

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

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.

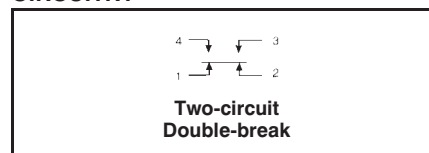
For rapid response – off the shelf service, all **bold face** listings are normally stocked items.

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



ELECTRICAL RATINGS

A	10 amps, 120, 240 or 480 VAC; 1/3 hp, 120 VAC; 3/4 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 MICRO SWITCH does <i>not</i> recommend the use of silver cadmium oxide switch contacts in non- arcing loads. Non-arcing loads are gen- erally loads less than 12 volts and/or 0.5 amp.
B	10 amps, 120, 240 or 480 VAC; 1/4 hp, 120 VAC; 1/2 hp, 240 VAC. Pilot Duty, 600 VAC max.	
C	10 amps, 120 VAC; 1/3 hp, 120 VAC.	
D	10 amps, 120, 240, 480 VAC; 1/4 hp, 120 VAC; 1/2 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; 1/3 hp, 120 VAC; 3/4 hp, 240 VAC. Pilot Duty, 600 VAC max.	Fine Silver Contacts
F	UL Rating: 10 amps, 125, 250, or 480 VAC; 1/3 hp, 125 VAC; 3/4 hp, 250 VAC; 0.8 amp, 125 VDC**; 0.4 amp, 250 VDC**	
G	UL Rating: 10 amps, 125, 250 or 480 VAC; 1/4 hp, 125 VAC; 1/2 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.)

ORDER GUIDE

Momentary action. Steel rollers.



Compact



Plug-in*

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



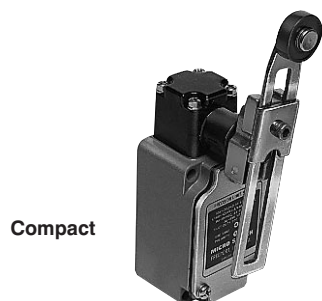
Compact

ORDER GUIDE

Maintained contact

Description	Electrical Rating Page A70	Catalog Listing		O.F. max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in				
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		O.F.† max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in				
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

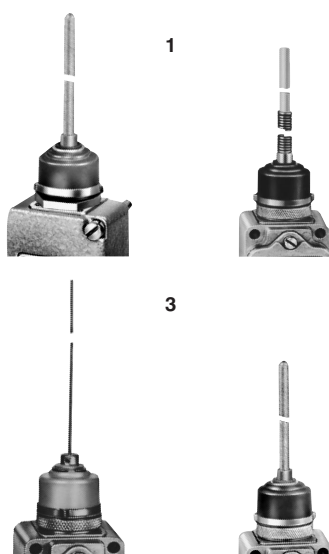
ORDER GUIDE

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

Description	Electrical Rating Page A70	Catalog Listing		O.F.** max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in				
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



ORDER GUIDE

Momentary action.

Description	Electrical Rating Page A70	Catalog Listing		O.F. max.	P.T. max.
		Compact	Plug-in		
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.

Limit/Enclosed

Compact Limit Switches
TOP PLUNGER ACTUATED SWITCHES

Compact



ORDER GUIDE
Momentary action.

Description	Electrical Rating Page A70	Catalog Listing		O.F. max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in	N lb.	mm in.	mm in.	mm in.
Standard top plunger	A	2LS1	202LS1*	31,17	1,65.065	6,35.250	0,51.020
UL/CSA	F	2LS1-L	—	31,17	1,65.065	6,35.250	0,51.020
Low operating force top plunger	E	2LS111	202LS111*	1036 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		O.F. max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in	N lb.	mm in.	mm in.	mm in.
Standard top roller Plunger	A	5LS1	205LS1*	31,17	1,65.065	5,56.219	0,51.020
Steel roller UL/CSA	F	5LS1-L	—	31,17	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		O.F. max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in	N lb.	mm in.	mm in.	mm in.
Standard side roller	A	4LS1	204LS1*	409	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		O.F. max.	P.T. max.	O.T. min.	D.T. max.
		Compact	Plug-in	N lb.	mm in.	mm in.	mm in.
Standard side roller plunger Steel Roller	A	3LS1	203LS1*	409	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.

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

N = Newton

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 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

Limit/Enclosed

AUXILIARY ROTARY LEVERS

ORDER GUIDE

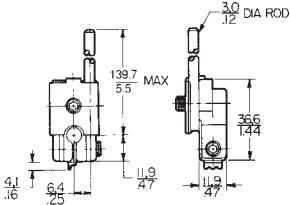
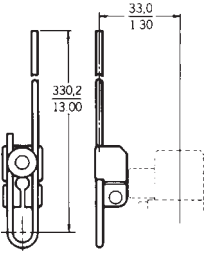
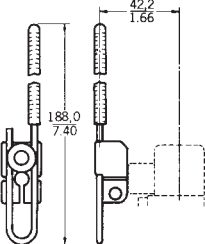
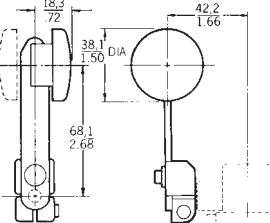
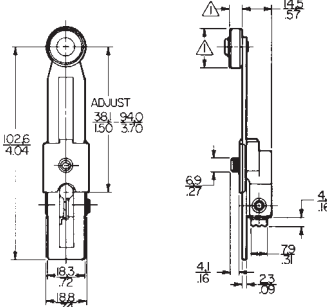
	Type	Catalog Listing
	Roller arm, with nylon, steel, or ball bearing roller.	Nylon 6PA71
		Steel 6PA121
		Ball bearing 6PA144
	Yoke roller lever with nylon or steel rollers. Rollers on same side.	Steel 6PA80
		Steel 6PA82
		Nylon 6PA102

60mm radius levers Part # PA-J11

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	SteelLSZ52D
	.75 dia. roller	NylonLSZ52C
	1.00 dia. roller	NylonLSZ52J
	1.50 dia. roller	NylonLSZ52K
	2.00 dia. lever	NylonLSZ52M

Courtesy of Steven Engineering, Inc. • 230 Ryan Way, South San Francisco, CA 94080-6370 • Main Office: (650) 588-9200 • Outside Local Area: (800) 258-9200 • www.stevenengineering.com

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

†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"

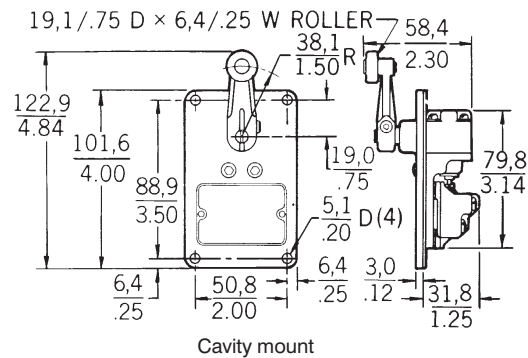
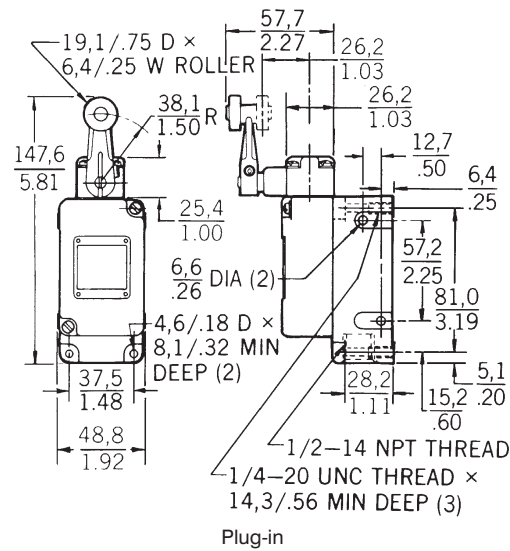
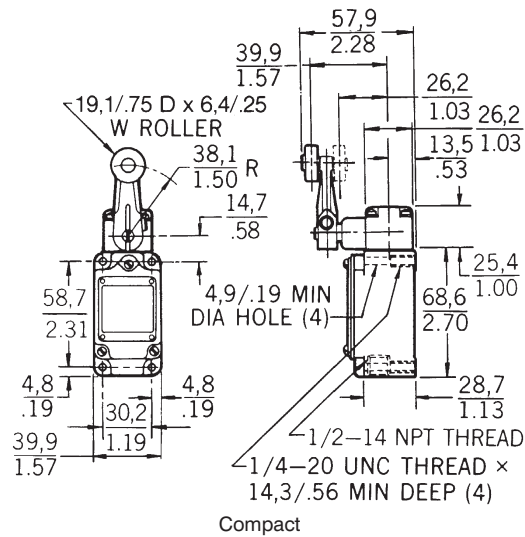
(See page A49 for description)

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

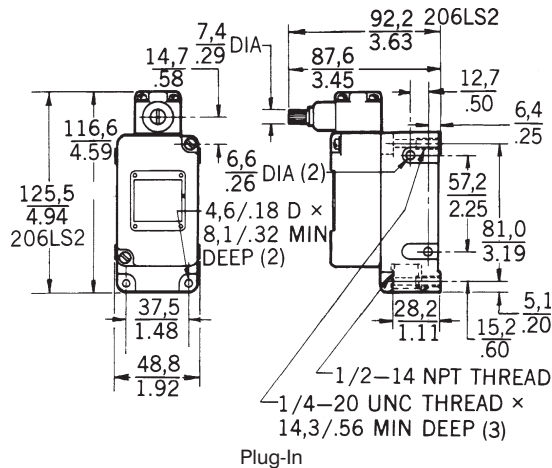
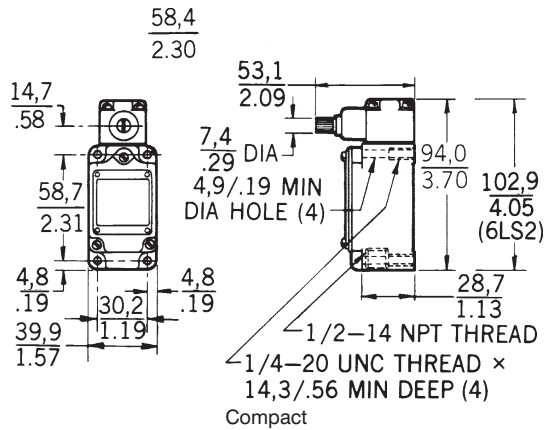
Limit/Enclosed

Mounting Dimensions (For reference only)

ROLLER LEVER

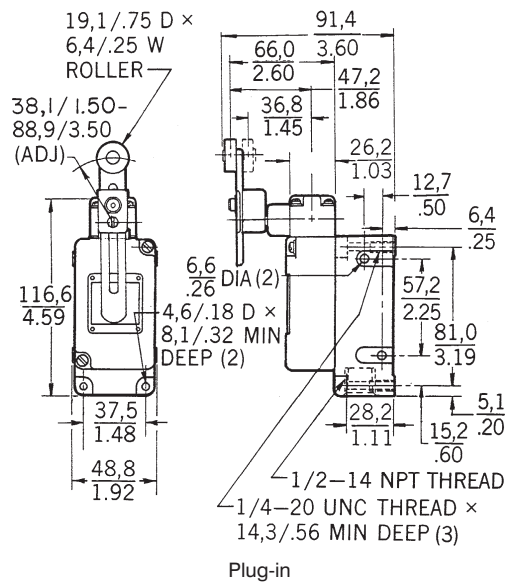
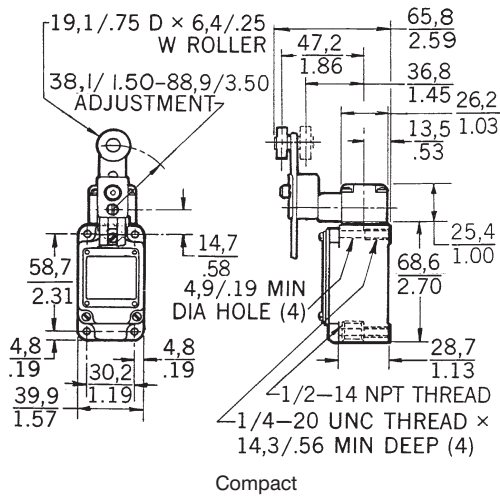


SWITCH WITHOUT LEVER

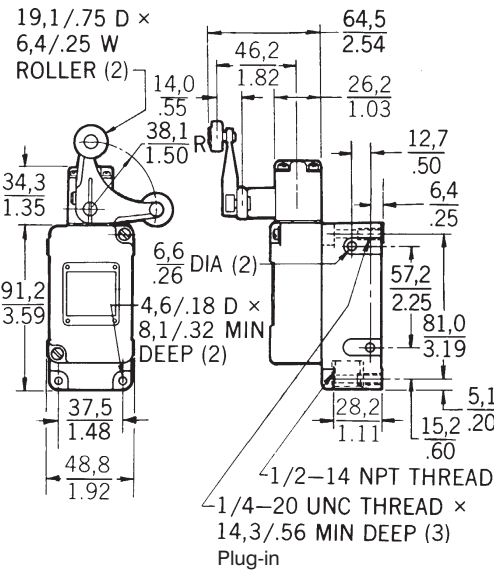
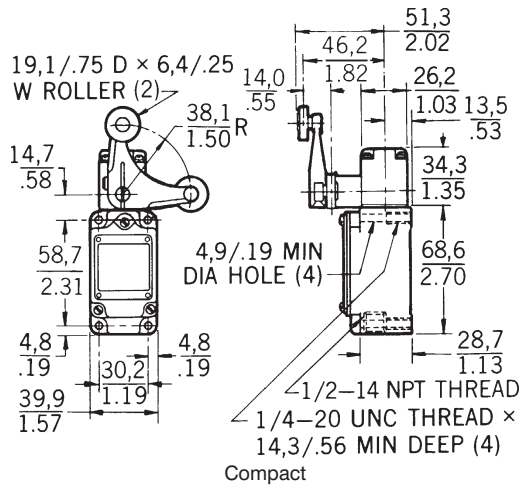


Mounting Dimensions (For reference only)

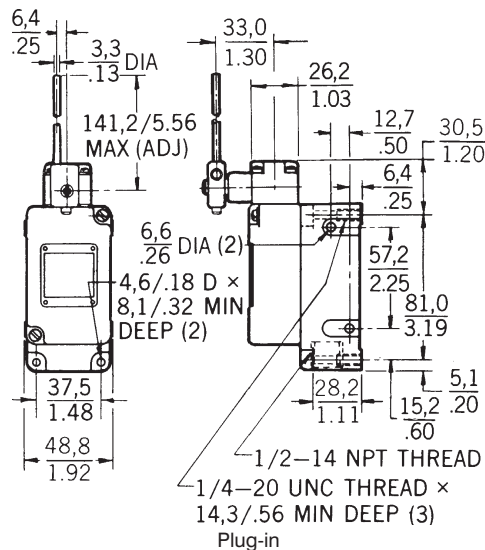
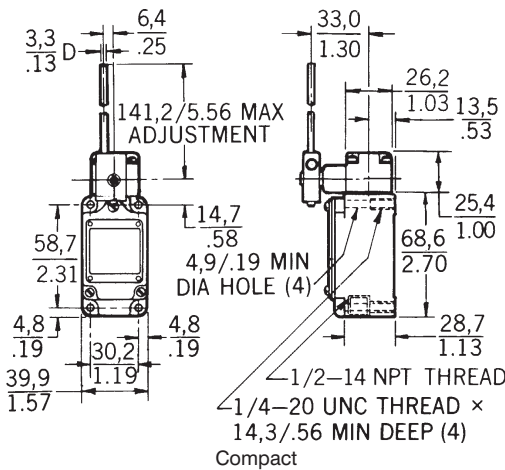
ADJUSTABLE LENGTH ROLLER LEVER



YOKE ROLLER LEVER



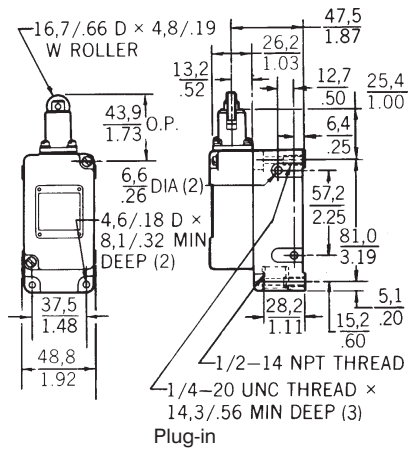
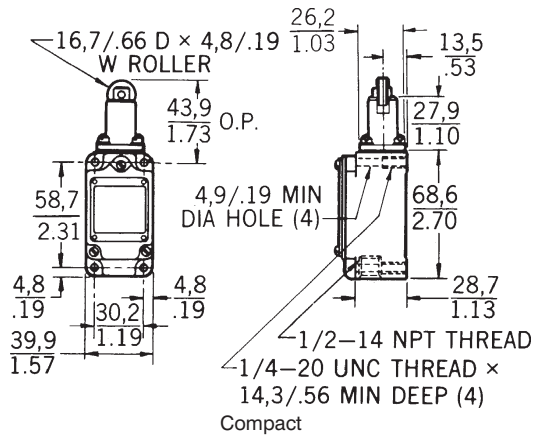
ADJUSTABLE LENGTH ROD



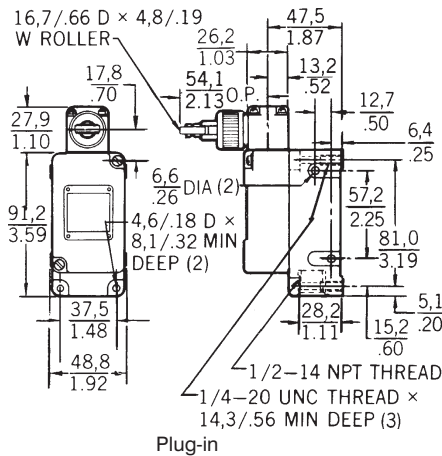
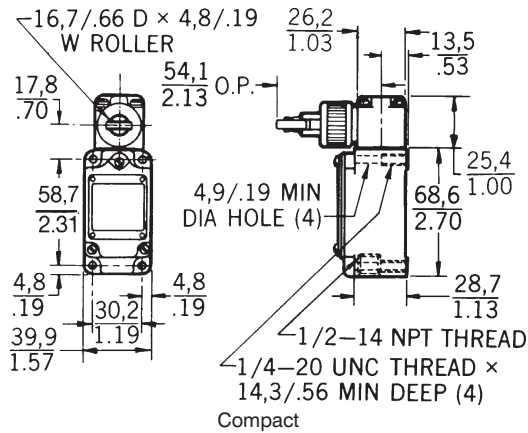
Limit/Enclosed

Mounting Dimensions (For reference only)

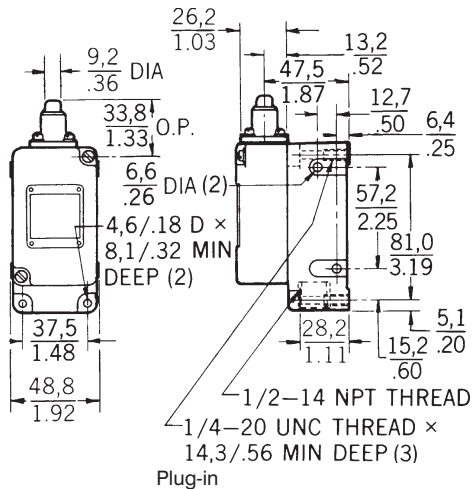
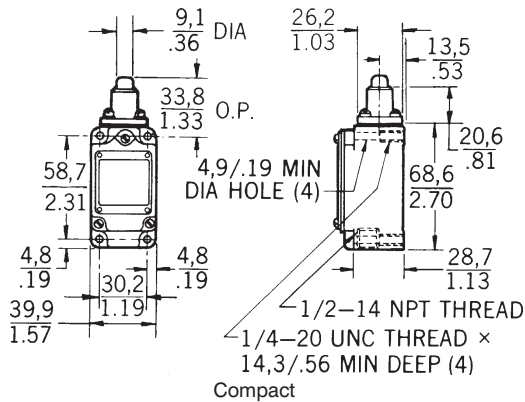
TOP ROLLER PLUNGER



SIDE ROLLER PLUNGER



TOP PLUNGER



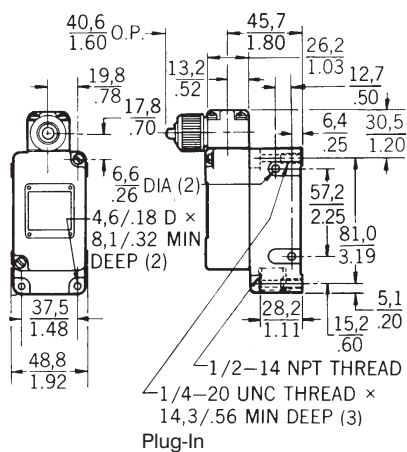
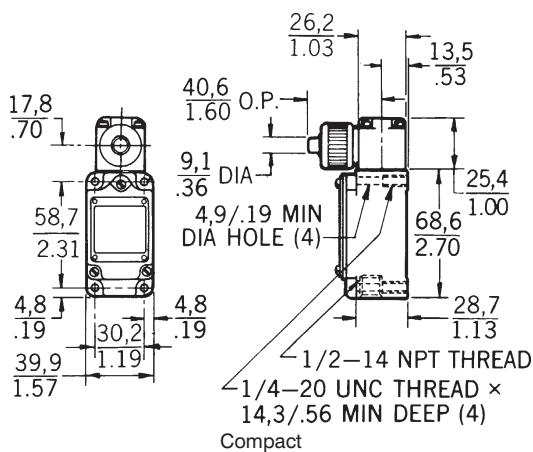
Key: 0,0 = mm
0.00 = inches

Limit and Enclosed Switches

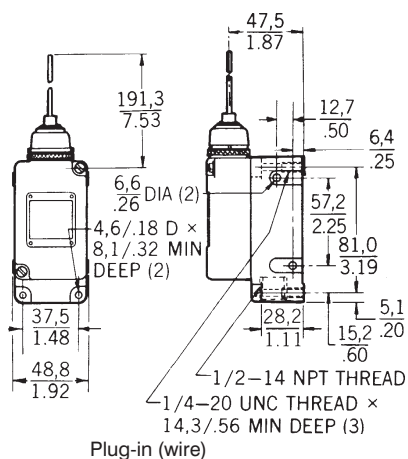
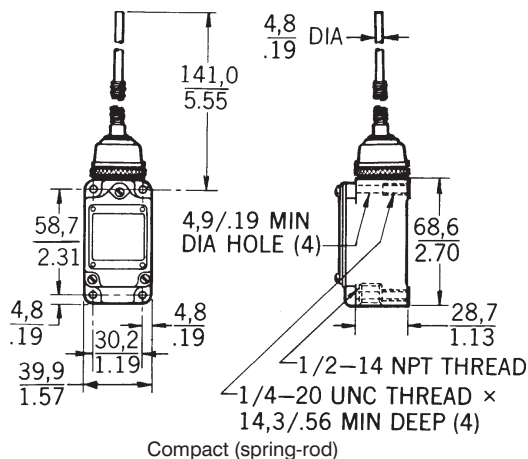
LS/200LS Series

Mounting Dimensions (For reference only)

SIDE PLUNGER



WOBBLE LEVER



Key: 0,0 = mm
0.00 = inches

Limit/Enclosed