

# 440P—15 Mm Plastic

## Description

The Imp offers safety switch performance of bigger units in the most compact case available. Designed with two mounting hole options and a choice of actuator positions, the Imp will fit in most confined spaces.

## Features

- Positive operation, forced disconnection of contacts
- Contacts 1 N.C. + 1 N.O.

## Specifications



Imp 1

Imp 2

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 EN954-1 Dual channel limit switch suitable for Cat. 3 or 4 systems			
Functional Safety Data * Note: For up-to-date information, visit <a href="http://www.ab.com/Safety/">http://www.ab.com/Safety/</a>	B10d: > 2 x 10 <sup>6</sup> operations at min. load PFH <sub>D</sub> : > 3 x 10 <sup>-7</sup> MTTFd: > 385 years Dual channel limit switch may be suitable for performance levels Ple or Pld (according to ISO 13849-1:2006) and for use in SIL2 or SIL3 systems (according to IEC 62061) depending on application characteristics			
Certifications	CE Marked for all applicable directives and CSA NRTL/C			
Outputs				
Safety Contacts ‡	1 N.C. positive break			
Auxiliary Contacts	1 N.O.			
Thermal Current $I_{Ith}$	10 A (Ith)			
Rated Insulation Voltage	(Ui) 500V			
Switching Current @ Voltage, Min.	25 mA @ 5V DC			
Utilization Category				
AC-15	(Ue)	500V	250V	100V
	(Ie)	1 A	2 A	5 A
DC	(Ue)	250V	24V	
	(Ie)	0.5 A	2 A	
Operating Characteristics				
Actuation Speed, Max.	160 mm (6.29 in.)/s			
Actuation Speed, Min.	100 mm (3.93 in.)/min			
Actuator Travel, Max.	5 mm (0.20 in.)			
Actuation Frequency, Max.	2 cycles/s			
Mechanical Life	10,000,000 operations			
Electrical Life	1,000,000 operations			
Mechanical Life	10,000,000 operations			
Environmental				
Enclosure Type Rating	IP30			
Operating Temperature [C (F)]	-25...+80 ° (-13...+176 °)			
Pollution Degree	3			
Physical Characteristics				
Housing Material	UL Approved glass-filled PBT			
Actuator Material	Stainless steel			
Mounting	2 x M4 front or 2 x M3 top			
Vibration	10...55 Hz			
Shock	11 ms @ 30 g			
Conduit Entry	3x break-outs			
Color	Red			

\* Usable for ISO 13849-1:2006 and IEC 62061. Data other than B10d is based on:

- 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.

## Product Selection

Actuator Type	Contact		Contact Action	Conduit	Type	Cat. No.
			<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed <input checked="" type="checkbox"/> Positive Opening Point			
Top Push Roller (roller parallel to switch front)	Slow break before make	1 N.O. & 1 N.C.		3x breakouts	Imp 1 (roller parallel to switch front)	440P-M18001
Top Push Cross Roller (roller perpendicular to switch front)					Imp 2 (roller perpendicular to switch front)	440P-M18002

## Approximate Dimensions

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

