



## PRECISION

### Pressure & Temperature Transmitter AST20PT

#### Overview

The AST20PT is a digitally compensated pressure and temperature dual output transmitter, offering measurements from a single process point, reducing process penetration points and leaks. Krystal Bond™ Technology alone offers excellent non-linearity and non-repeatability performance. When it is combined with the ASIC, the AST20PT steps into its own league of high performance pressure sensing at an affordable price.

#### Benefits

- ASIC Compensation
- Superb Temperature Performance
- Real Time Thermal Compensation
- Real Time Linearity Correction
- Turndown Capability

#### Applications

- Aerospace
- Analytical Instruments
- Hydraulics
- Hydrogen (Consult factory for media compatibility)
- Labs / Metrology
- Medical
- Military
- Test Stands

## INDUSTRIAL

### AST20PT Precision Pressure & Temperature Transmitter

#### Performance @ 25°C (77°F)

<b>Accuracy (Pressure)</b>	< ±0.1% BFSL (< ±0.2% BFSL over 15,000 PSI) (Accuracy includes non-linearity, hysteresis & non-repeatability)
<b>Accuracy (Temp.)</b>	±2%TEB (Accuracy includes non-linearity, hysteresis & non-repeatability)
<b>Stability (1 year)</b>	±0.1% FS, typical
<b>Proof Pressure</b>	2X Rated Pressure, standard (For higher proof pressures, contact factory)
<b>Burst Pressure</b>	5X or 50,000 PSI (whichever is less)

#### Environmental Data

##### Temperature

<b>Operating Ambient</b>	-40 to 85°C (-40 to 185°F)
<b>Operating Media</b>	-55 to 125°C (-67 to 257°F)
<b>Storage</b>	-50 to 125°C (-58 to 257°F)

0-100% relative humidity, non-condensing

##### Thermal Limits

<b>Compensated Range</b>	0-70°C (32 to 158°F)
<b>TC Zero</b>	< ± 0.5% FS
<b>TC Span</b>	< ± 0.5% 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-66

#### Electrical Data

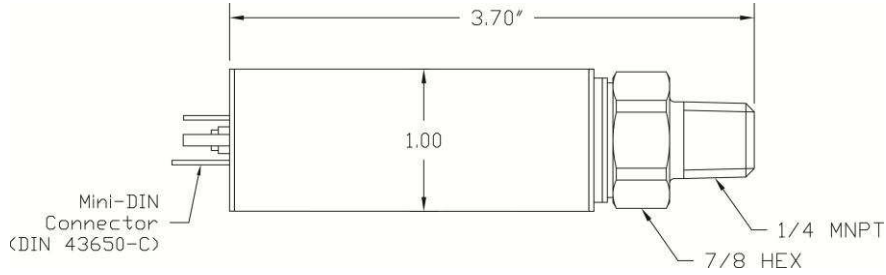
<b>Output</b>	4-20mA+	0-5V, 1-5V	0-10V, 1-10V	0.5-4.5V Ratiometric
<b>Excitation</b>	10-28VDC	10-28VDC	15-30VDC	5VDC, regulated
<b>Current Consumption:</b>	-	< 10mA	< 10mA	< 10mA
<b>Sampling Rate</b>	400 Hz	400 Hz	400 Hz	400 Hz
<b>Output Noise</b>	< 1mV, RMS	< 1mV, RMS	< 1mV, RMS	< 1mV, RMS
<b>Zero Offset:</b>	< ±0.5% of FS	< ±0.5% of FS	< ±0.5% of FS	< ±0.5% of FS
<b>Span Tolerance:</b>	< ±0.5% of FS	< ±0.5% of FS	< ±0.5% of FS	< ±0.5% of FS
<b>Output Load:</b>	0-800 Ohms@10-28VDC	5k Ohms, Min.	5k Ohms, Min.	5K Ohms, Min.
<b>Reverse Polarity Protection</b>	Yes	Yes	Yes	Yes

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

**INDUSTRIAL**

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Dimensions



Connector Options	Letter
DIN 43650 C	E
DIN 43650 A	I
6 Pin Bendix	R
M12x1	Y

Threaded Connections	Letter
1/4" NPT Male	A
1/8" NPT Male	B
1/2" NPT Male	P
F250C Female Autoclave	W

**Ordering Information**

<b>AST20PT</b>	<b>1</b>	<b>A</b>	<b>00500</b>	<b>P</b>	<b>3</b>	<b>E</b>	<b>1</b>	<b>H</b>	<b>000</b>
<b>Series Type</b>									
<b>Temperature Output Range</b>									
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)									
<b>Process Connection</b>									
A = 1/4" NPT Male									
B = 1/8" NPT Male**									
P= 1/2" NPT Male***									
W= F250C Female Autoclave****									
** Not available under 50PSI, not available in 316L									
*** Pressures up to 15,000 PSI									
****Pressures from 10,000 to 45,000 PSI, not available in 316L									
<b>Pressure Range</b>									
Insert 5-digit pressure range code (example: 0-100 PSI = 00100)									
Ranges between 0-25 PSI and 0-45,000 PSI available. Compound pressure up to -14.7 to 500 PSI.									
<b>Pressure Unit</b>									
B= Bar      K= kg/cm2      P= PSI									
<b>Outputs</b>									
1= 0.5-4.5V ratiometric									
2= 0-5V(3 wire)									
3= 1-5V									
4= 4-20mA									
5= 0-10V(3 wire)									
G= 1-10V									
<b>Electrical</b>									
A= 2 ft.(0.6m)									
B= 4 ft.(1.2m)									
C= 6 ft.(1.8m)									
D= 10 ft.(3.0m)									
E= Mini DIN 43650C									
I= DIN 43650A									
R= 6- Pin Bendix									
Y= M12x1									
<b>Wetted Material</b>									
0=17-4PH      1=316 L (available up to 10,000 PSI)      2= Inconel 718 (consult factory on availability)									
<b>Fail Condition</b>									
N= Not Specified									
H= Fail High									
L= Fail Low									
<b>Options</b>									
(contact factory for additional options)									
000= No Options									

**联系方式**

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