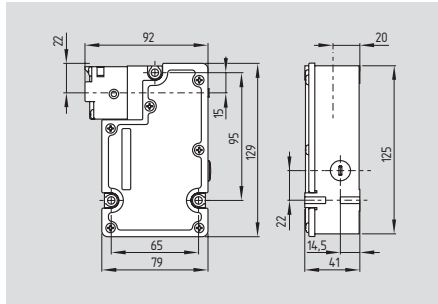


Solenoid interlocks

TZM/TZF



- Interlock with protection against incorrect locking
- Thermoplastic enclosure
- Manual release, emergency exit or emergency release
- Long life
- Double insulated □
- Holding force 1500 N
- Wiring compartment
- Power to unlock/power to lock principle
- 1 cable entry M20
- Actuating play 11 mm in direction of actuation
- With LED on request

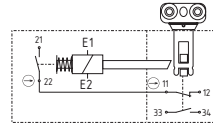
Technical data

Standards:	IEC/EN 60947-5-1 BG-GS-ET-19
Enclosure:	glass fiber reinforced thermo-plastic, self-extinguishing
Actuator and locking bolt:	zinc-plated steel / zinc diecast
Protection class:	IP67; Ordering suffix NF: IP65
Contact material:	silver
Contact type:	change-over contact with double break, type Zb or 2 NC contacts, with galvanically separated contact bridges
Switching principle:	⊖ IEC 60947-5-1 slow action, NC contact with positive break
Connection:	self-opening screw terminals
Cable section:	max. 2.5 mm ² (incl. conductor ferrules)
Cable entry:	M20
U _{imp} :	2.5 kV
U _i :	320 V
I _{the} :	4 A
Utilization category:	AC-15, DC-13 4 A / 230 VAC 4 A / 24 VDC
Max. fuse rating:	4 A gG D-fuse
Positive break travel:	2 x 3.5 mm
Positive break force:	20 N
Magnet:	100% ED 24 VDC
U _s :	110 VAC, 50/60 Hz 230 VAC, 50/60 Hz
Power consumption:	max. 8.5 W
Ambient temperature:	0 °C ... + 50 °C
Mechanical life:	1 million operations
F _{max} :	1,500 N
Latching force:	20 N
Classification:	
Standards:	EN ISO 13849-1
B _{10d} (NC):	2,000,000
Mission time:	20 years

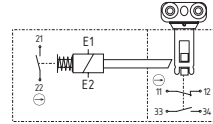
$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}} \quad n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

Contact variants

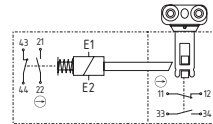
Magnet-operated 2 NC in series / 1 NO



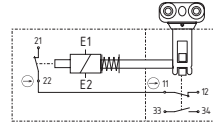
1 NO / 2 NC



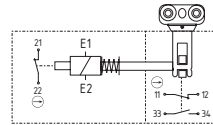
2 NO / 2 NC



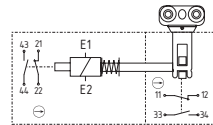
Spring-operated 2 NC in series / 1 NO



1 NO / 2 NC



2 NO / 2 NC



Approvals

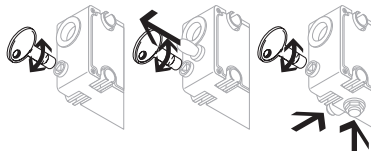


Ordering details

TZ ① ② ③ ④

No.	Option	Description
①	F	Spring-operated
	M	Magnet-operated
②	W	2 NC in series / 1 NO
	CW	2 NC / 1 NO
③	S	2 NC / 2 NO
	N	Manual release
	NF	Emergency release
	NF	Emergency exit and manual release
④	24VDC	24 VDC
	110VAC	110 VAC
	230VAC	230 VAC

Note



Manual release (left)

- For manual unlocking using triangular key TZ-69 (included in delivery)
- For maintenance, setting-up, etc.

Emergency release (middle)

- For cases of danger
- Mounting only outside the guarded area

Emergency exit (right)

- For cases of danger
- Actuation from within the hazardous area

Note

Contact 21-22 must be integrated in the safety circuit. Contact symbols shown for the closed condition of the guard device.

Interlocks with power to lock principle may only be used in special cases after a thorough evaluation of the accident risk, since the guarding device can immediately be opened on failure of the electrical power supply or when the main switch is opened.

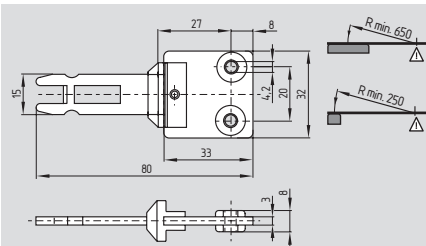
For the version with LED, the monitoring contacts are not potential-free

The actuator TZ/CO is included in delivery.

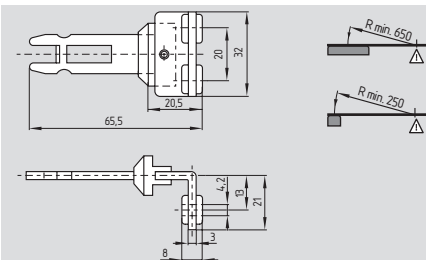
Other contacts variants on request

Solenoid interlocks

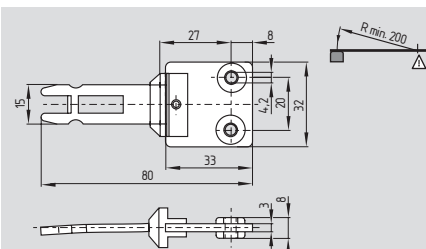
System components



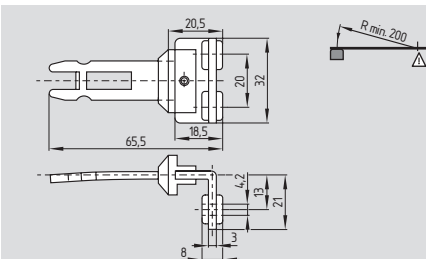
Straight actuator TZ/CO



Angled actuator TZ/CW



Straight radius actuator TZ/COR

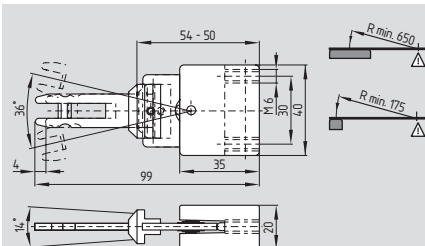


Angled radius actuator TZ/CWR

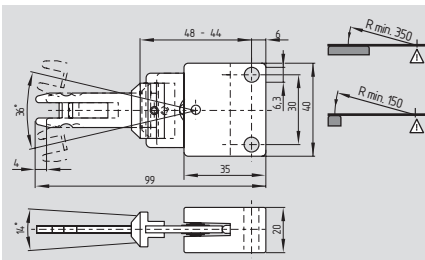
Ordering details

Straight actuator **TZ/CO**
 Angled actuator **TZ/CW**
 Straight radius actuator **TZ/COR**
 Angled radius actuator **TZ/CWR**

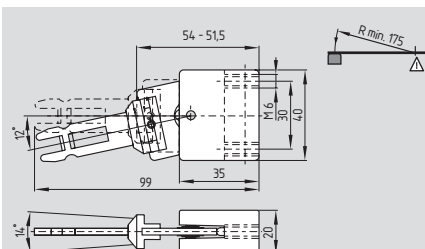
System components



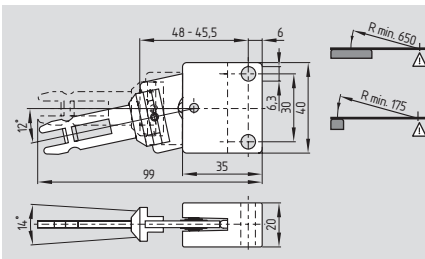
Flexible actuator TZ/COF/HIS.1



Flexible actuator TZ/COF/HIS.2



Flexible actuator TZ/CORF/HIS.1

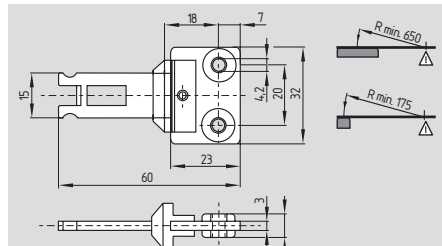


Flexible actuator TZ/CORF/HIS.2

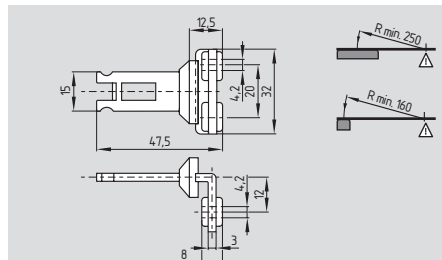
Ordering details

Flexible actuator **TZ/COF/HIS.1**
 Flexible actuator **TZ/COF/HIS.2**
 Flexible actuator **TZ/CORF/HIS.1**
 Flexible actuator **TZ/CORF/HIS.2**

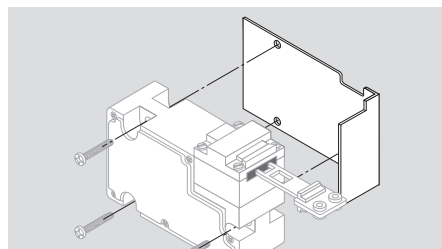
System components



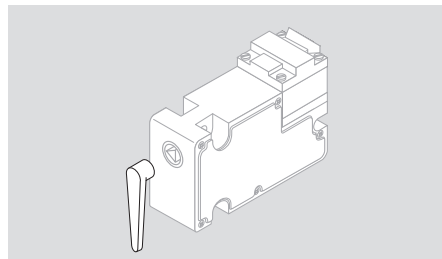
Shortened straight actuator TZ/CK



Shortened angled actuator TZ/CWK



Mounting plate TZ-44



Angled triangular key TZ-75

Ordering details

Shortened straight actuator **TZ/CK**
 Shortened angled actuator **TZ/CWK**
 Mounting plate **TZ-44**
 Triangular key, angled **TZ-75**
 (TZ-69 triangular key is included in delivery for S and N executions)
 Centering device
 Mounting outside **TFA-020**
 Mounting inside **TFI-020**
 (Product information see page 1-52)