

# 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
- ▶ Modular concept
- ▶ Manifold mount
- ▶ Additional process connections

### Applications

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



### General Specifications\*

<b>Repeatability:</b>	±2% typical, diaphragm models ±1% typical, piston models
<b>Microswitch:</b>	SPDT contact
Type:	
Rating:	Silver contacts: 3A @ 250 VAC 5A @ 125 VAC 3A @ 30 VDC Gold contacts: 0.1A @ 125 VAC 0.1A @ 30 VDC
<b>Switching Frequency:</b>	Max. 60 /min piston switch Max. 30/ min diaphragm switch
<b>Wetted Parts:</b>	
Process Fitting:	300 series stainless steel
Housing:	Aluminum die-cast 230
Seals & Diaphragms:	Buna-N (NBR) standard; FKM, EPDM (EPR) optional
Adjustment Screw:	300 stainless steel (HEX 5 mm)
<b>Electrical Connection/ Rating:</b>	For IP rating and electrical connections see page 2
<b>Enclosure Ratings*:</b>	NEMA 4

<b>Pressure Connection:</b>	Standard manifold (Additional options available; see product configurator)
<b>Approvals:</b>	
Standard:	UL / cULus (CSA)
<b>Ambient Temperature Range:</b>	
Piston Switch:	-40°F to +167°F (-40°C to +75°C)
Diaphragm Switch:	-4°F to +167°F (-20°C to +75°C)
<b>Adjustment Instructions:</b>	
Setpoint Adjustment:	Turn adjustment screw clockwise to increase pressure setpoint; counterclockwise to decrease pressure setpoint.
<b>Shipping Weight:</b>	
Manifold Version:	0.77 lbs. (350 g)
Adaptor Version Straight:	1.36 lbs. (620 g)
Adaptor Version 90° Angle:	1.48 lbs. (675 g)

\* See product configurator for additional options.

### Wiring Code

(contact status at atmospheric pressure)



	DIN 43650 Plug (T/B)	M12 Plug (M)	Cable Gland (P)	1/2" NPT Conduit w/ Free Leads (C)
<b>Common</b>	1	1	White	Violet
<b>Normally Closed</b>	2	2	Black	Blue
<b>Normally Open</b>	3	4	Red	Red
<b>Ground</b>	GRD	3	Green	Green

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CONTROL PRODUCTS

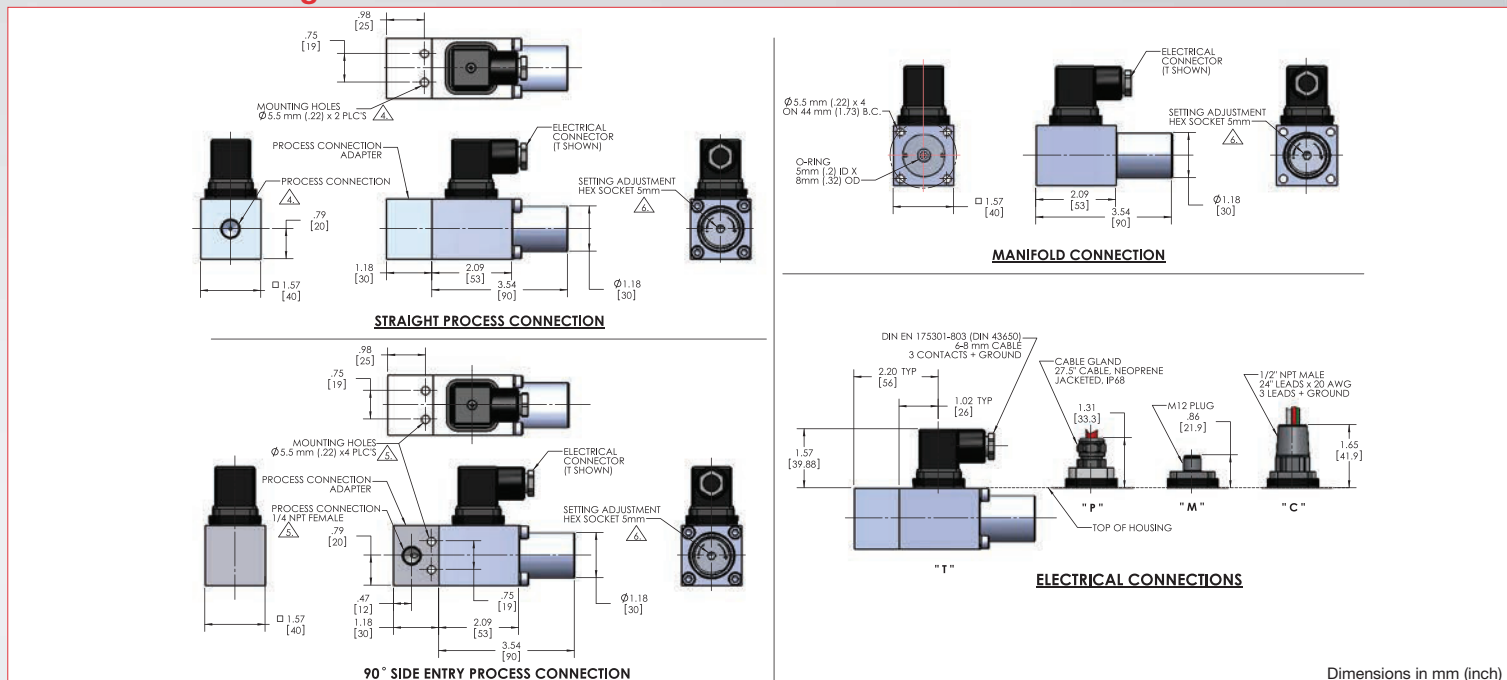
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## Technical Drawings



## Product Configurator

Example: **8** **A** **A** **1** **T** **B**

### Series

\* Highlighted options represent those most frequently used.

Select these common options for improved availability. (5/21)

**8** Series 8000

### Process Connections<sup>1</sup>

<b>12</b>	Manifold connection flange 40 x 40
<b>2</b>	G1/4" female
<b>A</b>	1/4" NPT female
<b>C</b>	1/8" NPT female
<b>D</b>	1/4" NPT female, 90° side entry
<b>E</b>	7/16-20 UNF SAE-4 female
<b>F</b>	9/16-18 UNF SAE-6 female

### SPDT Contacts

<b>1</b>	Silver
<b>2</b>	Gold-plated

### \*Electrical Connectors

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

\*Electrical connectors listed meet NEMA 4 rating

### Pressure Range

	Adjustable Ranges				Max. Hysteresis <sup>3</sup> (Dead-band)	Max. Operating Pressure		Proof Pressure	
	(decreasing pressure) psi	(decreasing pressure) bar	(increasing pressure) psi	(increasing pressure) bar		psi	bar	psi	bar
Diaphragm									
<b>A</b>	5.8 - 82	0.4 - 5.7	8.7 - 87	0.6 - 6	≤15% of max adjustable range	725	50	1200	80 <sup>(†)</sup>
<b>B</b>	29 - 246	2.0 - 17	45 - 290	3.1 - 20		725	50	1200	80 <sup>(†)</sup>
<b>C</b>	43 - 600	3.0 - 41	60 - 650	4.1 - 45		725	50	1200	80 <sup>(†)</sup>
Piston									
<b>D<sup>8</sup></b>	43 - 2320	3.0 - 160	75 - 2610	5.0 - 180	≤15% of max adjustable range	3600	250	8700	600
<b>E<sup>8</sup></b>	430 - 4300	30 - 300	750 - 5000	50 - 350		6500	450	8700	600
<b>F<sup>8</sup></b>	800 - 7550	55 - 520	1200 - 8700	80 - 600		8700	600	13050	900

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

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### Accessories

/A	4 pin M12 female right angle plug molded cable, 3.28 feet (1 meter)
/B	4 pin M12 female right angle plug molded cable, 6.56 feet (2 meter)
/E	4 pin M12 female right angle plug molded cable, 16.40 feet (5 meters)
/G	4 pin M12 female straight plug molded cable, 3.28 feet (1 meter)
/H	4 pin M12 female straight plug molded cable, 6.56 feet (2 meter)
/K	4 pin M12 female straight plug molded cable, 16.40 feet (5 meters)
/M	4 pin M12 female straight connector
/N	DIN 43650 type A connector with molded cable 6.56 feet (2 meters)
/O	DIN 43650 type A connector with molded cable, 16.40 feet (5 meters)
/P	4 pin M12 female right angle connector
/Q	DIN 43650 type A connector

### Options

<b>L<sup>4,5</sup></b>	Small hysteresis (not UL)
<b>S<sup>6</sup></b>	300 series stainless steel housing
<b>XXXXR<sup>7</sup></b>	Factory set rising
<b>XXXXF<sup>7</sup></b>	Factory set falling
<b>D<sup>5</sup></b>	Surge protection

### Seals

<b>B</b>	Buna -N (NBR)
<b>V</b>	FKM
<b>E</b>	EPDM (EPR)

### Notes:

- Consult factory for other process connections, minimum quantities may apply.
- Model 81XX- at pressure ranges (A to E) is delivered with 2 spring washers and 2 mounting screws 5 x 60 mm, steel 10.9, galvanized (hex 4). Pressure range (F) is delivered with 4 mounting screws.
- Consult sales drawing for dead-band chart.
- UL not available for L option.
- Only for piston version (D, E, F pressure range)
- Stainless steel model is not UL approved if electrical connector option "P" is chosen.
- Factory set examples: If set point is 2500 psi rising, order 2500R, if set point is 500 psi falling, order 0500F.
- For water applications or pressure over 3,000 psi, D option, surge protection, is recommended



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