

Series 100P Pressure Switch/Internal Adjustment

Versatile Nega-Rate® Belleville spring pressure switch for use in division 2 hazardous areas. Applications include pneumatic and low impulse hydraulics up to 3000 psig system pressures. Various wetted material selections make this switch ideal for any type of process application.

Operating Pressure Data

Adjustable Range Number	Adjustable Set Point Range		Deadband (approximate)	Maximum 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 Connection

3/4 NPT female conduit connection with terminal block and ground screw

Pressure Connection

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

*Temperature Range (Ambient)

11 amp T4 -40°F to +165°F
(-40°C to +74°C)
5 amp T5 -40°F to +180°F
(-40°C to +82°C)
5 amp T6 -40°F to +172°F
(-40°C to +78°C)

M Option:

1 amp T6 -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

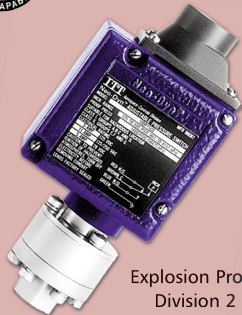
Concealed wrench flat adjustment with range scale

Shipping Weight

Approximately 3 pounds



Order Miscellaneous Option "D"



Explosion Proof
Division 2
(NEMA 4X, 7, 9 and 13)

Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

- 1 Aluminum port, Teflon coated polyimide diaphragm, Buna-N O-Ring
- 4 316 stainless steel port, Teflon coated polyimide diaphragm, 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 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
- 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

Enclosure

- 5 Explosion proof, hermetically-sealed electrical assembly for Division 2 Hazardous Locations, **Underwriters Laboratories, Inc.** listed (File E56677), **CSA International** certified (File LR34146), IP66

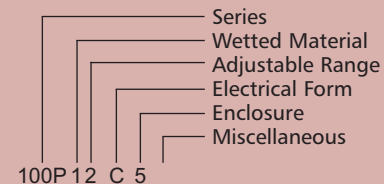
Miscellaneous

- 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)
- B 7/16" - 20 SAE Female Port (wetted material 1 only)
- F Fire fuse — for fire-tested equipment (wetted material 4 & 5 only)
- M Gold electrical contacts for extremely low current applications (1 Amp at 125 VAC; 1 Amp Res, 0.5 Amp Ind. at 28 VDC)
- O Oxygen clean (wetted material 5, 7 & 9 only)
- 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)
- 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

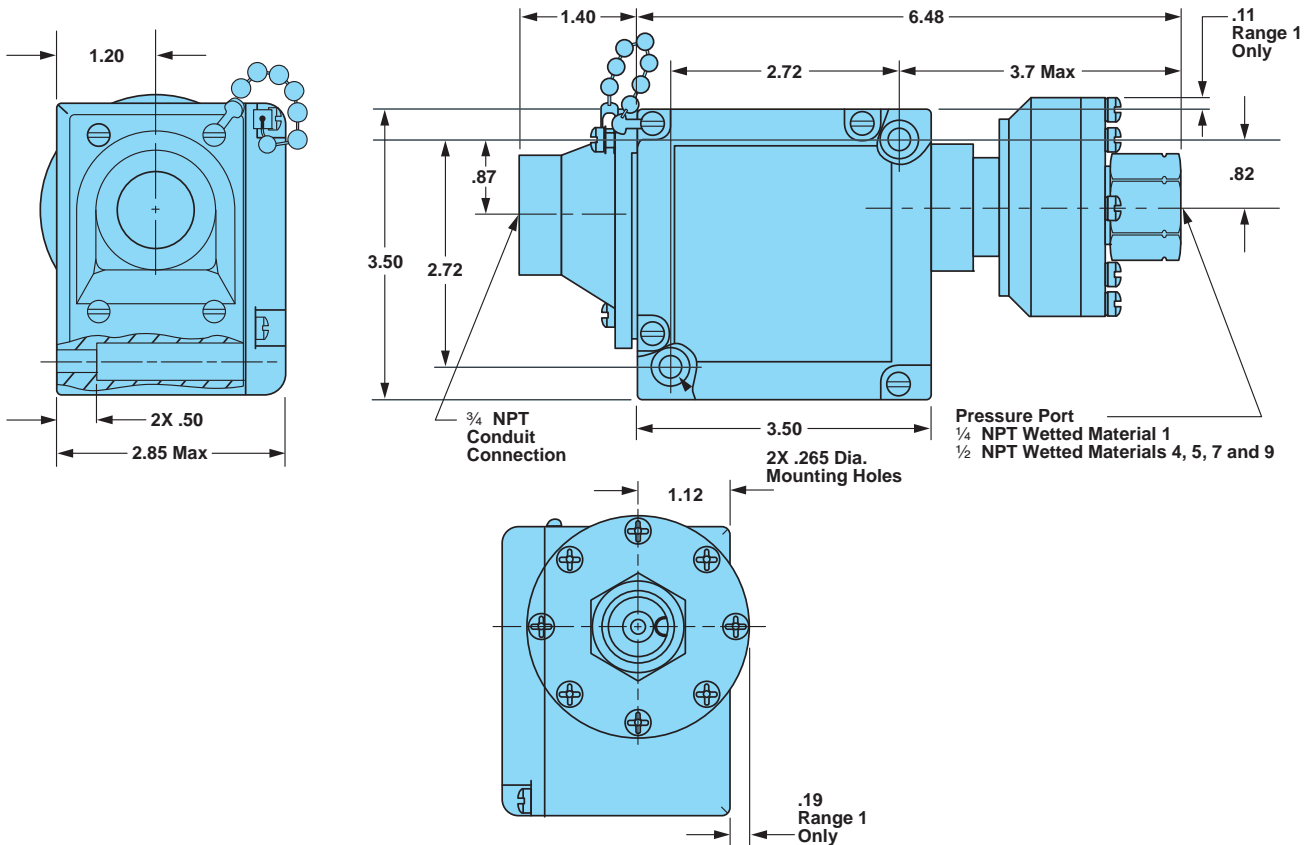
Ordering Procedure

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

Example



Envelope Dimensions



Electrical Form



Basic Principles of Design

