

Interlock Switches

Hinge Switches

Rotacam



Description

A heavy-duty hinge actuated safety interlock switch, the Rotacam shaft can be used as, or connected to, the existing hinge pin for direct operation of the switch. Machine power is isolated when the guard has been opened just 5°. For applications requiring a larger degree of operation the internal cam can be adjusted from 5° to 11°.

Note: After adjustment, the cam must be secured in position with the supplied cam locking pin to ensure optimal performance.

The Rotacam is available with two N.C. safety contacts and one N.O. auxiliary contact. The switch includes the necessary safety related functions, such as forced guided contacts and a tamper resistant mechanism, allowing machinery to be safeguarded in compliance with the machinery directive.

The die-cast housing is sealed to IP66 and features one M20 conduit entry (1/2in NPT and connector style also available). Two different shaft lengths of 30mm and 85mm can also be specified.

EX and Pneumatic styles of Rotacam are also available; see the **Explosion Proof** section on page 16-1 for more information.

Features

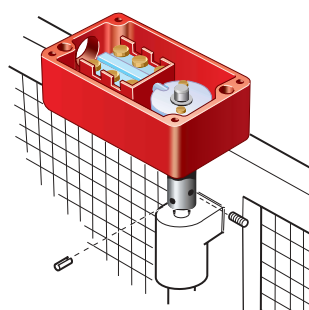
- Can be used as a hinge pin on light and medium weight guard doors
- Isolates power within 5° of door movement
- Degree of operation can be customized with adjustable cam
- Robust die-cast case, ideal for heavy duty applications
- Contacts, 2 N.C. & 1 N.O.

Specifications

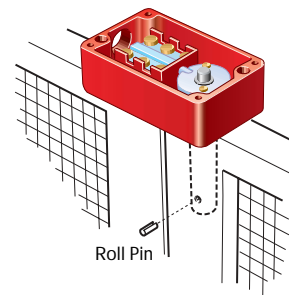
Standards	EN954-1, ISO13849-1, IEC/EN60204-1, NFPA79, EN1088, ISO14119, IEC/EN60947-5-1, ANSI B11.19, AS4024.1
Category	Cat. 1 Device per EN954-1 Dual channel interlocks suitable for Cat. 3 or 4 systems
Approvals	CE marked for all applicable directives, cULus, SUVA and TUV
Contact Arrangement	2 N.C. & 1 N.O. direct opening action
Utilization Cat. AC (Ue) (Ie) DC	AC 15 500V 250V 100V 1A 2A 5A 250V 0.5A 24V 2A
Thermal Current (Ith)	10A
Minimum Current	5V 5mA DC
Safety Contact Gap	>2mm (0.08in)
Rtd. Insulation Voltage	(Ui) 500V
Rtd. Impulse withstand Voltage	(Uimp) 2500V
Shaft Rotation to Achieve Contact Operation	11° maximum; 5° minimum, (adjustable)
Break Contact Min Force	12cNm (torque on shaft)
Max Actuation Speed	160mm per sec (6.29in)
Max Actuation Frequency	1 Cycle per sec
Case Material	Heavy duty die cast alloy
Actuator Shaft	Stainless Steel
Protection	IP66
Conduit Entry	1 × M20 or quick-disconnect style
Operating Temperature	-25°C to +80°C (-13°F to 176°F)
Fixing	2 × M4
Mounting	Any position
Mechanical Life	>1,000,000 operations
Electrical Life	>1,000,000 operations
Weight	420g (.926lb)
Colour	Red

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

Fixing Methods




Pre-Bored
The actuator shaft is pre-bored allowing the existing hinge pin to be utilised as the flexing point.



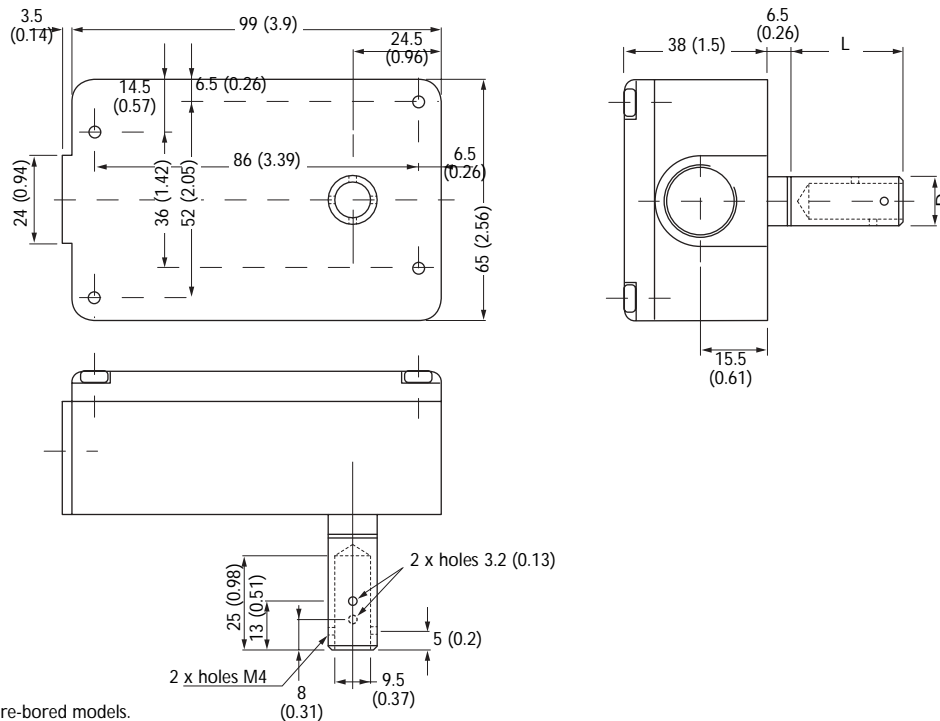
Solid Shaft
The solid actuator shaft can be used as the hinge pin on certain guards.

Product Selection

Safety Contacts	Auxiliary Contacts	BBM/MBB	Type Size (L=Length: D-Dia) mm (inches)	Shaft Type	Catalogue Number		
					M20 Conduit	M20 Conduit/ 1/2in Adaptor	Quick Disconnect
2 N.C.	1 N.C.	BBM	L = 30 (1.18) D = 16 (0.63)	Pre-Bored	440H-R03074	440H-R03078	440H-R03111
			L = 85 (3.35) D = 12.7 (0.5)	Solid	440H-R03079	440H-R03088	440H-R03112
		Recommended standard cordset, 2m (6.5ft). See page 15-10 for additional lengths.					889D-F8AB-2

Approximate Dimensions—mm (inches)

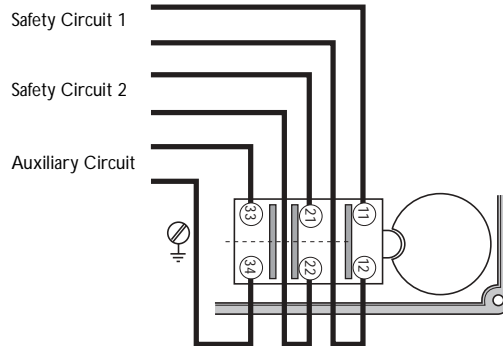
Dimensions are not intended to be used for installation purposes.



Note: Holes only on pre-bored models.

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Typical Wiring Diagrams



Connector Pinout		2 N.C. + 1 N.O.	
		Terminal	Contact
	1	11	N.C.
	7	12	
	6	21	N.C.
	5	22	
	4	33	N.O.
	3	34	
8	Ground		

Contact Action

□ Contact Open ■ Contact Closed

Shaft rotation

2 N.C. + 1 N.O. (BBM)

