



Installation Instructions — E49 Miniature DIN Limit Switches

CATALOG NUMBER COMPONENTS

E49-S71AP7
a b c

"a"	Product Family	E49	Miniature DIN Limit Switch
"b"	Switch Body	S71 S73 S74 ---	1 N.O.- 1N.C. Contacts 2 N.C. Contacts 2 N.O. Contacts Operating Head Only
"c"	Operating Head	AP7 BP7 CP7 DP7 EP7 UP7	Roller Lever Top Push Top Push Roller Rod Lever Offset Roller Lever Adjustable Roller Lever



WARNING

THESE PRODUCTS ARE NOT DESIGNED, TESTED, OR RECOMMENDED FOR USE IN HUMAN SAFETY APPLICATIONS. TO DO SO COULD RESULT IN ELECTRICAL SHOCK, SERIOUS PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE. ALWAYS FOLLOW APPROPRIATE SAFETY PRECAUTIONS AND INSTALL IN ACCORDANCE WITH US NATIONAL AND LOCAL ELECTRICAL CODES.

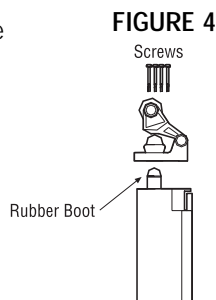
INTRODUCTION

The E49 Miniature DIN Limit Switches are designed to meet international standards. Positive opening normally closed contacts, "fingerproof" wire-ready terminals, double insulated nylon housing, stainless steel hardware and environmental ratings to IP65, make the E49 the choice for many packaging, material handling conveying, sorting, counting, positioning and end-of-travel applications.

ASSEMBLY

If the E49 switch was pre-assembled at the factory, no assembly is required. However, if not, choose the assembly instructions which coorespond to your operating head selection. For one of the following operating heads, insert the four screws into top holes turning each screw to a maximum torque of 7-9 in/lb, as seen in Figure 4.

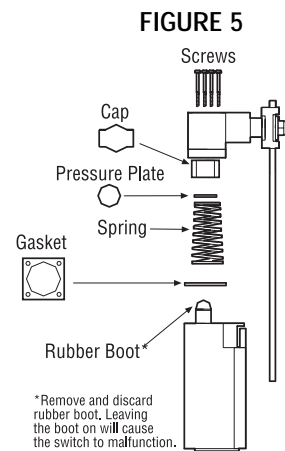
- Top Push Roller (CP7)
- Offset Roller Lever (EP7)



The below operating heads require the assembly shown in Figure 5:

- Roller Lever (AP7)
- Rod Lever (DP7)
- Adjustable Roller Lever (UP7)

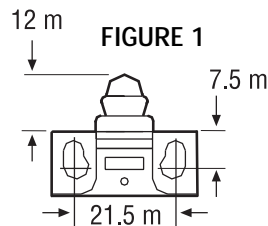
Use the screws, operating head, cap, pressure plate, spring and gasket components from the assembly package to build the E49 switch, as seen in Figure 5. Insert the four screws into top holes turning each screw to a maximum torque of 7-9 in/lb. **NOTE: It is important to remove the rubber boot when assembling. Leaving the boot on will cause the switch to malfunction.**



MOUNTING

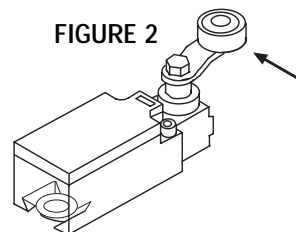
The E49 Miniature DIN Limit Switch may be mounted differently depending on your application and operating head. Choose the mounting that best fits your application.

1. **Adjustable mounting** - Two slots for M 4 screws (22 m centers)

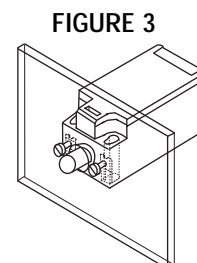


2. **Fixed mounting** - Designed with two holes for M 5 screws for safety applications without additional fixings (See Figure 1)

3. Additional positive location with guide discs are available as accessories (See Figure 2 below)

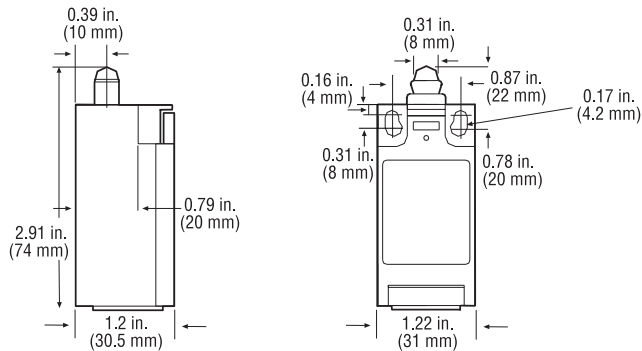


4. **Top mounting** - Mounting is dependant on operating head (See Figure 3 below)

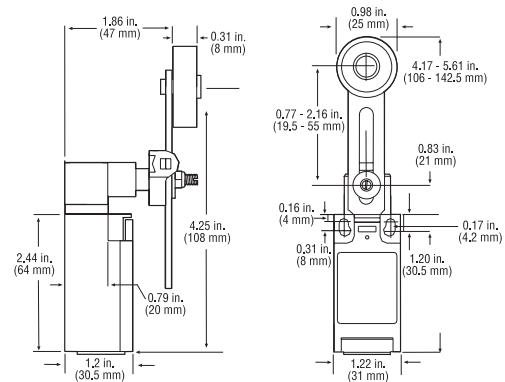


APPROXIMATE DIMENSIONS (SHOWN IN INCHES EXCEPT WHERE NOTED)

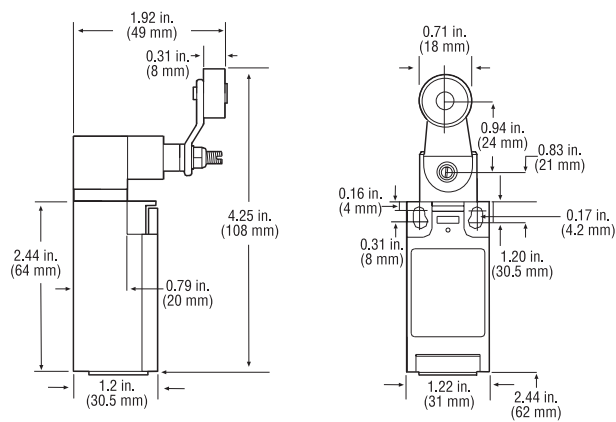
SWITCH BODY WITH E49BP7 TOP PUSH PLUNGER HEAD



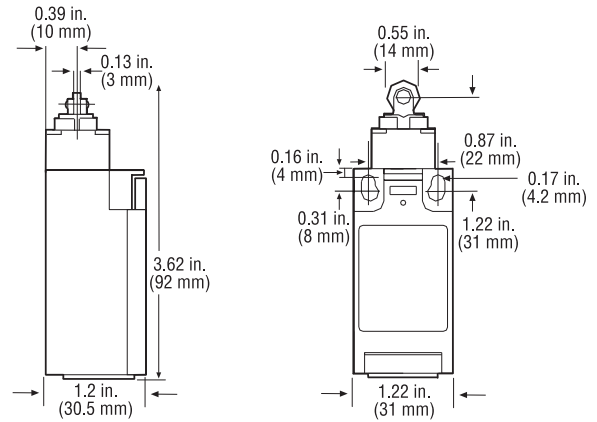
E49UP7 ADJUSTABLE ROLLER LEVER HEAD



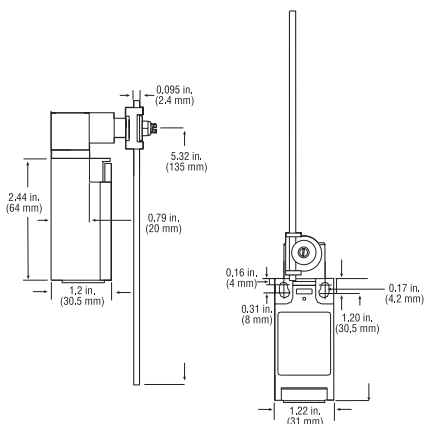
E49AP7 SIDE ROTARY HEAD



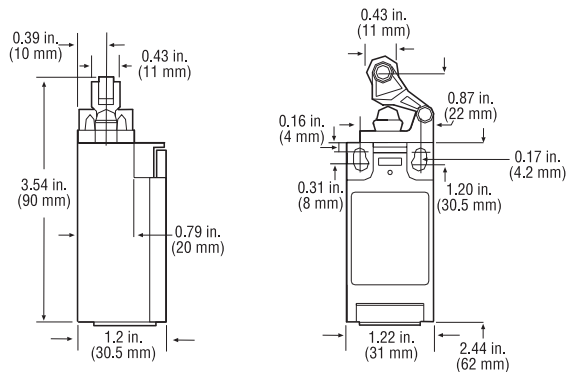
E49CP7 TOP PUSH ROLLER HEAD



E49DP7 ROD LEVER HEAD



E49EP7 OFFSET ROLLER LEVER HEAD

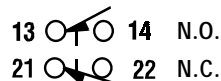


OPERATING CHARACTERISTICS

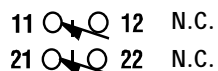
	Operating Head Type	Contact Type	Switch Function Contacts	Switch Voltage	Maximum Constant
E49S71AP7	Side Rotary	Snap Action	1NC/1NO	500 V	10A
E49S74AP7	Side Rotary	Slow Make & Break	2NO	400 V	6A
E49S73AP7	Side Rotary	Slow Make & Break	2NC	400 V	6A
E49S71BP7	Top Push Plunger	Snap Action	1NC/1NO	500 V	10A
E49S74BP7	Top Push Plunger	Slow Make & Break	2NO	400 V	6A
E49S70BP7	Top Push Plunger	Slow Make & Break	2NC	400 V	6A
E49S71CP7	Top Push Roller	Snap Action	1NC/1NO	500 V	10A
E49S74CP7	Top Push Roller	Slow Make & Break	2NO	400 V	6A
E49S70CP7	Top Push Roller	Slow Make & Break	2NC	400 V	6A
E49S71DP7	Rod Lever	Snap Action	1NC/1NO	500 V	10A
E49S74DP7	Rod Lever	Slow Make & Break	2NO	400 V	6A
E49S73DP7	Rod Lever	Slow Make & Break	2NC	400 V	6A
E49S71EP7	Offset Roller Lever	Snap Action	1NC/1NO	500 V	10A
E49S74EP7	Offset Roller Lever	Slow Make & Break	2NO	400 V	6A
E49S73EP7	Offset Roller Lever	Slow Make & Break	2NC	400 V	6A
E49S71UP7	Adjustable Side Rotary	Snap Action	1NC/1NO	500 V	10A
E49S74UP7	Adjustable Side Rotary	Slow Make & Break	2NO	400 V	6A
E49S73UP7	Adjustable Side Rotary	Slow Make & Break	2NC	400 V	6A

CONTACT DIAGRAMS

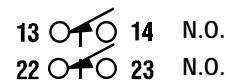
E49S71BP7 SWITCH BODY



E49S73BP7 SWITCH BODY



E49S74BP7 SWITCH BODY



SPECIFICATIONS

Mechanical Life	1 million operations
Switching Frequency	100 operations per minute maximum
Operating Temperature	-30 to 80° C (-22 to 176° F) mA max.
Enclosure Material	Self-extinguishing PA6 (Glass reinforced, Polyamide)
Approvals	UL, CSA, IEC 947-5-1 AC 15/DC 13
Weight	0.06 kg (0.13 lb)

Still Need Help?

Contact the
Cutler-Hammer Sensor
Application Engineers

1-800-426-9184
Fax: 425-513-5356

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