

Interlock Switches

Hinge Switches

Sprite™



Description

The Sprite is a hinge-actuated safety interlock switch in a compact housing—only 75 x 25 x 29 mm (2.95 x 0.98 x 1.14 in.)—making it the smallest interlock currently available. The Sprite has been designed for smaller machines such as printing machines, copiers and domestic machinery, which until now, have been able to use standard safety interlocks due to space restrictions. Despite its small size, the Sprite 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 shaft of the Sprite is connected to the existing hinge pin and the degree of operation can be adjusted to suit the application via the adjustable cam in the switch head.



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

Features

- Ideal for small, light-weight guards
- The smallest hinge interlock switch available, 75 x 25 mm case
- Degree of operation can be customized with adjustable cam
- Contacts, 2 N.C. or 1 N.C. & 1 N.O.
- Four possible shaft positions, easy to install

Specifications

Safety Ratings	
Standards	EN954-1, ISO13849-1, IEC/EN60204-1, NFPA79, EN1088, ISO14119, IEC/EN60947-5-1, ANSI B11.19, AS4024.1
Safety Classification	Cat. 1 device per EN 954-1 May be suitable for use in Cat 3 or Cat 4 systems depending on the architecture and application characteristics
Functional Safety Data *	B10d: > 2 x 10 ⁶ operations at min. load PFH _D : < 3 x 10 ⁻⁷ MTTFd: > 385 years May be suitable for use in performance levels Plc or Pld systems (according to ISO 13849-1:2006) and for use in SIL2 or SIL3 systems (according to IEC 62061) depending on the architecture and application characteristics
Note:	For up-to-date information, visit http://www.ab.com/Safety/
Certifications	CE Marked for all applicable directives, cULus NRTL/C and TÜV
Outputs	
Safety Contacts *	2 N.C. direct-opening action 1 N.C. direct-opening action
Auxiliary Contacts	— 1 N.O.
Shaft Rotation for Contact Operation	Maximum 11°; Minimum 3° (adjustable)
Thermal Current I _{th}	10 A
Rated Insulation Voltage	(Ui) 500V
Switching Current @ Voltage, Min.	5 mA @ 5V DC
Utilization Category	
A600/AC-15	(Ue) 600V 500V 240V 120V (Ie) 1.2 A 1.4 A 3 A 6 A
DC-13	(Ue) 24V (Ie) 2 A
Operating Characteristics	
Break Contact Force, Min.	8 cNm (torque on shaft)
Actuation Speed, Max.	160 mm (6.29 in.)/s
Actuation Frequency, Max.	1 cycle/s
Operating Life @ 100 mA load	1,000,000 operations
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-20...+80° (-4...176°)
Physical Characteristics	
Housing Material	UL Approved glass-filled PBT
Shaft Material	Stainless Steel
Weight [g (lb)]	80 (0.176)
Color	Red

* Usable for ISO 13849-1:2006 and IEC 62061. Data is based on the B10d value given and:
- Usage rate of 1op/10 mins., 24 hrs/day, 360 days/year, representing 51840 operations per year
- Mission time/Proof test interval of 38 years

* The safety contacts 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.

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Product Selection

Contact			Shaft Type	Actuator Shaft Dimensions—mm (in)	Cat. No.				
Safety	Auxiliary	Action			M16 Conduit		Connector§		
					M16	1/2 inch NPT Adaptor	4-Pin Micro (M12)	Connect to ArmorBlock Guard I/O 5-Pin Micro (M12)	
2 N.C.	—	—	Solid	80 x Ø10 (3.14 x 0.39)	440H-S34019	440H-S34023	440H-S34027	—	
				60 x Ø8 (2.36 x 0.31)	440H-S34020	440H-S34024	440H-S34028	—	
				50 x Ø10(1.96 x 0.39)	440H-S34010	440H-S34017	440H-S34014	440H-S2NNPPS	
1 N.C.	1 N.O.	BBM	Pre-Bored	30 x Ø16 (1.18 x 0.63) bore Ø9.5 (0.37)	440H-S34033	440H-S34034	440H-S34035	440H-S2NNHPS	
				Solid	80 x Ø10 (3.14 x 0.39)	440H-S34021	440H-S34025	440H-S34029	—
					60 x Ø8 (2.36 x 0.31)	440H-S34022	440H-S34026	440H-S34030	—
50 x Ø10(1.96 x 0.39)	440H-S34012	440H-S34018	440H-S34015	—					
			Pre-Bored	30 x Ø16 (1.18 x 0.63) bore Ø9.5 (0.37)	440H-S34036	—	—	—	

§ For connector ratings, see page 3-9.

Recommended Logic Interfaces

Description	Safety Outputs	Auxiliary Outputs	Terminals	Reset Type	Power Supply	Cat. Page No.	Cat. No.
Single-Function Safety Relays							
MSR127RP	3 N.O.	1 N.C.	Removable (Screw)	Monitored Manual	24V AC/DC	5-26	440R-N23135
MSR127TP	3 N.O.	1 N.C.	Removable (Screw)	Auto./Manual	24V AC/DC	5-26	440R-N23132
MSR9T	2 N.O.	1 N.C.	Fixed	Auto./Manual	24V AC/DC	5-14	440R-F23027
MSR30RT	2 N.O. Solid State	1 N.O. Solid State	Removable	Auto./Manual or Monitored Manual	24V DC	5-16	440R-N23198
MSR33RT	2 N.O. Solid State	1 N.O.	Removable	Auto. or Monitored Manual	24V DC SELV	5-18	440R-F23200
Modular Safety Relays							
MSR210P Base 2 N.C. only	2 N.O.	1 N.C. and 2 PNP Solid State	Removable	Auto./Manual or Monitored Manual	24V DC from the base unit	5-82	440R-H23176
MSR220P Input Module	—	—	Removable	—	24V DC	5-86	440R-H23178
MSR310P Base	MSR300 Series Output Modules	3 PNP Solid State	Removable	Auto./Manual Monitored Manual	24V DC	5-102	440R-W23219
MSR320P Input Module	—	2 PNP Solid State	Removable	—	24V DC from the base unit	5-106	440R-W23218

Note: For additional Safety Relays connectivity, see page 5-12.
For additional Safety I/O and Safety PLC connectivity, see page 5-116.
For application and wiring diagrams, see page 10-1.

Connection Systems

Description	4-Pin Micro (M12)		5-Pin Micro (M12) for ArmorBlock Guard I/O
	2 N.C.	1 N.C. & 1 N.O.	2 N.C.
Cordset	889D-F4AC-*	889D-F4AC-*	—
Patchcord	889D-F4ACDM-*	889D-F4ACDM-*	889D-F5ACDM-*
Distribution Box	889D-4†LT-DM4	898D-F4‡KT-DM4	—
Shorting Plug	889D-41LU-DM	898D-41KU-DM	—
T-Port	889D-43LY-D4	898D-43KY-D4	—

* Replace symbol with 2 (2 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
* Replace symbol with 1 (1 m), 2 (2 m), 3 (3 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
‡ Replace symbol with 4 or 8 for number of ports.

Note: For additional information, see the Safety Connection System section (page 7-1) of this catalog.

3-Interlock Switches

Interlock Switches

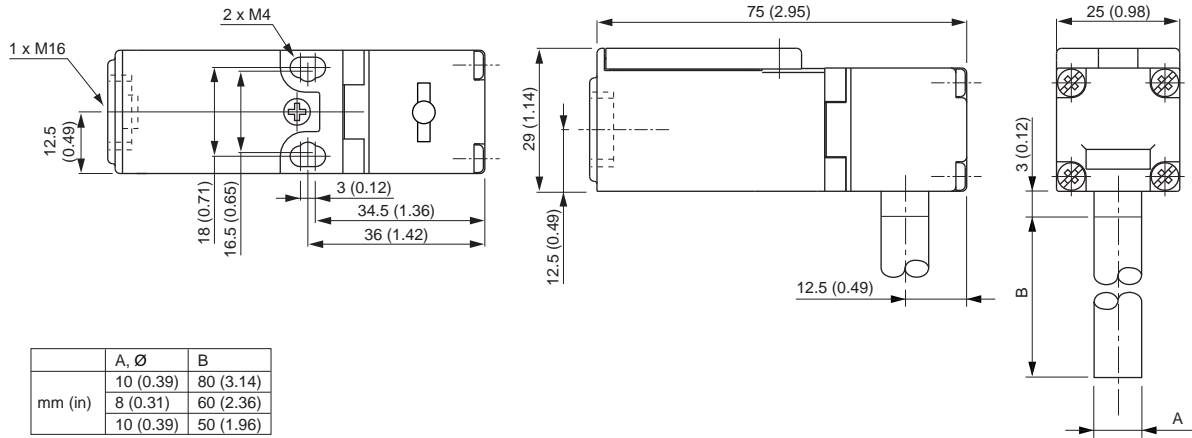
Hinge Switches

Sprite™

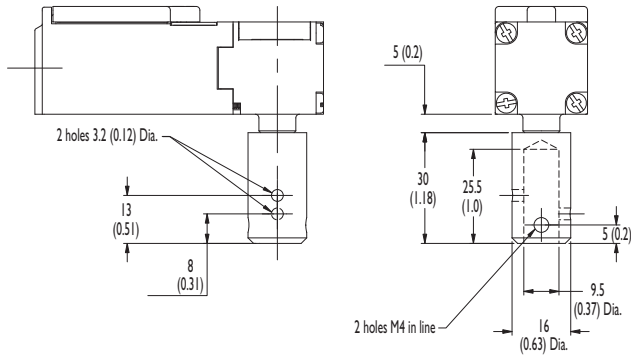
Approximate Dimensions

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.

= mm (in)



Hollow Shaft


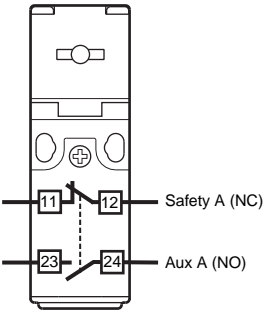
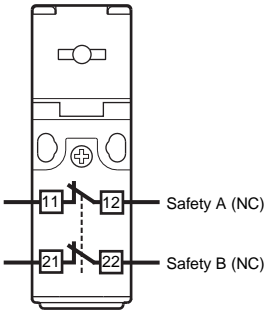

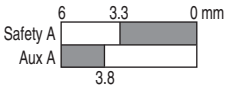
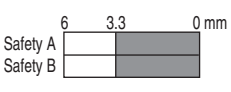
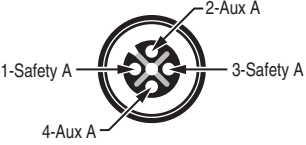
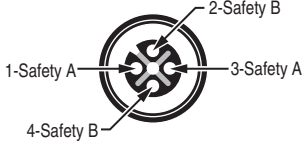
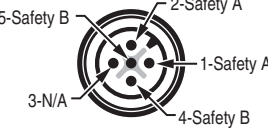


Note: 2D, 3D and electrical drawings are available on www.ab.com.

3-Interlock Switches

Interlock Switches Hinge Switches Sprite™

Typical Wiring Diagrams

Description	1 N.C. & 1 N.O.	2 N.C.
Contact Configuration 		
Contact Action 		
4-Pin Micro (M12)		
5-Pin Micro (M12) For ArmorBlock Guard I/O	—	
Cordset 889D-F4AC- *	Brown	Safety A
	Blue	Safety A
	White	Aux A
	Black	Safety B

* Replace symbol with 2 (2 m), 5 (5 m) or 10 (10 m) for standard cable lengths.

**3-Interlock
Switches**

Interlock Switches

Hinge Switches

Ensign™ 3



Description

The Ensign 3 is a hinge-actuated safety-interlock switch designed to fit at the hinge point of guards. With its rotatable head, the versatile Ensign 3 offers up to four different mounting options.

Operation of the unit is achieved by the hinging action of the guard. The actuation shaft is connected to the existing hinge pin and the degree of operation can be adjusted to suit the application via the adjustable cam in the switch head.



IMPORTANT: After adjustment, the cam must be secured in position with the supplied cam locking pin to ensure safety function performance.

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. It is sealed to IP67 and has one conduit entry, M16 or connector style.

Features

- Compact size—90.5 x 31 x 30.4 mm (3.56 x 1.22 x 1.2 in) housing
- Ideal for small, lightweight guards
- Degree of operation can be customized with adjustable cam
- Contacts, 2 N.C. & 1 N.O. or 3 N.C. (sealed to IP67)
- Four possible shaft positions, easy to install
- Solid and hollow shafts available

Specifications

Safety Ratings	
Standards	EN954-1, ISO13849-1, IEC/EN60204-1, NFPA79, EN1088, ISO14119, IEC/EN60947-5-1, ANSI B11.19, AS4024.1
Safety Classification	Cat. 1 device per EN 954-1 dual channel interlocks suitable for Cat. 3 or 4 systems
Functional Safety Data *	B10d: > 2 x 10 ⁶ operations at min. load PFH _D : < 3 x 10 ⁻⁷ MTTFd: > 385 years May be suitable for use in performance levels Pl _e or Pl _d systems (according to ISO 13849-1:2006) and for use in SIL2 or SIL3 systems (according to IEC 62061) depending on the architecture and application characteristics
Note:	For up-to-date information, visit http://www.ab.com/Safety/
Certifications	CE Marked for all applicable directives, cULus, and TÜV
Outputs	
Safety Contacts *	3 N.C. direct-opening action 2 N.C. direct-opening action
Auxiliary Contacts	— 1 N.O.
Shaft Rotation for Contact Operation	3 N.C. Adjustable 12° max.: 3° min. 2 N.C. 1 N.O. (BBM) Adjustable 14° max.: 5° min. 2 N.C. 1 N.O. (MBB) Adjustable 12° max.: 3° min.
Thermal Current I _{th}	10 A
Rated Insulation Voltage	(Ui) 500V
Switching Current @ Voltage, Min.	5 mA @ 5V DC
Utilization Category	
A600/AC-15	(Ue) 600V 500V 240V 120V (Ie) 1.2 A 1.4 A 3 A 6 A
DC-13	(Ue) 24V (Ie) 2 A
Operating Characteristics	
Break Contact Force, Min.	8 cNm (torque on shaft)
Actuation Speed, Max.	160 mm (6.29 in.)/s
Actuation Frequency, Max.	1 cycle/s
Operating Life @ 100 mA load	1,000,000 operations
Environmental	
Enclosure Type Rating	IP67
Operating Temperature [C (F)]	-20...+80° (-4...176°)
Physical Characteristics	
Housing Material	UL Approved glass-filled PBT
Shaft Material	Stainless Steel
Weight [g (lb)]	100 (0.22)
Color	Red

* Usable for ISO 13849-1:2006 and IEC 62061. Data is based on the B10d value given and:
- Usage rate of 1op/10 mins., 24 hrs/day, 360 days/year, representing 51840 operations per year
- Mission time/Proof test interval of 38 years

* The safety contacts 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.

Interlock Switches Hinge Switches Ensign™ 3

Product Selection

Contact			Actuator Shaft Dimensions— mm (in)	Shaft Type	Cat. No.			
Safety	Auxiliary	Action			M16 Conduit		Connector*	
					M16	1/2 inch NPT Adaptor	6-Pin Micro (M12)	Connect to ArmorBlock Guard I/O 5-Pin Micro (M12) *
3 N.C.	—	—	80 x Ø10 (3.14 x 0.39)	Solid	440H-E22025	440H-E22050	440H-E22059	—
			60 x Ø8 (2.36 x 0.31)		440H-E22031	440H-E22051	440H-E22060	—
			50 x Ø10 (1.96 x 0.39)	Pre-bored	440H-E22047	440H-E22052	440H-E22061	440H-E2NNPPS
			30 x Ø16 (1.18 x 0.63) bore Ø9.5 (0.37)		440H-E22067	440H-E22068	440H-E22069	440H-E2NNHPS
2 N.C.	1 N.O.	BBM	80 x Ø10 (3.14 x 0.39)	Solid	440H-E22027	440H-E22053	440H-E22037	—
			60 x Ø8 (2.36 x 0.31)		440H-E22033	440H-E22054	440H-E22039	—
			50 x Ø10 (1.96 x 0.39)	Pre-bored	440H-E22048	440H-E22055	440H-E22062	—
			30 x Ø16 (1.18 x 0.63) bore Ø9.5 (0.37)		440H-E22064	440H-E22065	440H-E22066	—
		MBB	80 x Ø10 (3.14 x 0.39)	Solid	440H-E22029	440H-E22056	440H-E22038	—
			60 x Ø8 (2.36 x 0.31)		440H-E22035	440H-E22057	440H-E22040	—
			50 x Ø10 (1.96 x 0.39)	Pre-bored	440H-E22049	440H-E22058	440H-E22063	—
			30 x Ø16 (1.18 x 0.63) bore Ø9.5 (0.37)		440H-E22070	440H-E22071	440H-E22072	—

* With a 5-pin micro (M12) connector, not all contacts are connected. See page 3-97 for wiring details.
 * For connector ratings, see 3-9.

Recommended Logic Interfaces

Description	Safety Outputs	Auxiliary Outputs	Terminals	Reset Type	Power Supply	Cat. Page No.	Cat. No.
Single-Function Safety Relays							
MSR127RP	3 N.O.	1 N.C.	Removable (Screw)	Monitored Manual	24V AC/DC	5-26	440R-N23135
MSR127TP	3 N.O.	1 N.C.	Removable (Screw)	Auto./Manual	24V AC/DC	5-26	440R-N23132
MSR126T	2 N.O.	None	Fixed	Auto./Manual	24V AC/DC	5-24	440R-N23117
MSR30RT	2 N.O. Solid State	1 N.O. Solid State	Removable	Auto./Manual or Monitored Manual	24V DC	5-16	440R-N23198
Modular Safety Relays							
MSR210P Base 2 N.C. only	2 N.O.	1 N.C. and 2 PNP Solid State	Removable	Auto./Manual or Monitored Manual	24V DC from the base unit	5-82	440R-H23176
MSR220P Input Module	—	—	Removable	—	24V DC	5-86	440R-H23178
MSR310P Base	MSR300 Series Output Modules	3 PNP Solid State	Removable	Auto./Manual Monitored Manual	24V DC	5-102	440R-W23219
MSR320P Input Module	—	2 PNP Solid State	Removable	—	24V DC from the base unit	5-106	440R-W23218

Note: For additional Safety Relays connectivity, see page 5-12.
 For additional Safety I/O and Safety PLC connectivity, see page 5-116.
 For application and wiring diagrams, see page 10-1.

Connection Systems

Description	6-Pin Micro	Connections to ArmorBlock Guard I/O 5-Pin Micro (M12)
	3 N.C.-2 N.C. & 1 N.O.	3 N.C.
Cordset	889R-F6ECA-‡	—
Patchcord	889R-F6EGRM-§	889D-F5ACDM-‡
Distribution Box	898R-P68MT-A5	—
Shorting Plug	898R-P61MU-RM	—

‡ Replace symbol with 2 (2 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
 § Replace symbol with 1 (1 m), 2 (2 m), 3 (3 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
Note: For additional information, see page 7-1.

3-Interlock Switches

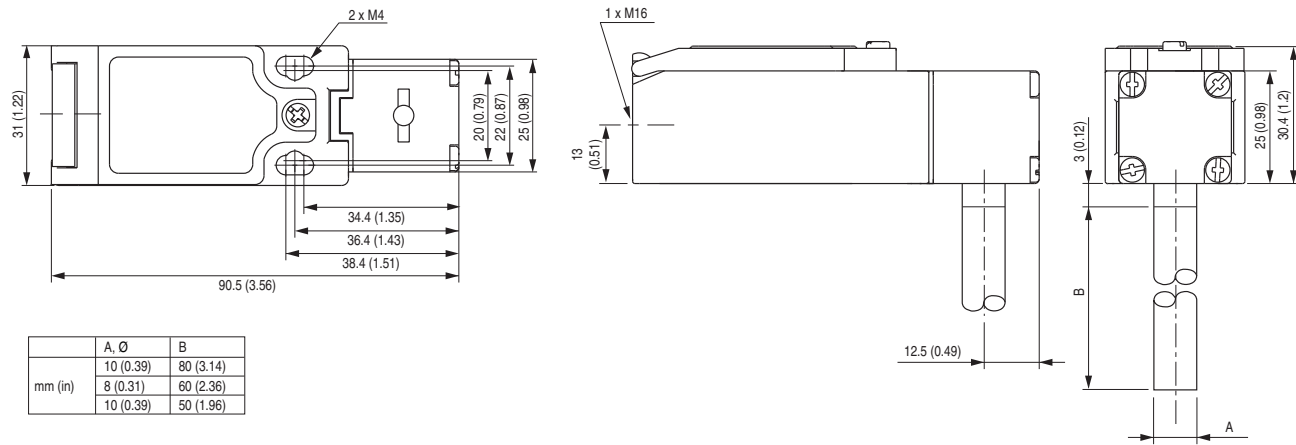
Interlock Switches

Hinge Switches

Ensign™ 3

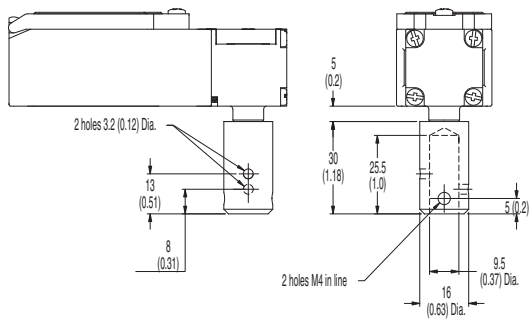
Approximate Dimensions

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.



	A, Ø	B
mm (in)	10 (0.39)	80 (3.14)
	8 (0.31)	60 (2.36)
	10 (0.39)	50 (1.96)

Hollow Shaft

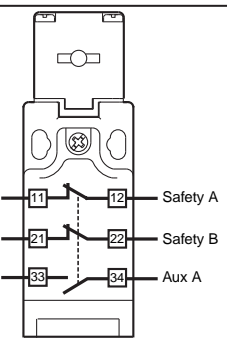
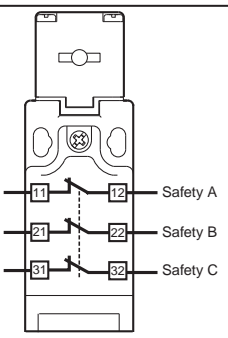
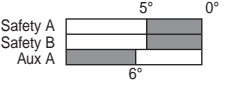
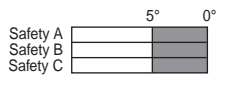
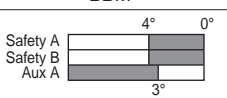
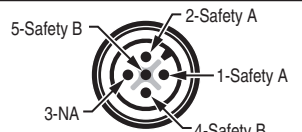
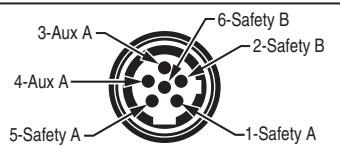
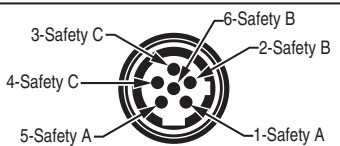


Note: 2D, 3D and electrical drawings are available on www.ab.com.

3-Interlock Switches

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Typical Wiring Diagrams

Description		2 N.C. & 1 N.O.	3 N.C.
Contact Configuration			
Contact Action			
□ Open ■ Closed		BBM	
			
		MBB	
5-Pin Micro (M12) For ArmorBlock Guard I/O		—	
6-Pin Micro (M12)			
Cordset 889R-F6ECA*	1 Red/White	Safety A	Safety A
	5 Red/Black	Safety A	Safety A
	2 Red	Safety B	Safety B
	6 Red/Blue	Safety B	Safety B
	3 Green	Aux A	Safety C
	4 Red/Yellow	Aux A	Safety C

* Replace symbol with 2 (2 m), 5 (5 m) or 10 (10 m) for standard cable lengths.

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Rotacam™



Description

The Rotacam is heavy-duty, hinge-actuated safety-interlock switch. It 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...11°.



IMPORTANT: 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 (1/2 inch NPT and connector style also available). Two different shaft lengths of 30 mm and 85 mm can also be specified.

EX and Pneumatic styles of Rotacam are also available; see page 9-10 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

Safety Ratings	
Standards	EN954-1, ISO13849-1, IEC/EN60204-1, NFPA79, EN1088, ISO14119, IEC/EN60947-5-1, ANSI B11.19, AS4024.1
Safety Classification	Cat. 1 Device per EN954-1 Dual channel interlocks suitable for Cat. 3 or 4 systems
Functional Safety Data *	B10d: > 2 x 10 ⁶ operations at min. load PFH _D : < 3 x 10 ⁻⁷ MTTF _D : > 385 years May be suitable for use in performance levels Pl _e or Pl _d systems (according to ISO 13849-1:2006) and for use in SIL2 or SIL3 systems (according to IEC 62061) depending on the architecture and application characteristics
Note:	For up-to-date information, visit http://www.ab.com/Safety/
Certifications	CE Marked for all applicable directives, cULus, SUVA, and TÜV
Outputs	
Safety Contacts *	2 N.C. direct opening action
Auxiliary Contacts	1 N.O.
Shaft Rotation for Contact Operation	11° maximum; 5° minimum, (adjustable)
Thermal Current/I _{th}	10 A
Rated Insulation Voltage	(U _i) 500V
Switching Current @ Voltage, Min.	5 mA @ 5V DC
Utilization Category	
A600/AC-15	(U _e) 600V 500V 240V 120V (I _e) 1.2 A 1.4 A 3 A 6 A
DC-13	(U _e) 24V (I _e) 2 A
Operating Characteristics	
Break Contact Force, Min.	12 cNm (torque on shaft)
Actuation Speed, Max.	160 mm (6.29 in.)/s
Actuation Frequency, Max.	1 cycle/s
Operating Life @ 100 mA load	>1,000,000 operations
Environmental	
Enclosure Type Rating	IP66
Operating Temperature [C (F)]	-20...+80° (-4...176°)
Physical Characteristics	
Housing Material	Heavy-duty die-cast alloy
Shaft Material	Stainless Steel
Weight [g (lb)]	420 (0.926)
Color	Red

* Usable for ISO 13849-1:2006 and IEC 62061. Data is based on the B10D value given and:
- Usage rate of 1op/10 mins., 24 hrs/day, 360 days/year, representing 51840 operations per year
- Mission time/Proof test interval of 38 years

* The safety contacts 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.

Interlock Switches Hinge Switches Rotacam™

Product Selection

Safety Contacts	Auxiliary Contacts	Contact Action	Shaft Dimensions	Operating Shaft Type	Cat. No.		
					M20 Conduit		Connector§
					M20	1/2 inch NPT Adaptor	8-Pin Micro (M12)
2 N.C.	1 N.O.	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

§ For connector ratings, see 3-9.

Recommended Logic Interfaces

Description	Safety Outputs	Auxiliary Outputs	Terminals	Reset Type	Power Supply	Cat. Page No.	Cat. No.
Single-Function Safety Relays							
MSR127RP	3 N.O.	1 N.C.	Removable (Screw)	Monitored Manual	24V AC/DC	5-26	440R-N23135
MSR127TP	3 N.O.	1 N.C.	Removable (Screw)	Auto./Manual	24V AC/DC	5-26	440R-N23132
MSR126T	2 N.O.	None	Fixed	Auto./Manual	24V AC/DC	5-24	440R-N23117
MSR30RT	2 N.O. Solid State	1 N.O. Solid State	Removable	Auto./Manual or Monitored Manual	24V DC	5-16	440R-N23198
Modular Safety Relays							
MSR210P Base 2 N.C. only	2 N.O.	1 N.C. and 2 PNP Solid State	Removable	Auto./Manual or Monitored Manual	24V DC from the base unit	5-82	440R-H23176
MSR220P Input Module	—	—	Removable	—	24V DC	5-86	440R-H23178
MSR310P Base	MSR300 Series Output Modules	3 PNP Solid State	Removable	Auto./Manual Monitored Manual	24V DC	5-102	440R-W23219
MSR320P Input Module	—	2 PNP Solid State	Removable	—	24V DC from the base unit	5-106	440R-W23218

Note: For additional Safety Relays connectivity, see page 5-12.
For additional Safety I/O and Safety PLC connectivity, see page 5-116.
For application and wiring diagrams, see page 10-1.

Connection Systems

Description	8-Pin Micro (M12)
	2 N.C. & 1 N.O.
Cordset	889D-F8AB-*
Patchcord	889D-F8ABDM-*
Distribution Box	—
Shorting Plug	—
T-Port	—

* Replace symbol with 2 (2 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
* Replace symbol with 1 (1 m), 2 (2 m), 3 (3 m), 5 (5 m), or 10 (10 m) for standard cable lengths.
Note: For additional information, see page 7-1.

**3-Interlock
Switches**

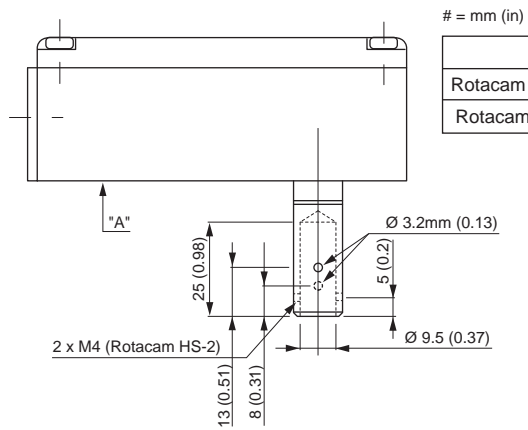
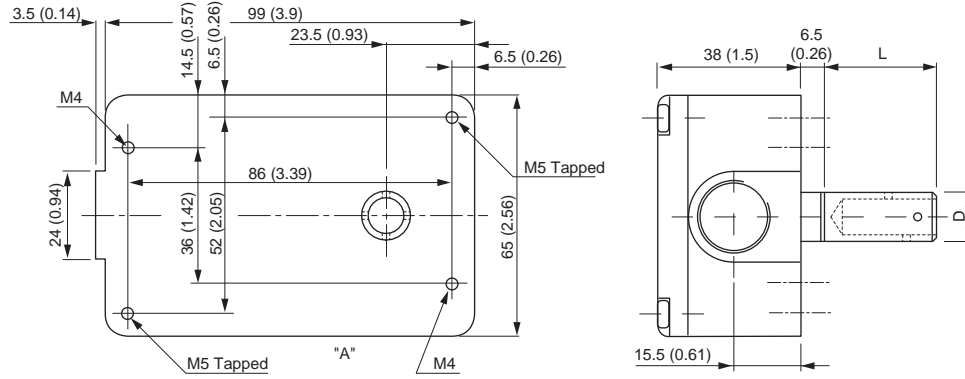
Interlock Switches

Hinge Switches

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Approximate Dimensions

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.



= mm (in)

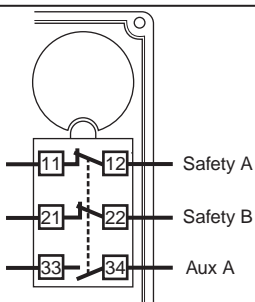
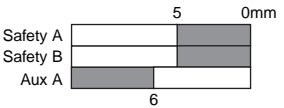
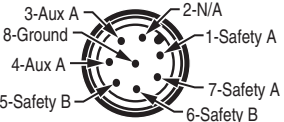
	L	D
Rotacam HS-2	30mm (1.18)	16mm (0.63)
Rotacam P85	85mm (3.35)	12.7mm (0.5)

3-Interlock Switches

Note: Holes only on pre-bored models.
Note: 2D, 3D and electrical drawings are available on www.ab.com.

Interlock Switches Hinge Switches Rotacam™

Typical Wiring Diagrams

<p>Description</p> <p>Contact Configuration</p>	<p>2 N.C. & 1 N.O.</p> 																
<p>Contact Action</p> <p><input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed</p>																	
<p>8-Pin Micro (M12) Pin 2 Not Connected</p>																	
<p>8-Pin Cordset 889D-F8AB-*</p>	<table border="1"> <tr> <td>White</td> <td>Safety A</td> </tr> <tr> <td>Blue</td> <td>Safety A</td> </tr> <tr> <td>Grey</td> <td>Safety B</td> </tr> <tr> <td>Pink</td> <td>Safety B</td> </tr> <tr> <td>Green</td> <td>Aux A</td> </tr> <tr> <td>Yellow</td> <td>Aux A</td> </tr> <tr> <td>Red</td> <td>Ground</td> </tr> <tr> <td>Brown</td> <td>Not Connected</td> </tr> </table>	White	Safety A	Blue	Safety A	Grey	Safety B	Pink	Safety B	Green	Aux A	Yellow	Aux A	Red	Ground	Brown	Not Connected
White	Safety A																
Blue	Safety A																
Grey	Safety B																
Pink	Safety B																
Green	Aux A																
Yellow	Aux A																
Red	Ground																
Brown	Not Connected																

* Replace symbol with 2 (2 m), 5 (5 m) or 10 (10 m) for standard cable lengths.

3-Interlock Switches

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