Honeywell

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Sensing and Control
Honeywell Inc.
11 West Spring Street
Freeport, IL 61032

www.honeywell.com/sensing

Compact Limit Switches

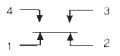
FEATURES
- Mode of operation is field adjustable.
- NEMA 1, 3, 4, 6 and 13.
- Wide choice of heads and actuators.
- Variety of operating characteristics.
- Optional indicator light.
- Captive screws.
- UL Recognized, file #E12252
- CSA Certified, file #LR57325

Compact LS and plug-in 200LS limit switches have a long record of successful performance in industrial applications.

The LS fits in many places too small for any other fully adjustable limit switch.

The 200LS switches are the original plug-in concept for reducing downtime by making changeover simple and fast.

CIRCUITRY



Two-circuit Double-break

FIELD ADJUSTABLE

Rotary motion roller lever and rod actuators are adjustable through 360°. They may be set for operation clockwise, counter-clockwise, or in both directions.

Operating heads may be positioned in any of four 90° positions.

UL/CSA LS SWITCHES

Several UL recognized and CSA certified LS compact limit switches are in the order guides.

Other listings can be furnished in the UL version. Contact the 800 number for information.

For rapid response – off the shelf service, all **bold face** listings are normally stocked items.

ELECTRICAL RATINGS

A	10 amps, 120, 240 or 480 VAC; ⅓ hp, 120 VAC; ¾ hp, 240 VAC; 0.8 amp, 115 VDC**; 0.4 amp, 230 VDC;** 0.1 amp, 550 VDC;** Pilot Duty, 600 VAC max.	**APPLICATION NOTE:** Silver Cadmium Oxide Contacts – Designed for use with inductive loads such as relays, contactors, motors and solenoids. Honeywell does *not* recommend the use of silver cadmium oxide switch contacts in non-arcing loads. Non-arcing loads are generally loads less than 12 volts and/or 0.5 amp.
B	10 amps, 120, 240 or 480 VAC; ¼ hp, 120 VAC; ½ hp, 240 VAC. Pilot Duty, 600 VAC max.	
C	10 amps, 120 VAC; ⅓ hp, 120 VAC.	
D	10 amps, 120, 240, 480 VAC; ¼ hp, 120 VAC; ½ hp, 240 VAC; 0.8 amp, 115 VDC**; 0.4 amp, 230 VDC**; 0.1 amp, 550 VDC**; Pilot Duty, 600 VAC max.	
E	10 amps, 120, 240 or 480 VAC; ⅓ hp, 120 VAC; ¾ hp, 240 VAC. Pilot Duty, 600 VAC max.	
F	UL Rating: 10 amps, 125, 250, or 480 VAC; ⅓ hp, 125 VAC; ¾ hp, 250 VAC; 0.8 amp, 125 VDC**; 0.4 amp, 250 VDC**	Fine Silver Contacts
G	UL Rating: 10 amps, 125, 250 or 480 VAC; ¼ hp, 125 VAC; ½ hp, 250 VAC; 0.8 amp, 125 VDC**; 0.4 amp, 250 VDC**	

** Resistive Rating

NOTE: The terminals of two-circuit double-break switches must be wired to equal voltage sources and the same polarity. The loads should be on the same side of the line.

ROLLER LEVER ROTARY ACTUATED SWITCHES

(To order switches and levers separately, refer to pages A73 and A74 or A37 and A38.)

Compact

Plug-in*

ORDER GUIDE

Momentary action. Steel rollers.

Description	Rating	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max.	P.T. max.	O.T. min.	D.T. max.
Standard	A	**1LS1**	**201LS1***	13,3 N 3 lb.	20°	30°	12°
20° Pretravel UL/CSA	F	**1LS1-L**	—	13,3 N 3 lb.	20°	30°	12°
Low Pretravel 5°	B	**1LS19**	**201LS19***	13,3 N 3 lb.	5°	30°	4°
Low Operating Force 5° Pretravel	B	**1LS131**	—	5,0 N 18 oz.	5°	30°	4°
Standard with indicator light 120 VAC only	C	**1LS501**	**201LS501***	13,3 N 3 lb.	20°	30°	12°
Low Operating Force	A	**1LS6**	201LS6*	5,0 N 18 oz.	20°	30°	12°
Cavity Mount version of 1LS1	A	**7LS1**	—	13,3 N 3 lb.	20°	30°	12°

* Require Terminal Block (**18PA1** for 200LS switches) which must be ordered separately. Unless damaged, it is not necessary to replace terminal block when replacing switch.

Characteristics: O.F. — Operating Force; P.T. — Pretravel; O.T. — Overtravel; D.T. — Differential Travel.

Compact Limit Switches

MAINTAINED CONTACT YOKE ROLLER LEVER ROTARY ACTUATED SWITCHES

Compact

ORDER GUIDE

Maintained contact

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max.	P.T. max.	O.T. min.	D.T. max.
Steel rollers on opposite sides of arm	A	**6LS1**	**206LS1***	8,9 N 2 lb.	55°	35°	20°
Nylon rollers on same side of arm	A	**6LS3**	—	8,9 N 2 lb.	55°	35°	20°

ADJUSTABLE LENGTH ROLLER LEVER ROTARY ACTUATED SWITCHES

Compact

ORDER GUIDE

Length adjustable 1.2 to 3.5 in. (30.6 to 88.9 mm)
Momentary action. Nylon rollers.

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F.† max.	P.T. max.	O.T. min.	D.T. max.
Standard Pretravel 20°	A	**1LS3**	**201LS3***	13,3 N 3 lb.	20°	30°	12°
UL/CSA	F	**1LS3-L**	—				
Low pretravel 5°	B	**1LS58**	—	13,3 N 3 lb.	5°	30°	4°
Low pretravel 5° and low operating force	B	**1LS59**	—	5,0 N 18 oz.	5°	30°	4°

†at 1.5″ length

LOW FORCE ROD ROTARY ACTUATED SWITCHES

Compact

ORDER GUIDE

Momentary action, 5-inch (127mm) aluminum rod.

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F.** max.	P.T. max.	O.T. min.	D.T. max.
Standard Pretravel 20°	A	**1LS10**	**201LS10***	1,39 N 5 oz.	20°	30°	12°
UL/CSA	F	1LS10-L	—				
Low pretravel 5°	B	**1LS47**	**201LS47***	1,39 N 5 oz.	5°	30°	4°
Low pretravel 5° and low operating force	B	**1LS53**	**201LS51***	0,83 N 3 oz.	5°	30°	4°

**Rod fully extended

WOBBLE LEVER ACTUATED SWITCHES

1

2

3

4

ORDER GUIDE

Momentary action.

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max.	P.T. max.
Flexible cable actuator[1]	D	**8LS1**	**208LS1***	1,39 N 5 oz.	28,6 1.125
UL/CSA	G	**8LS1-L**	—	1,39 N 5 oz.	28,6 1.125
Combination spring-rod[2]	D	**8LS3**	**208LS3***	1,39 N 5 oz.	28,6 1.125
Low force steel wire[3]	D	**8LS125**	**208LS125***	0,28 N 1 oz.	63,5 2.5
Coil spring[4] Stainless steel	D	**8LS152**	**208LS152***	1,39 N 5 oz.	28,6 1.125

*Require Terminal Block (**18PA1** for 200LS Switches) which must be ordered separately. Unless damaged, it is not necessary to replace terminal block when replacing switch.

Compact Limit Switches

TOP PLUNGER ACTUATED SWITCHES

Compact

ORDER GUIDE
Momentary action.

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max. N lb.	P.T. max. mm in.	O.T. min. mm in.	D.T. max. mm in.
Standard top plunger	A	**2LS1**	**202LS1***	31,1 7	1,65 .065	6,35 .250	0,51 .020
UL/CSA	F	**2LS1-L**	—	31,1 7	1,65 .065	6,35 .250	0,51 .020
Low operating force top plunger	E	**2LS111**	**202LS111***	10 36 oz.	1,65 .065	5,56 .219	0,23 .009

TOP ROLLER PLUNGER ACTUATED SWITCHES

Plug-in*

ORDER GUIDE
Momentary action.

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max. N lb.	P.T. max. mm in.	O.T. min. mm in.	D.T. max. mm in.
Standard top roller Plunger	A	**5LS1**	**205LS1***	31,1 7	1,65 .065	5,56 .219	0,51 .020
Steel roller UL/CSA	F	**5LS1-L**	—	31,1 7	1,65 .065	5,56 .219	0,51 .020

SIDE PLUNGER ACTUATED SWITCHES

Compact

ORDER GUIDE
Momentary action. Assembled with plunger facing front (label side).

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max. N lb.	P.T. max. mm in.	O.T. min. mm in.	D.T. max. mm in.
Standard side roller	A	**4LS1**	**204LS1***	40 9	2,77 .109	6,35 .250	1,02 .040

SIDE ROLLER PLUNGER ACTUATED SWITCHES

Plug-in*

ORDER GUIDE
Momentary action. Assembled with plunger facing front (label side).

Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.F. max. N lb.	P.T. max. mm in.	O.T. min. mm in.	D.T. max. mm in.
Standard side roller plunger Steel Roller	A	**3LS1**	**203LS1***	40 9	2,77 .109	5,56 .219	1,02 .040

Roller may be turned in any position through 360°.

* Require Terminal Block (**18PA1** for 200LS Switches) which must be ordered separately. Unless damaged, it is not necessary to replace terminal block when replacing switch.

N = Newton

Characteristics: O.F. — Operating Force; P.T. — Pretravel; O.T. — Overtravel; D.T. — Differential Travel.

Compact Limit Switches

ROTARY ACTUATED SWITCHES — WITHOUT LEVERS

The following compact LS and plug-in 200LS limit switches are sold without actuating levers. Levers are ordered separately from the order guide below and on the facing page.

Plug-in*

Compact

ORDER GUIDE

Momentary action, except where noted.

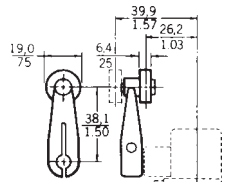
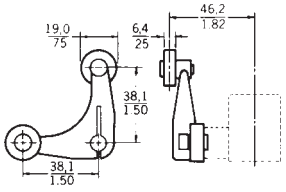
Description	Electrical Rating Page A70	Catalog Listing Compact	Catalog Listing Plug-in	O.Tq. max.	P.T. max.	O.T. min.	D.T. max.
Standard 20″ pretravel	A	**1LS2**	**201LS2***	0,51 Nm 4.5 in. lb.	20°	30°	12°
UL/CSA	F	**1LS2-L**	—	0,51 Nm 4.5 in. lb.	20°	30°	12°
Low pretravel 5°	B	**1LS9**	**201LS9***	0,51 Nm 4.5 in. lb.	5°	30°	4°
Standard pretravel 20° Low operating force	A	**1LS23**	**201LS23***	0,21 Nm 30 in. oz.	20°	30°	12°
Low pretravel 5° Low operating force	B	**1LS56**	**201LS56***	0,11 Nm 15 in. oz.	5°	30°	4°
Maintained[1] Contact	A	**6LS2**	**206LS2***	0,34 Nm 3 in. lb.	55°	35°	20°
UL/CSA	F	**6LS2-L**	—	0,34 Nm 3 in. lb.	55°	35°	20°

* Require Terminal Block (18PA1 for 200LS Switches).
Note 1 — Yoke lever actuators normally used.

Characteristics:
O.Tq. — Operating Torque; P.T. — Pretravel; O.T. — Overtravel; D.T. — Differential Travel

AUXILIARY ROTARY LEVERS

ORDER GUIDE

	Type	Catalog Listing	
	Roller arm, with nylon, steel, or ball bearing roller.	Nylon	6PA71
		Steel	6PA121
		Ball bearing	6PA144
	Yoke roller lever with nylon or steel rollers.	Steel	6PA80
	Rollers on same side.	Steel	6PA82
		Nylon	6PA102

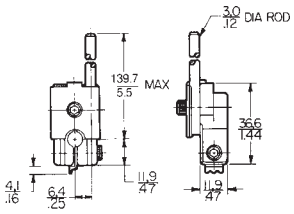
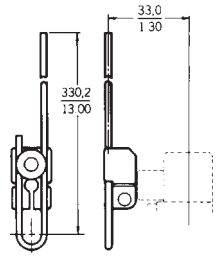
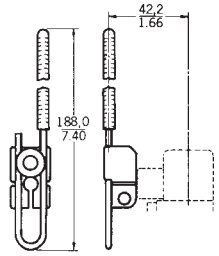
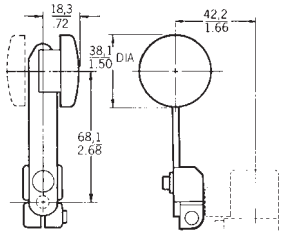
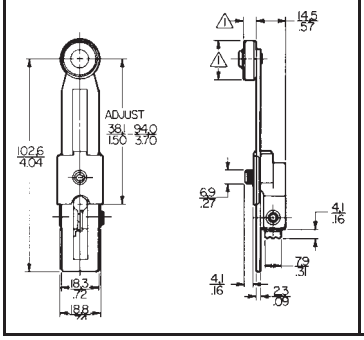
60mm radius levers Part # PA-J11

Limit and Enclosed Switches

Compact Limit Switches

AUXILIARY ROTARY LEVERS

ORDER GUIDE

	Type		Catalog Listing
	Adjustable aluminum rod.		**LSZ54M**
	Adjustable stainless steel rod.		**6PA63**
	Adjustable spring rod.		**6PA69**
	Hand operated aluminum button on stainless steel lever.		6PA57
	Adjustable roller arm with steel or nylon rollers.		
	.75 dia. roller	Steel	**LSZ52D**
	.75 dia. roller	Nylon	**LSZ52C**
	1.00 dia. roller	Nylon	**LSZ52J**
	1.50 dia. roller	Nylon	**LSZ52K**
	2.00 dia. lever	Nylon	**LSZ52M**

Replacement Parts

REPLACEMENT PARTS

Except where noted, all operating heads are furnished with actuators.

Catalog Listing	Contact Block		Operating Head	Actuator Only
	Compact	Plug-In		
1LS1-L	**2MN1-L**	**2MN6**	**9PA15**	6PA121
1LS1 201LS1	**2MN1**			
1LS2-L	**2MN1-L**	**2MN6**	**9PA16†**	Note 1
1LS2 201LS2	**2MN1**			
1LS3-L	**2MN1-L**	**2MN6**	**9PA16†**	**LSZ52C**
1LS3 201LS3	**2MN1**			
1LS6 201LS6	**2MN1**	**2MN6**	**9PA50**	6PA121
1LS9 201LS9	**2MN8**	**2MN13**	**9PA16†**	Note 1
1LS10-L	**2MN1-L**	**2MN6**	**9PA40**	**6PA43**
1LS10 201LS10	**2MN1**			
1LS19 201LS19	**2MN8**	**2MN13**	**9PA15**	6PA121
1LS23 201LS23	**2MN1**	**2MN6**	**9PA68†**	Note 2
1LS47 201LS47	**2MN8**	**2MN13**	**9PA40**	**6PA43**
1LS53 201LS51	**2MN8**	**2MN13**	**9PA48**	**6PA43**
1LS56 201LS56	**2MN8**	**2MN13**	**9PA74†**	Note 2
1LS58	**2MN8**	—	**9PA16†**	**LSZ52C**
1LS131	**2MN8**	—	**9PA50**	6PA121
1LS501 201LS501	**2MN1**	**2MN14**	**9PA15**	6PA121

Catalog Listing	Contact Block		Operating Head	Actuator Only
	Compact	Plug-In		
2LS1-L	**2MN1-L**	**2MN6**	**9PA32**	None
2LS1 202LS1	**2MN1**			
2LS111 202LS111	2MN3	2MN7	9PA71	None
3LS1 203LS1	**2MN11**	**2MN9**	**9PA45**	None
4LS1 204LS1	**2MN11**	**2MN9**	**9PA44**	None
5LS1-L	**2MN1-L**	**2MN6**	**9PA33**	None
5LS1 205LS1	**2MN1**			
6LS1 206LS1	**2MN1**	**2MN6**	**9PA46**	6PA80
6LS2-L	**2MN1-L**	**2MN6**	**9PA47†**	Note 3
6LS2 206LS2	**2MN1**			
6LS3	**2MN1**	—	**9PA47†**	**6PA102**
7LS1	**2MN1**	—	**9PA15**	6PA121
8LS1-L	2MN11-L	**2MN9**	**9PA58**	None
8LS1 208LS1	**2MN11**			
8LS3 208LS3	**2MN1**	**2MN6**	**9PA49**	None
8LS125 208LS125	**2MN11**	**2MN9**	**9PA54**	None
8LS152 208LS152	**2MN1**	**2MN6**	**9PA42**	None

†Furnished without actuator.
Note 1—Any auxiliary actuator shown can be used with these listings.
Note 2—6PA43, 6PA63, 6PA71 or 6PA121 auxiliary actuators only are recommended for these listings.
Note 3—Yoke lever actuators normally used.

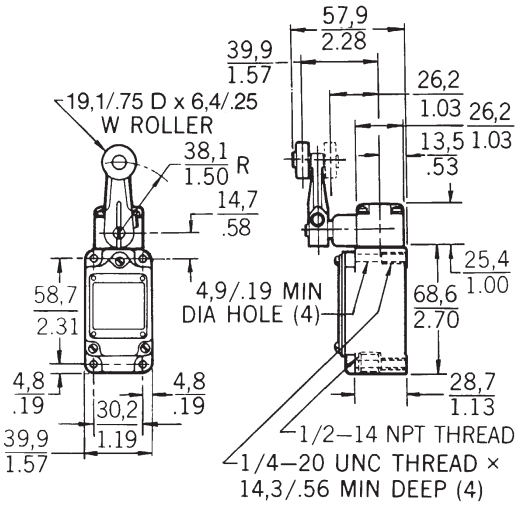
CONDUIT SEALING PACKETS

Packet	Cable O.D. Inches
2PA6	.400″–.435″
2PA16	.435″–.470″
2PA1	.530″–.570″

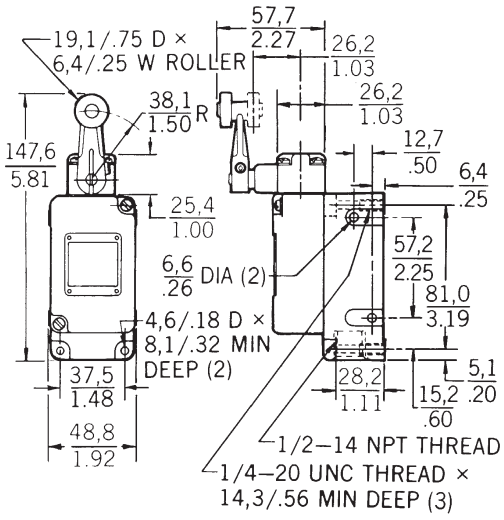
(See page A49 for description)

Mounting Dimensions (For reference only)

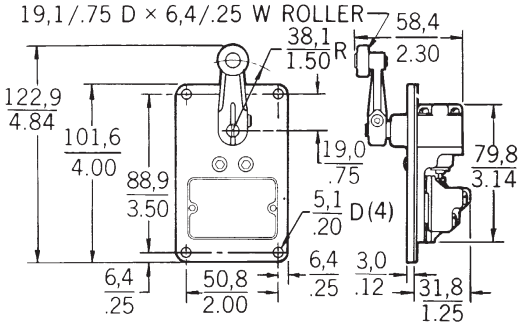
ROLLER LEVER



Compact

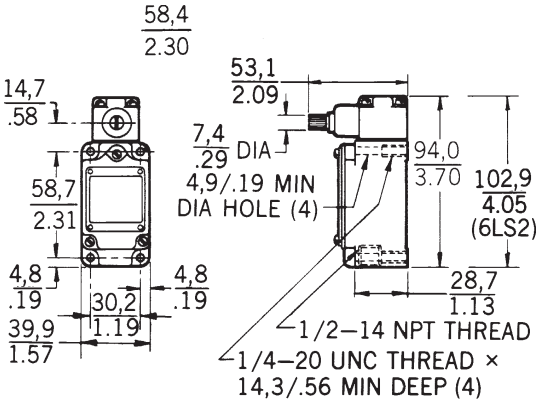


Plug-in

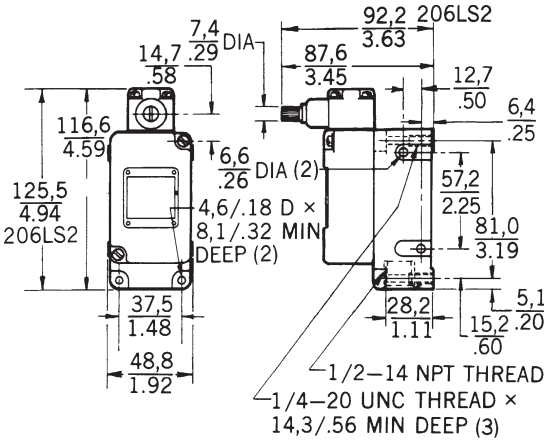


Cavity mount

SWITCH WITHOUT LEVER



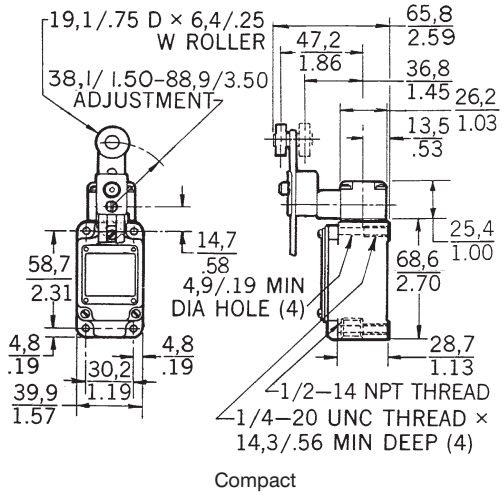
Compact



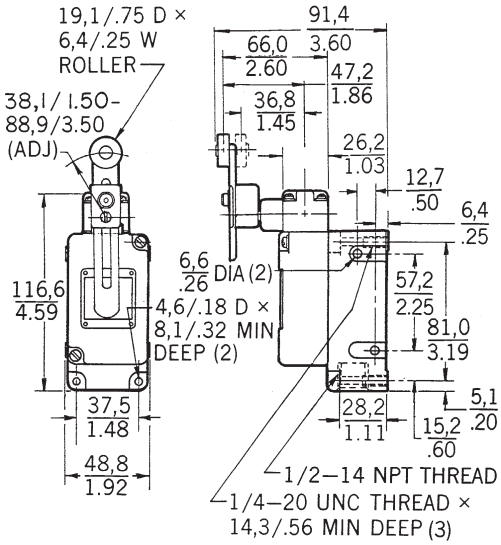
Plug-In

Mounting Dimensions (For reference only)

ADJUSTABLE LENGTH ROLLER LEVER

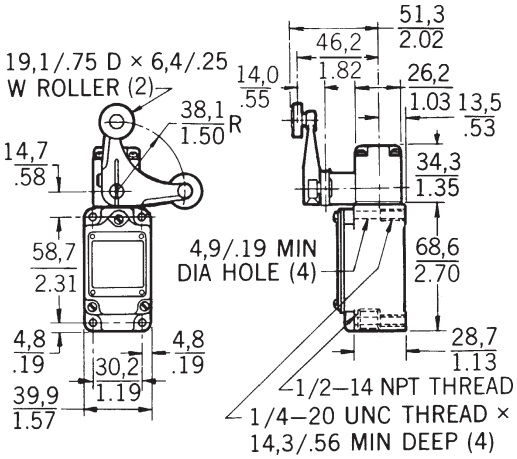


Compact

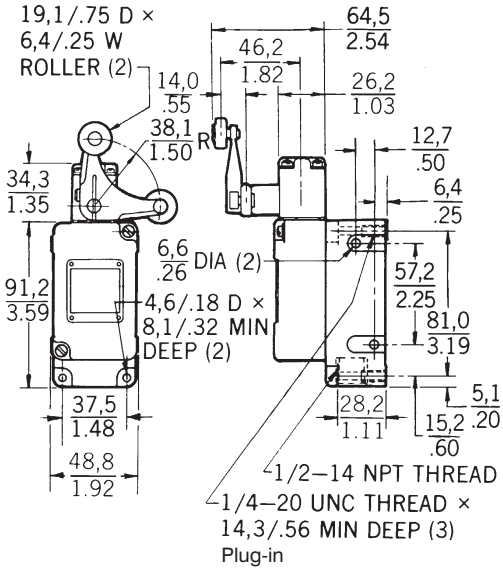


Plug-in

YOKE ROLLER LEVER

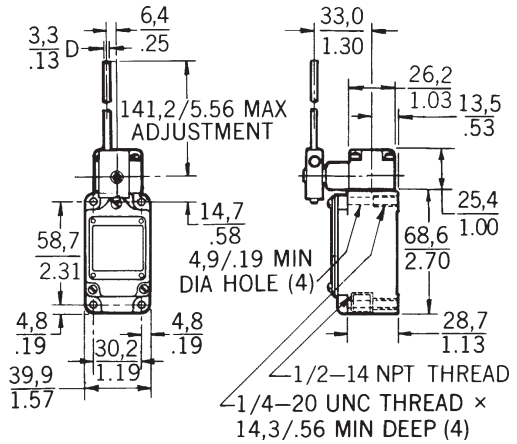


Compact



Plug-in

ADJUSTABLE LENGTH ROD



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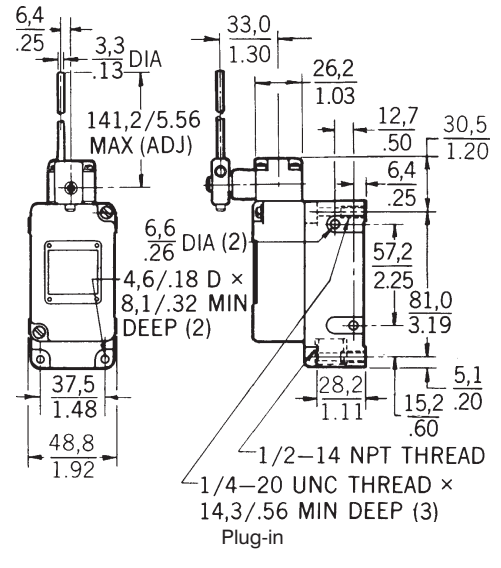
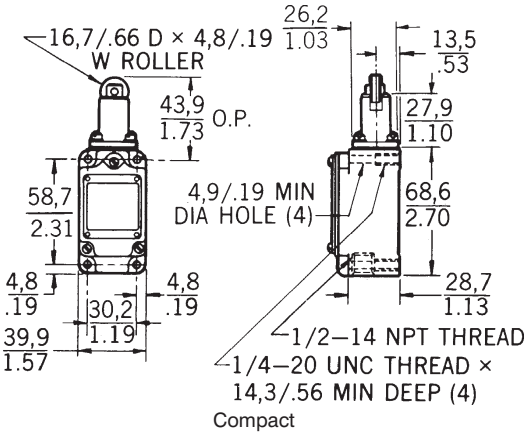


Plug-in

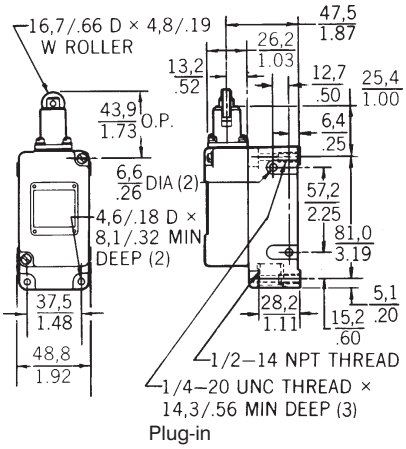
Limit and Enclosed Switches

Mounting Dimensions (For reference only)

TOP ROLLER PLUNGER

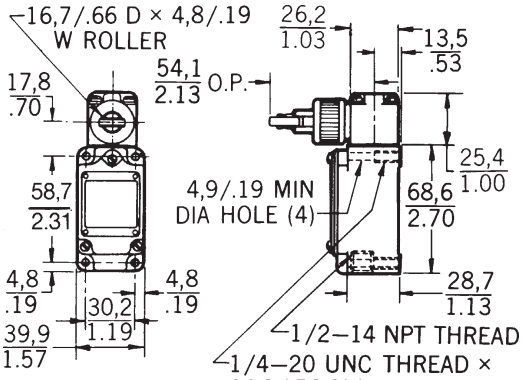


Compact



Plug-in

SIDE ROLLER PLUNGER



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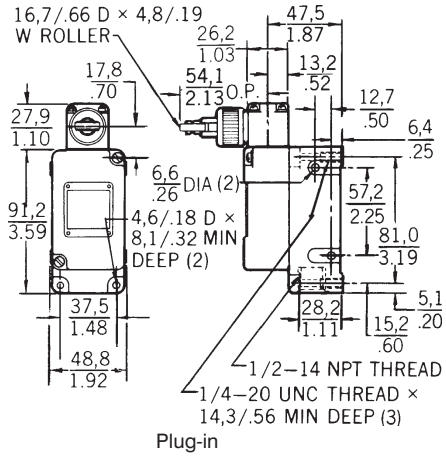
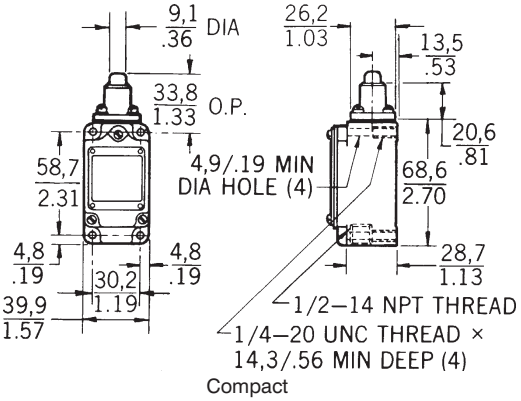
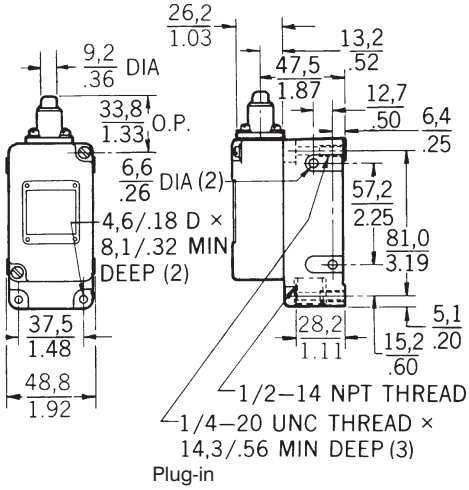


Plug-in

TOP PLUNGER



Compact



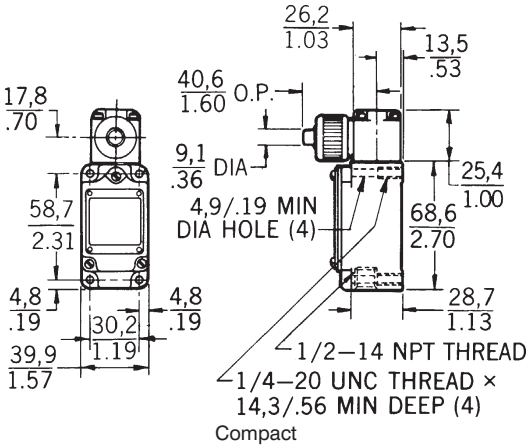
Plug-in

Key: 0,0 = mm / 0.00 = inches

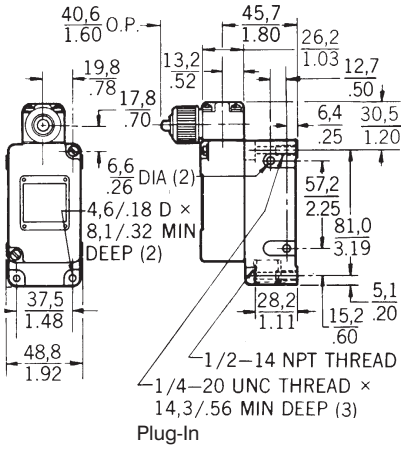
Limit and Enclosed Switches

Mounting Dimensions (For reference only)

SIDE PLUNGER

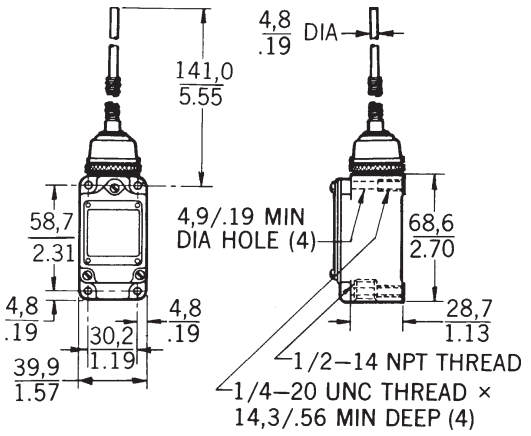


Compact

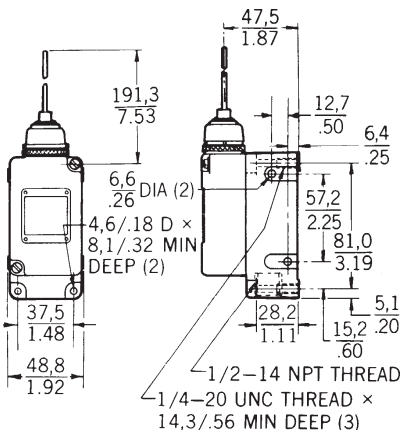


Plug-In

WOBBLE LEVER



Compact (spring-rod)



Plug-in (wire)

Key: 0,0 = mm / 0.00 = inches