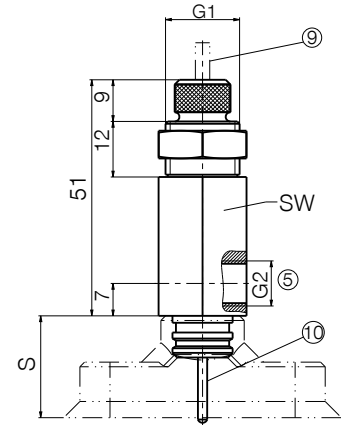# SENSING UNITS
SERIES SAM / SAVM / VS

▶ SERIES SAM

▶ **Special features**

External thread

Vacuum connection ⑤

Matches proximity switch NJ3-E2 ⑨

Integrated plunger to detect workpiece ⑩

▶ **Technical Data**

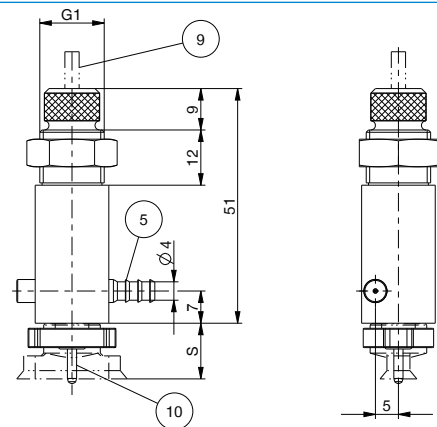| Order no.	SAM14X1	SAM16X1
Connection type	1	1
G1	M14x1	M16x1
G2	M5	G1/8"
S [mm]*	12	21
SW [mm]	17	19

*consider Dimension „S" (maximal distance of suction cup to assure an accurate sensing result)

▶ SERIES SAVM

▶ **Special features**

External thread

Integrated vacuum generator

Compressed air connection ⑤

Matches proximity switch NJ3-E2 ⑨

Integrated plunger to detect workpiece ⑩

▶ **Technical Data**

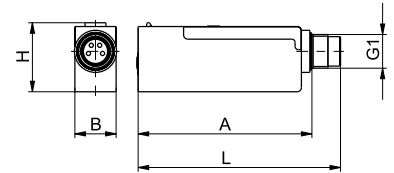| Order no.	SAVM14X1	SAVM16X1
Vacuum [bar]	-0.8	-0.8
Connection type	1	2
Air consumption suction [l norm]	12	14
Max. suction capacity [l/min]	3	2
Vacuum level [%]	80	78
Operating pressure [bar]	6	6
G1	M14x1	M16x1
S [mm]*	12	21

*consider Dimension „S" (maximal distance of suction cup to assure an accurate sensing result)

► **Special features**

Switching points adjustable via teach button

Two digital switching outputs

Vertical or horizontal fixing

Electronic vacuum sensor

200 mA switching circuit

► **Technical Data**

Order no.	VS001EL-E2	VS001ES-E2
Measuring medium	non-aggressive gases; dry, oil-free air	non-aggressive gases; dry, oil-free air
Measuring range [bar]	-1...0	-1...0
Max. safe overpressure [bar]	5	5
Repetition accuracy [%]	+/- 1% from measuring range	+/- 1% from measuring range
Hysteresis fest [mbar]	20	20
Output signal	2 digital	2 digital
Switching capacity [mA]	200	200
Status indication	LED	LED
Electrical connection	Connector M8, 4-pole	Connector M8, 4-pole
Voltage [V DC]	10-30	10-30
Current consumption [mA]	20	20
Degree of protection [IP]	40	40
Temperature deviation	+/- 3% from measuring range	+/- 3% from measuring range
Allowable ambient temperature [°C]	0...60	0...60
Type of construction	horizontal	vertical
G1	M8	M8
Dimension A [mm]	41.2	36.2
Dimension B [mm]	10	10
Dimension H [mm]	16.4	17.5
Dimension L [mm]	48	43
Weight [kg]	6	6

SENSING UNITS
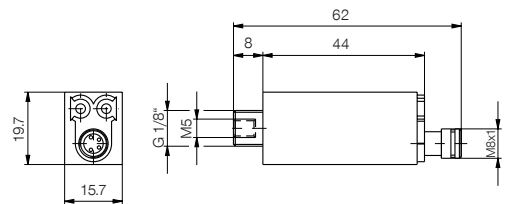# SERIES VS

► **SERIES VS003E**

► **Special features**

Electronic vacuum switch

Switching point and hysteresis adjustable
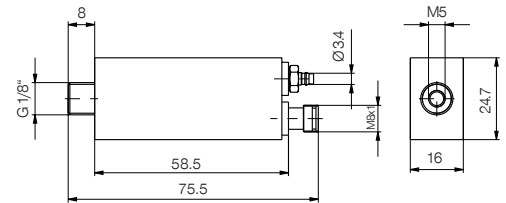
Analog and digital outputs

► Technical Data	
Order no.	**VS003E-E2**
Measuring medium	non-aggressive gases; dry, oil-free air
Measuring range [bar]	-1...0
Max. safe overpressure [bar]	5
Repetition accuracy [%]	+/- 1% from measuring range
Hysteresis	Adjustable: 3-25% of the set value
Output signal	1 analog 1..5V / 1 digital
Switching capacity [mA]	125
Response time [ms]	5.0
Status indication	LED
Electrical connection	Connector M8, 4-pole
Connection media	G1/8" -AG + M5-IG
Voltage [V DC]	10.8-30
Current consumption [mA]	30
Degree of protection [IP]	40/65 (with tube)
Temperature deviation	+/- 3% from measuring range
Allowable ambient temperature [°C]	0.,.50
Weight [kg]	18

► **Special features**

Electronic vacuum switch with digital display

Switching point and hysteresis freely programmable

Special programmable functions

Two separately programmable digital outputs

► **Technical Data**

Order no.	VS003D-E2
Measuring medium	non-aggressive gases; dry, oil-free air
Measuring range [bar]	-1...0
Max. safe overpressure [bar]	5
Repetition accuracy [%]	+/- 1% from measuring range
Hysteresis	adjustable: 0-100% of the set value/comparator mode
Output signal	2 digital
Switching capacity [mA]	180
Status indication	2xLED
Display resolution	0.01 bar, 5 mmHg, 0.2 inHg, 1 kPa
Displayed units	bar, mmHg, inHg, kPa
Displayed value	3-digital 7-segment LED
Electrical connection	Connector M8, 4-pole
Connection media	G1/8" -AG + M5-IG
Voltage [V DC]	10.8-30
Current consumption [mA]	30
Degree of protection [IP]	40/65 (with tube)
Temperature deviation	+/- 3% from measuring range 0-50°C
Allowable ambient temperature [°C]	0.,.50
Weight [kg]	25

Series VS / **Sensing units**

6