

Installation and Operating Instructions

Bulletin 440P Small Metal Safety Position Switches

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.

ATTENTION



To avoid electrical shock and unintended operation of equipment, disconnect all power to the limit switch and the controlled equipment before proceeding with any repair or adjustment of the limit switch.

General Data

- Safety contacts: 1 N.C.
- Auxiliary contacts: 1 N.O.
- Enclosure rating:
 - NEMA 1
 - IP66, IP67, IP69K
- Rugged die cast housing
- 2 m prewired cable
- Compact profile for access limited installation

Principles, Standards, and Implementation

Before installation in a safety application, perform a risk assessment to determine whether the specifications of this device are suitable for foreseeable operational and environmental characteristics of the machine which is to be controlled. Only the normally closed set of contacts are considered safety contacts. When deploying these limit switches in a safety system application, all applicable standards for application should be followed. Operating specifications must be followed. The actuator must be placed beyond the point where Direct Opening Action occurs. Do not use these devices to directly control a motor.

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
Certifications	cULus Listed, TUV and CE Marked for all applicable directives
Functional Safety Data	B10d: 2x10 ⁶ operations

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.

Outputs

Safety Contacts	1 N.C. snap acting
Auxiliary Contacts	1 N.O. snap acting
Thermal Current (I_{th})	10 A
Rated Insulation Voltage (U_i)	300 AC
Short Circuit Protection	10 A max. fast acting fuse IEC 269 type gG or equivalent

Contact Ratings

Maximum AC Contact Rating Per Pole (50/60 Hz) Same Polarity						
NEMA Rating Designation	Max. Voltage	Amperes		Continuous Carrying Current (Amp.)	Voltamperes	
		Make	Break		Make	Break
AC15/ B300	120	30	3	5	3600	360
AC15/ B300	240	15	1.5	5	3600	360
Maximum AC Contact Rating Per Pole (50/60 Hz) Same Polarity						
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 ops/hr
Mechanical Life	1 x 10 ⁷ operations at room temperature

Environmental

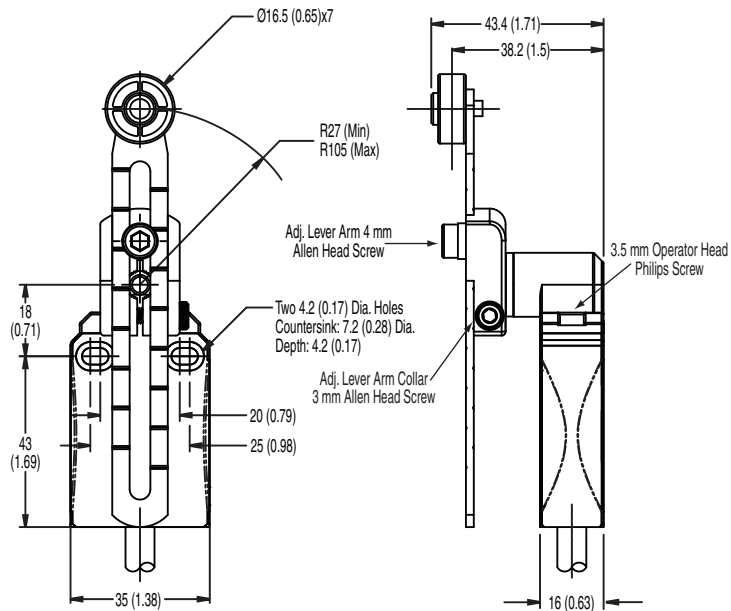
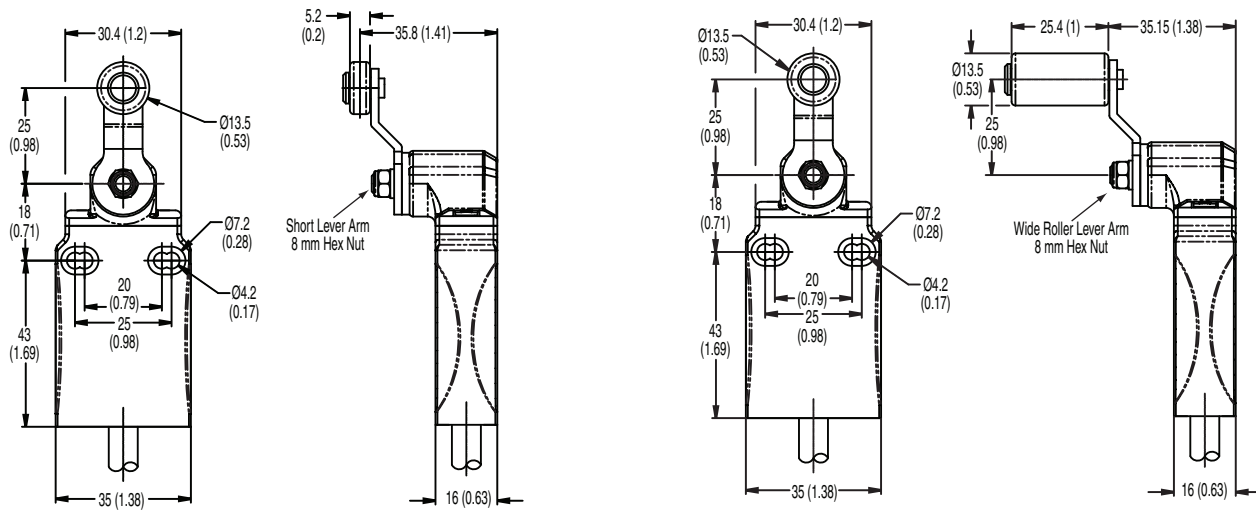
Enclosure Type Rating	NEMA 1, IP66/IP67/IP69K
Operating Temperature [C (F)]	2...70 ° (35.6...158 °)
Pollution Degree	3

Physical Characteristics

Housing Material	Die cast alloy
Actuator Material	Various polymers and metals
Mounting	2 x M4, 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	2 m (6.5 ft) cable
Enclosure Color	Red body/black head

Mounting Dimensions [mm (in.)]

Note: Lever arm versions are nonpanel mount only.



IMPORTANT

Operator heads with adjustable actuators should NOT be used for safety applications.

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