

AST47PT *Pressure / Temperature Sensor with Twin 4-20mA Loops*

Stainless Steel Media Isolated Pressure Sensor



Overview

The AST47PT is the sensor solution for monitoring pressure and temperature with one device. With twin, 4-20mA loop-powered output signals, the AST47PT provides accurate pressure and temperature outputs for measurements of liquids and gases. Packaged with all stainless steel wetted materials and featuring AST's Krystal Bond™ Technology, this pressure-temperature sensor is constructed to perform in harsh environments and high cycle applications. The AST47PT is available with pressure ranges up to 500 PSI and a temperature measurement range of -40° to 85° C.

Benefits

- ✓ High Accuracy
- ✓ High Strength Stainless Steel Construction
- ✓ Pressure Ranges up to 500 PSI
- ✓ Wide Range of Configurations
- ✓ Suitable for High Shock and Vibration

Applications

- ✓ Test Stands & Lab Equipment
- ✓ Data Loggers
- ✓ Pressure Instrumentation
- ✓ Water Management
- ✓ Process Control



Performance @ 25°C (77°F)

Accuracy*	
Pressure	< ± 0.25% BFSL
Temperature	± 0.25°C, typical
Stability (1 year)	±0.25% FS, typical
Over Range Protection	2X Rated Pressure
Burst Pressure	5X Rated Pressure
Pressure Cycles	>100 Million

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

Environmental Data

Temperature	
Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 125°C (-40 to 250°F)
Thermal Limits (Pressure)	
Compensated Range	0 to 55°C (30 to 130°F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS
Other	
Shock	100G, 11 msec, 1/2 sine
Vibration	20G peak, 20 to 2400 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-66

Electrical Data

Output	Pressure 4-20mA	Temp 4-20mA
Excitation	10-28VDC	10-28VDC
Output Impedance	-	-
Current Consumption:	20mA max	20mA max
Bandwidth	(-3dB): DC to 250 Hz	-
Output Noise:	-	-
Zero Offset:	<±1% of FS	<±1% of FS
Span Tolerance:	<±2% of FS	<±2% of FS
Output Load:	0-800 Ohms @10-28VDC	0-800 Ohms @10-28VDC
Reverse Polarity Protection	Yes	Yes

Ordering Information

AST47PT A 00100 P 4 A 0 000

Series Type

Process Connection
A=1/4" NPT Male

Pressure Range
Insert 5-digit pressure range code

Pressure Unit
B=BAR
K=kg/cm2
P=PSI

Outputs
4=4-20mA (Loop Powered)

Electrical D=10 ft.
A=2 ft. E=Mini DIN 43650C
B=4 ft. I=DIN 43650A
C=6 ft. R=Bendix 6 Pin

Wetted Material
0= 17-4PH

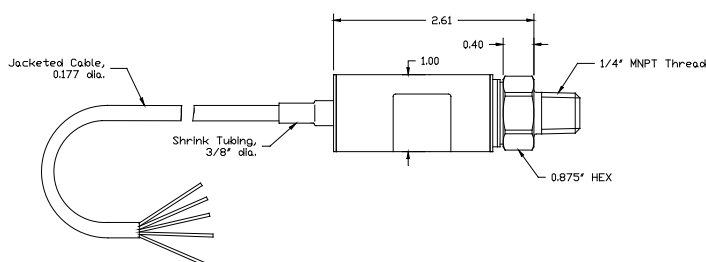
Options
000= No Special Options

Pressure Ranges*

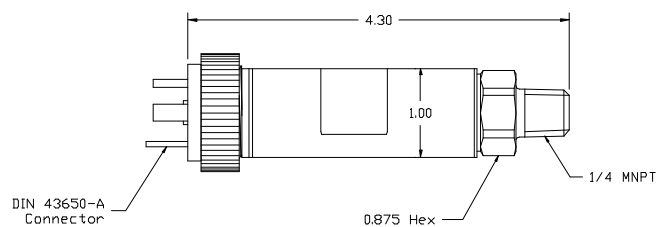
PSI Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 25**	V0025**	-1 to 2**	V0002**
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-7	00007
0-200	00200	0-10	00010
0-500	00500	0-20	00020
		0-35	00035

*Typical ranges. All ranges between 0-25 PSI and 0-500 PSI available.
**Compound ranges up to -14.7 to 500 PSI available. Please consult factory.

Dimensional Data



Standard Cable			
Red	Black	Green	White
+V (P)	-V (P)	+V (T)	-V (T)



Mini-DIN43650A 18.0mm			
Pin 1	Pin2	Pin 3	Wide Pin
+V (T)	-V (P)	+V (P)	-V (T)

Warranty

Workmanship - AST, Inc. pressure transmitters have a limited one-year warranty to the original purchaser. AST, Inc. will replace or repair, free of charge, any defective transmitter. This warranty does not apply to any units that have been modified; misused, neglected or installed where the application exceeds published ratings. AST's sensors are made with pride in New Jersey, USA. If in the area please feel free to stop by for a visit!

Installation/Applications - The purchaser is responsible for media compatibility, functional adequacy, and correct installation of the transmitter.