



Conforms to EN1088, EN292, EN60947-5-1, EN60204-1,
EN50047
UL and C-UL listed



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safety interlock switches

T3009

Compact Tongue-Operated Safety Interlock Switch

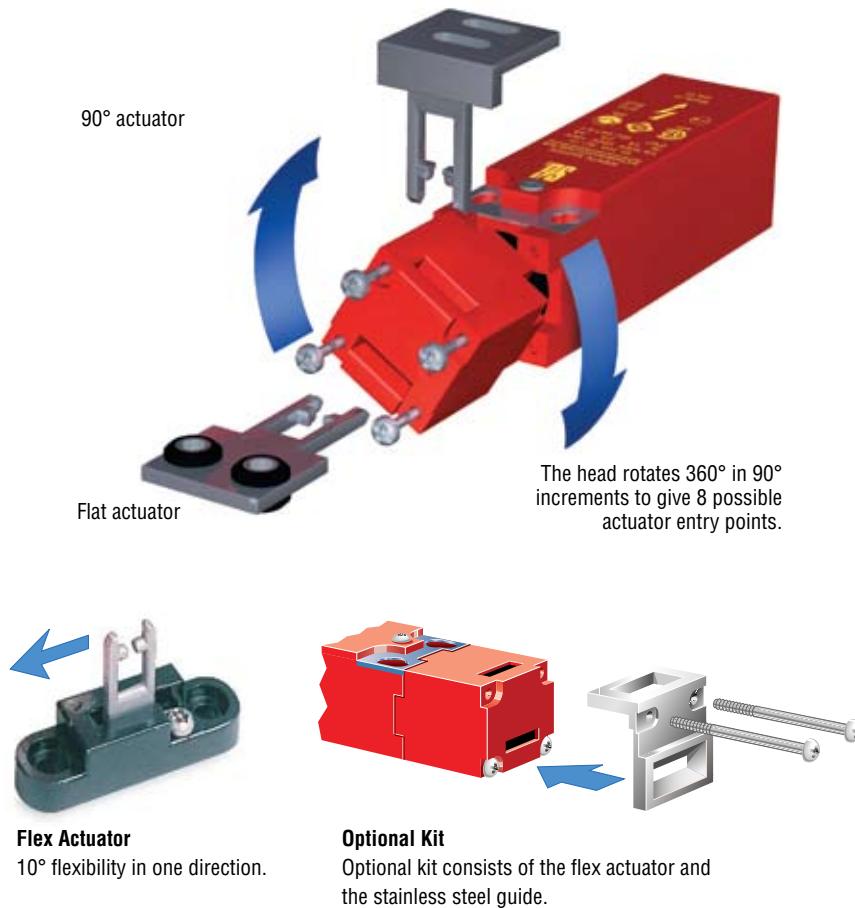
- Compact size—Allows the T3009 switch to be used on smaller machines with space restrictions
- Three sets of contacts—Provides a variety of contact configurations
- NEMA 6 enclosure—Enables the T3009 to withstand water washdown cleaning
- Rotatable head—Gives 8 possible actuator entry points for versatile installation. A blanking plug is supplied for the unused entry.
- Small swing radius—Allows use on doors with a swing radius as small as 2.5 in. when using the flex actuator with stainless steel guide
- Long life—The T3009 with its stainless steel actuators and optional stainless steel guide is designed for one million actuations
- Safety switch conformity—the T3009, with its force-guided contacts and a tamper-resistant mechanism, conforms to the European safety standards indicated here

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

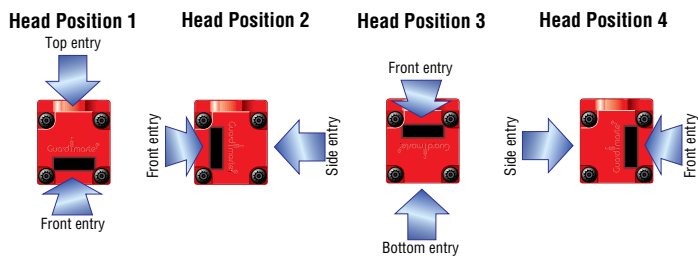
N **For More Guarding Products**
See Section N for safeguarding cutting and turning machines



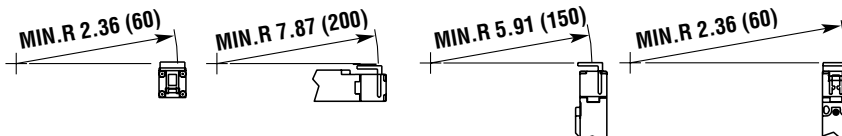
■ Operation



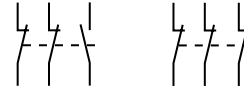
8 possible actuator entry points



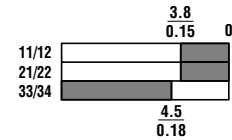
Minimum Operating Radius Front-Entry Using Flex Actuator With Stainless Steel Guide



Contact Arrangements

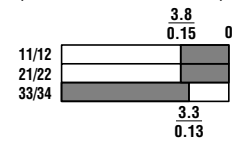


Actuator Withdrawal Distance from Full Insertion: type 2N/C + 1N/O BBM (Break before make contacts)



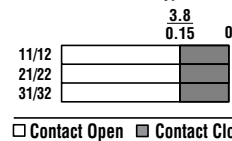
□ Contact Open ■ Contact Closed

Actuator Withdrawal Distance from Full Insertion: type 2N/C + 1N/O MBB (Make before break contacts)



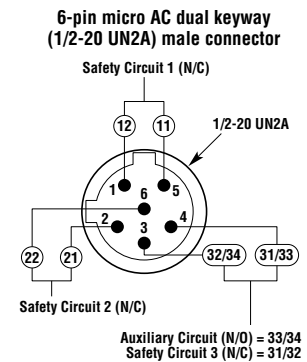
□ Contact Open ■ Contact Closed

Actuator Withdrawal Distance from Full Insertion: type 3N/C



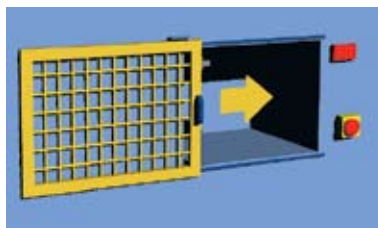
□ Contact Open ■ Contact Closed

Connector Configuration



■ Applications

Typical applications are on sliding guard doors or swinging guard doors with a 6 in. minimum swing radius.



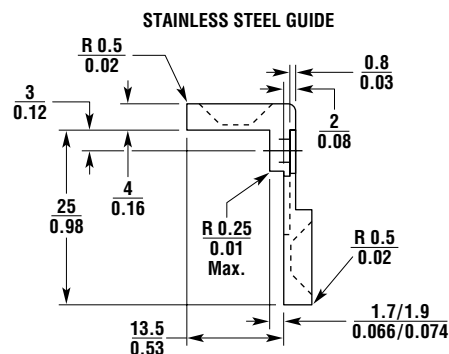
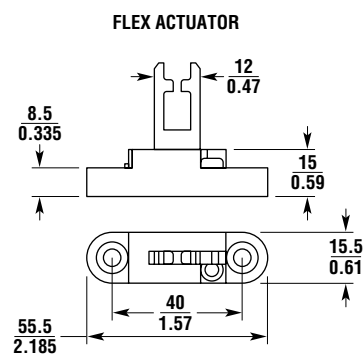
■ Specifications

Electrical	All Models
Contact Configurations:	2 N/C + 1 N/O, 3 N/C
Safety Contacts:	2 N/C or 3 N/C
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
Mechanical	
Mounting:	Any position
Mounting Hardware:	2 x M4 screws
Actuator Travel for Positive Opening:	5 mm (0.197 in.)
Min Operating Radius:	150 mm (5.91 in.)
Break Contact Min Force:	15 N (3.4 lb.)
Max Actuation Speed:	160 mm/sec (6.30 in./sec)
Max Actuation Frequency:	2 cycles/sec
Case Material:	UL listed, glass-filled polyester
Actuator Material:	Stainless steel
Wiring Entry:	1 x M16 conduit with 0.5 in. NPT adapter
Weight:	80 g (2.8 oz.)
Color:	Red
Mechanical Life:	1 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, EN50047
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.

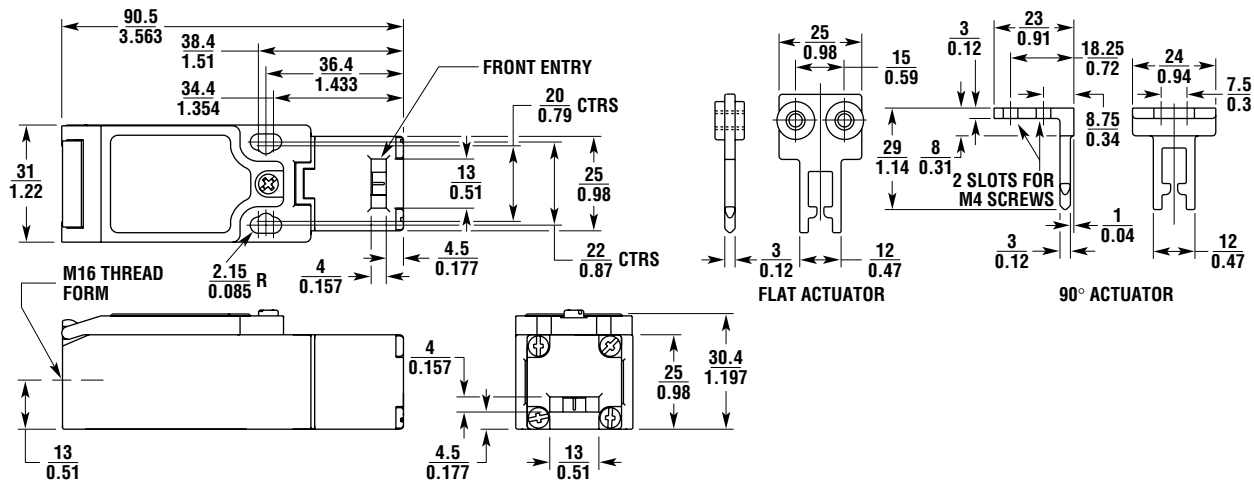
■ Dimensions — mm/in.



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

■ Dimensions — mm/in. (continued)



■ Ordering

Model	Contacts	Wiring Entry	Part No.
90° ACTUATOR			
T3009-021SM	2 N/C + 1 N/O BBM	1 x M16 with NPT adapter	44513-1010
T3009-021SCC	2 N/C + 1 N/O BBM	Connector	44513-1012
T3009-021SMM	2 N/C + 1 N/O MBB	1 x M16 with NPT adapter	44513-1020
T3009-021SMCC	2 N/C + 1 N/O MBB	Connector	44513-1022
T3009-030SM	3 N/C	1 x M16 with NPT adapter	44513-1030
T3009-030SCC	3 N/C	Connector	44513-1032
FLAT ACTUATOR			
T3009-021TM	2 N/C + 1 N/O BBM	1 X M16 with NPT adapter	44513-1110
T3009-021TCC	2 N/C + 1 N/O BBM	Connector	44513-1112
T3009-021TMM	2 N/C + 1 N/O MBB	1 x M16 with NPT adapter	44513-1120
T3009-021TMCC	2 N/C + 1 N/O MBB	Connector	44513-1122
T3009-030TM	3 N/C	1 x M16 with NPT adapter	44513-1130
T3009-030TCC	3 N/C	Connector	44513-1132
Spare 90° Actuator			44513-0700
Spare Flat Actuator			44513-0710
Flex Actuator w/stainless steel guide			44513-0730
Spare M16 to 0.5 in. NPT Adapter			44512-0300
M16 Cord Grip			44512-0080
Conduit Lights (see pages G239 & G240)			
Accessories and Cables with Mating Connectors (see page G238)			

BBM = Break Before Make Contacts, MBB = Make Before Break Contacts

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safety interlock switches