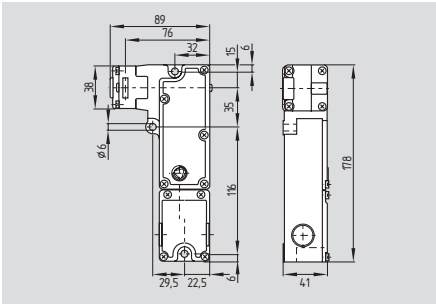


Solenoid interlocks

AZM 190 (TZKF/TZKM)



- Interlock with protection against incorrect locking
- Thermoplastic enclosure
- Manual or Emergency release
- Long life
- Power to unlock/power to lock principle
- Slim design, particularly suitable for fitting on hinged doors, aluminum profiles and fencing
- Actuating head can be repositioned by 4 x 90°
- Sealing mechanism to prevent the ingress of dirt
- 2 cable entries M20
- Wiring compartment
- Holding force 1950 N

Technical data

Standards: IEC/EN 60947-5-1
BG-GS-ET-19

Enclosure: glass fiber reinforced thermoplastic

Actuator and locking bolt: zinc-plated steel / zinc diecast

Protection class: IP67;
Ordering suffix N: IP65

Contact material: silver

Contact type: change-over contact, double break, galvanically separated contact bridges

Switching principle: \ominus IEC 60947-5-1 slow action, NC contact with positive break

Connection: screw terminals, solid or multi-strand lead

Cable section: min. 0.5 mm², max. 2.5 mm²; incl. conductor ferrules: max. 1.5 mm²

U_{imp} : 4 kV

U_j : 250 V

I_{the} : 4 A

Utilization category: AC-15, DC-13

I_e/U_e : 4 A / 230 VAC
4 A / 24 VDC

Max. fuse rating: 4 A gG D-fuse (DIN EN 60269-1)

Positive break travel: 2 x 3.5 mm

Positive break force: 20 N

Magnet: 100% ED

Power consumption: max. 8.5 W

Actuating speed: max. 20 m/min

Max. actuating frequency: 1.200 s/h

Ambient temperature: 0 °C ... +50 °C

Mechanical life: 1 million operations

F_{max} : 1950 N

Latching force: 20 N

Classification:

Standards: EN ISO 13849-1

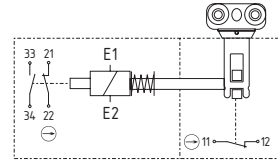
B_{10d} NC (NC): 2.000.000

Mission time: 20 years

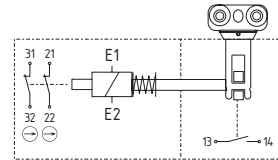
$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

Contact variants

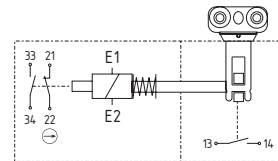
Power to unlock
1 NC
1 NO / 1 NC



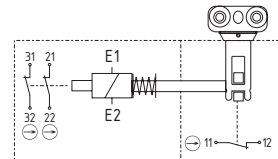
1 NO
2 NC



1 NO
1 NO / 1 NC



1 NC
2 NC



Approvals

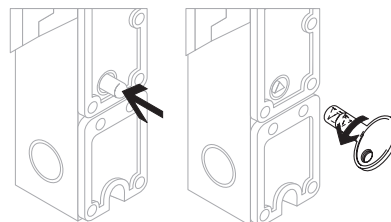


Ordering details

AZM 190-1RK②③-④

No.	Option	Description	Actuator:
①	11/01	Magnet:	1 NC
	11/10	1 NO / 1 NC	1 NO
	02/10	2 NC	1 NO
	02/01	2 NC	1 NC
②	A	Power to unlock	
		Power to lock	
③	N	Manual release	
		Emergency release	
④	24VDC	U_s 24 VDC	
	24VAC	U_s 24 VAC	
	48VAC	U_s 48 VAC	
	110VAC	U_s 110 VAC	
	230VAC	U_s 230 VAC	

Note



Emergency release button (left), suffix N

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

Manual release (right)

- For manual release using triangular key TZ-69
- For maintenance, setting-up, etc.

Note

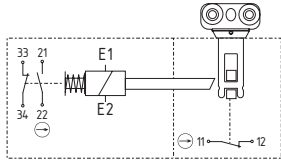
Other product variants:

- for safety fences in aluminum profile systems
- actuator with reduced mounting depth
- preferably for inside mounting
- with emergency exit
- 4 monitoring contacts
- for left-hand and right-hand hinged guard doors
- Crosses from TZKF and TZKM part numbers available on request.

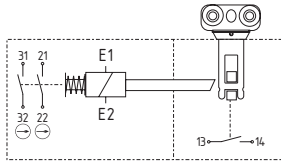
Solenoid interlocks

Contact variants

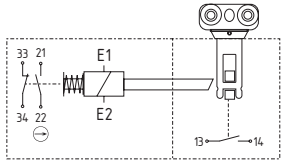
Power to lock
1 NC
1 NO / 1 NC



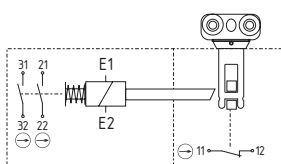
1 NO
2 NC



1 NO
1 NO / 1 NC



1 NC
2 NC



Note

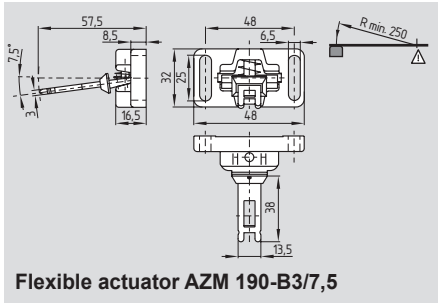
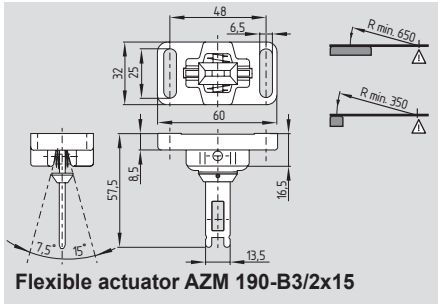
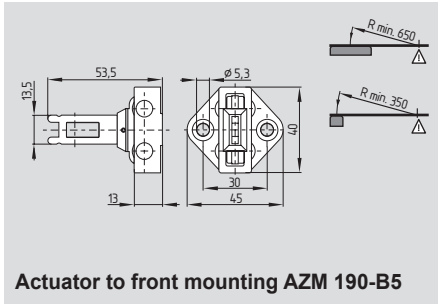
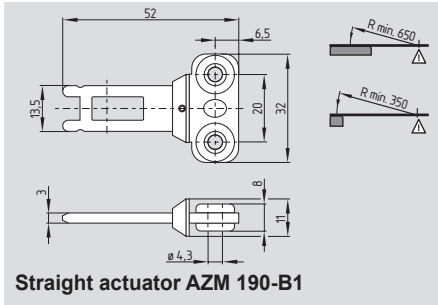
Contact symbols shown for the closed and de-energized condition of the guard device.

At least one magnetic contact with positive break \ominus must be integrated in the safety circuit.

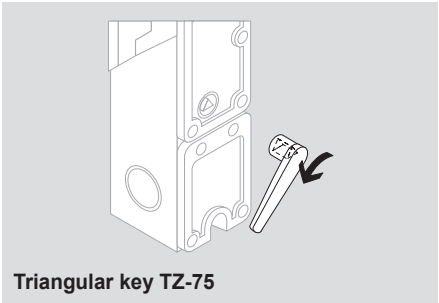
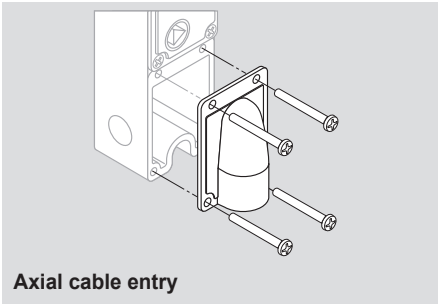
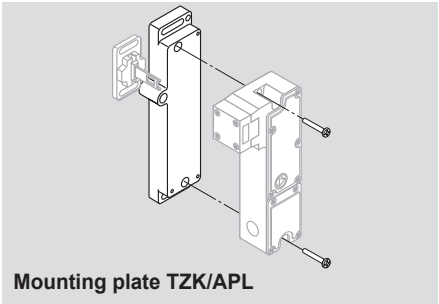
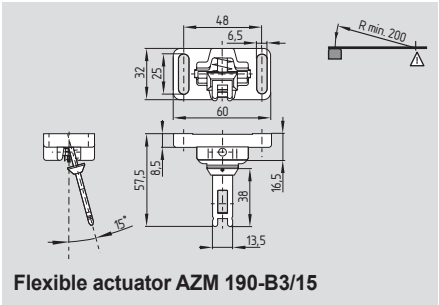
Interlocks with power to lock principle may only be used in special cases after a thorough evaluation of the accident risk, since the guarding device can immediately be opened on failure of the electrical power supply or when the main switch is opened.

Actuators and connector plugs must be ordered separately.

System components



System components



Ordering details

Straight actuator **AZM 190-B1**
Actuator to front mounting **AZM 190-B5**
Flexible actuator **AZM 190-B3/2x15**
Flexible actuator **AZM 190-B3/7,5**

Ordering details

Flexible actuator **AZM 190-B3/15**
Mounting plate **TZK/APL**
Axial cable entry **ZPG 190**
Triangular key TZ-75 **101028565**
(TZ-69 triangular key is included in delivery)

Centering device **TFA-020**
Mounting outside **TFI-020**
Mounting inside
(Product information see page 1-52)