

## Safety sensors

// BZ 16-11D Order no.: 90570005

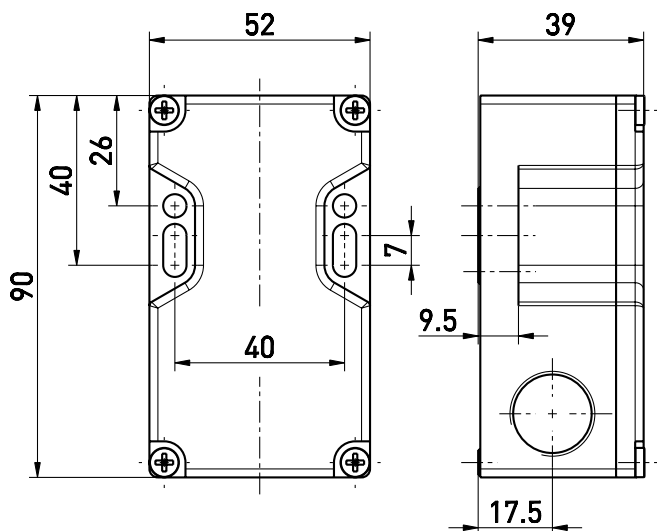
### Features/Options

- Thermoplastic enclosure
- Long life
- Differential inputs: Induction/Hall sensor operating principle
- Internal monitoring, high manipulation protection
- Potential-free outputs

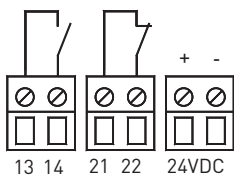
- 1 NC/1 NO contact
- Actuating plane: actuating from the top "D"
- Switching capacity  $s_{ao}$  10 mm,  $s_{ar}$  20 mm
- With terminal space

Note: The actuator is not included in the delivery of the switches.

### Dimensions



### Contact diagram



### Technical data

#### Standards

EN 61000-6-1, -2, -3, -4;  
EN 60947-5-2;  
EN 60947-5-3/PDF-M\*; EN 954-1;  
EN 1088; EN ISO 13849-1;  
DIN EN 62061; 2004/108/EG

#### Enclosure

glass-fibre reinforced  
thermoplastic, self-extinguishing  
switch-on distance  $s_{ao}$  = 10 mm,  
switch-off distance  $s_{ar}$  = 20 mm  
(When no ferromagnetic material  
is present in the vicinity of the  
sensor or actuator. Minimum  
distance 2 mm for approach from  
side.)

#### Limit distances

approx. 6 mm

#### Hysteresis

#### Sideways tolerance

$\leq 3$  mm

#### Repeatability

< 1 mm

#### Safety-relevant data:

EN 954-1

Category 4 \*

EN ISO 13849-1

PL e

$T_M$

max. 20 years

MTTFd

57.8 years

DIN EN 62061

SIL CL 3

PFH<sub>D</sub>

$\geq 3 \times 10^{-8}$

$I_e/U_e$

160 mA/24 VDC  $\pm 15\%$   
(reverse voltage protected)

Residual current

$\leq 70$  mA

Max. fuse rating  $U_e$

0.25 A (slow blow)

Output contacts

2 enabling paths  
(1 NO/1 NC)

Switching voltage

max. 250 VAC

Cond. short-circuit current

100 A

Voltage drop

refer to contact resistance

Max. fuse rating

4 A (gL/gG) incoming  
series-connected

Utilisation category

AC-15; DC-13

$I_e/U_e$  of the outputs

3 A/230 VAC; 4 A/24 VDC

$U_i$

250 VAC

Overvoltage category

III

Degree of pollution

3

$U_{imp}$

4 kV

Max. switching frequency

1 Hz

Risk time

< 200 ms

Degree of protection


IP 67 to IEC/EN 60529

Ambient temperature

0 °C ... + 55 °C

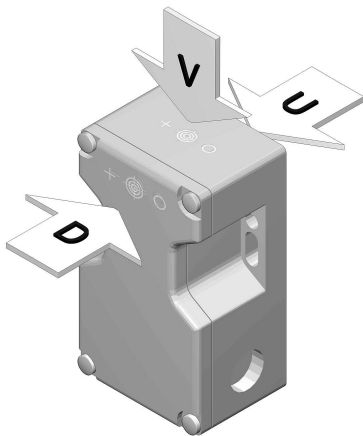
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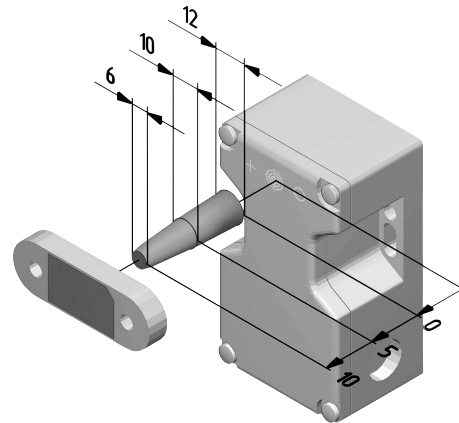
Mech. life	50 mio. operations
Contacts	AgSnO self-cleaning, positive-guided
Contact resistance	100 mΩ in new condition
Connection	cable entry M20 x 1.5, terminal space with self-lifting clamps for max. 2 x 1.5 mm <sup>2</sup> (incl. conductor ferrules)
Approvals	  * is only achieved in combination with a safety module
Weight	220g

Errors and omissions excepted.

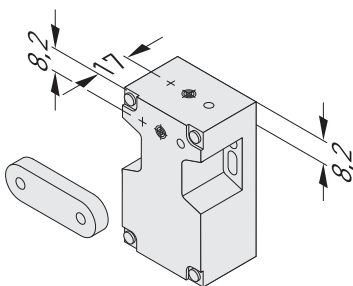
### Actuating planes



### Switching capacity



### Actuator positioning



### Distance for actuation from side

