



## 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

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#### Applications

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

#### Performance @ 25°C (77°F)

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

#### Environmental Data

##### Temperature

<b>Operating Ambient</b>	-40 to 85°C (-40 to 185°F)
<b>Storage</b>	-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

<b>Shock</b>	100G, 11 msec, 1/2 sine
<b>Vibration</b>	10G peak, 20 to 2000 Hz.
<b>EMI/RFI Protection:</b>	Yes
<b>Rating:</b>	IP-68

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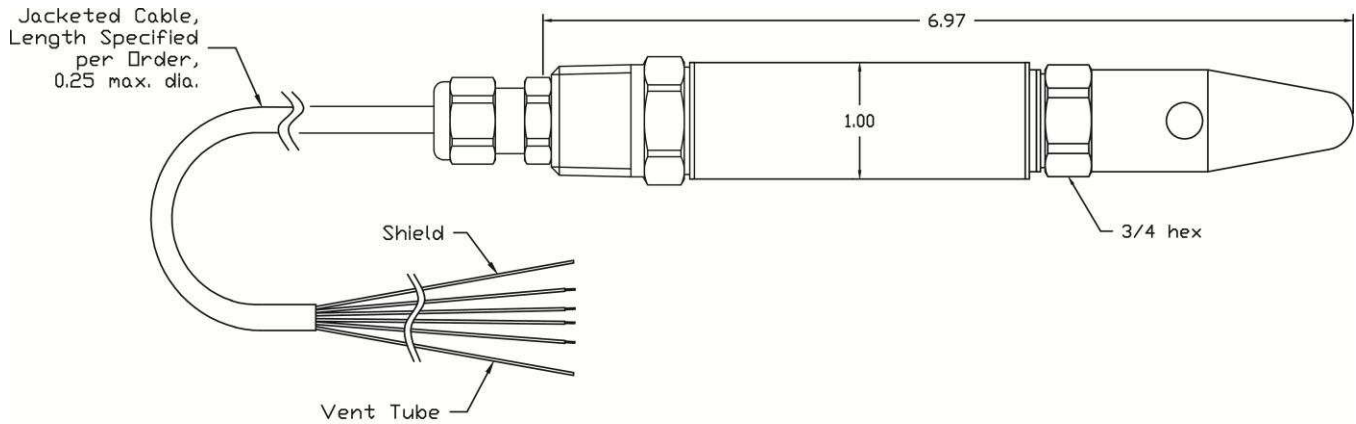
### AST45PT Pressure & Temperature Submersible Transmitter

#### Electrical Data

<b>Output</b>	4-20mA+	1-5V
<b>Excitation</b>	10-28VDC	10-28VDC
<b>Current Consumption:</b>	-	< 10mA
<b>Sampling Rate</b>	400 Hz	400 Hz
<b>Output Noise</b>	< 1mV, RMS	< 1mV, RMS
<b>Zero Offset:</b>	< ±0.5% of FS	< ±0.5% of FS
<b>Span Tolerance:</b>	< ±0.5% of FS	< ±0.5% of FS
<b>Output Load:</b>	0-800 Ohms@10-28VDC	5k Ohms, Min.
<b>Reverse Polarity Protection</b>	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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## AST45PT Pressure & Temperature Submersible Transmitter

### Ordering Information

AST45PT 1 L 00005 P 4 X 1 N 065

#### 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 H<sub>2</sub>O  
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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