

## Model 575P

### Submersible Level Transmitter



#### FEATURES

- Solid state semiconductor sensor for accuracy and reliability
- Rugged 316 stainless steel housing with excellent environmental protection
- HASTELLOY C diaphragm
- Easy to install and use
- 2 wire 4 to 20 mA output
- Vented to the atmosphere through the surface end of the cable
- Reverse polarity and surge protected
- Lightning protectors available
- Nonclogging, flush diaphragm

#### APPLICATIONS

Water / wastewater treatment  
Lift stations  
Slurry / sludge  
Pump control  
Level control

#### DESCRIPTION

The Model 575P Submersible Level Transmitter, with its flush diaphragm, is specially designed to provide the convenience of direct submergence in many types of liquid, especially wastewater, for quick, accurate and reliable level measurement. The simple design and rugged construction of this solid state instrument provide long lasting service with virtually no maintenance.

The Model 575P Transmitter indicates the level of liquid by continuously measuring hydrostatic pressure via its sensing element, an ion implanted silicon semiconductor chip with integral Wheatstone Bridge circuit. Once the sensor measures the pressure, the data is transmitted by a 4 to 20 mA output signal. This design provides for excellent linearity and repeatability, low hysteresis and long term stability.

The Model 575P is easy to install, too. Simply lower the transmitter into a tank. A special protective flange protects the probe's HASTELLOY C diaphragm. All the electronics are mounted in a submersible 316 stainless steel housing. A special cable support bracket is also available. This gives extra stability to the transmitter when used with longer lengths of cable or when used in an agitated liquid.

The transmitter is available calibrated for any span needed, from 0 to 3 psi or 0 to 0.2 bar (0 to 7 feet or 0 to 2.1 meters of water) to 0 to 300 psi or 0 to 20 bar (0 to 690 feet or 0 to 211 meters of water).

To complete your liquid level measurement and control system, use the AMETEK Model CDM Digital Meter/ Controller with the Model 575P Submersible Transmitter



# Continuous Level Measurement

## Model 575P Submersible Level Transmitter

### Specifications

**FEET OF WATER:**

0/14, 0/35, 0/69, 0/138, 0/230, 0/345, 0/460,  
0/690

**METERS OF WATER:**

0/4, 0/10, 0/21, 0/42, 0/70, 0/105, 0/140, 0/210

**BAR:** 0/0.4, 0/1, 0/2, 0/4, 0/7, 0/10, 0/14, 0/20

**PSI:** 0/6, 0/15, 0/30, 0/60, 0/100, 0/150, 0/200,  
0/300

**OUTPUT:**

4 to 20 mA, 2 wire, current limited to 30 mA DC

**POWER SUPPLY:**

12 to 40 VDC with reverse polarity surge protection; Limited to 28 VDC for CSA I.S.

**LOOP RESISTANCE:**

1400 ohms maximum at 40 volts

**TEMPERATURE RANGE\*:**

Ambient Operating: CSA intrinsically safe T3C =  
-25 O F to 180 O F (-32 O C to 82 O C)

Storage: -40 O F to 180 O F (-40 O C to 82 O C)

\* If submerged in a liquid that has frozen, damage will result.

Limit high temperature to 140 O F (60 O C) for intrinsically safe operation.

**OVERRANGE EFFECT:**

+0.15% full scale at 200% of maximum range

**OVERRANGE LIMIT:**

200% of maximum range

**ACCURACY:**

+0.25% full scale, BFSL (including linearity, hysteresis and repeatability); +0.50% full scale (6 psi range only)

**ZERO OFFSET:**

+0.50% full scale set at 77 O F (25 O C)

**SPAN:**

+0.50% full scale set at 77 O F (25 O C)

**TEMPERATURE EFFECTS:**

Compensated: 23 O F to 130 O F (-5 O C to 55 O C); Maximum +1% URL output change for +25 O C temperature change within compensated range when calibrated at 25 O C

**POWER SUPPLY EFFECT:**

+0.005% full scale per volt

**CONSTRUCTION:**

Diaphragm: HASTELLOY C

Housing Type: 316 stainless steel

Nut/Washer Type: 316 stainless steel

Cable Grommet: Viton

Housing O Ring: Viton

Cable Jacket: Polyurethane

**ELECTRICAL CONNECTION:**

Attached 20 gauge polyurethane shielded cable.

Unspliced lengths available up to 5000 ft. (1662 m)

**WEIGHT:** 1.3 lb. (590 g)

**APPROVALS:**

Meets CSA requirements for intrinsically safe operation in hazardous locations as designated by Class I, Div 1, Groups A, B, C & D and Class II, Groups E, F & G. Temperature Code T3C (when used with approved barrier).

# Continuous Level Measurement

## Model 575P Submersible Level Transmitter

### Model Numbering

575	575 level transmitter
575	Series submersible level transmitter
	<b>Sensing port</b>
F	Flush mount
P	Protected flush
	<b>Input/Output*</b>
B	12 to 40 VDC/4 to 20 mA
	<b>Pressure ranges**</b>
0006	0 to 6 psi/0 to 0.4 bar (0 to 14 ft./0 to 4.2 m water)
0015	0 to 15 psi/0 to 1 bar (0 to 35 ft./0 to 10.5 m water)
0030	0 to 30 psi/0 to 2 bar (0 to 69 ft./0 to 21.1 m water)
0060	0 to 60 psi/0 to 4 bar (0 to 138 ft./0 to 42.2 m water)
0100	0 to 100 psi/0 to 7 bar (0 to 230 ft./0 to 70.3 m water)
0150	0 to 150 psi/0 to 10 bar (0 to 345 ft./0 to 105.4 m water)
0200	0 to 200 psi/0 to 14 bar (0 to 460 ft./0 to 140.5 m water)
0300	0 to 300 psi/0 to 20 bar (0 to 690 ft./0 to 211.0 m water)
	<b>Electrical connection</b>
N	Polyurethane cable w/ nut (standard)
R	Polyurethane cable w/ nut and cable support bracket
C	Polyurethane cable w/ conduit adapter
E	Polyurethane cable w/ EMI protection and nut
F	Polyurethane cable w/ EMI protection, nut and cable support bracket
G	Polyurethane cable w/ EMI protection, conduit adapter
S	Teflon cable w/ nut and cable support bracket
T	Teflon cable w/ nut
V	Teflon cable w/ conduit adapter
	<b>Diaphragm material</b>
H	HASTELLOY C (standard)
L	316 stainless steel
	<b>Fill fluid</b>
S	Silicone oil
M	Mineral oil (5 unit min. order)
F	Fluorolube
	<b>Cable length (specify in feet)***</b>
K515076	Polyurethane
K515075	Teflon®
575	
P	
B	
0015	
N	
H	
S	(100 Ft. of Cable—K515076)

\* Please contact the factory for availability of different input/output options.

\*\* Calibrated ranges can be specified after the model code; the specific range should be between the upper and lower ranges in the category selected.

\*\*\* Note: Unspliced lengths available up to 5000 ft. (1662m). Please contact factory for other options.

Example:

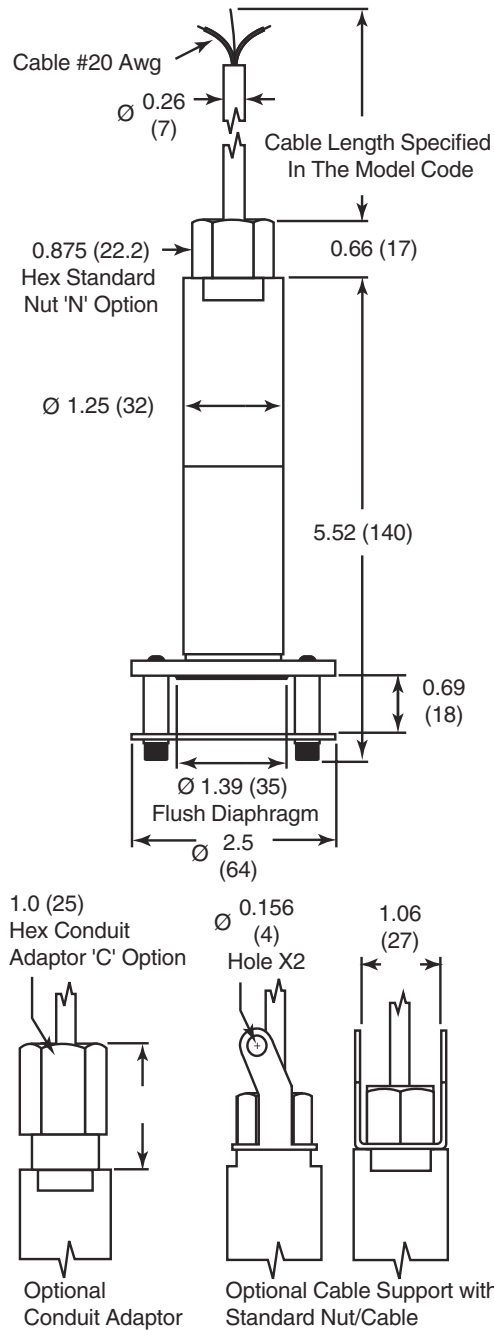
575-P-B-0015-N-H-S (100 Ft. of Cable)

Model 575P protected flush submersible transmitter, 12 to 40 VDC input, 4 to 20 mA output, to measure 15 psi, standard nut, cable electrical connection, HASTELLOY C diaphragm, silicone fill, 100 ft. of cable.

# Continuous Level Measurement

## Model 575P Submersible Level Transmitter

### Dimensions



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