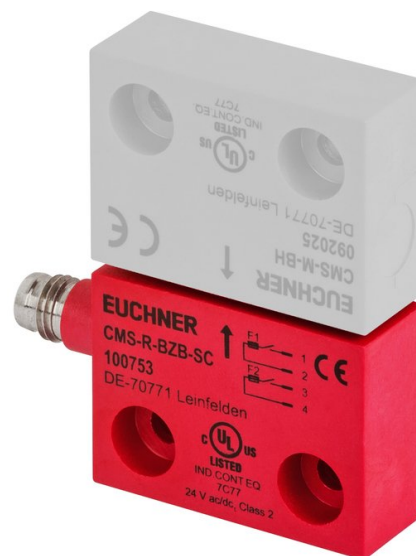


## CMS-R-BZB-SC (ORDER NO. 100753)

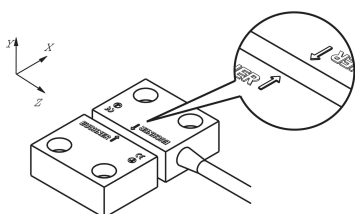
Read heads design B for ESM, M8

- ▶ In combination with evaluation units ESM-BA...
- ▶ Cube-shaped version 36 x 26 mm
- ▶ Plug connector M8



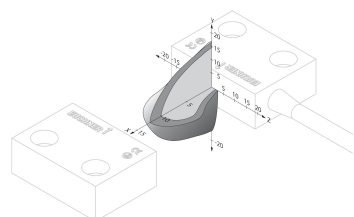
### Description

Alignment of read head and actuator



Figure

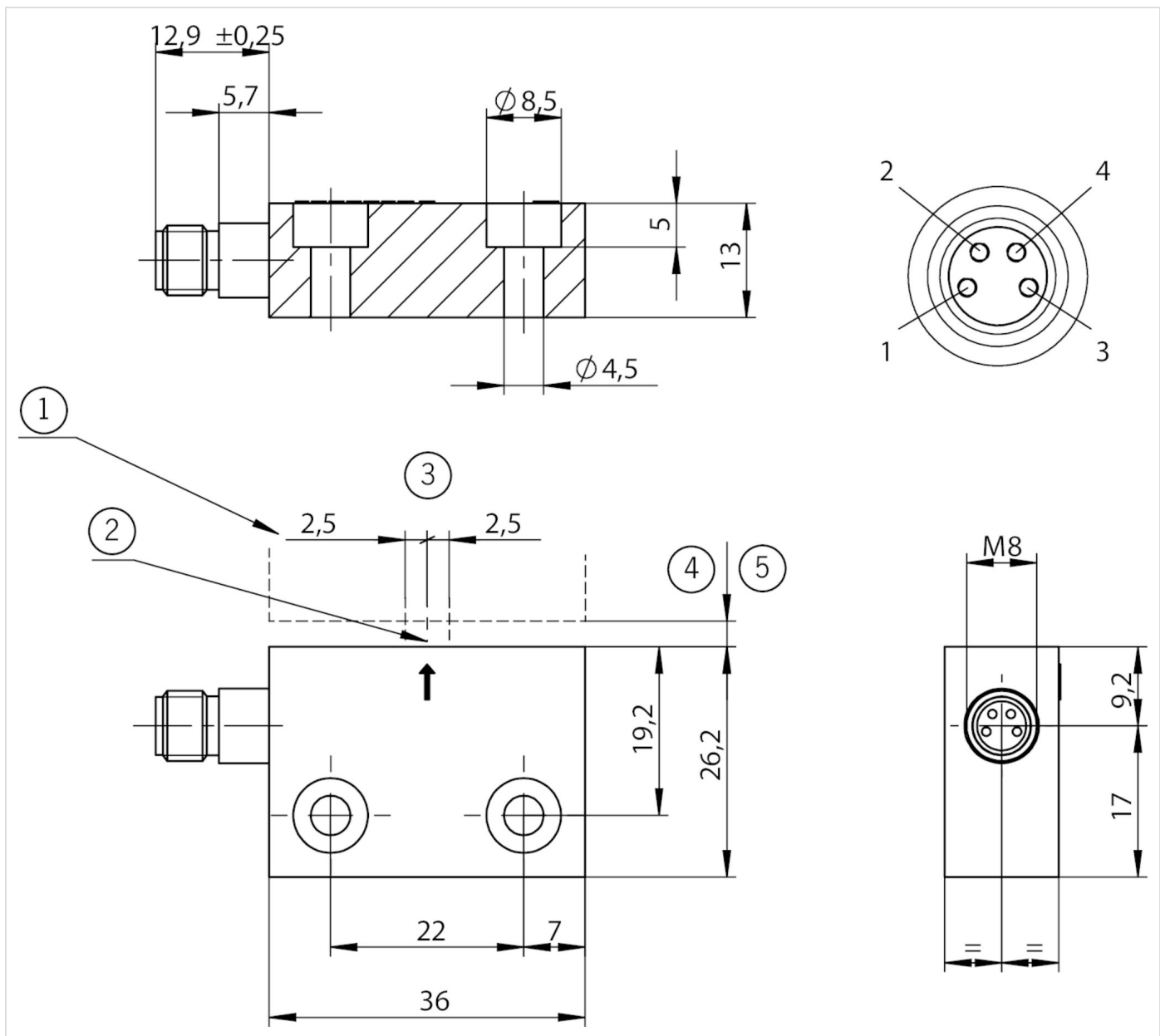
Operating diagrams, design B for ESM



CMS-R-BZB

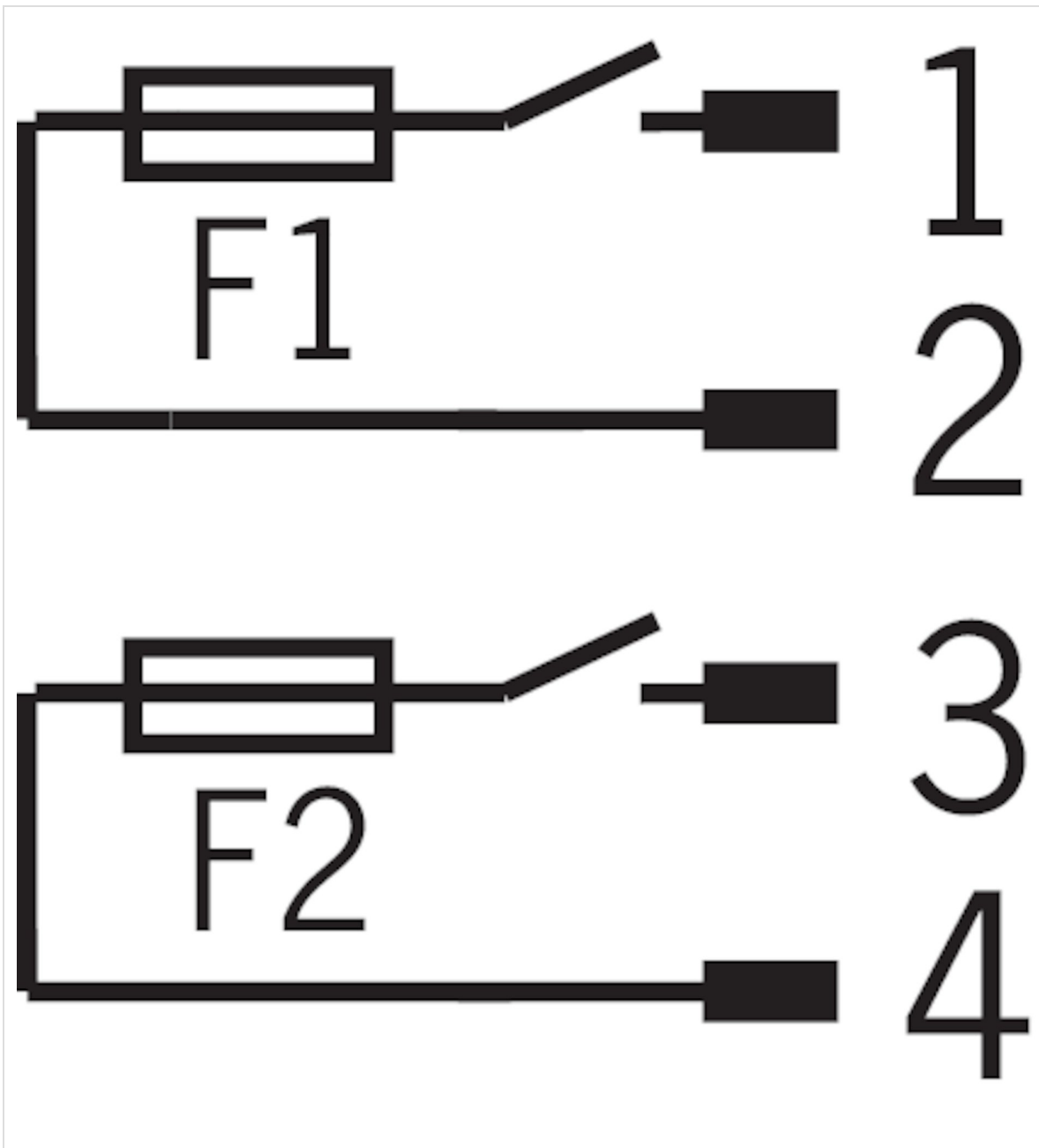
- ▶ Typ. operating distance
- ▶ Typ. release distance

Dimension drawing



- 1 Actuator
- 2 Active face
- 3 Center offset m at s=3 mm
- 4 Sao
- 5 Assured operating distance

CMS-R-BZB...



Technical data

Approvals



Mechanical values and environment

Design	B
Housing material	
	Housing Fiber glass reinforced PPS
Weight	
	Net 0,016 kg
Ambient temperature	-20 ... 60 °C
Degree of protection	IP67
Mechanical life	100 x 10 <sup>6</sup>
Installation orientation	Any, pay attention to marking (During mounting it is to be ensured the marking arrows on actuator and read head are opposite each other.)
Tightening torque	0,4 ... 0,5 Nm
Number of NO contacts	2 NO contacts with fuse, 100 mA each
Connection	4-pin M8 plug connector
Method of operation	Magnetic, reed contact

### Electrical connection ratings

Rated conditional short-circuit current	100 A (Parameter dependent on the evaluation units ESM-BA2.. and ESM-BA3..)
Fusing	
Power supply / safety contacts, external contact protection	Fuse 10 A gG (Parameter dependent on the evaluation units ESM-BA2.. and ESM-BA3..)
Switching voltage	24 ... 35 V (DC)
Switching current	max.100 mA
Switching characteristics	Parallel
Switching voltage according to UL	
	According to UL Class 2 max.24 V AC/DC
Switching frequency, electrical	
	At I <sub>min</sub> = 10 mA max.5 Hz (Parameter dependent on the evaluation units ESM-BA2.. and ESM-BA3..)
	At nominal current 8 A max.0,1 Hz (Parameter dependent on the evaluation units ESM-BA2.. and ESM-BA3..)
Switching delay from state change	26 ms (Parameter dependent on the evaluation units ESM-BA2.. and ESM-BA3..)

### Other

In compliance with	EN ISO 13849-1: 2015; EN 62061: 2005 + AC: 2010 + A1: 2013 + A2: 2015; EN ISO 14119: 2013; IEC 60947-5-3: 2013
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### Reliability values according to EN ISO 13849-1

	Monitoring of the safety guard position
B10 <sub>D</sub>	20 x 10 <sup>6</sup>

In combination with Evaluation unit ESM-BA201, ESM-BA301, ESM-BA302, ESM-BA303, ESM-BA201P, ESM-BA301P and Actuator CMS-M-BH

### Actuating range

## Center offset

At s=3 mm read distance	2,5 mm (Figure only applies if there is no ferromagnetic material in the vicinity of the read head and the actuator.)
Assured release distance $S_{ar}$	max.20 mm (The assured switch-off distance $s_{ar}$ corresponds to the reset distance.)
Assured operating distance $S_{ao}$	With center offset $m=0$ min.7 mm (Figure only applies if there is no ferromagnetic material in the vicinity of the read head and the actuator.)

## Accessories

### Actuator

#### Actuator CMS design B



**092025**  
CMS-M-BH

- ▶ Cube-shaped version 36 x 26 mm

### Connection material

#### Connection cable with plug connector M8, 4-pin, 2m



**088812**  
C-M08F04-04X025PV02,0-ES-088812

- ▶ M8 female plug, 4-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 2 m
- ▶ With flying lead

#### Connection cable with plug connector M8, 4-pin, 5m



**088813**  
C-M08F04-04X025PV05,0-ES-088813

- ▶ M8 female plug, 4-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 5 m
- ▶ With flying lead

#### Connection cable with plug connector M8, 4-pin, 10m



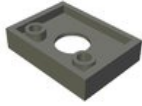
**088814**  
C-M08F04-04X025PV10,0-ES-088814

- ▶ M8 female plug, 4-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 10 m
- ▶ With flying lead

### Mounting accessories

## Spacer CMS-A-SA

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**110414**  
CMS-A-SB VPE10

- ▶ Spacer for CMS read heads design B
- ▶ Packaging unit 10 pieces

## Contacts

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