

## IEC Style Switches

### 22 mm Compact Metal Position Switches



#### Description

The 22 mm IEC style metal safety limit switches have been developed to provide a small metal case with a choice of actuator heads. All units are supplied with an integral 2 m cable. For safety applications it is important that upon actuation, the guard or other moving objects should not pass completely over the switch and allow the plunger or lever to return to its original position.

#### Features

- Rugged die cast enclosure
- Positive operation, forced disconnection of contacts (direct opening action)
- Snap-acting contact actuation
- Contacts 1 N.C. + 1 N.O.
- Pre-wired 2 m cable, bottom or side exit

#### Specifications

Safety Ratings	
Standards	EN 954-1, ISO 13849-1, IEC/EN 60204-1, NFPA 79, EN 1088, ISO 14119, IEC/EN 60947-5-1, ANSI B11.19, AS 4024.1
Safety Classification	Cat. 1 Device per EN 954-1 Dual channel limit switch suitable for Cat. 3 or 4 systems when ganged together
Certifications	UL Recognized, TÜV and CE Marked for all applicable directives

Outputs	
Safety Contacts *	1 N.C. snap acting
Auxiliary Contacts	1 N.O. snap acting
Thermal Current	10 A
Rated Insulation Voltage	300V AC

#### Contact Rating

Maximum AC Contact Rating Per Pole						
NEMA Rating	Max. Voltage	Amperes		Continuous Carrying Current (Amp.)	Volt Amperes	
		Make	Break		Make	Break
AC15/B300	120	30	3.0	5	3600	360
AC15/B300	240	15	1.5			

Maximum DC Contact Rating Per Pole						
DC13/Q300	240	0.27	0.27	2.5	69	69

Operating Characteristics	
Actuation Speed, Max.	250 mm/s
Actuation Speed, Min.	100 mm/min
Actuation Frequency, Max.	6000 operations per hr
Mechanical Life	1 x 10 <sup>7</sup>

Environmental	
Enclosure Type Rating	NEMA 1, IP66/67
Operating Temperature [C (F)]	2...70 ° (35.6...158 °)
Pollution Degree	3

Physical Characteristics	
Housing Material	Die-cast alloy
Actuator Material	Various polymers and metals
Mounting	2 x M14, any position
Vibration	IEC 68-2-6 (10...55 Hz, 0.35 mm amplitude)
Shock	IEC 68-2-7 (30 Gn 3 pulses per axis)
Connection Type	2 m (6.5 ft) cable
Color	Red body/black head

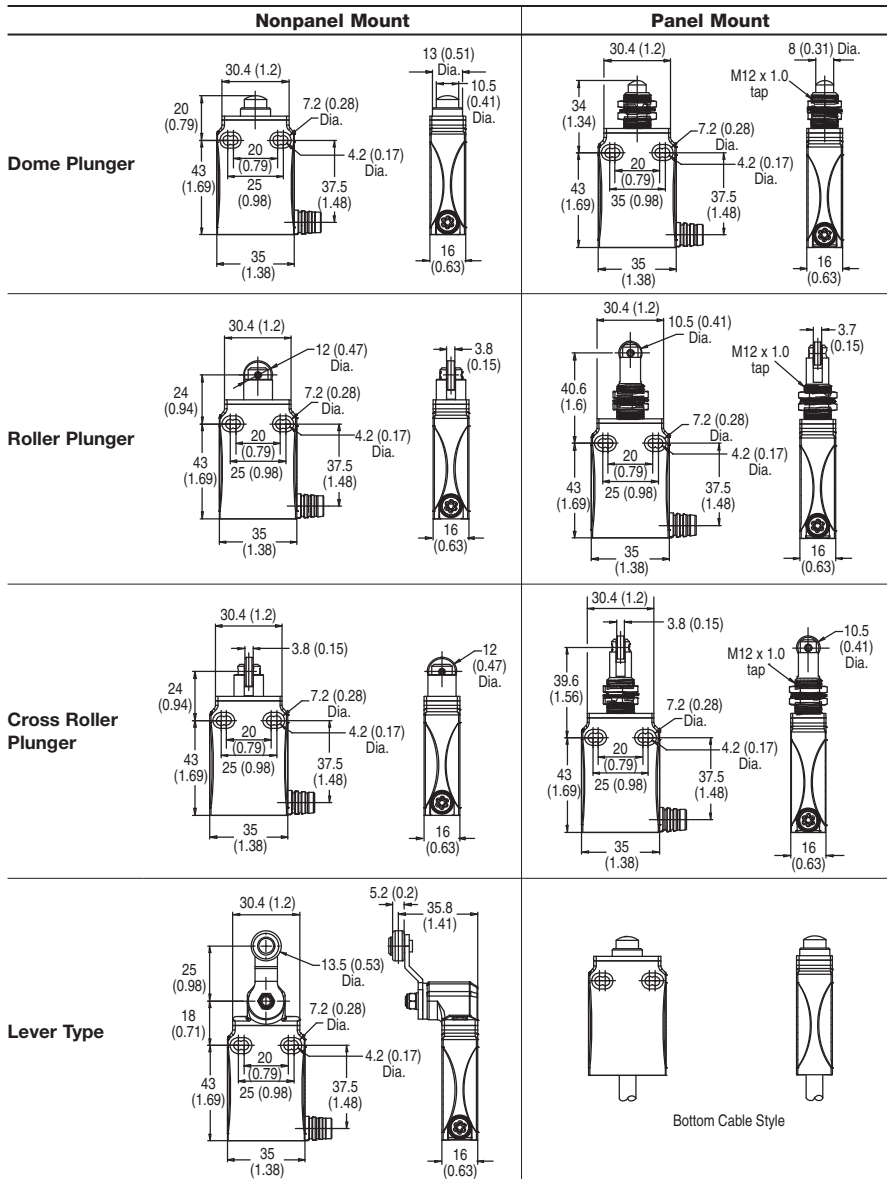
\* The safety contacts are described as normally closed (N.C.) i.e., with the guard closed, actuator in place (where relevant) and the machine able to be started.

**Product Selection**

Operator Type	Contact			Typical Force/Torque to Operate	Panel Mount	Contact Opening Characteristics	Cat. No.		
	Safety	Auxiliary	Type				Bottom Cable Style	Side Cable Style	
Roller Plunger	1 N.C.	1 N.O.	Snap Acting	10 (2.25)	No		<b>440P-ARPS11C</b>	<b>440P-ARPS11CS</b>	
					Yes		440P-ARP1S11C	440P-ARP1S11CS	
Dome Plunger	1 N.C.	1 N.O.	Snap Acting	10 (2.25)	No		440P-ADPS11C	440P-ADPS11CS	
					Yes		440P-ADP1S11C	440P-ADP1S11CS	
Cross Roller Plunger	1 N.C.	1 N.O.	Snap Acting	10 (2.25)	No		440P-ACRS11C	440P-ACRS11CS	
					Yes		440P-ACR1S11C	440P-ACR1S11CS	
Lever	1 N.C.	1 N.O.	Snap Acting	0.7 N•m (0.62 lb•in)	—			<b>440P-ASLS11C</b>	<b>440P-ASLS11CS</b>

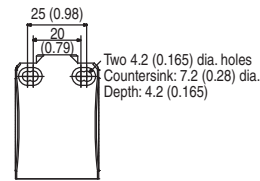
**Approximate Dimensions [mm (in.)]**

Dimensions are not intended to be used for installation purposes.

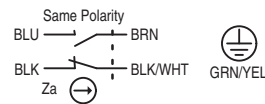


- Side cable style shows strain relief only. Units include a 2 m integral cable.
- Bottom cable style units have same dimensions as side cable style.
- Panel mount clearance hole = 13 mm (0.51 in.)

**Countersink Hole**



**Typical Wiring Diagrams**



**3-Limit Switches**