

Installation and Operating Instructions

Bulletin 440P DIN 50041 IEC/Large Metal Body Safety Limit Switch

IMPORTANT: SAVE THESE INSTRUCTIONS FOR FUTURE USE.

ATTENTION



Improper selection or installation of the devices affect the integrity of the safety systems.

Personnel injury or death, property damage or economic loss can result.

Comply with ISO 14119 including selection, accessibility to the installation, arrangement and fastening, possible substitute actuation, access to the escape release, motivation to defeat, and actuation mode.

Management controls, working procedures, training, and additional protective measures should be used to minimize the motivation to defeat and to manage the use and availability of spare actuators.

Comply with ISO 13857 and ISO 13855 for guard openings and minimum (safe) distances.

Comply with IEC 62061 or ISO 13849-1 and ISO 13849-2 for functional safety.

Declaration of Conformity and certification:

www.rockwellautomation.com/certification/ce.page

IMPORTANT

Installation of Allen-Bradley Guardmaster products should be in accordance with local and/or national codes. Servicing energized industrial control equipment can be hazardous if not in accordance with recommended safety procedures.

EN ISO 14119 replaces EN 1088 as the harmonized standard for interlocking devices associated with guards.

Functional safety information: http://literature.rockwellautomation.com/idc/groups/literature/documents/sr/safety-sr001_-en-e.pdf

Specifications

AC/DC Designation	A600; Q600
AC/DC Utilization Category	Alternating current: AC15 (50/60 Hz) Ue (V): 120 240 500 600 Ie (A): 6 3 1.4 1.2 Direct current: DC13 Ue (V): 125 250 500 600 Ie (A): 0.55 0.27 0.13 0.1
Max. Fusing Rate	10 A fast acting
Impulse Voltage (Uimp)	2500V
Enclosure Protection	IP66
Pollution Degree	3
Storage/Operating Temperature	-25...+65 °C (-13...+149 °F)
Direct Opening Action	Normally closed only (safety circuit)
Conductor Sizes	Use copper conductors only
Stranded [mm² (in.²)]	0.75...2.5 (0.02...0.09) (18...14 AWG)
Solid [mm² (in.²)]	0.75...2.5 (0.02...0.09) (18...16 AWG)

See our website for additional information and product selection.

Electrical life is dependent on load, therefore, operations are not applicable and withdrawn.

Product	Intended Use
440P	Cam actuated

ISO 14119 defines types of interlocking devices and coding:

Product	Type	Coding
440P	1	Uncoded

CE The products shown on this document conform with the Essential Health and Safety Requirements (EHSRs) of the European Machinery Directive. They are third party certified to EN 60947-5-1 and EN ISO 14119.

ATTENTION



Operator heads with adjustable or flexible actuators are NOT intended for safety applications.

Torque/Mounting

Location	Torque	
Heads	1.2 N·m (0.86 lb·ft)	
Covers	1.6 N·m (1.18 lb·ft)	
M5 Mounting	2.5...3.0 N·m (1.84...3.21 lb·ft)	
Wire Clamp	0.9...1.0 N·m (0.66...0.74 lb·ft)	
Lever Clamp	M5 Hex Screw	1.8 N·m (1.33 lb·ft)
	M3/M4 Hex Screw	1.5 N·m (1.11 lb·ft)
	Adj. Lever Screw	1.0 N·m (0.74 lb·ft)
Conduit	1.0 N·m (0.74 lb·ft)	

Rotating Operator Heads

When rotating operator heads, follow these steps:

1. Loosen the head mounting screws and remove the operating head from the switch enclosure.

IMPORTANT

Internal operator head components can become dislodged when removing operator heads. Use caution during removal and assembly.

2. Orient the operator head in one of the four positions offered. Make sure the loose parts are positioned correctly before affixing the operator head to the switch enclosure.

3. Tighten the four screws per the recommended torque specifications above.

IMPORTANT

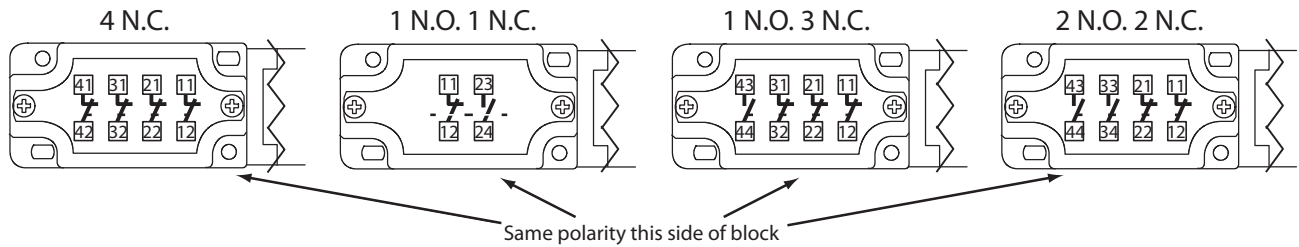
Check for switch operation with a continuity indicator before placing product in service.



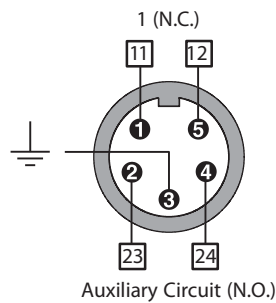
Typical Wiring Diagrams

Connector Ratings

	Max. Ratings		Applicable Standards
	AC	DC	
5-Pin Mini (M12)	300V, 2.5 A	300V, 2.5 A	IEC 61076-2-101:2003
12-Pin (M23)	60V, 2.5 A	60V, 2.5 A	IEC 61076-2-101:2003



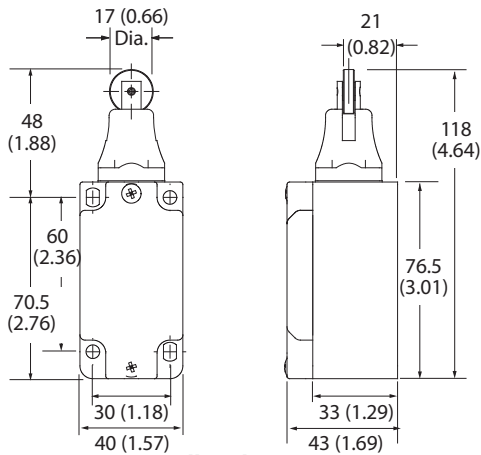
N5 Connector 2-Circuit 5-Pin Mini Connector



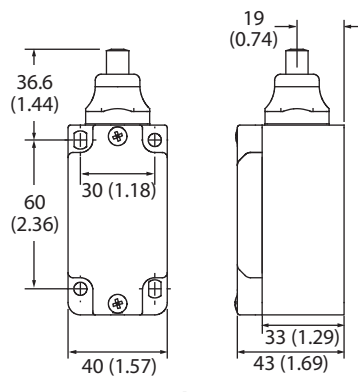
M9 12-Pin M23 Connector

Connector Pinout	4 N.C.		3 N.C., 1 N.O.		3 N.C.	
	Terminal	Contact	Terminal	Contact	Terminal	Contact
	1	11	11	N.C.	11	N.C.
	3	12	12	N.C.	12	N.C.
	4	21	21	N.C.	21	N.C.
	6	22	22	N.C.	22	N.C.
	7	31	31	N.C.	33	N.O.
8	32	32	N.C.	34	N.O.	
9	41	43	43	N.O.	43	N.O.
10	42	44	44		44	N.O.
12	Ground					

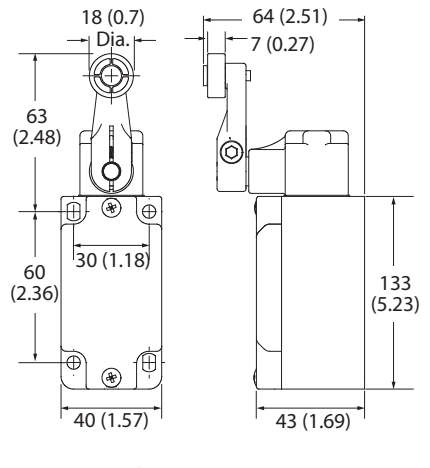
Open Conduit Dimensions [mm (in.)]



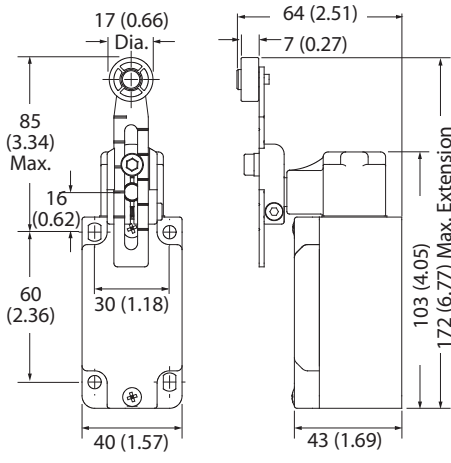
Roller Plunger



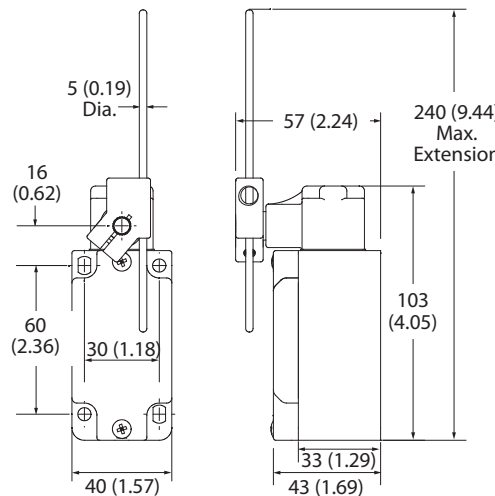
Dome Plunger



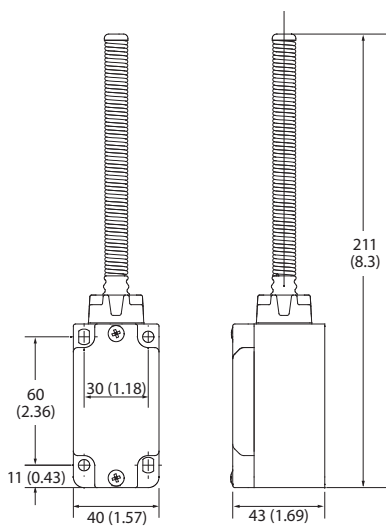
Short Lever



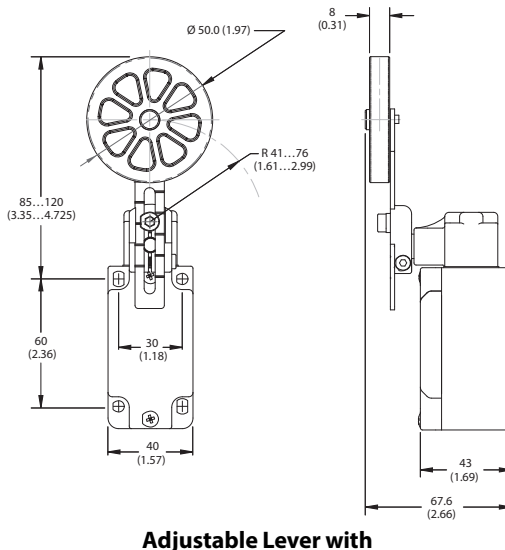
Adjustable Lever



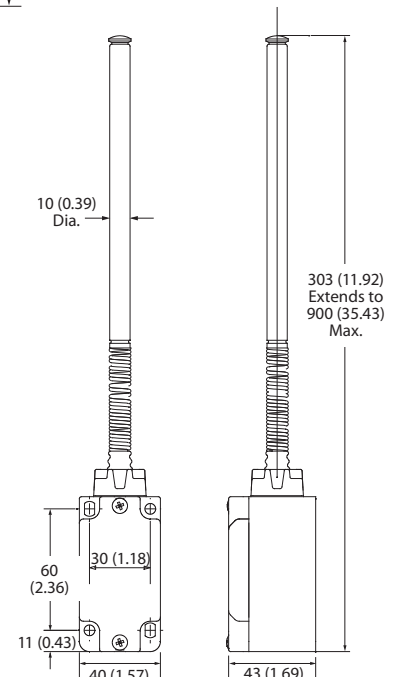
Rod Lever



Spring Rod



Adjustable Lever with Rubber Roller



Telescopic Arm

Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

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Publication 440P-IN019A-EN-P—10000026105 Ver 03—May 2015