

TECH BRIEF: AZM40 ELECTRONIC SOLENOID INTERLOCK



The smallest electronic solenoid interlock available

The AZM40 is a safety rated solenoid interlock with an integrated radio frequency identification (RFID) based electronic safety sensor.

The AZM40 Series is designed for machine/work cells where access to a hazardous work area must be controlled until safe conditions exist. The solenoid lock provides 2000 N to secure the machine guard until dangerous conditions, which may exist immediately after removal of power, have abated. The solenoid lock may be controlled by a time delay, motion detector, position sensor or other suitable component.

The housing is amazingly compact: 40 x 119 x 20 mm. The mounting holes are placed centrally in the housing, to match the channel in typical extruded profiles used in guard doors. We offer two types of finishes for the screw bore holes: countersunk or flat. The countersunk holes are tapered at 45° and allow for the screws to rest flush with the housing. The flat finish (PH) allows the flat headed screws to protrude.

The AZM40 works on the bistable principle: In the event of a power cut, it retains the current position. This ensures safe operation, whatever the status of the machine. Even if there are hazardous run-on movements, the safety door remains safely locked in the event of a power failure. Another advantage of the bistable principle is the consistently low energy consumption, as the interlock only requires power when the door is to be locked or unlocked.

For applications with personnel protection (interlock monitored), the safety outputs are switched on when the safety door is closed and the interlock locked. The AZM40B model (actuator monitored) can be used for applications with process protection. In this variant, the safety outputs are actuated as soon as the safety door is closed. With this device, locking the interlock is not absolutely necessary.

The AZM40 series is compliant with North American and International standards such as cULus and CE. It's two-channel input signal meets PLe/Category4 (ISO 13849) or SIL3 (IEC 61508) for both its interlock and guard locking function. It is a Type 4 interlock per ISO 14119, with a high coding level with the individual coding option (I1 or I2).



ORDERING DETAILS

AZM40①-②-ST-1P2P-③

- ① Monitoring
 - Z Guard locking monitored
 - B Actuator monitored
- ② Actuator coding
 - blank Standard version (no coding)
 - I1 Individual coding (single)
 - I2 Individual coding (repeatable)
- ③ Mounting screw bores
 - blank Countersunk (pictured)
 - PH Flat

ACTUATORS (ordered separately)

AZM40-B1	countersunk mounting
AZM40-B1-PH	flat mounting

ACCESSORIES

Cables: M12, 8 Pole

103007358	5 meter
103007359	10 meter
103011414	15 meter
101207728	KA-0904
101207729	KA-0905
101207730	KA-0908

Controllers:

SRB-E-201LC	SRB-E-322ST
SRB-E-201ST	SRB-E-402ST
SRB-E-301ST	SRB-301MC
SRB-E-212ST	SRB-E-204ST
SRB-E-402FWS-TS	SRB-E-204PE

Actuator approach options



- Suitable for hinged or sliding doors
- Approach from 180°

LED Status indicators

- Visible from three sides
- Multiple colors—Red, yellow, green
- Flashing codes provide diagnostic

Individual coding options

- RFID based sensor
- Coding level "high" to ISO 14119
- I1 variant allows teaching only 1 actuator. Ever.
- I2 variant allows reteaching a replacement actuator, with 10 minute delay upon reteaching



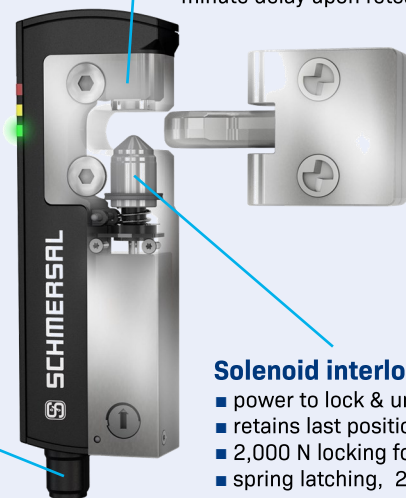
Dimensions

- Switch: 40mm x 119 mm x 20mm
- Actuator: 40mm x 40mm x 20mm
- Sized to fit common extruded profiles used in machine guard doors.



Connector

- M12, 8 Pole



Solenoid interlock

- power to lock & unlock
- retains last position
- 2,000 N locking force
- spring latching, 25 N