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Find the *OMRON / STI TL5012-1024SM* at our website: *Click HERE*

Conforms to EN1088, EN60947-5-1, EN292, EN60204-1, EN50081, EN50082
UL and C-UL listed



TL5012

Compact Safety Interlock Switch with Guard Door Locking

- High locking force of 1000 N (225 lb.) locks guard door shut until machine is safe to enter
- NEMA 6 enclosure enables the TL5012 to withstand water washdown cleaning
- Lid-mounted status light is on when solenoid is energized, indicating that solenoid has unlocked the guard door
- Easy installation—compact footprint of 2.25 x 5.25 in. and rotatable head allowing 4 possible actuator entry points makes installation easy
- Optional override key allows manual unlocking of the guard while, at the same time, locking the safety contacts open
- Long life—the TL5012, with its stainless steel actuator, is designed for a minimum of one million actuations.

A Go to the Engineering Guide
For in-depth information on safety standards and use.

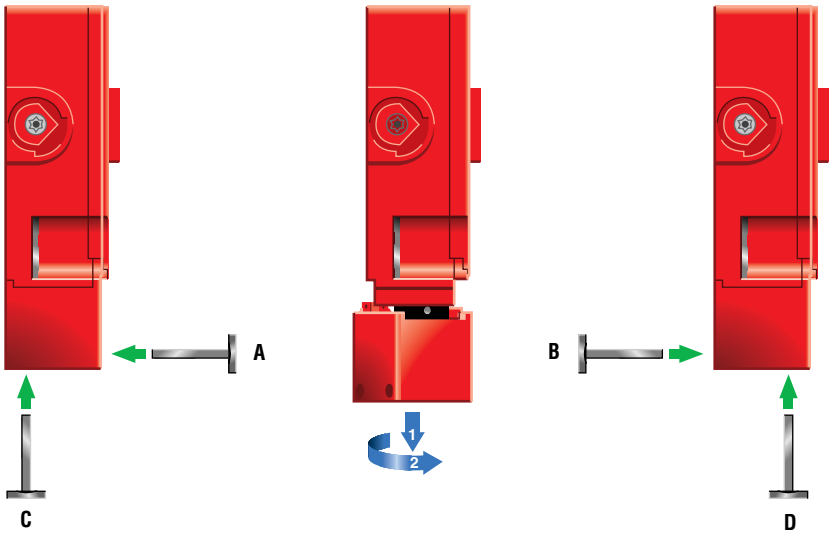
N For More Guarding Products
See Section N for safeguarding cutting and turning machines

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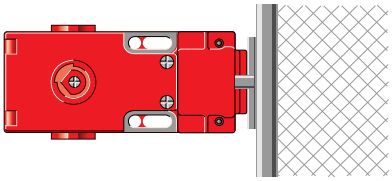
For the Latest Information
On the Internet: **www.sti.com** or **www.omron.ca**

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Operation



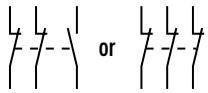
The head rotates 180° to give four possible actuator entry points. Once the required entry has been selected, attach catch case to the switch.



Locking Force = 1000 N (225 lb.) maximum

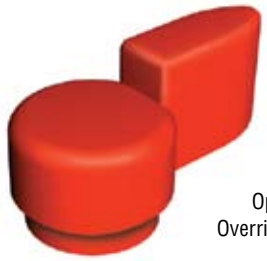
A distance of 2.45 mm or less is required between face of switch and face of actuator for switch to lock.

Contact Arrangements



Emergency Override

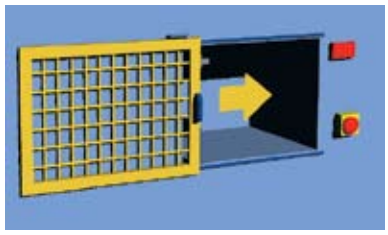
The TL5012's locking mechanism can be overridden in emergencies by using either a torx screwdriver or the override key.



Optional Override key

Applications

Typical applications are on sliding guard doors or swinging guard doors that must remain locked until a signal is applied to unlock the guard door.





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Application Monitoring Units



SR223SMT Timer Unit

Used with the TL4024 for machines with constant overrun. Gives a timed delay to the lock/release signal. Failsafe and adjustable to a range of times from 1.0 seconds up to 31 seconds.

For information on the SR223SMT, see page H82



SR125SMS Stop Motion Sensing Unit

Used with the TL4024 for machines with inconstant or variable overrun. Senses back EMF of AC or DC motors. Failsafe and adjustable to a range of 0.01 V to 0.10 V.

For information on the SR125SMS, see page H42



Safety Monitoring Relay Units

Safety monitoring relays ensure a maximum level of safety by monitoring all wiring in the safety circuit, including switches and contactors. Any fault and the power to the machine is switched off. A variety of safety monitoring relay units are available.

For information on Safety Monitoring Relays, see page H1

Specifications

Electrical	TL5012-1	All Models	TL5012-2
Contact Configurations:	2 N/C + 1 N/O		3 N/C
Safety Contacts:	2 N/C positive break		3 N/C positive break
Switching Ability			
AC:		500 V–1 A, 250 V–2 A, 100 V–5 A	
DC:		250 V–0.5 A, 24 V–2 A	
Safety Contact Gap:		> 2 mm (0.079 in.)	
Auxiliary Contacts:		1 N/O	
Max Switching Current/Volt/Amp:		500 V/500 VA	
Minimum Current:		5 V 5 mA DC	
Electrical Life:		1 x 10^6 minimum	
Solenoid Supply Voltage:		24 VDC/AC or 110 VAC or 220 VAC	
Solenoid Power:		7 W, approx. 900 mA inrush	
Solenoid Rating:		100% duty	
Mechanical			
Mounting:		Any position	
Actuator Travel for Positive Opening:		Contacts open when solenoid is energized	
Mounting Hardware:		2 x M5 screws	
Min Operating Radius:		Approximately 175 mm (7 in.) with standard actuator	
Max Holding Force:		1000 N (225 lb.)	
Max Actuation Speed:		160 mm/sec (6.3 in./sec)	
Max Activation Frequency:		1 cycle/sec	
Case Material:		UL listed, glass-filled polyester	
Actuator Material:		Stainless steel	
Wiring Entry:		1 x M20 conduit with 0.5 in. NPT adapter	
Weight:		260 g (9.2 oz.)	
Color:		Red	
Mechanical Life:		1 x 10^6 minimum	
Environmental			
Protection:		IP67 (NEMA 6)	
Operating Temperature:		-20 to 60°C (-4 to 176°F)	
Cleaning:		Water washdown	
Compliance			
Standards: EN1088, EN60947-5-1, EN292, EN60204-1, EN50081, EN50082			
Approvals/Listings: CE marked for all applicable directives, UL and C-UL			

Specifications are subject to change without notice.

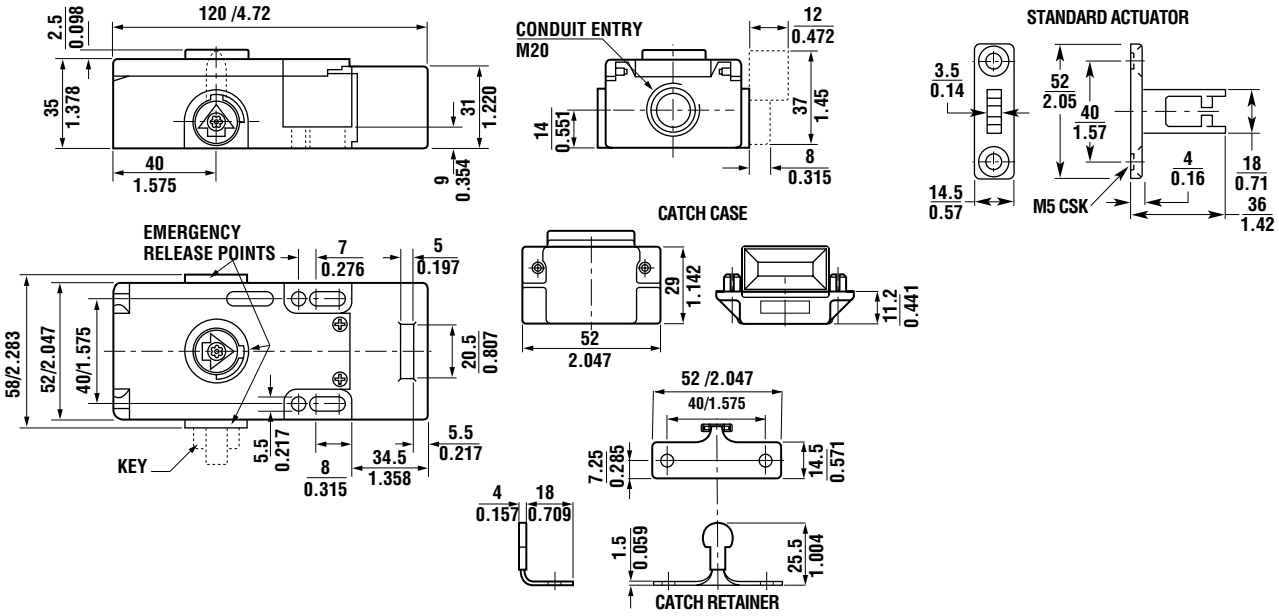
Note: The safety contacts of the Omron STI switches are described as normally closed (N/C)—i.e., with the guard closed, actuator in place, and the machine able to be started.

A Go to the Engineering Guide
For in-depth information on safety standards and use.

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■ Dimensions — mm/in.



■ Ordering

Model	Solenoid	Contacts	Wiring Entry	Part No.
TL5012-1024SM (standard actuator)	24 VAC/DC	2 N/C + 1 N/O	1 x M20 with NPT adapter	44530-0010
TL5012-1110SM (standard actuator)	110 VAC	2 N/C + 1 N/O	1 x M20 with NPT adapter	44530-0020
TL5012-1220SM (standard actuator)	220 VAC*	2 N/C + 1 N/O	1 x M20 with NPT adapter	44530-0030
TL5012-2024SM (standard actuator)	24 VAC/DC	3 N/C	1 x M20 with NPT adapter	44530-0050
TL5012-2110SM (standard actuator)	110 VAC	3 N/C	1 x M20 with NPT adapter	44530-0060
TL5012-2220SM (standard actuator)	220 VAC*	3 N/C	1 x M20 with NPT adapter	44530-0070
Override key, molded plastic				44530-0700
Spare standard actuator (without catch and catch case)				44519-0700
Spare mechanical catch kit (use with standard actuator only)				44501-0740
Spare alignment guide (plastic)				44501-0770
Spare M20 to 0.5 in. NPT adapter				44512-0110
M20 Cord Grip				44512-0090
Conduit Lights (see pages G239 & G240)				
Accessories (see page G238)				

*220 VAC units are available on special order. Minimum order quantities may apply.

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