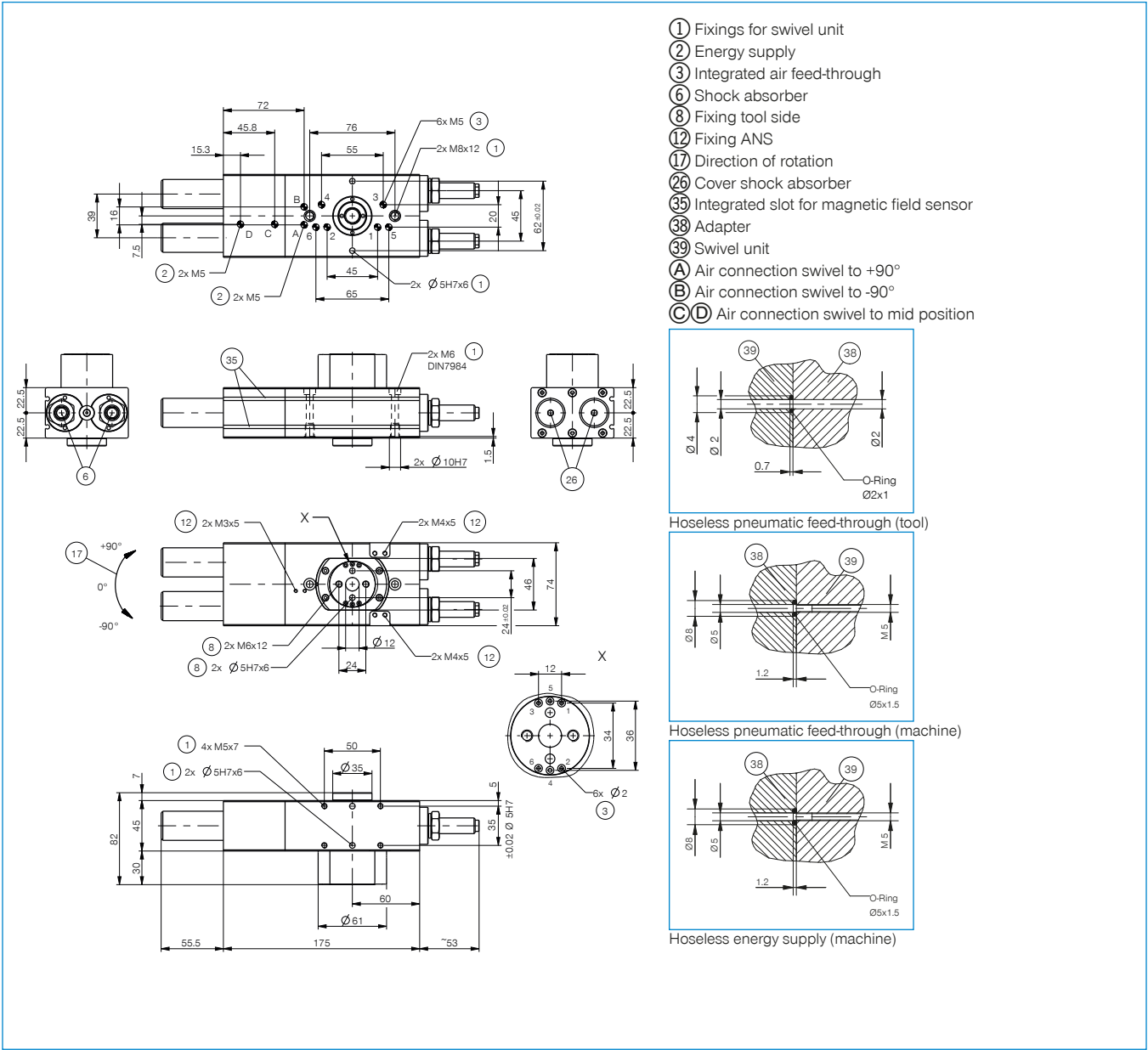


NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



NJ6.5-E2S
Inductive proximity switch - Connector M8

Order no.	▶ Technical data
	SF74MLD6-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	4.5
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	12
Axial bearing load [N]	1120
Radial bearing load [Nm]	88
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	125
Protection to IEC 60529	IP64
Weight [kg]	3.1



FLAT SWIVEL UNITS

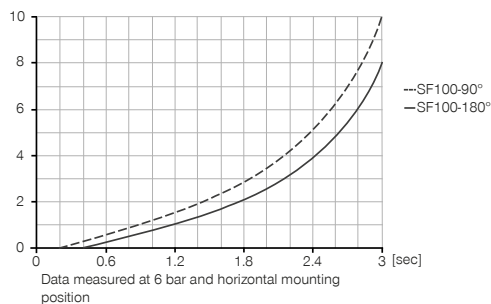
INSTALLATION SIZE SF100N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0015
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

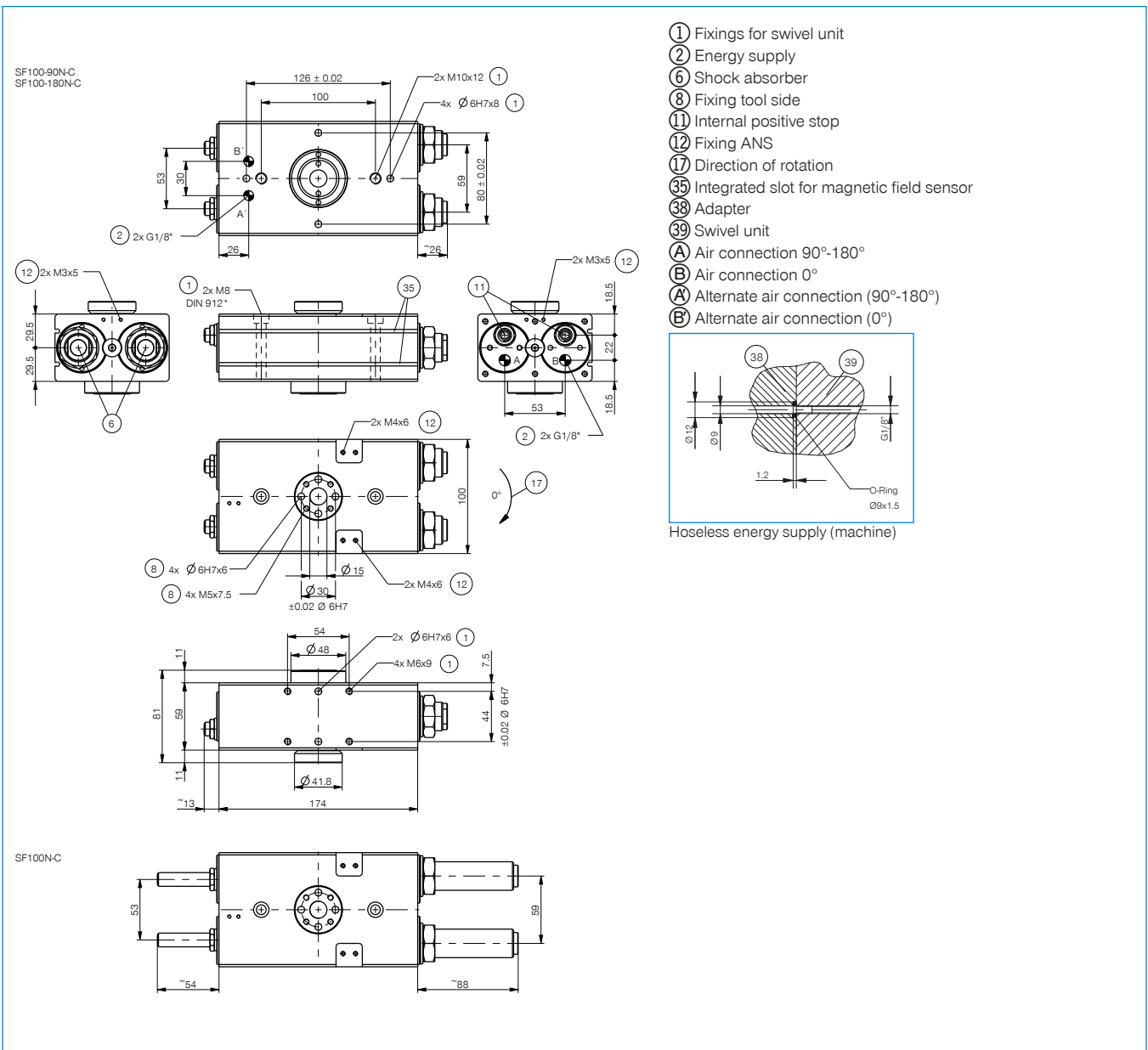


NJ8-E2S
Inductive proximity switch - Connector M8



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data		
	SF100-90N-C	SF100-180N-C	SF100N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	20	20	20
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	15	15	15
Axial bearing load [N]	2500	2500	2500
Radial bearing load [Nm]	155	155	155
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	103	206	206
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	4.2	4.1	4.5



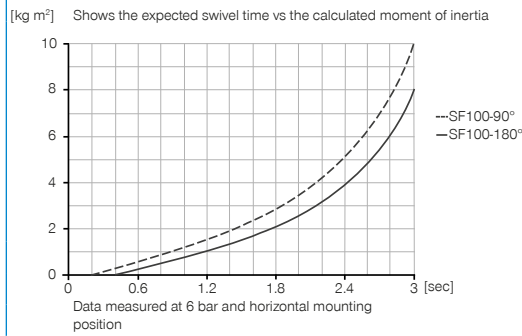
FLAT SWIVEL UNITS

INSTALLATION SIZE SF100D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0030100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0017
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

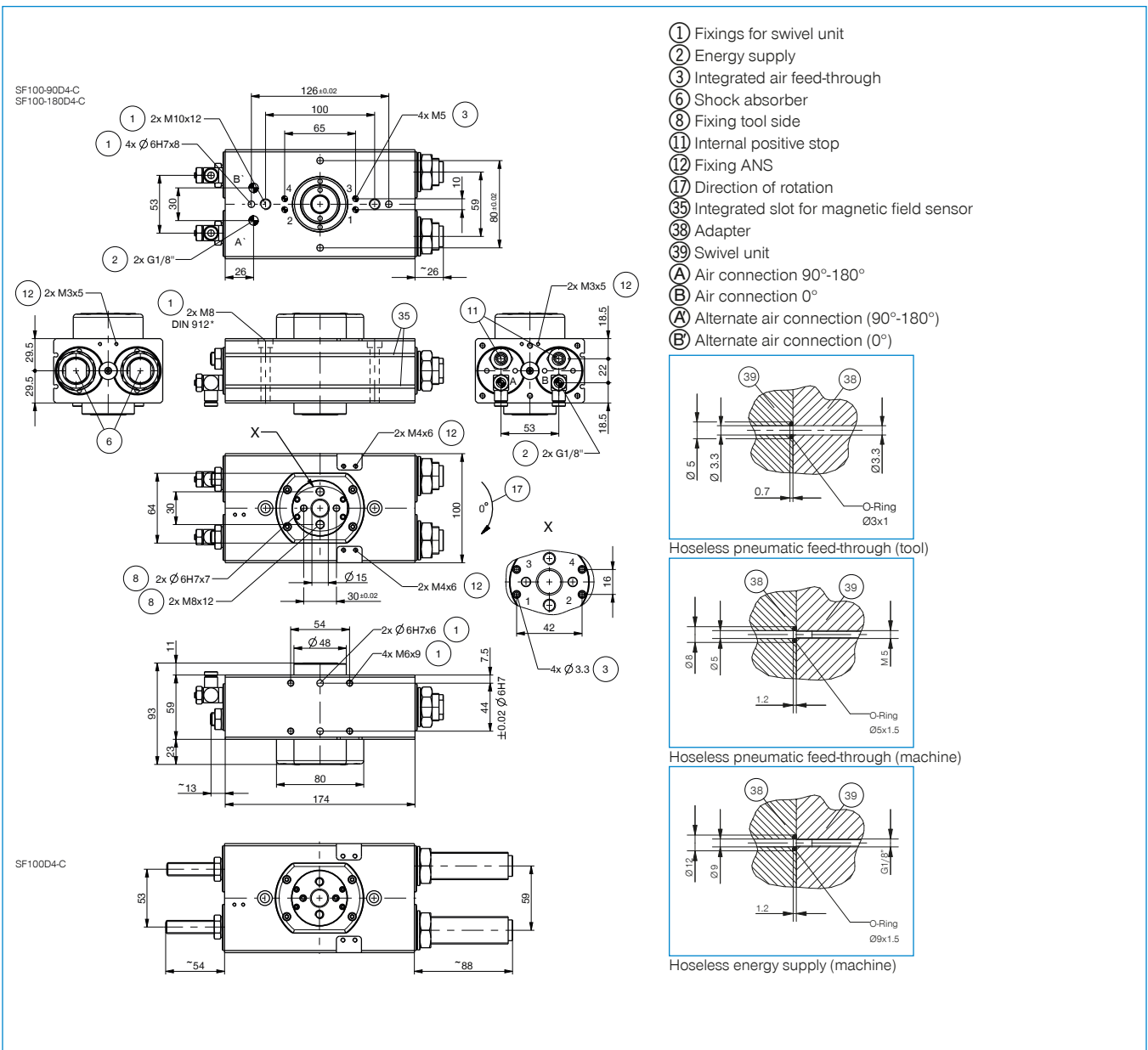


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	▶ Technical data		
	SF100-90D4-C	SF100-180D4-C	SF100D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	15	15	15
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	15	15	15
Axial bearing load [N]	2500	2500	2500
Radial bearing load [Nm]	155	155	155
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	103	206	206
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	4.5	4.5	4.8



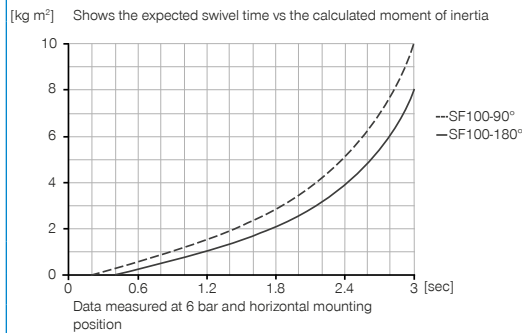
FLAT SWIVEL UNITS

INSTALLATION SIZE SF100D6-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



6 [piece]
O-Ring
COR0030100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0017
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

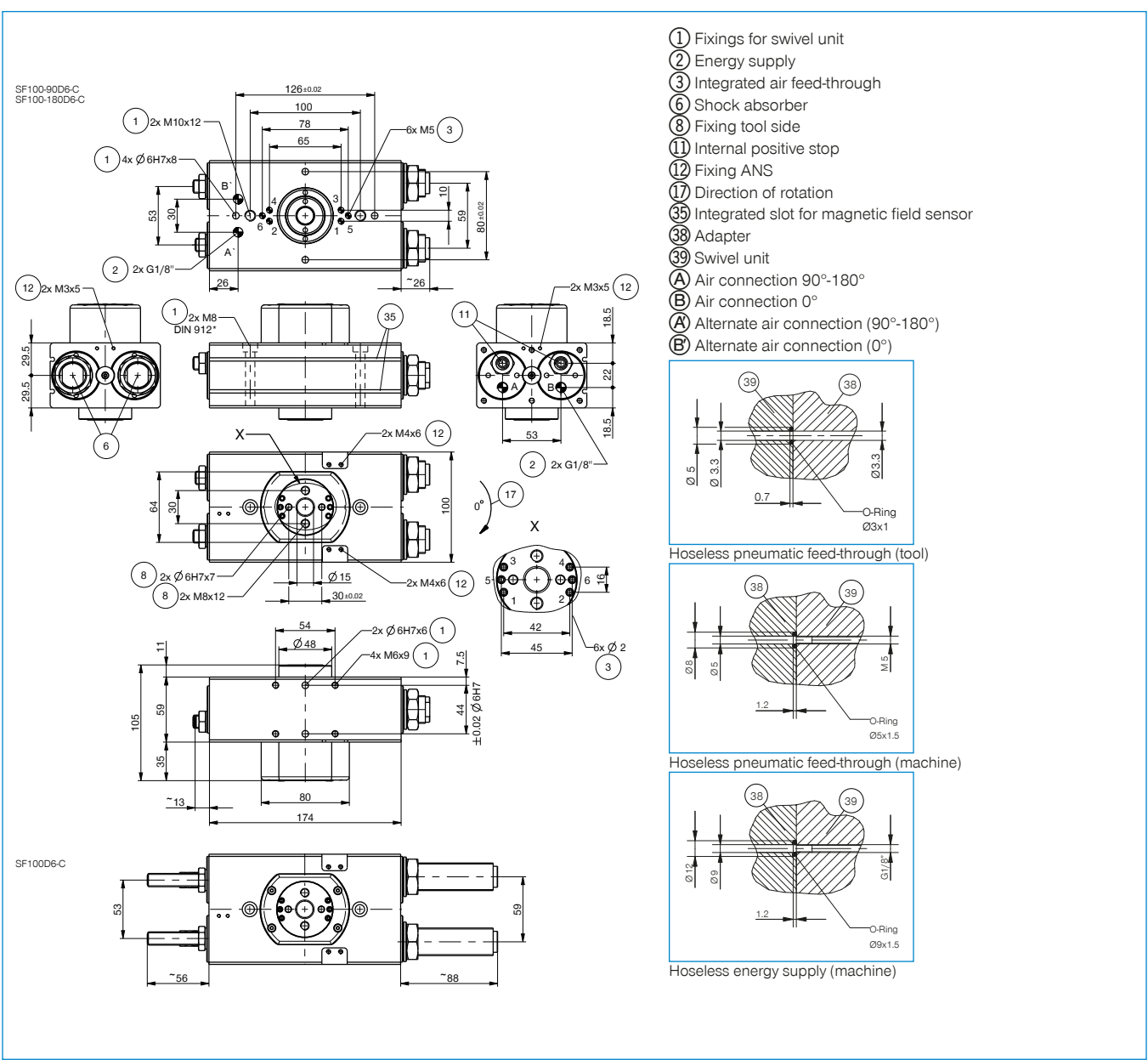


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data		
	SF100-90D6-C	SF100-180D6-C	SF100D6-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	13	13	13
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	15	15	15
Axial bearing load [N]	2500	2500	2500
Radial bearing load [Nm]	155	155	155
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	103	206	206
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	4.8	4.7	4.1



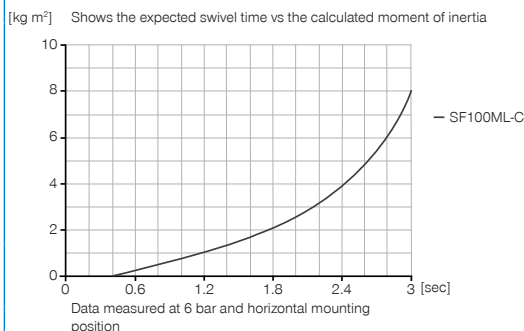
FLAT SWIVEL UNITS

INSTALLATION SIZE SF100ML-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



1 [piece]
Attachment Kit
ANS0071



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

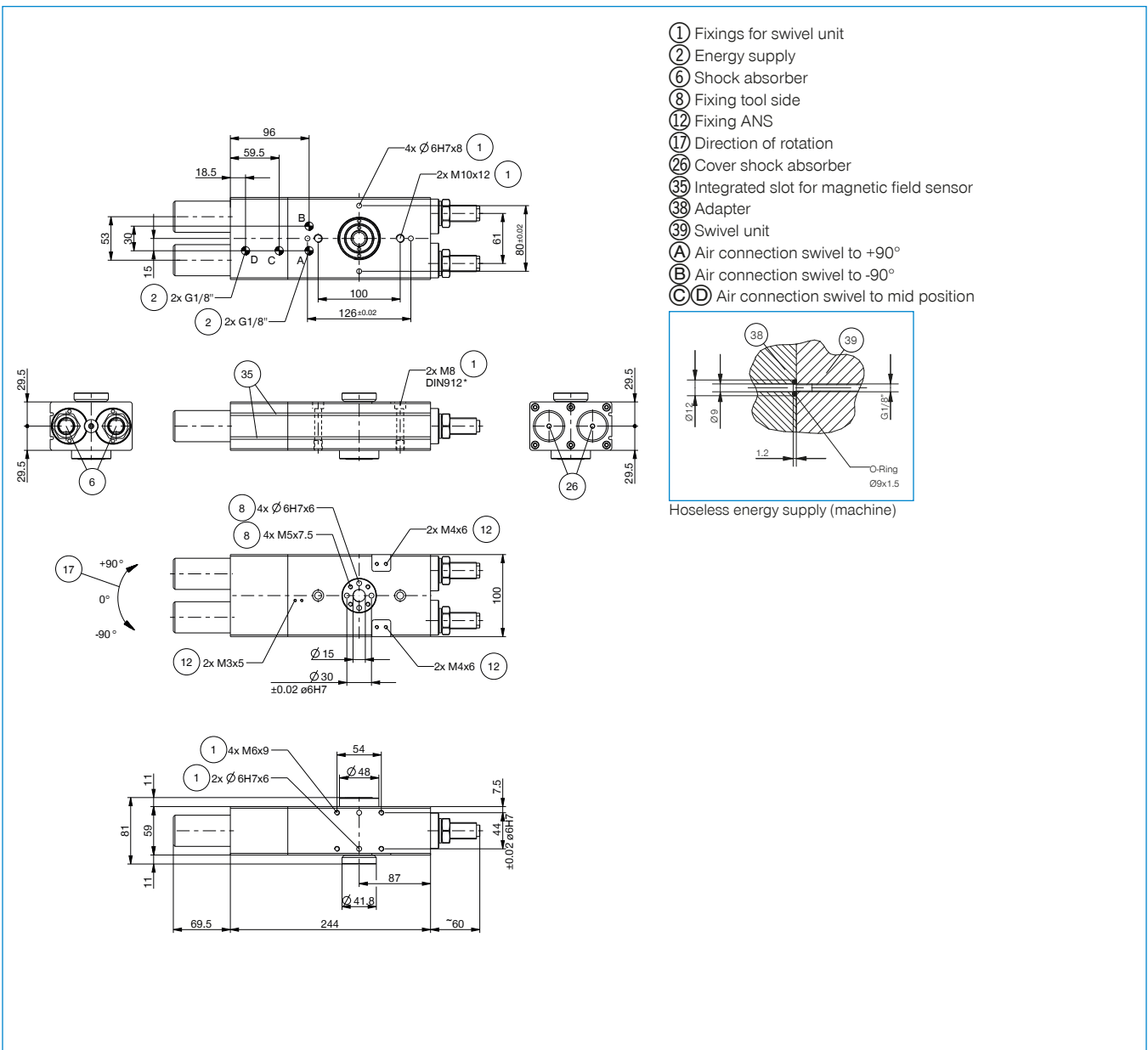


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
	SF100ML-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	20
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	15
Axial bearing load [N]	2500
Radial bearing load [Nm]	155
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	304
Protection to IEC 60529	IP64
Weight [kg]	6.8



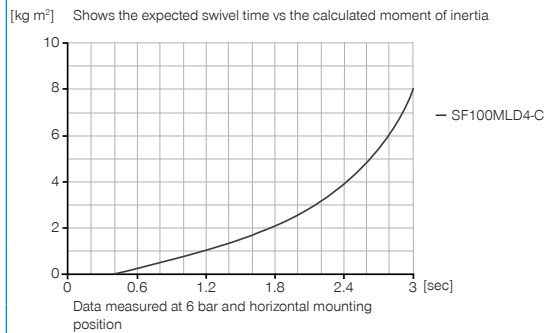
FLAT SWIVEL UNITS

INSTALLATION SIZE SF100MLD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0030100



1 [piece]
Attachment Kit
ANS0072



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

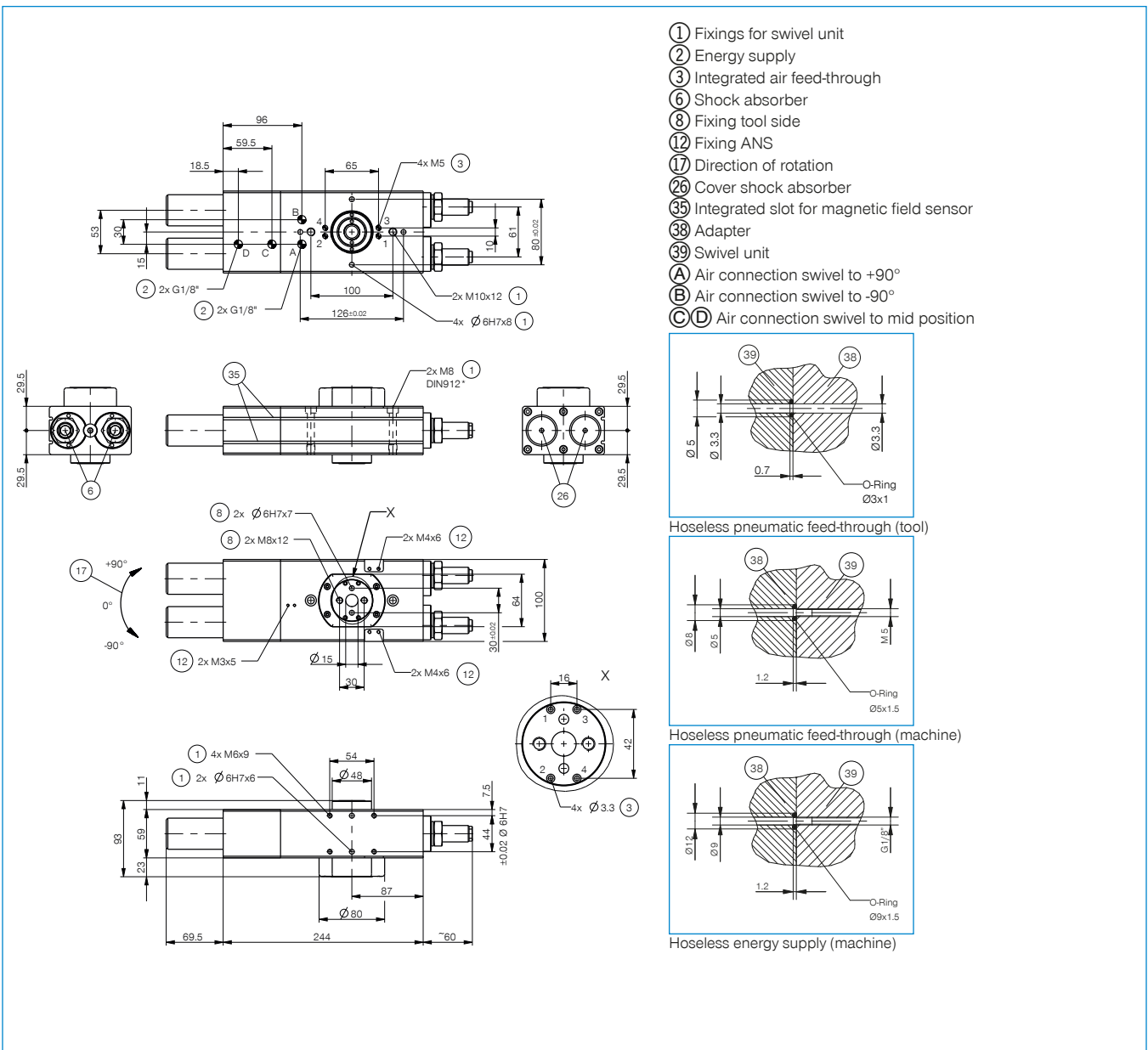


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
	SF100MLD4-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	15
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	15
Axial bearing load [N]	2500
Radial bearing load [Nm]	155
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	304
Protection to IEC 60529	IP64
Weight [kg]	7.1



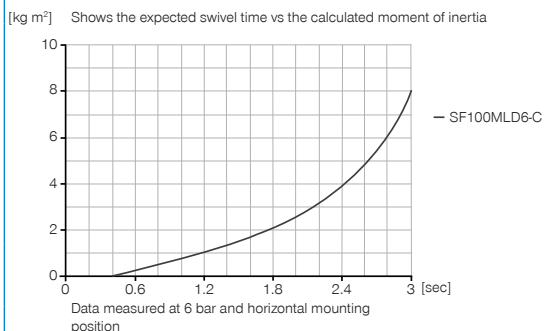
FLAT SWIVEL UNITS

INSTALLATION SIZE SF100MLD6-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



6 [piece]
O-Ring
COR0030100



1 [piece]
Attachment Kit
ANS0073



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

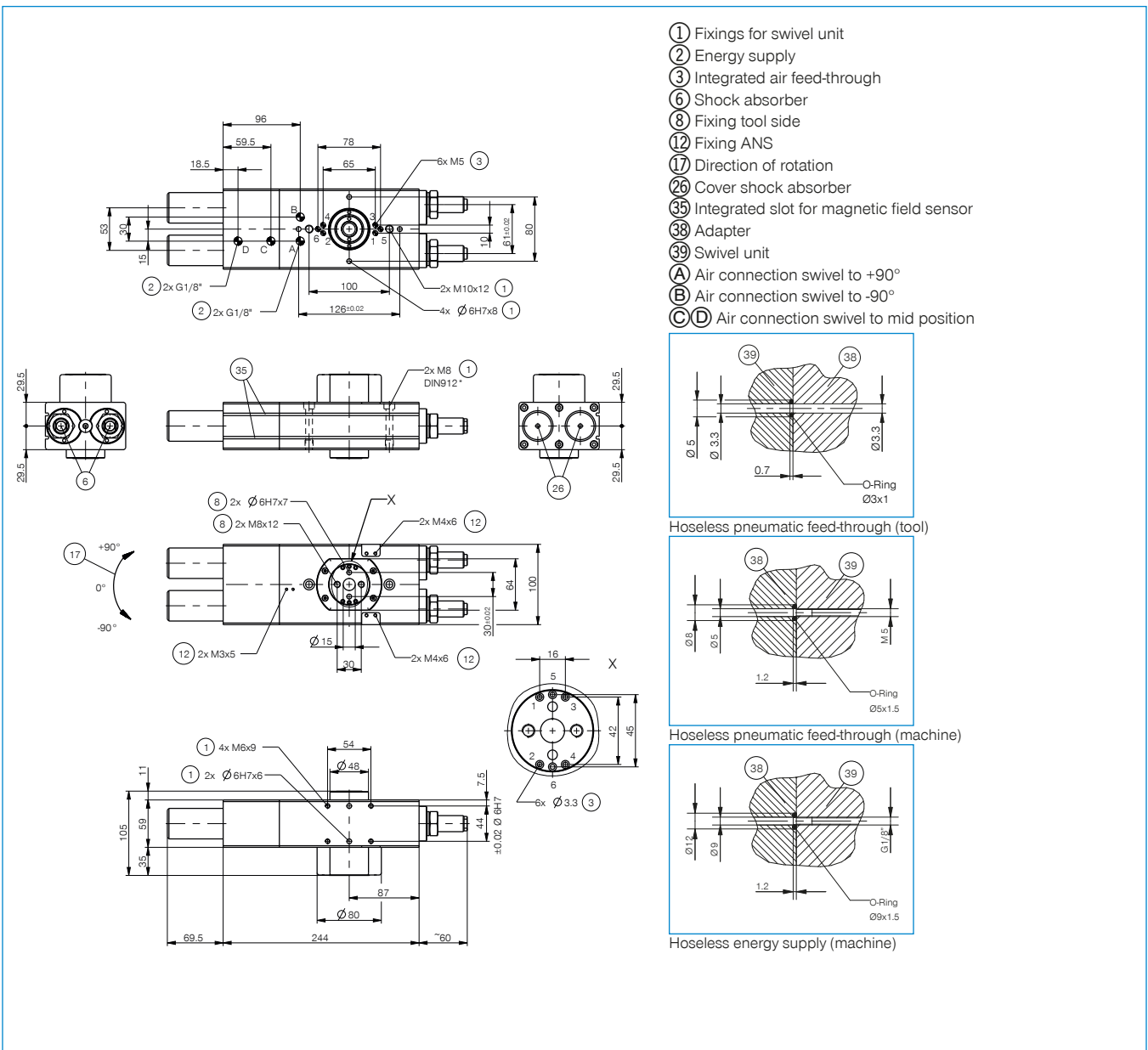


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
	SF100MLD6-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	13
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	15
Axial bearing load [N]	2500
Radial bearing load [Nm]	155
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	304
Protection to IEC 60529	IP64
Weight [kg]	7.4



FLAT SWIVEL UNITS

INSTALLATION SIZE SF125N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0035
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

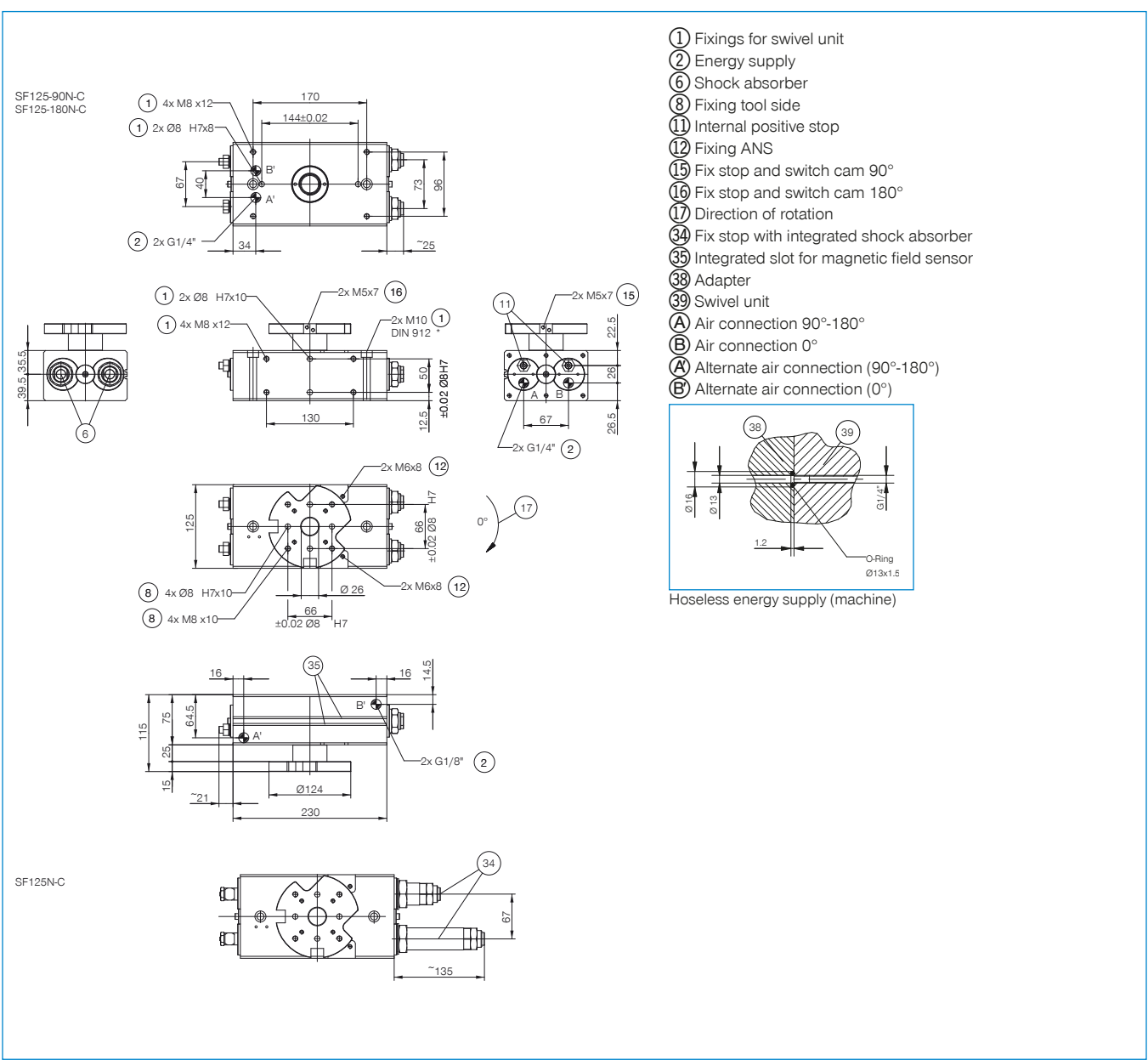


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	► Technical data		
	SF125-90N-C	SF125-180N-C	SF125N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	38	38	38
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	26	26	26
Axial bearing load [N]	3400	3400	3400
Radial bearing load [Nm]	391	391	391
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	220	440	440
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	9.5	9.5	9.8



- 1 Fixings for swivel unit
- 2 Energy supply
- 6 Shock absorber
- 8 Fixing tool side
- 11 Internal positive stop
- 12 Fixing ANS
- 15 Fix stop and switch cam 90°
- 16 Fix stop and switch cam 180°
- 17 Direction of rotation
- 34 Fix stop with integrated shock absorber
- 35 Integrated slot for magnetic field sensor
- 38 Adapter
- 39 Swivel unit
- A Air connection 90°-180°
- B Air connection 0°
- A Alternate air connection (90°-180°)
- B Alternate air connection (0°)



FLAT SWIVEL UNITS

INSTALLATION SIZE SF125D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0040150

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0036
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

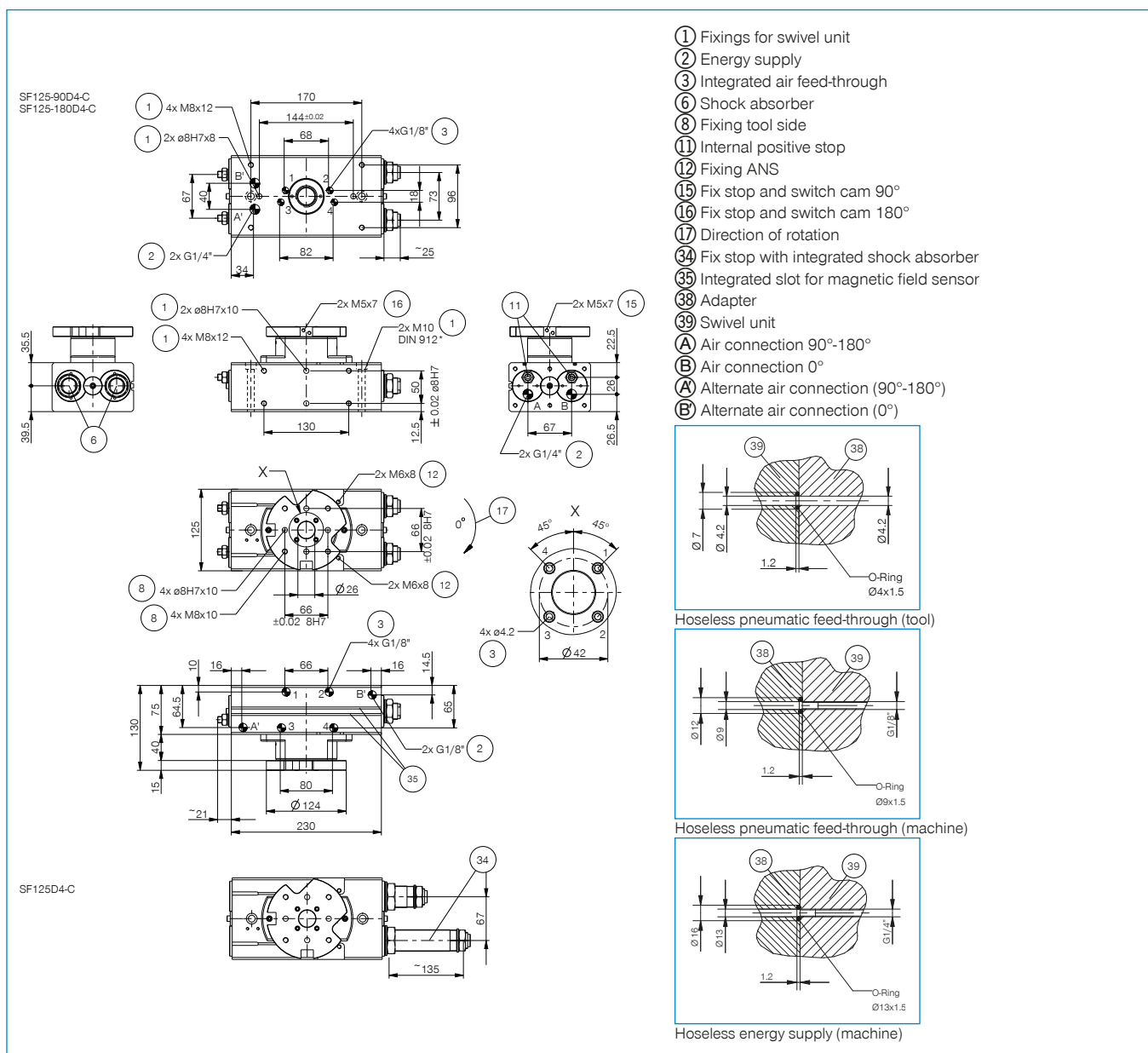


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	► Technical data		
	SF125-90D4-C	SF125-180D4-C	SF125D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	34	34	34
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	26	26	26
Axial bearing load [N]	3400	3400	3400
Radial bearing load [Nm]	391	391	391
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	220	440	440
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	9.8	9.5	10.5



FLAT SWIVEL UNITS

INSTALLATION SIZE SF125D8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0040150

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0037
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

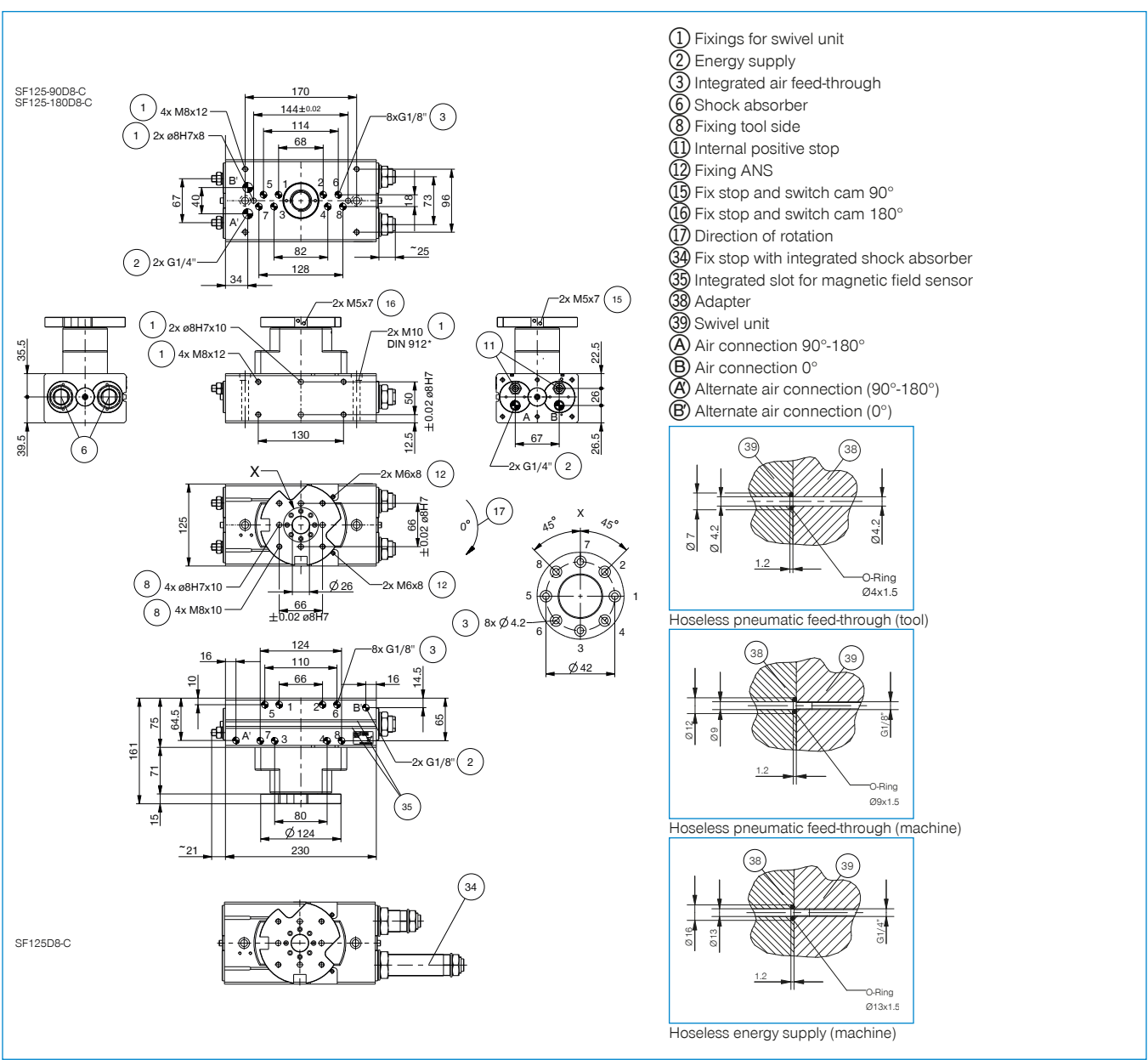


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data		
	SF125-90D8-C	SF125-180D8-C	SF125D8-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	32	32	32
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	26	26	26
Axial bearing load [N]	3400	3400	3400
Radial bearing load [Nm]	391	391	391
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	220	440	440
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	10.5	10.5	11.5



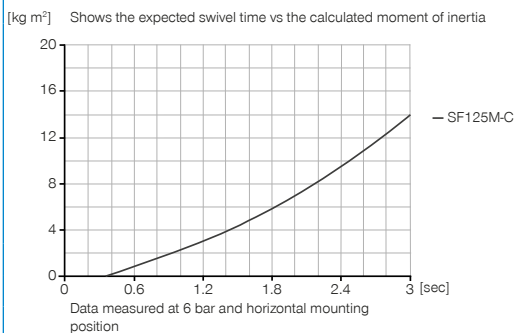
FLAT SWIVEL UNITS

INSTALLATION SIZE SF125M-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



1 [piece]
Attachment Kit
ANS0074



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

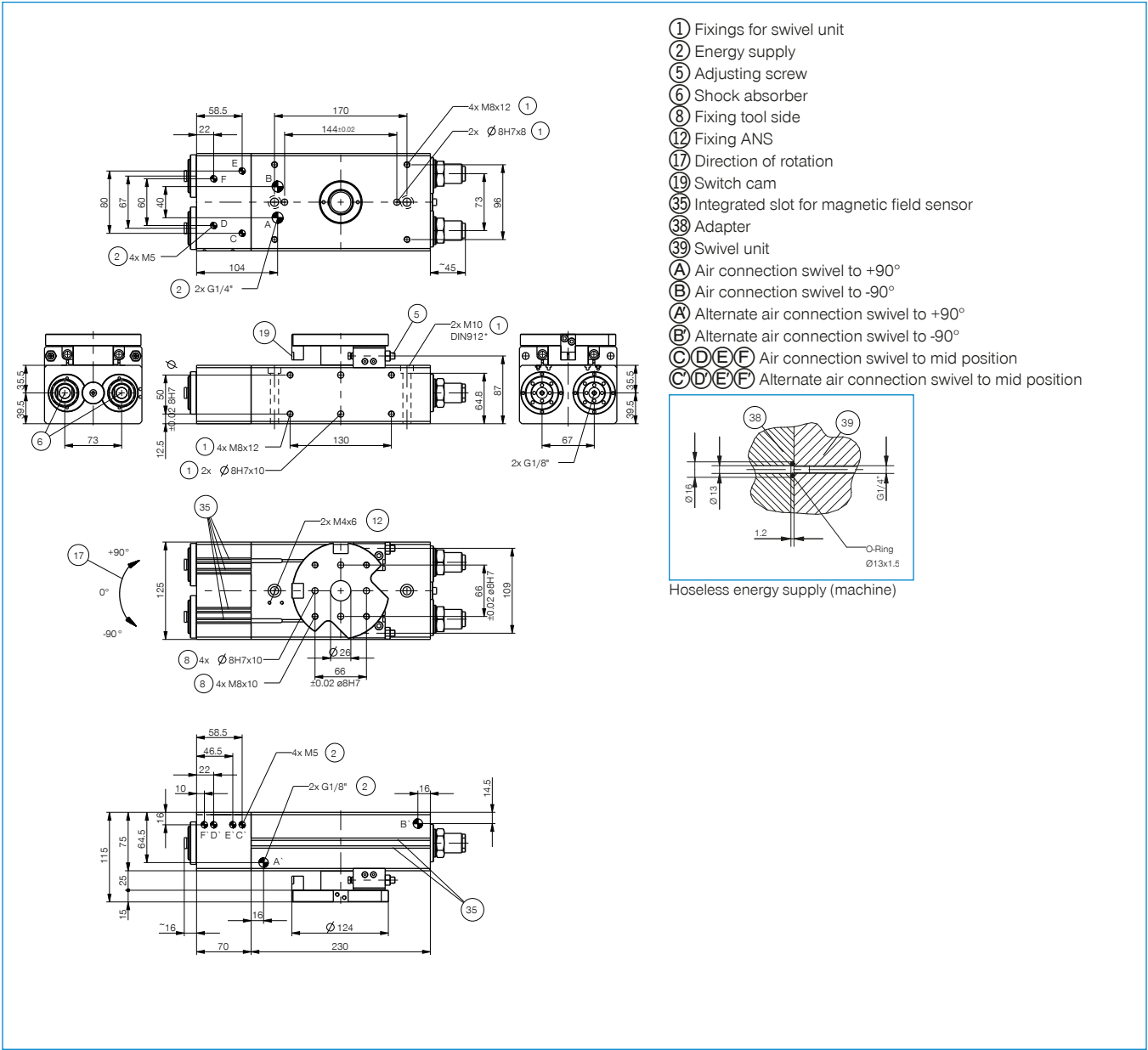


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF125M-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	38
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	26
Axial bearing load [N]	3400
Radial bearing load [Nm]	391
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	540
Protection to IEC 60529	IP64
Weight [kg]	11.9



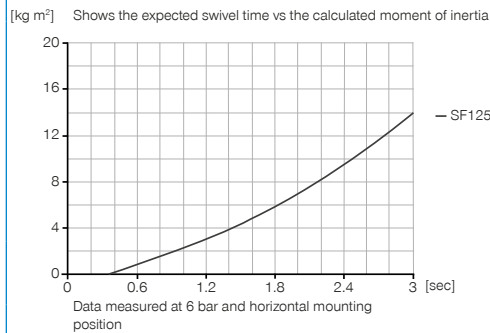
FLAT SWIVEL UNITS

INSTALLATION SIZE SF125MD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY

	2 [piece] Flow Control Valves - with Swivel joint DRV1-4X8		4 [piece] O-Ring COR0040150
	1 [piece] Attachment Kit ANS0075		1 [piece] Commissioning USB 052650

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY

DSV1-8
Pressure safety valve

DSV1-8E
Pressure safety valve with quick exhaust

SENSORS

MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

SENSORS

MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

CONNECTIONS / OTHER

KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

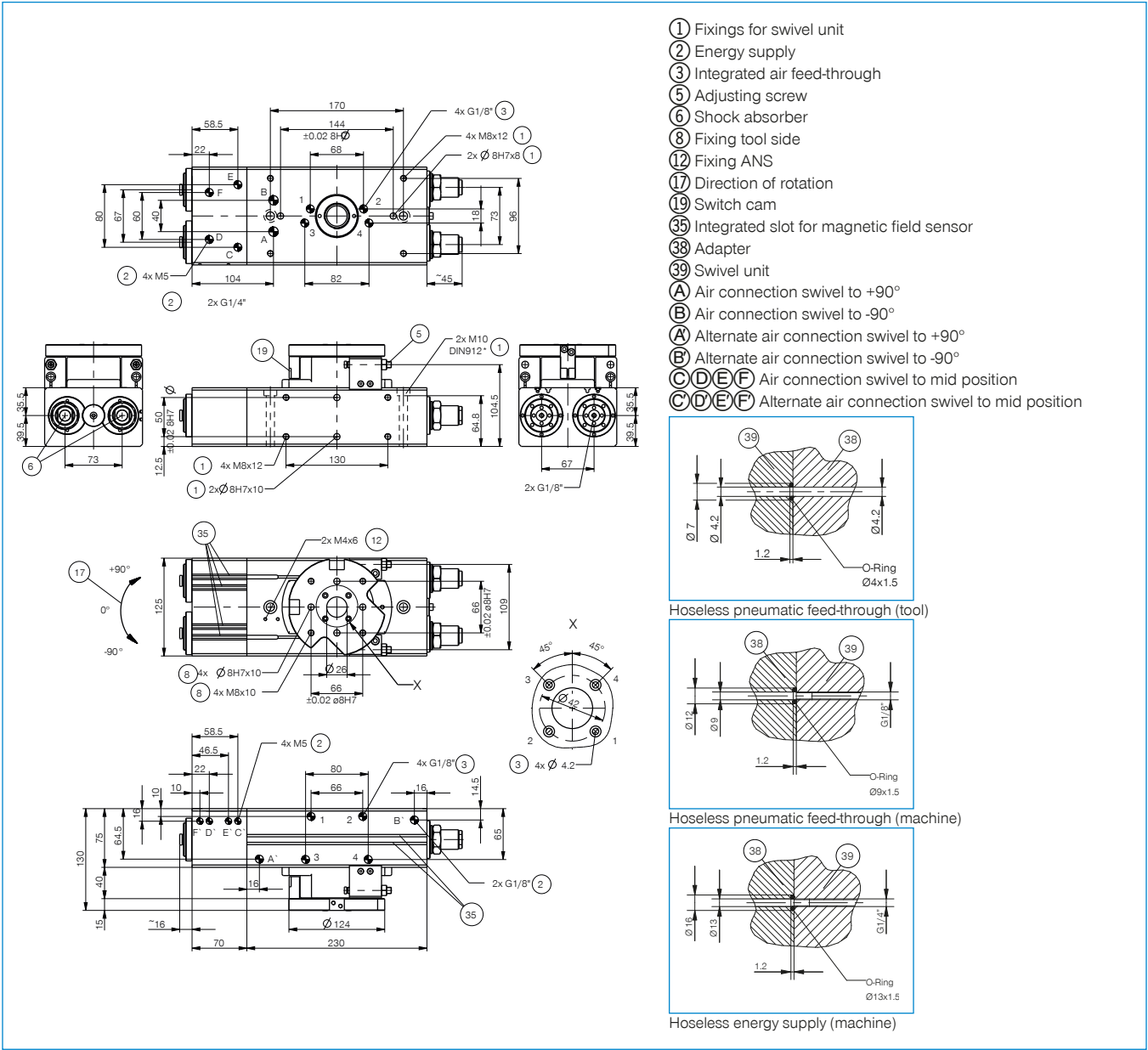
S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

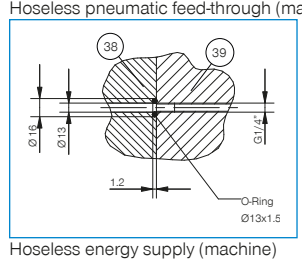
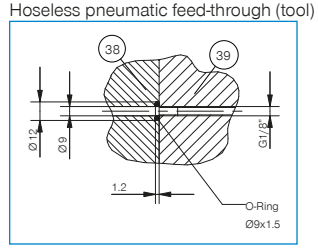
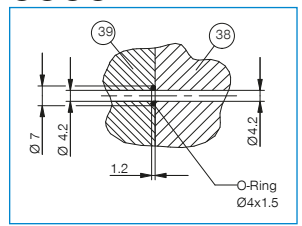
NJ8-E2
Inductive proximity switch - Cable 5 m

NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF125MD4-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	34
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	26
Axial bearing load [N]	3400
Radial bearing load [Nm]	391
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	540
Protection to IEC 60529	IP64
Weight [kg]	12.9



- ① Fixings for swivel unit
- ② Energy supply
- ③ Integrated air feed-through
- ⑤ Adjusting screw
- ⑥ Shock absorber
- ⑧ Fixing tool side
- ⑫ Fixing ANS
- ⑰ Direction of rotation
- ⑲ Switch cam
- ⑳ Integrated slot for magnetic field sensor
- ㉔ Adapter
- ㉕ Swivel unit
- Ⓐ Air connection swivel to +90°
- Ⓑ Air connection swivel to -90°
- Ⓐ Alternate air connection swivel to +90°
- Ⓑ Alternate air connection swivel to -90°
- Ⓒ Ⓓ Ⓔ Ⓕ Air connection swivel to mid position
- Ⓒ Ⓓ Ⓔ Ⓕ Alternate air connection swivel to mid position



FLAT SWIVEL UNITS

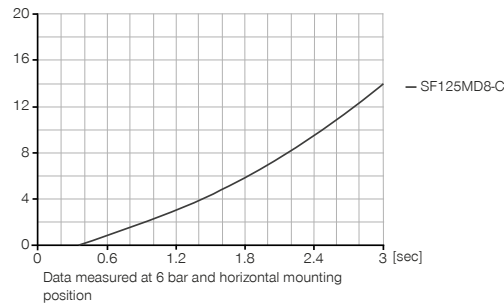
INSTALLATION SIZE SF125MD8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0040150



1 [piece]
Attachment Kit
ANS0076



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

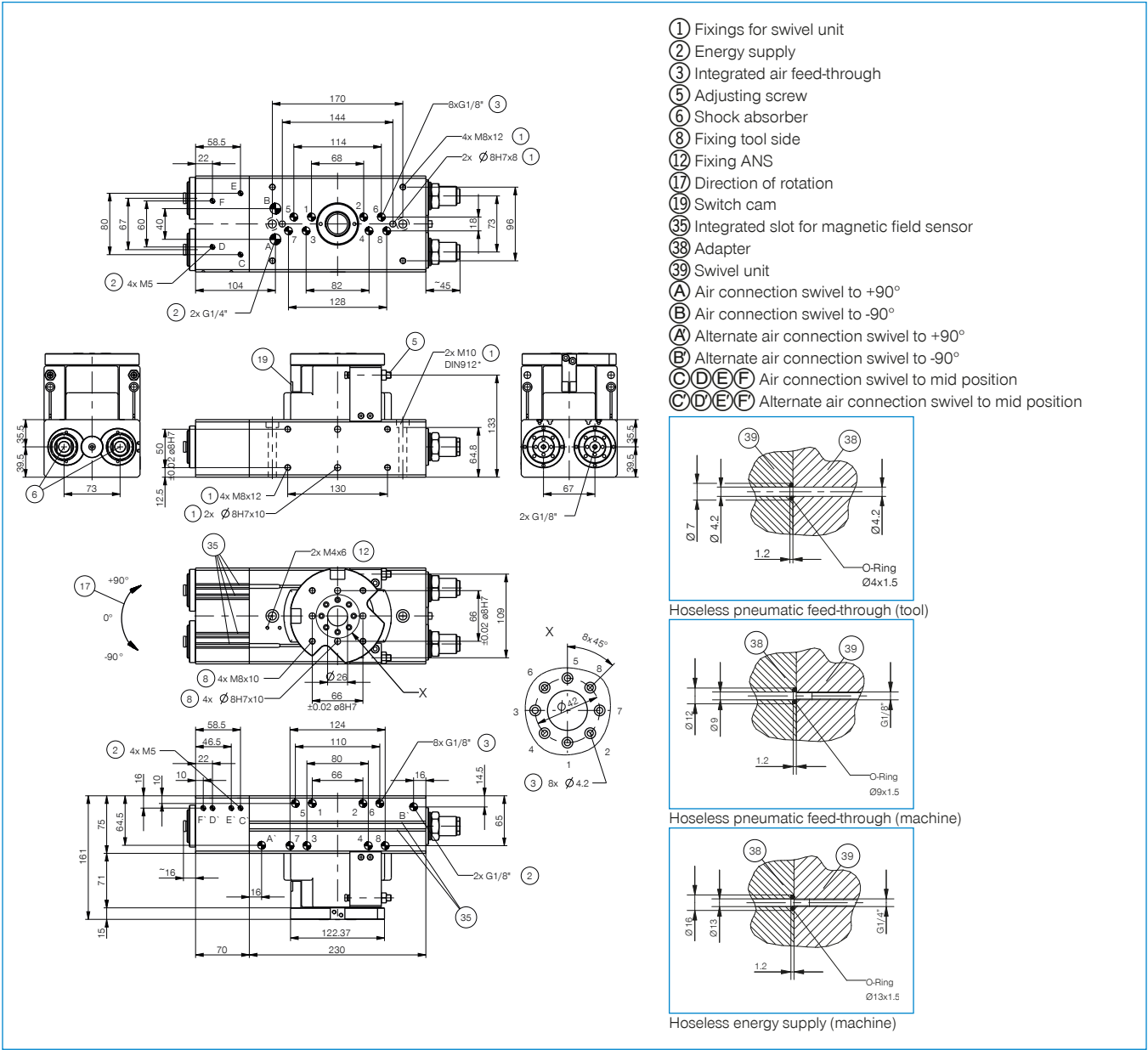


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF125MD8-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	32
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	26
Axial bearing load [N]	3400
Radial bearing load [Nm]	391
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	540
Protection to IEC 60529	IP64
Weight [kg]	13.8



FLAT SWIVEL UNITS

INSTALLATION SIZE SF155N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0038
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

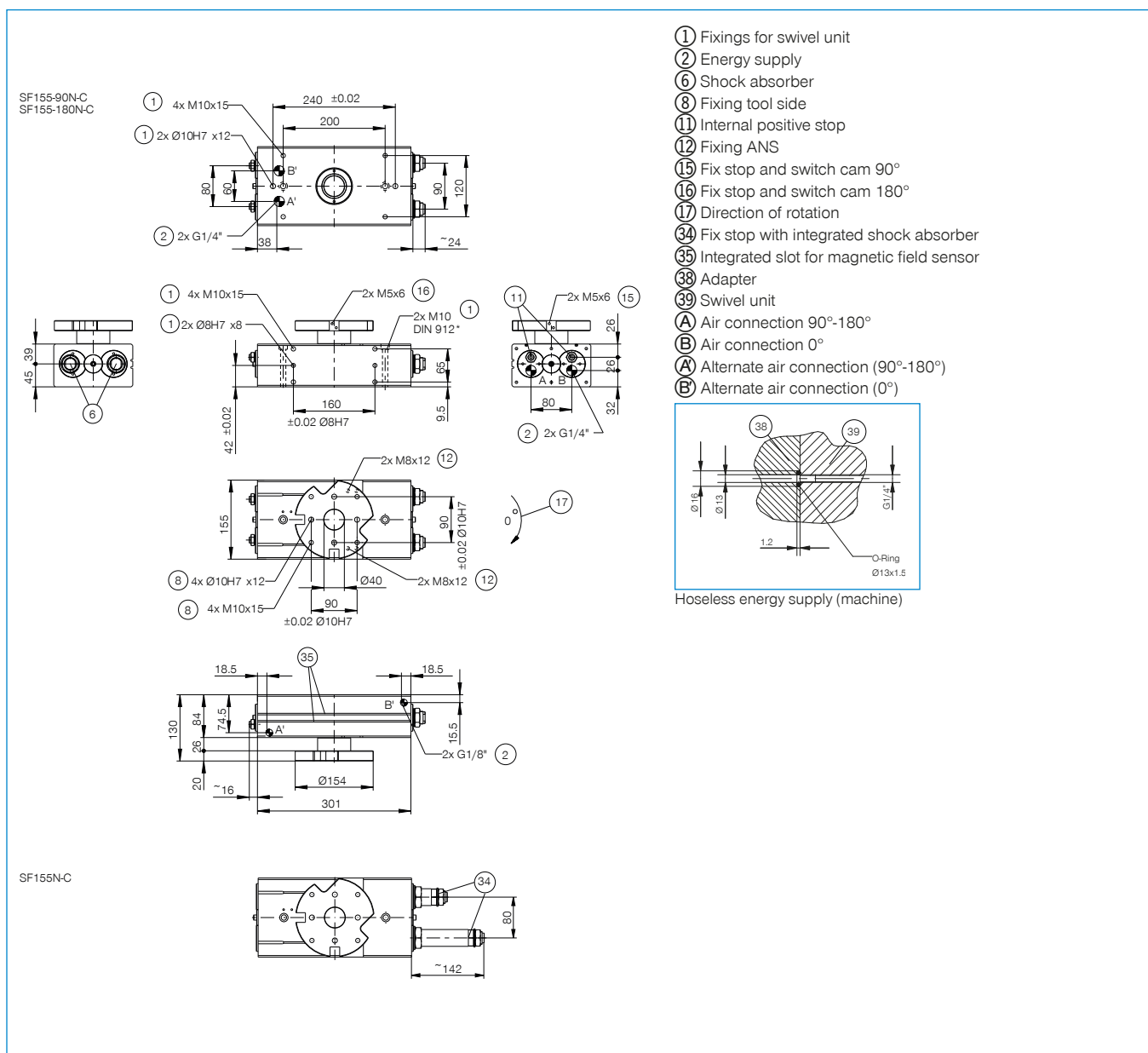


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	► Technical data		
	SF155-90N-C	SF155-180N-C	SF155N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	62	62	62
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	5900	5900	5900
Radial bearing load [Nm]	761	761	761
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	350	700	700
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	15.8	15.8	16.5



FLAT SWIVEL UNITS

INSTALLATION SIZE SF155D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0040150

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0039
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

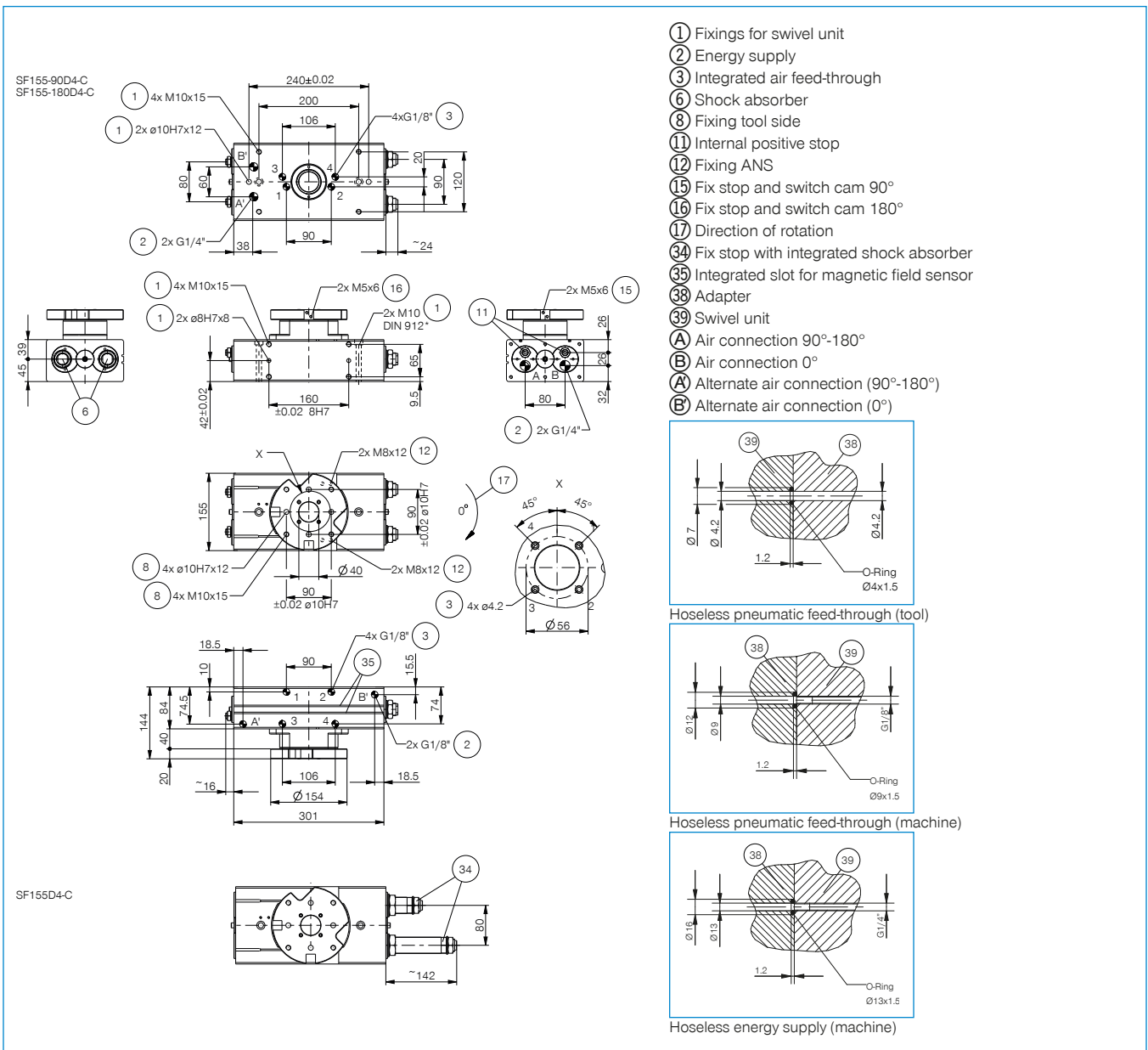


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	▶ Technical data		
	SF155-90D4-C	SF155-180D4-C	SF155D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	58	58	58
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	5900	5900	5900
Radial bearing load [Nm]	761	761	761
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	350	700	700
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	16.5	16.5	17.5



FLAT SWIVEL UNITS

INSTALLATION SIZE SF155D8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0040150

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0040
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

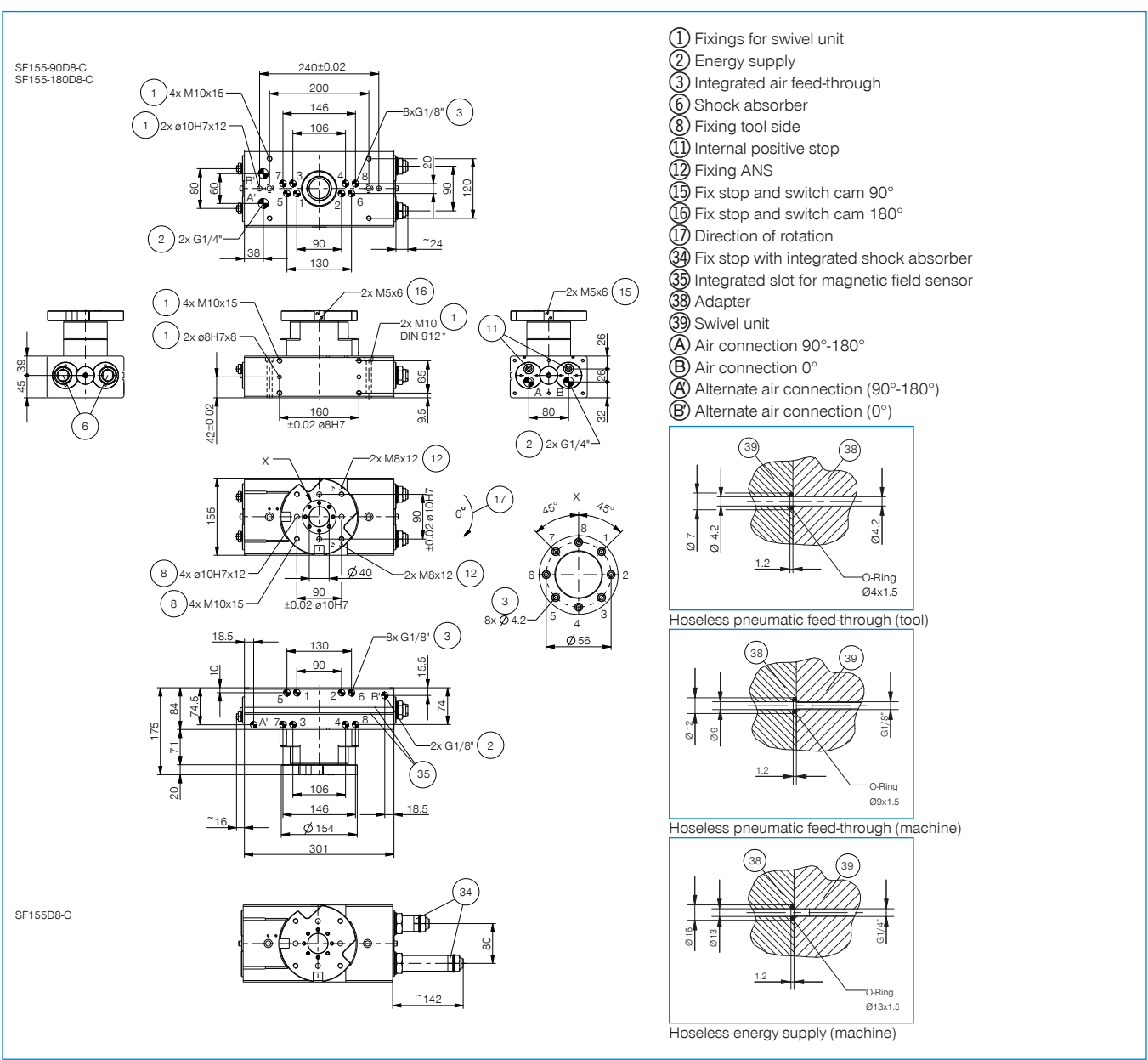


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data		
	SF155-90D8-C	SF155-180D8-C	SF155D8-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	54	54	54
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	5900	5900	5900
Radial bearing load [Nm]	761	761	761
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	350	700	700
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	17.9	17.9	19



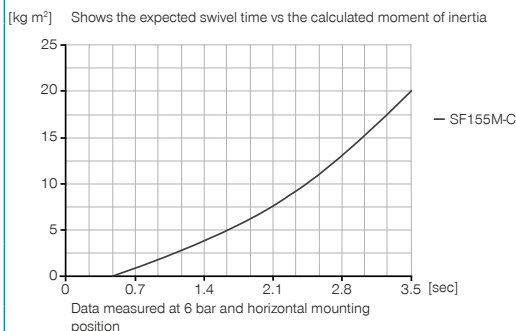
FLAT SWIVEL UNITS

INSTALLATION SIZE SF155M-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



1 [piece]
Attachment Kit
ANS0077



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

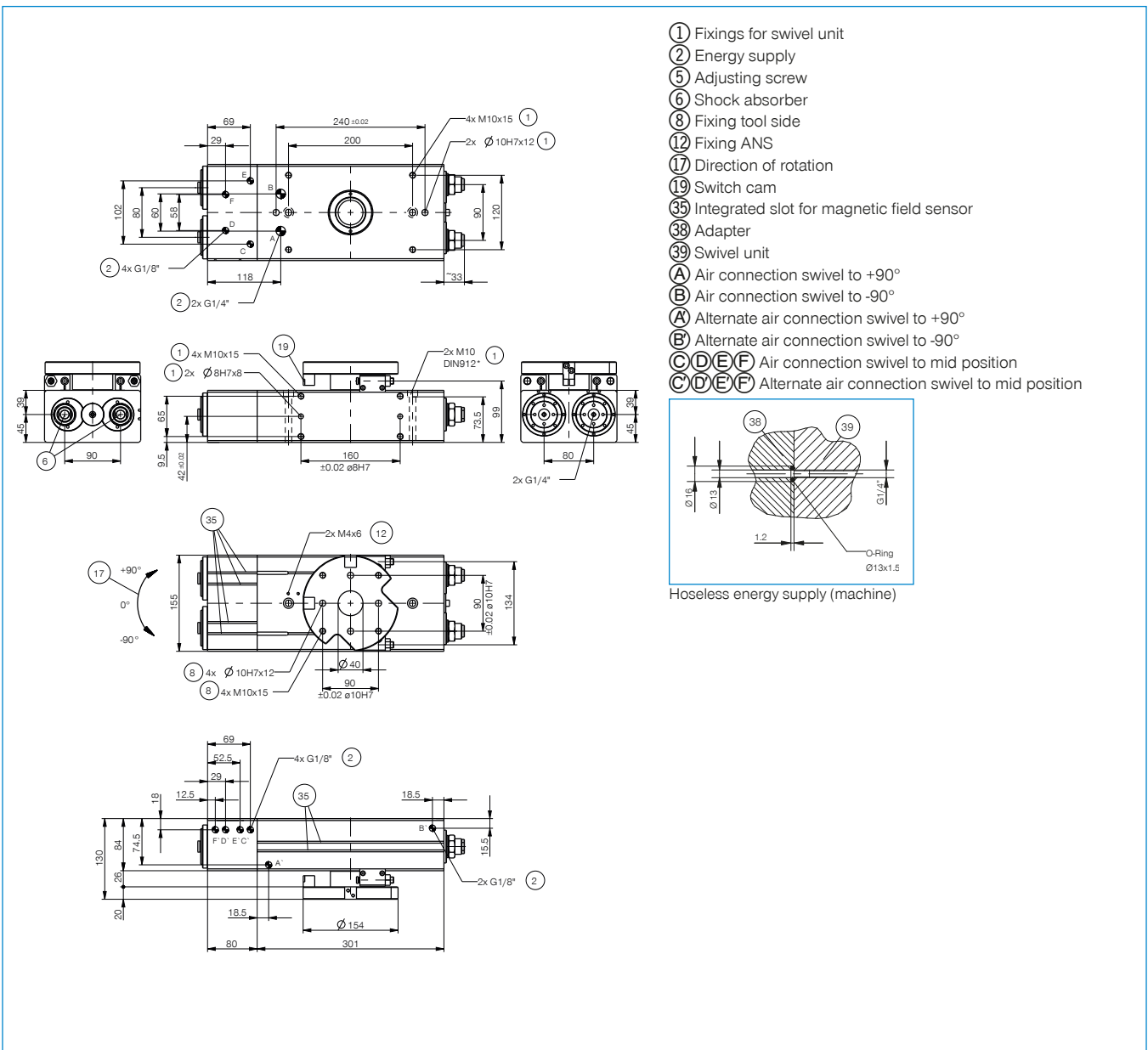


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF155M-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	62
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	5900
Radial bearing load [Nm]	761
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	1010
Protection to IEC 60529	IP64
Weight [kg]	19.3



FLAT SWIVEL UNITS

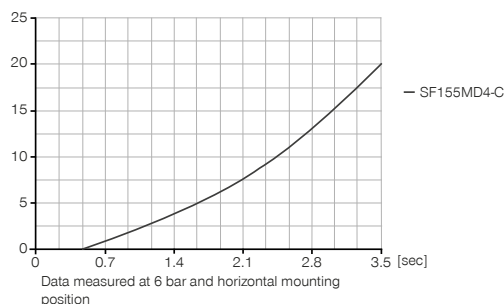
INSTALLATION SIZE SF155MD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0040150



1 [piece]
Attachment Kit
ANS0078



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

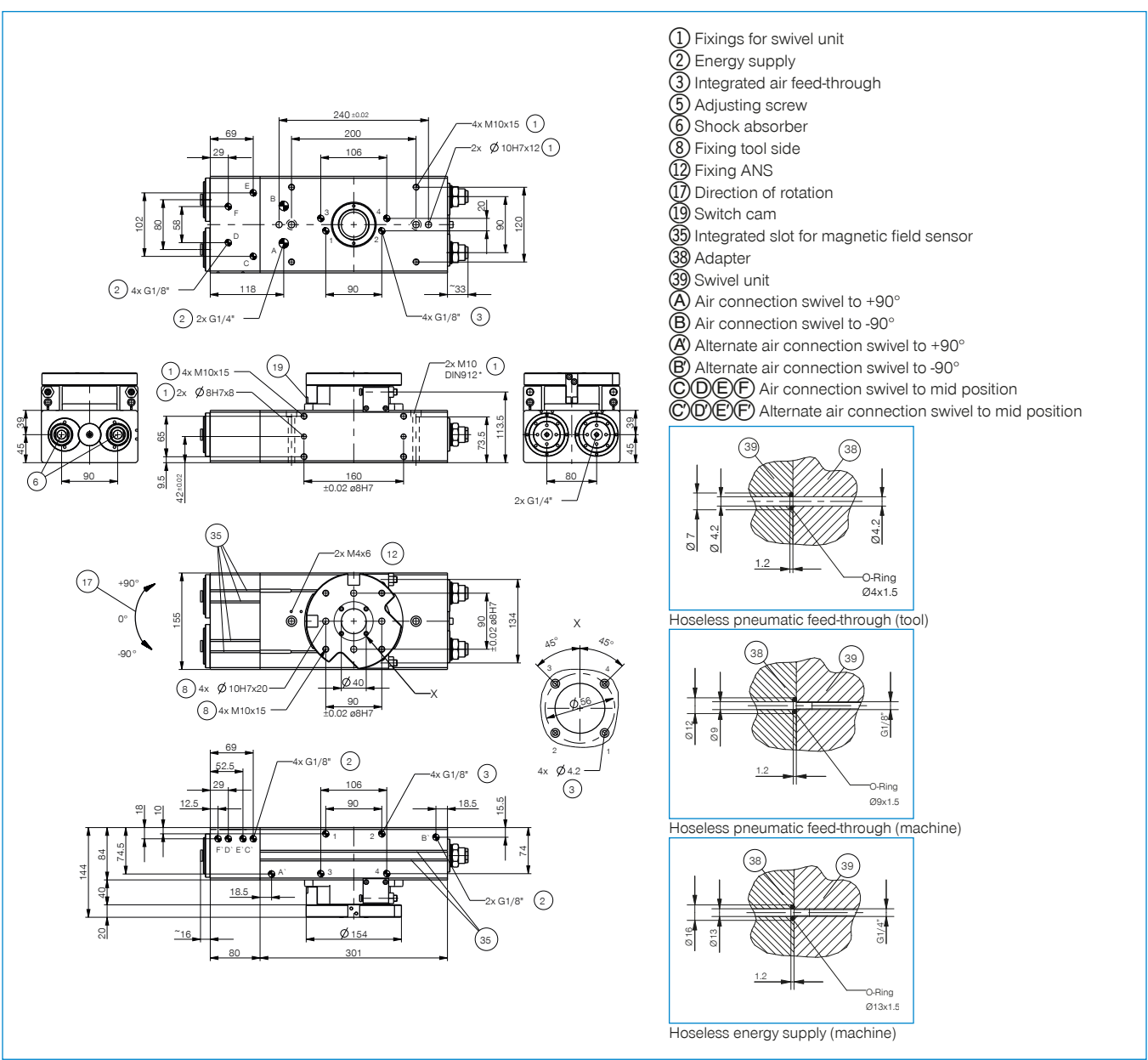


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF155MD4-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	58
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	5900
Radial bearing load [Nm]	761
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	1010
Protection to IEC 60529	IP64
Weight [kg]	20.3



FLAT SWIVEL UNITS

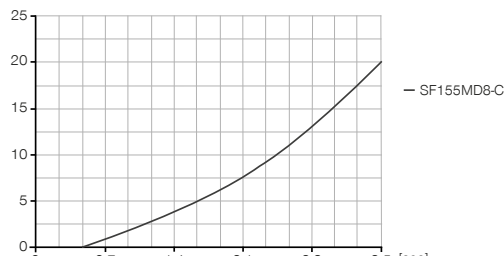
INSTALLATION SIZE SF155MD8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



Data measured at 6 bar and horizontal mounting position

▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0040150



1 [piece]
Attachment Kit
ANS0079



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

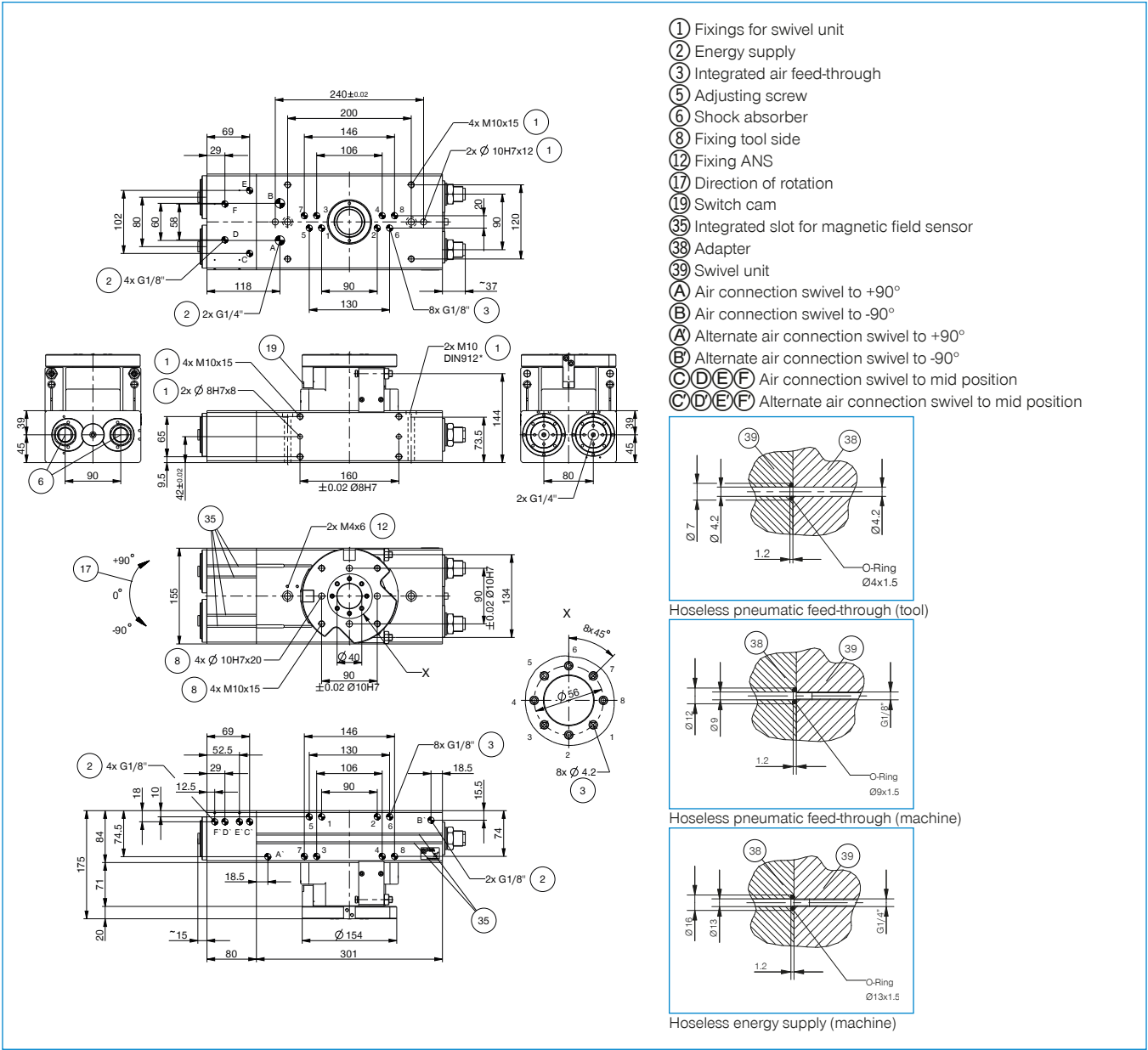


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	▶ Technical data
	SF155MD8-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	54
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	5900
Radial bearing load [Nm]	761
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	1010
Protection to IEC 60529	IP64
Weight [kg]	22.5



FLAT SWIVEL UNITS

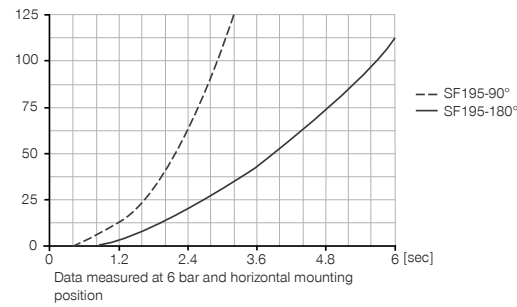
INSTALLATION SIZE SF195N-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0041
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

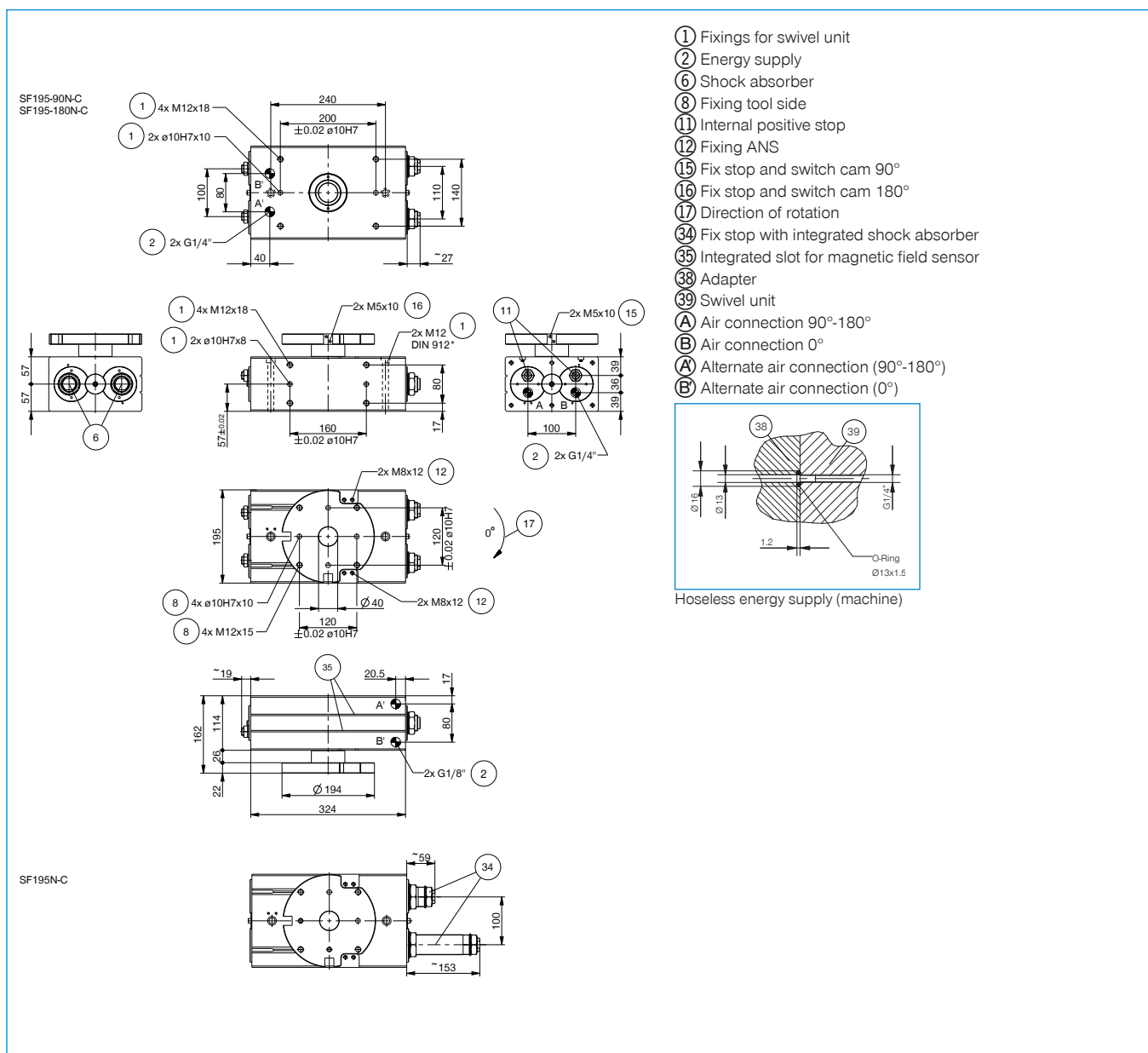


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	▶ Technical data		
	SF195-90N-C	SF195-180N-C	SF195N-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	130	130	130
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	7000	7000	7000
Radial bearing load [Nm]	1253	1253	1253
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	740	1480	1480
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	29.5	29	30.6



FLAT SWIVEL UNITS

INSTALLATION SIZE SF195D4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0050100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0042
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

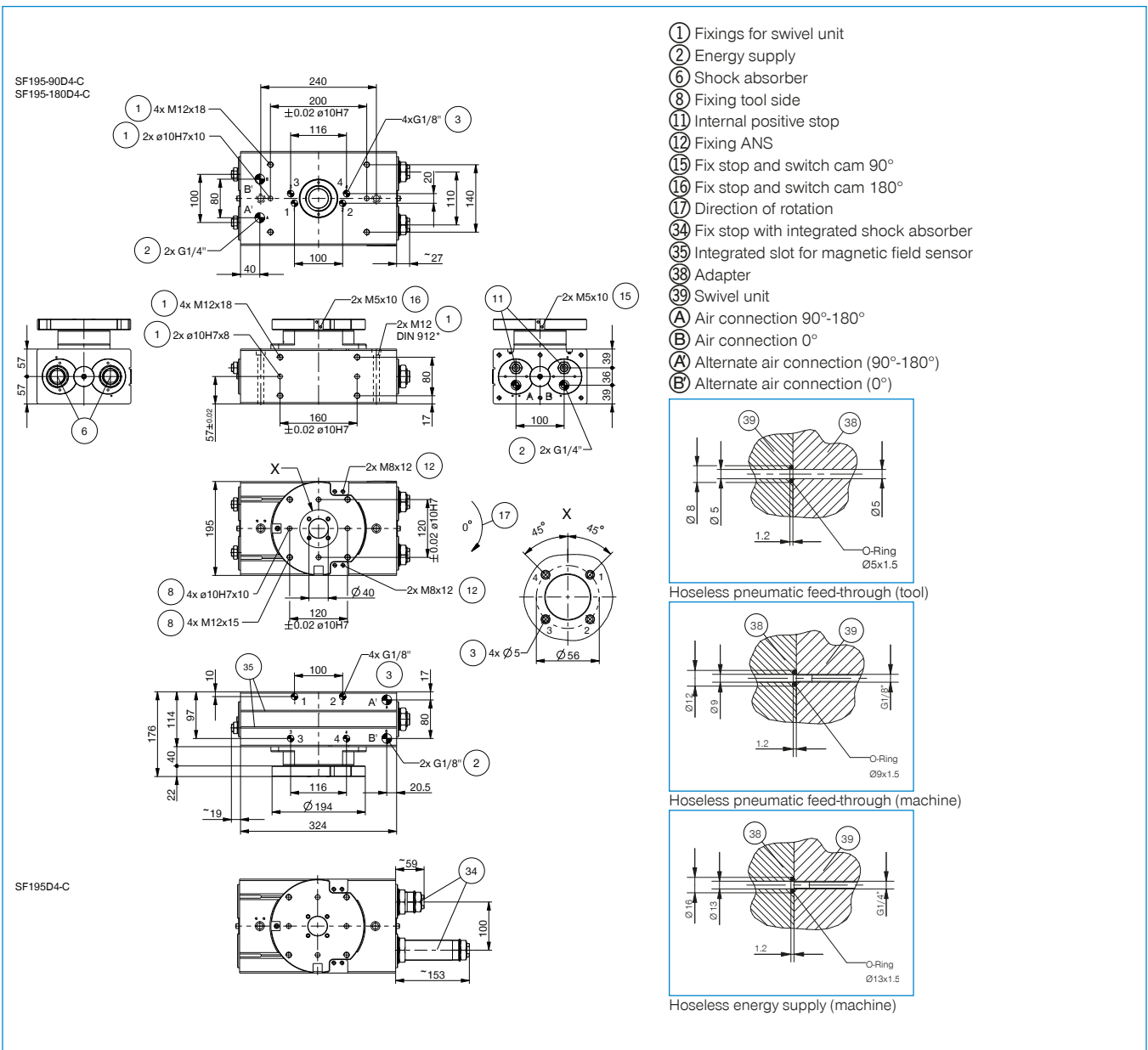


NJ12-E2
Inductive proximity switch - Cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	► Technical data		
	SF195-90D4-C	SF195-180D4-C	SF195D4-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	125	125	125
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	7000	7000	7000
Radial bearing load [Nm]	1253	1253	1253
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	740	1480	1480
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	29	30.6	32.3



FLAT SWIVEL UNITS

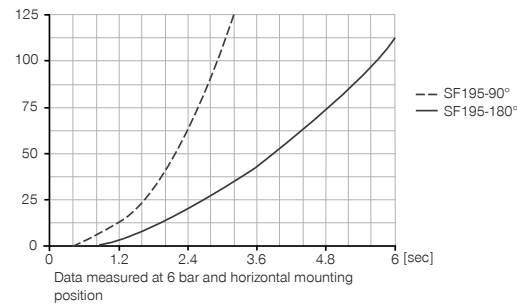
INSTALLATION SIZE SF195D8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0050100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0043
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

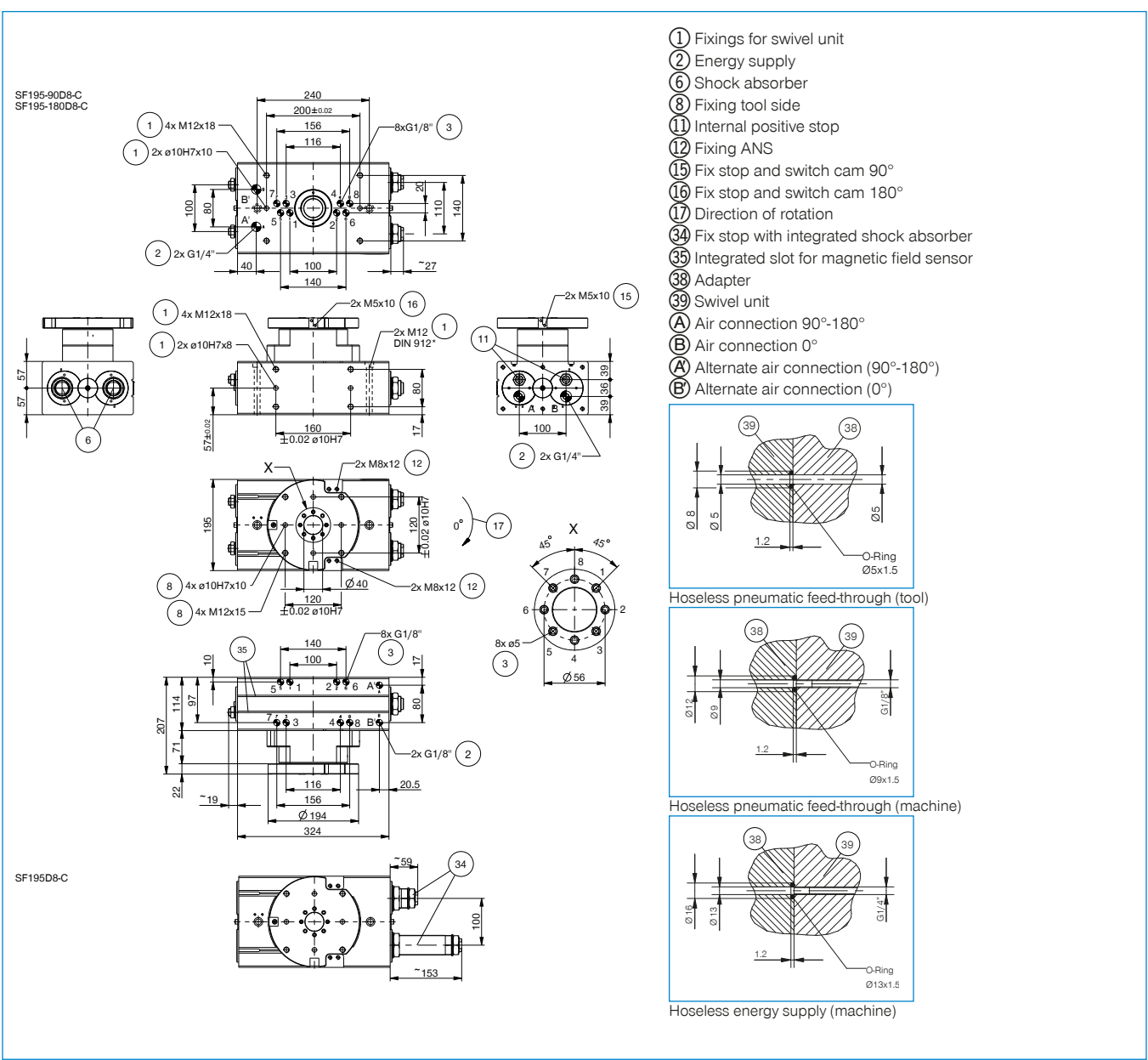


NJ12-E2
Inductive proximity switch - Cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	► Technical data		
	SF195-90D8-C	SF195-180D8-C	SF195D8-C
Swivel angle [°]	90	180	0-180
Torque [Nm]	120	120	120
Swivel angle regulable +/- [°]	3	3	180
Passage bore Ø [mm]	40	40	40
Axial bearing load [N]	7000	7000	7000
Radial bearing load [Nm]	1253	1253	1253
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	3
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	740	1480	1480
Protection to IEC 60529	IP64	IP64	IP64
Weight [kg]	32.7	32.3	33.9



FLAT SWIVEL UNITS

INSTALLATION SIZE SF195M-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



1 [piece]
Attachment Kit
ANS0088



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT

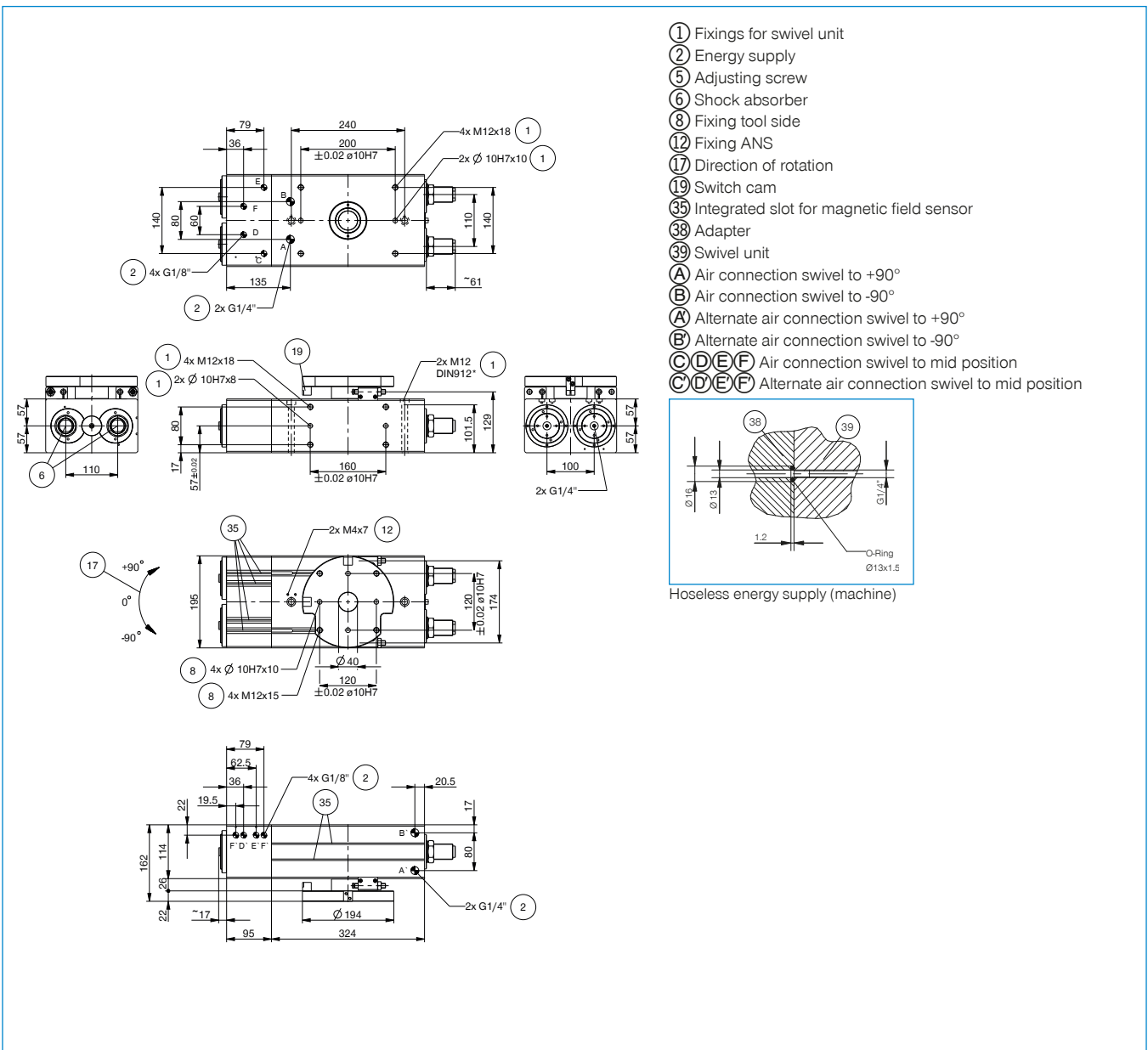


NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
	SF195M-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	130
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	7000
Radial bearing load [Nm]	1253
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	2035
Protection to IEC 60529	IP64
Weight [kg]	37.1



FLAT SWIVEL UNITS

INSTALLATION SIZE SF195MD4-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY

	2 [piece] Flow Control Valves - with Swivel joint DRV1-4X8		4 [piece] O-Ring COR0050100
	1 [piece] Attachment Kit ANS0081		1 [piece] Commissioning USB 052650

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector

CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

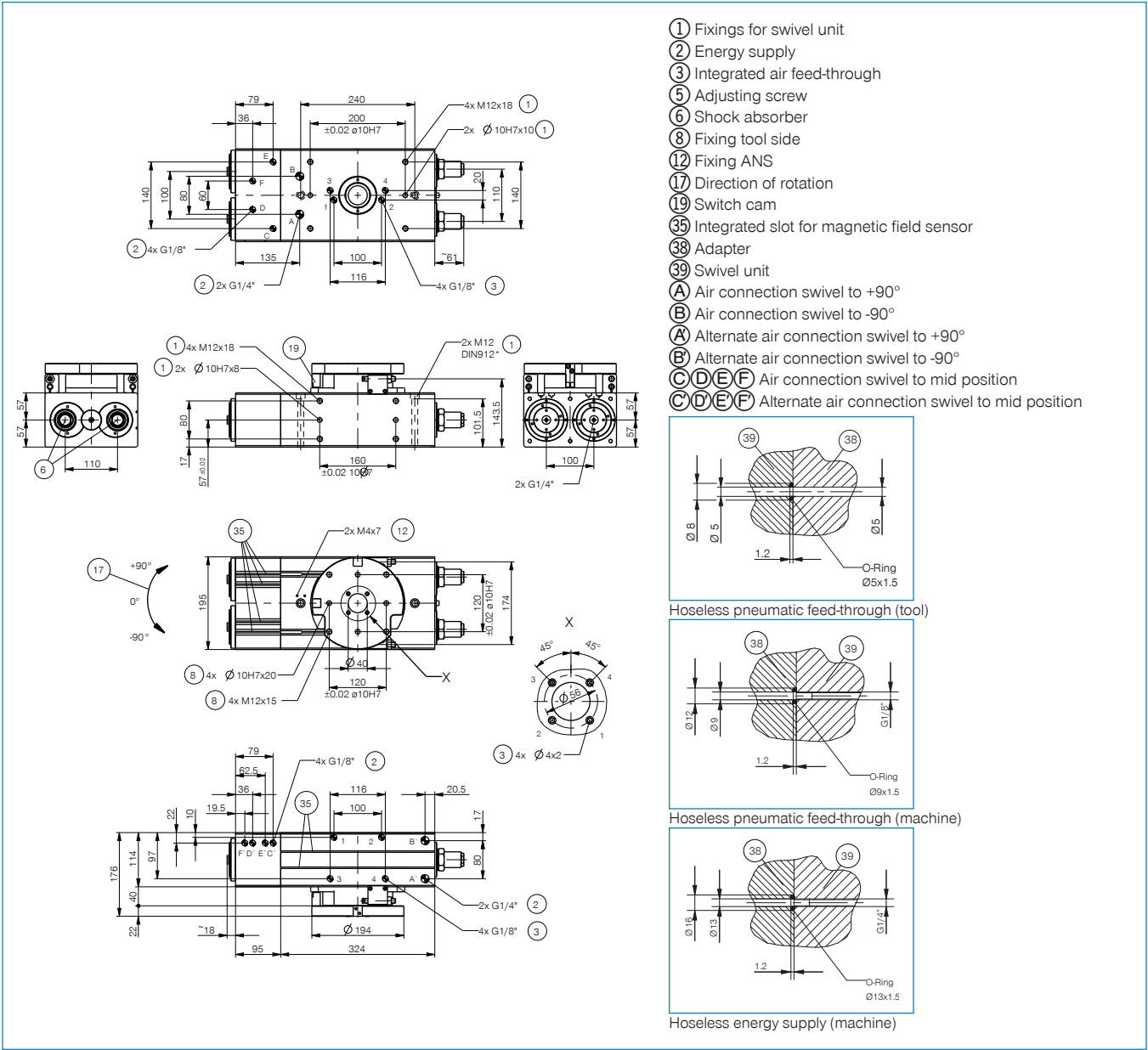


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

Order no.	Technical data
SF195MD4-C	
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	125
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	7000
Radial bearing load [Nm]	1253
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	2035
Protection to IEC 60529	IP64
Weight [kg]	39.7



FLAT SWIVEL UNITS

INSTALLATION SIZE SF195MD8-C

▶ PRODUCT SPECIFICATIONS



▶ Moment of inertia

[kg m²] Shows the expected swivel time vs the calculated moment of inertia



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0050100



1 [piece]
Attachment Kit
ANS0082



1 [piece]
Commissioning USB
052650

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



NJ8-E2
Inductive proximity switch - Cable 5 m

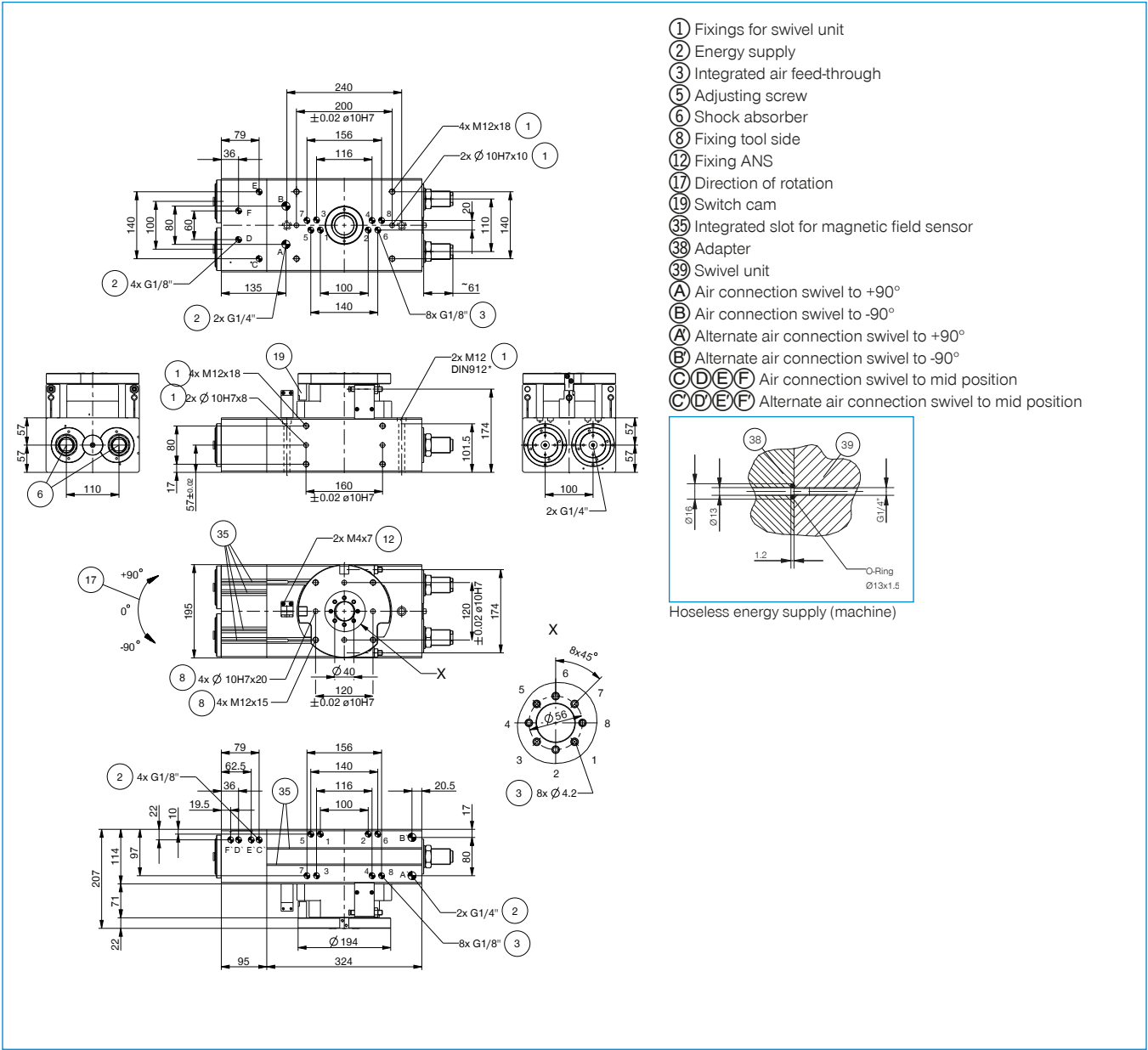


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



NJ12-E2
Inductive proximity switch - Cable 5 m

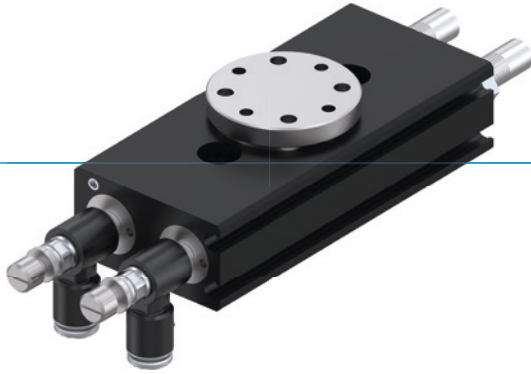
Order no.	Technical data
	SF195MD8-C
Swivel angle [°]	-90 / 0 / +90
Torque [Nm]	120
Swivel angle regulable +/- [°]	3
Passage bore Ø [mm]	40
Axial bearing load [N]	7000
Radial bearing load [Nm]	1253
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	2035
Protection to IEC 60529	IP64
Weight [kg]	41.7



FLAT SWIVEL UNITS

SERIES MSF

▶ PRODUCT ADVANTAGES



“The unique”

▶ **Decide for yourself!**

Flange connection or journal shaft, with or without shock absorbers: The multitude of variants ensure you always find what you need

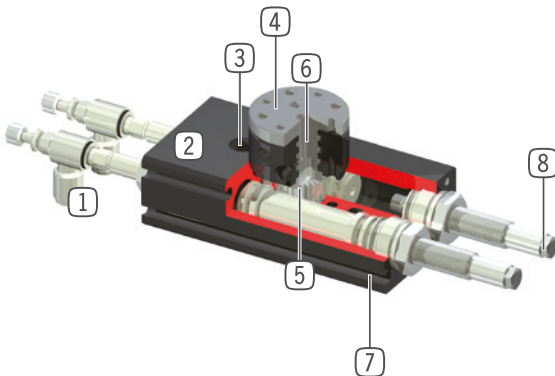
▶ **Flat structure**

Thanks to the reverse double piston drive, the unit can work in operations requiring flat conditions. This is how you can build your application to save more space

▶ **Infinitely adjustable swivel angle**

Become flexible and unique with the completely adjustable swivel angle that also reduces set up times

▶ BENEFITS IN DETAIL



① **Air flow control valve**

- for speed regulation
- included in scope of delivery

② **Robust, lightweight housing**

- Hard-coated aluminum alloy

③ **Mounting and positioning**

- mounting possible from several sides for versatile positioning

④ **Tool intake**

- with shaft extension or flange available

⑤ **Force transfer**

- rack and pinion

⑥ **Up to 2 way integrated air feed-through**

- for hoseless air transfer
- hose package does not have to be pivoted

⑦ **Sensing slot**

- mounting and positioning of magnetic field sensors

⑧ **Integrated shock absorbers with spiral groove technology**

- adjustable end position damping



► SERIES CHARACTERISTICS

Installation size		Version					
MSFXX		N-F001	S-F001	N-F002	S-F002	N-D2	S-D2
	10 million maintenance-free cycles (max.)	•	•	•	•	•	•
	IP41	•	•	•	•	•	•
	Magnetic field sensor	•	•	•	•	•	•
	Flange	•	•			•	•
	Shaft extension			•	•		
	Fluid feed-through					•	•
	Elastomer end position damping	•		•		•	
	Powerstop end position damping		•		•		•
	Positionability - 2 positions	•	•	•	•	•	•
	Adjustable swivel angle	•	•	•	•	•	•

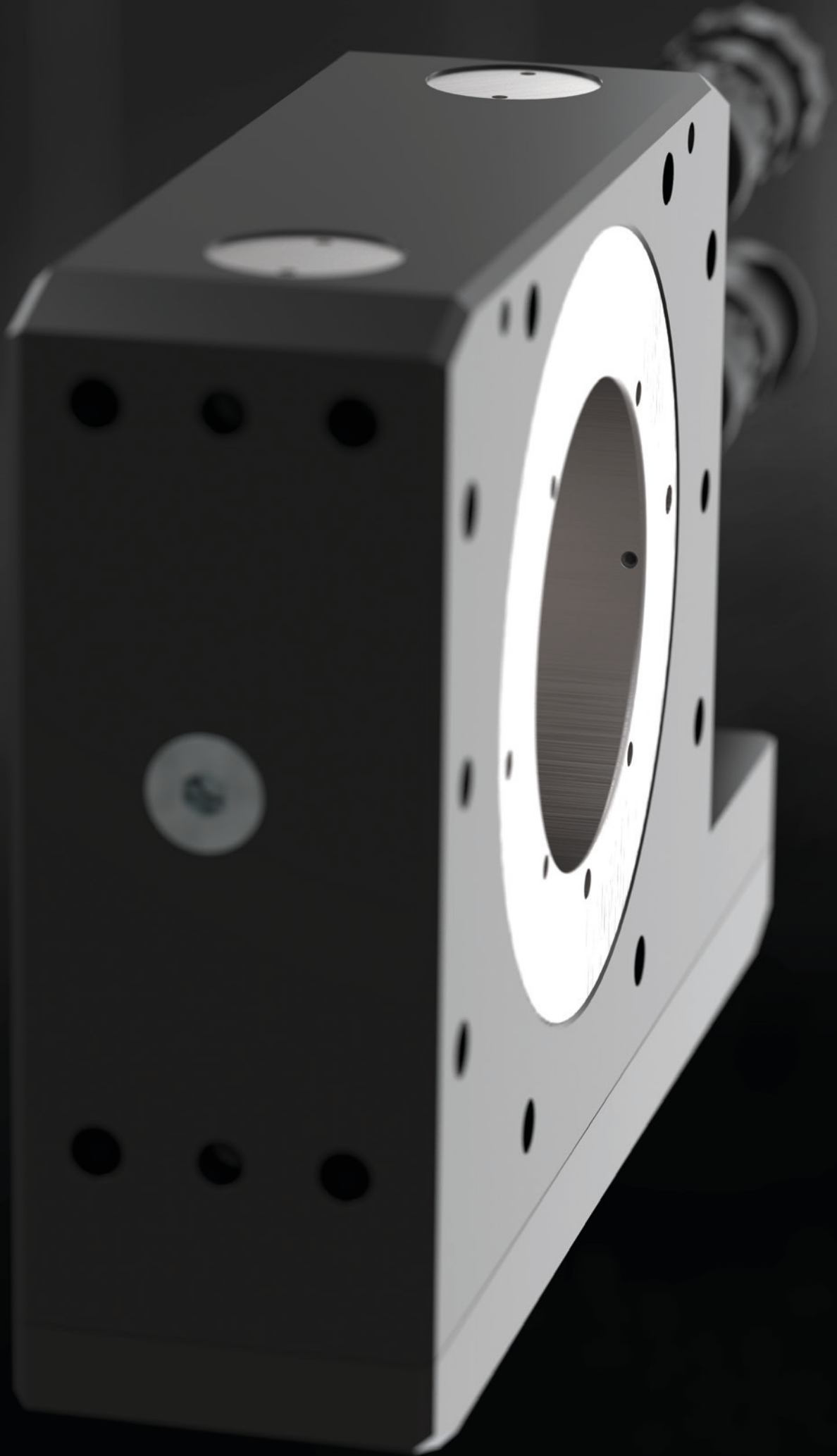
► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
MSF34	90 / 180	0,3 - 0,4	0,17 - 0,21	IP41
MSF40	90 / 180	0,6 - 0,7	0,26 - 0,29	IP41
MSF44	90 / 180	1 - 1,2	0,41 - 0,46	IP41

► FURTHER INFORMATION IS AVAILABLE ONLINE

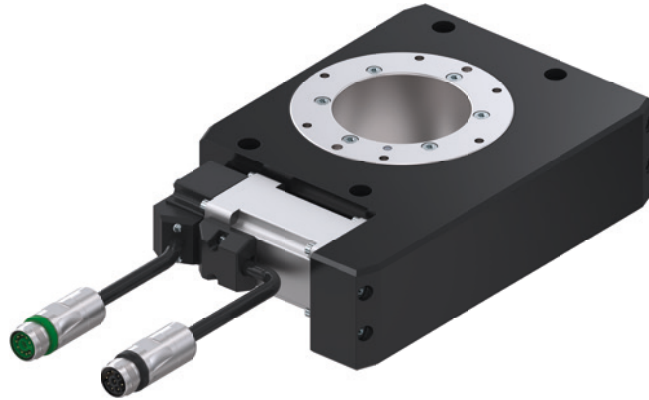


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



FLAT SWIVEL UNITS

OVERVIEW OF SERIES



 ELECTRICAL



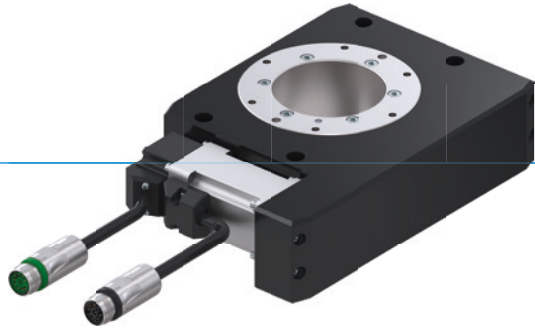
Series DES

368

FLAT SWIVEL UNITS

SERIES DES

▶ PRODUCT ADVANTAGES



“The unique”

▶ **Decide for yourself!**

With the standard motor or motors from another manufacturer - You decide what harmonises the best with your system

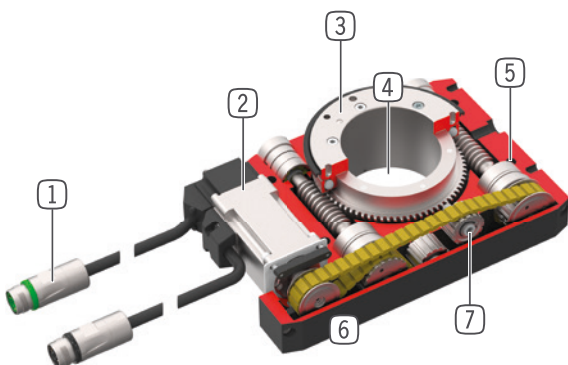
▶ **Integrated media transmission**

The D1 media exchanger makes cable breaks and undefined interference contours through the power supply line a thing of the past

▶ **Freely positionable**

No matter whether your task involves rotating, lifting or cycling: The unit is universally usable and can be uniquely adjusted to your application

▶ BENEFITS IN DETAIL



① **Energy supply**

- motor cable, female
- encoder cable, male

② **Drive**

- AC servo motor

③ **Intake flange**

- for connection to application-specific adapter plate (to be produced by the customer)
- simple tool connection

④ **Central bore**

- for cable feed-through

⑤ **Mounting and positioning**

- mounting possible from several sides for versatile positioning

⑥ **Robust, lightweight housing**

- Hard-coated aluminum alloy

⑦ **Force transfer**

- tooth belt/gear rack/worm gear



► SERIES CHARACTERISTICS

Installation size		Version		
DESXXX		-B	D1-B	-99
PB	Profibus	•	•	
PN	Profinet, EtherCat, EtherNet/IP, Sercos	•	•	
M	with drive	•	•	
X	unpowered; installation provided by customer			•
5 Mio	5 million maintenance-free revolutions (max.)	•	•	•
Lock	Self locking mechanism	•	•	•
IP 54	IP54	•	•	•
Sensing	Integrated sensing	•	•	
Variable positions	Continuously variable positions	•	•	
Adjustable swivel angle	Adjustable swivel angle	•	•	
Electrical feed-through	Electrical feed-through		•	
Fluid feed-through	Fluid feed-through		•	

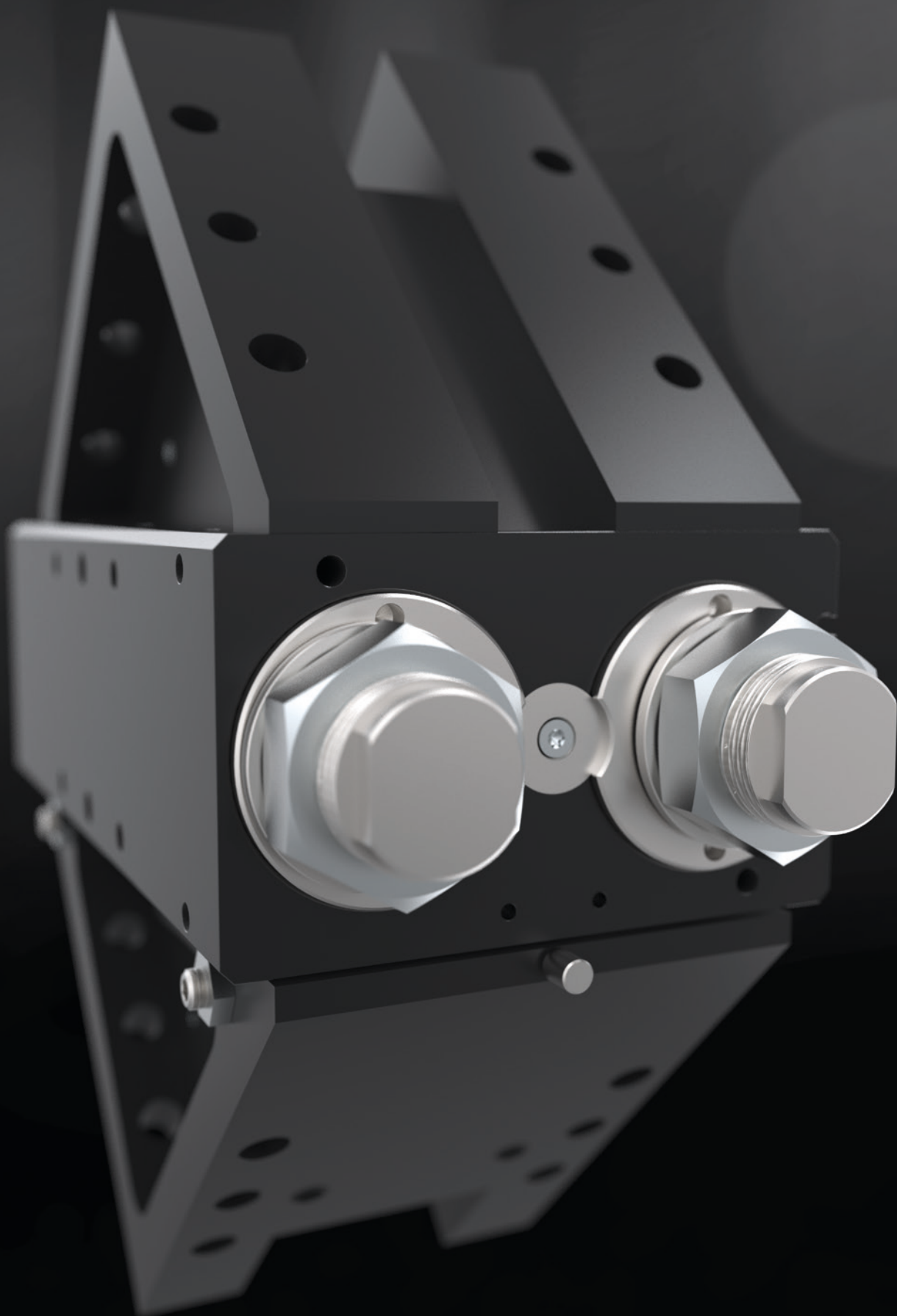
► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
DES140	∞	10 - 12	4 - 7	IP54
DES190	∞	62 - 64	10,8 - 15,9	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE

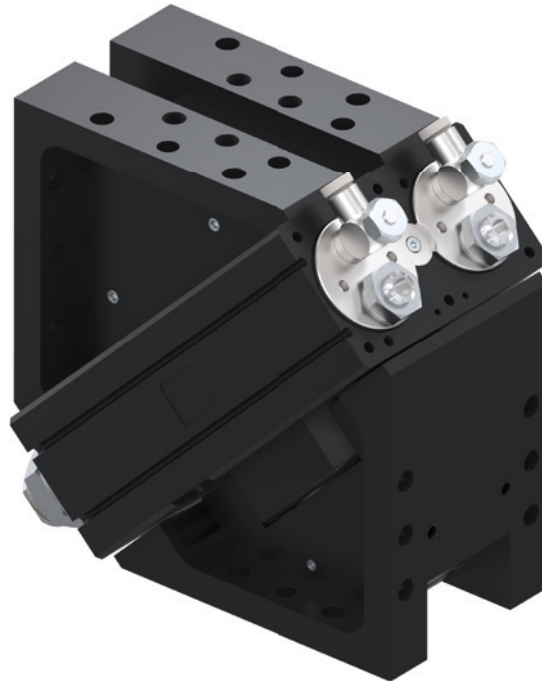


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ANGLE PIVOT UNITS

OVERVIEW OF SERIES



PNEUMATIC



Series SW

372



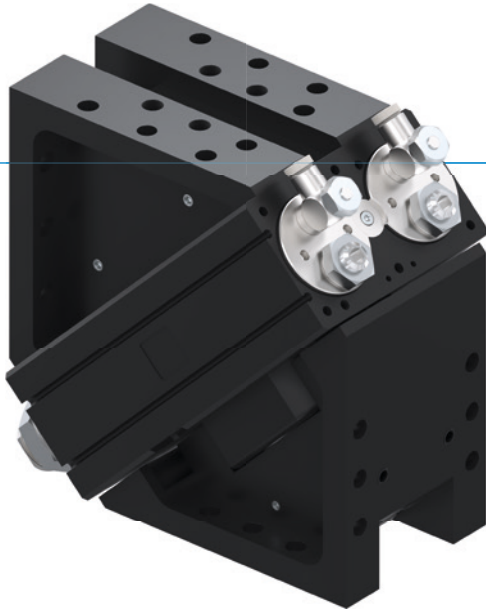
Series SWM1000

390

ANGLE PIVOT UNITS

SERIES SW

▶ PRODUCT ADVANTAGES



“The superior”

▶ Up to 100% more performance than the benchmark

Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine's component output











▶ Includes two angle flanges

Reduce your design and manufacturing efforts with the angle pivot unit aligned on the machine loading system

▶ More than 100% higher radial bearing load than the benchmark

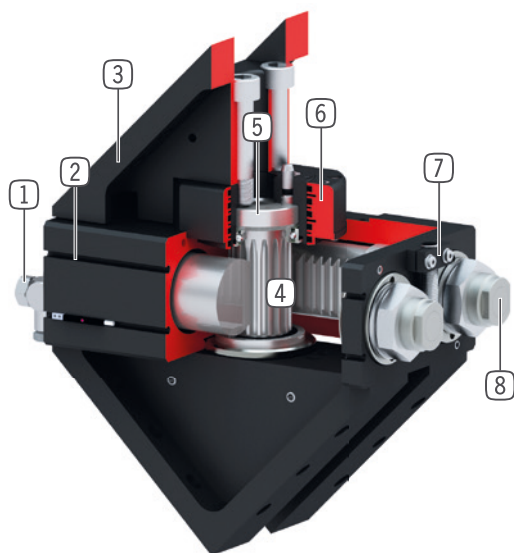
The generously scaled bearings stand for robustness and long service life and provide the highest process reliability for your application

▶ SERIES CHARACTERISTICS

Installation size	Version	
SWXXX	SWXXX	DX
 10 million maintenance-free cycles (max.)		●
 IP64		●
 Inductive sensor		●
 Magnetic field sensor		●
 Flange		●
 Powerstop end position damping		●
 End positions adjustable +/- 3		●
 Positionability - 2 positions		●
 Rotation angle 180°		●
 Fluid feed-through		●



► BENEFITS IN DETAIL



- ① **Air flow control valve**
- for speed regulation (included in the delivery)
- ② **Sensing slot**
- mounting and positioning of magnetic field sensors
- ③ **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ④ **Force transfer**
- rack and pinion
- ⑤ **Two way ball bearing hollow shaft**
- for feedthrough cables and hoses
- high forces and moments capacity
- ⑥ **Up to 8 way integrated air feed-through**
- for hoseless air transfer
- hose package does not have to be pivoted
- ⑦ **Mounting block**
- mounting for inductive proximity switch
- ⑧ **Integrated and patented hydraulic shock absorbers**
- adjustable end position damping
- heating is prevented through installation in pneumatic pressure chamber

► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
SW50	180	1.5	1.2	IP64
SW74	180	5.5	2.6	IP64
SW100	180	15	6.3	IP64
SW125	180	34	17	IP64
SW155	180	58	25.3	IP64
SW195	180	120	48.2	IP64

► FURTHER INFORMATION IS AVAILABLE ONLINE



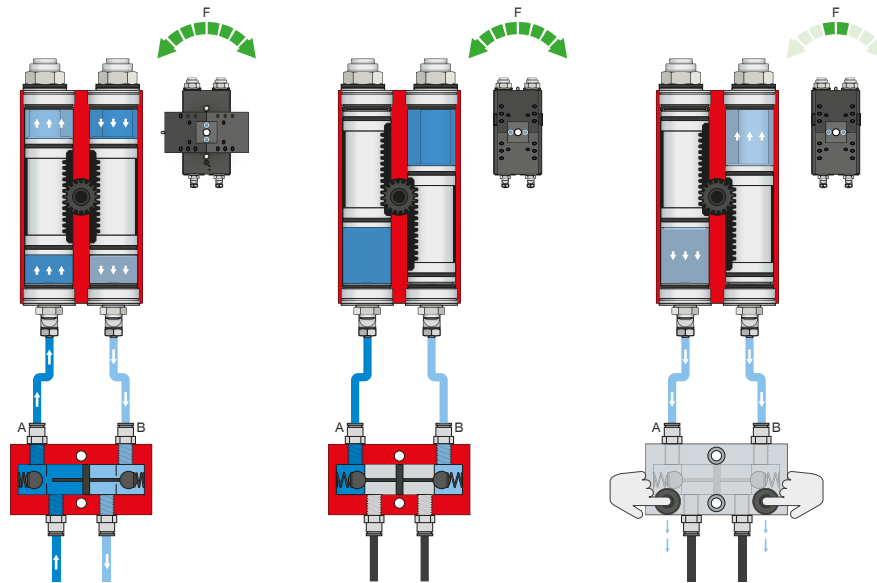
All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

ANGLE PIVOT UNITS

SERIES SW FUNCTIONAL DESCRIPTION



ENERGY SUPPLY



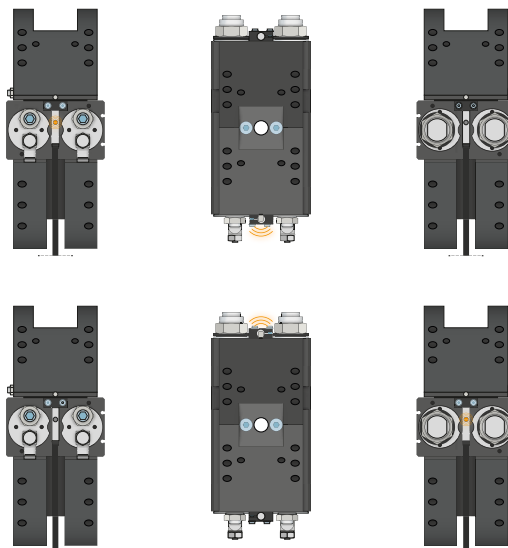
Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the swivel unit in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the swivel unit's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the swivel unit.



SENSORS



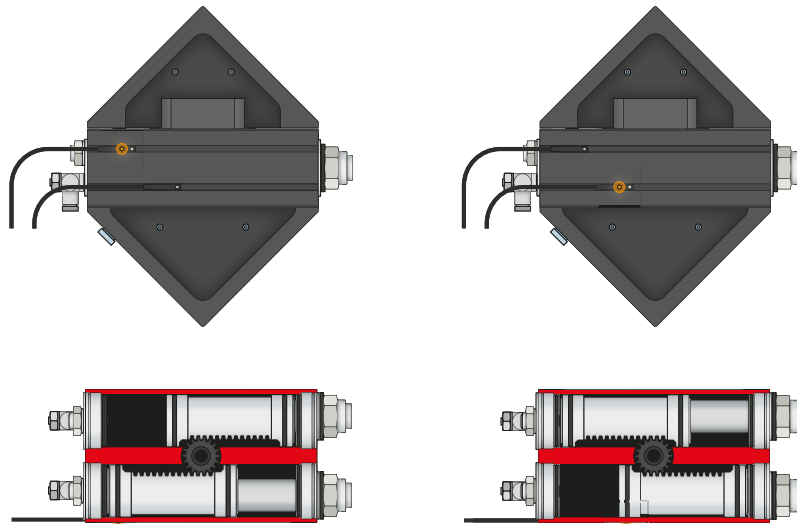
Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



SENSORS

MFS02



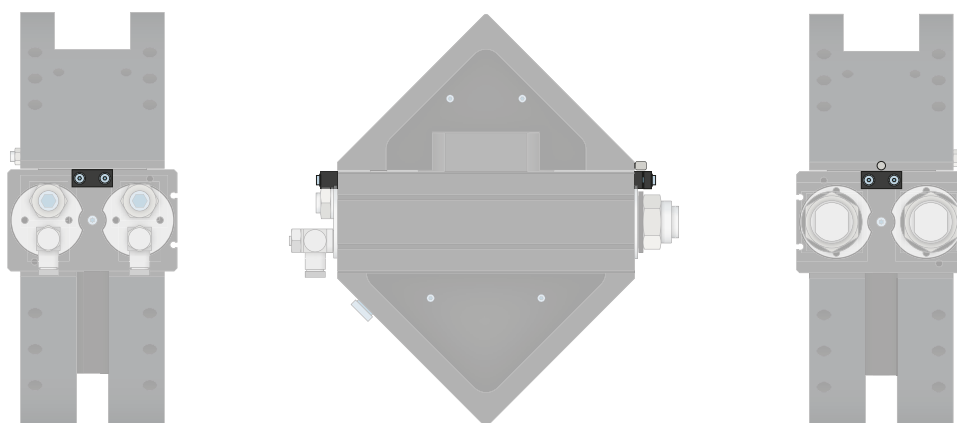
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are clamped in the C-groove of the swivel unit and detect the magnet attached to the piston of the swivel unit. To ensure use in a wide variety of space conditions, the sensors are available in two versions. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the swivel unit almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Attachment kit

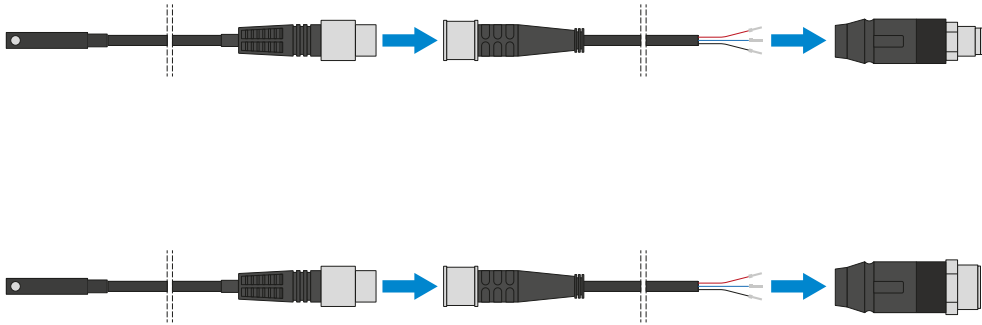
The attachment kit is installed on the gripper using the fastening material included in the scope of delivery. The attachment kit enables sensing of the gripper positions via inductive proximity switches.

ANGLE PIVOT UNITS

SERIES SW FUNCTIONAL DESCRIPTION



CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

ANGLE PIVOT UNITS

INSTALLATION SIZE SW50

▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4



4 [piece]
O-Ring
COR0050100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0062
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S12-G-3
Plug-in connector customizable Straight - Connector M12

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



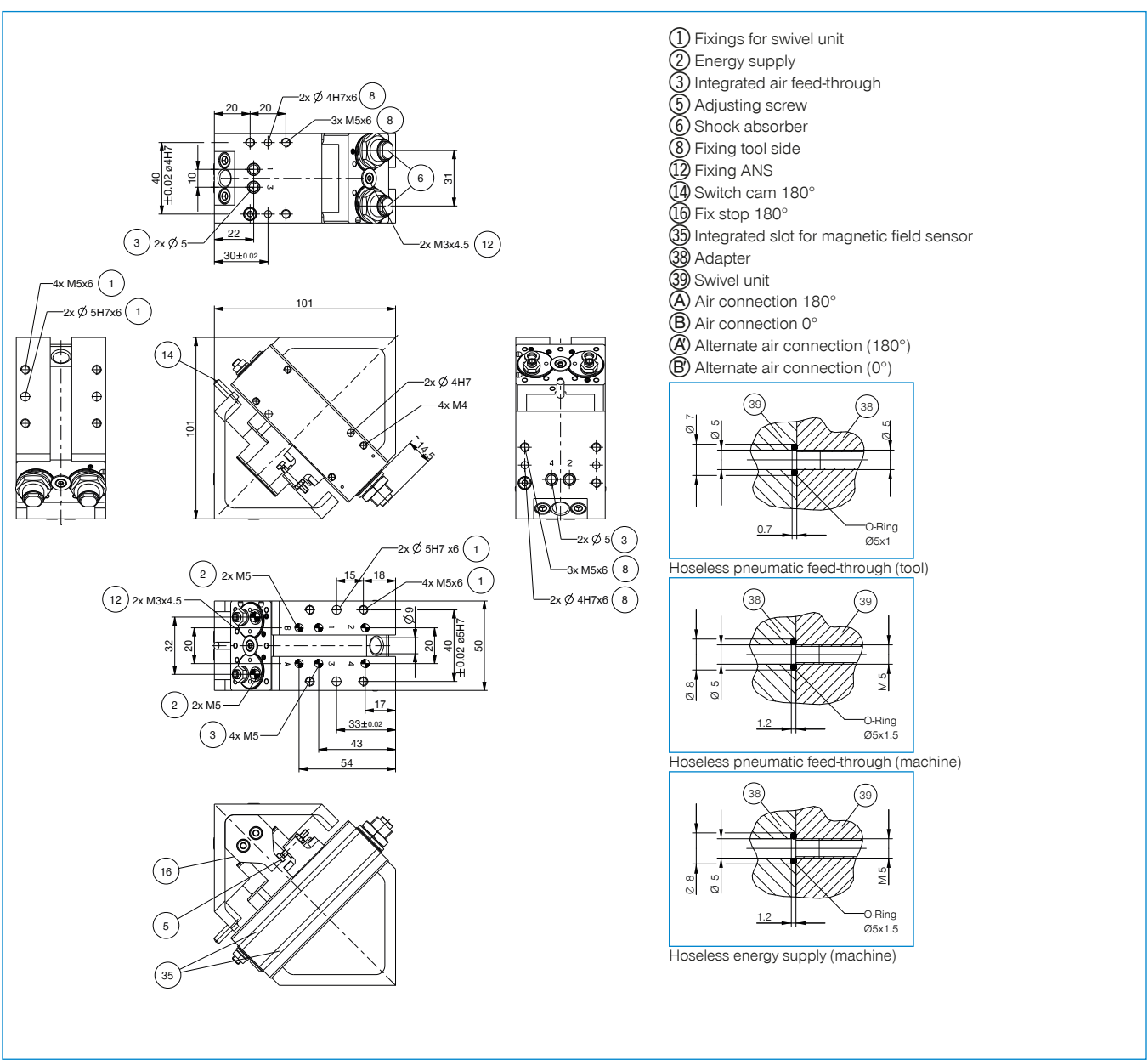
NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
Swivel angle [°]	180
Torque [Nm]	1.5
Swivel time [s]*	0.3
Passage bore Ø [mm]	9
Pneumatic energy transfer [Quantity]	4
Axial bearing load [N]	490
Radial bearing load [Nm]	25
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	15
Protection to IEC 60529	IP64
Weight [kg]	1.2

*without extension load




ANGLE PIVOT UNITS

INSTALLATION SIZE SW74


▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0050100

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector


CONNECTIONS / OTHER



ANS0063
Attachment Kit




KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)




S12-G-3
Plug-in connector customizable Straight - Connector M12

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



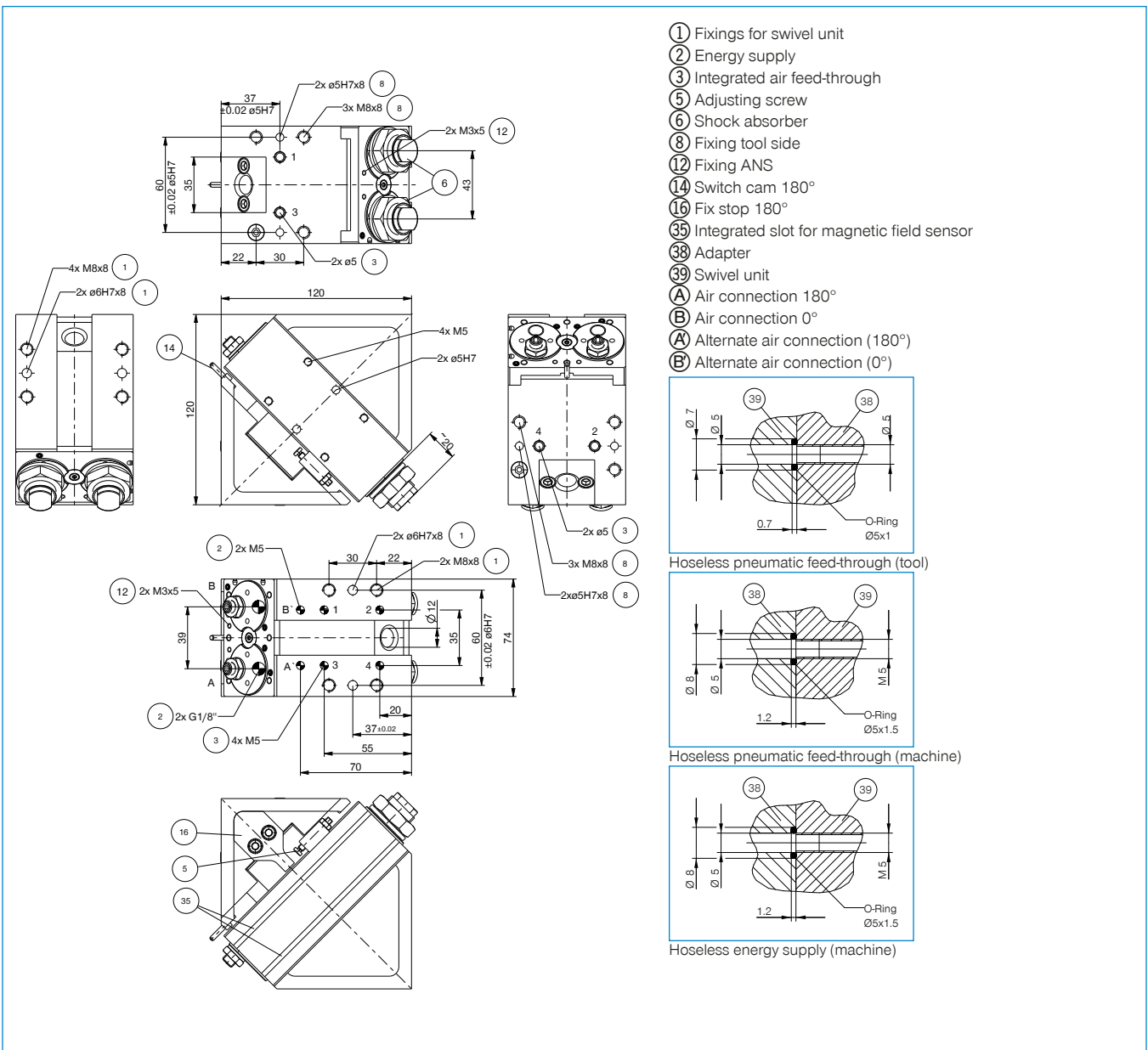
NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
SW74D4-C	
Swivel angle [°]	180
Torque [Nm]	5.5
Swivel time [s]*	0.3
Passage bore Ø [mm]	12
Pneumatic energy transfer [Quantity]	4
Axial bearing load [N]	1120
Radial bearing load [Nm]	90
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	42
Protection to IEC 60529	IP64
Weight [kg]	2.6

*without extension load



ANGLE PIVOT UNITS

INSTALLATION SIZE SW100

▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6



4 [piece]
O-Ring
COR0050100

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0.3 m - M8 connector



CONNECTIONS / OTHER



ANS0064
Attachment Kit



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



S12-G-3
Plug-in connector customizable Straight - Connector M12

▶ RECOMMENDED ACCESSORY ATTACHMENT KIT



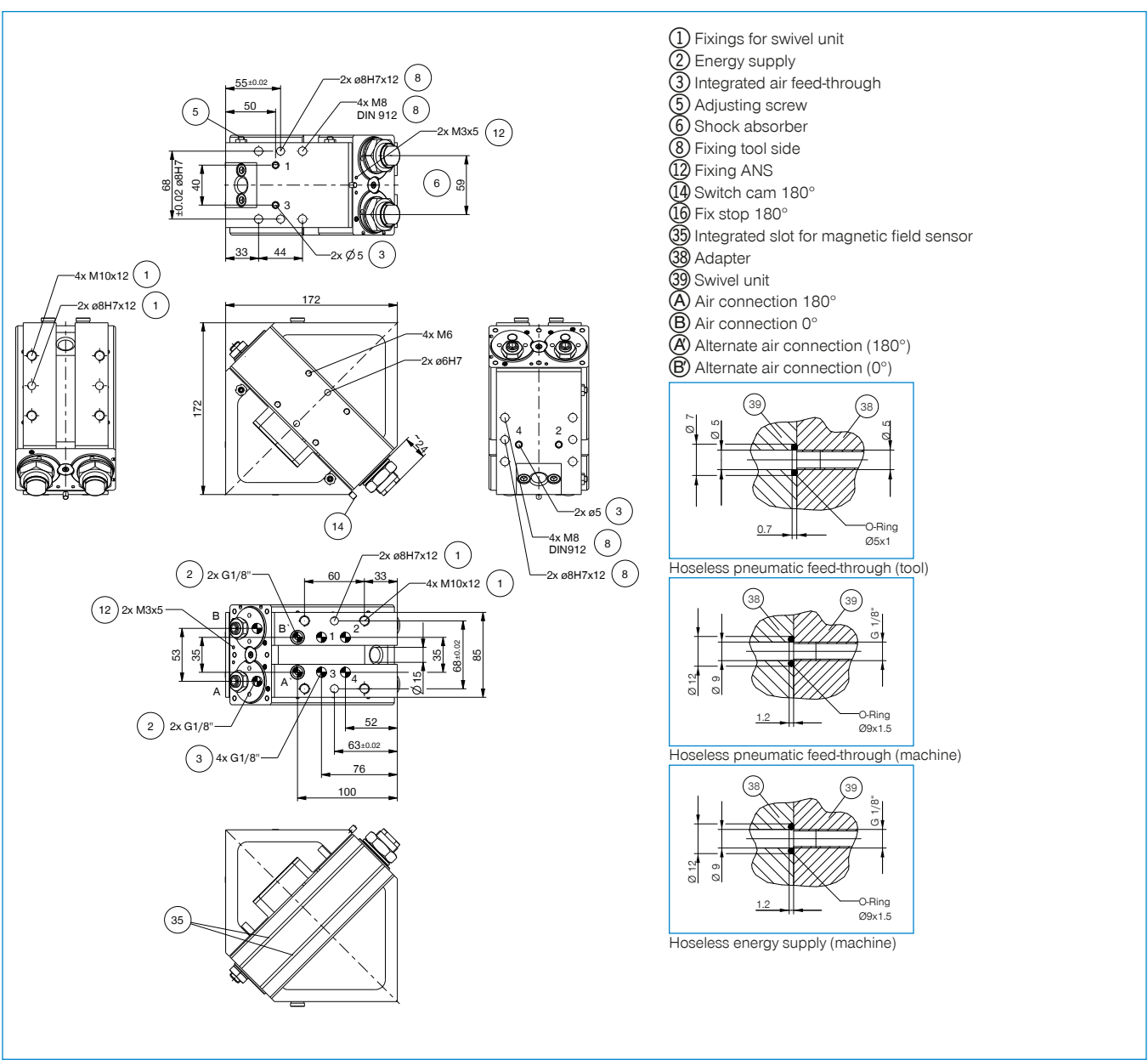
NJ8-E2
Inductive proximity switch - Cable 5 m



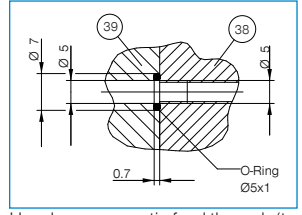
NJ8-E2S
Inductive proximity switch - Connector M8

Order no.	Technical data
	SW100D4-C
Swivel angle [°]	180
Torque [Nm]	15
Swivel time [s]*	0.5
Passage bore Ø [mm]	15
Pneumatic energy transfer [Quantity]	4
Axial bearing load [N]	2500
Radial bearing load [Nm]	155
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	108
Protection to IEC 60529	IP64
Weight [kg]	6.3

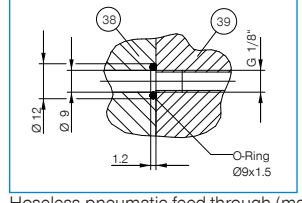
*without extension load



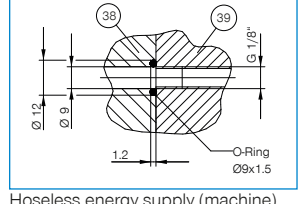
- ① Fixings for swivel unit
- ② Energy supply
- ③ Integrated air feed-through
- ⑤ Adjusting screw
- ⑥ Shock absorber
- ⑧ Fixing tool side
- ⑫ Fixing ANS
- ⑭ Switch cam 180°
- ⑯ Fix stop 180°
- ⑳ Integrated slot for magnetic field sensor
- ㉑ Adapter
- ㉒ Swivel unit
- Ⓐ Air connection 180°
- Ⓑ Air connection 0°
- Ⓐ Alternate air connection (180°)
- Ⓑ Alternate air connection (0°)



Hoseless pneumatic feed-through (tool)



Hoseless pneumatic feed-through (machine)



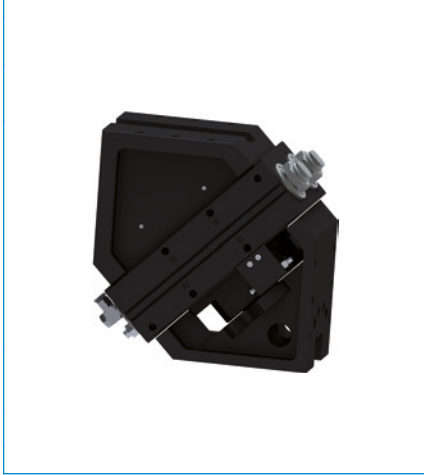
Hoseless energy supply (machine)




ANGLE PIVOT UNITS

INSTALLATION SIZE SW125


▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0090150

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY




DSV1-8
Pressure safety valve




DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0,3 m - M8 connector

CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

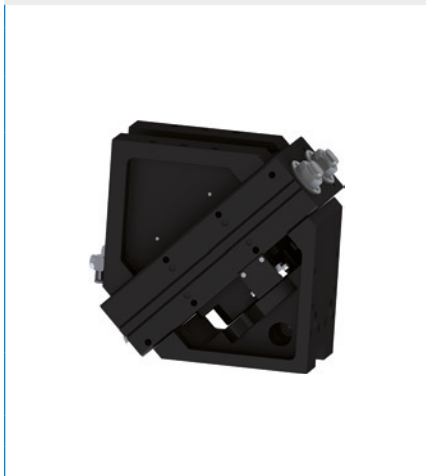


S12-G-3
Plug-in connector customizable Straight - Connector M12

ANGLE PIVOT UNITS

INSTALLATION SIZE SW155

▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



4 [piece]
O-Ring
COR0090150

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0,3 m - M8 connector



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8

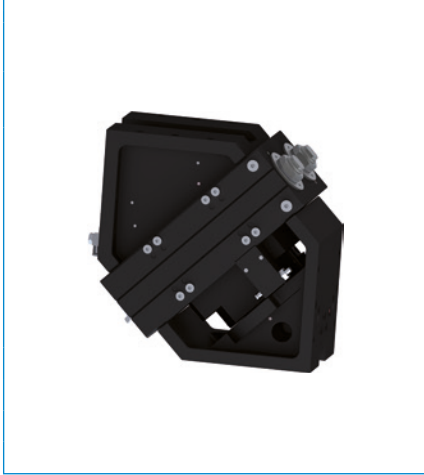


S12-G-3
Plug-in connector customizable Straight - Connector M12


ANGLE PIVOT UNITS

INSTALLATION SIZE SW195


▶ PRODUCT SPECIFICATIONS



▶ INCLUDED IN DELIVERY



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8



8 [piece]
O-Ring
COR0120150

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY




DSV1-8
Pressure safety valve




DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ12-E2
Inductive proximity switch - Cable 5 m



MFS02-K-KHC-P1-PNP
Magnetic field sensor straight, cable 5 m

SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor straight, cable 0,3 m - M8 connector

CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



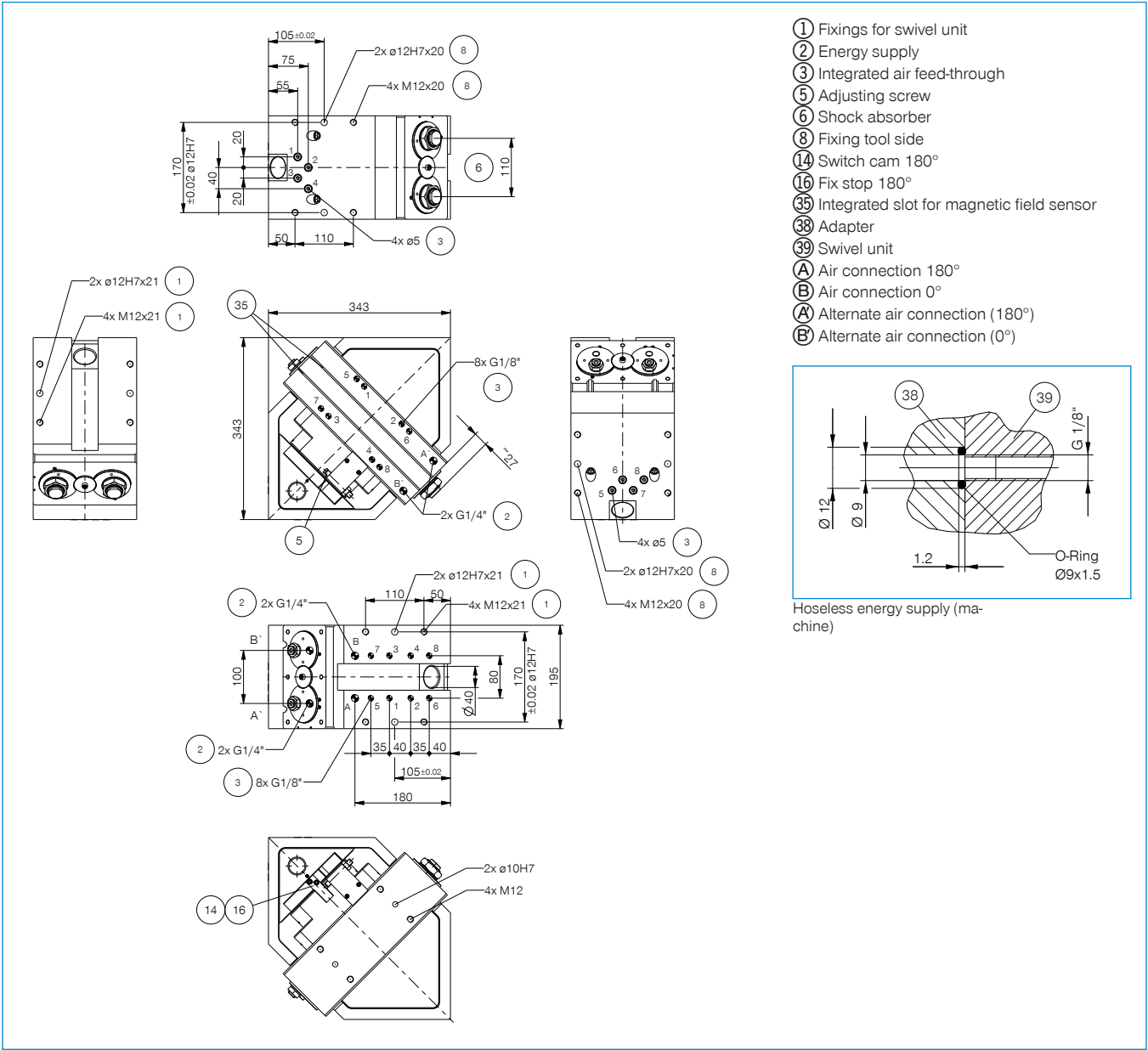
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	► Technical data
	SW195D8-C
Swivel angle [°]	180
Torque [Nm]	120
Swivel time [s]*	1.1
Passage bore Ø [mm]	40
Pneumatic energy transfer [Quantity]	8
Axial bearing load [N]	7000
Radial bearing load [Nm]	1250
Repetition accuracy +/- [°]	0.01
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	1520
Protection to IEC 60529	IP64
Weight [kg]	48.2

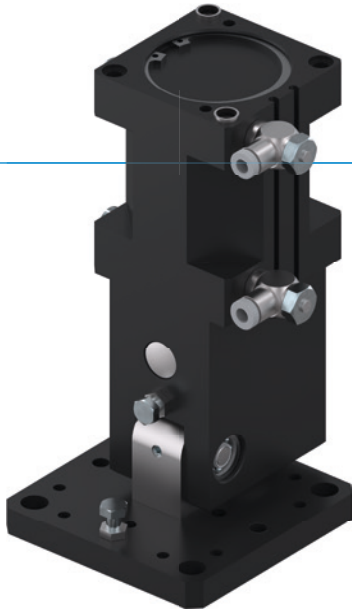
*without extension load



ANGLE PIVOT UNITS

SERIES SWM1000

▶ PRODUCT ADVANTAGES



“The slim”

▶ Optimised design

Adjusted to a gantry axle, you can integrate the unit in your machine loading system to save space

▶ Large locating flange

The large mounting surface simplifies your design and allows secure attachment of follow-on tools

▶ Failure-free continuous operation

Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

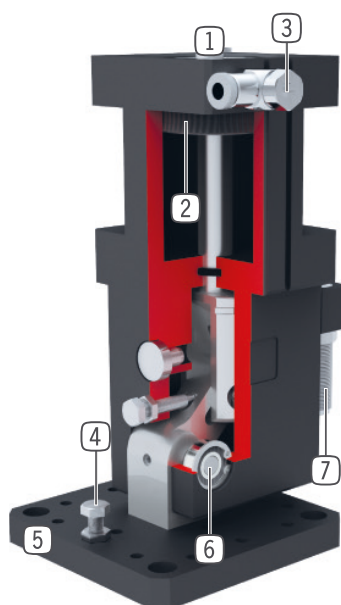
Installation size

SWM10XX

 10 million maintenance-free cycles (max.)	●
 IP30	●
 Magnetic field sensor	●
 Powerstop end position damping	●
 Positionability - 2 positions	●



► BENEFITS IN DETAIL



- ① **Mounting and positioning**
- ② **Drive**
 - double-acting pneumatic cylinder
- ③ **Air flow control valve**
 - for speed regulation
 - included in scope of delivery
- ④ **Adjustable end position**
 - +/- 3° adjustable end position
- ⑤ **Intake flange**
 - for connection to application-specific adapter plate (to be supplied by the customer)
- ⑥ **Force transfer 90° pivoting**
 - toggle lever principle
- ⑦ **Patented, hydraulic shock absorber**
 - adjustable end position damping

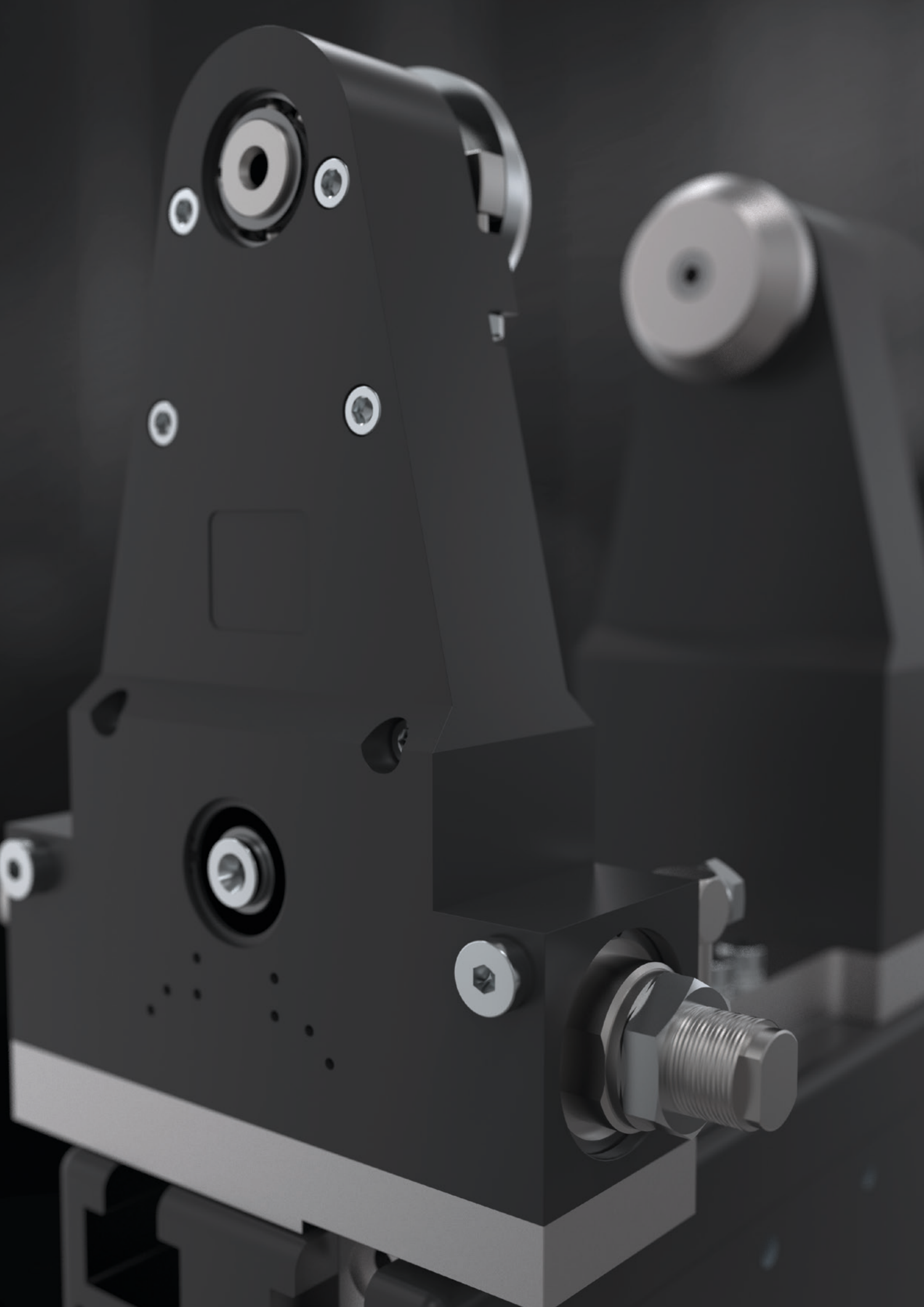
► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
SWM1035	90	7 - 10	0.65	IP30
SWM1045	90	14 - 21	1.2	IP30
SWM1054	90	29 - 40	2.3	IP30
SWM1063	90	39 - 64	3.5	IP30
SWM1080	90	88 - 150	5.8	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE

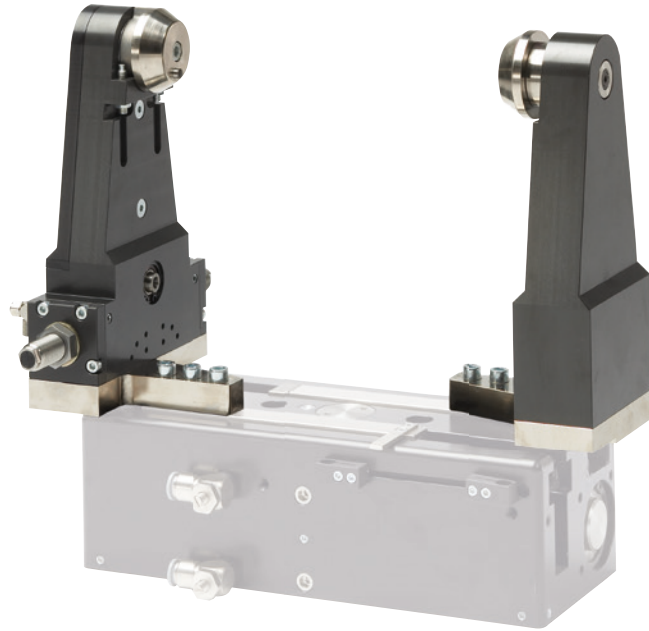


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SWIVEL JAWS

OVERVIEW OF SERIES



PNEUMATIC



Series SB

394



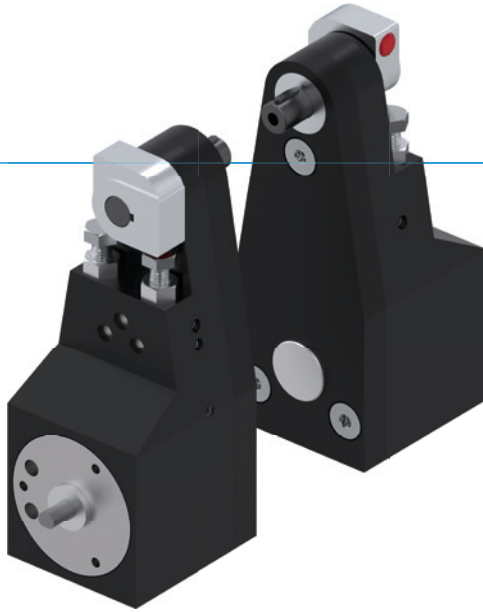
Series SBZ

404

SWIVEL JAWS

SERIES SB

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most cost-effective type of swivelling reduces your production costs

▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you










▶ Flexible swivel angle

90° or 180°; you decide which using the provided limit stops. This allows you to be flexible while only needing to maintain one product in your system

▶ SERIES CHARACTERISTICS

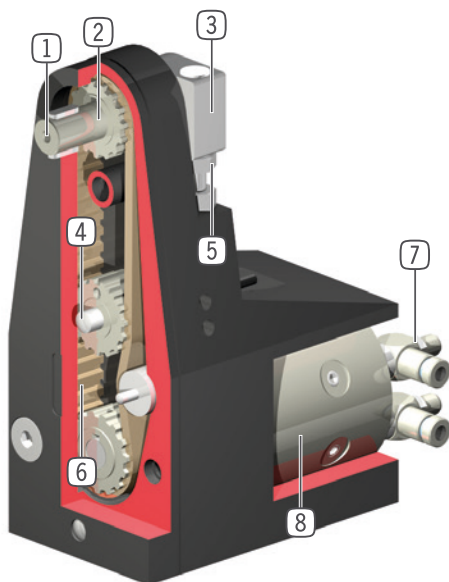
Installation size

SBXX

 10 million maintenance-free cycles (max.)	●
 IP 54	●
 Inductive sensor	●
 Shaft extension	●
 Elastomer end position damping	●
 End positions adjustable +/- 3°	●
 Positionability - 2 positions	●
 Rotation angle 90°	●
 Rotation angle 180°	●



► BENEFITS IN DETAIL



- ① **Drive shaft**
 - as hexagonal or round shaft with feather key, depending on design
 - quick and cost effective positioning of application-specific workpiece intakes
- ② **Two way bearing drive shaft**
 - high forces and moments capacity
- ③ **Stop**
 - swivel angle of 90 and 180°
 - stable, with Fibroflex stop surface
- ④ **Position sensing**
 - inquiry of end positions 0° and 90° (or 180°) via inductive proximity switch
 - integrated in housing, therefore no additional interference contour
- ⑤ **End position**
 - +/- 3° adjustable end position
- ⑥ **Force transfer**
 - stable toothed belt with steel reinforcement
 - quiet, reliable, durable
- ⑦ **Energy supply**
 - possible from several sides
- ⑧ **Drive**
 - double-acting rotor cylinder

► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight (pair) [kg]	IP class
SB32	90 - 180	0.1	0.3	IP54
SB40	90 - 180	0.3	0.7	IP54
SB54	90 - 180	1.6	2.2	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE



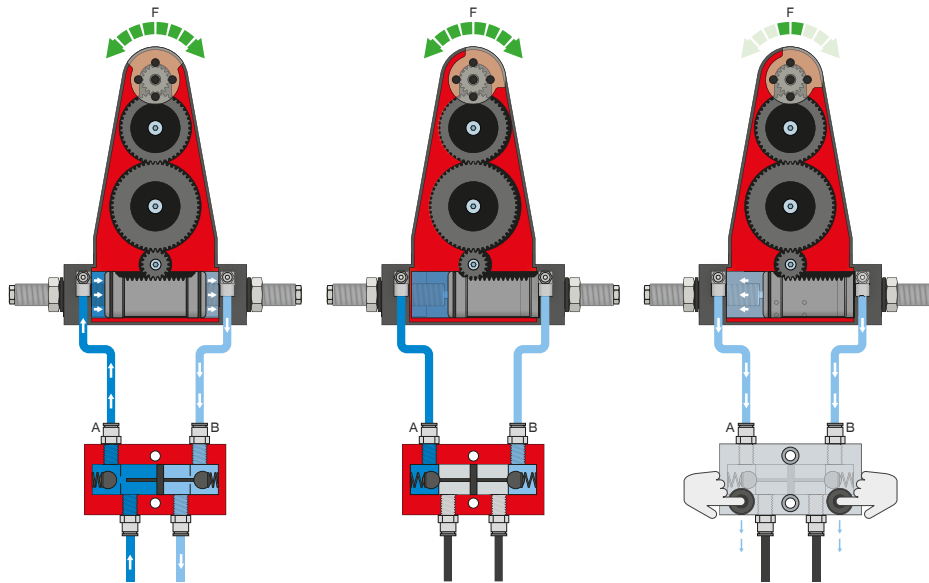
All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

SWIVEL JAWS

SERIES SB FUNCTIONAL DESCRIPTION



ENERGY SUPPLY



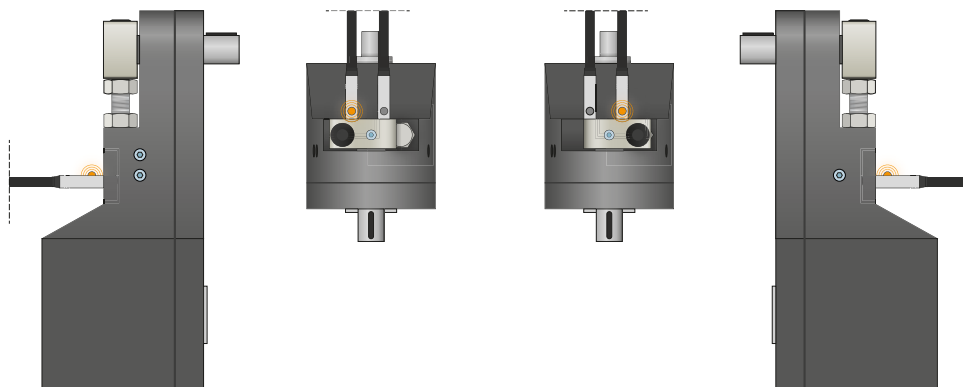
Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the swivel jaw in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the swivel jaw's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the swivel jaw.



SENSORS

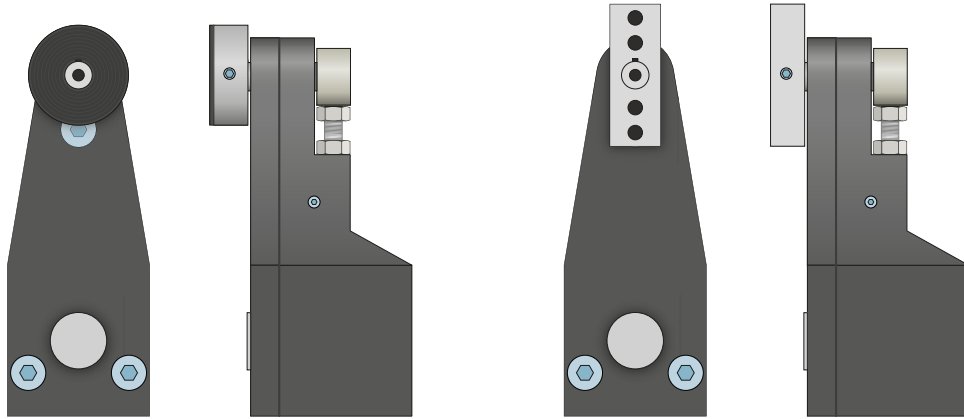


Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

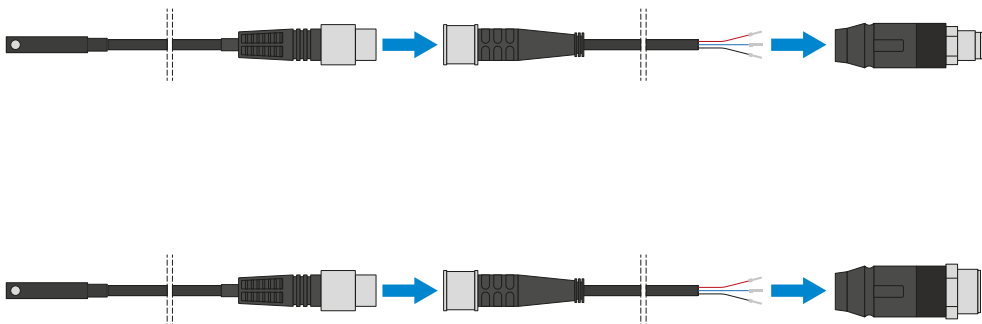


CONNECTIONS / OTHER



Base jaws

The base jaws enable fast and easy adaptation to the workpiece and/or the attachment of custom jaws.



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

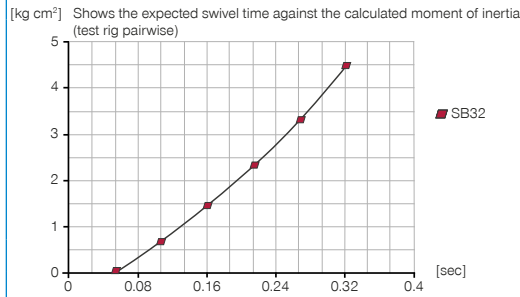
SWIVEL JAWS

INSTALLATION SIZE SB32

▶ PRODUCT SPECIFICATIONS

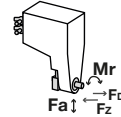


▶ Moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	180
Mr [Nm]	2.1
FD [N]*	90
FZ [N]*	90

▶ INCLUDED IN DELIVERY

	2 [piece] Stop 90° GEH03350		2 [piece] Stop 180° GEH03340
	6 [piece] Sleeve For Proximity Switch DMS03210		6 [piece] Cylinder Pin C632504100

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

SENSORS



NJ4-E2-01
Inductive proximity switch - Cable 5 m



NJ4-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8

CONNECTIONS / OTHER



SB32-1-B
Basic jaw

CONNECTIONS / OTHER



SB32-1-B-01
Basic jaw



SB32-2-B
Basic Jaw Rubberized



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



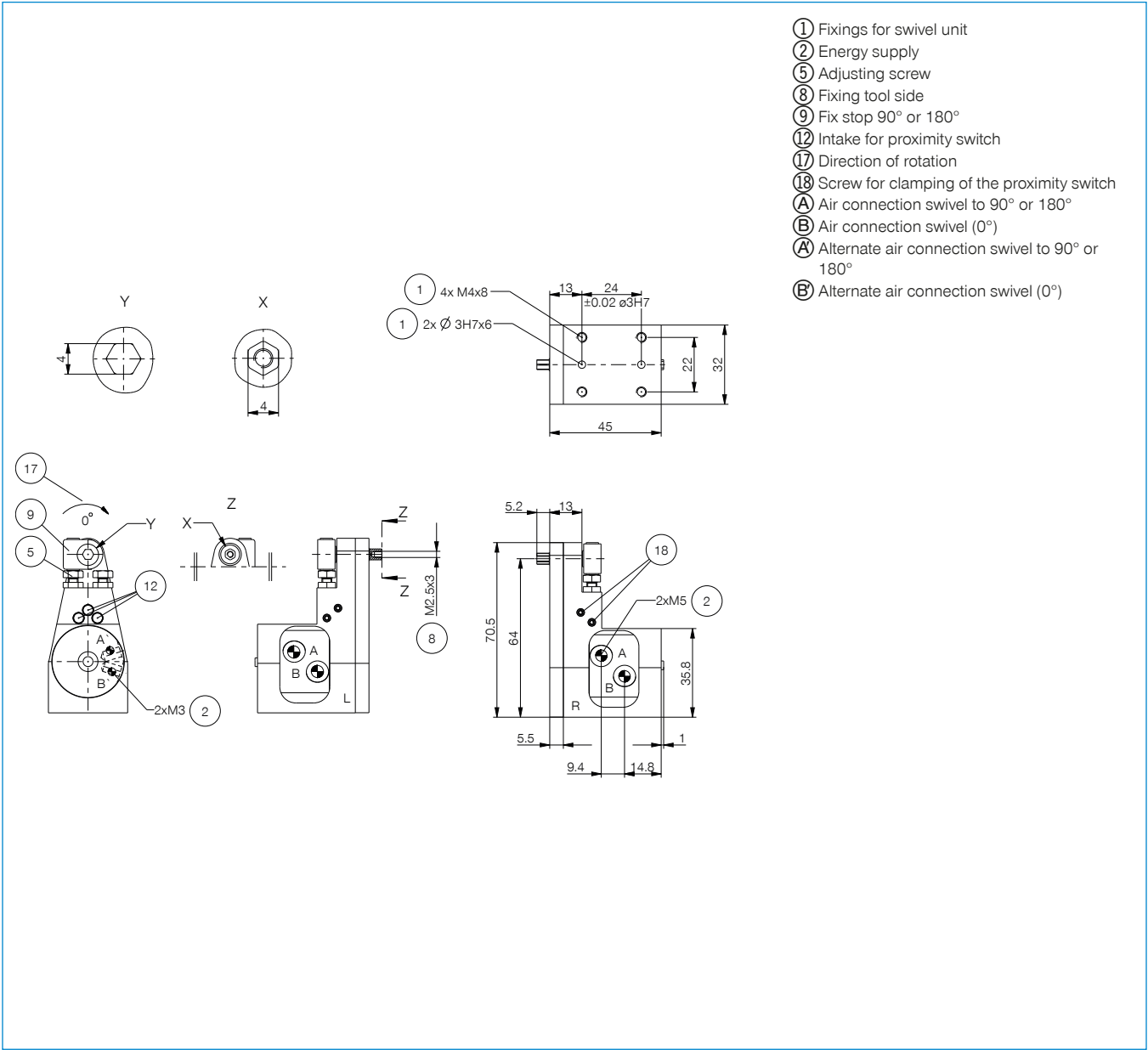
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	▶ Technical data
Swivel angle [°]	90 / 180
Torque per jaw [Nm]	0.1
Swivel angle regulable +/- [°]	3
Repetition accuracy +/- [°]	0.5
Operating pressure min. [bar]	3
Operating pressure max. [bar]	7
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	2
Protection to IEC 60529	IP54
Weight [kg]	
FD [N]*	90
FZ [N]*	90

*Observe the gripper force



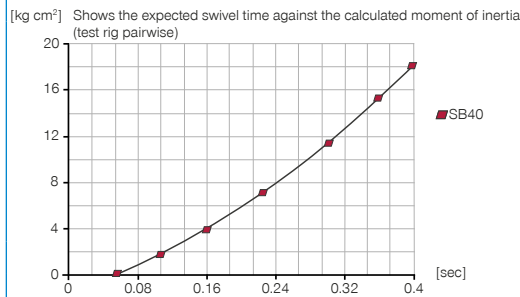
SWIVEL JAWS

INSTALLATION SIZE SB40

▶ PRODUCT SPECIFICATIONS

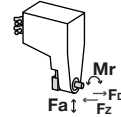


▶ Moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	770
Mr [Nm]	10.8
FD [N]*	385
FZ [N]*	385

▶ INCLUDED IN DELIVERY

	2 [piece] Stop 90° GEH04160		2 [piece] Stop 180° GEH04150
	6 [piece] Sleeve For Proximity Switch DMS03210		6 [piece] Cylinder Pin C632504100

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY

	DSV1-8 Pressure safety valve
--	--

	DSV1-8E Pressure safety valve with quick exhaust
--	--

SENSORS

	NJ4-E2-01 Inductive proximity switch - Cable 5 m
--	--

	NJ4-E2SK-01 Inductive Proximity Switch Cable 0,3 m - Connector M8
--	---

CONNECTIONS / OTHER

	SB40-1 Basic jaw
--	----------------------------

	SB40-2 Basic Jaw Rubberized
--	---------------------------------------

	KAG500 Plug-in connector Straight Cable 5m - Socket M8 (female)
--	---

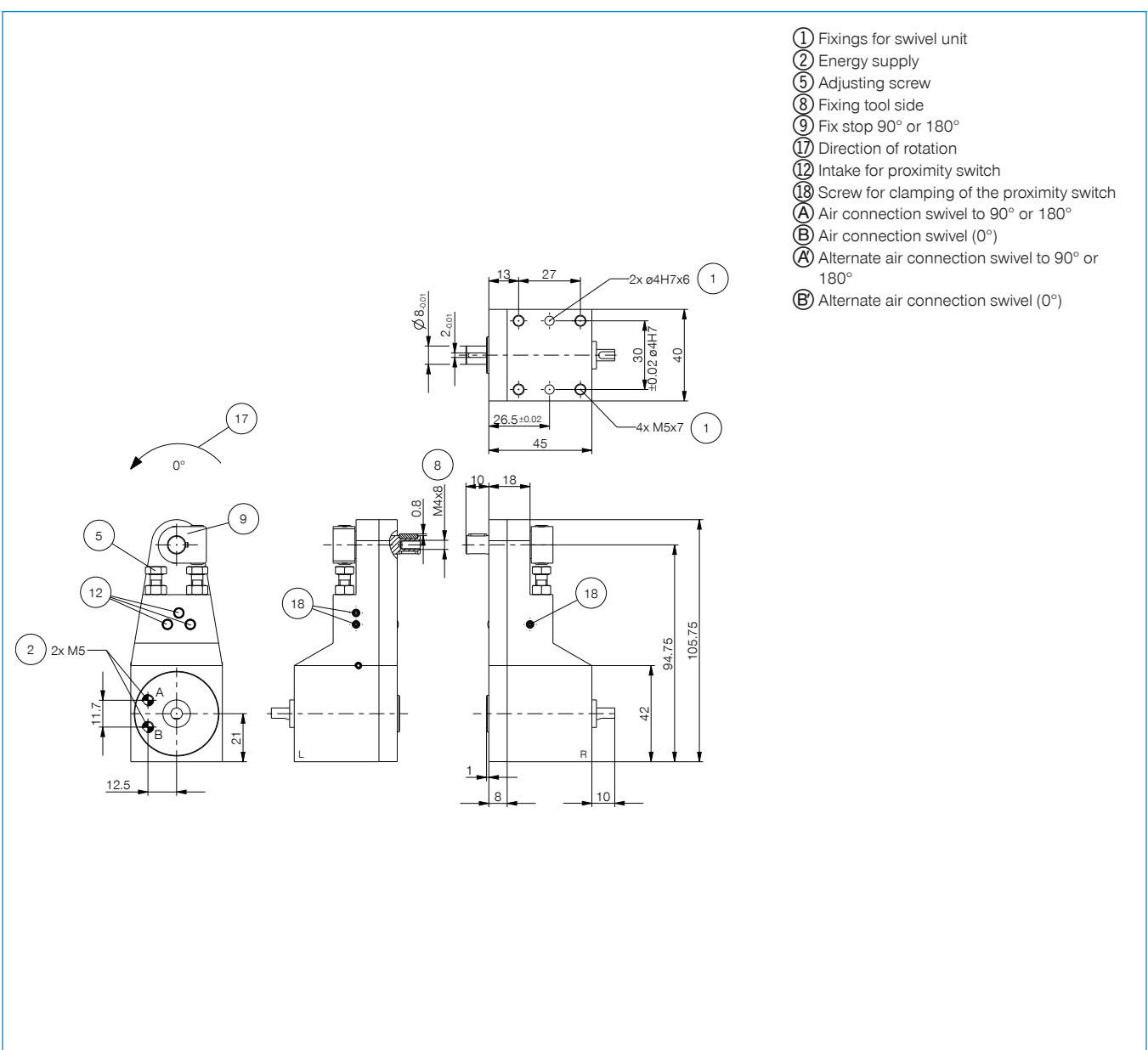
	KAW500 Plug-in connector Angled Cable 5m - Socket M8 (female)
--	---

	S8-G-3 Plug-in connector customizable Straight - Connector M8
--	---

	S12-G-3 Plug-in connector customizable Straight - Connector M12
--	---

► Technical data	
Order no.	SB40-B
Swivel angle [°]	90 / 180
Torque per jaw [Nm]	0.3
Swivel angle regulable +/- [°]	3
Repetition accuracy +/- [°]	0.5
Operating pressure min. [bar]	3
Operating pressure max. [bar]	7
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	4
Protection to IEC 60529	IP54
Weight [kg]	
FD [N]*	385
FZ [N]*	385

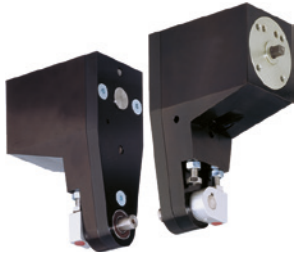
*Observe the gripper force



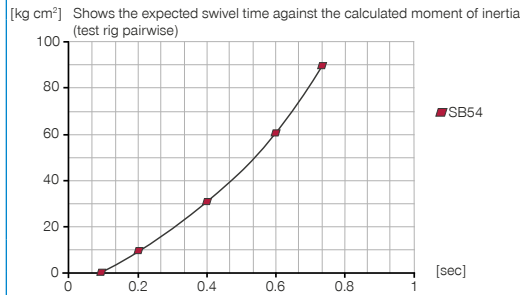
SWIVEL JAWS

INSTALLATION SIZE SB54

▶ PRODUCT SPECIFICATIONS

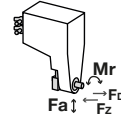


▶ Moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	850
Mr [Nm]	15.3
FD [N]*	425
FZ [N]*	425

▶ INCLUDED IN DELIVERY

	2 [piece] Stop 90° GEH05501		2 [piece] Stop 180° GEH05491
	6 [piece] Sleeve For Proximity Switch DMS03210		6 [piece] Straight pin KUN05410

▶ RECOMMENDED ACCESSORIES

ENERGY SUPPLY

	DSV1-8 Pressure safety valve
--	--

	DSV1-8E Pressure safety valve with quick exhaust
--	--

SENSORS

	NJ4-E2-01 Inductive proximity switch - Cable 5 m
--	--

	NJ4-E2SK-01 Inductive Proximity Switch Cable 0,3 m - Connector M8
--	---

CONNECTIONS / OTHER

	SB54-1 Basic jaw
--	----------------------------

	SB54-2 Basic Jaw Rubberized
--	---------------------------------------

	KAG500 Plug-in connector Straight Cable 5m - Socket M8 (female)
--	---

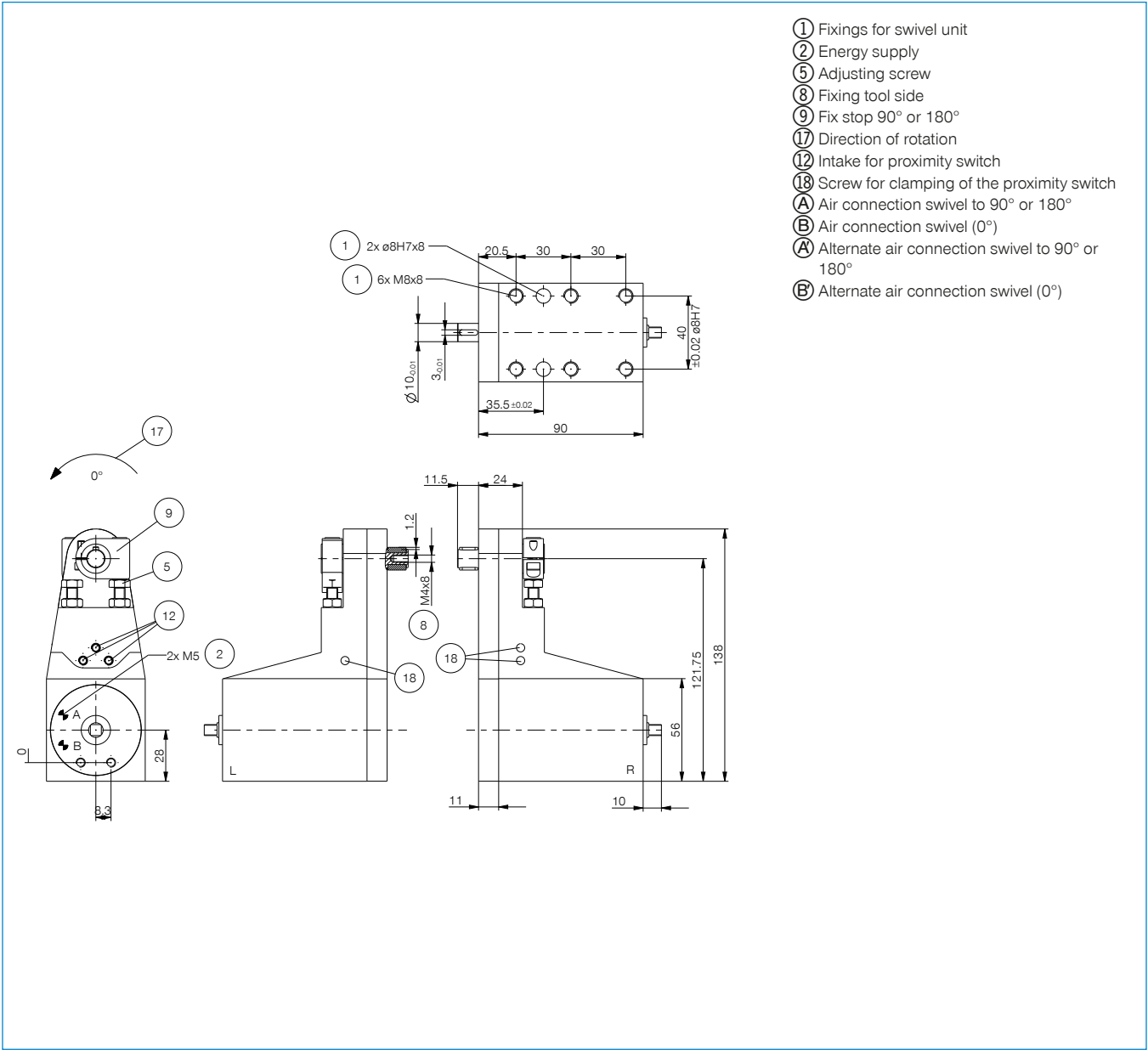
	KAW500 Plug-in connector Angled Cable 5m - Socket M8 (female)
--	---

	S8-G-3 Plug-in connector customizable Straight - Connector M8
--	---

	S12-G-3 Plug-in connector customizable Straight - Connector M12
--	---

Order no.	SB54-B
Swivel angle [°]	90 / 180
Torque per jaw [Nm]	1.6
Swivel angle regulable +/- [°]	3
Repetition accuracy +/- [°]	0.5
Operating pressure min. [bar]	3
Operating pressure max. [bar]	7
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	16
Protection to IEC 60529	IP54
Weight [kg]	
FD [N]*	425
FZ [N]*	425

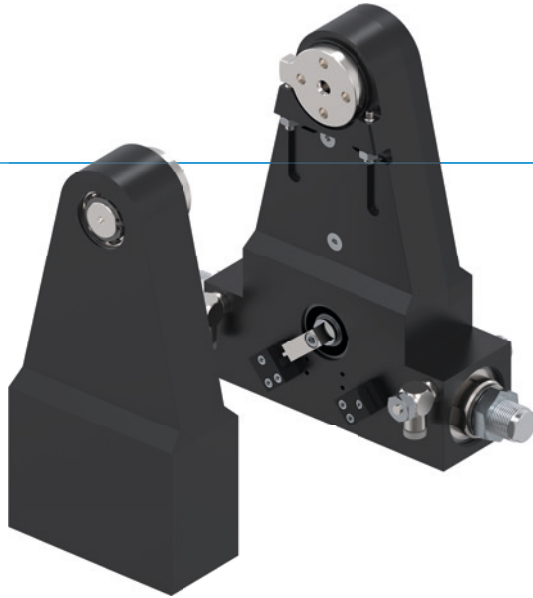
*Observe the gripper force



SWIVEL JAWS

SERIES SBZ

▶ PRODUCT ADVANTAGES



“The superior”

▶ Shock absorber with spiral groove technology

Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine's component output

▶ Force transmission via gear wheel set

The robust gear wheels stand for precision, reliability and long service life and guarantee smooth operation

▶ Failure-free continuous operation

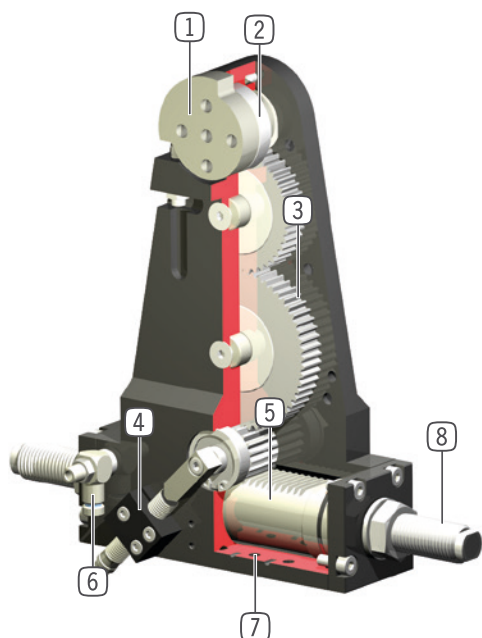
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version		
SBZXXX	-90	-180	G
10 million maintenance-free cycles (max.)	●	●	
IP54	●	●	
Inductive sensor	●	●	
Flange	●	●	●
Powerstop end position damping	●	●	
End positions adjustable +/- 3°	●	●	
Positionability - 2 positions	●	●	
Rotation angle 90°	●		●
Rotation angle 180°		●	●
Counter bearing without drive			●



► BENEFITS IN DETAIL



- ① **Two way bearing drive shaft**
 - high forces and moments capacity
- ② **Drive flange**
 - large size drive flange with end stop and large central hole (from SB150)
- ③ **Force transfer**
 - stable gear wheel set
 - precise, reliable, durable
- ④ **Position sensing**
 - inquiry of end positions 0° and 90° (or 180°) via inductive proximity switch
 - adjustable on rotatable switch cam
- ⑤ **Drive**
 - double-acting pneumatic cylinder
- ⑥ **Air flow control valve**
 - for speed regulation (included in the delivery)
- ⑦ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑧ **Integrated and patented hydraulic shock absorbers**
 - adjustable end position damping

► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
SB50	90 - 180	1,2	0,45 - 0,75	IP54
SB74	90 - 180	3,5	1,1 - 1,7	IP54
SB100	90 - 180	10	1,5 - 4	IP54
SB150	90 - 180	23	6,5 - 11	IP54
SB190	90 - 180	57	19,5 - 28	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE



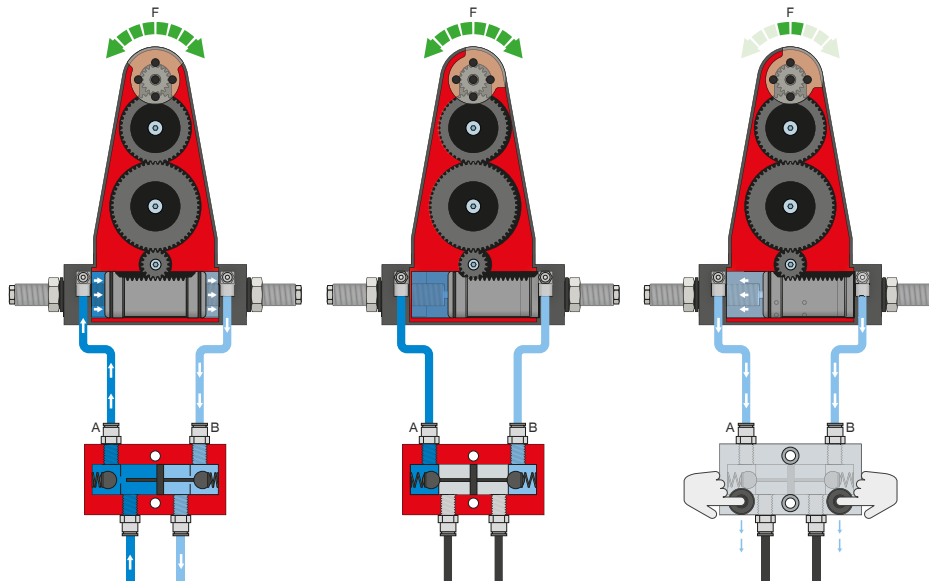
All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

SWIVEL JAWS

SERIES SBZ FUNCTIONAL DESCRIPTION



ENERGY SUPPLY



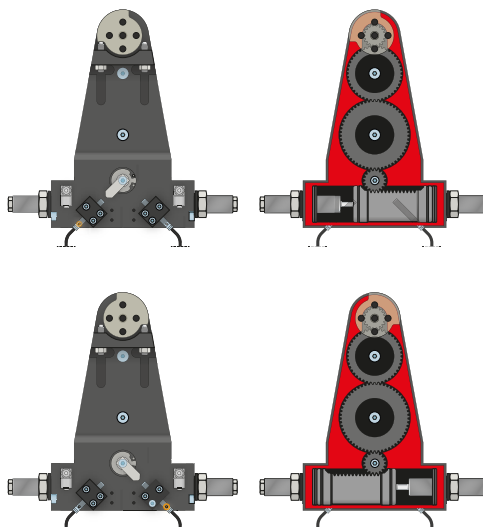
Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the swivel jaw in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the swivel jaw's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the swivel jaw.



SENSORS

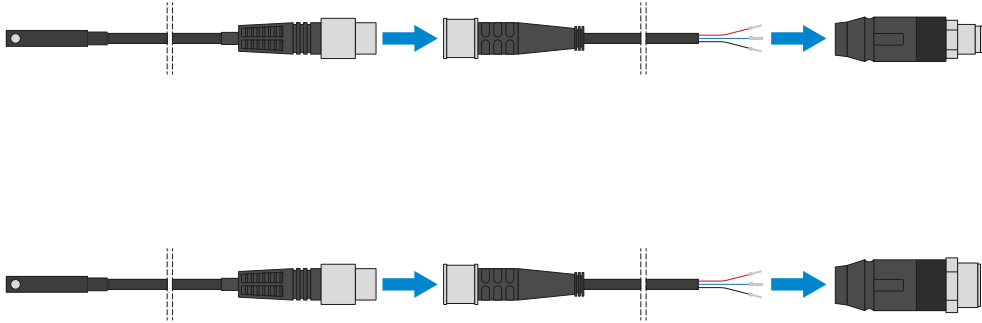


Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



CONNECTIONS / OTHER



Plug-in connectors

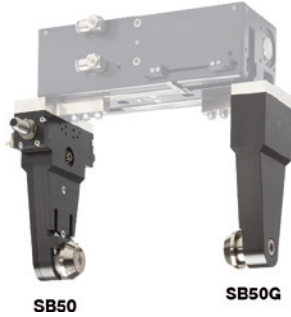
For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.

SWIVEL JAWS

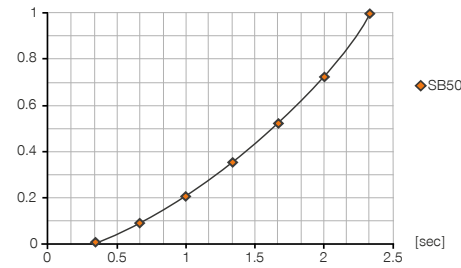
INSTALLATION SIZE SB50

▶ PRODUCT SPECIFICATIONS



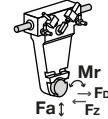
▶ Moment of inertia

[kg m²] Shows the expected swivel time against the calculated moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	1720
Mr [Nm]	15
FD [N]*	860
FZ [N]*	630

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K-02



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



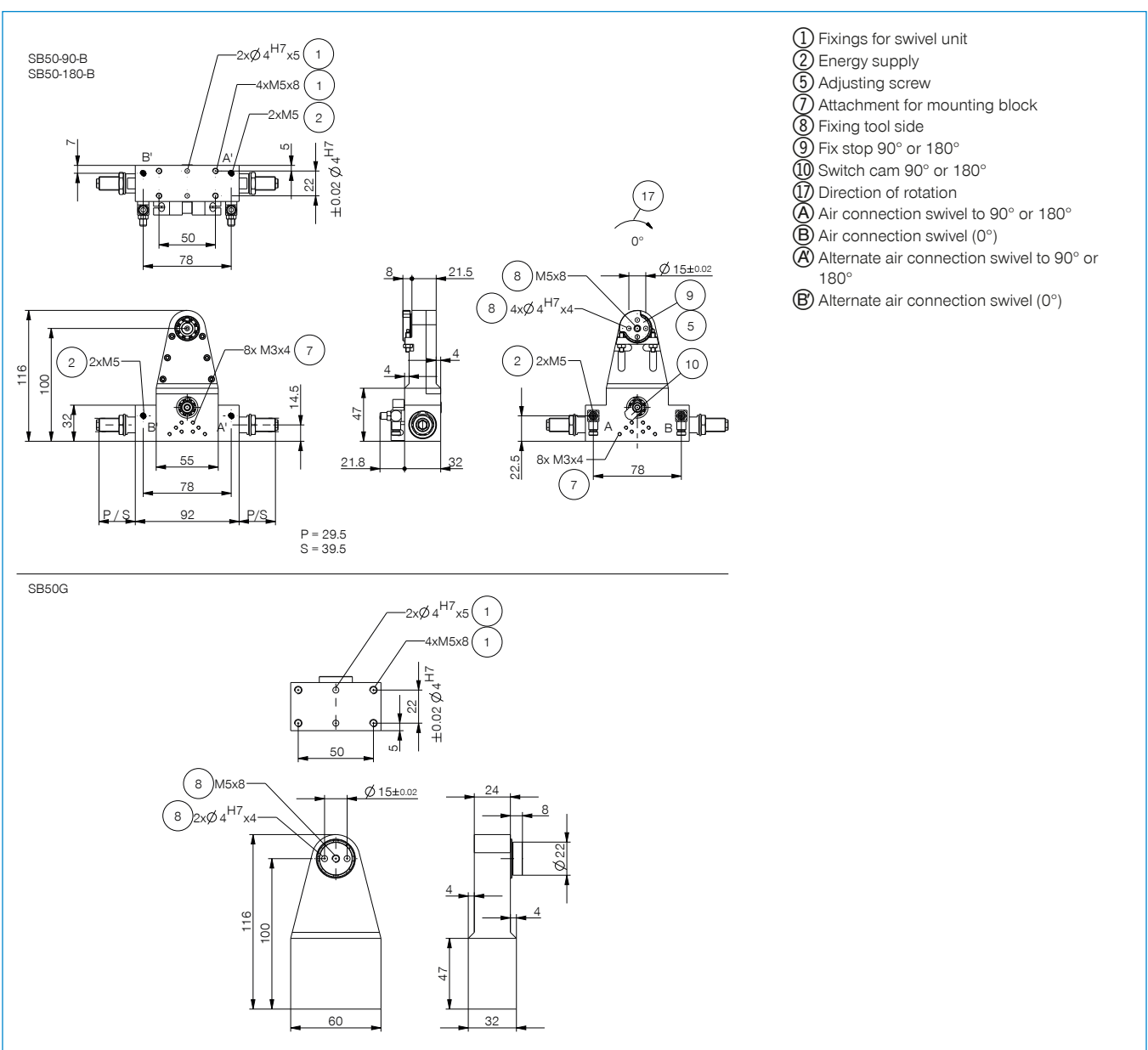
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	Technical data		
	SB50-90-B	SB50-180-B	SB50G
Swivel angle [°]	90	180	
Torque per jaw [Nm]	1.2	1.2	
Swivel angle regulable +/- [°]	3	3	
Repetition accuracy +/- [°]	0.01	0.01	
Operating pressure min. [bar]	3	3	
Operating pressure max. [bar]	8	8	
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	5.5	7.5	
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	0.75	0.75	0.45
FD [N]*	860	860	860
FZ [N]*	630	630	630

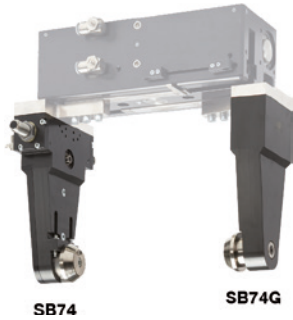
*Observe the gripper force



SWIVEL JAWS

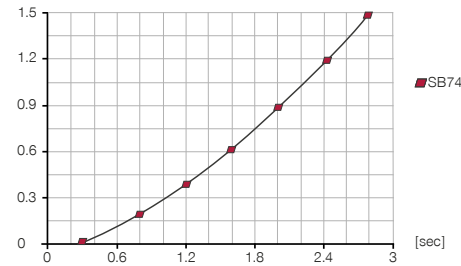
INSTALLATION SIZE SB74

▶ PRODUCT SPECIFICATIONS



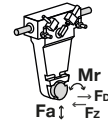
▶ Moment of inertia

[kg m²] Shows the expected swivel time against the calculated moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	2400
Mr [Nm]	20
FD [N]*	1200
FZ [N]*	630

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K-02



2 [piece]
Flow Control Valves - with Swivel joint
DRVM5X4

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



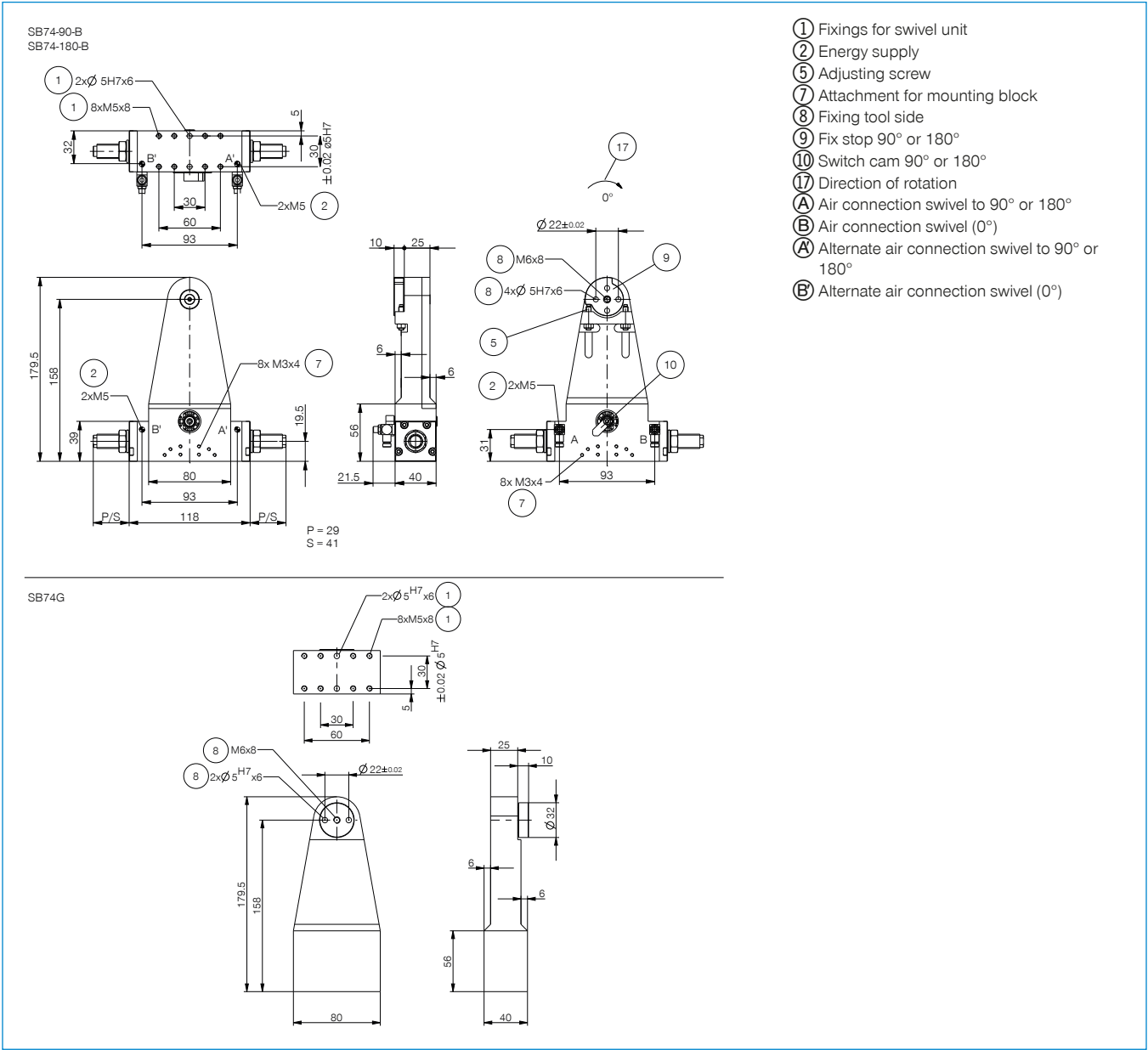
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	► Technical data		
	SB74-90-B	SB74-180-B	SB74G
Swivel angle [°]	90	180	
Torque per jaw [Nm]	3.5	3.5	
Swivel angle regulable +/- [°]	3	3	
Repetition accuracy +/- [°]	0.01	0.01	
Operating pressure min. [bar]	3	3	
Operating pressure max. [bar]	8	8	
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	16	21	
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	1.9	1.9	1.1
FD [N]*	1200	1200	1200
FZ [N]*	630	630	630

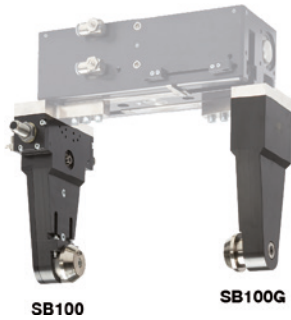
*Observe the gripper force



SWIVEL JAWS

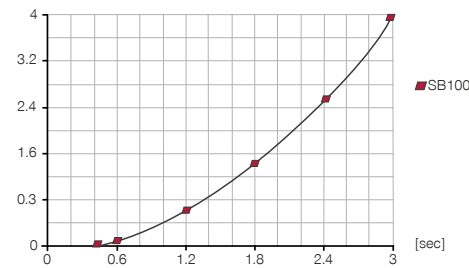
INSTALLATION SIZE SB100

▶ PRODUCT SPECIFICATIONS



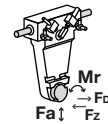
▶ Moment of inertia

[kg m²] Shows the expected swivel time against the calculated moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	4000
Mr [Nm]	70
FD [N]*	2000
FZ [N]*	1200

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K-02



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-8X6

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



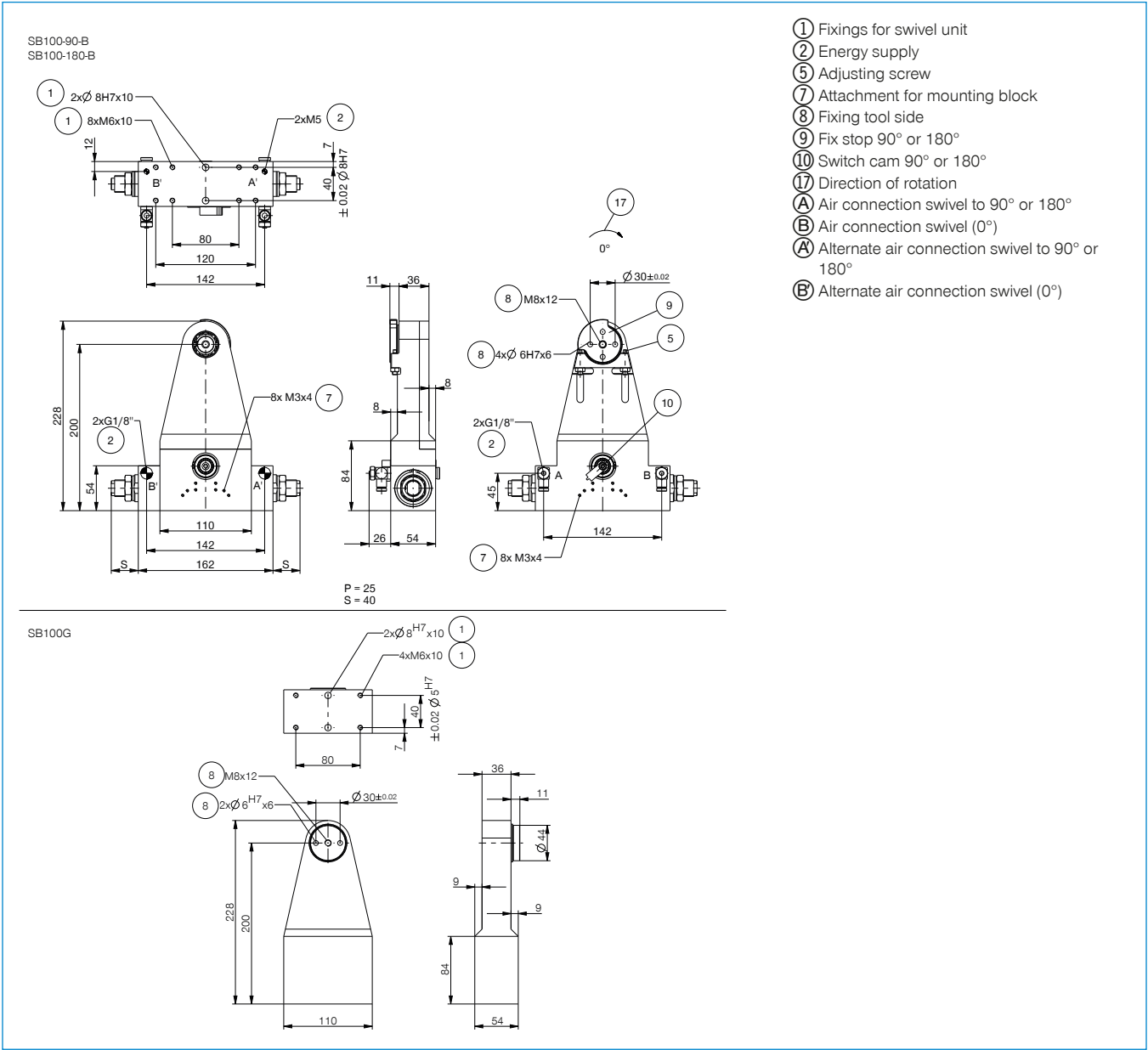
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	► Technical data		
	SB100-90-B	SB100-180-B	SB100G
Swivel angle [°]	90	180	
Torque per jaw [Nm]	10	10	
Swivel angle regulable +/- [°]	3	3	
Repetition accuracy +/- [°]	0.01	0.01	
Operating pressure min. [bar]	3	3	
Operating pressure max. [bar]	8	8	
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	40	54	
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	4	4	1.5
FD [N]*	2000	2000	2000
FZ [N]*	1200	1200	1200

*Observe the gripper force



SWIVEL JAWS

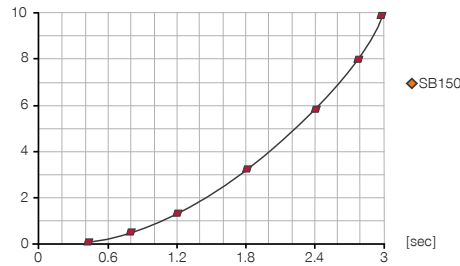
INSTALLATION SIZE SB150

▶ PRODUCT SPECIFICATIONS



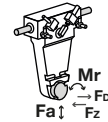
▶ Moment of inertia

[kg m²] Shows the expected swivel time against the calculated moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	15000
Mr [Nm]	270
FD [N]*	7500
FZ [N]*	3700

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



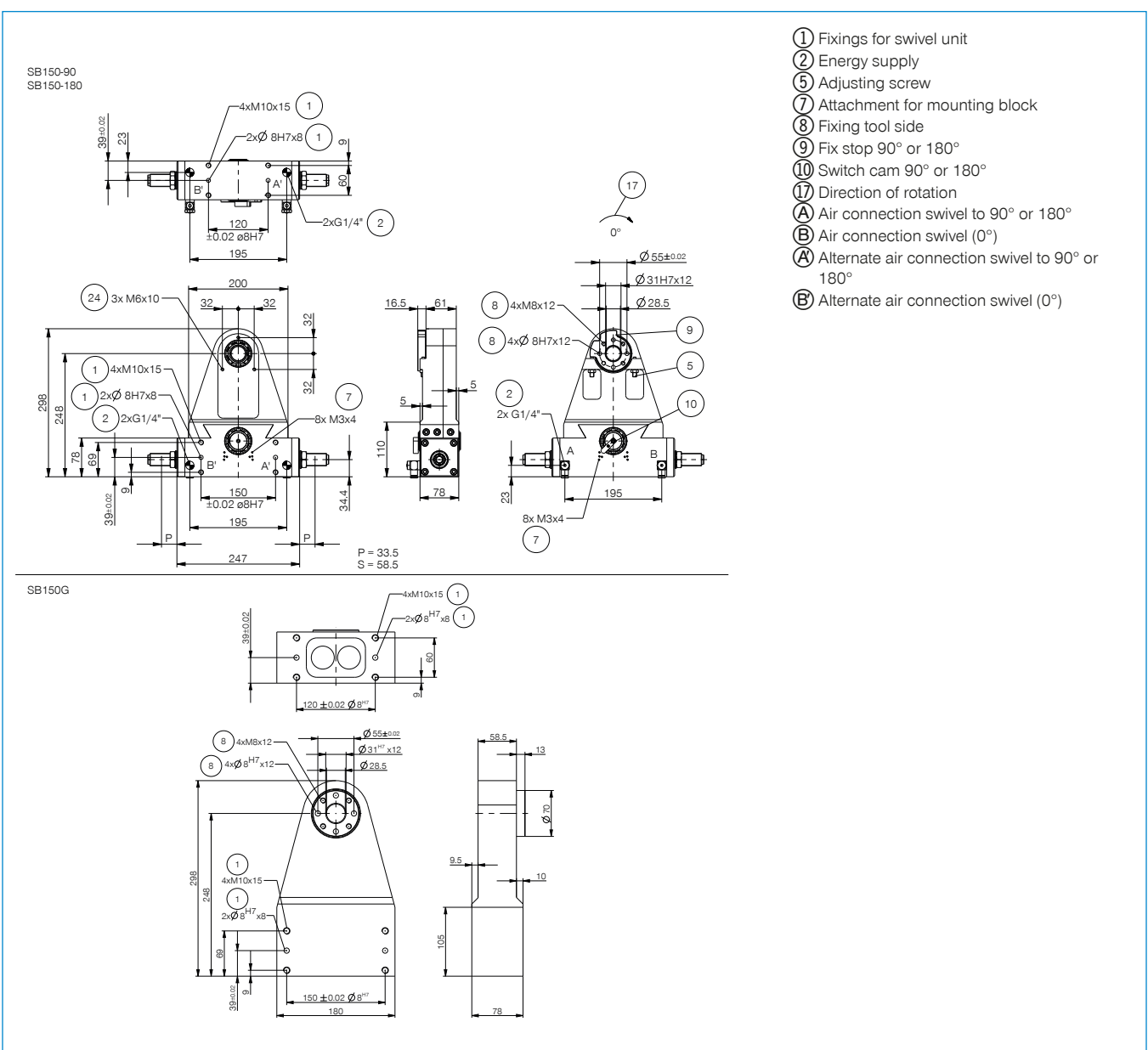
S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	► Technical data		
	SB150-90	SB150-180	SB150G
Swivel angle [°]	90	180	
Torque per jaw [Nm]	23	23	
Swivel angle regulable +/- [°]	3	3	
Repetition accuracy +/- [°]	0.01	0.01	0.01
Operating pressure min. [bar]	3	3	
Operating pressure max. [bar]	8	8	
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	190	260	
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	11	11	6.5
FD [N]*	7500	7500	7500
FZ [N]*	3700	3700	3700

*Observe the gripper force



SWIVEL JAWS

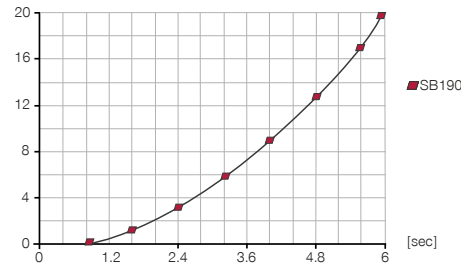
INSTALLATION SIZE SB190

▶ PRODUCT SPECIFICATIONS



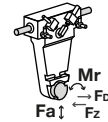
▶ Moment of inertia

[kg m²] Shows the expected swivel time against the calculated moment of inertia



▶ Forces and moments

Indicates the static load on the bearing.



Fa [N]	25000
Mr [Nm]	600
FD [N]*	12500
FZ [N]*	6100

▶ INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB12-03



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

▶ RECOMMENDED ACCESSORIES



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



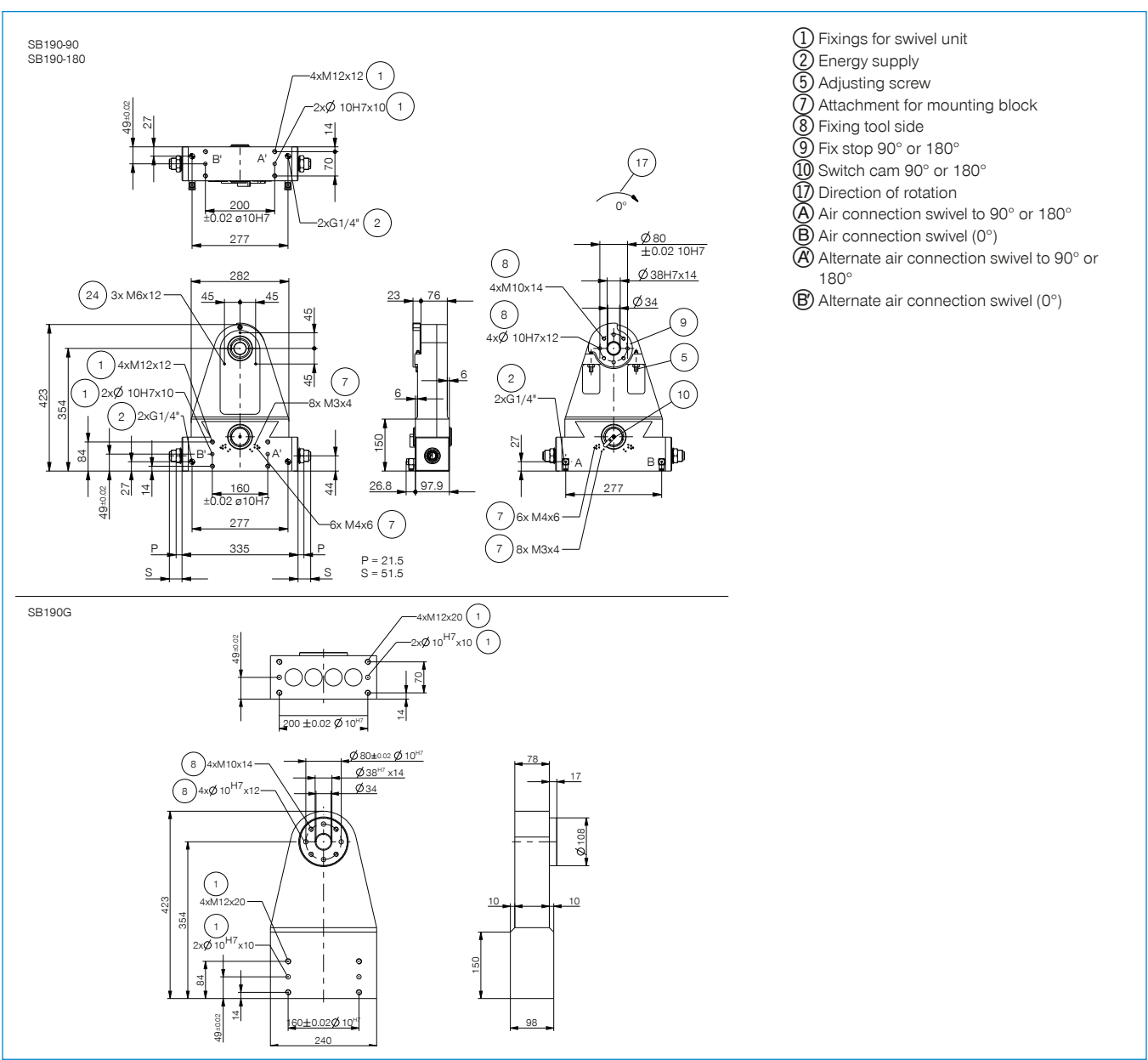
S8-G-3
Plug-in connector customizable Straight - Connector M8

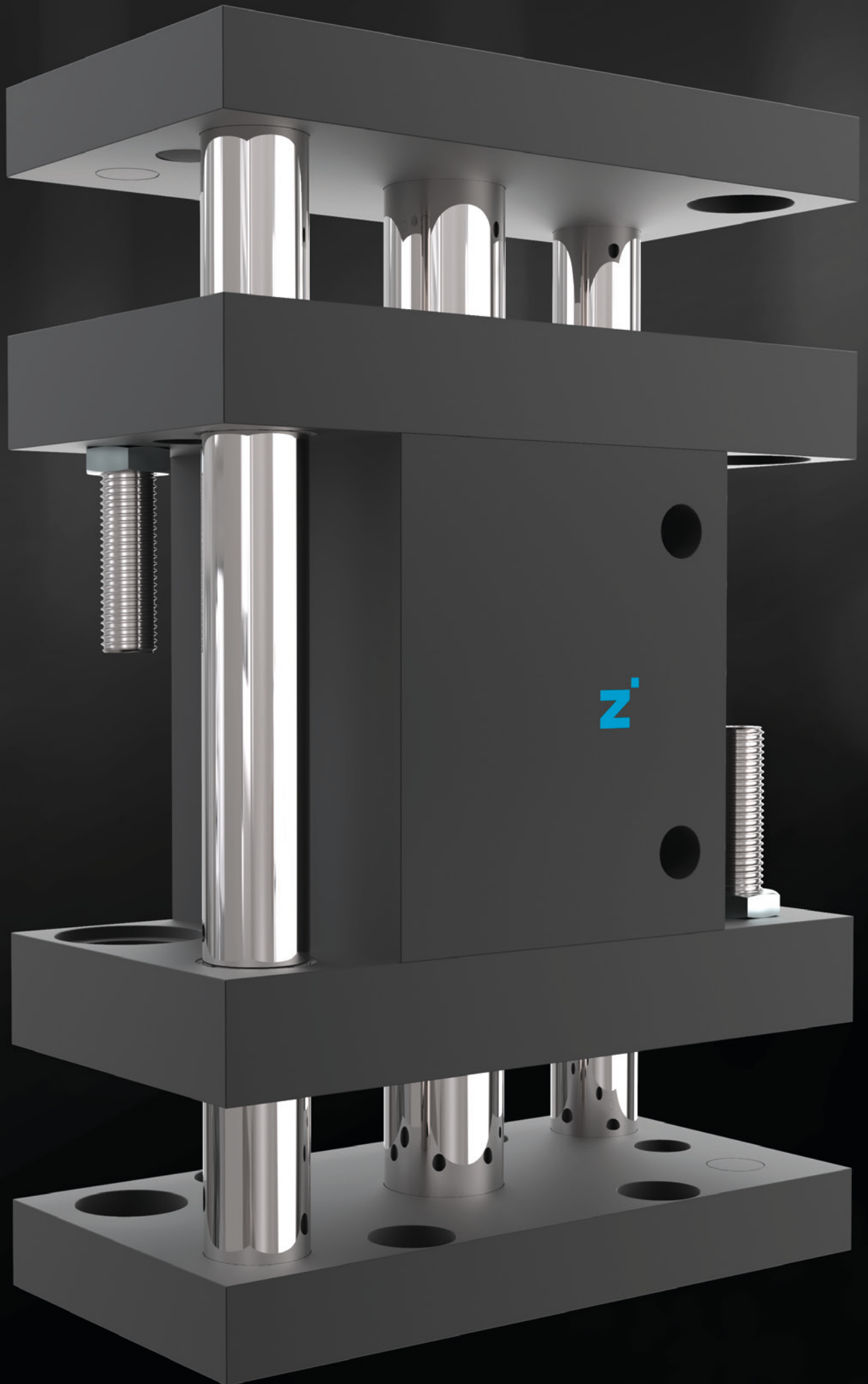


S12-G-3
Plug-in connector customizable Straight - Connector M12

Order no.	Technical data		
	SB190-90	SB190-180	SB190G
Swivel angle [°]	90	180	
Torque per jaw [Nm]	57	57	
Swivel angle regulable +/- [°]	3	3	
Repetition accuracy +/- [°]	0.01	0.01	
Operating pressure min. [bar]	3	3	
Operating pressure max. [bar]	8	8	
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	320	320	
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	28	28	19.5
FD [N]*	12500	12500	12500
FZ [N]*	6100	6100	6100

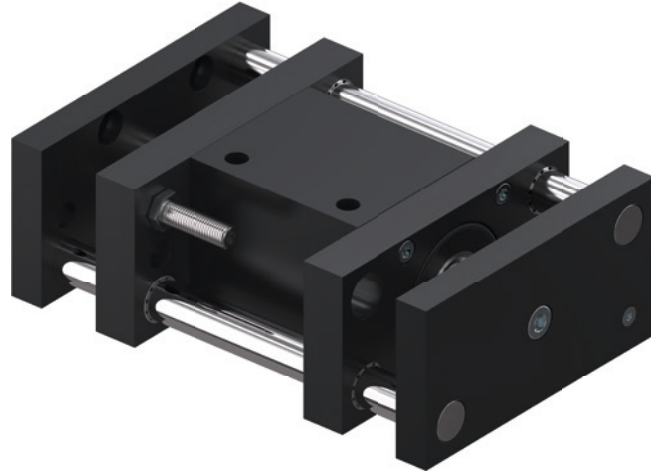
*Observe the gripper force





LINEAR CYLINDERS

OVERVIEW OF SERIES



PNEUMATIC



Series SHX

420



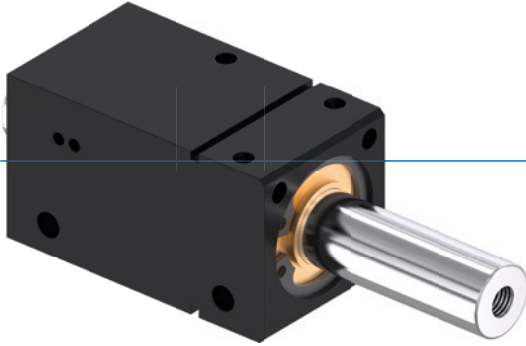
Series LI

422

LINEAR CYLINDERS

SERIES SHX

▶ PRODUCT ADVANTAGES



▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you





▶ Constant drive force

Equal force and travel time when retracting and extending increases your machine's process reliability

▶ Failure-free continuous operation

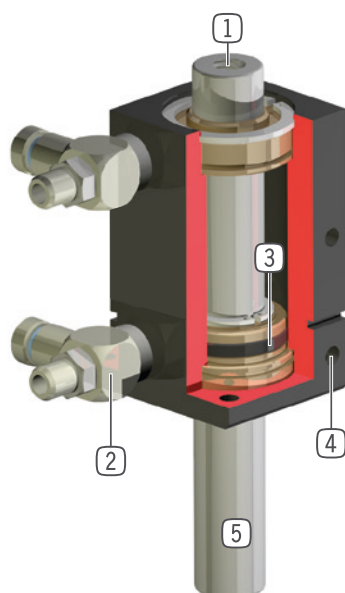
Our uncompromising "Made in Germany" quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
SH-X	-	D
 Continuous piston rod		●
 10 million maintenance-free cycles (max.)	●	●
 Inductive sensor	●	●
 IP54	●	●



► BENEFITS IN DETAIL



- ① **Connection to customer specific application**
 - possible from several sides on XD series
- ② **Energy supply**
 - reducing exhaust air is recommended
- ③ **Drive**
 - double-acting pneumatic cylinder
- ④ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑤ **Piston rod**
 - polished, hard chrome plated steel
 - continuous in design XD

► TECHNICAL DATA

Installation size	Stroke [mm]	Retraction force [N]	Weight [kg]	IP class
SH-X	7 - 50	100	0,09 - 0,18	IP54
SH-XD	25 - 50	100	0,19 - 0,27	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE

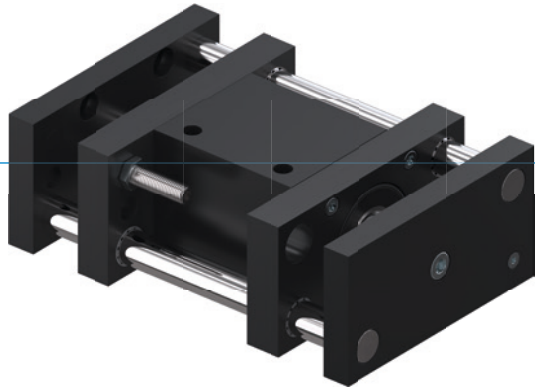


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

LINEAR CYLINDERS

SERIES LI

▶ PRODUCT ADVANTAGES



▶ Large locating flange

The large mounting surface simplifies your design and allows secure attachment of follow-on tools









▶ Dampened end position

By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

▶ Failure-free continuous operation

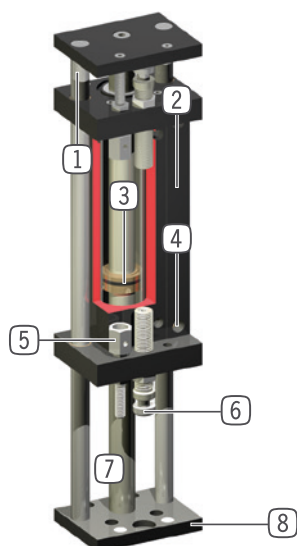
Our uncompromising "Made in Germany" quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version		
LIXX		D	S
 2 way guiding			•
 3 way guiding		•	
 Continuous piston rod		•	
 10 million maintenance-free cycles (max.)	•	•	•
 Inductive sensor	•	•	•
 Elastomer end position damping	•	•	•
 Powerstop end position damping	•	•	•
 IP 54	•	•	•



► BENEFITS IN DETAIL



- ① **Guide rod**
 - hardened, polished steel shaft
- ② **Mounting block**
 - mounting for inductive proximity switch
- ③ **Drive**
 - double-acting pneumatic cylinder
- ④ **Energy supply**
 - reducing exhaust air is recommended
- ⑤ **End stop confirmation screw**
 - direct flange position sensing
 - included in scope of delivery
- ⑥ **End position damping**
 - with elastomer absorber or patented hydraulic shock absorber
- ⑦ **Piston rod**
 - polished, hard chrome plated steel
 - continuous in design D
- ⑧ **Intake flange**
 - for connection to application-specific adapter plate (to be supplied by the customer)

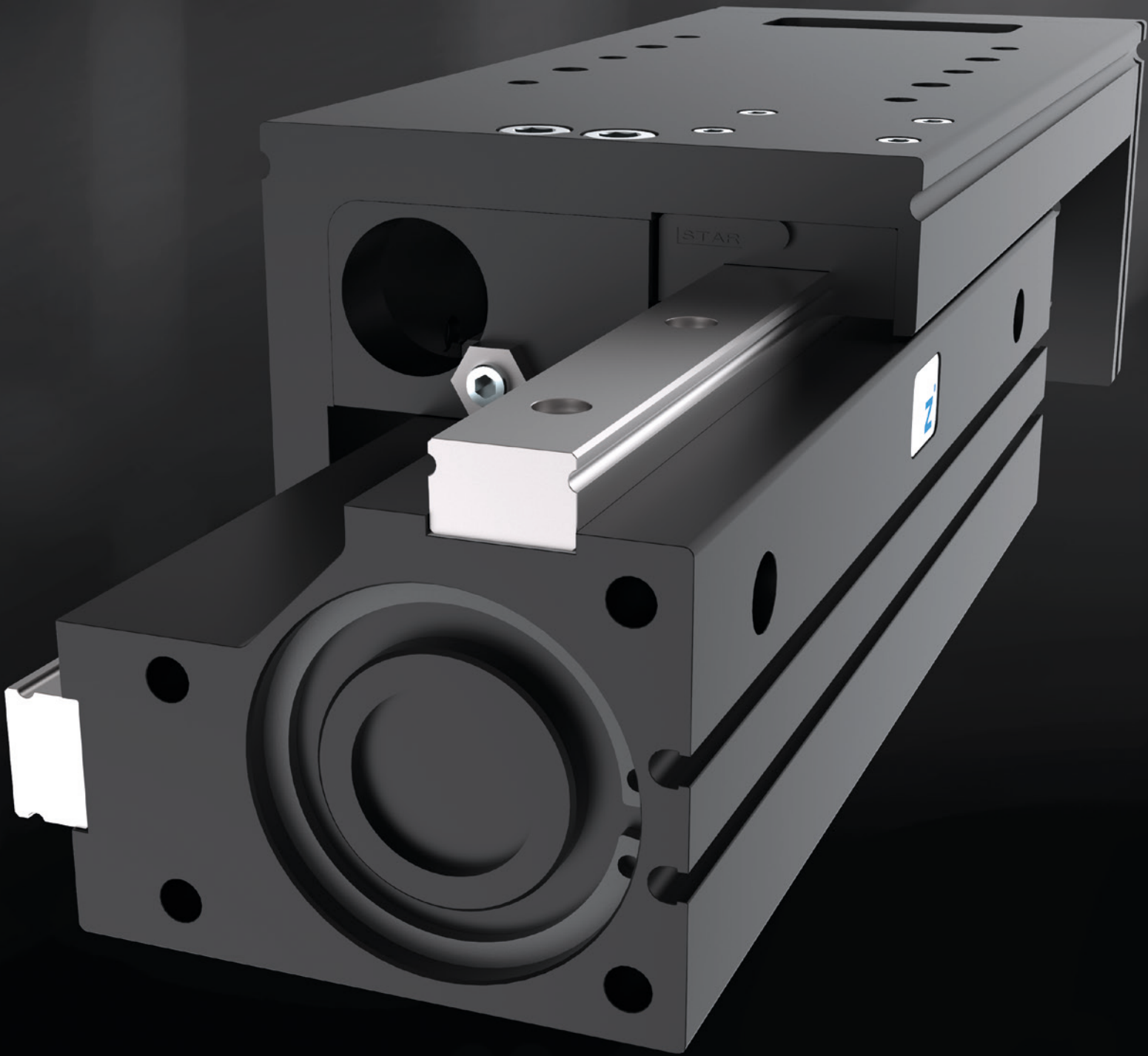
► TECHNICAL DATA

Installation size	Stroke [mm]	Pressure force max. [N]	Retraction force [N]	Weight [kg]	IP class
L116	20 - 50	80 - 100	80	0,05 - 0,1	IP54
L130	15 - 90	200 - 270	200	0,05 - 0,1	IP54
L140	40 - 300	270 - 450	270	0,05 - 0,3	IP54
L150	50 - 300	950	950	0,03 - 0,2	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE

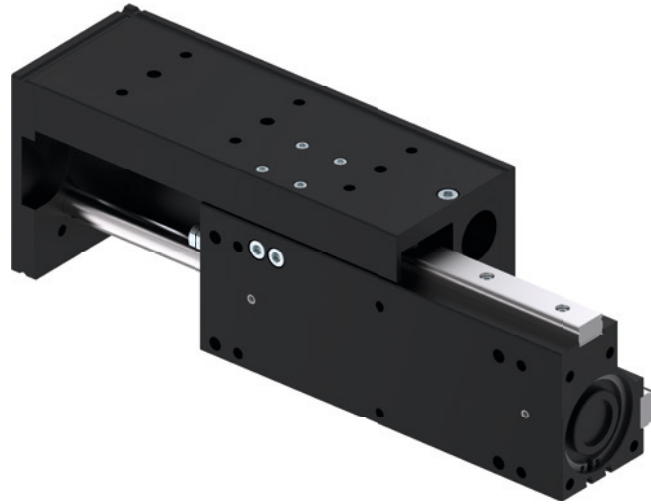


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LINEAR RAIL SLIDES

OVERVIEW OF SERIES



PNEUMATIC



Series LS

426



Series LSF

428



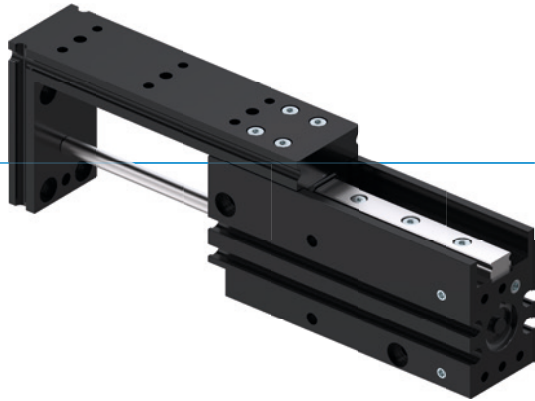
Series LSX

430

LINEAR RAIL SLIDES

SERIES LS

▶ PRODUCT ADVANTAGES



▶ **Precise profile guide**

The linear guide with ball bearing circulation and scrapers provides high precision and rigidity

▶ **Standardised adapter plate**

Reduce your manufacturing effort and ensure standardisation for your follow-on tools

▶ **Modular layout**

Makes it possible to combine several units directly to each other and to minimise your design effort

▶ SERIES CHARACTERISTICS

Installation size

LSXX-XX



10 million maintenance-free cycles (max.)



Magnetic field sensor

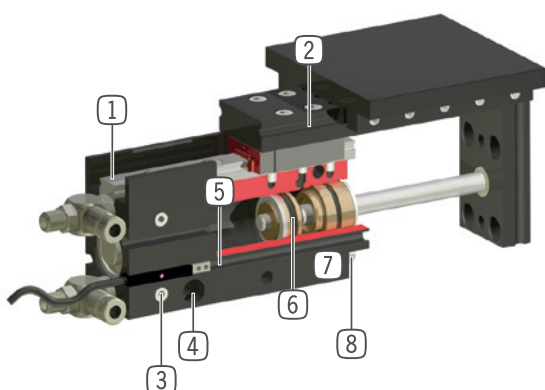


IP40





► BENEFITS IN DETAIL



- ① **Linear guide with recirculating ball and wiper**
 - dual linear guidance for high forces and moments capacity
- ② **Mounting groove**
 - quick and cost-effective positioning of adapter plates: Accessory, Art. No. AP...G
- ③ **Energy supply**
 - possible from several sides
- ④ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑤ **Mounting groove for magnetic field sensor integrated, space saving position sensing**
- ⑥ **Drive**
 - double-acting pneumatic cylinder
- ⑦ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑧ **Stroke limiting screw**

► TECHNICAL DATA

Installation size	Stroke [mm]	Pressure force max. [N]	Retraction force [N]	Weight [kg]	IP class
LS10	25 - 50	40	30	0,15 - 0,2	IP40
LS16	25 - 50	100	85	0,25 - 0,3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

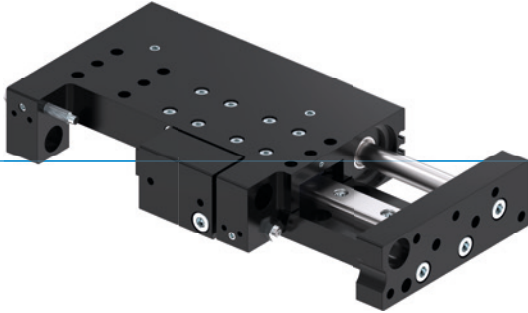


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LINEAR RAIL SLIDES

SERIES LSF

▶ PRODUCT ADVANTAGES



▶ **Precise profile guide**

The linear guide with ball bearing circulation and scrapers provides high precision and rigidity

▶ **Dampened end position**

By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application



▶ **Flat structure**

Reduces the interference contours for your application

▶ SERIES CHARACTERISTICS

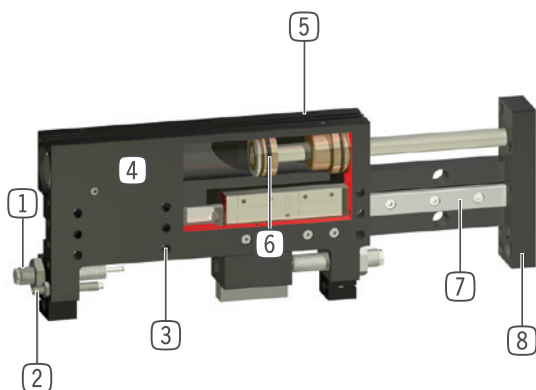
Installation size

LSFXX-XX

 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 Magnetic field sensor	●
 Powerstop end position damping	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Patented, hydraulic shock absorber**
 - adjustable end position damping
 - included in scope of delivery
- ② **Stroke limiting screw**
- ③ **Mounting and positioning**
 - possible from several sides
- ④ **Robust, lightweight and extremely flat structure housing**
 - Hard-coated aluminum alloy
- ⑤ **Mounting groove for magnetic field sensor**
 - integrated, space saving position sensing
- ⑥ **Drive**
 - double-acting pneumatic cylinder
- ⑦ **Linear guide with recirculating ball and wiper**
 - dual linear guidance for high forces and moments capacity
- ⑧ **Intake flange**
 - simple application connection

► TECHNICAL DATA

Installation size	Stroke [mm]	Pressure force max. [N]	Retraction force [N]	Weight [kg]	IP class
LSF25	50 - 100	265	220	1 - 1,3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

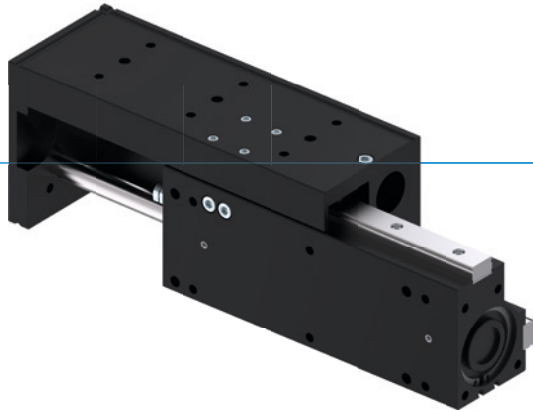


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LINEAR RAIL SLIDES

SERIES LSX

▶ PRODUCT ADVANTAGES



▶ **Precise double rail profile guide**

The linear guide with ball bearing circulation and scrapers provides high precision and rigidity

▶ **Dampened end position**

By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

▶ **Failure-free continuous operation**

Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

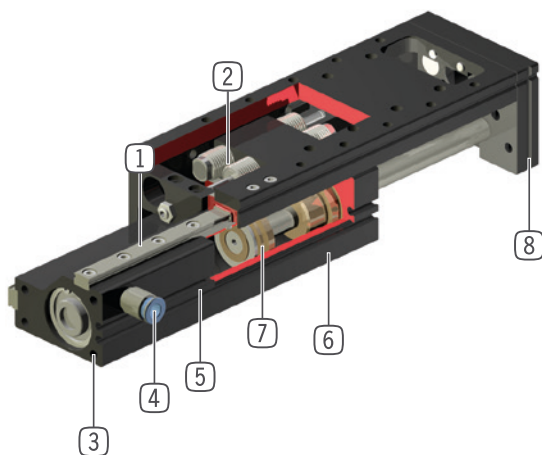
Installation size

LSXYY-YY

 10 million maintenance-free cycles (max.)	●
 Magnetic field sensor	●
 Powerstop end position damping	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Linear guide with recirculating ball and wiper**
 - two way linear guide for forces and moments capacity
- ② **Patented, hydraulic shock absorber**
 - adjustable end position damping
 - included in scope of delivery
- ③ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ④ **Energy supply**
 - possible from several sides
- ⑤ **Mounting groove for magnetic field sensor**
 - integrated, space saving position sensing
- ⑥ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑦ **Drive**
 - double-acting pneumatic cylinder
- ⑧ **Intake flange**
 - quick and cost-effective positioning of adapter plates: Accessory, Art. No. AP...G and AP...V

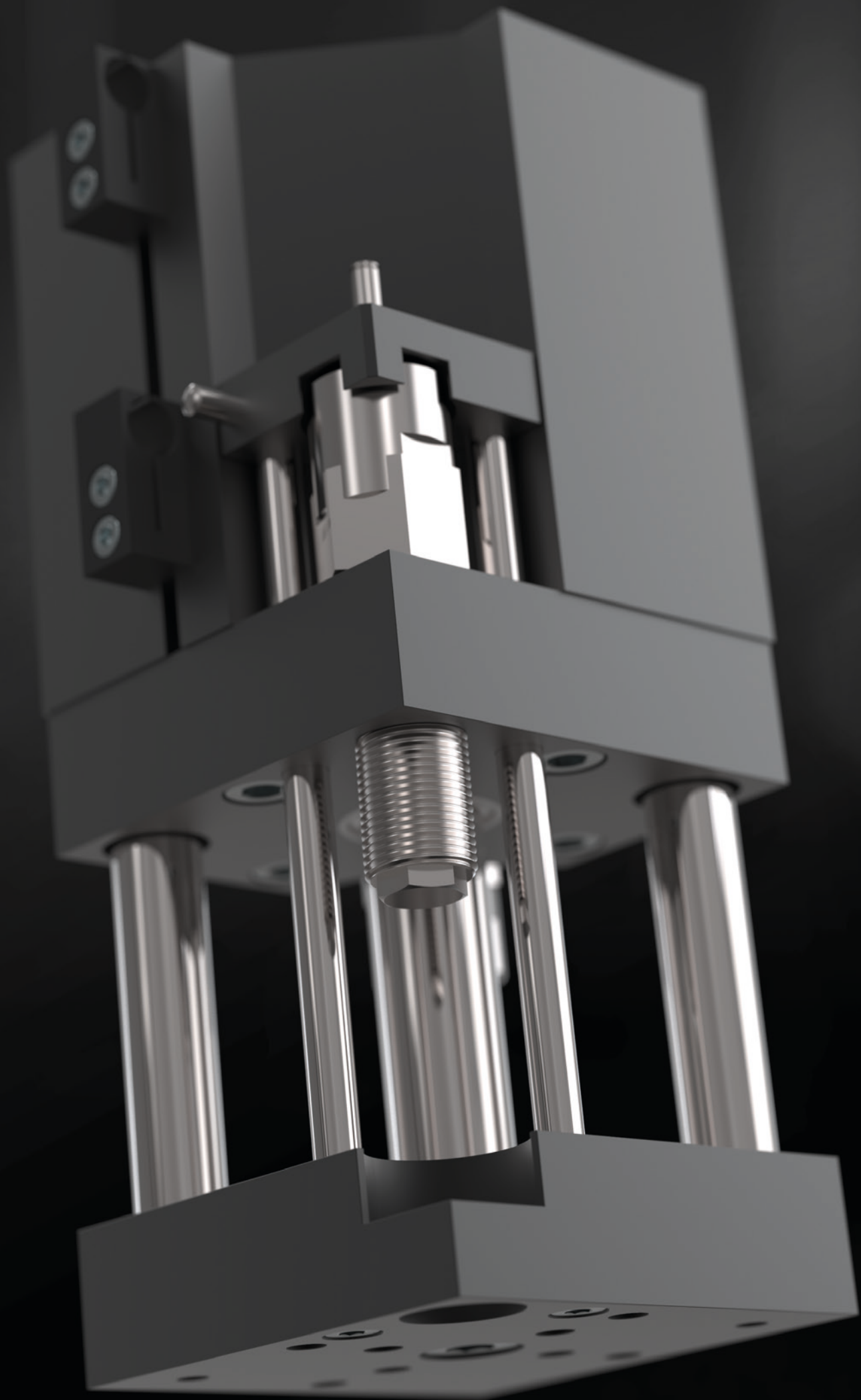
► TECHNICAL DATA

Installation size	Stroke [mm]	Pressure force max. [N]	Retraction force [N]	Weight [kg]	IP class
LSX25	50 - 200	265	220	1 - 1,9	IP40
LSX40	100 - 200	750	680	3,2 - 4,4	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



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LIFTING CYLINDERS

OVERVIEW OF SERIES



PNEUMATIC



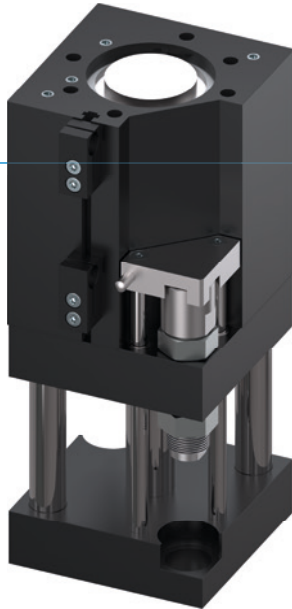
Series HZ

434

LIFTING CYLINDERS

SERIES HZ

▶ PRODUCT ADVANTAGES



▶ Hoseless air passage

Eliminates undefined interference contours and wear-prone hoses and increases the safety of your application in the process

▶ Dampened end position

By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

▶ Very robust

Two ground and hard chrome-plated guide rods guarantee a secure process sequence with their rigidity and long service life

▶ SERIES CHARACTERISTICS

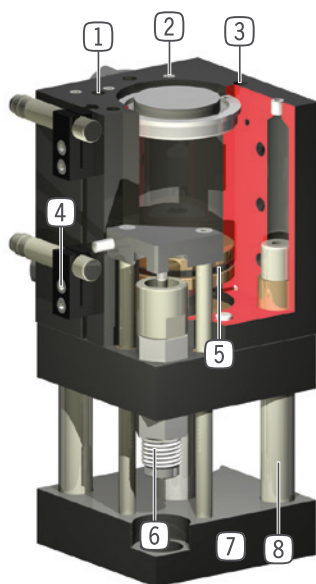
Installation size

HZXX-XXXD2

 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 Powerstop end position damping	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Integrated air feed-through**
 - for hoseless air transfer
- ② **Energy supply**
 - possible from several sides
- ③ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ④ **Mounting block**
 - mounting for inductive proximity switch
- ⑤ **Drive**
 - double-acting pneumatic cylinder
- ⑥ **Patented, hydraulic shock absorber**
 - adjustable end position damping
- ⑦ **Intake flange**
 - for fixing to the customer specific application
- ⑧ **Two guide rods**
 - high forces and moments capacity

► TECHNICAL DATA

Installation size	Stroke [mm]	Pressure force max. [N]	Retraction force [N]	Weight [kg]	IP class
HZ40	50 - 100	720	600	0,1 - 0,15	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



CUTTING TONGS

OVERVIEW OF SERIES



PNEUMATIC



Series ZK1000

438



Series ZK

440

CUTTING TONGS

SERIES ZK1000

▶ PRODUCT ADVANTAGES



▶ Extremely lightweight

This light weight generally allows the use of a smaller moving axis, reducing the overall costs of the application in the process

▶ Integrated magnetic field sensing

One of the few cutting tongs on the market that can have its position queried and transferred to the control system with process reliability

▶ Decide for yourself!

Sprue or steel wire: The variety of cutting geometries and materials ensure you always find the correct cuttings

▶ SERIES CHARACTERISTICS

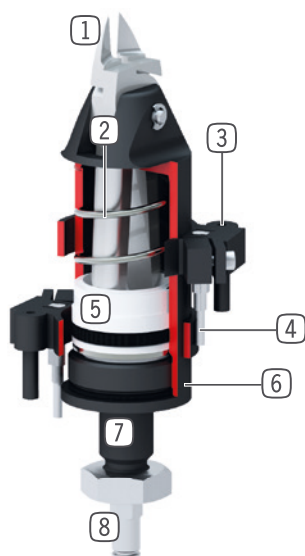
Installation size

ZK10XX

 5 million maintenance-free cycles (max.)	●
 Spring opening O	●
 Magnetic field sensor	●
 IP30	●



► BENEFITS IN DETAIL



- ① **Cutting insert**
 - flexible applicable due to specific cutting geometry
- ② **Return spring**
 - to open the cuttings
- ③ **Mounting clamp**
 - mounting and positioning of magnetic field sensors
- ④ **Magnetic field sensor**
 - for position sensing
- ⑤ **Drive**
 - single-acting pneumatic cylinder
- ⑥ **Housing**
 - Hard-coated aluminum alloy
- ⑦ **Mounting and positioning**
 - via fit, thread and lock nut
- ⑧ **Energy supply**

► TECHNICAL DATA

Installation size	Stroke [°]	Gripping moment [Nm]	Weight [kg]	IP class
ZK1030	2.1	14	0.08	IP30
ZK1036	2.5	40	0.13	IP30
ZK1045	4.25	98	0.24	IP30
ZK1065	6.5	400	0.67	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



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CUTTING TONGS

SERIES ZK

▶ PRODUCT ADVANTAGES



▶ Flat structure

Reduces the interference contours and enables simple integration into your machine design

▶ Decide for yourself!

The gripper jaw holder provides the option to adapt standard cutting, gripper jaws or your own design

▶ Failure-free continuous operation

Our uncompromising “Made in Germany” quality guarantees up to 5 million maintenance-free gripping cycles

▶ SERIES CHARACTERISTICS

Installation size

ZKXX



5 million maintenance-free cycles (max.)



Inductive sensor

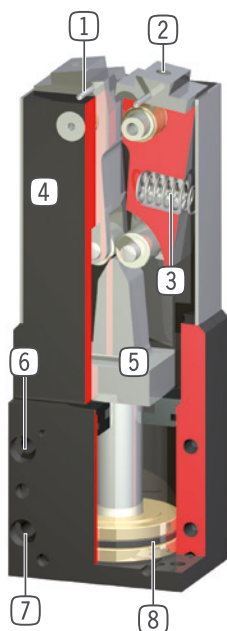


IP40





► BENEFITS IN DETAIL



- ① **Switch cam**
 - for position sensing
- ② **Mounting**
 - for individual jaws, knives, chucks and similar
- ③ **Integrated spring**
 - supports jaw return (ZK33)
- ④ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑤ **Force transfer**
 - via wedge and rollers
- ⑥ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑦ **Energy supply**
 - possible from several sides
- ⑧ **Drive**
 - double-acting pneumatic cylinder

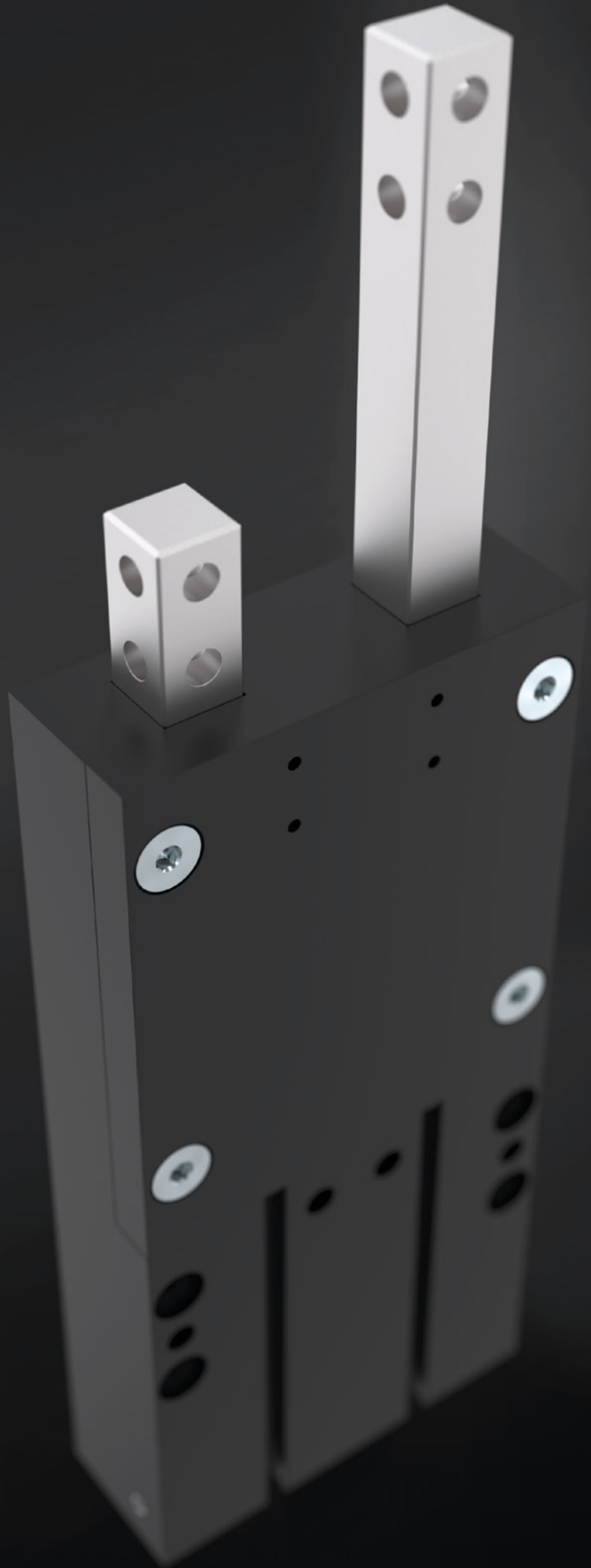
► TECHNICAL DATA

	Stroke	Gripping moment	Weight	IP class
Installation size	[°]	[Nm]	[kg]	
ZK22	7.5	54	0.79	IP40
ZK33	9	110	1.3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

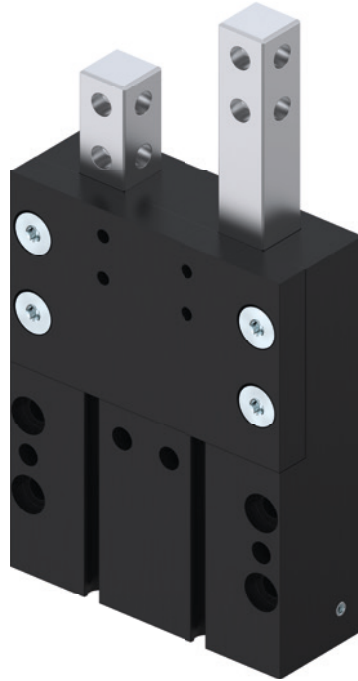


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SEPARATORS

OVERVIEW OF SERIES



PNEUMATIC



Series VEG

444



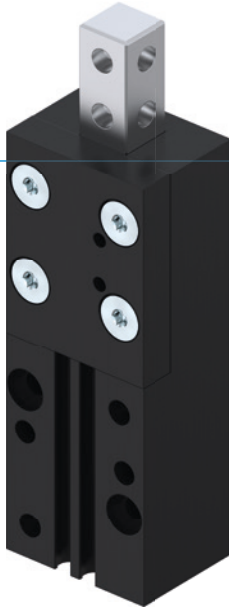
Series VE

446

SEPARATORS

SERIES VEG

▶ PRODUCT ADVANTAGES



▶ **Hardened stainless steel guide**

This guide is robust, reliable and durable: Exactly what you need for your application!

▶ **Decide for yourself!**

Sensing via magnetic field sensors or inductive proximity switches: Unlike the benchmark, you are free to choose!

▶ **Failure-free continuous operation**

Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

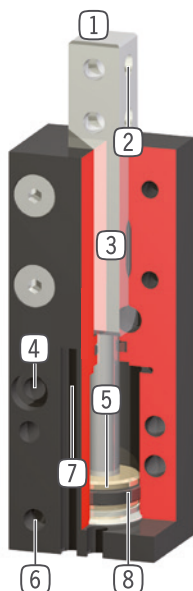
Installation size

VEGXX

 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 Magnetic field sensor	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Tapped rod**
 - hardened steel
- ② **Mounting**
 - individual separator finger mounting
- ③ **Square guide**
 - rugged, high forces and moments capacity
- ④ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑤ **Drive**
 - double-acting pneumatic cylinder
- ⑥ **Energy supply**
- ⑦ **Sensing**
 - groove for positioning of the magnetic field sensor
- ⑧ **Permanent magnet**
 - installed in piston area

► TECHNICAL DATA

Installation size	Stroke [mm]	Force in retract [N]	Force in extend [N]	Weight [kg]	IP class
VEG10	10	30	40	0.075	IP40
VEG14	20	65	80	0.142	IP40
VEG15	40	65	80	0.2	IP40
VEG22	30	170	220	0.5	IP40
VEG23	60	170	220	0.75	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE

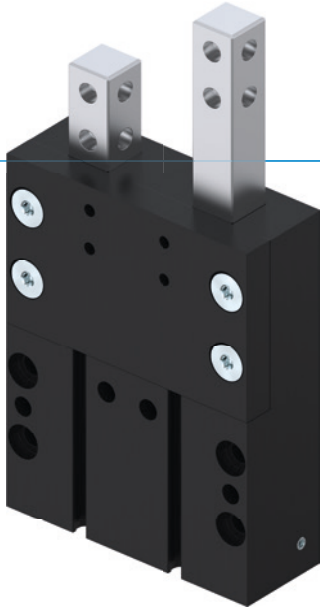


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

SEPARATORS

SERIES VE

▶ PRODUCT ADVANTAGES



▶ Mechanical forced control

Guarantees process reliability for your application since only one workpiece can be separated and guided through at a time

▶ Decide for yourself!

Sensing via magnetic field sensors or inductive proximity switches: Unlike the benchmark, you are free to choose!

▶ Failure-free continuous operation

Our uncompromising "Made in Germany" quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

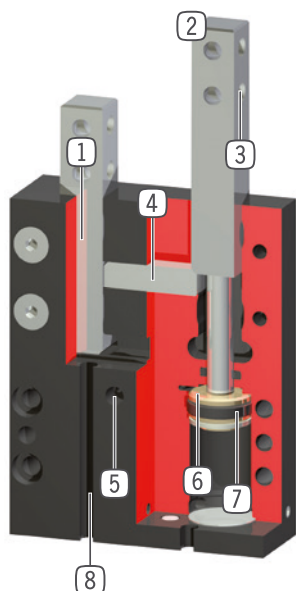
Installation size

VEXX

 10 million maintenance-free cycles (max.)	●
 Inductive sensor	●
 Magnetic field sensor	●
 IP40	●



► BENEFITS IN DETAIL



- ① **Square guide**
 - rugged, high forces and moments capacity
- ② **Tapped rod**
 - hardened steel
- ③ **Mounting**
 - individual separator finger mounting
- ④ **Locking**
 - integrated, mechanical locking
- ⑤ **Energy supply**
 - possible from several sides
- ⑥ **Drive**
 - two double-acting pneumatic cylinders
- ⑦ **Permanent magnet**
 - installed in piston area
- ⑧ **Sensing**
 - groove for positioning of the magnetic field sensor

► TECHNICAL DATA

Installation size	Stroke [mm]	Force in retract [N]	Force in extend [N]	Weight [kg]	IP class
VE10	10	30	40	0.12	IP40
VE14	20	65	80	0.3	IP40
VE15	40	65	80	0.48	IP40
VE22	30	170	220	0.915	IP40
VE23	60	170	220	1.5	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

BALL JOINTS

SERIES KG

▶ PRODUCT ADVANTAGES



▶ Lockable displacement position

Be flexible in your application, customise the handling to your workpiece and lock the displacement position with process reliability

▶ Large locating flange

The large mounting surface simplifies your design and allows secure attachment of add-on components

▶ Steel design

The highest force and torque measurement enables flexible for maximum dynamics

▶ THE BEST PRODUCT FOR YOUR APPLICATION



▶ Our products welcome the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you endless possibilities.

Find the best product for your specific use:

www.zimmer-group.com

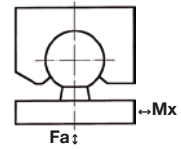


▶ PRODUCT SPECIFICATIONS



▶ Forces and moments

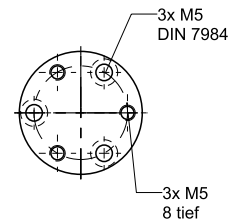
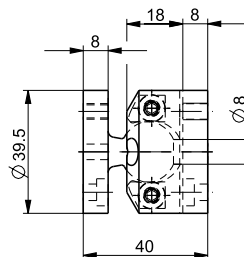
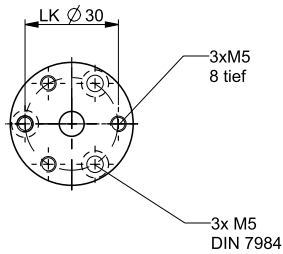
Shows static forces and torques which may impact on the ball joint



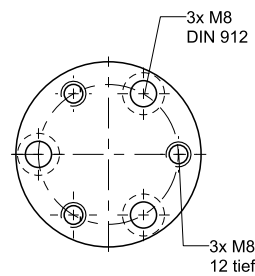
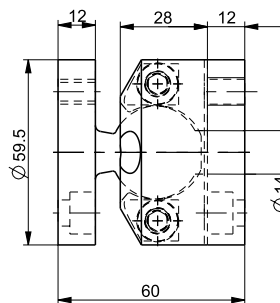
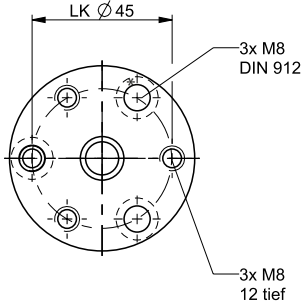
▶ Technical data

Order no.	KG40	KG40ST	KG60	KG60ST	KG80	KG80ST
Swivel angle [°]	30	30	30	30	30	30
Mx [Nm]	18	18	55	55	124	124
Fa [N]	7500	18000	15000	45000	28000	70000
Weight [kg]	0.1	0.3	0.3	0.9	0.8	2.3

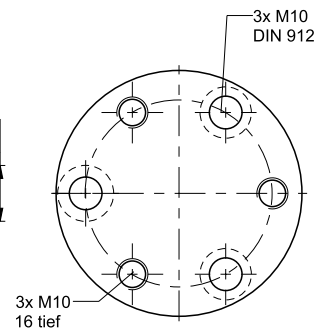
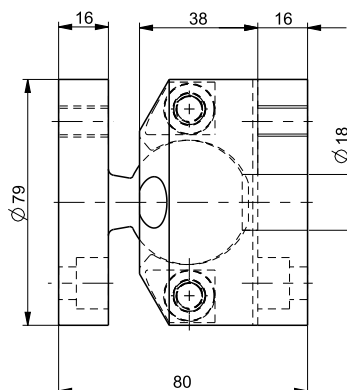
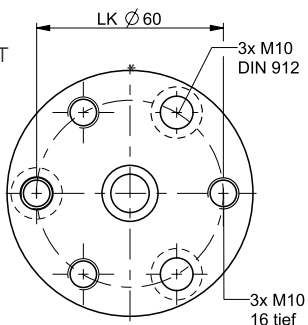
KG40
KG40ST

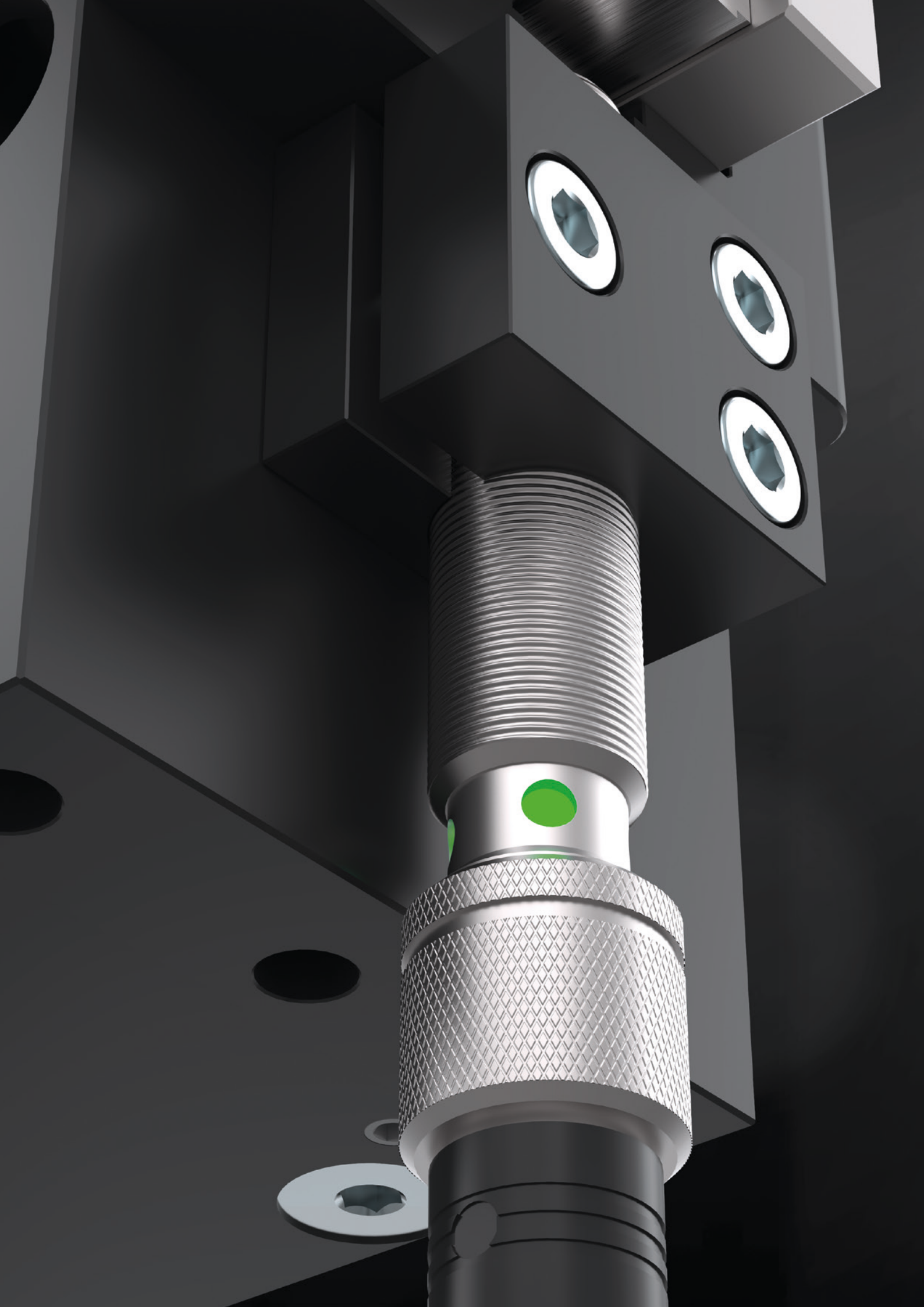


KG60
KG60ST



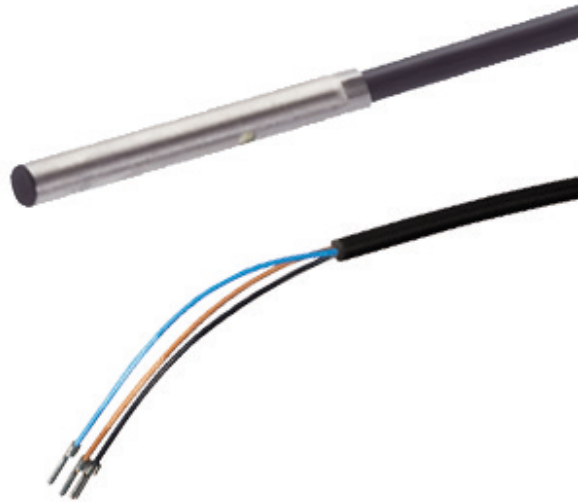
KG80
KG80ST













SENSORS & HOLDERS

OVERVIEW OF SERIES

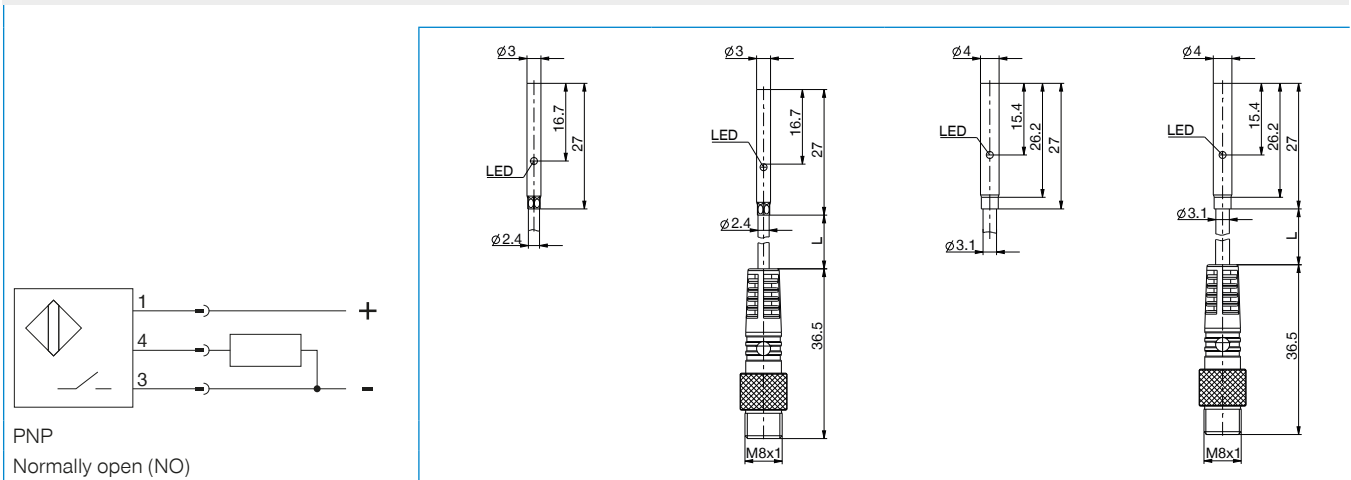


INDUCTIVE PROXIMITY SWITCHES		
	Series NJ	452
MAGNETIC FIELD SENSORS		
	Series MFS	456
SENSOR CABLES		
	Series KAG	462
	Series KAW	463
	Series S	464
STOP STROKE ADJUSTMENT SCREWS		
	Series AI	465
	Series AO	465
HOLDERS		
	Series KB	466

SENSORS AND HOLDERS

INDUCTIVE PROXIMITY SWITCHES

► SERIES NJ - INDUCTIVE PROXIMITY SWITCHES



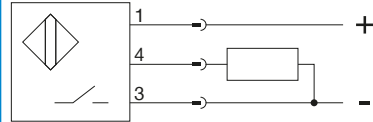
7

► Technical data

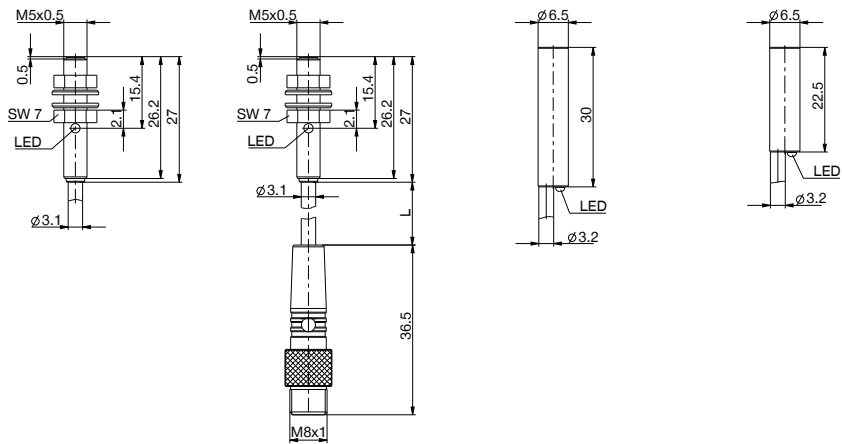
Order no.	NJ3-E2	NJ3-E2SK	NJ4-E2-01	NJ4-E2SK-01
Connection type	Cable	Cable/Connector	Cable	Cable/Connector
Sensor-Ø [mm]	3	3	4	4
Installation type	flush	flush	flush	flush
Rated operating distance S_n [mm]	1.00	1.00	1.50	1.50
Assured switching distance S_a [mm]	0.80	0.80	1.21	1.21
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	100	100	100	100
Current consumption max. [mA]	12	12	12	12
Protected against polarity reversal	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes
Function display	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	<5	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-25 ... +70	-25 ... +70
Switching frequency [Hz]	3500	3500	5000	5000
Protection to IEC 60529	IP67	IP67	IP67	IP67
Cable length [m]	5	0.3	5	0.3
Cable-Ø D [mm]	2.4	2.4	3.1	3.1
Bending radius for fixed routing, min.	3xØ	3xØ	3xØ	3xØ
Bending radius when using a drag chain, min.	5xØ	5xØ	5xØ	5xØ
Housing Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Active surface material	PBT	PBT	PBT	PBT
Certification	CE	CE	CE	CE



► SERIES NJ - INDUCTIVE PROXIMITY SWITCHES



PNP
Normally open (NO)



► Technical data

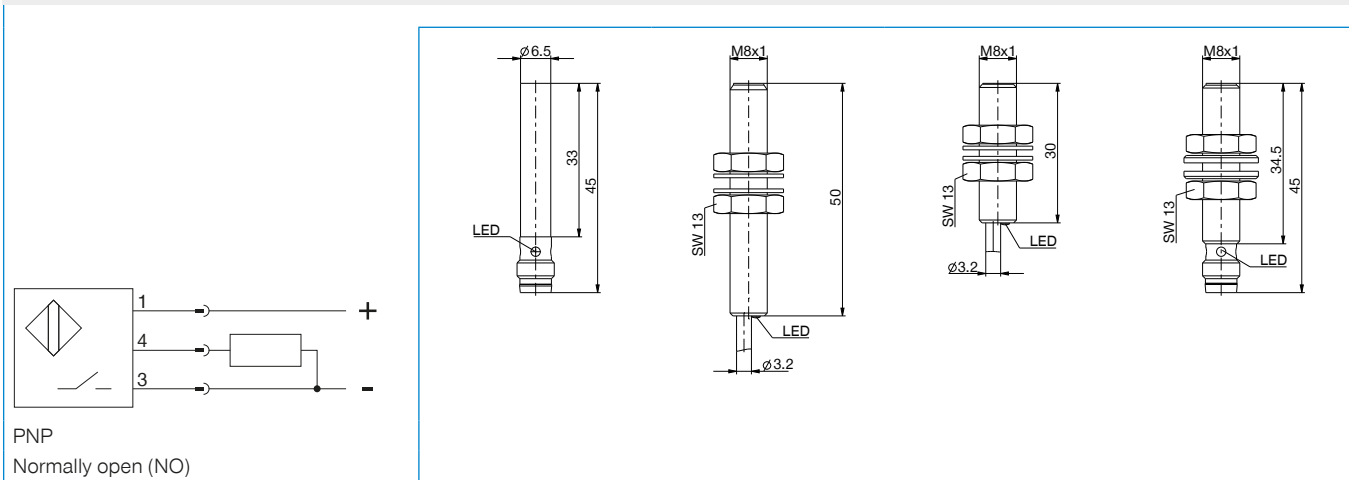
Order no.	NJ5-E2	NJ5-E2SK	NJ6.5-E2-01	NJ6.5-E2-02
Connection type	Cable	Cable/Connector	Cable	Cable
Sensor-Ø [mm]	M5x0.5	M5x0.5	6.5	6.5
Installation type	flush	flush	flush	flush
Rated operating distance S_n [mm]	0.80	0.80	1.50	1.50
Assured switching distance S_a [mm]	0.65	0.65	1.20	1.20
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	100	100	200	200
Current consumption max. [mA]	12	12	<25	25
Protected against polarity reversal	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes
Function display	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	5.0	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-40 ... +85	-25 ... +70
Switching frequency [Hz]	5000	5000	5000	4000
Protection to IEC 60529	IP67	IP67	IP68	IP67
Cable length [m]	5	0.3	5	5
Cable-Ø D [mm]	3.1	3.1	3.0	3.2
Bending radius for fixed routing, min.		3xØ	3xØ	3xØ
Bending radius when using a drag chain, min.		5xØ	5xØ	5xØ
Housing Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Active surface material	PBT	PBT	PBT	PBT
Certification	CE	CE	CE	CE



INDUCTIVE PROXIMITY SWITCHES

SERIES NJ

► SERIES NJ - INDUCTIVE PROXIMITY SWITCHES



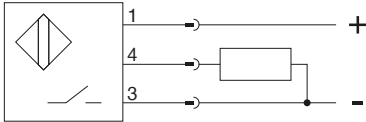
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► Technical data

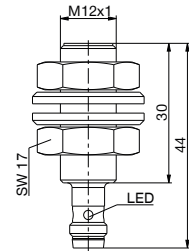
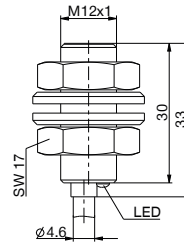
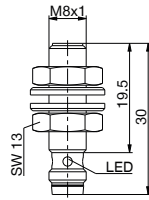
Order no.	NJ6.5-E2S	NJ8-E2	NJ8-E2-01	NJ8-E2S
Connection type	Connector	Cable	Cable	Connector
Sensor-Ø [mm]	6.5	8	8	M8x1
Installation type	flush	flush	flush	flush
Rated operating distance S_n [mm]	1.50	1.50	2.00	2.00
Assured switching distance S_a [mm]	1.20	1.20	1.60	1.60
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	200	200	200	200
Current consumption max. [mA]	25	8	<25	25
Protected against polarity reversal	Yes	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes	Yes
Function display	Yes	Yes	Yes	Yes
Repetition accuracy [%]	<5	5.0	5.0	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-40 ... +85	-25 ... +70
Switching frequency [Hz]	3000	5000	5000	1500
Protection to IEC 60529	IP67	IP68	IP68	IP68
Cable length [m]		5	5	
Cable-Ø D [mm]		3.0	3.0	
Bending radius for fixed routing, min.		3xØ	3xØ	
Bending radius when using a drag chain, min.		5xØ	5xØ	
Housing Material	Stainless steel	Brass	Stainless steel	Stainless steel
Active surface material	PBT	PBT	PBT	PBT
Certification	CE	CE	CE	CE



► SERIES NJ - INDUCTIVE PROXIMITY SWITCHES



PNP
Normally open (NO)



► Technical data

Order no.	NJ8-E2S-05	NJ12-E2	NJ12-E2S
Connection type	Connector	Cable	Connector
Sensor-Ø [mm]	M8x1	M12x1	M12x1
Installation type	flush	flush	flush
Rated operating distance S_n [mm]	1.50	2.00	2.00
Assured switching distance S_a [mm]	1.20	1.60	1.60
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30
Load current capacity [mA]	200	200	130
Current consumption max. [mA]	8	12	25
Protected against polarity reversal	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes
Function display	Yes	Yes	Yes
Repetition accuracy [%]	<5	<5	<5
Ambient temperature range [°C]	-25 ... +70	-25 ... +70	-25 ... +70
Switching frequency [Hz]	3000	5000	1000
Protection to IEC 60529	IP68	IP68	IP67
Cable length [m]		5	
Cable-Ø D [mm]		4.6	
Bending radius for fixed routing, min.		3xØ	
Bending radius when using a drag chain, min.		5xØ	
Housing Material	Stainless steel	CuZn nickel plated	CuZn nickel plated
Active surface material	PBT	PBT	PA12
Certification	CE	CE	CE

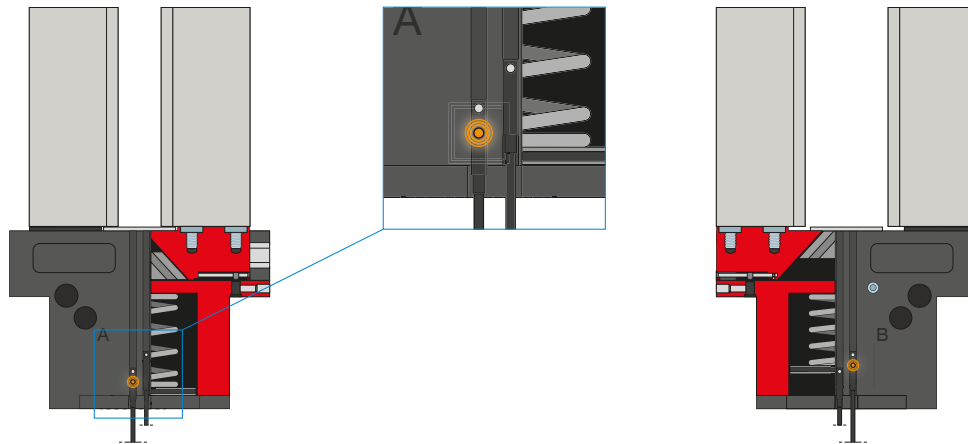
SENSORS & HOLDERS

MAGNETIC FIELD SENSORS FUNCTIONAL DESCRIPTION

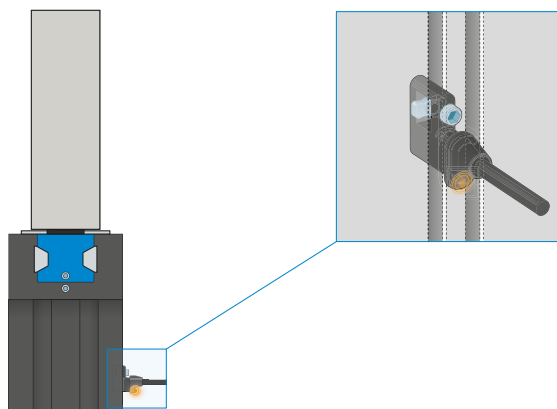


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

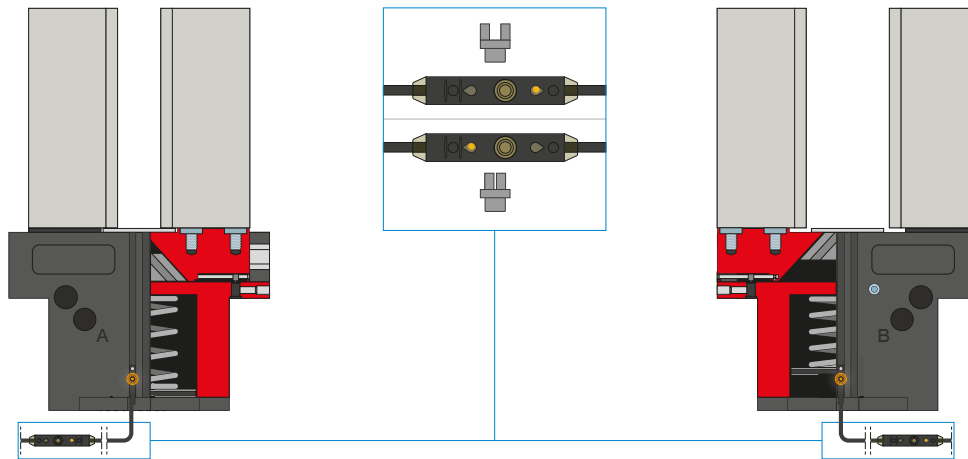
For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

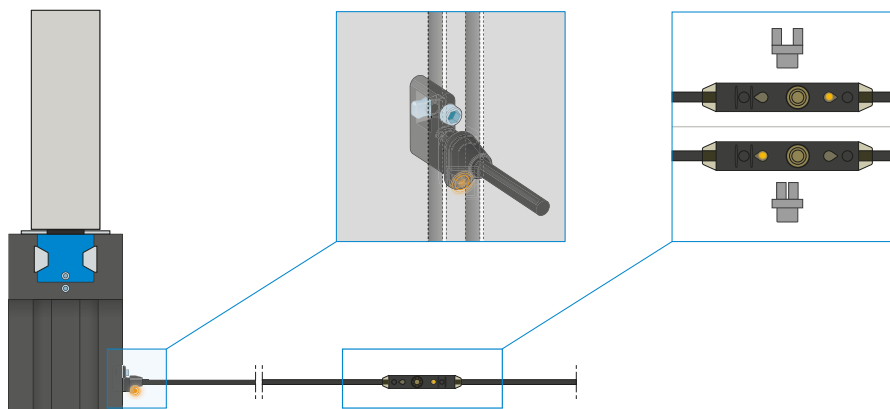


SENSORS

MFS02



MFS01



2-point magnetic field sensors - MFS

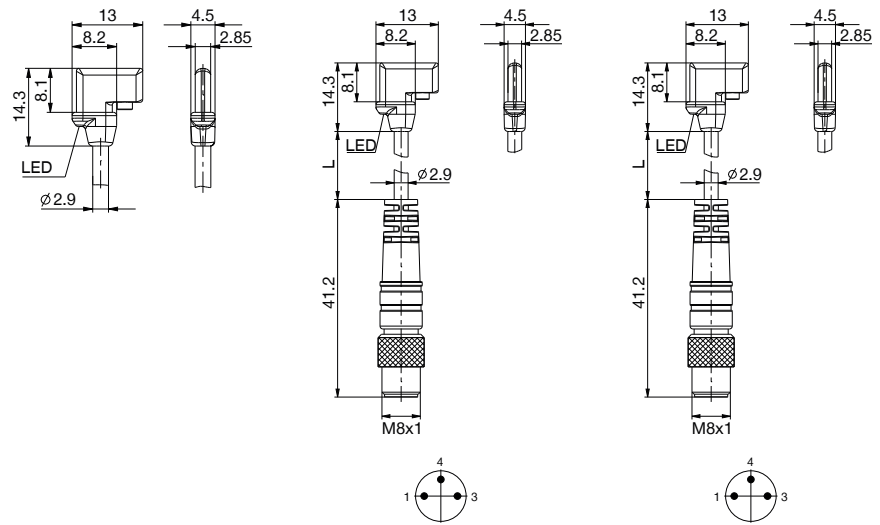
With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

SENSORS AND HOLDERS

MAGNETIC FIELD SENSORS

► SERIES MFS - MAGNETIC FIELD SENSORS



7

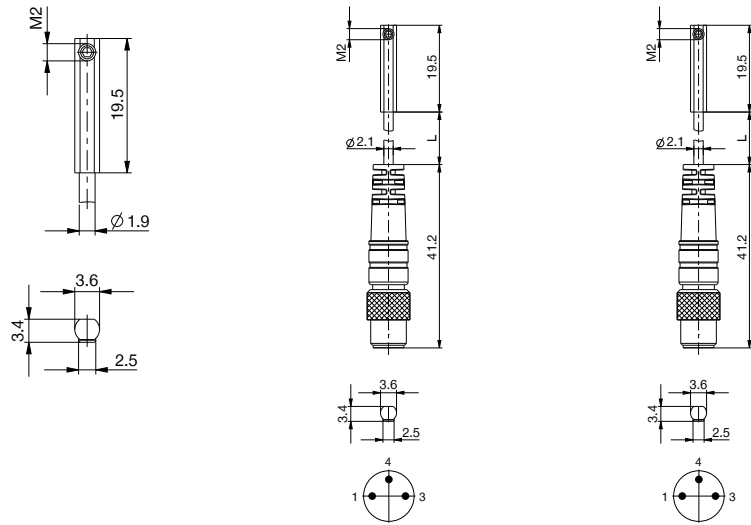
Magnetic Field Sensors / Sensors & Holders

► Technical data

Order no.	MFS01-K-KHC-P1-PNP	MFS01-S-KHC-P1-PNP	MFS01-S-KHC-P1-NPN
Switching output	PNP	PNP	NPN
Switching function	Normally open (NO)	Normally open (NO)	Normally open (NO)
Cylinder design	C-slot	C-slot	C-slot
Damper housing length [mm]	13	13	13
Switching frequency [Hz]	1000	1000	1000
Electrical version	DC 3-wire	DC 3-wire	DC 3-wire
Protection to IEC 60529	IP68	IP68	IP68
Certification	CE	CE	CE
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30
Current consumption [mA]	≤8	≤8	≤8
Voltage drop [V]	≤2.5	≤2.5	≤2.5
Continuous current [mA]	≤100	≤100	≤100
Response sensitivity typ. [mT]	1.7	1.7	1.7
Overrun distance typ. [mm]	2	2	2
Hysteresis typ. [mT]	≤0.4	≤0.4	≤0.4
Reproducibility [mT]	≤0.1	≤0.1	≤0.1
Protected against polarity reversal	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes
Power-up pulse protection	Yes	Yes	Yes
Ambient temperature range [°C]	-30 ... +80	-30 ... +80	-30 ... +80
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm	30 g, 11 ms / 10 ... 55 Hz, 1 mm	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Housing Material	Plastics	Plastics	Plastics
Connection type	Cable	Cable/Connector	Cable/Connector
Fixing thread		M8	M8
Cable length [m]	5	0.3	0.3
Nr. of wires x diameter [mm ²]	3x0.14	3x0.14	3x0.14
Cable sheath material	PUR	PUR	PUR
Bending radius for fixed routing, min.	3xØ	3xØ	3xØ
Bending radius when using a drag chain, min.	5xØ	5xØ	5xØ



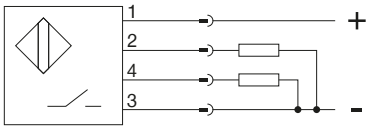
► SERIES MFS - MAGNETIC FIELD SENSORS



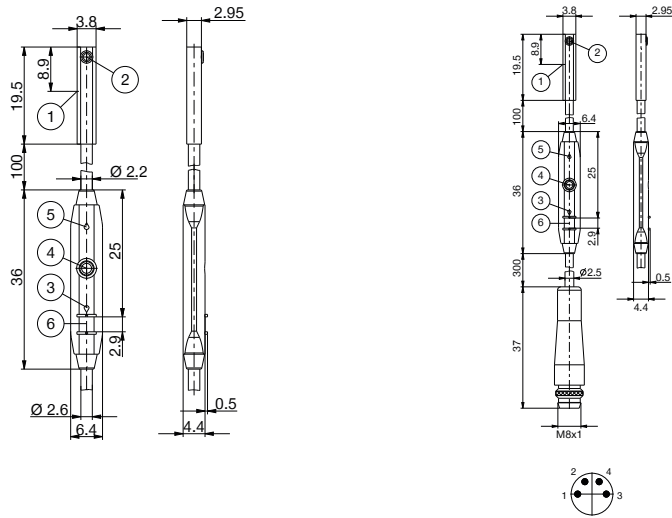
► Technical data

Order no.	MFS02-K-KHC-P1-PNP	MFS02-S-KHC-P1-PNP	MFS02-S-KHC-P1-NPN
Switching output	PNP	PNP	NPN
Switching function	Normally open (NO)	Normally open (NO)	Normally open (NO)
Cylinder design	C-slot	C-slot	C-slot
Damper housing length [mm]	19.5	19.5	19.5
Switching frequency [Hz]	1000	1000	1000
Electrical version	DC 3-wire	DC 3-wire	DC 3-wire
Protection to IEC 60529	IP67	IP67	IP67
Certification	CE	CE	CE
Supply voltage [V DC]	10 ... 30	10 ... 30	10 ... 30
Current consumption [mA]	≤8	≤8	≤8
Voltage drop [V]	≤2.5	≤2.5	≤2.5
Continuous current [mA]	≤100	≤100	≤100
Response sensitivity typ. [mT]	1.7	1.7	1.7
Overrun distance typ. [mm]	2	2	2
Hysteresis typ. [mT]	≤0.4	≤0.4	≤0.4
Reproducibility [mT]	≤0.1	≤0.1	≤0.1
Protected against polarity reversal	Yes	Yes	Yes
Short-circuit-proof	Yes	Yes	Yes
Power-up pulse protection	Yes	Yes	Yes
Ambient temperature range [°C]	-25 ... +75	-25 ... +75	-25 ... +75
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm	30 g, 11 ms / 10 ... 55 Hz, 1 mm	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Housing Material	Plastics	Plastics	Plastics
Connection type	Cable	Cable/Connector	Cable/Connector
Fixing thread		M8	M8
Cable length [m]	5	0.3	0.3
Nr. of wires x diameter [mm ²]	3x0.09	3x0.09	3x0.09
Cable sheath material	PUR	PUR	PUR
Bending radius for fixed routing, min.	3xØ	3xØ	3xØ
Bending radius when using a drag chain, min.	5xØ	5xØ	5xØ

► SERIES MFS - MAGNETIC FIELD SENSORS



PNP
Normally open (NO)



1 Center of sensor element
2 Fixing screw
3 Display LED

4 Teach-in button
5 Display LED
6 Ribs for cable ties

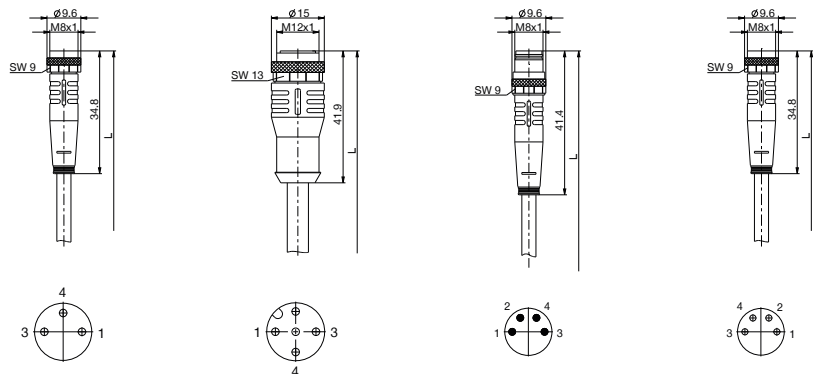
► Technical data

Order no.	MFS02-K-KHC-P2-PNP	MFS02-S-KHC-P2-PNP
Cylinder design	C-slot	C-slot
Damper housing length [mm]	19.5	19.5
Switching frequency [Hz]	7000	7000
Electrical version	DC 4-wire	DC 4-wire
Protection to IEC 60529	IP67	IP67
Certification	CE	CE
Supply voltage [V DC]	12 ... 30	12 ... 30
Current consumption [mA]	≤15	≤15
Voltage drop [V]	≤2.2	≤2.2
Continuous current [mA]	≤100	≤100
Detection zone [mm]	0 ... 50	0 ... 50
Hysteresis typ. [mT]	1	1
Reproducibility [mT]	≤0.1	≤0.1
Protected against polarity reversal	Yes	Yes
Short-circuit-proof	Yes	Yes
Power-up pulse protection	Yes	Yes
Ambient temperature range [°C]	-20 ... +75	-20 ... +75
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Housing Material	Plastics	Plastics
Connection type	Cable	Cable/Connector
Fixing thread		M8
Cable length [m]	5	0.3
Nr. of wires x diameter [mm ²]	4x0.08	4x0.08
Cable sheath material	PUR	PUR
Bending radius for fixed routing, min.	3xØ	3xØ
Bending radius when using a drag chain, min.	5xØ	5xØ

SENSORS AND HOLDERS

SENSOR CABLES

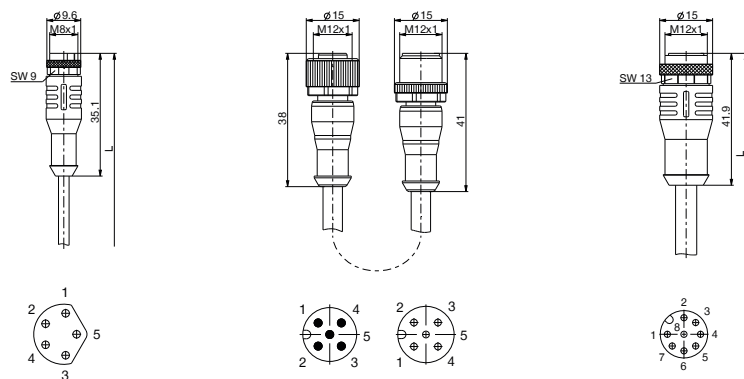
► SERIES KAG - PLUG-IN CONNECTOR STRAIGHT WITH CABLE



► Technical data

Order no.	KAG500	KAG500-02	KAG500S4	KAG500B4
Connection type	Female	Female	Connector	Female
Version [Type]	Straight	Straight	Straight	Straight
Fixing thread	M8	M12	M8	M8
No. of contacts	3	3	4	4
Current load (at 40°C) [A]	4	4	4	4
Temperature range (fixed) [°C]	-40 ... +90	-40 ... +90	-40 ... +90	-40 ... +90
Temperature range (drag chain) [°C]	-25 ... +60	-25 ... +60	-25 ... +60	-25 ... +60
Protection to IEC 60529	IP67	IP67	IP67	IP67
Cable length [m]	5	5	5	5
Cable-Ø [mm]	4.3	4.3	4.7	4.7
Bend radius, fixed cable installation	10xØ	10xØ	10xØ	10xØ
Cable sheath material	PUR	PUR	PUR	PUR
Certification	UL /CSA	UL /CSA	UL /CSA	UL /CSA

► SERIES KAG - PLUG-IN CONNECTOR STRAIGHT WITH CABLE

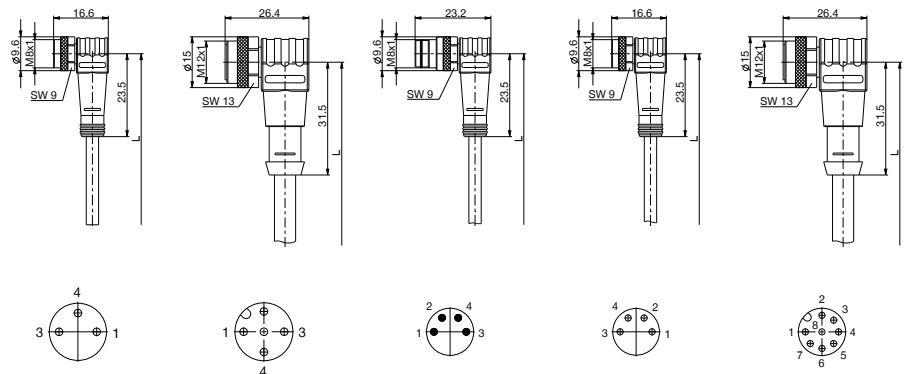


► Technical data

Order no.	KAG500B5	KAG500IL	KAG1000B8
Connection type	Female	Connector / female	Female
Version [Type]	Straight	Straight/straight	Straight
Fixing thread	M8	M12-M12	M12
No. of contacts	5	5	8
Current load (at 40°C) [A]	3	4	2
Temperature range (fixed) [°C]	-50 ... +90	-40 ... +90	-40 ... +90
Temperature range (drag chain) [°C]	-25 ... +60	-25 ... +60	-25 ... +60
Protection to IEC 60529	IP67	IP67	IP67
Cable length [m]	5	5	10
Cable-Ø [mm]	4.7	4.8	4.7
Bend radius, fixed cable installation	12xØ	5xØ	10xØ
Cable sheath material	PUR	PUR	PUR
Certification	UL /CSA	UL /CSA	UL /CSA



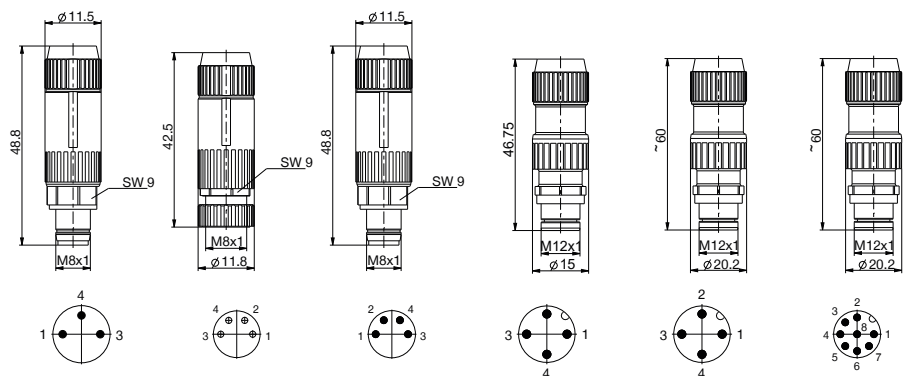
► **SERIES KAW - PLUG-IN CONNECTOR ANGLED WITH CABLE**



► **Technical data**

Order no.	KAW500	KAW500-12	KAW500S4	KAW500B4	KAW1000B8
Connection type	Female	Female	Connector	Female	Female
Version [Type]	Angle	Angle	Angle	Angle	Angle
Fixing thread	M8	M12	M8	M8	M12
No. of contacts	3	3	4	4	8
Current load (at 40°C) [A]	4	4	4	4	2
Temperature range (fixed) [°C]	-40 ... +90	-40 ... +90	-40 ... +90	-40 ... +90	-40 ... +90
Temperature range (drag chain) [°C]	-25 ... +60	-25 ... +60	-25 ... +60	-25 ... +60	-25 ... +60
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67
Cable length [m]	5	5	5	5	10
Cable-Ø [mm]	4.3	4.3	4.7	4.7	4.7
Bend radius, fixed cable installation	10xØ	10xØ	10xØ	10xØ	10xØ
Cable sheath material	PUR	PUR	PUR	PUR	PUR
Certification	UL /CSA	UL /CSA	UL /CSA	UL /CSA	UL /CSA

► **SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SCREW-CUT-TERMINAL**



► **Technical data**

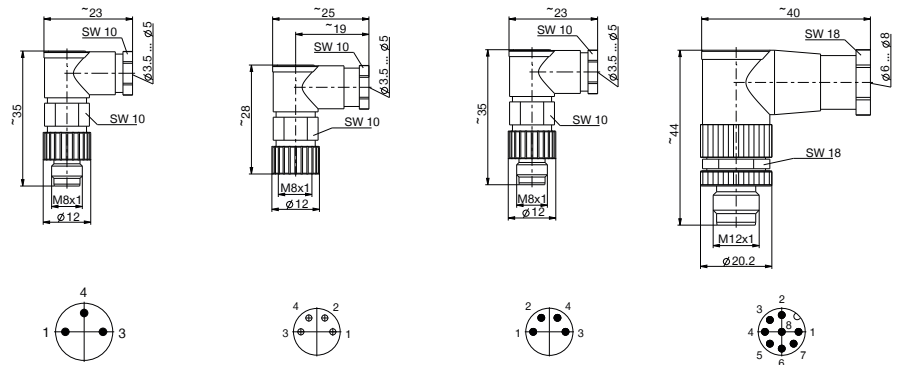
Order no.	S8-G-3	B8-G-4	S8-G-4	S12-G-3	S12-G-4	S12-G-8
Connection type	Screw-cut-terminal	Screw-cut-terminal	Screw-cut-terminal	Screw-cut-terminal	Screw-cut-terminal	Screw-cut-terminal
Version [Type]	Straight	Straight	Straight	Straight	Straight	Straight
Fixing thread	M8	M8	M8	M12	M12	M12
No. of contacts	3	4	4	3	4	8
Protection to IEC 60529	IP67	IP67	IP67	IP67	IP67	IP67



SENSORS AND HOLDERS

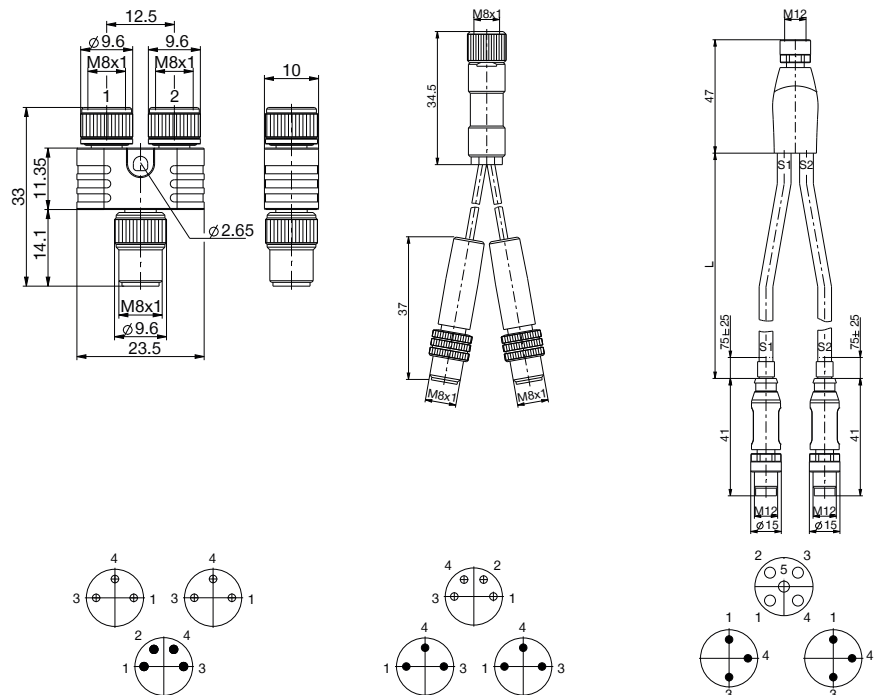
SENSOR CABLES

► SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SOLDER CONNECTION



Order no.	S8-W-3	B8-W-4	S8-W-4	S12-W-8
Connection type	Solder connection	Solder connection	Solder connection	Screw displacement connection
Version [Type]	Angle	Angle	Angle	Angle
Fixing thread	M8	M8	M8	M12
No. of contacts	3	4	4	8
Protection to IEC 60529	IP67	IP67	IP67	IP67

► SERIES S - Y-PLUG-IN CONNECTOR



Order no.	S8-Y-4	B8-Y-4	B12-Y-5IL
Connection type	Socket / plug / socket	Plug / socket / plug	Plug / socket / plug
Version [Type]	Y-adapter	Y-cable	Y-cable
Fixing thread	M8-M8-M8	M8-M8-M8	M12-M12-M12
No. of contacts	4 / 3 / 3	4 / 3 / 3	5 / 3 / 3
Protection to IEC 60529	IP67	IP67	IP67



SENSORS AND HOLDERS

STOP STROKE ADJUSTMENT SCREWS

► SERIES AI - STOP STROKE ADJUSTMENT SCREWS



- Stop stroke adjustment screw for M12 sensor mount
- Stop stroke adjustment screw with customizable sensor mount

Order no.	► Technical Data		
	AI-M8X1-38	AI-M8X1-53	AI-M10X1-70
Fixing thread	M8X1	M8X1	M10X1
To match for Sensors-Ø [mm]	M12X1	M12X1	M12X1

► SERIES AO - STOP STROKE ADJUSTMENT SCREWS



- Stop stroke adjustment screw with customizable sensor mount

Order no.	► Technical Data		
	AO-M8X1-38	AO-M8X1-53	AO-M10X1-70
Fixing thread	M8X1	M8X1	M10X1
To match for Sensors-Ø [mm]	customizable	customizable	customizable

SENSORS & HOLDERS

HOLDERS

► SERIES KB - MOUNTING BLOCK

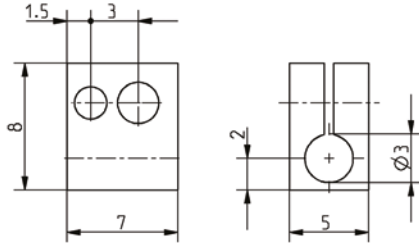


- Mounting for inductive proximity switch
- Available starting at $\varnothing 3$ mm

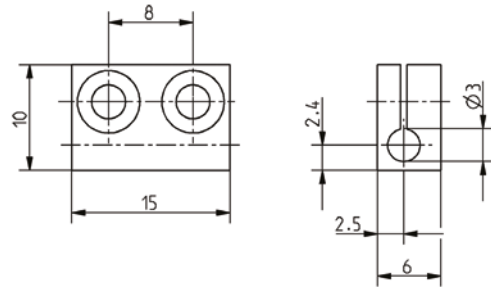
► Technical Data

Order no.	KB3	KB3M	KB5	KB6.5	KB8
To match for Sensors- \varnothing [mm]	3	3	5	6.5	8

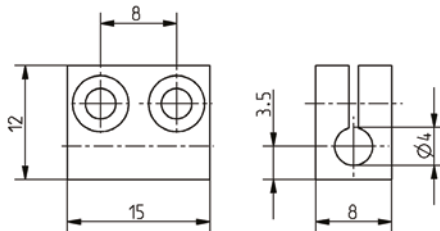
KB3M



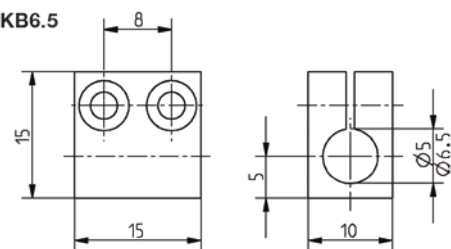
KB3



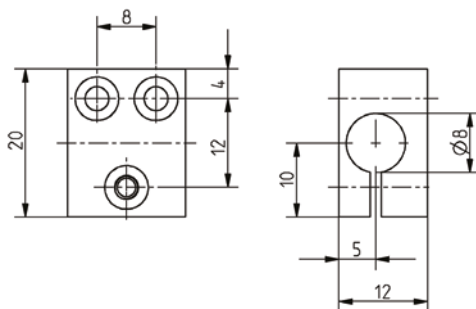
KB4



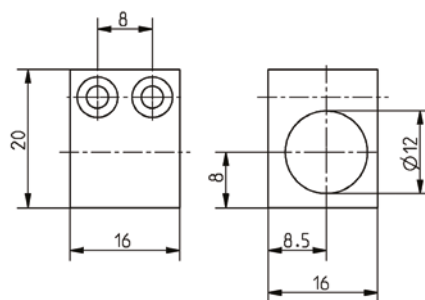
KB5 / KB6.5

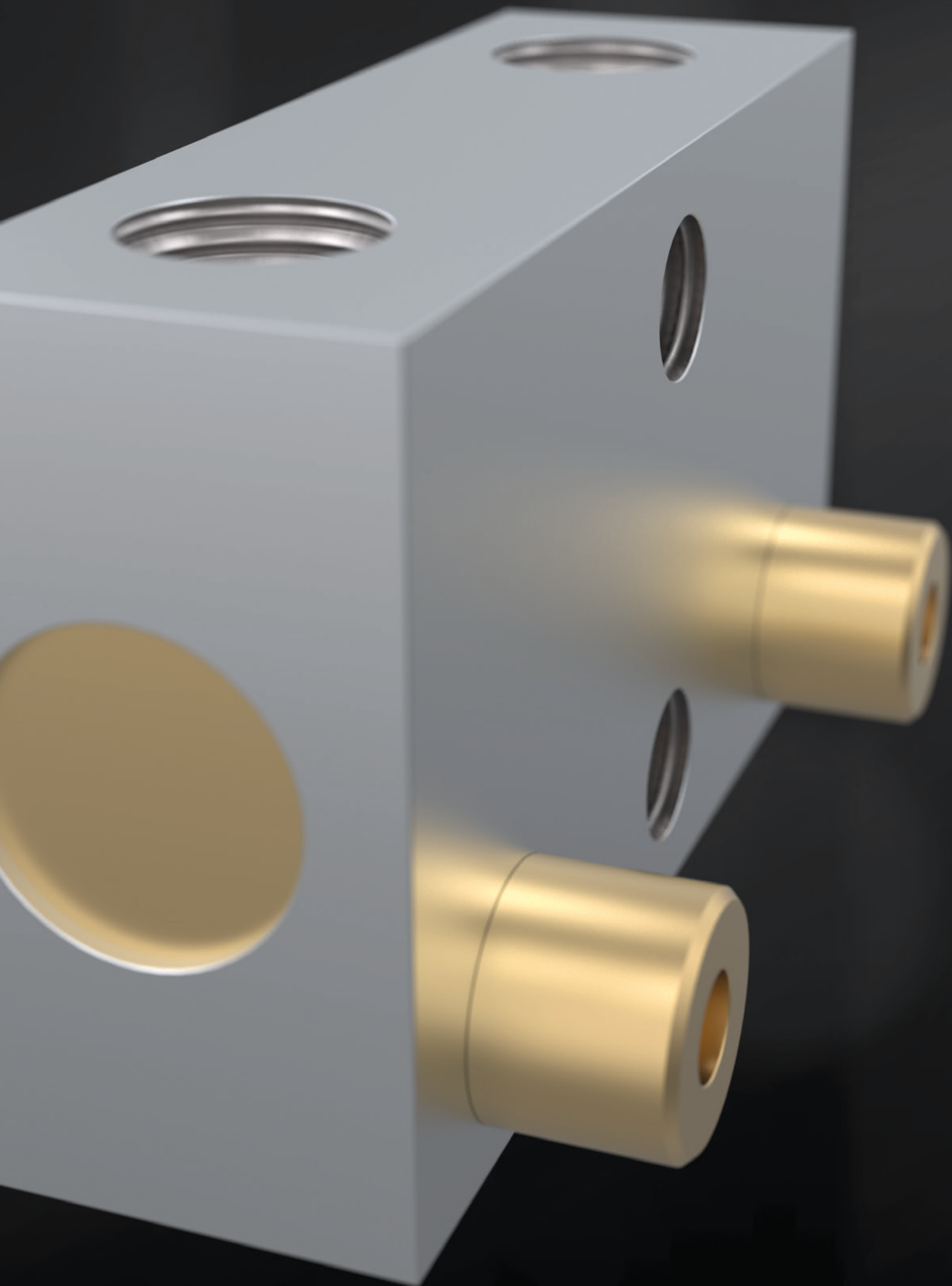


KB8

















KB12





VALVES, FITTINGS, ACCESSORIES

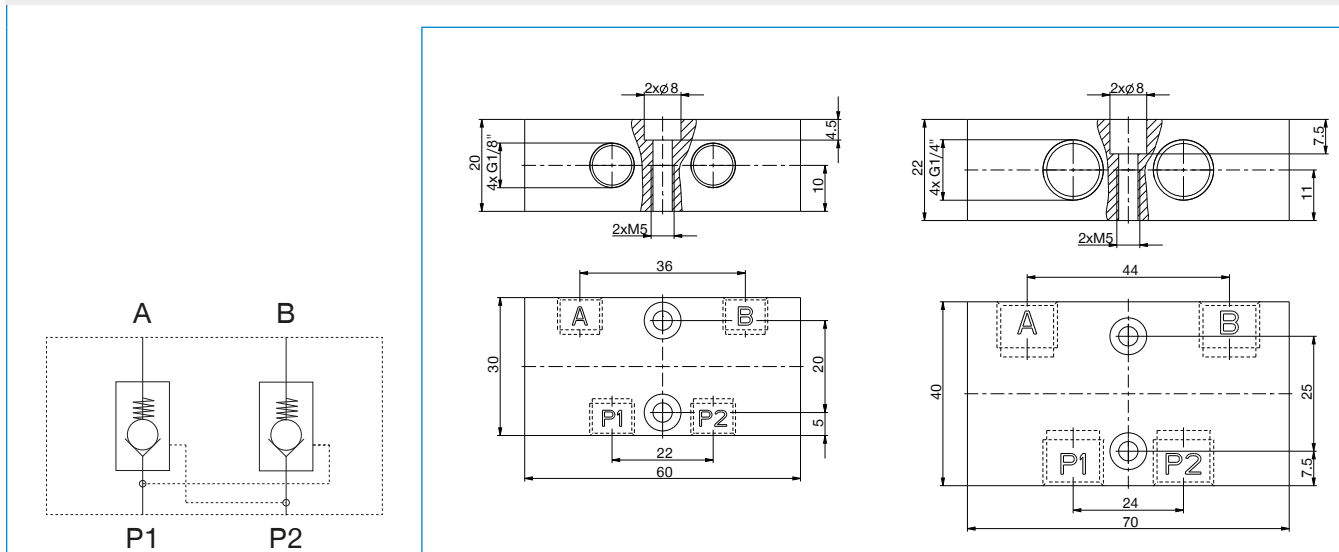
OVERVIEW OF SERIES

VALVES		
	Series DSV	470
	Series DEV	472
FITTINGS		
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	Series WV	475
JAW ACCESSORIES		
	Series DG	476
	Series GR	476
	Series J	477
	Series GU	477
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	Series BN	479
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	Series GBV	480
ROTARY DISTRIBUTORS		
	Series DV	482

VALVES, FITTINGS, ACCESSORIES

VALVES

► SERIES DSV - PRESSURE SAFETY VALVE

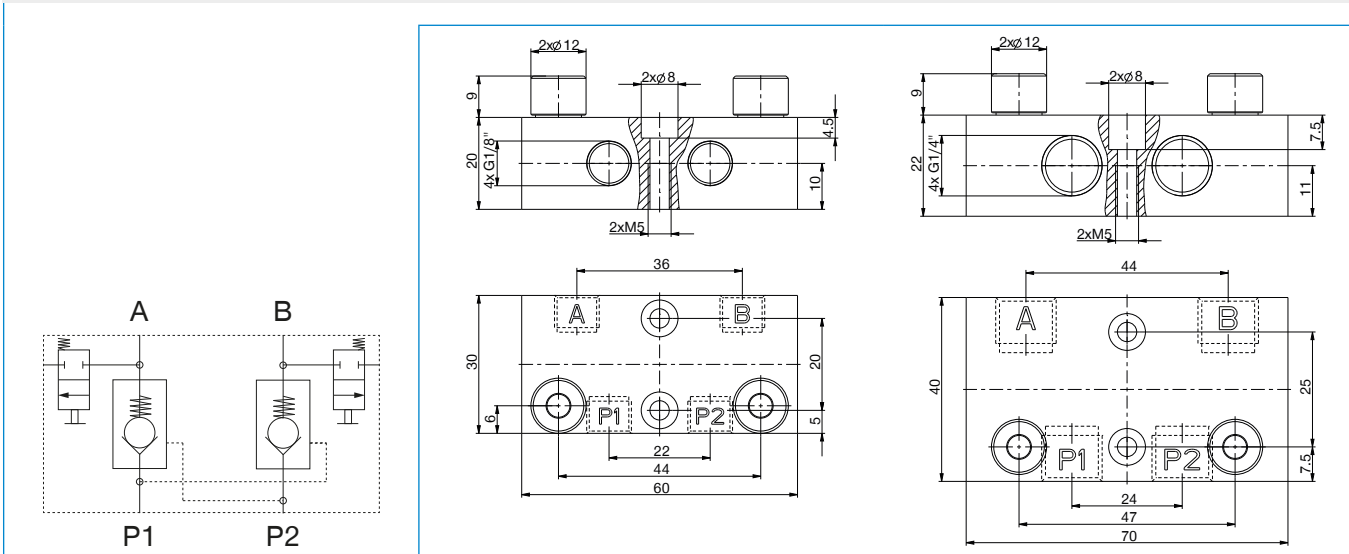


► Technical data

Order no.	DSV1-8	DSV1-4
Fixing thread	G1/8"	G1/4"
Quick Exhaust	No	No
Nominal diameter [mm]	4	7
Nominal flow rate A-P1	360	1000
Nominal flow rate B-P2	360	1000
Nominal flow rate P1-A	230	650
Nominal flow rate P2-B	230	650
Leakage max. [cm ³ /h]	3	10
Operating pressure [bar]	1 ... 10	1 ... 10
Operating temperature [°C]	-10 ... +70	-10 ... +70
Weight [kg]	0.1	0.2



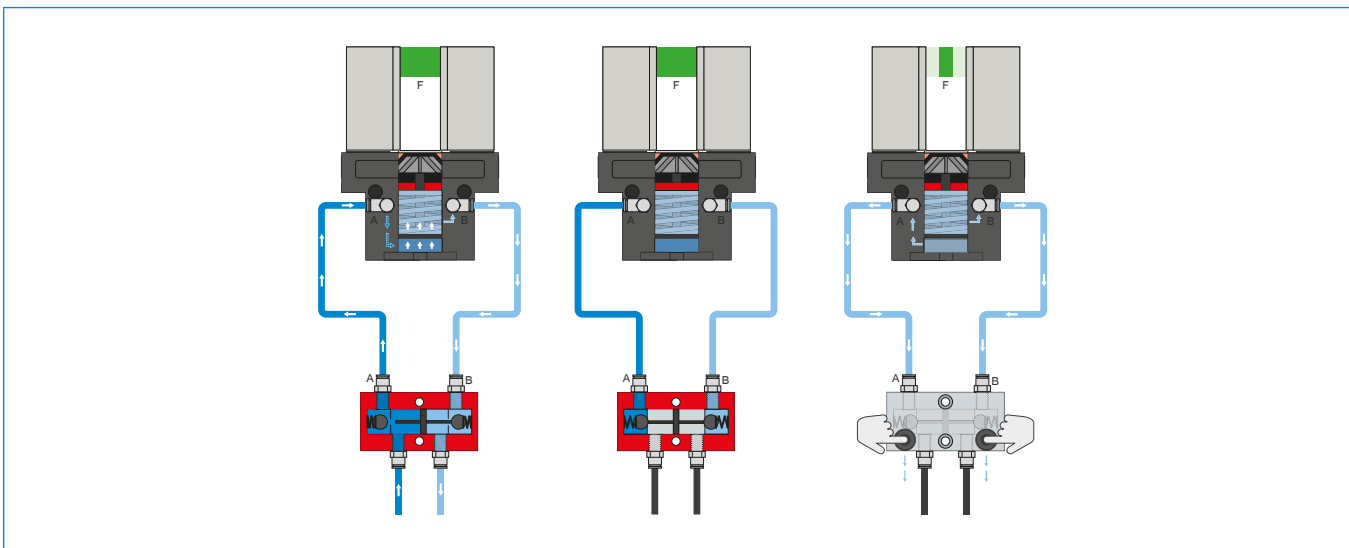
DSV SERIES - PRESSURE SAFETY VALVES WITH QUICK EXHAUST



Technical data

Order no.	DSV1-8E	DSV1-4E
Fixing thread	G1/8"	G1/4"
Quick Exhaust	Yes	Yes
Nominal diameter [mm]	4	7
Nominal flow rate A-P1	360	1000
Nominal flow rate B-P2	360	1000
Nominal flow rate P1-A	230	650
Nominal flow rate P2-B	230	650
Leakage max. [cm ³ /h]	3	10
Operating pressure [bar]	1 ... 10	1 ... 10
Operating temperature [°C]	-10 ... +70	-10 ... +70
Weight [kg]	0.1	0.2

FUNCTIONAL DESCRIPTION DSV



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

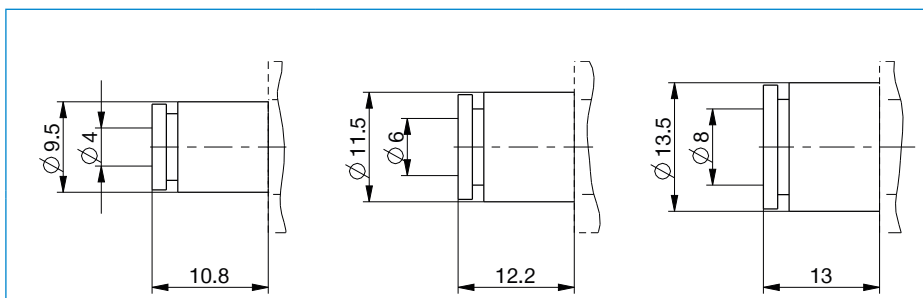
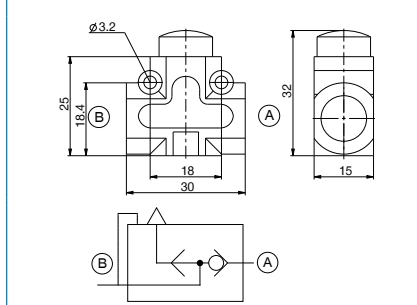
The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.



VALVES, FITTINGS, ACCESSORIES

VALVES

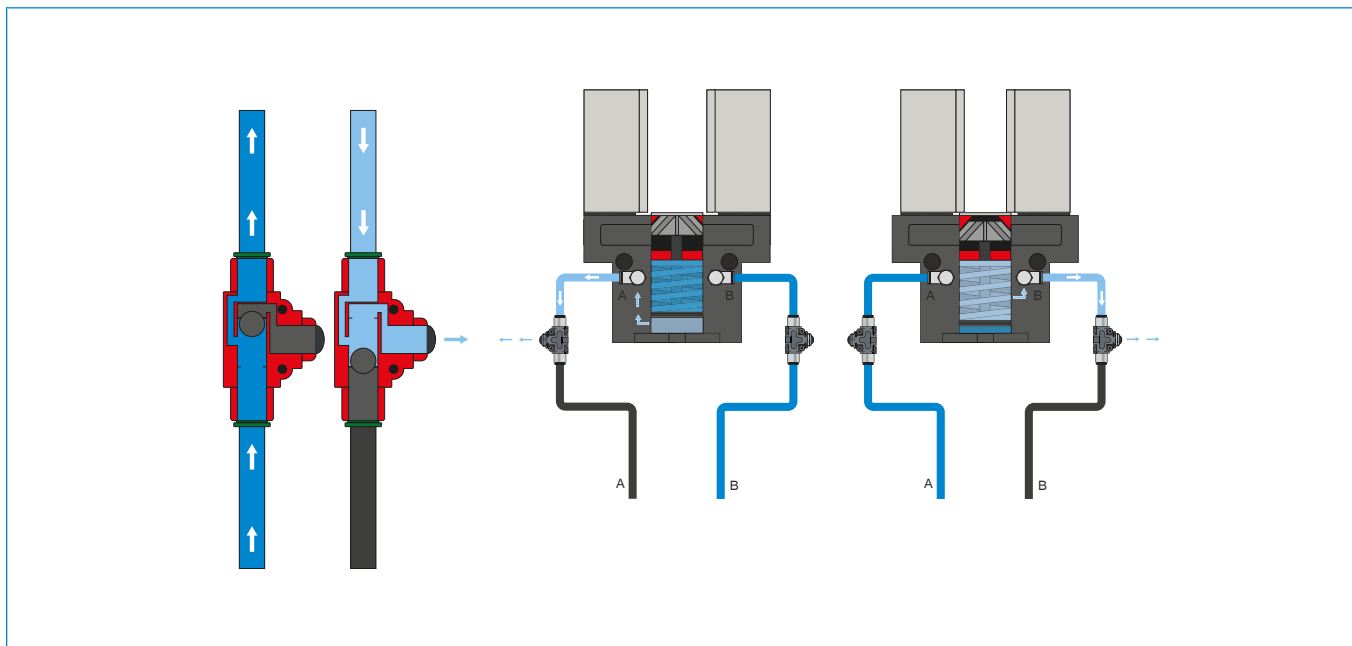
► SERIES DEV - QUICK EXHAUST VALVE



► Technical data

Order no.	DEV04	DEV06	DEV08
Outside-Ø for hose [mm]	4	6	8
Operating pressure max. [bar]	10	10	10
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	-5 ... +50	-5 ... +50	-5 ... +50
Flow in the case of aeration	250	250	250
Flow in the case of ventilation	500	500	500
Weight [kg]	0.015	0.015	0.015

► FUNCTIONAL DESCRIPTION DEV



Quick exhaust valve – DEV

For rapid bleeding of the compressed air and preventing back pressure

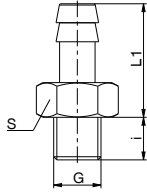
The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.



VALVES, FITTINGS, ACCESSORIES

FITTINGS

► SERIES GV - STRAIGHT FITTINGS - BARB-STYLE CONNECTION

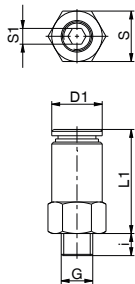


- For assembling with hose clips
- Straight version

Order no.	► Technical data				
	GVM3	GV1-8X5ID	GV1-8X6ID	GV1-8X8ID	GV1-4X8ID
Fixing thread	M3	G1/8"	G1/8"	G1/8"	G1/4"
Inside-Ø for hose [mm]	3	5	6	8	8
Length [mm]	9.9	30.0	30.0	30.0	32.5
Dimension i [mm]	2.7	6	6	6	8
Dimension L1 [mm]	7.2	24	24	24	24.5
S [mm]	4.5	13	13	13	17

Order no.	► Technical data			
	GV1-4X10ID	GV3-8X13ID	GV1-2X13ID	GV1-2X16ID
Fixing thread	G1/4"	G3/8"	G1/2"	G1/2"
Inside-Ø for hose [mm]	10	13	13	16
Length [mm]	32.5	33.5	35.0	39.5
Dimension i [mm]	8	9	10	10
Dimension L1 [mm]	24.5	24.5	25	29.5
S [mm]	17	19	24	24

► SERIES GV - STRAIGHT FITTINGS - QUICK CONNECT STYLE

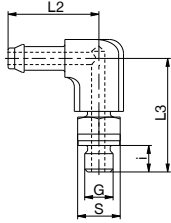


- Cost reduction through quick assembly and disassembly
- Straight version

Order no.	► Technical data					
	GVM5	GV1-8X4	GV1-8X6	GV1-8X8	GV1-4X6	GV1-4X8
Fixing thread	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"
Outside-Ø for hose [mm]	4	4	6	8	6	8
Length [mm]	20.0	19.0	20.0	25.0	21.5	23.0
Dimension i [mm]	3.5	3.5	5	5	7	7
Dimension L1 [mm]	16.5	16.5	14	20	14.5	16
Dimension D1 [mm]	8	8	10	14	12	14
S1 [mm]	2.5	2.5	3	5	4	6
S [mm]	8	8	13	14	17	17



► SERIES WV - ANGLED FITTING, BARB STYLE CONNECTION



- For assembling with hose clips
- Angled version

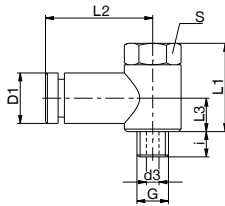
► Technical data

Order no.

WVM3

Fixing thread	M3
Inside-Ø for hose [mm]	3
Dimension i [mm]	2.7
Dimension L2 [mm]	13.3
Dimension L3 [mm]	11.4
S [mm]	4.5

► WV SERIES - ANGLED FITTINGS- QUICK CONNECT STYLE



- Cost reduction through quick assembly and disassembly
- Angled and swivel-mounted

► Technical data

Order no.

WVM5 WV1-8X4 WV1-8X6 WV1-8X8 WV1-4X6 WV1-4X8

Fixing thread	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"
Outside-Ø for hose [mm]	4	4	6	8	6	8
Dimension i [mm]	4	6.5	6.5	6.5	8	8
Dimension L1 [mm]	14	20	20	20	21	21
Dimension L2 [mm]	17	20.5	21.5	23.5	23.5	25.5
Dimension L3 [mm]	5.3	8	8	8	8	8
Dimension d3 [mm]	2	5	5	5	7	7
Dimension D1 [mm]	8	10	12	14	12	14
S [mm]	8	14	14	14	17	17



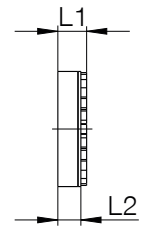
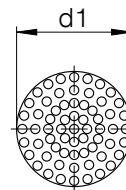
VALVES, FITTINGS, ACCESSORIES

JAW ACCESSORIES

► SERIES DG - RUBBER JAW PADS



- Available in different versions
- A packaging unit includes 6 pcs.



Order no.

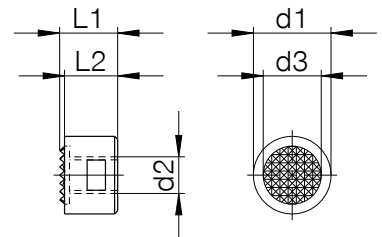
	DG6	DG6SI	DG10	DG10SI	DG16	DG16SI	DG20	DG20SI
Ø d1 [mm]	6m6	6m6	10m6	10m6	16m6	16m6	20m6	20m6
Dimension L1 [mm]	5	5	5	5	5	5	5	5
Dimension L2 [mm]	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Material	NBR	Silicone	NBR	Silicone	NBR	Silicone	NBR	Silicone
Color	Black	Blue	Black	Blue	Black	Blue	Black	Blue
Operating temperature max. [°C]	120	200	120	200	120	200	120	200
Shore hardness	65 +/- 3	60 +/- 5	65 +/- 3	60 +/- 5	65 +/- 3	60 +/- 5	65 +/- 3	60 +/- 5

► Technical Data

► SERIES GR - HARD JAW INSERTS



- Available in different versions



Order no.

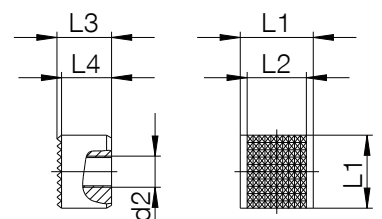
	GR4	GR4A	GR4C	GR5	GR6
Ø d1 [mm]	12,7	12,7	12,7	15,8	19
Ø d2 [mm]	M6	M6	M6	M6	M6
Ø d3 [mm]	9,5	9,5	9,5	12,7	15,8
Dimension L1 [mm]	9,5	12,7	16,5	9,5	9,5
Dimension L2 [mm]	8,7	11,9	15,8	8,7	8,7

► Technical Data

► SERIES GR - HARD JAW INSERTS



- Available in different versions



Order no.

	SG4
Ø d2 [mm]	M6
Dimension L1 [mm]	12.7
Dimension L2 [mm]	10.3
Dimension L3 [mm]	9.5
Dimension L4 [mm]	8.7

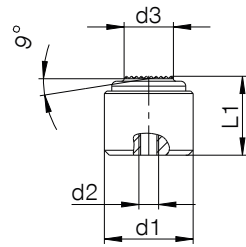
► Technical Data



► SERIES J - HARD JAW INSERTS, FLOATING



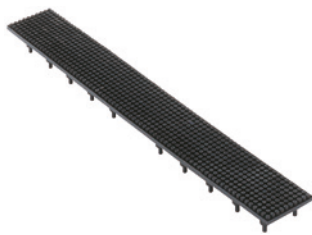
- Available in different versions



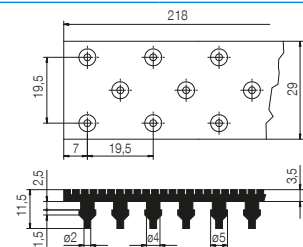
► Technical Data

Order no.	J712	J718	J728
Ø d1 [mm]	12n6	18n6	28n6
Ø d2 [mm]	M3	M4	M5
Ø d3 [mm]	7	10	20
Dimension L1 [mm]	10	16	25

► SERIES GU - RUBBER JAW LINERS



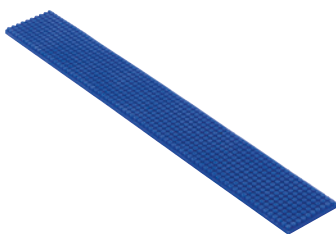
- Available in different versions
- GU1: Basic jaw with infeed knobs
- Receiver holes for infeed knobs - 4.5 mm



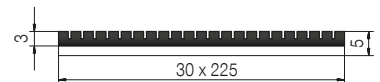
► Technical Data

Order no.	GU1	GU1SI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	NBR	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5

► SERIES GU - RUBBER JAW LINERS



- Available in different versions
- Rubber jaw with baseplate made of aluminum



► Technical Data

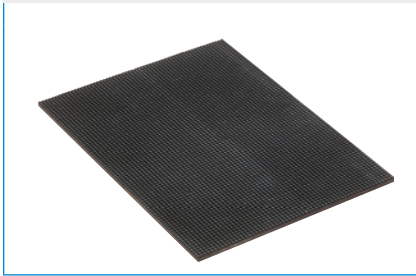
Order no.	GU2	GU2SI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	NBR	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5



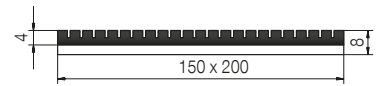
VALVES, FITTINGS, ACCESSORIES

JAW ACCESSORIES

► SERIES GU - RUBBER JAW LINERS



- Available in different versions
- Rubber jaw with baseplate made of aluminum



Order no.

Resistance DIN53504 min. [N/mm ²]	10	10
Material	NBR	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5

► Technical Data

Order no.	GU2G	GU2GSI
Resistance DIN53504 min. [N/mm ²]	10	10
Material	NBR	Silicone
Color	Black	Blue
Operating temperature max. [°C]	120	200
Shore hardness	65 +/- 3	60 +/- 5

► SERIES KF - RUBBER COATED TAPE



- Smooth surface or knobbed surface Adjusts itself optimally to the shape of the gripper jaw ideal coefficients of friction and compensates for variation in tolerances
- Resistant against adhesive materials

Order no.

Size [mm]	500 x 100	500 x 100
Material	Impregnated cotton fabric with special coating	Impregnated cotton fabric with special coating
Surface	smooth	knobbed
Material thickness [mm]	0.48	0.48
Max. permitted temperature [°C]	+60 (briefly up to +100 °C)	+60 (briefly up to +100 °C)
Tensile strength	0.9	0.9
Adhesive strength	22	22

► Technical Data

Order no.	KF50G	KF50N
Size [mm]	500 x 100	500 x 100
Material	Impregnated cotton fabric with special coating	Impregnated cotton fabric with special coating
Surface	smooth	knobbed
Material thickness [mm]	0.48	0.48
Max. permitted temperature [°C]	+60 (briefly up to +100 °C)	+60 (briefly up to +100 °C)
Tensile strength	0.9	0.9
Adhesive strength	22	22

► SERIES BGM - EPOXY JAW COMPOUND



- For your individual gripper jaws in a few steps
- Hard as metal and can be used for the most sensitive parts due to silicone filling
- Sufficient for approximately 10 medium-sized jaw cups

Order no.

Order no.	BGM-H	BGM-W
Version	Epoxy jaw compound	Silicone compound

► Technical Data

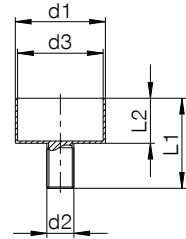
Order no.	BGM-H	BGM-W
Version	Epoxy jaw compound	Silicone compound



► SERIES BN - JAW CUPS FOR EPOXY JAW COMPOUND



► Jaw Cups for Epoxy Jaw Compound (BGM)



Order no.

Ø d1 [mm]

Ø d2 [mm]

Ø d3 [mm]

Dimension L1 [mm]

Dimension L2 [mm]

► Technical Data

	BN8	BN12	BN16	BN20
Ø d1 [mm]	6	10	16	20
Ø d2 [mm]	M3	M4	M5	M6
Ø d3 [mm]	5	9	15	19
Dimension L1 [mm]	8	12	16	20
Dimension L2 [mm]	4	6	8	10

► SERIES GU800 - RUBBER MOULDING COMPOUND



- For complicated gripper fingers with boreholes, seals and roller coatings
- Repairs to conveyor belts, solid rubber tires, transport casters, pipes, vibration protection on machines and insulation protection

Order no.

Mix ratio

Shore hardness level after hardening (ISO 868)

Sealed

Tensile strength (ISO 37) [N/mm²]

Elongation at break (ISO 37)

Tear resistance (DIN 53356)

Permitted temperature range [°C]

► Technical Data

GU800

100:50
80
1.04
8,5
900
17
-60 ... +90



VALVES, FITTINGS, ACCESSORIES

JAW EXTENSIONS

► SERIES GBV - JAW EXTENSIONS

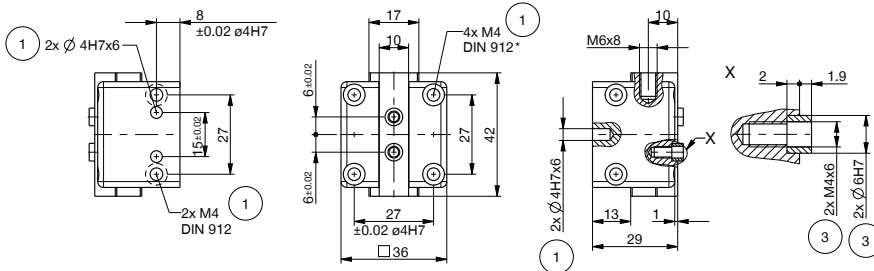


- GBV guide elements can be positioned at any desired distance from the gripper, including different distances
- Connection to gripper is made via threaded rods

► Technical Data

Order no.	GBV36	GBV50	GBV72
Weight [kg]	0.14	0.4	1.3
Mr [Nm]	650	1500	4000
Mx [Nm]	20	45	80
My [Nm]	50	110	160
Fa [N]	32	65	120

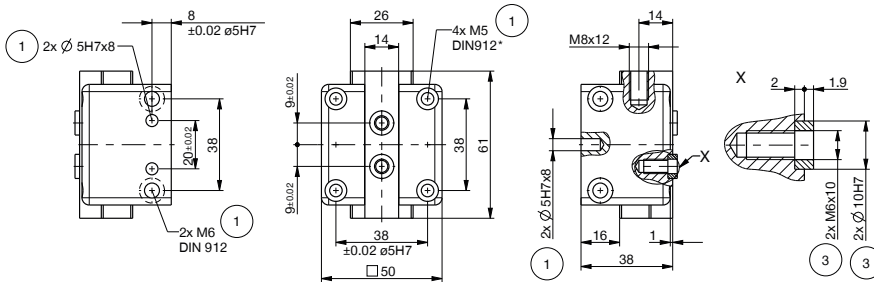
GBV36



① GBV attachment

③ Fixing for gripper finger

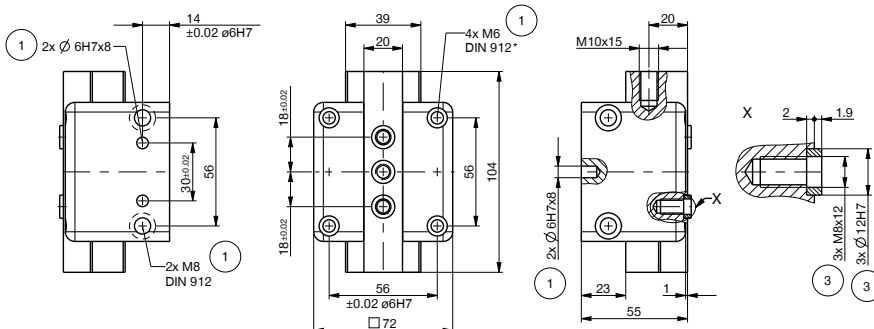
GBV50



① GBV attachment

③ Fixing for gripper finger

GBV72

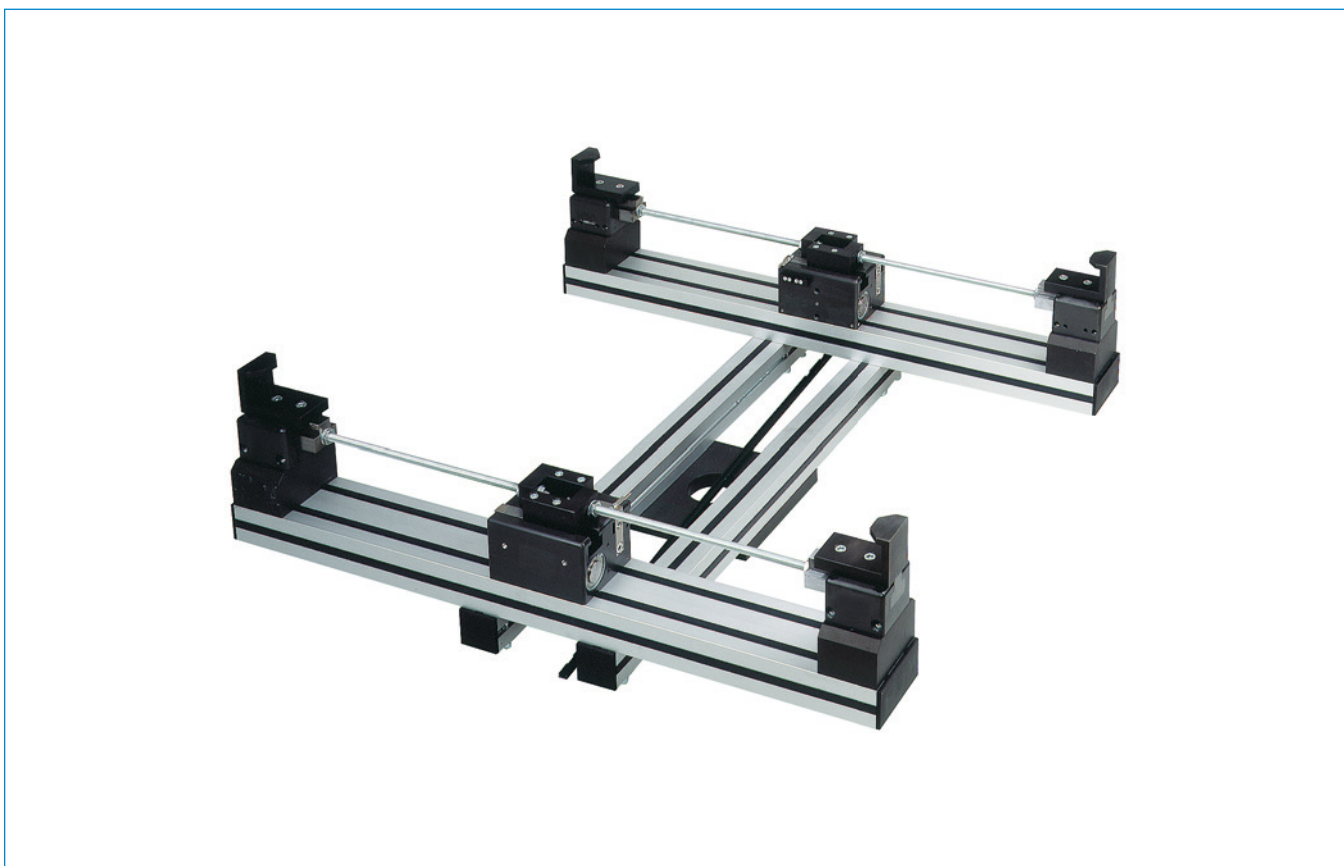


① GBV attachment

③ Fixing for gripper finger



▶ APPLICATION EXAMPLE



VALVES, FITTINGS, ACCESSORIES

PNEUMATIC ROTARY MANIFOLDS

► ORDER NO.

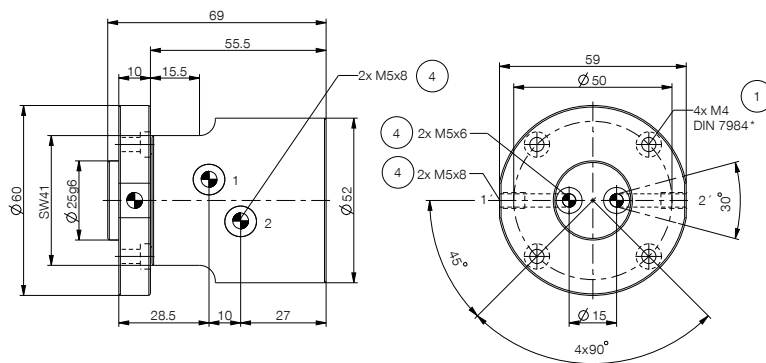


► available with 2 or 4 pneumatic feedthroughs

Technical Data

	► Serie DV - Rotary distributor	
	DV2N-B	DV4N-B
Air feed-through [Quantity]	2	4
Maximum acceleration [m/s ²]	22	22
Maximum speed [°/s]	720	720
Axial bearing load [N]	1300	1300
Radial bearing load [Nm]	104	156
Operating pressure max. [bar]	10	10
Operating temperature [°C]	5 ... +80	5 ... +80
Weight [kg]	0.45	0.55

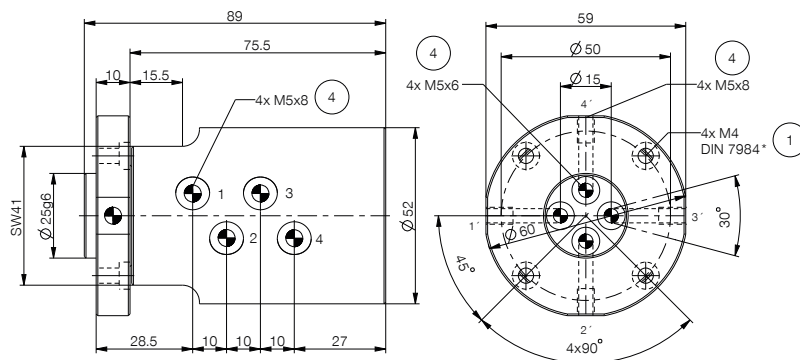
DV2N-B



① Rotary distributor attachment

④ pneumatic feed-through

DV4N-B



CHECKLIST

GRIPPERS

Customer number Telephone number
Company Fax number
Contact E-mail

Mr. Mrs.

Request Desired date Request No.

Order Order No.

Parallel grippers Concentric grippers Angular Grippers

Other / if yes, which type

Drive

Pneumatic Electrical Hydraulic

Operating pressure [bar] Voltage [V]

Required stroke

Per jaw [mm] or Total stroke [mm]

Gripper finger length

Gripper top edge to force application point [mm]

Ambient conditions

Clean / Dry Small amount of swarf / Coolant overspray Large amount of swarf / Coolant under pressure / Grinding agent

Chemical substances / if yes, which

Temperature [°C] Cycles per minute

Required force

Gripping force [N] or Workpiece weight kg g

Gripping type

Internal gripping External gripping

Frictional fit Form fit

Prism angle [°] Friction coefficient Axis acceleration [m/s²]

Self-locking

Not required In closing In opening Pressure safety valve

Desired accessories

Inductive sensor Magnetic field sensor With Cable Plugable

Separate cable / if yes, how long [m]

Pressure safety valve

Pneumatic fittings / if yes, which

Straight fitting
 Angled fitting
 Air flow control valve

Notes / Comments

Editor / Date

Attachment

Sketch 3D model Others

USAGE NOTE

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USAGE NOTE

INDIVIDUAL

DECLARATION OF INCORPORATION IN TERMS OF THE EC DIRECTIVE 2006/42/EC ON MACHINERY (ANNEX II 1 B)

We hereby declare that our elements meet the following basic requirements of the Machinery Directive 2006/42/EC as an incomplete machine

No.1.1.2., No.1.1.3., No.1.1.5., No.1.3.2, No. 1.3.4, No. 1.3.7, No.1.5.3, No.1.5.4, No.1.5.8., No.1.6.4, No.1.7.1, No.1.7.3, No.1.7.4.

We also declare that the specific technical documents were produced in accordance with Annex VII Part B of this Directive. We undertake to provide the market supervisory bodies with electronic versions of the incomplete machine's special documents via our documentation department should they have reason to request them.

The incomplete machine may only be commissioned if the machine or system in which the incomplete machine is to be installed has been determined to satisfy the conditions of the Machinery Directive 2006/42/EC and the EC Declaration of Conformity has been produced in accordance with Annex II A.

