Series TESZ

Hinged Safety Interlock Switch

POSITIVE-BREAK®

Features & Benefits

- **Tamper-resistant** … integral switch element and actuator prevents bypassing.
- **"Positive-break" NC contacts** … ensure circuit interruption upon only 4° of guard displacement.
- **Splashproof design** … meets IP65 environmental requirements.
- **Rugged construction** … tolerates mechanical abuse and hostile environments.
- **Meets rigid safety agency standards** … IEC, BG. (UL and CSA pending)
- **Easy to install** … fits most popular extruded hinged guard designs.
- **Compatible with popular extruded profile widths.**
- **Optional integral manual reset** … please consult factory.

Description

The TESZ Series are designed for use with hinged movable machine guards which must be closed for operator safety. Their tamper-resistant design and positive-opening NC contacts provide a significantly higher level of safety than conventional, spring-driven limit switches often used to monitor hinged-guard position. Their compact, low-profile design and IP65 rating make them ideal for interlocking hinged safety guards in industrial environments. Designed to mount directly on the hinged guard and its stationary frame, it is easy to install on a wide range of guard styles and sizes.

Operation

The installed TESZ features an integral electromechanical switch element which is actuated when opening a hinged machine guard. After opening the guard only 4°, the unit's positive-break, normally-closed contact(s) are forced to open by a direct (non-resilient) actuating mechanism. These positive-break contacts ensure circuit interruption and machine stoppage. The normally-open signalling contact closes after 13.5° of guard displacement.

Note: Adjustable switching point series TESF hinge model available. Suitable for front of guard or inside mounting. See page 210.

AVAILABLE STANDARD MODELS

Part Number*	Contacts (Guard Closed)	Description
TESZ1102/30 TESZ1110/30	1 NO & 2 NC 3 NC	Hinged safety interlock switch for 30mm width extruded guards
TESZ1102/35 TESZ1110/35	1 NO & 2 NC 3 NC	Hinged safety interlock switch for 35mm width extruded guards
TESZ1102** TESZ1110**	1 NO & 2 NC 3 NC	Hinged safety interlock switch for 40mm width extruded guards
TESZ1102/45 TESZ1110/45	1 NO & 2 NC 3 NC	Hinged safety interlock switch for 45mm width extruded guards

*Includes hinge assembly with switch, switch actuator and an additional hinge assembly (without switch or switch actuator).

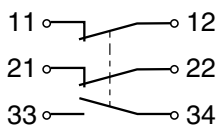
**Available with stainless-steel hinges. (Please consult factory)

AVAILABLE ACCESSORIES

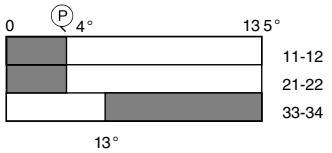
Part Number*	Description
TESZ/S/30	Hinge assembly (without switch or switch actuator) for 30mm width extruded guards
TESZ/S/35	Hinge assembly (without switch or switch actuator) for 35mm width extruded guards
TES/S	Hinge assembly (without switch or switch actuator) for 40mm width extruded guards
TESZ/S/45	Hinge assembly (without switch or switch actuator) for 45mm width extruded guards

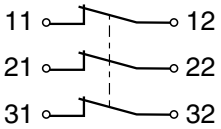
*Includes hinge and hinge pin.

SWITCHING DIAGRAMS & CONTACT SCHEMATICS

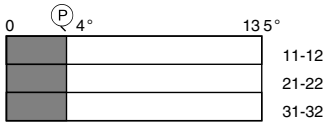


TESZ1102





TESZ1110



SERIES TESZ TECHNICAL DATA

MECHANICAL SPECIFICATIONS

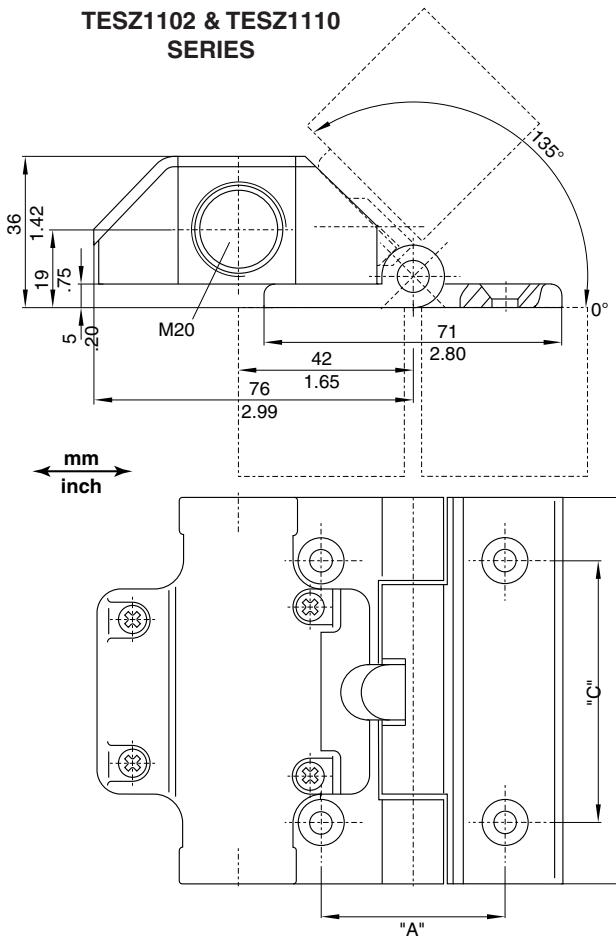
Materials of Construction	Hinge: Aluminum Switch Cover: Thermoplastic
Displacement Angle for NC Contact Opening	4°
Degree of Protection	IP65
Displacement Angle for NO Contact Closing	13.5°
Maximum Opening Angle	135°
Operating Temperature	–13°F to +149°F
Mechanical Life	>10^6 operations
Mechanical Loading Capacity	Maximum torque of 3KN/m at 1m distance from hinge
Operating Rate	1,200 operations/hour (maximum)
Shock Tolerance	30g/18ms
Vibration Tolerance	20g/10… 200Hz
Conformity to Standards	IEC 947-5-1 EN60947-5-1 DIN VDE 0660 EN 1088 UL CSA

ELECTRICAL SPECIFICATIONS

Contacts	Fine silver
Contact Configuration	Double-pole, double-break with electrically-separated contact bridges
Contact Rating	2A (250VAC), AC-15, DC-13
Switching Action	Slow-acting, positive-break NC contact
Short Circuit Protection	6.0A (Slow blow)
Rated Insulation Voltage	250VAC (maximum)
Rated Impulse Withstand Voltage	2.5kV
Electrical Connections	Screw terminals for 15 AWG maximum stranded wire size

DIMENSIONS

TESZ1102 & TESZ1110 SERIES



Part Number	Dimension "A"	Dimension "B"	Dimension "C"
TESZ1102/30 TESZ1110/30	1.34" (34mm)	5.28" (132mm)	4.41" (112mm)
TESZ1102/35 TESZ1110/35	1.53" (39mm)	5.28" (132mm)	4.41" (112mm)
TESZ1102 TESZ1110	1.73" (44mm)	3.62" (92mm)	2.44" (62mm)
TESZ1102/45 TESZ1110/45	1.93" (49mm)	5.28" (132mm)	4.41" (112mm)

TESZ/S SERIES