

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 Rapid Delivery Product: Select models are available for shipment today or within 3 to 5 days



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

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Specifications

Electrical	All Models
Contact Configurations:	1 N/C + 1 N/O, 2 N/C, 2 N/C + 2 N/O, 3 N/C + 1 N/O, 4 N/C
Safety Contacts:	2 N/C positive break
Switching Ability	AC: 230 V, 4 A DC: 24 V, 4 A
Contact Material:	Silver alloy, gold flashed
Auxiliary Contacts:	1 N/O, 2 N/O
Minimum Switching Voltage:	12 V at 10 mA
Minimum Switching Current:	1 mA at 24 V
Mechanical	
Mounting:	Any position
Mounting Hardware:	2 x M5 screws (not supplied)
Actuator Travel for Positive Opening:	5 mm (0.197 in.)
Min Operating Radius:	Approximately 100 mm (3.9 in.) with flex actuator Approximately 1000 mm (39 in.) with flat or 90-degree actuator
Break Contact Min Force:	25 N (5.6 lb.)
Max Actuation Speed:	20 m/min.
Max Actuation Frequency:	112 cycles/min.
Case Material:	Glass-fibre reinforced thermoplastic
Actuator Material:	Stainless steel
Wiring Entry:	3 x M20 conduit with 0.5 in. NPT adapter
Weight:	141 g (5 oz.)
Color:	Black with red lid
Mechanical Life:	2 x 10 ⁶ minimum
Environmental	
Protection:	IP67 (NEMA 6)
Operating Temperature:	-20 to 80°C (-4 to 176°F)
Cleaning:	Water washdown
Compliance	
Standards:	EN1088, EN292, EN60947-5-1, EN60204-1
Approvals/Listings:	CE marked for all applicable directives, UL and C-UL, DGUV
Reliability Data	
per EN ISO 13849-1:	B10d: 2.00E+06

Specifications are subject to change without notice.

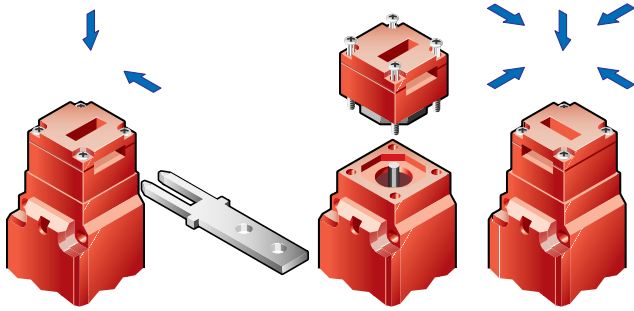
Note: The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the guard closed, actuator in place, and the machine able to be started.



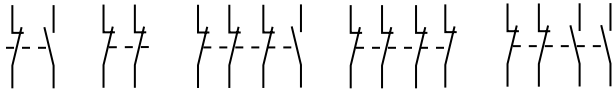
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Operation



Contact Arrangements



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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.



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



Metal Slide Bolt

Plastic Slide Bolt

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 SLD Series

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

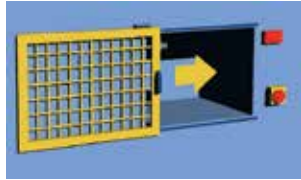


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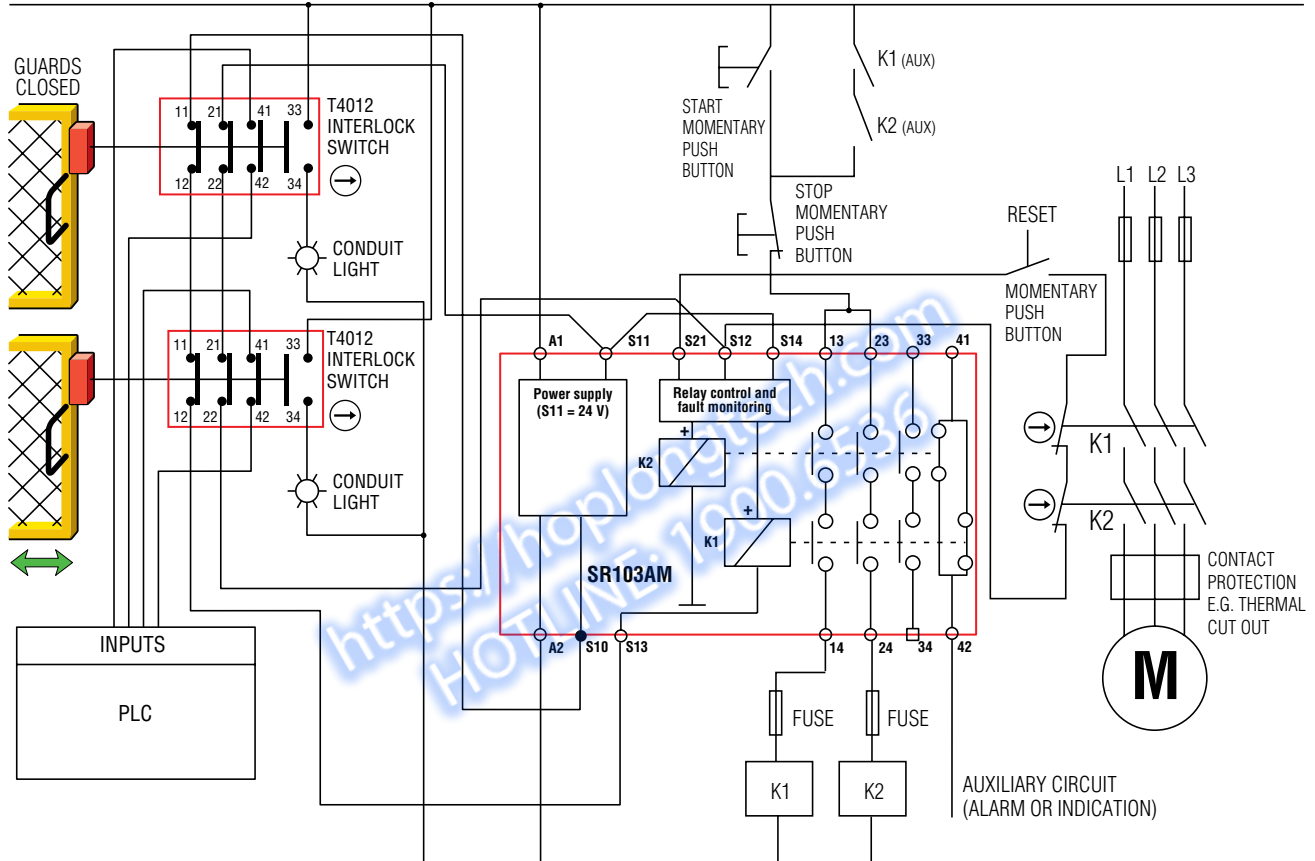
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Applications

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



24VAC/DC, 110VAC, 230VAC



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For a full explanation of the circuit operating principle and fault detection, see "Common Circuit Examples" in the Expert Area Section of this catalog on page G-103

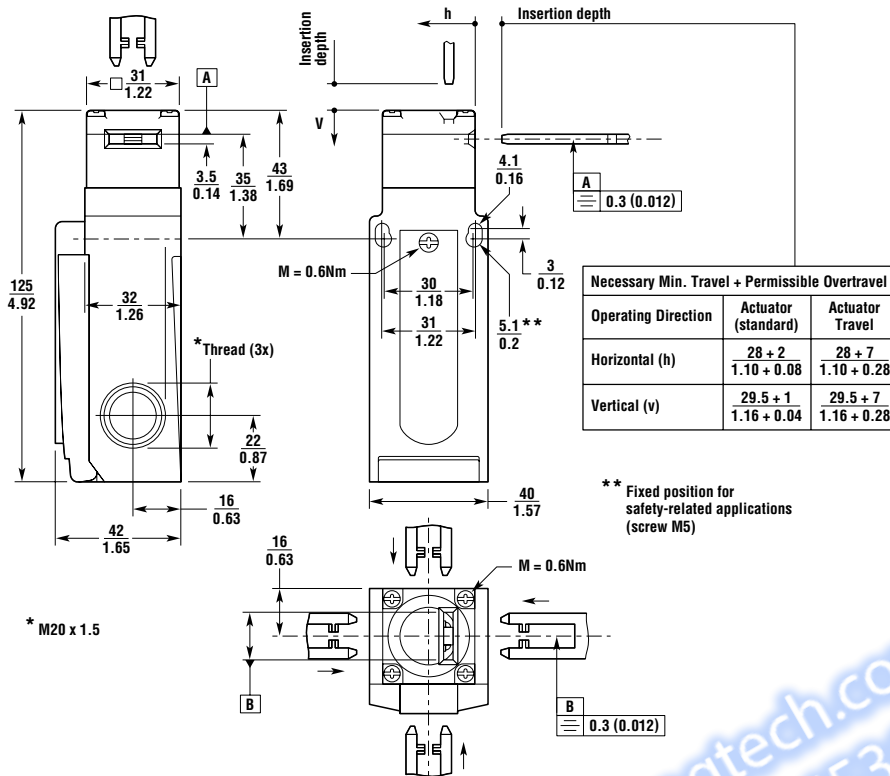


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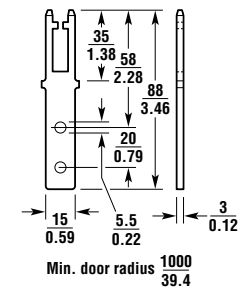
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Dimensions

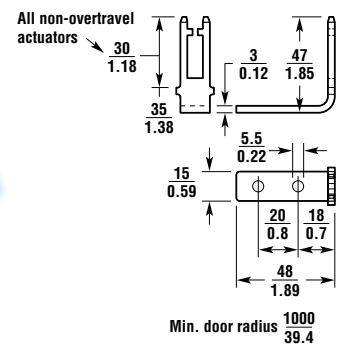
(mm/in.)



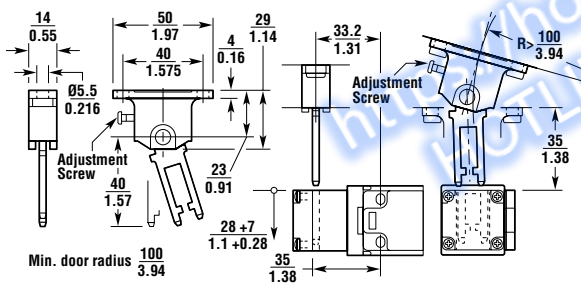
Overtravel Flat Actuator



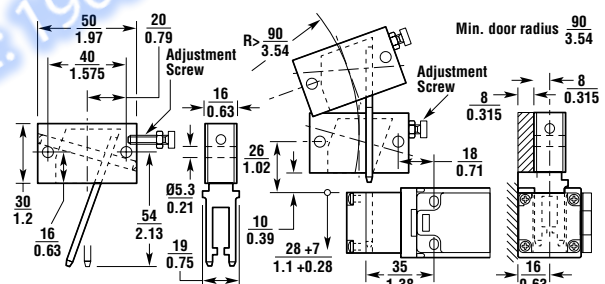
Overtravel 90-Degree Actuator



Flexible 1 Actuator



Flexible 2 Actuator



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Ordering

Model	Contacts	Wiring Entry	Part No.
T4012 90-Degree Actuator			
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
T4012 Flex 2 Actuator			
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
T4012 Flex 1 Actuator			
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
Switch Only Models (no actuators and no adapters included)			
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
Accessories			
Standard Actuators			
Replacement flat actuator			44534-0700
Replacement 90-degree actuator			44534-0710
Replacement flex 2 actuator			44534-0720
Replacement flex 1 actuator			44534-0730
Standard Actuators with Rubber Bushing			
Replacement flat actuator RB			44534-0740
Replacement 90-degree actuator RB			44534-0750
Overtravel Actuators			
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
Overtravel Actuators with Rubber Bushing			
Replacement flat actuator OTRB			44534-0741
Replacement 90-degree actuator OTRB			44534-0751
Slide Bolts			
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
Miscellaneous			
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



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