

# Pressure

## Compact Pressure Switch

Series 8000

### Features

- ▶ Proven design in stationary and mobile hydraulic applications
- ▶ Wide setpoint pressure range
- ▶ Available in wide range of configurations
- ▶ Precise setpoint adjustment
- ▶ Factory preset or field adjustable
- ▶ UL Type 4, IP65, IP68
- ▶ Modular concept

### Applications

- ▶ Hydraulic power packs
- ▶ Machine tools
- ▶ Overload controls
- ▶ Railways
- ▶ Factory automation
- ▶ Balers and compactors
- ▶ Marine applications

### General Specifications\*



<b>Repeatability:</b>	±1% typical, piston models ±2% typical, diaphragm models	<b>Approvals:</b>	UL / cULus (CSA) IP65 (DIN-plug), IP68 (cable) GOST R/K
<b>Microswitch:</b> Type:	SPDT contact	Optional:	Intrinsically safe (Ex) II 1GD EXia IIB T6 (DIN plug) - EXI EXia IIC T6 (cable) - EXI GL approval, Type D
Rating:	Silver contacts: 3A @ 250 VAC 5A @ 120 VAC 0.4A @ 120 VDC  Gold contacts: 0.1A @ 125 VAC 0.1A @ 30 VDC	<b>Ambient Temperature Range:</b>	Piston Switch: -40°F to +176°F (-40°C to +80°C) Diaphragm Switch: -4°F to +176°F (-20°C to +80°C)
<b>Switching Frequency:</b>	max. 60 /min piston switch max. 30/ min diaphragm switch	<b>Adjustment Instructions:</b>	Setpoint Adjustment: Turn adjustment screw clockwise to increase pressure; counterclockwise to decrease pressure.
<b>Wetted Parts:</b> Process Fitting:	304 stainless steel	<b>Shipping Weight:</b>	0.88 lbs. (400 g)
Housing:	Aluminum die-cast 230	CETOP Flange Model:	0.77 lbs. (350 g)
Seals & Diaphragms:	Buna-N, Viton®, EPDM, Neoprene	Adaptor Version Straight:	1.36 lbs. (620 g)
Adjustment Screw:	300 stainless steel (HEX 5)	Adaptor Version 90° Angle:	1.48 lbs. (675 g)
<b>Electrical Connection:</b>	See options on next page		
<b>Enclosure Ratings:</b>	UL Listed, Type 4 for indoor and outdoor use.		
<b>Pressure Connection:</b>	Standard CETOP (multiple pressure connections available)		

\* See product configurator for additional options.

### Wiring Code

(contact status at atmospheric pressure)



	DIN 43650 Plug (PL1)	M12 Plug (PL2/5)	Cable Gland (CA)	1/2" NPT Conduit w/ Free Leads (CD1)
<b>Common</b>	1	1	Brown	Purple
<b>Normally Closed</b>	2	2	Black	Blue
<b>Normally Open</b>	3	4	Gray	Red
<b>Ground</b>	GRD	3	Green/Yellow	Green/Yellow

**Barksdale**  
CONTROL PRODUCTS

Barksdale, Inc./Barksdale GmbH  
A Subsidiary of Crane Co.

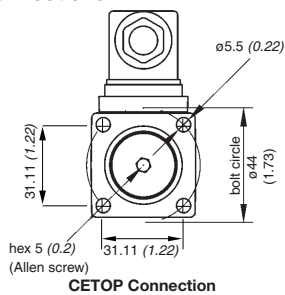


# Compact Pressure Switch

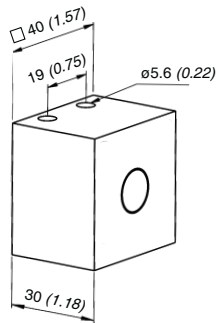
# Series 8000

## Technical Drawings

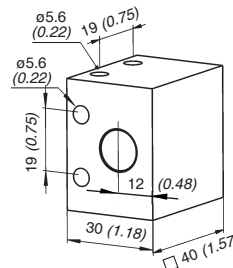
### Process Connections



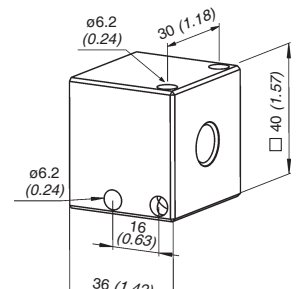
CETOP Connection



Standard Straight

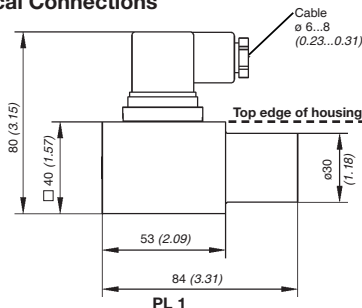


90° Side Entry

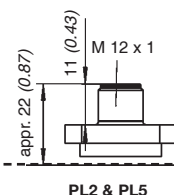


Retrofit Connection For 96100 & X1T

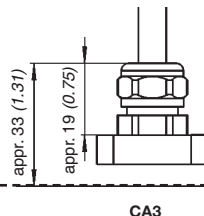
### Electrical Connections



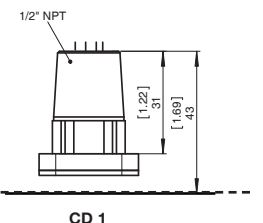
PL 1



PL2 & PL5



CA3



CD 1

Dimensions in mm (inch)

## Product Configurator

Example: 8 A A 1 - PL1 - B -UL<sup>5</sup>

Series 8000

### Process Connections<sup>7</sup>

1 <sup>1</sup>	Cetop connection flange 40 x 40
3	G1/4" male, 40x40
4	G1/4" female, 90° side entry
A	1/4" NPT female
C	1/8" NPT female
D	1/4" NPT female, 90° side entry
E	7/16 SAE-4 20 UNF

### Electrical Connectors

- PL1	Plug DIN 43650 A, IP65 (UR only)
- PL2	Plug M12, 4-pol. without female plug, IP67 (UR only)
- PL5	Plug M12, 5-pol. without female plug. (UR only)
- CA3	Cable gland, 27.5" (0.7 m) cable, neoprene jacketed, IP68
- CD1 <sup>2</sup>	1/2" NPTM AWG 20 with 24" (60 cm) leads (3 leads + ground)

### SPDT Contacts

1	Silver
2	Gold-plated

### Options<sup>3</sup>

- EXI	Intrinsically safe EXia (not UL)
- GL	Shipboard GL approval (not UL)
- LH	Small hysteresis <sup>6</sup>
- VA	300 series stainless steel housing

### Seals

- B	Buna -N
- V	Viton®
- E	EPDM
- N	Neoprene

### Adjustable Range

	Adjustable Ranges				Max. Hysteresis <sup>4</sup> (Dead-band)	Proof Pressure psi (bar)
	(decreasing pressure) psi (bar)		(increasing pressure) psi (bar)			
Diaphragm						
A	5.8 - 82	(0.4 - 5.7)	8.7 - 87	(0.4 - 6.0)	≤15% of max adjustable range	1200 (80) <sup>(†)</sup>
B	29 - 246	(2.0 - 17)	4.3 - 290	(3.0 - 20)		1200 (80) <sup>(†)</sup>
C	43 - 600	(3.0 - 41)	60 - 650	(4.0 - 45)		1200 (80) <sup>(†)</sup>
Piston						
D	43 - 2320	(3.0 - 160)	75 - 2610	(5.0 - 180)	≤15% of max adjustable range	8700 (600)
E	430 - 4300	(30 - 300)	750 - 5075	(50 - 350)		8700 (600)
F	800 - 7550	(55 - 520)	1200 - 8700	(80 - 600)		15000 (900)

(†) Proof pressure 2900 psi (200 bar) on request (May shorten the lifetime of the switch).

## Pressure Fittings

Order #	Description
8000P14	1/4" NPT female
8000P149	1/4" NPT female, 90° side entry

### Notes:

- Model 81XX- at pressure ranges is (A to E) delivered with 2 spring clips and 2 mounting screws 5 x 60 mm, steel 10.9, galvanized (hex 4). Pressure range (F) is delivered with 4 mounting screws.
- Contact rating for silver contact is 3A @ 125 VAC.
- Consult factory for additional options.
- Consult sale drawing for dead-band chart
- Not applicable with -EXI and -GL options
- Only for piston version.
- Consult factory for other process connections. Minimum quantities may apply.