

# T5009, T5009-6 and XT5009

## Operating Instructions for T5009, T5009-6 and XT5009 Interlock Switches

### Explosion-Proof Classification

The explosion-proof models of safety interlock switches are specifically designed for potentially explosive atmospheres while retaining the features and operating characteristics of the conventional models.

A sealed flameproof contact block makes the explosion-proof interlock switches suitable for use in European Zone 1 and Zone 2 environments, which are typical of those found in the chemical and petrochemical industries. All switches are classified by the European method as EEx d II C T6. For a full explanation of the classification method, see "Hazardous Location Rating Systems for Interlock Switches" in The Safety Library Section of this catalog.

These switches are not suitable for use in atmospheres containing Group I gases, e.g., methane (firedamp).

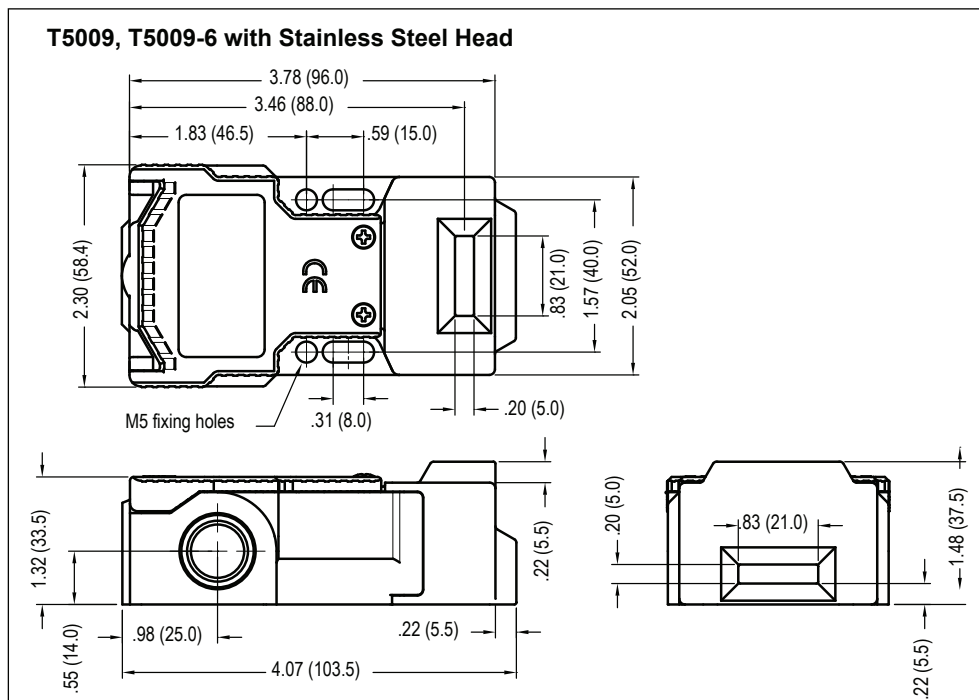
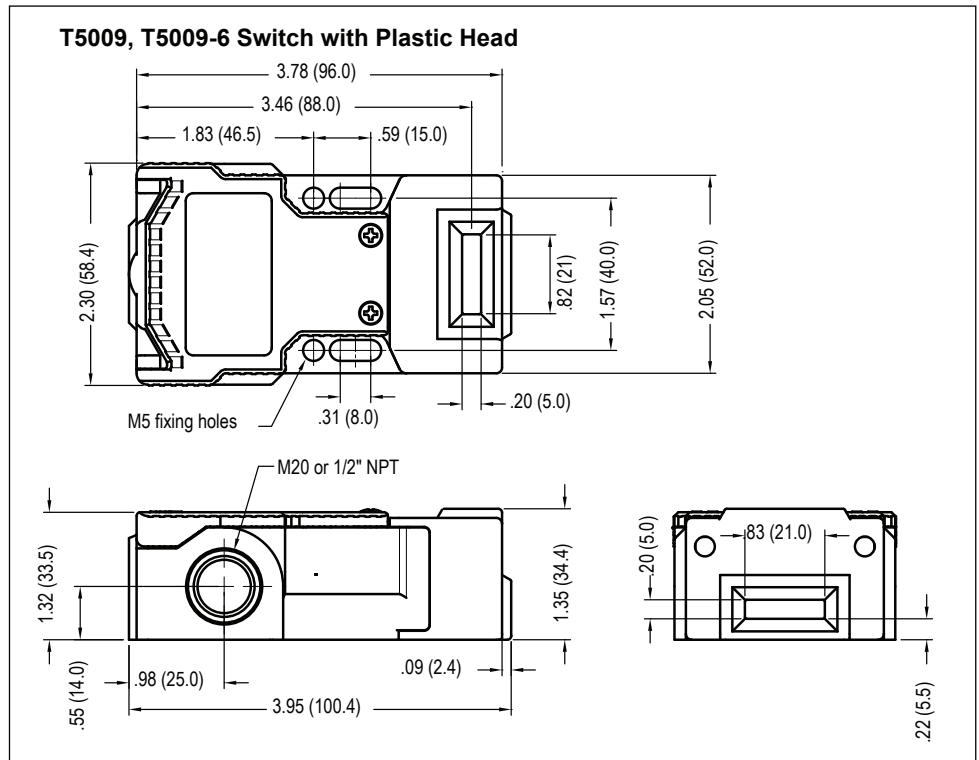
**⚠ WARNING:** These switches DO NOT meet all conditions of the US classification of Class I, Div 1, due to the differences between European and US classification methods. In the US and Canada, these products can be used in areas classified as Class I, Division 2 in Groups A (acetylene), B (hydrogen), C (ethylene) and D (propane).

Installation must be in accordance with the following steps and stated specifications and should be carried out by suitably competent personnel. The unit is not to be used as a mechanical stop.

Guard stops and guides must be fitted. Adherence to the recommended maintenance instructions forms part of the warranty.

**ATTENTION:** The presence of spare actuators can compromise the integrity of safety systems. Personal injury or death, property damage or economic loss can result. Appropriate management controls, working procedures and alternative protective measures should be introduced to control their use and availability.

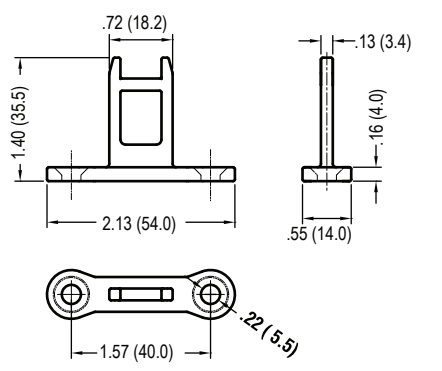
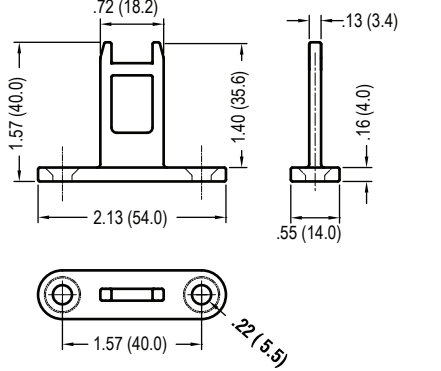
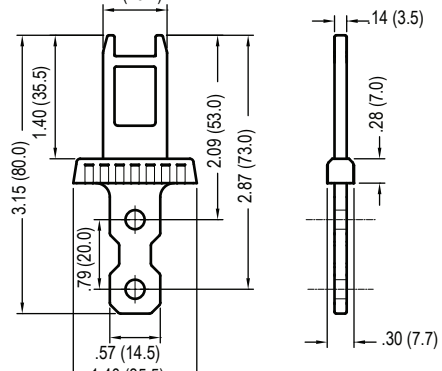
**⚠ WARNING:** Do not defeat, tamper, remove or bypass this unit. Severe injury to personnel could result.



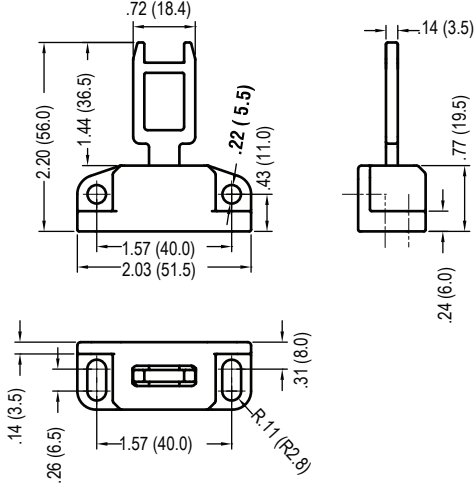
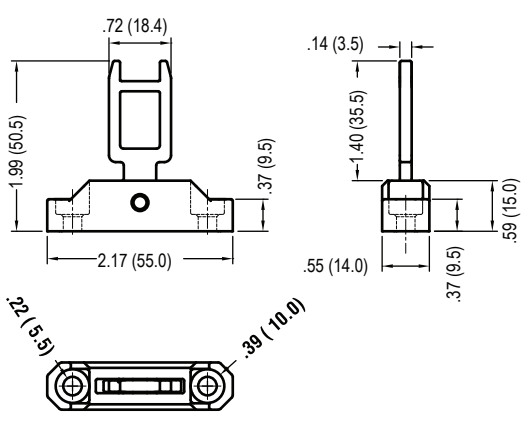
# T5009, T5009-6 and XT5009

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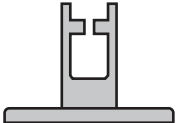
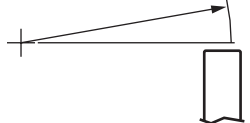
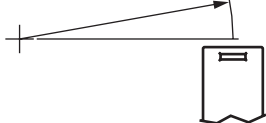
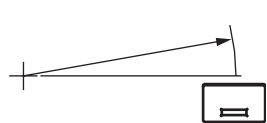
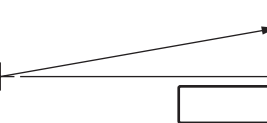
### Standard & Flat Actuator Selections:

SAO1-STD	SAO1-SSTD	SAO1-FSTD
 <p>44501-0755 (for use with plastic headed switches)</p>	 <p>44501-0785 (for use with S.S headed switches)</p>	 <p>44501-0790 (for use with plastic or S.S headed switches)</p>

### Flexible Actuator Options:

SAO1-FLX1	SAO1-FLX2
 <p>44501-0760 (for use with plastic or S.S headed switches)</p>	 <p>44501-0765 (for use with plastic or S.S headed switches)</p>

### Minimum Allowable Radius for Actuator Entry:

				
44501-0755	175mm	175mm	175mm	175mm
44501-0785	175mm	175mm	175mm	175mm
44501-0790	175mm	175mm	175mm	175mm
44501-0765	175mm	60mm	60mm	175mm
44501-0760	60mm	60mm	60mm	60mm

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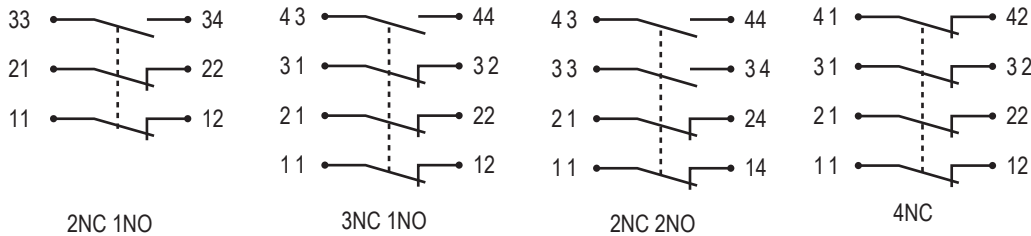
### Contact Block Operation at withdrawal of actuator:

2NC 1 NO			3NC 1 NO		
	7.8	7.0		7.8	7.0
	0 mm			0 mm	
11/12	Open		11/12	Open	
21/22	Open		21/22	Open	
33/34		Open	31/32	Open	
			41/42		Open

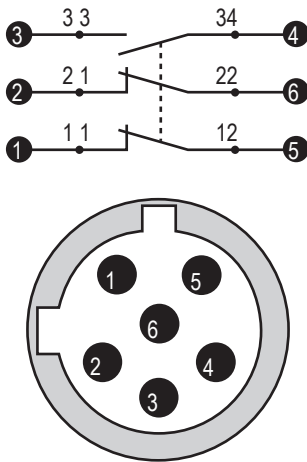
  

4NC			2NC 2NO		
	7.0	0 mm		7.8	7.0
	0 mm			0 mm	
11/12	Open		11/12	Open	
21/22	Open		21/22	Open	
31/32	Open		33/34		Open
41/42	Open		43/44		Open

### Positively operated safety contacts per IEC 947-5-1

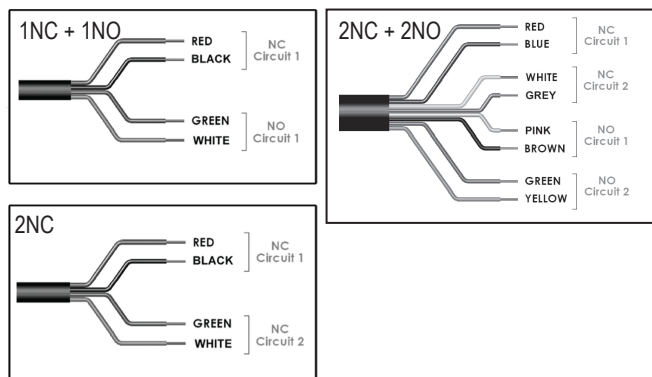


### T5009 Models with Quick Disconnect option



6-pin Micro AC connector 1/2"-20

### Explosion Proof Contact Block for XT5009



Classification:

Ex d IIIC T6 (-20C Ta 60C) Gb  
Ex tb IIIC T85C (-20C Ta 60C) Db

Rated Voltage:

250 V ac/dc

Rated Current:

2 pole 4A, 4 pole 2.5A

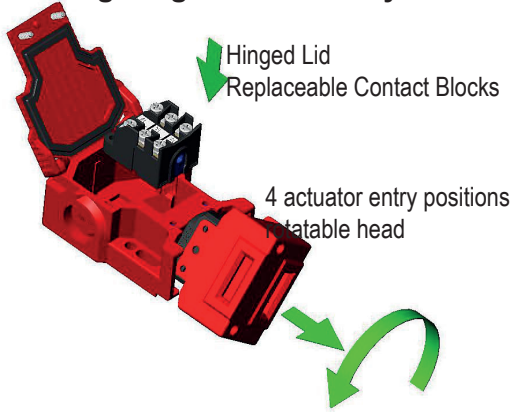
### Contact Block Operation at withdrawal for XT5009

	7.8	7.0	0 mm
NC	Open		
NO			Open

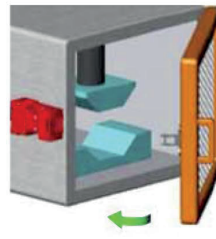
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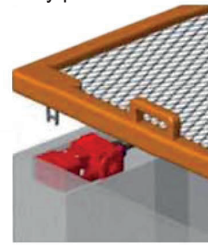
### Reconfiguring Actuator Entry Locations:



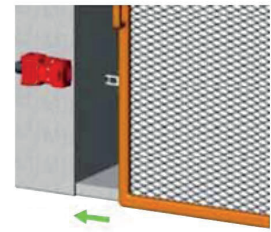
The switch head can be rotated through 180 degrees to provide ease of mounting and offer 4 different actuator entry positions



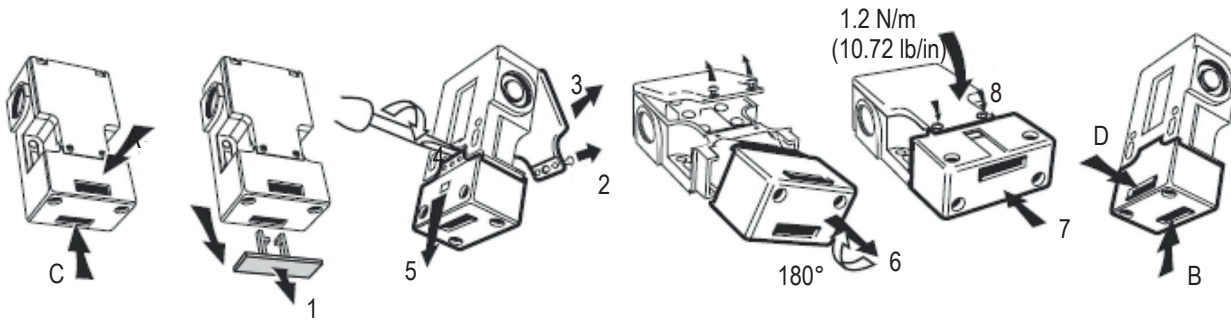
Hinged Guard



Lift off Guard



Sliding Guard



### Exclusion of Liability Under the Following Circumstances

- incorrect use
- non-compliance with safety regulations
- installation and electrical connection not performed by authorized personnel.
- failure to perform functional checks.

### EC Declaration of Conformity

The manufacturer named below herewith declares that the product fulfills the provisions of the directive(s) listed below and that the related standards have been applied.

OMRON Scientific Technologies Inc.  
6550 Dumbarton Circle  
Fremont, CA 94555, U.S.A.

Directives applied:  
Machinery directive 2006/42/EC  
Low Voltage directive 2006/95/EC  
Potential Explosive Atmosphere 94/9/EC (XT5009)  
RoHS directive 2011/65/EC

Standards applied:  
EN 60947-1:2007+A1:2011  
EN 60947-5-1:2004+A1:2009  
EN 60204-1:2006+A1:2009

Additional Standards for XT5009  
EN 60079-0:2011  
EN 60079-1:2007  
EN 60079-31:2009

Fremont, March 2013

Marty Krikorian  
Director, Quality Control

The signed EC Declaration of Conformity is included with the product.

### Specifications:

Conforming to standard	See EC Declaration of Conformity
ATEX Certificates	UL508 (NKCR, NKCR7) Baseefa11ATEX0267X IECEX BAS 1.0133X
Thermal Current (I <sub>th</sub> )	10A
Rated Insulation Voltage	600VAC
Rated Impulse Withstand Voltage	2500VAC
Utilization Category	AC15 A300 3A
Contact Resistance	25m Ω max. (initial)
Travel for Positive Opening	8mm
Man. Actuation Frequency	2 cycle/sec
Case Material	UL Approved glass-filled polyester
Actuator Material	Stainless steel
Actuator Entry Minimum Radius	175 mm Standard, 60mm Flexible
Enclosure Protection	IP67
Operating Temperature	25°C to 80°C
Mechanical Life Expectancy	1 x 10 <sup>5</sup> Cycle min.
Vibration	Exclusion: 0.35mm, 1 octave/min
Conduit Entry	Various (See Sales Part Numbers)
Utilization Category	AC15 A300 3A
Fixing	2 x M5
Approvals	cULus E195653, CE (XT5009: ATEX per EC-Type Examination)



**OMRON Scientific Technologies Inc.**

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Canada: 866.986.6766

Mexico and South America: 847.843.7900

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  - (iv) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this Product.

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