Solenoid interlocks

AZM 161

• Thermoplastic enclosure
• 6 contacts
• Manual release, emergency exit or emergency release
• Long life
• Double insulated
• High holding force 2000 N
• 30 N latching force
• Large wiring compartment
• Power to unlock/power to lock principle
• Screw terminals or cage clamps
• 3 or 4 cable entries M16 x 1.5
• Actuating play 5.5 mm in direction of actuation
• Individual coding available on request
• AS-Interface Safety at Work available, see chapter 5

Technical data

Standards: IEC/EN 60947-5-1
Enclosure: glass-fibre reinforced thermoplastic, self-extinguishing
Actuator and locking bolt: stainless steel 1.4301
Protection class: IP 67 to EN 60529
Contact material: silver
Contact type: change-over contact with double break, type Zb, with galvanically separated contact bridges
Switching system: IEC 60947-5-1
Termination: screw terminals or or cage clamps
Cable section: max. 1.5 mm² (incl. conductor ferrules)
Cable entry: AZM 161-24, -33: 3 x M16 x 1.5
AZM 161-12/12: 4 x M16 x 1.5
Uimp: 4 kV
Ui: 250 V
Iimp: 10 A
Utilisation category: AC-15, DC-13
Ua/Ue: 4 A / 230 VAC
2.5 A / 24 VDC
Max. fuse rating: 6 A gL/gG D-fuse
Positive break travel: AZM 161-24, -33: 8.8 mm
AZM 161-12/12: 9.5 mm
Positive break force: 10 N for each NC contact fitted
Us: 24 VAC/DC
110/230 VAC, 50/60Hz
Magnet: 100% ED
Power consumption: max. 10 W
Ambient temperature: – 25 °C … + 60 ºC
Mechanical life: > 1 million operations
Fmax: 2000 N
Latching force: 30 N

Power to unlock

2 NO / 4 NC (12/12)

Note

Emergency exit (left)
• For cases of danger
• Actuation from within the hazardous area
• Ordering suffix T
Emergency release (middle)
• For cases of danger
• Mounting only outside the guarded area
• Ordering suffix N
Manual release (right)
• For manual release using M5 triangular key, available as accessory
• For maintenance, setting-up, etc.

Contact variants

Power to unlock

2 NO / 4 NC (12/12)

3 NO / 3 NC

Power to lock

2 NO / 4 NC (12/12)

LED version:
Ordering suffix G.
limited terminating space 0.75 mm²
Protected against incorrect polarity and voltage spikes.

Approvals

Ordering details

AZM 161 ① SK ② ST ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
No. Replace Description
1 SK Screw terminals
CC Cage clamp
ST Connector M 12 x 1
2 12/12 2NO/4NC
24 2NO/4NC
33 3NO/3NC
2 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
a Power to unlock
Power to lock
Manual release
see notice on the right
Without LED
G With LED (only for -24, -33)
R ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
024 Us 24 VAC/DC
110/230 Us 110 / 230 VAC

Note

Emergency exit (left)
• For cases of danger
• Actuation from within the hazardous area
• Ordering suffix T
Emergency release (middle)
• For cases of danger
• Mounting only outside the guarded area
• Ordering suffix N
Manual release (right)
• For manual release using M5 triangular key, available as accessory
• For maintenance, setting-up, etc.
Solenoid interlocks

**Contact variants**

**Power to lock**
- 3 NO / 3 NC

**Connector**
- 2 NO / 4 NC (12/12)
- 1 NO / 3 NC
- 2 NO / 2 NC

**System components**

- Straight actuator AZM 161-B1
- Straight actuator AZM 161-B1E
- Flexible actuator AZM 161-B6
- AZM 161-B6-2177 with centering guide
- Straight actuator AZM 161-B1F
- Actuator AZM 161-B30
- Slot sealing plug AZM 161

**Ordering details**

- Straight actuator AZM 161-B1
- Straight actuator AZM 161-B1E
- Flexible actuator AZM 161-B6
- AZM 161-B6-2177
- Mounting set MS AZM 161

Note

The contacts 51-52 and 63-64 are actuated when the solenoid A1-A2 is energised or de-energised. Contact 51-52 must be integrated in the safety circuit. Circuit diagrams show de-energised condition with actuator inserted (0 in switch travel diagram).

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.

A detailed product description can be found in the „Safety door handle system STS“ brochure.

Mounting set MS AZM 161
- Tamperproof screws with unidirectional slots (without drawing)
- M5 x 12 1135338
- M5 x 16 1135339
- M5 x 20 1135340
(Quantity 2 pcs)