

PDD - Digital Pressure Switch



Benefits and Features

- Ranges 0-30" Hg Vacuum to 0-5800 PSIG
- Fully Programmable with Setpoint, Reset Point and Window Capability
- Accuracy $\pm 0.5\%$ of Full Scale
- Large Easy to Read LED Display
- Ceramic Pressure Sensing System for High Cycle Life

General Description

The PDD series digital pressure switch integrates the latest solid state sensing technology into a very versatile, simple to operate package. Programming features include setpoint, reset point, window mode, pulsation dampening, switch logic, zero (tare) adjustment and user settable lockout code. The ceramic sensing system and solid state transistor switch ensure an exceptionally long cycle life with virtually no calibration drift. These features along with the compact, robust stainless steel package make the PDD an ideal choice for OEM applications.

Specifications

Measuring Ranges: 0-30" Hg vacuum to 0-5800 PSIG
Display Type: 3 digit LED
Switch Status Indicator: Single red LED, on when pressure is above setpoint
Accuracy: $\pm 0.5\%$ of full scale
Sensor Element: Piezo-resistive ceramic
Operating Temp. Range
Process Medium: -4 to 176°F
Ambient: -4 to 140°F
Overpressure Ratings:
-30" Hg to 1450 PSIG: 2x Max. range
>1450 PSIG: 1.2x Max. range
Process Wetted Parts
Sensing Element: Ceramic
Connection: 316L SS
O-Ring: Viton; others available on request
Housing Material: 304 Stainless Steel
Response Time: 0.5 Sec.
Dampening: User programmable averaging over 1, 2, 4, 8, 16, 32 or 64 samples

Electrical Data

Power Required: 24 VDC $\pm 10\%$ 80 mA + Switch Load
Switch Type: Transistor NPN or PNP based on model number
Switch Rating: 300 mA Max. short circuit protected
Switch Logic: User programmable
Electrical Connection: 4-Pin Micro-DC, male
Electrical Protection: NEMA 4/IP 65

Programmable Features

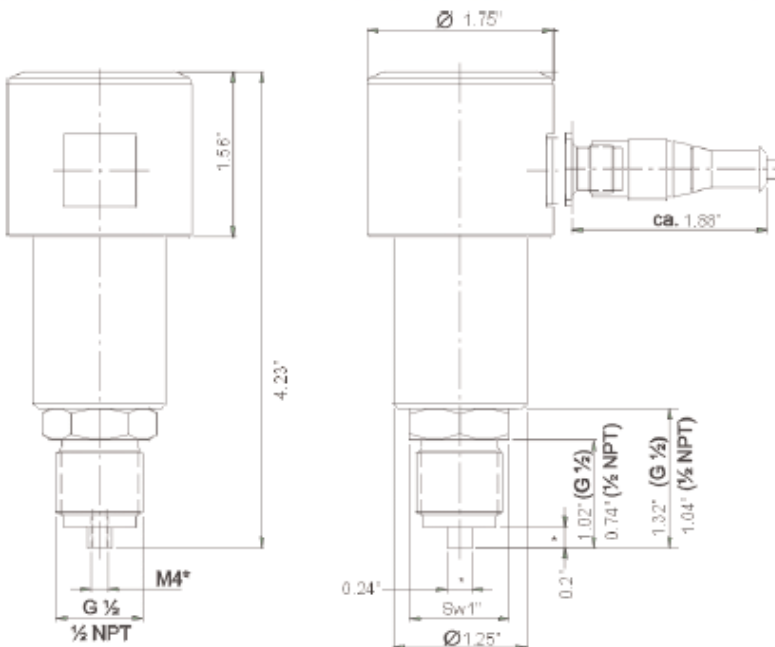
- Zero (Tare)
- Setpoint
- Hysteresis
- Window Mode
- Dampening
- Switching Logic
- Lockout Code

SEN - OEM Pressure Transmitter

Ordering Information

PDD Series Ordering Codes	
PDD	= Compact Electronic Pressure Switch
Output Type	
153	= PNP transistor switch
253	= NPN transistor switch
Fitting	
N2	= 1/4" NPT
N4	= 1/2" NPT
Ranges	
<u>Available Measuring Ranges</u>	
H315	= -30" to 0" Hg
P025	= 15 PSIG
P045	= 30 PSIG
P055	= 50 PSIG
P065	= 100 PSIG
P075	= 150 PSIG
p085	= 200 PSIG
E	= Special Range
P095	= 350 PSIG
P105	= 600 PSIG
P115	= 1000 PSIG
P125	= 1450 PSIG
P130	= 2000 PSIG
P140	= 3000 PSIG
P150	= 5000 PSIG
P155	= 5800 PSIG
Accessories	
Part#: 807.037 = Mating 4-Pin Micro-DC connector w/ 6ft. cable	
<p>PDD - 253 - N4 - P065 Example</p>	

Dimensions

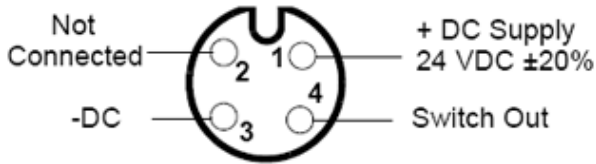


Electrical Installation

The following electrical installation instructions and precautions must be followed to insure proper switch and analog output operation. Failure to follow these instructions may result in irreparable damage to the switch:

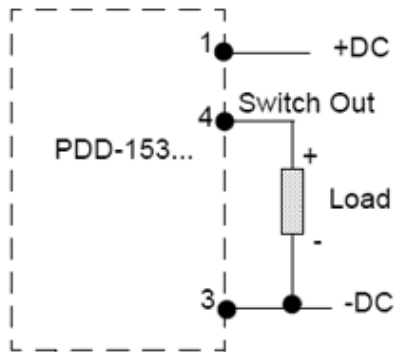
1. The unit employs an open collector NPN or PNP transistor switch. To verify which model you are installing check the model number codes in Section 2.0, Specifications. When the PNP version activates, it connects the DC supply voltage to the switch output pin. When the NPN version activates, it connects the DC ground to the switch output pin.
2. This switch can only switch fixed polarity DC loads with a maximum current draw of 300 mA. To switch higher current DC loads or AC loads use an appropriately sized relay.
3. In order to minimize electromagnetic noise pickup, a jacketed instrument and control cable with shield should be used. The shield should be connected to the power system earth ground at one end of the cable only.

Optional Mating Connector



Brown = 1 = +DC
 White = 2 = Not Connected
 Blue = 3 = -DC
 Black = 4 = Switch Out

PNP Switch Version



NPN Switch Version

