



Conforms to EN1088, EN292, EN60947-5-1, EN60204-1  
UL and C-UL listed, BG approved



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safety interlock switches

# T4012

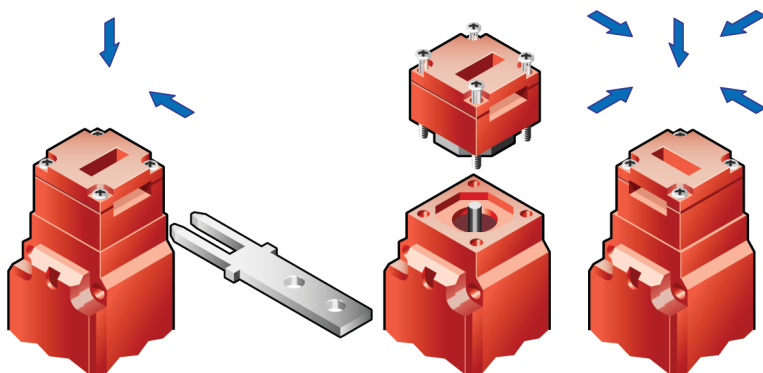
## Universal Tongue-Operated Safety Interlock Switch

- Strong and versatile—the compact size of the strong, glass-filled thermoplastic housing allows this switch to be used in most applications.
- NEMA 6 enclosure enables these switches to withstand water washdown cleaning.
- Rotatable head gives eight possible actuator entry points for versatile installation. A blanking plug is supplied for the unused entry.
- Long life—these switches, with their stainless steel actuators, are designed for a minimum of two million actuations.
- Available in 2 or 4 contact pole versions. The 4 contact pole version provides 2 poles for dual channel safety monitoring and 2 additional poles for status monitoring.
- An optional stainless steel guide is available for demanding applications.

**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

■ **Operation**



**Contact Arrangements**



**Flexible 1 Actuator**

15 degree flexibility may be adjusted with the set screw.



**Flexible 2 Actuator**

15 degree flexibility may be adjusted with the set screw.



**Flat Actuator**

Available with and without rubber bushings.



**90-Degree Actuator**

Available with and without rubber bushings.



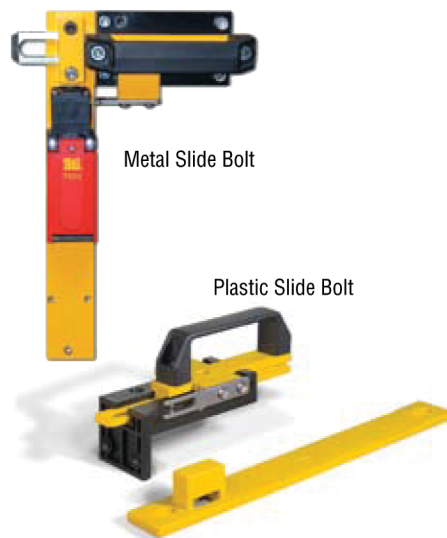
**Optional Alignment Guide**

Optional stainless steel alignment guide aids actuator entry and is easily installed.



**Optional Slide Bolts**

- Allows easy installation of switch on machine guards
- Actuator included (order switch separately)
- Integral handle included
- Robust for use with heavy doors
- Slotted hole in bolt permits attaching multiple padlocks
- Yellow color for easy recognition



**Optional SLD Series**



Optional switch locking devices are available. See accessories section for details.

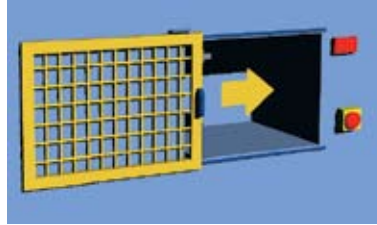


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## Applications

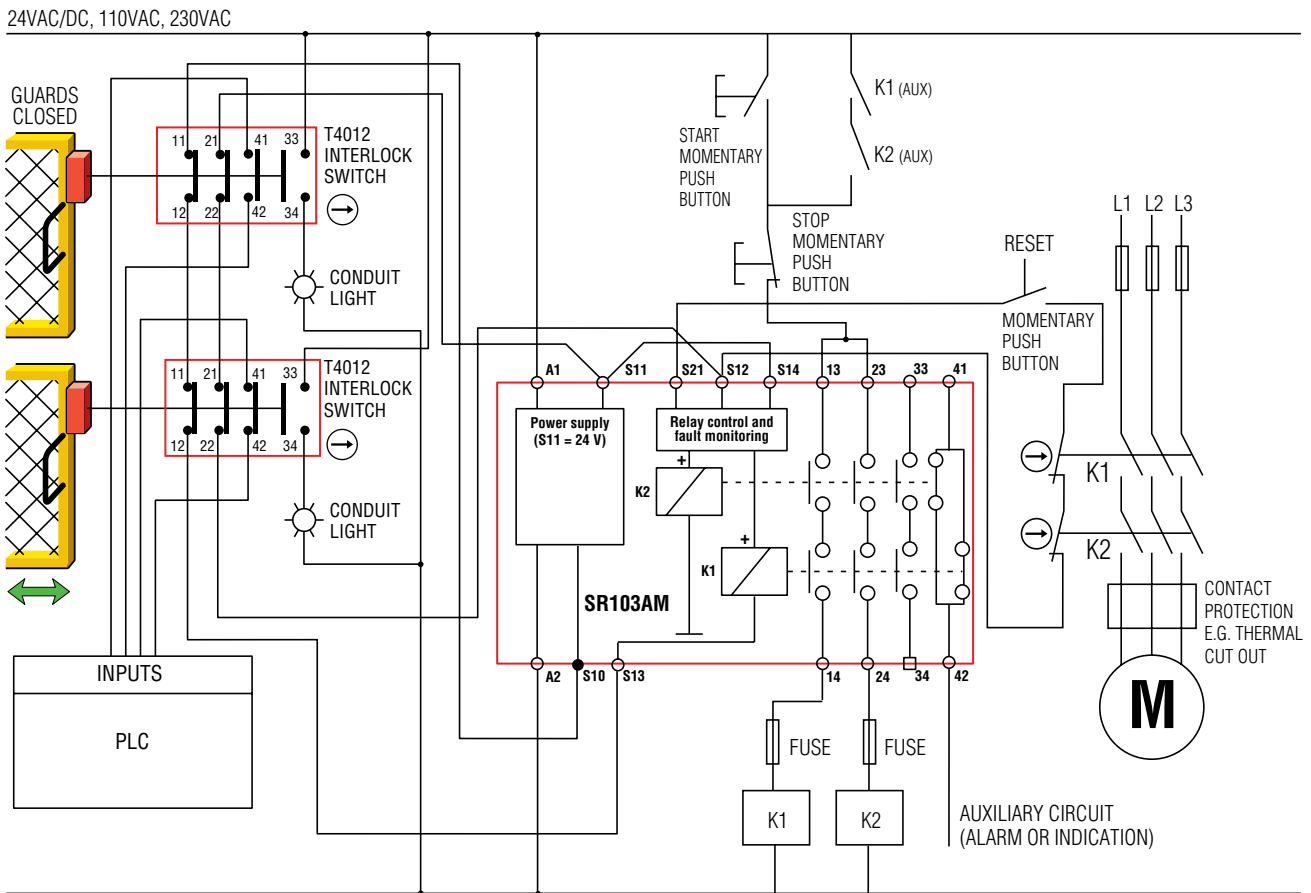
Typical applications are on sliding guard doors or swinging guard doors.



For a full explanation of the circuit operating principle and fault detection, see "Common Circuit Examples" in the Engineering Section of this catalog.

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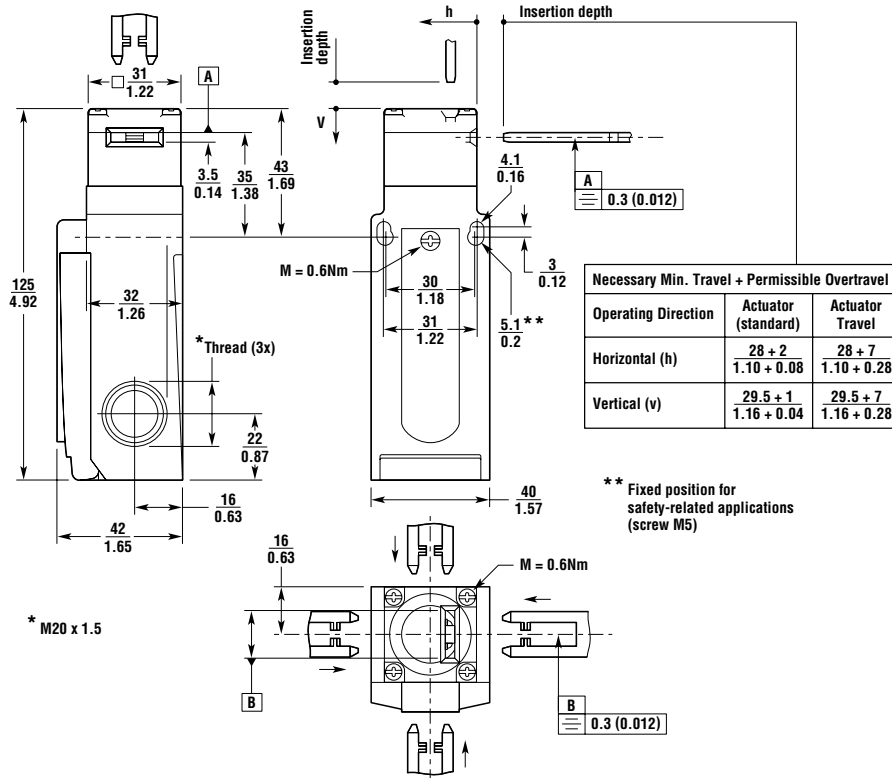
## ■ Specifications

Electrical	All Models
<b>Contact Configurations:</b>	1 N/C + 1 N/O, 2 N/C, 2 N/C + 2 N/O, 3 N/C + 1 N/O, 4 N/C
<b>Safety Contacts:</b>	2 N/C positive break
<b>Switching Ability</b>	
<b>AC:</b>	230 V, 4 A
<b>DC:</b>	24 V, 4 A
<b>Contact Material:</b>	Silver alloy, gold flashed
<b>Auxiliary Contacts:</b>	1 N/O, 2 N/O
<b>Minimum Switching Voltage:</b>	12 V at 10 mA
<b>Minimum Switching Current:</b>	1 mA at 24 V
<b>Mechanical</b>	
<b>Mounting:</b>	Any position
<b>Mounting Hardware:</b>	2 x M5 screws (not supplied)
<b>Actuator Travel for Positive Opening:</b>	5 mm (0.197 in.)
<b>Min Operating Radius:</b>	Approximately 100 mm (3.9 in.) with flex actuator Approximately 1000 mm (39 in.) with flat or 90-degree actuator
<b>Break Contact Min Force:</b>	25 N (5.6 lb.)
<b>Max Actuation Speed:</b>	20 m/min.
<b>Max Actuation Frequency:</b>	112 cycles/min.
<b>Case Material:</b>	Glass-fibre reinforced thermoplastic
<b>Actuator Material:</b>	Stainless steel
<b>Wiring Entry:</b>	3 x M20 conduit with 0.5 in. NPT adapter
<b>Weight:</b>	141 g (5 oz.)
<b>Color:</b>	Black with red lid
<b>Mechanical Life:</b>	2 x 10 <sup>6</sup> minimum
<b>Environmental</b>	
<b>Protection:</b>	IP67 (NEMA 6)
<b>Operating Temperature:</b>	-20 to 80°C (-4 to 176°F)
<b>Cleaning:</b>	Water washdown
<b>Compliance</b>	
<b>Standards:</b>	EN1088, EN292, EN60947-5-1, EN60204-1
<b>Approvals/Listings:</b>	CE marked for all applicable directives, UL and C-UL, BG

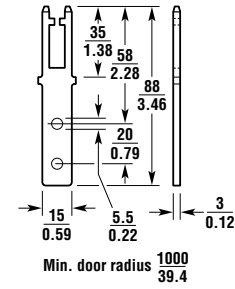
Specifications are subject to change without notice.

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.

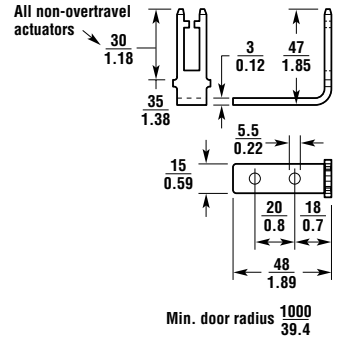
## ■ Dimensions — mm/in.



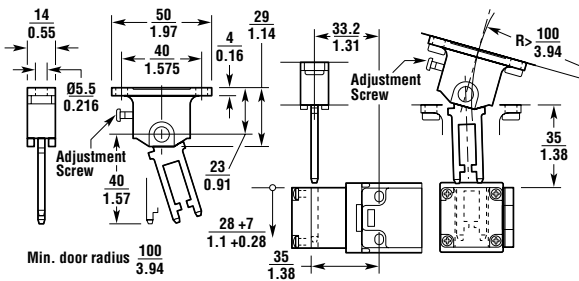
### Overtravel Flat Actuator



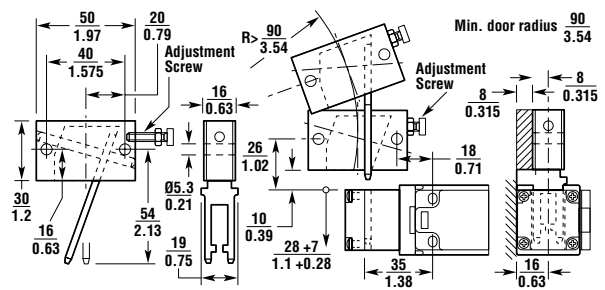
### Overtravel 90-Degree Actuator



### Flexible 1 Actuator



### Flexible 2 Actuator

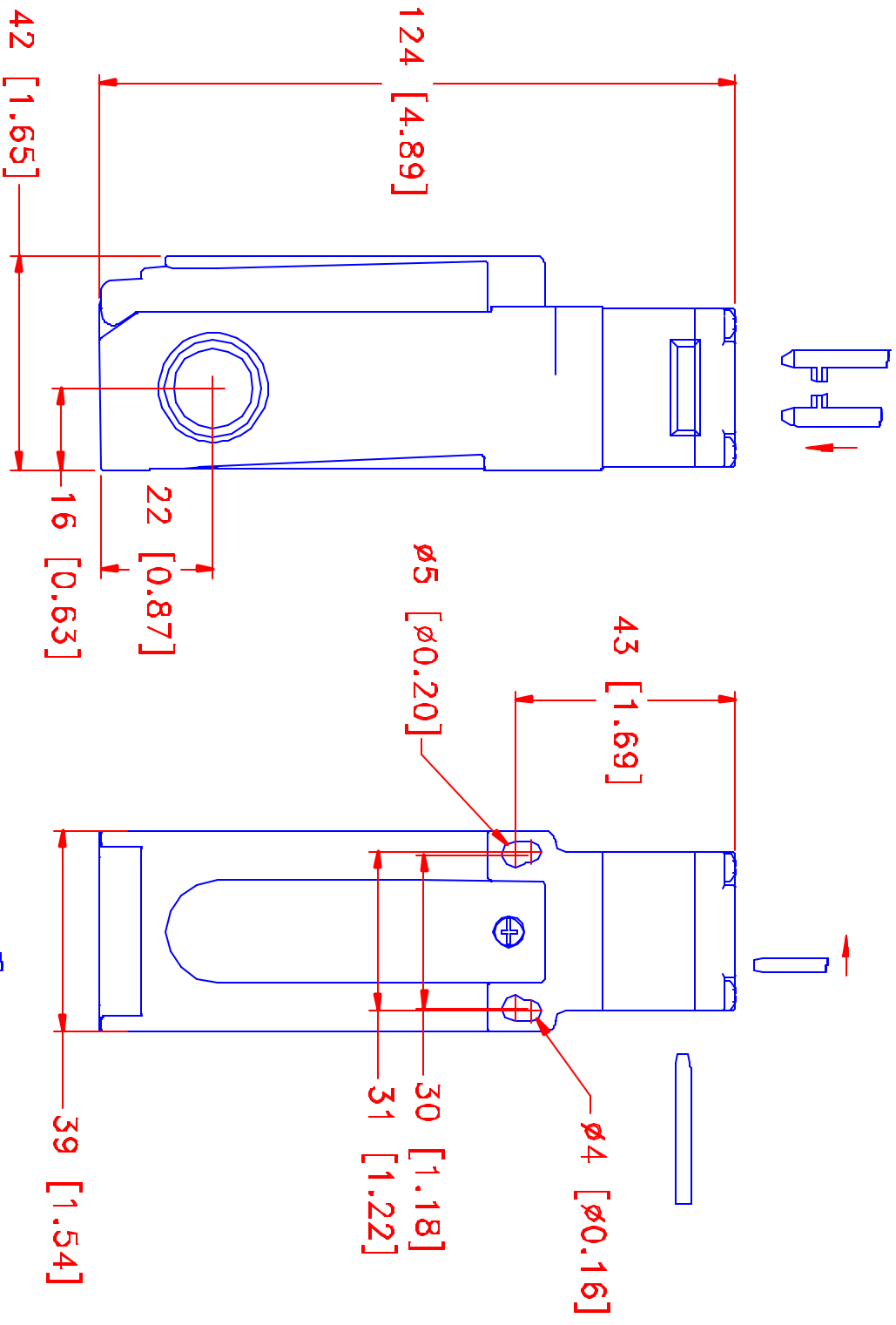


## ■ Ordering

T4012 90-DEGREE ACTUATOR	Contacts	Wiring Entry	Part No.
T4012-011SM	1 N/C + 1 N/O	M20/NPT adapter	44538-0010
T4012-020SM	2 N/C	M20/NPT adapter	44538-0020
T4012-031SM	3 N/C + 1 N/O	M20/NPT adapter	44538-0030
T4012-022SM	2 N/C + 2 N/O	M20/NPT adapter	44538-0040
T4012-040SM	4 N/C	M20/NPT adapter	44538-0050
T4012 FLAT ACTUATOR			
T4012-011TM	1 N/C + 1 N/O	M20/NPT adapter	44538-0110
T4012-020TM	2 N/C	M20/NPT adapter	44538-0120
T4012-031TM	3 N/C + 1 N/O	M20/NPT adapter	44538-0130
T4012-022TM	2 N/C + 2 N/O	M20/NPT adapter	44538-0140
T4012-040TM	4 N/C	M20/NPT adapter	44538-0150

## ■ Ordering (continued)

<b>T4012 FLEX 2 ACTUATOR</b>	<b>Contacts</b>	<b>Wiring Entry</b>	<b>Part No.</b>
T4012-011F2M	1 N/C + 1 N/O	M20/NPT adapter	44538-0210
T4012-020F2M	2 N/C	M20/NPT adapter	44538-0220
T4012-031F2M	3 N/C + 1 N/O	M20/NPT adapter	44538-0230
T4012-022F2M	2 N/C + 2 N/O	M20/NPT adapter	44538-0240
T4012-040F2M	4 N/C	M20/NPT adapter	44538-0250
<b>T4012 FLEX 1 ACTUATOR</b>			
T4012-011F1M	1 N/C + 1 N/O	M20/NPT adapter	44538-0310
T4012-020F1M	2 N/C	M20/NPT adapter	44538-0320
T4012-031F1M	3 N/C + 1 N/O	M20/NPT adapter	44538-0330
T4012-022F1M	2 N/C + 2 N/O	M20/NPT adapter	44538-0340
T4012-040F1M	4 N/C	M20/NPT adapter	44538-0350
<b>SWITCH ONLY MODELS (no actuators and no adapters included)</b>			
T4012-011	1 N/C + 1 N/O	M20	44538-2010
T4012-020	2 N/C	M20	44538-2020
T4012-031	3 N/C + 1 N/O	M20	44538-2030
T4012-022	2 N/C + 2 N/O	M20	44538-2040
T4012-040	4 N/C	M20	44538-2050
<b>ACCESSORIES</b>			
<b>Standard Actuators</b>			
Replacement flat actuator			44534-0700
Replacement 90-degree actuator			44534-0710
Replacement flex 2 actuator			44534-0720
Replacement flex 1 actuator			44534-0730
<b>Standard Actuators with Rubber Bushing</b>			
Replacement flat actuator RB			44534-0740
Replacement 90-degree actuator RB			44534-0750
<b>Overtravel Actuators</b>			
Replacement flat actuator OT			44534-0701
Replacement 90-degree actuator OT			44534-0711
Replacement flex 2 actuator OT			44534-0721
Replacement flex 1 actuator OT			44534-0731
<b>Overtravel Actuators with Rubber Bushing</b>			
Replacement flat actuator OTRB			44534-0741
Replacement 90-degree actuator OTRB			44534-0751
<b>Slide Bolts</b>			
Bracket with handle for right-hung door (yellow metal)			44534-8130
Bracket with handle for left-hung door (yellow metal)			44534-8140
Bracket (galvanized)			44534-8020
Plastic slide bolt for right or left-hung doors for T4012 (yellow)			44534-8070
Handle without snap-in (use with 44534-8020 bracket) (galvanized)			44534-8000
Handle with snap-in (use with 44534-8020 bracket) (galvanized)			44534-8010
<b>Miscellaneous</b>			
Stainless steel alignment guide (must use with overtravel Actuators)			44534-0780
Latch spring (provides greater retention force for actuator)			44534-0760
Lockout bar (prevents insertion of actuator into switch)			44534-0770
Replacement head for T4012			44534-0790



### T4012 SWITCH

Drawn to Scale in Decimal Inches  
 For Metric units (mm), multiply by 25.4  
 Dimension as Required  
 For Detailed Dimensions, refer to Catalog

