



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



G

safety interlock switches

BL6009

Manually Operated Bolt Safety Interlock Switch

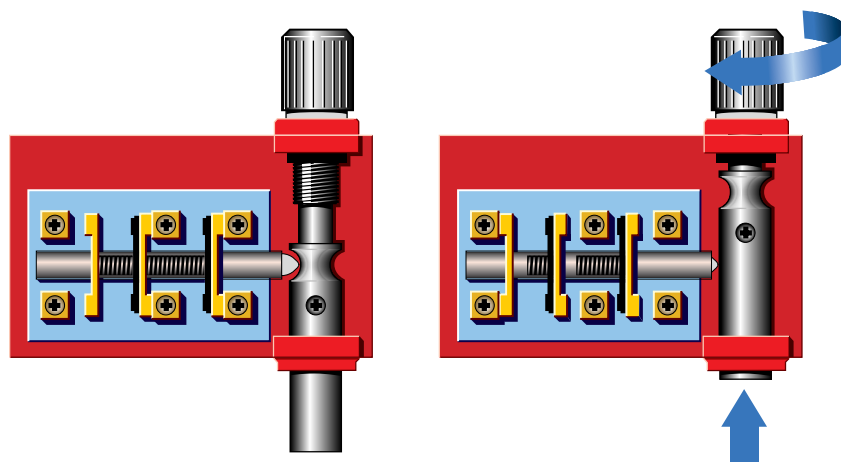
- Guard locking—manually operated bolt requires up to 20 seconds to retract, providing machine run-down time before the guard door can be opened. Models with longer shafts give up to 50% additional delay time.
- Heavy-duty housing—the die-cast housing and stainless steel bolt make the BL6009 suitable for demanding industrial applications on simple machines
- NEMA 6 enclosure enables the BL6009 switch to withstand water washdown cleaning
- Simple operation—manual operation allows locking and unlocking of guard doors without the need for electrical power
- Long life—the BL6009 switch is designed for a minimum of ten million actuations

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

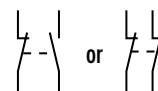
N **For More Guarding Products**
See Section N for safeguarding cutting and turning machines



■ Operation



Contact Arrangement



Shaft movement		
24.1	2.0	
1.0	0.08	0mm
11/12		
21/22		
33/34		
		☐ Contact Open ☒ Contact Closed

Principle of Operation

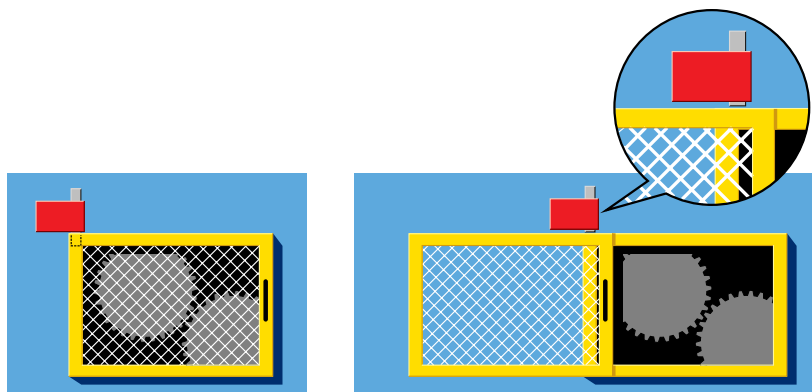
Interlocking shaft extended in to guard locking guard closed. Machine in run mode. Interlocking shaft is manually retracted from the guard by rotating the thumb wheel. This gives

an approximate delay of up to 20 seconds, dependent on the amount of bolt intrusion, before access into the guarded area can be obtained.

Installation

When installing the BL6009, ensure the shaft can only be extended when the guard is closed.

If there may be a temptation to devise methods to decrease the time required to withdraw the bolt, steps should be taken to prevent this during the installation. Where necessary, alternative devices such as the TL5012, TL8012 or TL8018 solenoid locking switches should be considered.



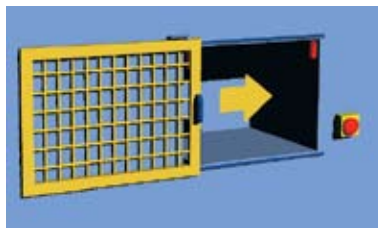
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■ Applications

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

Note: A shroud should be used to ensure that only finger tips can rotate the thumbwheel.



■ Specifications

Electrical	All Models
Contact Configurations:	2 N/C + 1 N/O
Safety Contacts:	2 N/C positive break
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
Shaft Travel for Positive Contact Opening:	2 mm (0.079 in.)
Case Material:	Die-cast alloy
Shaft Material:	Stainless steel
Wiring Entry:	1 x M20 conduit with 0.5 in. NPT adapter
Weight:	500 g (17.6 oz.)
Color:	Red
Mechanical Life:	10 x 10 ⁶ minimum
Environmental	
Protection:	IP66 (NEMA 6)
Operating Temperature:	-25 to 80°C (-13 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

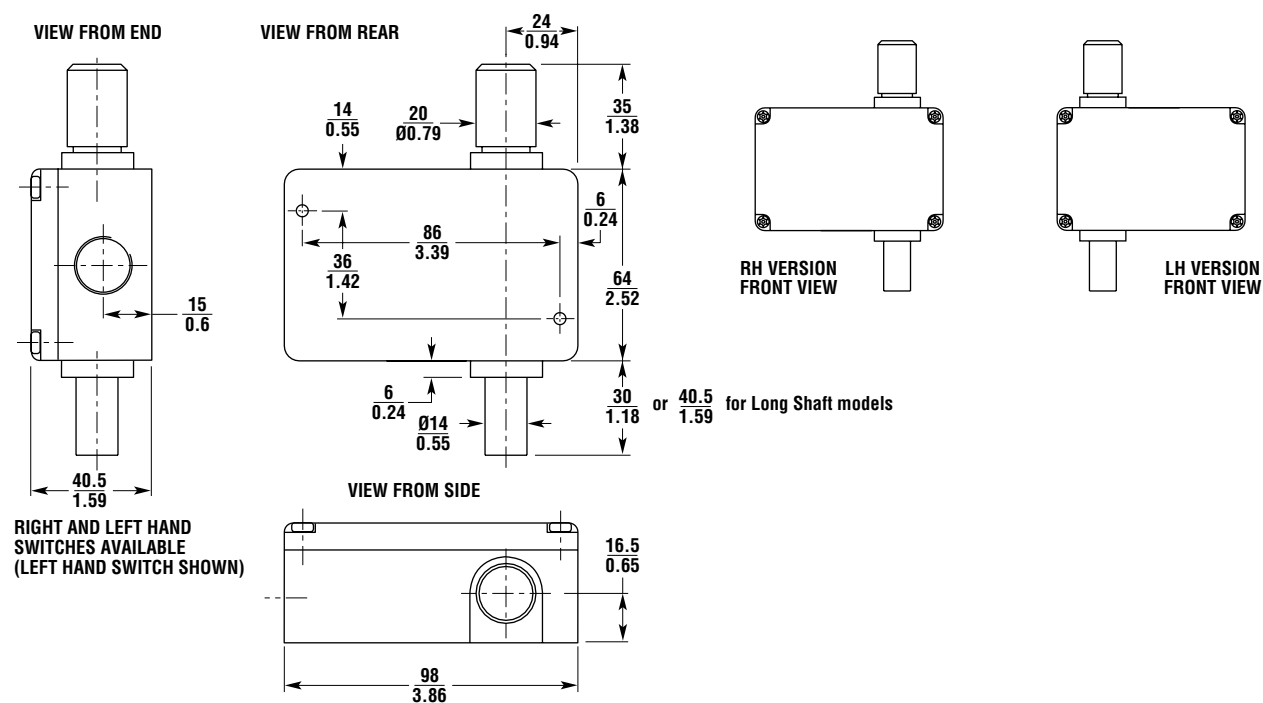
Specifications are subject to change without notice.

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.

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.



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■ Ordering

Model	Contacts	Wiring Entry	Part No.
BL6009-021SRM (right hand)	2 N/C + 1 N/O	1 x M20 conduit with NPT adapter	44503-0060
BL6009-021SLM (left hand)	2 N/C + 1 N/O	1 x M20 conduit with NPT adapter	44503-0050
BL6009-021LRM (long right hand)	2 N/C + 1 N/O	1 x M20 conduit with NPT adapter	44503-0070
BL6009-021LLM (long left hand)	2 N/C + 1 N/O	1 x M20 conduit with NPT adapter	44503-0080
Spare M20 to 0.5 in. NPT adapter			44512-0110
M20 Cord Grip			44512-0090
Conduit Lights (see pages G239 & G240)			
Accessories (see page G238)			

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