

Series 100P Pressure Switch/Internal Adjustment

Versatile Nega-Rate® Belleville disc spring pressure switch for a wide range of applications. Series 100P (diaphragm sensor) for pneumatic and low impulse hydraulics up to 3000 psig system pressure.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Deadband (approximate)	Maximum Recommended System Pressure	Proof Pressure
	Increasing	Decreasing			
1	5 to 75	2.3 to 72.3	2.7	600	1000
2	15 to 150	9 to 144	6	3000	5000
4	50 to 300	36 to 286	14	3000	5000
5	125 to 600	100 to 575	25	3000	5000
7	500 to 1500	440 to 1440	60	3000	5000
8	800 to 2800	675 to 2675	125	3000	5000

All values given in psig.

Standard Specifications

Electrical

Snap action electrical switch recognized by Underwriters' Laboratories, Inc. and CSA International

Electrical Connection

1/2 NPT female conduit connection with terminal block

Pressure Connection

Wetted Material 1
1/4 NPT Female

Wetted Material 4, 5, 7 and 9
1/2 NPT Female

Temperature Range

Ambient: -40°F to +180°F
(-40°C to +82°C)

Media: -40°F to +300°F
(-40°C to +149°C)

Media temperature limits change with O-Ring selection

Adjustment

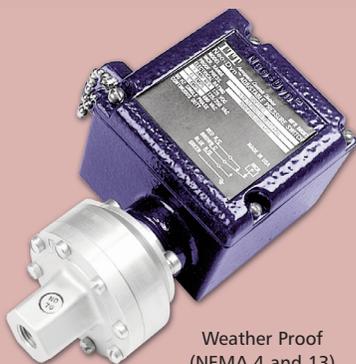
Concealed wrench flat adjustment with range scale

Shipping Weight

Approximately 3 pounds



Order Miscellaneous Option "D"



Weather Proof (NEMA 4 and 13)

Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

- 1 Aluminum port, Teflon coated polyimide diaphragm and Buna-N O-Ring
- 4 316 stainless steel port, Teflon coated polyimide diaphragm and Buna-N O-Ring
- 5 316 stainless steel port and diaphragm heliarc welded
- 7 Hastelloy C port and diaphragm, heliarc welded (Except Range 1)
- 9 Monel port and inconel diaphragm heliarc welded (Except Range 1)

Adjustable Range

- 1 2.3 psig dec. to 75 psig inc. (0.2 bar dec. to 5.2 bar inc.)
- 2 9 psig dec. to 150 psig inc. (0.6 bar dec. to 10.3 bar inc.)
- 4 36 psig dec. to 300 psig inc. (2.5 bar dec. to 20.7 bar inc.)
- 5 100 psig dec. to 600 psig inc. (6.9 bar dec. to 41.4 bar inc.)
- 7 440 psig dec. to 1500 psig inc. (30.3 bar dec. to 103.4 bar inc.)
- 8 675 psig dec. to 2800 psig inc. (46.5 bar dec. to 193.1 bar inc.)

Electrical Form

- C 15 amp at 125 or 250 VAC; 1/8, hp at 125 VAC; 1/4 hp at 250 VAC; .5 amp resistive, .04 amp inductive at 125 VDC
- CC 11 amp, 1/4 hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC; .5 amp resistive at 125 VDC
- Z 15 amp at 125 or 250 VAC; 1/4 hp at 125 VAC; 1/2 hp at 250 VAC; 1 amp resistive, .5 amp inductive at 125 VDC

Enclosure

- 3 Meets or exceeds the requirements of IP65, NEMA Type 3, 3R, 3S, 4, 4X and 13

Miscellaneous

- A Epoxy paint exterior — extra protection for severe environments
- B Viton O-Ring
- C EPR O-Ring
- D SIL approval and marking, per IEC61508 (includes FMEA report)
- E 7/16" - 20 SAE port (Wetted Material 1 Only)
- F Fire fuse — for fire-tested equipment (Wetted Material 4 & 5 only)
- J Annealed stainless steel port screws for H2S environments (Wetted Materials 4 and 5 only) — Consult factory for reduced system and proof pressure
- L Neon indicator light — 115 VAC
- M Gold electrical contacts for extremely low current applications - (Not with Z Form)
- P 5-Pin Brad Harrison connector (Reduce AC electrical rating to 8 amps — (Not for CC3 Electrical)
- S Stainless steel diaphragm (Wetted Material 4 only)
- U M20 x 1.5 Electrical Conduit Adapter
- W Stainless steel screws — exterior (Standard with Wetted Materials 4, 5, 7 and 9)
- X UL and CSA Approved and CE Mark (Not available with L or P option)
- Y 2" NPT Female port for viscous medias. Port Material is carbon steel (Wetted Material "3") (Not available in range code "1") — Order as 100P3xxxxY

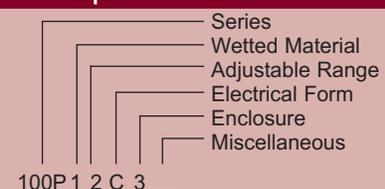
Special (Consult representative or factory)

- Non-catalog adjustable range and/or set point, deadband and proof pressure
- Media temperature capability from -65°F to +400°F
- Chemical seals installed
- Manual reset — decreasing only (available in C3 only)

Ordering Procedure

- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

Example

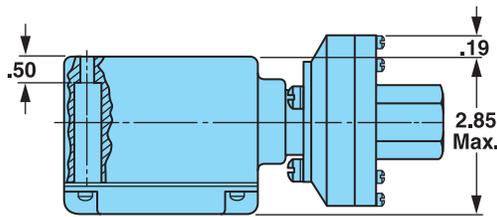


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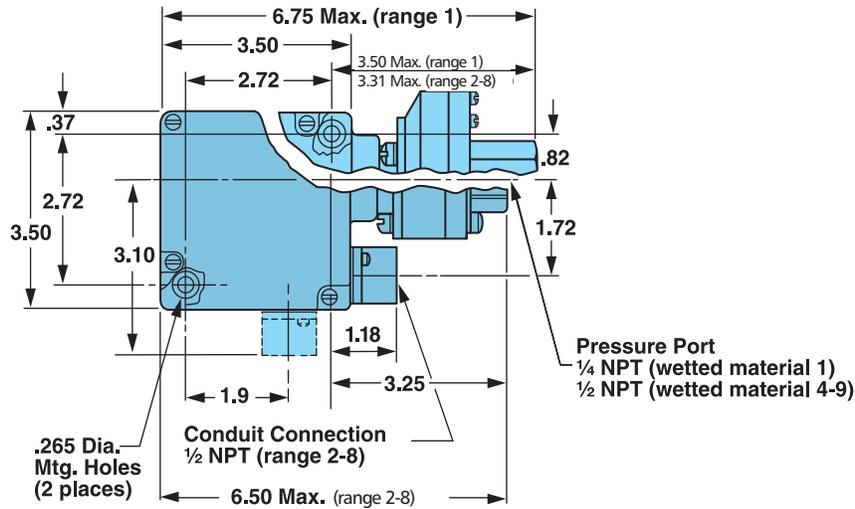
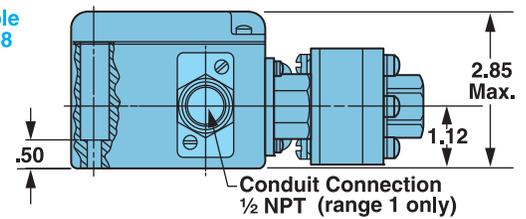
Field Adjustable
2.3 to 2800 psig

Envelope Dimensions

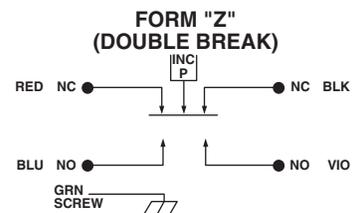
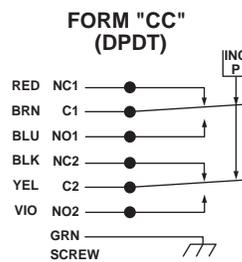
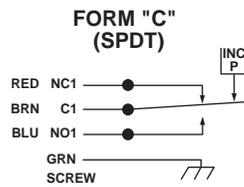
Adjustable
Range 1



Adjustable
Range 2-8



Electrical Form



Basic Principles of Design

