



## ELECTRONIC LEVEL MEASUREMENT PRODUCTS

# Model 575P Protected Flush Submersible Level Transmitter

### DESCRIPTION

The Model 575P Protected Flush Submersible Level Transmitter has a HASTELLOY C diaphragm in a special, protective flange, for sewage applications.

The unit 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 these solid state instruments provide long lasting service with virtually no maintenance.

The 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 transmitter is easy to install. Simply lower the transmitter into a tank. 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 transmitters are 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 DDMC Digital Meter/Controller with the 575 Series Transmitters.

\* A conduit adapter is also available

### APPLICATIONS

- Water/wastewater treatment
- Slurry/sludge
- Lift stations
- Pump control
- Tanks
- Ponds
- Water wells
- Level control

### FEATURES

- CSA approved for intrinsically safe operation
- Solid state semiconductor sensor for accuracy and reliability
- Rugged 316 stainless steel housing with excellent environmental protection
- 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
- EMI protection available
- Optional heavy base model
- HASTELLOY C standard flush diaphragm

Model 575P





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### 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° to 180°F (-32° to 82°C)

**Storage:** -40° to 180°F (-40° to 82°C)

\*\* If submerged in a liquid that has frozen, damage will result. Limit high temperature to 140°F (60°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, BFS (including linearity, hysteresis and repeatability); ±0.50% full scale (6 psi range only)

**Zero Offset:** ±0.50% full scale set at 77°F (25°C)

**Span:** ±0.50% full scale set at 77°F (25°C)

**Temperature Effects:** (15 psi and above)

**Compensated:** 23° to 130°F (-5°C to 55°C); Maximum ±1% URL output change for ±25°C temperature change within compensated range when calibrated at 25°C. Consult factory for lower or alternate pressure ranges.

**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 standard

Please contact factory for other options.

**Housing O Ring:** Viton standard

Please contact factory for other options.

**Cable Jacket:** Polyurethane

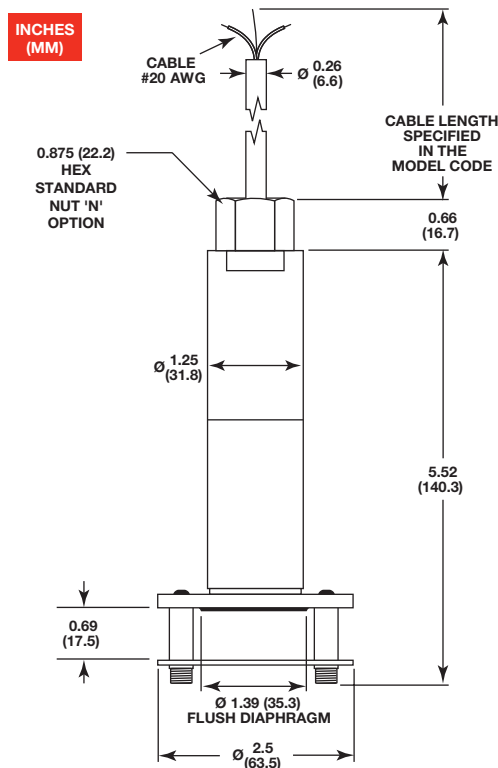
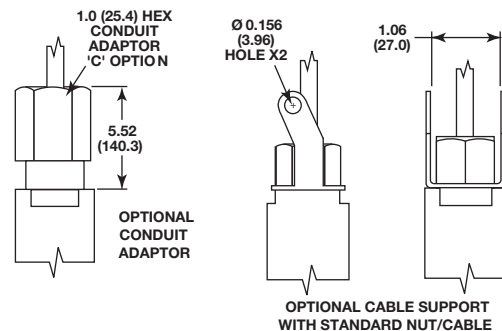
**Media Compatibility:** Reference materials of construction

**Electrical Connection:** Attached 20 gauge polyurethane shielded cable – unspliced lengths available up to 5000 feet (1662m)

**Weight:** 1 lb. 3 oz. (539g)

**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).

**Option:** SJB-100 junction box with desiccant; DDMC Meter Controller and Housing



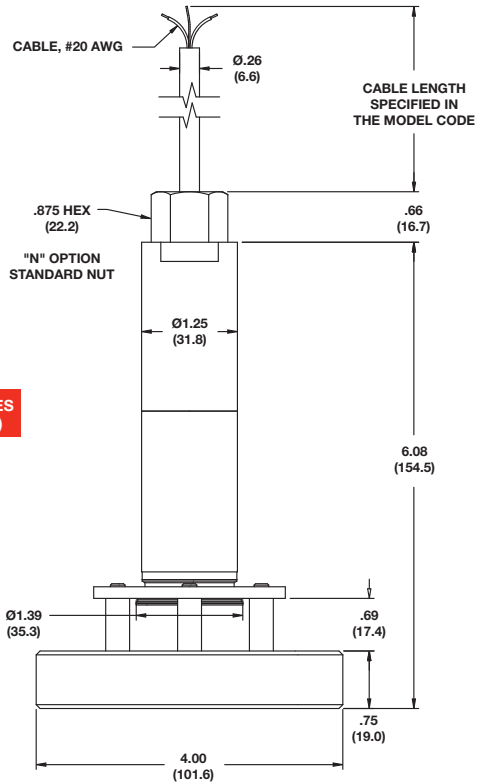
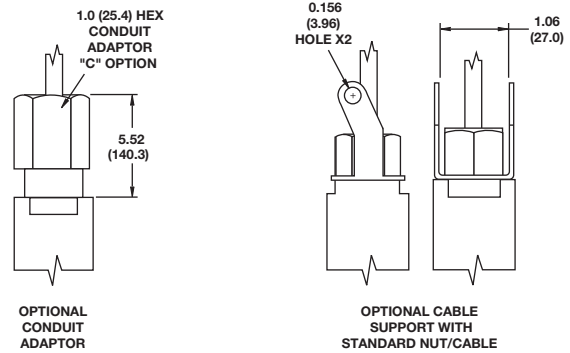


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### Optional Heavy Base

The Model 575P is available with a heavy 4" diameter bottom plate, 3/4" thick for use where turbulence or higher flow rate might require more weight and stability. Unit can be ordered with this optional base or user may purchase a field conversion kit (P/N K680029). Field conversion does not affect calibration.



**INCHES (MM)**



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# Model 575P Protected Flush Submersible Level Transmitter

Model Numbering:	
●	<b>575 level transmitter</b>
	575 Series submersible level transmitter
●	<b>Sensing port</b>
	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
	J Optional heavy bottom plate for 575P (3/4" thick)
●	<b>Fill fluid</b>
	S Silicone oil
	M Mineral oil
●	<b>Cable length (specify in feet)***</b>
	K515076 Polyurethane
	K515075 TEFLON®
575	(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 feet (1662 meters)

Please contact factory for other options