Pressure & Temperature Submersible Transmitter

AST45PT



- 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

Applications

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

Environmental Data

Temperature	
Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 100°C (-40 to 212°F)
Thermal Limits	
Compensated Range	0 to 55°C (32 to 131°F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS
Other	
Shock	100G, 11 msec, 1/2 sine
Vibration	10G peak, 20 to 2000 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-68

Performance @ 25°C (77°F)

Accuracy (Pressure)*	< ±0.25% of FS BFSL
Accuracy (Temp.)*	< ±1.0% of FS BFSL
Over Range Protection	2X Rated Pressure
Burst Pressure	5X or 1,250 PSI (whichever is less)
Pressure Cycles	> 50 Million

** Accuracy includes non-linearity, hysteresis & non-repeatability*

Electrical Data

Output	**4-20mA** [+]	**1-5V**
Excitation	10-28VDC	10-28VDC
Current Consumption:	-	< 10mA
Sampling Rate	400Hz	400Hz
Output Noise:	< 1mV, RMS	< 1mV, RMS
Zero Offset	< ± 0.5% FS	< ± 0.5% FS
Span Tolerance	< ± 0.5% FS	< ± 0.5% 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.

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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 257°F)
3= 0 to 70°C (32 to 158°F)
4= -55 to 125°C (-67 to 250°F)
5= -18 to 93°C (0-200°F)

Configuration Interface
L= Cone (removable)

Pressure Range
Insert 5-digit pressure code

Pressure Unit
H= Inches H_2O P= PSI

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

Electrical *(for wiring information visit: http://www.astsensors.com/wiring.php)*
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 Cable Lengths:
140= 15 ft. (4.6 m)
075= 20 ft. (6.1 m)
074= 25 ft. (7.6 m)
004= 35 ft. (10.7 m)
130= 40 ft. (12.2 m)
065= 50 ft. (15.2 m)
003= 100 ft. (30.5 m)
050= 150 ft. (45.7 m)

Pressure Ranges

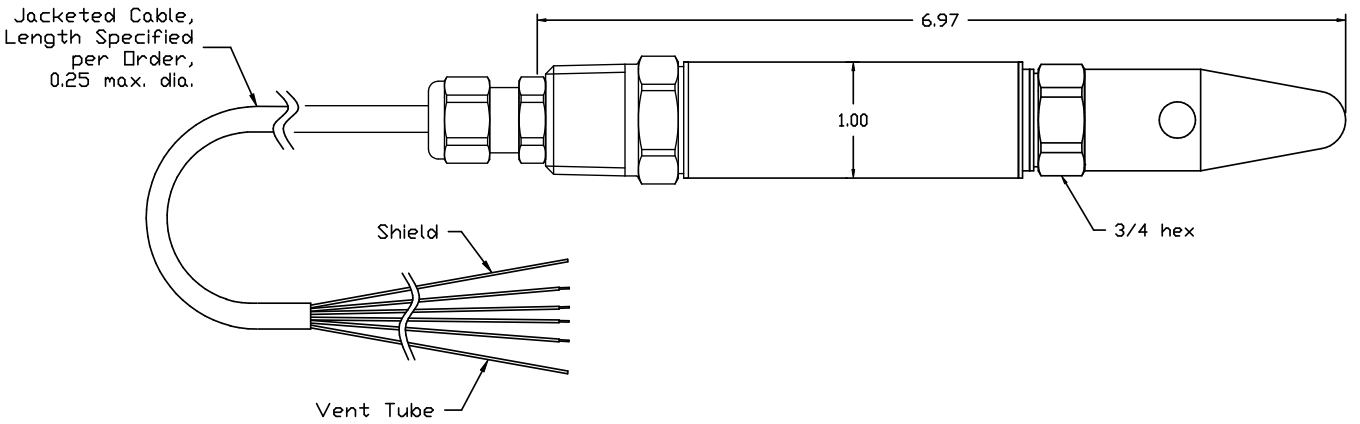
	Gauge PSIG	Pressure Code	Feet of Water Column @ 4°C (approx.)
AST45PT	0-100	00100	230.67
	0-50	00050	115.33
	0-30	00030	69.20
	0-20	00020	46.13
	0-15	00015	34.60
	0-10	00010	23.07
	0-7.5*	00208*	17.30
	0-5	00005	11.53
	0-2.5*	00069*	5.77
	0-1	00001	2.31

**2.5 and 7.5 PSI Sensor must be ordered in inches of H_2O.*

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All specifications subject to change without notice.

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

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