

# IEC International-style Limit Switches

Wide Range of Solutions for Safety and Non-safety Applications

## Features

- cULus listed, TÜV and CE marked for applicable directives
- Lever type and plunger type actuator styles
- Direct opening contacts for use in safety applications (user must follow EN 954-1 and all other industry standards for safety circuits)
- Category 1 Device per EN 954-1
- Suitable for Category 3 or 4 systems when ganged together and used with a safety relay or safety PLC
- Replaceable actuators
- Functional safety data  
B10d 2 x 10<sup>6</sup> operations

## Benefits

- A cost-effective solution for safety or non-safety applications
- Time-tested durability, versatility and reliability
- One of the broadest limit switch portfolios available
- Wide selection of operating heads and actuators
- Design optimized for ease of installation in tight applications



The Allen-Bradley® IEC limit switch family from Rockwell Automation® offers a full range of international-style solutions for both safety and non-safety sensing applications. Suitable for a wide array of basic and complex applications, Allen-Bradley limit switches deliver high-performance at an economic price.

To meet a broad range of customer needs, major enhancements have been made to expand the depth and breadth of the limit switch product offering.

Geared toward customers with non-safety applications, the versatile 802K 30 mm metal switch is a welcome addition to the IEC limit switch portfolio. Equipped with the same specifications as the 440P 30 mm metal switch, with the exception of the safety TÜV certification and black, metal body, the 802K offers exceptional value for non-safety applications.

To provide manufacturers with greater flexibility, the following enhancements have been made to the 440P 22 mm metal switch family.

- 4-pin and 5-pin quick disconnect versions
- Break before make (BBM) actuation with 2 N.C. contacts
- Additional 1" wide plastic or metal roller actuator types
- Upgrade to IP69K certification on pre-leaded versions

Our IEC limit switches are available in four different body types – 30 mm metal, 22 mm metal, 22 mm plastic, and 15 mm plastic – with a broad selection of actuator types, circuit arrangements and connection options. Allen-Bradley limit switches can be used in applications such as material handling, packaging, elevators, escalators, scissor lifts, industrial trucks and tractors, cranes and hoists, overhead door as well as general safety guarding applications. These switches are easily configured with many operating heads and actuators including roller plunger, dome plunger, short lever, rubber roller, spring rod and more. Customers can also purchase replacement actuators for all IEC limit switches.

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## 802K 30 mm Non-safety and 440P 30 mm Safety Metal Limit Switches

The 802K non-safety and 440P safety limit switches have a range of options including snap action or slow break/make with 2 or 4 contact configurations and a choice of actuator heads. You can rotate the head in 90° increments before installation for easy mounting. Operation of these limit switches is achieved by the sliding action of the guard or other moving object deflecting the plunger or lever. Equipped with the same specifications as the 440P, with the exception of the safety TÜV certification, the 802K is ideal for non-safety applications.

### Features

- Large selection of actuator heads
- Positive operation, forced disconnection of contacts
- TÜV certification (440P safety switch model)
- Snap-acting, slow make before break or slow break before make contact blocks
- Contacts 1 N.C. + 1 N.O., 2 N.C. + 1 N.O. 3 N.C., 2 N.C. + 2 N.O., 3 N.C. + 1 N.O., or 4 N.C.
- IP66 Enclosure



802K 30 mm non-safety



440P-M 30 mm safety

To build a catalog number, select specs from columns A, B, and C. See example below.

A		
Catalog Number	Actuator Type	
440P-M 802K-M	Telescopic Arm	TA
	Spring Rod	SR
	Short Lever	SL
	(Large) Rubber Roller	RR
	Roller Plunger	RP
	Short Lever, Metal Roller	MH
	Dome Plunger	DP
	Adjustable Rod Lever	AR
	Adjustable Lever	AL

B				
Contact Type, Contacts (# of Aux and safety contacts)				
Snap Acting*	S	1	1	
Break Before Make**	B	2	2	
		1	3	
		0	4	

C	
Electrical Port	
9-pin Quick Disconnect	M9
5-pin Quick Disconnect	N5
1/2" NPT conduit	E
M20 conduit	B

Example:

Example:			
Catalog Number	A	B	C
440P-M	MH	S11	E
802K-M	MH	S11	E

\* 9-pin QD not an option

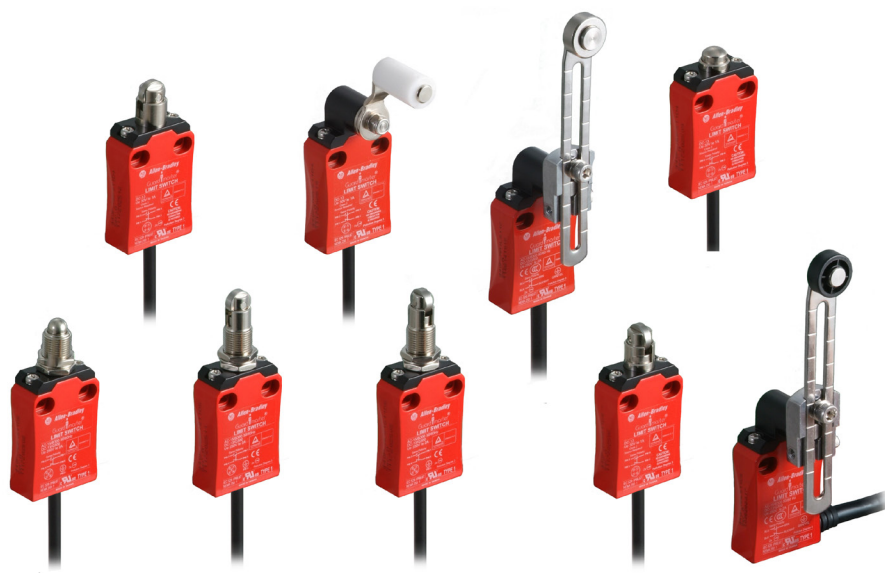
\*\* 5-pin QD not an option

## 440P 22 mm Safety Metal Limit Switches

The 440P 22 mm safety limit switches have a small metal case and a choice of actuator heads. All units are supplied with an integral two meter cable, 4-pin M12 on pigtail or 5-pin M12 on pigtail. 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 snap action 1 N.C. + 1 N.O. or slow action 2 N.C.
- Pre-wired two meter cable, bottom or side exit or 4-pin or 5-pin DC micro M12 on 6 inch pigtail
- BBM actuation with 2 N.C. contacts
- IP69K certification on pre-leaded versions
- Six actuator types including short lever with 1" wide roller and adjustable lever with plastic or metal roller



To build a catalog number, select specs from columns A, B, and C. See example below.

A

Catalog Number	Actuator Type	
440P-A	Short Lever with 1" wide nylon roller	WL
	Short Lever	SL
	Roller Plunger Panel mount*	RP1
	Roller Plunger	RP
	Dome Plunger Panel mount*	DP1
	Dome Plunger	DP
	Cross Roller Plunger Panel mount*	CR1
	Cross Roller Plunger	CR
	Adjustable Lever with Nylon Roller	AL
	Adjustable Lever with Metal Roller	A1L

B

Contact Type, Contacts (# of Aux and safety contacts)			
Snap Acting	S	1	1

C

Cable Style	
5-pin Quick Disconnect	D5
4-pin Quick Disconnect	D4
Side Cable	CS
Bottom Cable	C

Example:

Catalog Number	A	B	C
440P-A	SL	S11	D4

\* No 4-pin QD Available

## 440P 22 mm Safety Plastic Limit Switches

The plastic IEC safety limit switches have a range of options including snap action, slow break/make with 2 or 3 contact configurations and a choice of actuator heads. You can rotate the head in 90° increments before installation for easy mounting. Operation of these limit switches is achieved by the sliding action of the guard or other moving object deflecting the plunger or lever.

### Features

- Large selection of actuator heads
- Positive operation, forced disconnection of contacts
- Snap-acting, slow make before break or slow break before make contact blocks
- Contacts 1 N.C. + 1 N.O., 2 N.C. + 1 N.O. 3 N.C., 2 N.C. + 1 N.O.
- IP66 Enclosure rating



To build a catalog number, select specs from columns A, B, and C. See example below.

A			B				C	
Catalog Number	Actuator Type		Contact Type, Contacts (# of Aux and safety contacts)				Electrical Port	
440P-C	Short Lever	SL	Snap Acting*	S	1	1	6-pin Quick Disconnect	R6
	(Large) Rubber Roller	RR		M	1	2	4-pin Quick Disconnect	D4
	Roller Plunger	RP	Break Before Make**	B	1	2	1/2" NPT conduit	E
	Offset Hinge	OH			0	3	M20 conduit	B
	Short Lever with Metal Roller	MH						
	Hinge Lever	HL						
	Dome Plunger	DP						
	Adjustable Lever	AL						

Example:				A	B	C
Catalog Number						
440P-C	HL	M03	R6			

\* 6-pin QD not an option

\*\* 4-pin QD not an option

## 440P Imp 15 mm Safety Plastic Limit Switches

The 15 mm plastic safety limit switch offers big performance in the most compact case available. Designed with two mounting hole options and a choice of actuator positions, the Imp will fit in the most confined spaces.

### Features

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

Catalog Number	Actuator Type
440P-M18001	Top Push Roller
440P-M18002	Top Push Cross Roller



## 440P and 802K Replacement Actuators

The 440P international-style limit switches are available with a wide variety of actuators to solve a broad range of applications. All lever-type switches include their respective actuator arm. Lever arms, rods, spring rods and telescope arms are replaceable.



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