## SERIES AZM 200





#### Description

The AZM 200 Series is designed for machine/work cells where access to a hazardous work area must be controlled until safe conditions exist. Their solenoid-latching feature permits locking a machine guard until dangerous conditions, which may exist immediately after removal of power, have abated. Solenoid-latching may be controlled by a time delay, motion detector, position sensor or other suitable component.

The AZM 200 consists of a solenoid-latching interlock and actuator unit with door handle and optional emergency exit handle. The actuator is always inserted into its housing, protecting the actuator and the operator against damage and injury. Utilizing pulse-echo sensor technology, the actuator and interlock can have an offset of ±5 mm and the actuator still engages the interlock.

Due to the one-hand operation of the emergency exit handle, the hazardous area can be left quickly and safely-even during a power failure (when using the "unlock by power" model).

The solenoid interlock is a dual channel design with two short-circuit proof, safe PNP outputs, each of which can switch up to 250 mA.

With continuous internal function tests, the monitoring of the safety outputs and the use of door detection sensors, up to 31 AZM 200 solenoid interlocks can be wired in series without detriment to the safety performance level/control category (PLe to EN ISO 13849-1/Control Category 4 to EN 954-1).

#### **Typical Applications**

The AZM 200 is intended for use as a safety interlock switch on movable machine guards which must not be opened until dangerous conditions, which may exist after the removal of power, have abated. Such conditions are flywheel overrun, spindle momentum, unstable rest positions, etc. Typical applications are textile machines, stamping machines, metal working equipment, printing presses and packaging machines.

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#### Features & Benefits

- · Solenoid locking design ... controls access to hazardous areas until safe conditions exist.
- Non-contact sensing ... for long term reliability.
- Dual purpose handle ... unlatches and opens guard-no additional door handles are needed.
- Integral LED diagnostics ... indicates operating states
- Integral self-monitoring and door detection sensors ... satisfy requirements of PLe to EN ISO 13849-1 Safety Control Category 4 to EN 954-1. \*See Note Below.
- One-hand emergency release ... hazardous area can be left quickly and safely-even during a power failure.
- Switch and actuator do not protrude into door opening ... no risk of injury or damage from a protruding actuator.
- Dual PNP 250 mA safety outputs ... for application versatility.
- Designed for "daisy chaining" ... up to 31 devices, max • 200 m, can be wired in series without detriment to safety performance level.

#### **AVAILABLE AZM200 MODELS**

Part Number	Description
Spring to Lock, Power to unlock	
AZM200SK-T1P2P	Diagnostic Output (Screw Terminals)
AZM200SK-TSD2P	Serial Diagnostic Output* (Screw Terminals)
AZM200ST1-T1P2P	Diagnostic Output (M23x1 quick connect, 9 pin)
AZM200ST1-TSD2P	Serial Diagnostic Output* (M23x1 quick connect, 9 pin)
AZM200ST2-T1P2P	Diagnostic Output (M12x1 quick connect, 8 pin)
AZM200ST2-TSD2P	Serial Diagnostic Output* (M12x1 quick connect, 8 pin)
AZM200ST-T1P2P-2568	Diagnostic Output, with pushbutton & LED (M23x1 quick connect, 12 pin)
Power to Lock, Spring to unlock	
AZM200SK-T1P2PA	Diagnostic Output (Screw Terminals)
AZM200SK-TSD2PA	Serial Diagnostic Output* (Screw Terminals)
AZM200ST1-T1P2PA	Diagnostic Output (M23x1 quick connect, 9 pin)
AZM200ST1-TSD2PA	Serial Diagnostic Output* (M23x1 quick connect, 9 pin)
AZM200ST2-T1P2PA	Diagnostic Output (M12x1 quick connect, 8 pin)
AZM200ST2-TSD2PA	Serial Diagnostic Output* (M12x1 quick connect, 8 pin)
AZM200ST-T1P2PA-2568	Diagnostic Output, with pushbutton & LED (M23x1 quick connect, 12 pin)

#### **ACTUATORS**

Part Number	Description
AZ/AZM200-B1-LT	Sliding Guard Actuator, approach from left
AZ/AZM200-B1-LTP0	Sliding Guard Actuator, approach from left with inside emergency door release
AZ/AZM200-B1-RT	Sliding Guard Actuator, approach from right
AZ/AZM200-B1-RTP0	Sliding Guard Actuator, approach from right with inside emergency door release
AZ/AZM200-B30-LTAG1	Door Handle Actuator, hinged on left
AZ/AZM200-B30-LTAG1P1	Door Handle Actuator, hinged on left with inside emergency door release
AZ/AZM200-B30-RTAG1	Door Handle Actuator, hinged on right
AZ/AZM200-B30-RTAG1P1	Door Handle Actuator, hinged on right with inside emergency door release

### SERIES AZM 200 AVAILABLE KEYS AND DIMENSIONS

# Part number: SZ200 Description: Lockout tag, up to 5 padlocks

Safety Control Module Requirements Dual-

channel safety inputs, suitable for PNP semiconductor outputs. See

page 320 for recommended SCHMERSAL safety control modules.

#### **Connector Cables for ST Models**

Please see page 94 for appropriate connector cable part numbers.

ST1 versions use M12, 8 pin connectors (part numbers starting A-K8P-M12...)

ST2 versions use M23, 9 pin connectors (part numbers starting A-K8+1-M23...)

ST versions use M23, 12 pin connectors (part numbers starting A-K12P-M23...)

\*Sensors with Serial Diagnostic output are for use with various field bus protocols, see page 204 for SD Gateways.

\*Note: A safety control module may be required for reset function and/or feedback monitoring functions, as well as increased output current requirements.





NOTE: For complete technical data, diagnostics and wiring examples, please see page 172 of the "Pulse-Echo Based Non-Contact Safety Sensors" section.