

Description

The Series TZG 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 spring-driven switches whose contacts can weld or stick shut. And their tamper-resistant design prevents bypassing with simple tools, bent wires or other readily available means. Their IP67 rating makes them ideal for interlocking safety guards in hostile environments.

Operation

The Series TZG 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 contact closes upon key removal.)

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

Typical Applications



The Series TZG 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/gates, hinged covers, access panels and other movable guards.

Features & Benefits

- **Highly tamper-resistant actuating mechanism** ... difficult to defeat with simple tools, tape, bent wires, etc. Reduces liability exposure.
- **Four optional key entry locations** ... rotatable actuator head provides installation versatility.
- **“Positive-Break” NC contacts** ... assure circuit interruption upon actuator key removal.
- **High key retention force (5 pounds)** ... eliminates inadvertent opening of guard due to shock/vibration.
- **Watertight design** ... meets IP67 washdown requirements.
- **High-strength, galvanized-steel actuator key** ... tolerates mechanical abuse without damage.
- **Rugged, corrosion-resistant housing** ... tolerates the most hostile environments.
- **Wide selection of actuating keys** ... to meet diverse application requirements.
- **Padlockable key** ... for added security during equipment maintenance.
- **Meets rigid safety agency standards** ... BG, UL, CSA.
- **Funnel-shaped key entry** ... forgiving of key misalignment.
- **Special types for food industry** ... please consult factory.

TZG AVAILABLE MODELS AND ACCESSORIES

AVAILABLE STANDARD MODELS (Includes 1/2" NPT Plastic Conduit Adapter. Actuator Keys Sold Separately)

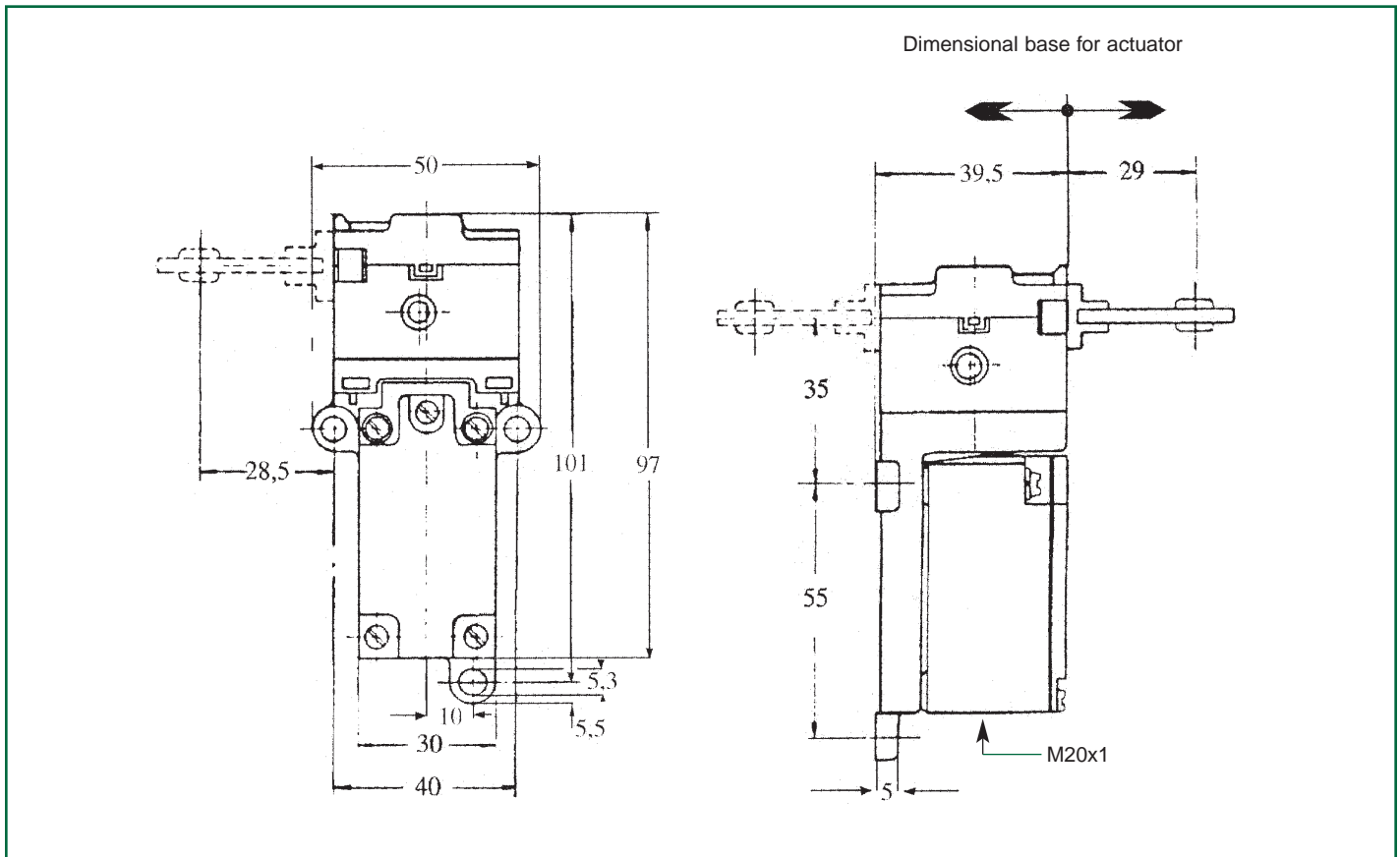
Part Number	Contacts	Description*
TZG01.103	1 NO & 1 NC	Keyed interlock switch with front* key entry and slow action contacts.
TZG01.110	2 NC	

*Field-rotatable for key entry from right, left or rear.

OPTIONAL ACTUATOR KEYS

Part Number	Description
TZ/CO	Standard straight actuator key (13" minimum closing radius)
TZ/CW	Right-angled straight actuator key (11.8" minimum closing radius)
TZ/COR	Radial entry actuator key (11.8" minimum closing radius)
TZ/CK	Short straight actuator key (6.3" minimum closing radius)
TZ/CWR	Right-angled bent actuator key (11.8" minimum closing radius)
TZ/COF/HIS.1	Pivoting straight actuator key (rear-mounted) (13.8" minimum closing radius)
TZ/COF/HIS.2	Pivoting straight actuator key (top-mounted) (13.8" minimum closing radius)
TZ/CORF/HIS.1	Pivoting straight actuator key (rear-mounted) (7.1" minimum closing radius)
TZ/CORF/HIS.2	Pivoting straight actuator key (top-mounted) (5.9" minimum closing radius)

DIMENSIONS



TZG TECHNICAL DATA

MECHANICAL SPECIFICATIONS

Housing	Glass-fibre reinforced self-extinguishing thermoplastic
Actuator Key	Galvanized steel (defeat-resistant design)
Degree of Protection	IP67
Holding Force	20N (4.8 pounds)
Travel for Positive-Break	12.5mm
Force to Reach Positive-Break	Approx. 20N (4.8 pounds)
Closing Force	Approx. 10 N (2.4 pounds)
Operating Temperature	-13°F to +158°F
Mechanical Life	1 million operations (minimum)
Shock Resistance	>30g / 18ms
Vibration Resistance	>15g / 10...200Hz
Conformity to Standards	IEC 947-5-1 EN 60947-5-1 DIN VDE 0660-100 BG-GS-ET-15 UL CSA
Minimum Closing Radius	Dependent upon actuator key used. Please see actuator key selection chart.

ELECTRICAL SPECIFICATIONS

Contacts	Fine silver
Contact Configuration	Double-pole, double-break with electrically separated contact bridges
Contact Gap	2 × 3.5 mm
Contact Rating	8A (250VAC)
Switching Action	Slow-action, positive-break NC contacts (TZG models) Snap-action, positive-break NC contacts (TZGP models)
Short Circuit Protection	10A (slow-blow) – TZG models 6A (slow-blow) – TZGP models
Rated Insulation Voltage	250VAC
Rated Impulse Withstand Voltage	4kV
Type Terminals	Screw terminals with self-lifting clamps for up to 13 AWG solid wire (2.5mm ²) or 13 AWG stranded (1.5mm ²) wire

TZG ACTUATOR KEY SPECIFICATIONS

ACTUATOR KEYS

