

## INSTALLATION AND OPERATING INSTRUCTIONS

1-point magnetic field sensor

MFS02-K-KHC-P1-PNP  
MFS02-S-KHC-P1-PNP  
MFS01-K-KHC-P1-PNP  
MFS01-S-KHC-P1-PNP  
DDOC01460

THE KNOW-HOW FACTORY



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## 1 Supporting documents

### NOTICE



Read through the installation and operating instructions before installing or working with the product.

The installation and operating instructions contain important notes for your personal safety. They must be read and understood by all persons who work with or handle the product during any phase of the product lifetime.



The documents listed below are available for download on our website [www.zimmer-group.com](http://www.zimmer-group.com).

- Installation and operating instructions
- Catalogs, drawings, CAD data, performance data
- Information on accessories
- Technical data sheets
- General Terms and Conditions, including warranty information.

⇒ Only those documents currently available on the website are valid.

In these installation and operating instructions, "product" refers to the product designation on the title page!

## 2 Safety notices

### NOTICE



In accordance with the EC Machinery Directive, the product is not a safety component.

## 3 Proper use

### NOTICE



The product is only to be used in its original state with its original accessories, with no unauthorized changes and within the stipulated parameter limits and operating conditions.

Any other or secondary use is deemed improper.

- ▶ Operate the product only in compliance with the associated installation and operating instructions.
- ▶ Operate the product only when it is in a technical condition that corresponds to the guaranteed parameters and operating conditions.

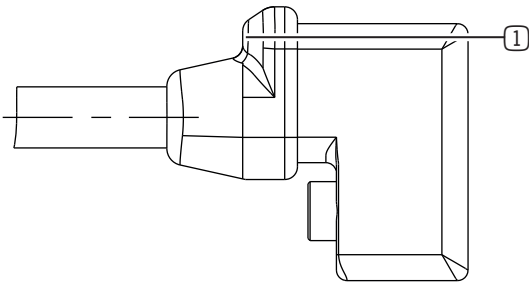
⇒ Zimmer GmbH shall accept no liability for any damage caused by improper use. The operator bears sole responsibility.

## 4 Personnel qualification

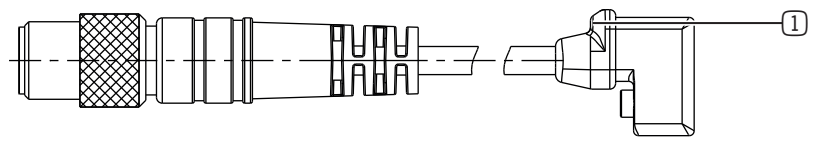
Installation, commissioning and maintenance may only be performed by trained specialists. These persons must have read and understood the installation and operating instructions in full.

## 5 Product description

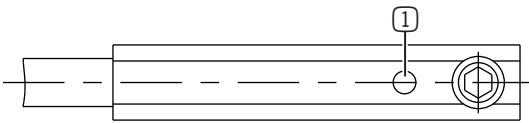
MFS01-K-KHC-P1-PNP



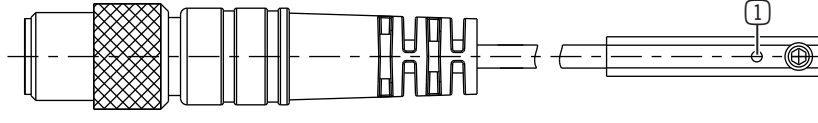
MFS01-S-KHC-P1-PNP



MFS02-K-KHC-P1-PNP



MFS02-S-KHC-P1-PNP



① LED display

## 6 Technical data

### INFORMATION



- ▶ You can find the information in the technical data sheet on our website.
- This data varies within the series, depending on the specific design.
- ▶ Please contact Customer Service if you have any questions.

## 7 Installation

### 7.1 Installing MFS01-S-KHC-P1-PNP and MFS01-K-KHC-P1-PNP

#### NOTICE



- ▶ Use the included Allen key and/or plastic pin for installation.

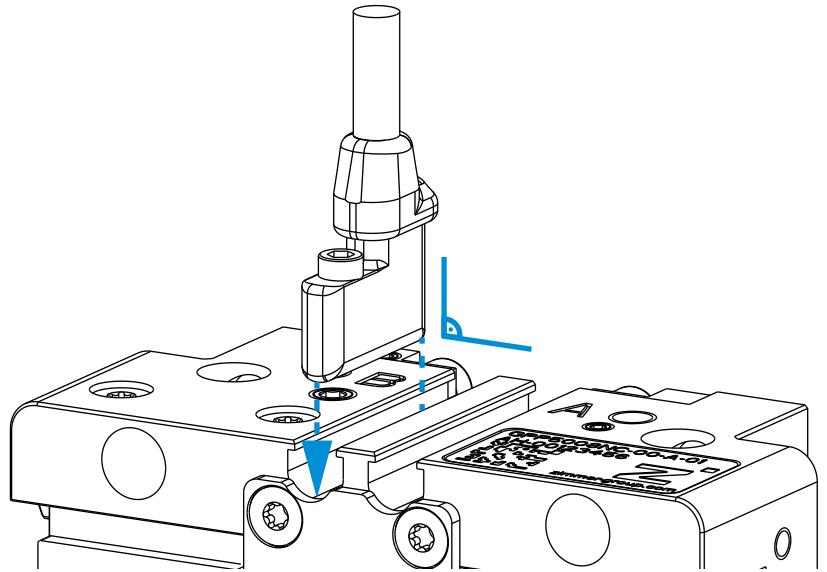
#### INFORMATION



The sensors can be used for all Zimmer GmbH products with a compatible C-groove and switching distance.

- ▶ You can find the information in the technical data sheet on our website.

- ▶ Slide the sensor into the C-groove from above.

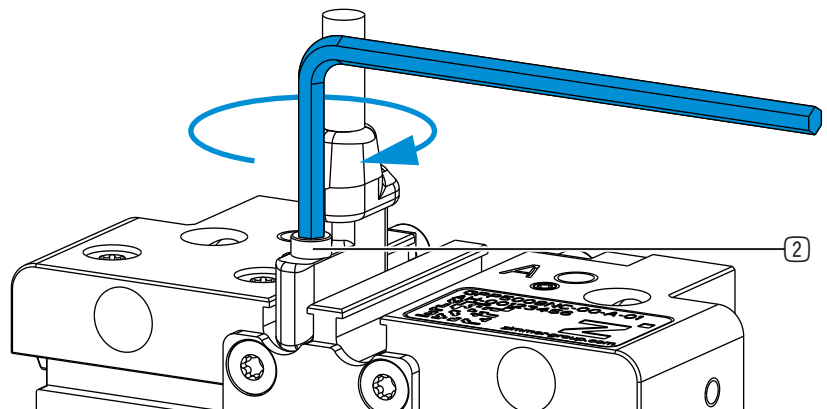


#### INFORMATION



- ▶ Comply with the tightening torque of 0.1 Nm.

- ▶ Tighten the mounting screw using an Allen key.

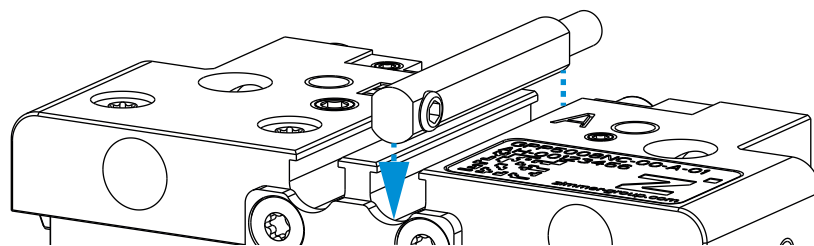


② Mounting screw

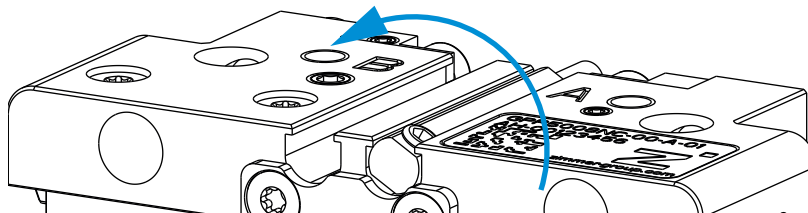
- ▶ Connect the sensor to the operating voltage.

## 7.2 Mounting MFS02-S-KHC-P1-PNP and MFS02-K-KHC-P1-PNP

- ▶ Push the sensor into the C-groove from above with the mounting screw pointing downwards.



- ▶ Turn the sensor by 90° so that the mounting screw points upwards.

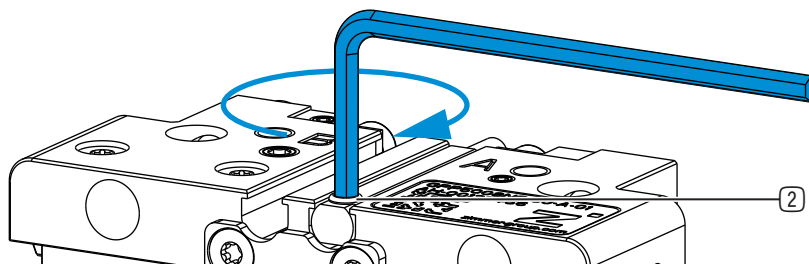


### INFORMATION



- ▶ Comply with the tightening torque of 0.1 Nm.

- ▶ Tighten the mounting screw using an Allen key.



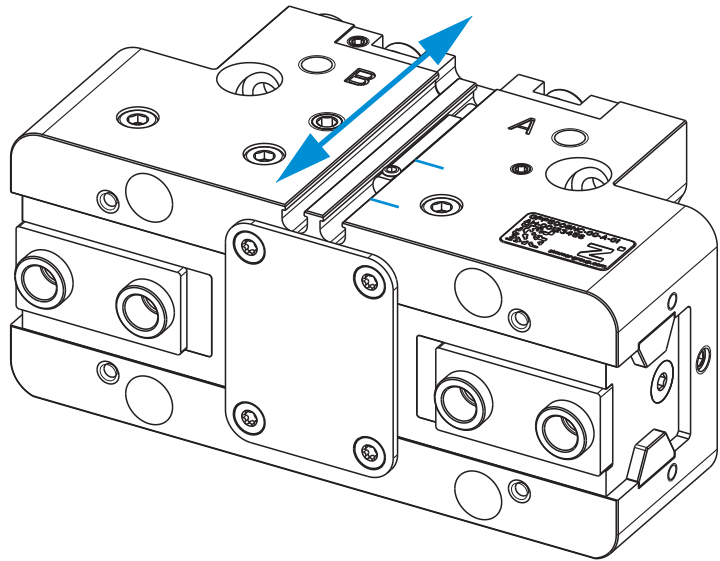
- ② Mounting screw

## 8 Commissioning

- ▶ Connect the sensor to the operating voltage.

### 8.1 Defining switching points

- ▶ Push the sensor to the switch-on point.
  - ⇒ The LED display lights up.
- ▶ Mark the edge of the sensor on the product.
- ▶ Push the sensor further until the LED display goes out.
- ▶ Then push the sensor backward until it reaches the second switch point and the LED display lights up again.
- ▶ Mark the edge of the sensor on the product.
- ▶ Position the edge of the sensor centrally between the markings.
- ▶ Check the function.
- ▶ Comply with the tightening torque of 0.1 Nm.
- ▶ Tighten the mounting screw using an Allen key.



## 9 Maintenance

Operation of the product is maintenance-free.

- ▶ Despite the maintenance-free performance mentioned, check the product regularly for secure screw and plug-in connectors.

## 10 Decommissioning/disposal

### INFORMATION



When the product reaches the end of its operational phase, it can be completely disassembled and disposed of.

- ▶ Disconnect the product completely from the power supply.
- ▶ Dispose of the components properly according to the material groups.
- ▶ Comply with the locally applicable environmental and disposal regulations.



## 11 Declaration of Conformity

In terms of the EU Directive 2014/35/EU (Low voltage directive)

### Name and address of the manufacturer:

#### Zimmer GmbH

 Im Salmenkopf  
 77866 Rheinau, Germany  
 +49 7844 9138 0  
 [info@zimmer-group.com](mailto:info@zimmer-group.com)  
 [www.zimmer-group.com](http://www.zimmer-group.com)

We hereby declare that the products described below

**Product designation:** 1-point magnetic field sensor  
**Type designation:** MFS02-K-KHC-P1-PNP  
 MFS02-S-KHC-P1-PNP  
 MFS01-K-KHC-P1-PNP  
 MFS01-S-KHC-P1-PNP

conforms to the requirements of the 2014/35/EC directive in its design and the version we put on the market.

The following harmonized standards have been used:

DIN EN IEC 60947-5-2	Low-voltage switchgear - Part 5-2: Control units and switch elements - proximity switches
DIN EN IEC 63000	Technical documentation for evaluating electrical and electronic equipment regarding the restriction of hazardous substances


A full list of applied standards can be obtained from the manufacturer.

Kurt Ross

Authorized representative for the compilation of relevant technical documents

Rheinau, Germany, 2019-10-31

(Place and date of issuance)



Martin Zimmer  
 (Legally binding signature)  
 Managing Partner