

# Installation and Operating Instructions

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

**IMPORTANT: SAVE THESE INSTRUCTIONS FOR FUTURE USE.**

**This publication does not include all specifications, dimensions, or any special installation considerations. Refer to the product catalog pages for additional information.**

**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 to recommended safety procedures.

### Specifications

<b>AC/DC Designation</b>	A600; Q600
<b>AC/DC Utilization Category</b>	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
<b>Max. Fusing Rate</b>	10 A fast acting
<b>Impulse Voltage (Uimp)</b>	2500V
<b>Enclosure Protection</b>	IP66
<b>Pollution Degree</b>	3
<b>Storage/Operating Temperature</b>	-25...+65 °C (-13...+149 °F)
<b>Direct Opening Action</b>	Normally closed only (safety circuit)
<b>Conductor Sizes</b>	Use copper conductors only
<b>Stranded</b>	0.75...2.5 mm <sup>2</sup> (0.02...0.09 in. <sup>2</sup> ) (18...14 AWG)
<b>Solid</b>	0.75...2.5 mm <sup>2</sup> (0.02...0.09 in. <sup>2</sup> ) (18...16 AWG)

See the Sensors catalog for additional information and product selection.



**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.

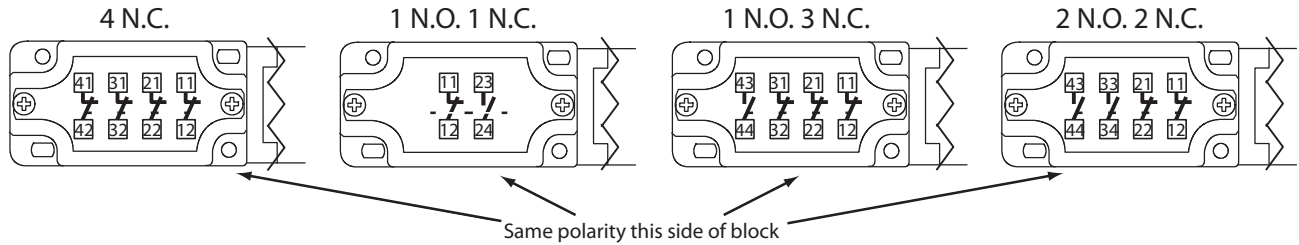
2. Orient the operator head in one of the four positions offered. Make sure the loose parts are positioned correctly before affixing the operator head to the switch enclosure.
3. Tighten the four screws per the recommended torque specifications above.

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

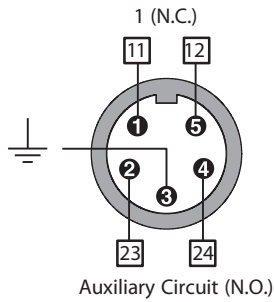
## Typical Wiring Diagrams

### 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



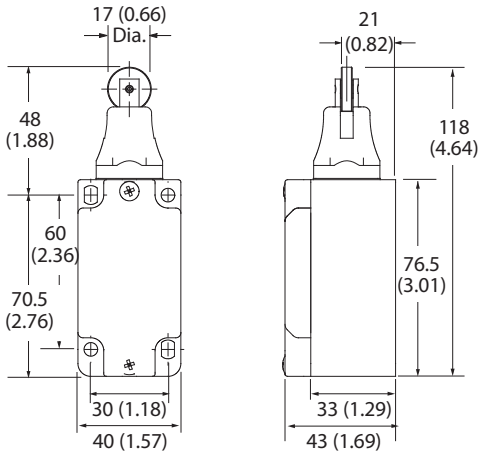
### N5 Connector 2-Circuit 5-Pin Mini Connector



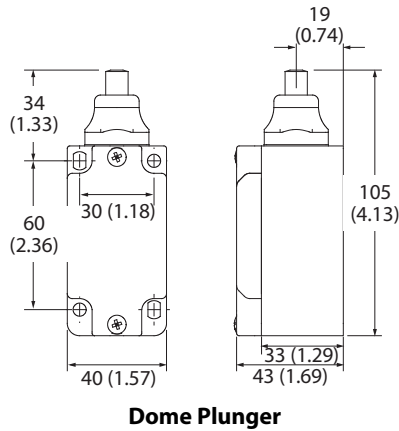
### M9 12-Pin M23 Connector

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	N.O.	43	N.O.	
10	42	44	N.O.	44	N.O.	
12	Ground					

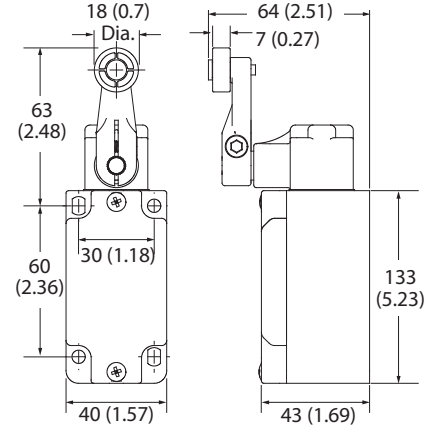
**Open Conduit Dimensions—mm (in.)**



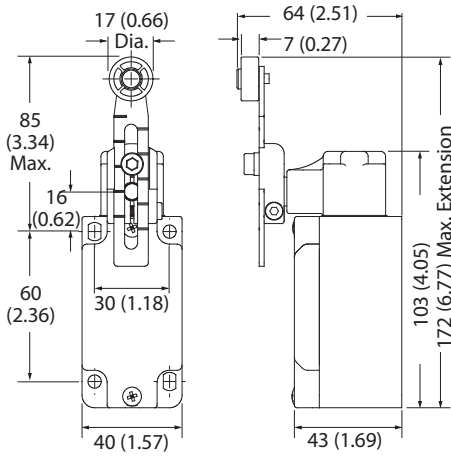
**Roller Plunger**



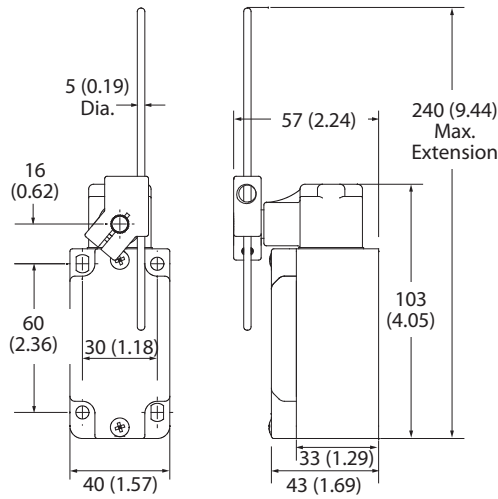
**Dome Plunger**



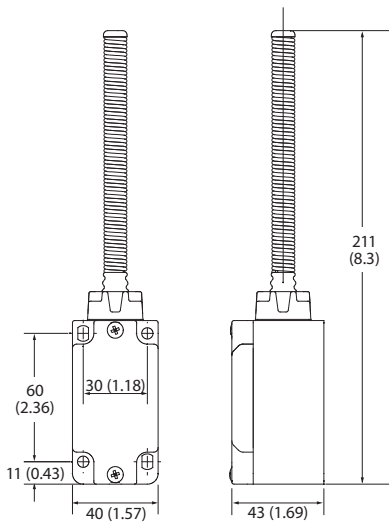
**Short Lever**



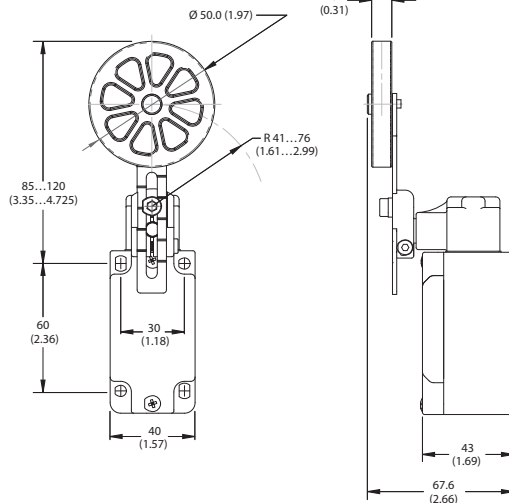
**Adjustable Lever**



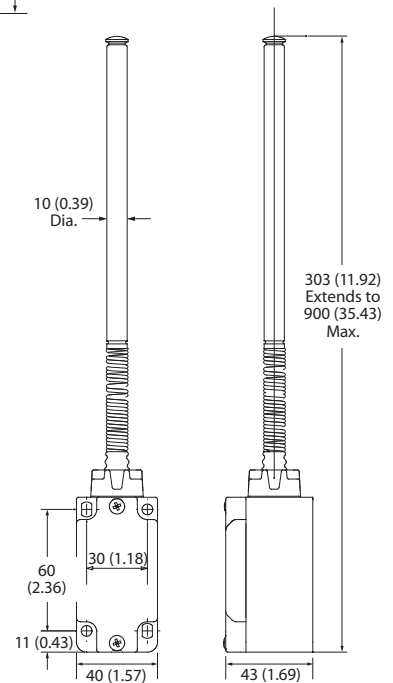
**Rod Lever**



**Spring Rod**



**Adjustable Lever with Rubber Roller**



**Telescopic Arm**

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**Power, Control and Information Solutions Headquarters**

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Drwg. No. 10000026105 Ver 01  
January 2012  
Printed in USA