

Universal Tongue-Operated Safety Interlock Switch

- Strong and versatile—the compact size of the strong, glass-filled polyester housing and metal reinforced cam allows this popular switch to be used in most applications
- NEMA 6 enclosure enables these switches to withstand water washdown cleaning.
- Rotatable head gives four 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 optional flexible actuators
- The 4 contact poles provide 2 poles for dual channel safety monitoring and 2 additional poles for status monitoring
- Optional connector makes installation easy
- An optional stainless steel head is available



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

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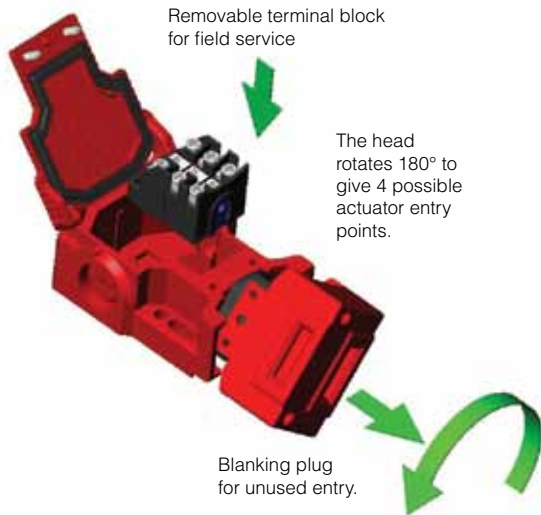
Specifications

| Electrical | All Models | T5009 | T5009-6 |
|---------------------------------------|--|---------------|-------------------------------------|
| Contact Configurations: | | 2 N/C + 1 N/O | 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: 500 V–1 A, 240 V–3 A, 120 V–6 A DC: 250 V–0.5 A, 24 V–2.5 A | | |
| Safety Contact Gap: | > 2 mm (0.079 in.) | | |
| Auxiliary Contacts: | | 1 N/O | 1 N/C + 1 N/O, 2 N/C, 2 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 M5 screws | | |
| Actuator Travel for Positive Opening: | 7 mm (0.275 in.) | | |
| Min Operating Radius: | 60 mm (2.5 in.) with Flex 1 actuator; 175 mm (6.89 in.) with standard actuator | | |
| Break Contact Min Force: | 12 N (2.7 lb.) | | |
| Max Actuation Speed: | 160 mm/sec (6.30 in./sec) | | |
| Max Actuation Frequency: | 2 cycles/sec | | |
| Case Material: | UL listed, glass-filled polyester, optional stainless steel head | | |
| Actuator Material: | Stainless steel | | |
| Wiring Entry: | M20 with 1/2 in. NPT adapter included, 1/2 in. NPT, 6-pin micro AC connector 1/2 in.– 20 | | |
| Weight: | 160 g (5.6 oz.) | | |
| Color: | Red | | |
| Mechanical Life: | 1 x 10 ⁶ minimum | | |
| Environmental | | | |
| Protection: | IP67 (NEMA 6) | | |
| Operating Temperature: | -25 to 80°C (-13 to 176°F) | | |
| Cleaning: | Water washdown | | |
| Compliance | | | |
| Standards: | EN1088, EN292, EN60947-5-1, EN60204-1, UL508 | | |
| 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.

Operation



Flex 1
15° flexibility in any direction.



Flex 2
15° flexibility in two directions.



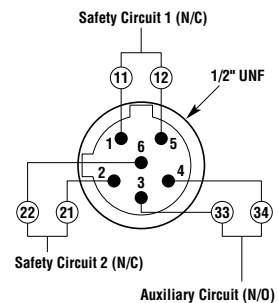
Optional SLD Series

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

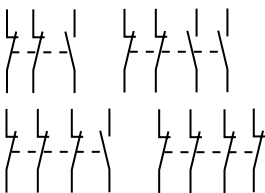


Optional Connector for 3-Pole Switches

6-Pin Male, Micro AC, 1/2-20 UN2A

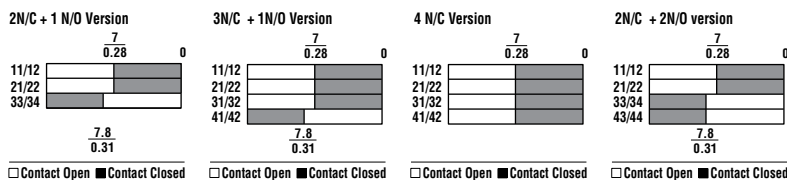


Contact Arrangements



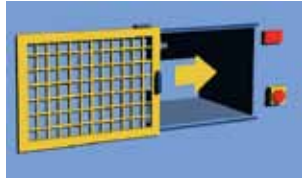
| Minimum Allowable Radius for Actuator Entry | | | | |
|---|--------|--------|--------|--------|
| | | | | |
| 44501-0755 | 175 mm | 175 mm | 175 mm | 175 mm |
| 44501-0785 | 175 mm | 175 mm | 175 mm | 175 mm |
| 44501-0790 | 175 mm | 175 mm | 175 mm | 175 mm |
| 44501-0765 | 175 mm | 50 mm | 60 mm | 175 mm |
| 44501-0760 | 60 mm | 60 mm | 60 mm | 60 mm |

Contact Block Operation at Withdrawal of Actuator

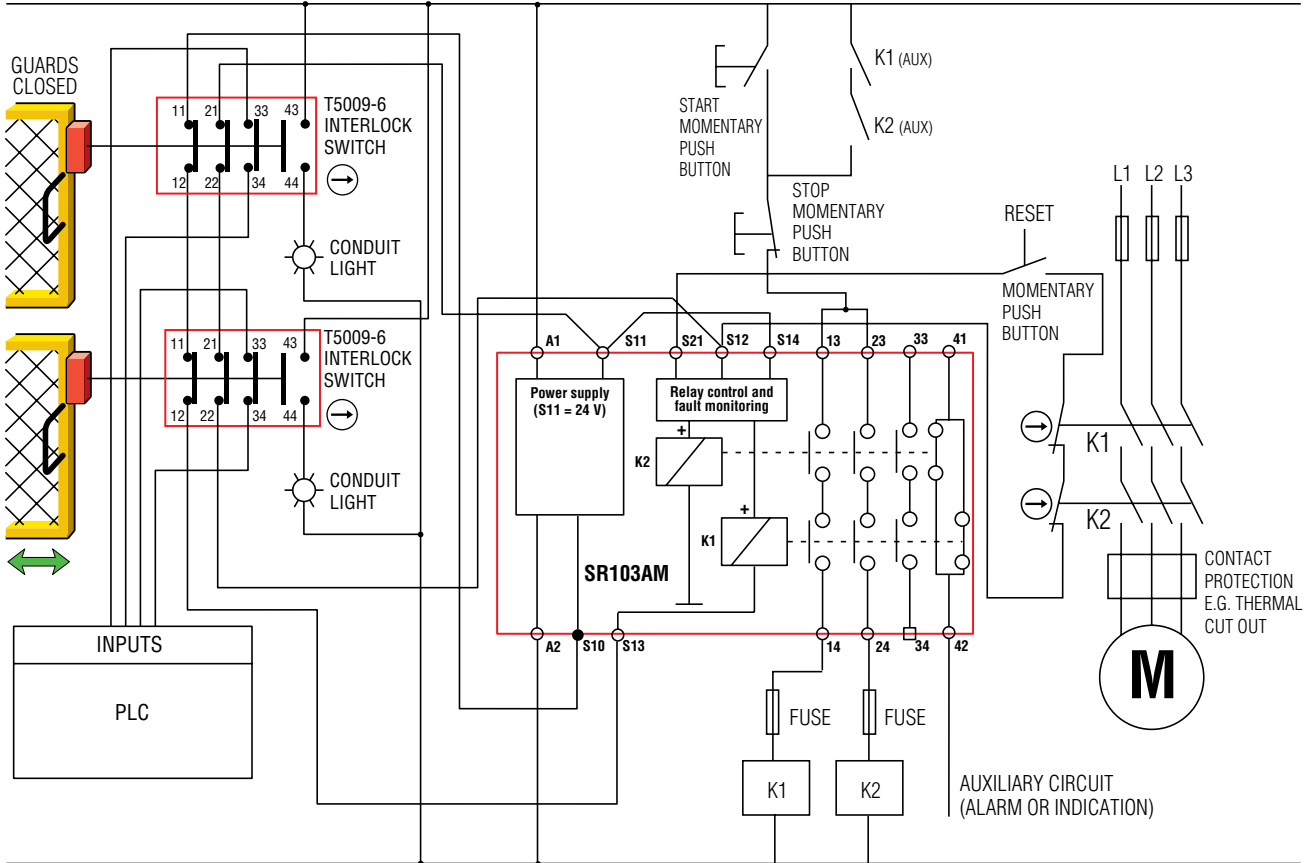



Applications

Typical applications are on sliding guard doors or swinging guard doors with a 2.5 in. minimum swing radius when using the flexible actuators.



24VAC/DC, 110VAC, 230VAC

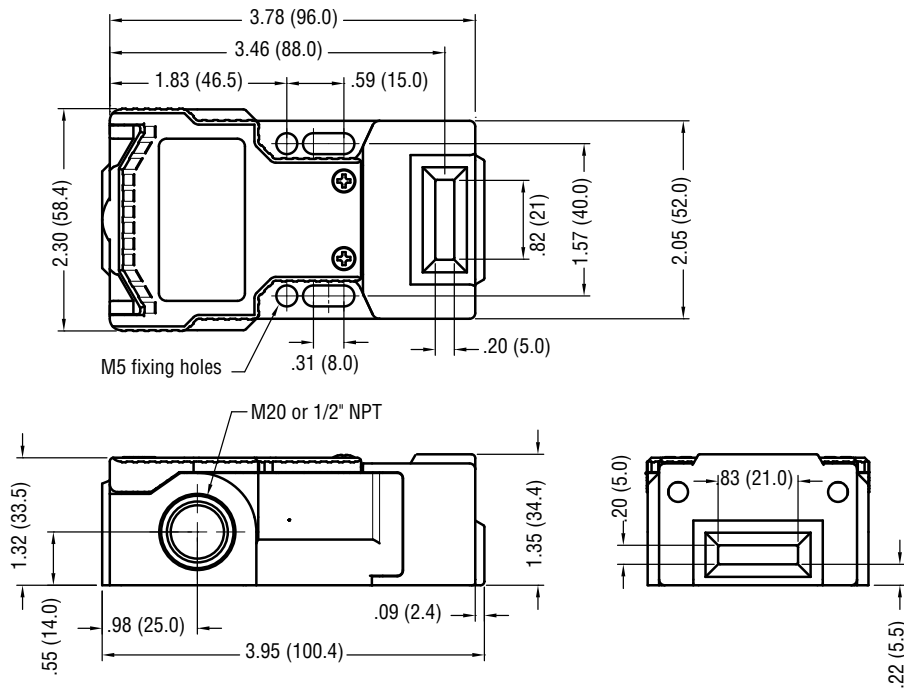


 For a full explanation of the circuit operating principle and fault detection, see "Common Circuit Examples" in The Safety Library Section of this catalog.

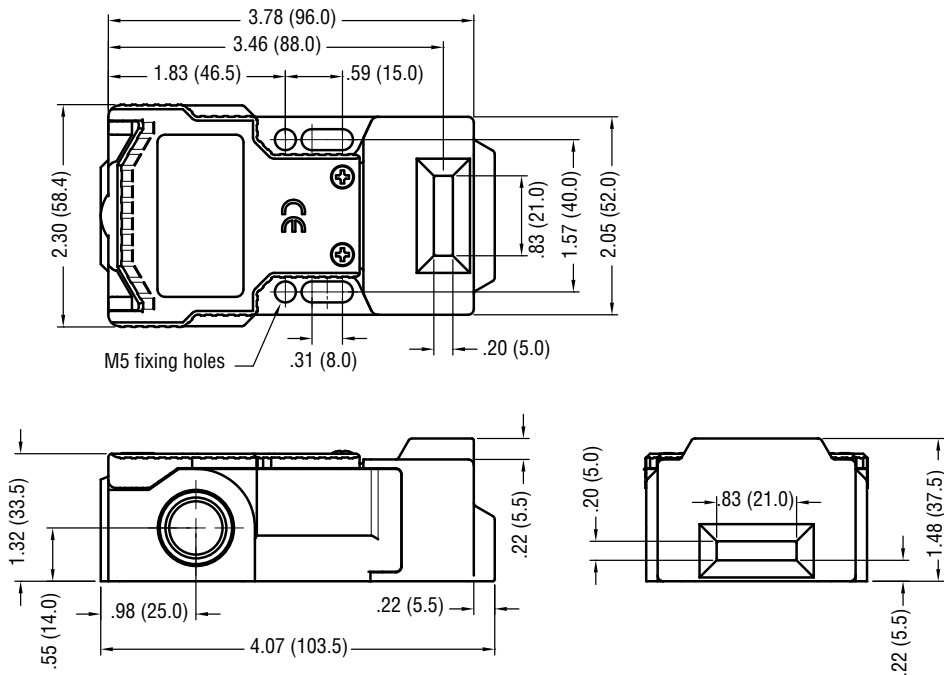
Dimensions

(mm/in.)

T5009, T5009-6 Switch with Plastic Head



T5009, T5009-6 Switch with Stainless Steel Head



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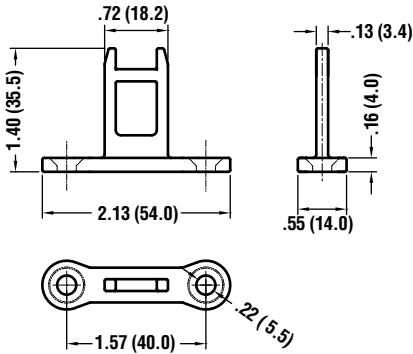
Dimensions (continued)

(mm/in.)

Standard & Flat Actuator Selections

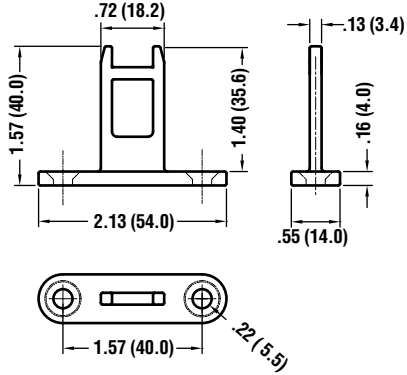
SA01-STD

44501-0755 (for use with plastic headed switches)



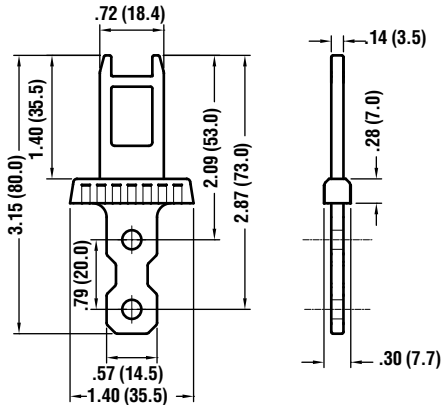
SA01-SSTD

44501-0785 (for use with stainless steel headed switches)



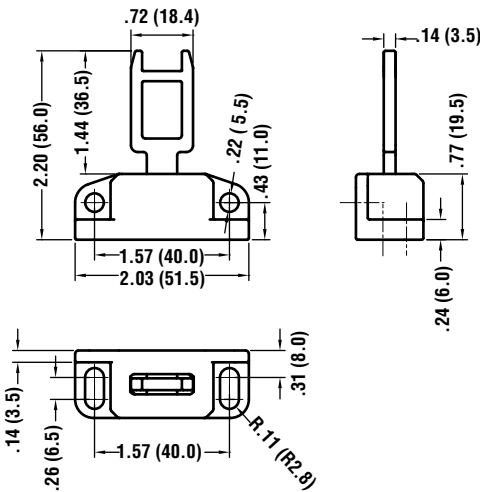
SA01-FSTD

44501-0790 (for use with plastic or stainless steel headed switches)



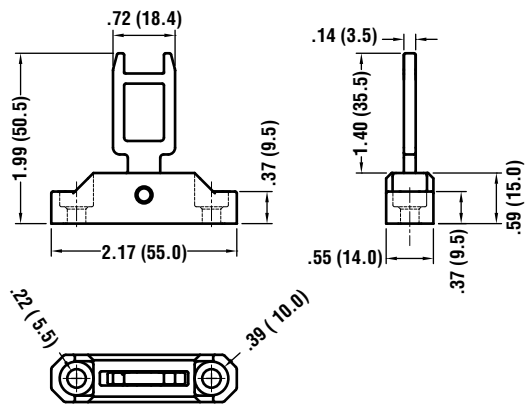
SA01-FLX1

44501-0760 (for use with plastic or stainless steel headed switches)



SA01-FLX2

44501-0765 (for use with plastic or stainless steel headed switches)




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Ordering

| Model | Contacts | Wiring Entry | Part No. |
|--|-------------|----------------------|------------|
| T5009 Switch Only | | | |
| T5009-021M | 2NC+1NO BBM | 3 x M20/NPT | 44501-0010 |
| T5009-021N | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0020 |
| T5009-021QD | 2NC+1NO BBM | 6-pin Micro AC Conn. | 44501-0030 |
| T5009-021SSM (Stainless Steel Head) | 2NC+1NO BBM | 3 x M20/NPT | 44501-0040 |
| T5009-021SSN (Stainless Steel Head) | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0050 |
| T5009-021SSCC (Stainless Steel Head) | 2NC+1NO BBM | 6-pin Micro AC Conn. | 44501-0060 |
| T5009 Standard Actuator | | | |
| T5009-021SM | 2NC+1NO BBM | 3 x M20/NPT | 44501-0110 |
| T5009-021SN | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0450 |
| T5009-021SCC | 2NC+1NO BBM | 6-pin Micro AC Conn. | 44501-0410 |
| T5009-021FSSM (Stainless Steel Head) | 2NC+1NO BBM | 3 x M20/NPT | 44501-0500 |
| T5009-021FSSN (Stainless Steel Head) | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0520 |
| T5009 Flex 1 Actuator | | | |
| T5009-021F1M | 2NC+1NO BBM | 3 x M20/NPT | 44501-0120 |
| T5009-021F1N | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0170 |
| T5009 Flex 2 Actuator | | | |
| T5009-021F2M | 2NC+1NO BBM | 3 x M20/NPT | 44501-0440 |
| T5009-021F2N | 2NC+1NO BBM | 3 X 1/2 NPT | 44501-0470 |
| T5009-6 Switch Only | | | |
| T5009-6022M | 2NC+2NO BBM | 3 x M20/NPT | 44501-1020 |
| T5009-6022N | 2NC+2NO BBM | 3 X 1/2 NPT | 44501-1025 |
| T5009-6031M | 3NC+1NO BBM | 3 x M20/NPT | 44501-1030 |
| T5009-6031N | 3NC+1NO BBM | 3 X 1/2 NPT | 44501-1035 |
| T5009-6040M | 4NC BBM | 3 x M20/NPT | 44501-1040 |
| T5009-6040N | 4NC BBM | 3 X 1/2 NPT | 44501-1045 |
| T5009-6022SM (Stainless Steel Head) | 2NC+2NO BBM | 3 x M20/NPT | 44501-2020 |
| T5009-6022SN (Stainless Steel Head) | 2NC+2NO BBM | 3 X 1/2 NPT | 44501-2025 |
| T5009-6031SM (Stainless Steel Head) | 3NC+1NO BBM | 3 x M20/NPT | 44501-2030 |
| T5009-6031SN (Stainless Steel Head) | 3NC+1NO BBM | 3 X 1/2 NPT | 44501-2035 |
| T5009-6040SM (Stainless Steel Head) | 4NC BBM | 3 x M20/NPT | 44501-2040 |
| T5009-6040SN (Stainless Steel Head) | 4NC BBM | 3 X 1/2 NPT | 44501-2045 |
| T5009-6 Standard Actuator | | | |
| T5009-6022SM | 2NC+2NO BBM | 3 x M20/NPT | 44501-3020 |
| T5009-6022SN | 2NC+2NO BBM | 3 X 1/2 NPT | 44501-3025 |
| T5009-6031SM | 3NC+1NO BBM | 3 x M20/NPT | 44501-3030 |
| T5009-6031SN | 3NC+1NO BBM | 3 X 1/2 NPT | 44501-3035 |
| T5009-6040SM | 4NC BBM | 3 x M20/NPT | 44501-3040 |
| T5009-6040SN | 4NC BBM | 3 X 1/2 NPT | 44501-3045 |
| Actuators For Plastic Headed T5009, T5009-6 Switches | | | |
| SA01-STD, Standard Actuator T5009, T5009-6, Plastic Head Switches | | | 44501-0755 |
| Actuators For Stainless Steel Headed T5009, T5009-6 Switches | | | |
| SA01-SSTD, Standard Actuator for T5009, T5009-6 Stainless Steel Head Switches | | | 44501-0785 |
| Actuators Compatible with both Plastic and Stainless Steel Headed T5009, T5009-6 Switches | | | |
| SA01-FLX1, Flex 1 Actuator T5009, T5009-6, Plastic or SS Headed Switches | | | 44501-0760 |
| SA01-FSTD, Flat Actuator T5009, T5009-6, Plastic or SS Headed Switches | | | 44501-0790 |
| SA01-FLX2, Flex 2 Actuator T5009, T5009-6, Plastic Head Switches | | | 44501-0765 |
| Accessories | | | |
| Spare M20 to 1/2" NPT Adapter | | | 44512-0110 |
| M20 Cord Grip | | | 44512-0090 |

BBM = Break Before Make Contacts

 = Highlighted **Rapid Delivery** products are available for shipment today or within **FIVE** days.

 For information on Accessories, including Conduit Lights and Cables with Mating Connectors, see page G227.