



SUBMERSIBLE

Pressure & Temperature Transmitter AST45PT

Overview

The AST45PT is a combined pressure and temperature transmitter for accurate liquid level measurement.

For pressure ranges from 0-1 to 100 PSI that require a wide range of media compatibility, the AST45PT submersible series is an excellent solution to monitor level and temperature for indoor and outdoor applications.

Benefits

- ◆ High Strength Stainless Steel Construction
- ◆ No Internal O-rings
- ◆ Wide Operating Temperature
- ◆ Pressures up to 100 PSI
- ◆ Low Static and Thermal Errors
- ◆ Unparalleled Price and Performance
- ◆ Rugged Design
- ◆ New Conduit Fitting at Electrical Connection
- ◆ Compatible with Wide Variety of Liquids
- ◆ EMI/RFI Protection

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AST45PT Pressure & Temperature Submersible Transmitter

Applications

- ◆ Ground Water Level Measurement
- ◆ Earthen & Concrete Dams
- ◆ Liquid Tanks
- ◆ Irrigation
- ◆ Environmental Sites
- ◆ Building Automation Controls
- ◆ Waste Water Canals

Performance @ 25°C (77°F)

Accuracy (Pressure)	< ±0.25% of FS BFSL (Accuracy includes non-linearity, hysteresis & non-repeatability)
Accuracy (Temp.)	< ±1.0% of FS BFSL (Accuracy includes non-linearity, hysteresis & non-repeatability)
OverRange Protection	2X Rated Pressure
Burst Pressure	5X or 1,250 PSI (whichever is less)
Pressure Cycles	> 50 Million

Environmental Data

Temperature

Operating Ambient -40 to 85°C (-40 to 185°F)

Storage -40 to 100°C (-40 to 212°F)

0-100% relative humidity, non-condensing

Thermal Limits

Compensated Range 0-55°C (32 to 131°F)

TC Zero < ±1.5% FS

TC Span < ±1.5% FS

Other

Shock 100G, 11 msec, 1/2 sine

Vibration 10G peak, 20 to 2000 Hz.

EMI/RFI Protection: Yes

Rating: IP-68

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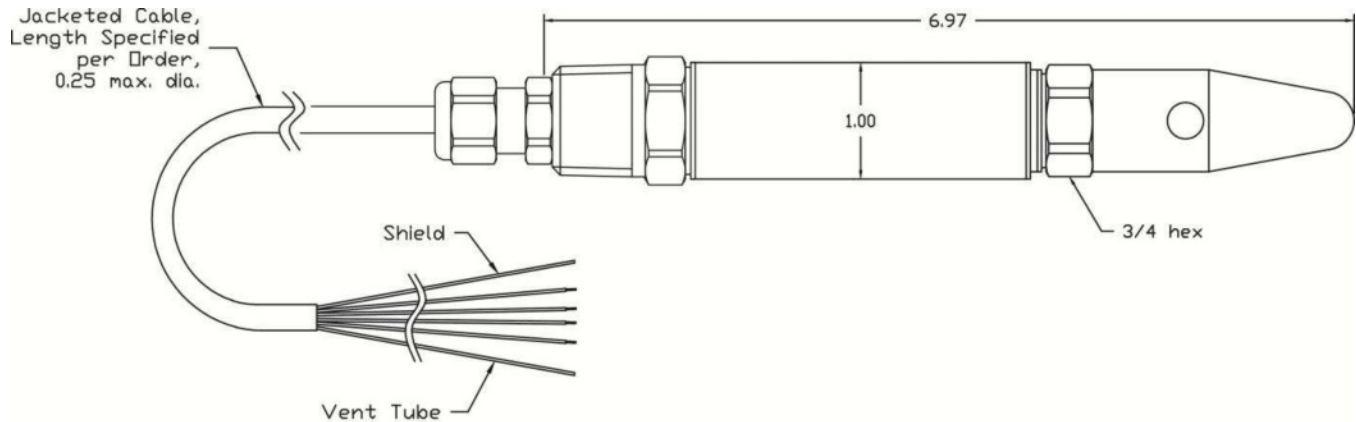
AST45PT Pressure & Temperature Submersible Transmitter

Electrical Data

Output	4-20mA+	1-5V
Excitation	10-28VDC	10-28VDC
Current Consumption:	-	< 10mA
Sampling Rate	400 Hz	400 Hz
Output Noise	< 1mV, RMS	< 1mV, RMS
Zero Offset:	< ±0.5% of FS	< ±0.5% of FS
Span Tolerance:	< ±0.5% of FS	< ±0.5% of FS
Output Load:	0-800 Ohms@10-28VDC	5k Ohms, Min.
Reverse Polarity Protection	Yes	Yes

+For units with loop-powered 4-20mA output, the pressure loop must be powered or the temperature output will not operate.

Dimensions



Output	Red	Black	Green	White
Voltage	+V Supply	-V Supply	Temperature	Pressure
4-20mA	+Pressure	-Pressure	+Temperature	-Temperature

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Ordering Information

AST45PT	1	L	00005	P	4	X	1	N	065
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Series Type

Temperature Output Range
 1= -40 to 85°C (-40 to 185°F)
 2= -40 to 125°C (-40 to 250°F)
 3= 0 to 70°C (30 to 158°F)
 4= -55 to 125°C (-65 to 250°F)
 5= -18 to 93°C (0-200°F)

Process Connection
 L= Cone (removable)

Pressure Range
 Insert 5-digit pressure range code from chart

Gauge PSIG	Pressure Code	Feet of Water Column @ 4°C (approx.)
0-100	00100	230.67
0-50	00050	115.33
0-30	00030	69.20
0-20	00020	46.13
0-15	00015	34.60
0-10	00010	23.07
0-7.5*	00208*	17.30
0-5	00005	11.53
0-2.5*	00069*	5.77
0-1	00001	2.31

Pressure Unit
 H= Inches H₂O
 P= PSI

Outputs
 3= 1-5V
 4= 4-20mA

Electrical
 N= Conduit fitting, Cable 6 ft.
 P= Conduit fitting, Cable 10 ft.
 X= Optional Length (see options)

Wetted Material
 1= 316L / 304 / Hytrel (cable) / Kynar (cord grip)

Fail Condition
 N= Not Specified
 H= Fail High
 L= Fail Low

Options

140= 15 ft. (4.6 m)	074= 25 ft. (7.6 m)	130= 40 ft. (12.2 m)	003= 100 ft. (30.5 m)
075= 20 ft. (6.1 m)	004= 35 ft. (10.7 m)	065= 50 ft. (15.2 m)	050= 150 ft. (45.7 m)

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