

DREXELBROOK[®]

Model 375 Pressure Transmitter – Submersible or Pipe/Vessel Mount



1" NPT Flush
'F' Option,
Pipe or Vessel
Mount

Submersible

Model 375 and 375F Flushmount Transmitters

shown with desiccant package (limits moisture intrusion – provided with psig reference units)

Description

The Model 375 submersible level transmitter is specially designed to provide the convenience of direct submergence in many types of liquids for quick, accurate and reliable level measurement. The 375 provides an economical, lighter weight style for submersible level applications. The simple design and rugged construction of this solid state instrument provide long lasting service with virtually no maintenance.

The Model 375 indicates the level of liquid by continuously measuring hydrostatic pressure via its isolated sensing element, an ion implanted silicon semiconductor sensor. The standard output signal is 4-20 mA. For other input / output options, consult factory. This design provides for excellent linearity and repeatability, low hysteresis and long term stability at an economical price.

The Model 375 is easy to install; simply lower the sensor into a vessel or well. It's that easy. All the electronics are potted and mounted in a submersible 316 stainless steel housing. A special cable support bracket is also available.

This gives extra stability to the transducer when used with longer lengths of cable (up to 2500 feet) or when used in an agitated liquid. A conduit adapter is also available.

A specially designed cable is factory installed and sealed to insure liquid tight performance. The customer connection end of the cable is sealed and a desiccant package is installed to limit the amount of moisture allowed to enter the barometric reference of the sensor.

The transducer is available calibrated for any span needed, from 6 psi (13.8 ft of water) to 300 psi (692 ft of water).

Features

- Low cost
- Solid state sensor for accuracy and reliability
- Lightweight and compact size
- Rugged 316 stainless steel housing with excellent environmental protection to IP68
- Advanced digital compensation
- Easy to install and use
- Vented to the atmosphere through the surface end of the cable (desiccant package supplied)
- Reverse polarity and surge protected
- 2 wire, 4 to 20 mA output standard; other outputs available - consult factory

Applications

- Tanks
- Ponds
- Rivers
- Lakes
- Water wells
- Landfills
- Flood channels
- Pump Control
- Lift Stations

Model 375

Specifications

Pressure Range:

0-6 psi to 0-300 psi

Accuracy at 25°C BFSL (Including Linearity, Hysteresis, Repeatability):

0.25% FS

1 Yr. Stability:

< 0.25% FS

Load Limitation:

600 OHM MAX (4-20MA)
50K OHM MIN (all voltage outputs)

Operating Temperature *:

Pressure Ranges up to 150 PSI

-25 to 60°C (-13 to 140°F)

Pressure Ranges Above 150 PSI

-25 to 25°C (-13 to 77°F)

Compensated Temperature:

Pressure Ranges up to 150 PSI

0 to 50°C (32 to 122°F)

Pressure Ranges Above 150 PSI

0 to 25°C (32 TO 77°F)

Total Error Band (Includes Temperature Effects, Zero and Span Sets):

±1% FS; 6 PSI range: ±2% FS

Burst Pressure:

3X FS or 450 PSI whichever is less

Vibration: 10G, 55 – 2000 HZ

Shock: 30G

Wetted Materials:

316L Stainless Steel, Polyurethane Cable,
Viton / Neoprene Seal, Delrin

Process Connection:

¼ -18 NPT Male with Delrin Snubnose
removed (submersible model)

Electrical Connection:

#22AWG Cable, Options N, R, C
potted end, vent tube and in-line desiccant
canister

Pressure Code:

0006 0-6 PSI (0-0.4BAR), 13.8 ft Water (4.2 m)
0015 0-15 PSI (0-1BAR), 34.6 ft Water (10.5 m)
0030 0-30 PSI (0-2BAR), 69.2 ft Water (21.1 m)
0060 0-60 PSI (0-4BAR), 138.4 ft Water (42.2 m)
0100 0-100 PSI (0-7BAR), 230.7 ft Water (70.3 m)
0150 0-150 PSI (0-10BAR), 346.1 ft Water (105.5 m)
0300 0-300 PSI (0-21BAR), 692 ft Water (211m)

Other Ranges Are Available. Please Consult Factory.

** Do not subject unit to freezing water, or damage may result.*

For Unspecified Pressure Ranges, Errors Are Based On Turndown Of The Next Higher Range.

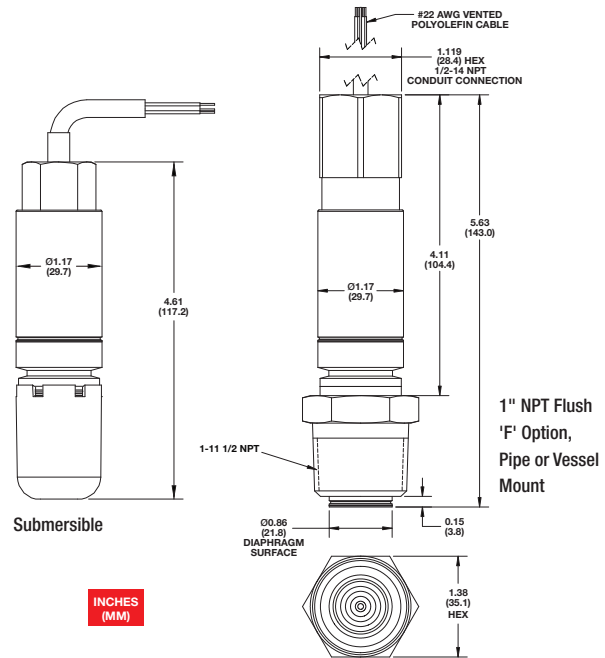
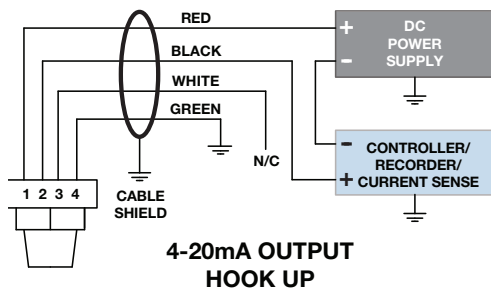
Affected Specifications Include 1 Yr Stability & Total Error Band. Example: 9 PSI Range is (15 PSI Sensor ÷ 9 PSI Range) X 1% = 1.67% Total Error Band

Model 375

TYPICAL WIRING DIAGRAM

Color Polyurethane	Current (4-20mA) Output
Red	+Vin
Black	-Vin
Green	Case Ground

4-20mA LEGEND



Model 375

Model Numbering:

● 375 Submersible Level Transmitter	
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● Sensing Port	
S	Delrin snubnose (standard)
M	Metal snubnose
N	No snubnose, 1/4 - 18 NPT male
F	1" NPT flush diaphragm
● Input / Output (<i>Consult factory for more options</i>)	
B	11 to 30 VDC / 4 to 20mA (standard)
D	9 to 30 VDC / 1 to 5 VDC
● Pressure Ranges	
0006	0-6 PSI (0-0.4 BAR), 13.8 feet water (4.2 m)
0015	0-15 PSI (0-1 BAR), 34.6 feet water (10.5 m)
0030	0-30 PSI (0-2 BAR), 69.2 feet water (21.1 m)
0060	0-60 PSI (0-4 BAR), 138.4 feet water (42.2 m)
0100	0-100 PSI (0-7 BAR), 230.7 feet water (70.3 m)
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0300	0-300 PSI (0-21 BAR), 692 feet water (211 m)
● Electrical Connection** (<i>Consult factory for more options</i>)	
N	22 AWG polyurethane vent tube cable (K515072) / nut
R	22 AWG polyurethane vent tube cable (K515072) / nut / cable support bracket
C	22 AWG polyurethane vent tube cable (K515072) / conduit adapter
E	24 AWG polyurethane cable (K515136) / EMI / nut
F	24 AWG polyurethane cable (K515136) / EMI / nut / cable support bracket
● Diaphragm Material	
L	316L stainless steel (standard)
● Fill fluid	
S	Silicone oil (standard)
● Cable Seal	
V	Viton® (standard)
N	Neoprene
● Cable Length	
Must be specified in feet	
375	S B 0006 N L S V 50

* Standard units are psig reference, but psia and psis reference available – consult factory.

** Options N, R, and C include desiccant filter.

