# **SERIES AZ335**



The AZ335 Series is designed for use with movable machine guards/access gates which must be closed for operator safety. Their positive-opening NC contacts provide a significantly higher level of safety than conventional springdriven switches whose contacts can weld or stick shut. And the switch's tamper-resistant design prevents bypassing with simple tools, bent wires or other readily available means. Their rugged metal housing and IP67 rating make them ideal for interlocking safety guards in industrial and hostile environments.

### Operation

The AZ335 electromechanical safety interlock switch consists of a rugged switch mechanism and a geometrically-unique actuating key. The key is mounted to the movable guard. Upon opening of the guard, the NC contact(s) are forced to open through a direct (non-resilient) mechanical linkage with the actuating key. These positive-break NC contacts assure circuit interruption (and machine stoppage) upon removal of the actuator key. (The NO contacts close upon key removal.)

When the guard is closed, the actuating key forces the NC contact(s) to close, and the NO contacts to re-open.

## Typical Applications



The AZ335 is intended for use as a safety interlock switch on movable machine guards which, when open, expose the operator/maintenance personnel to machine hazards. Typical applications are the interlocking of protective gratings, access doors/panels, perimeter access gates, hinged covers and other movable guards on textile machinery, packaging equipment, machine tools, assembly machinery, robot work cells and food/chemical processing equipment.

#### **Features & Benefits**

- Rugged, corrosion-resistant die-cast aluminum housing ... tolerates the most hostile environments.
- "Positive-break" NC contacts ... assure circuit interruption upon actuator key removal.
- **Highly tamper-resistant** ... difficult to defeat with simple tools, tape, bent wires, etc. Reduces liability exposure.
- Watertight design ... meets IP67 washdown requirements.
- Eight optional key entry locations ... depending upon mounting of rotatable mounting head.
- High-strength, stainless-steel actuator key ... tolerant to mechanical abuse without damage.
- Tapered key entry ports ... tolerant to key misalignment.
- Meets rigid safety agency standards ... IEC, BG, VDE, UL and CSA.
- Lockout accessory ... prevents key entry and switch actuation.
- Optional M12x1 quick-connect ... please consult factory.

#### AVAILABLE STANDARD MODELS (Includes 1/2" NPT Adapter. Actuator keys sold separately)

Part Number	Contacts (with key inserted)	
AZ335-12ZRK	1 NO & 2 NC	
AZ335-03ZRK	3 NC	

Note: Available with optional M12x1 quick-connect. Please consult factory.

#### **OPTIONAL ACTUATOR KEYS**

Part Number	Description
AZ335/355-B1	Straight actuator key.
AZ335/355-B1-2245	Standard actuator key with rubber grommeted mounting holes.
AZ335/355-B5	Right angle actuator key.
AZ335/355-B6	Adjustable short-radius actuator key.
AZ335/355-B5-Flex	Floating standard actuator key (tolerant to x and y axis misalignment of ±5mm).
AZ335/355-B6-Flex	Floating standard short-radius actuator key (tolerant to x and y axis misalignment of ±5mm).

#### ACCESSORIES

Part Number	Description
AZ335/355-1990	Key entry port covers (two-part package).
SZ16/335	Lockout device (prevents key entry and switch actuation). Accepts up to six padlocks.

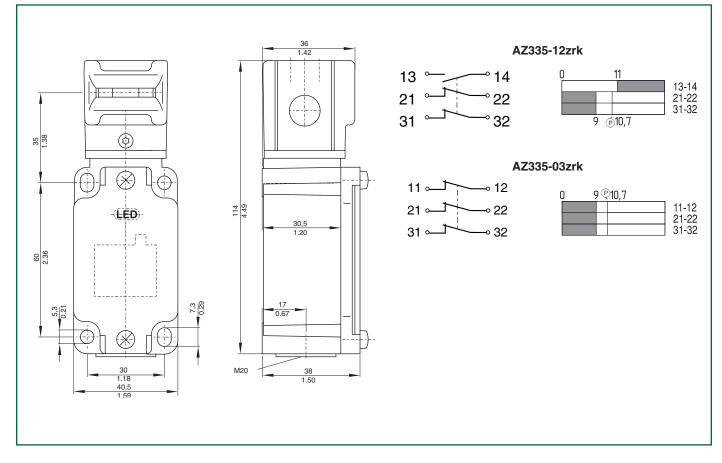
#### **MECHANICAL SPECIFICATIONS**

Housing	Diecast aluminum with baked enamel finish
Actuator Key	Stainless steel (defeat-resistant design)
Degree of Protection	IP67
Travel for Positive-Break	10.7 mm (0.4 inches)
Closing Force	Approx. 15 N (3.4 pounds)
Operating Temperature	–22°F to +195°F
Mechanical Life	> 10 <sup>7</sup> operations
Key Holding Force	30 N (7 pounds) ("R" models only)
Conformity to Standards	IEC 947-5-1 EN 60947-5-1 DIN VDE 0660-200 BG-GS-ET-15 UL & CSA
Minimum Closing Radius	B1 & B5 keys: 150mm B6, B5-Flex & B6-Flex keys: 100mm

#### **ELECTRICAL SPECIFICATIONS**

Contacts	Fine silver
Contact Configuration	Double-pole, double-break with electrically separated contact bridges
Contact Gap	2 × 1.25mm (minimum)
Contact Rating	4A (230VAC) 25A/230VAC (with optional M12x1 quick-connect)
Switching Action	Slow-action, positive-break NC contacts
Short Circuit Protection	Fuse 6A (time-delay)
Rated Insulation Voltage	500VAC
Rated Impulse Withstand Voltage	6kV
Type Terminals	Screw terminals with self-lifting clamps for up to 13 AWG flexible stranded wire (2.5mm <sup>2</sup> )

#### **DIMENSIONS & CONTACT SCHEMATICS**



# **AZ335 INDIVIDUALLY-CODED ACTUATOR KEY SPECIFICATIONS**

#### **ACTUATOR KEYS**

