



PRECISION

Pressure Transducer / Transmitter AST20HA

Overview

The AST20HA is a digitally compensated precision pressure transducer / pressure transmitter that offers high performance over temperature. Krystal Bond™ Technology alone offers excellent non-linearity and non-repeatability performance. When it is combined with the advanced electronics, the AST20HA steps into its own league of high performance pressure sensing at an affordable price.

Benefits

- ✦ Digital ASIC Compensation
- ✦ Superb Temperature Performance
- ✦ Real Time Thermal Compensation
- ✦ Real Time Linearity Correction
- ✦ Turndown Capability
- ✦ Pressures up to 45,000 PSI
- ✦ ABS (American Bureau of Shipping) Approved

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Applications

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

Performance @ 25°C (77°F)

Accuracy	< ±0.1% BFSL (< ±0.2% BFSL over 15,000 PSI) (Accuracy includes non-linearity, hysteresis & non-repeatability)
Stability (1 year)	±0.1% FS, typical
Proof Pressure	2X Rated Pressure, Standard (For higher proof pressures, contact factory)
Burst Pressure	5X or 50,000 PSI (whichever is less)
Pressure Cycles	> 100 Million

Environmental Data

Temperature

Operating	-40 to 85°C (-40 to 185°F)
Storage	-50 to 125°C (-58 to 257°F)

0-100% relative humidity, non-condensing

Thermal Limits

Compensated Range 0-70°C (30 to 158°F)

TC Zero	< ±0.5% of FS
TC Span	< ±0.5% of FS

Other

Shock	100G, 11 msec, 1/2 sine
Vibration	10G peak, 20 to 2000Hz
EMI/RFI Protection:	Yes
Rating:	IP-66, min

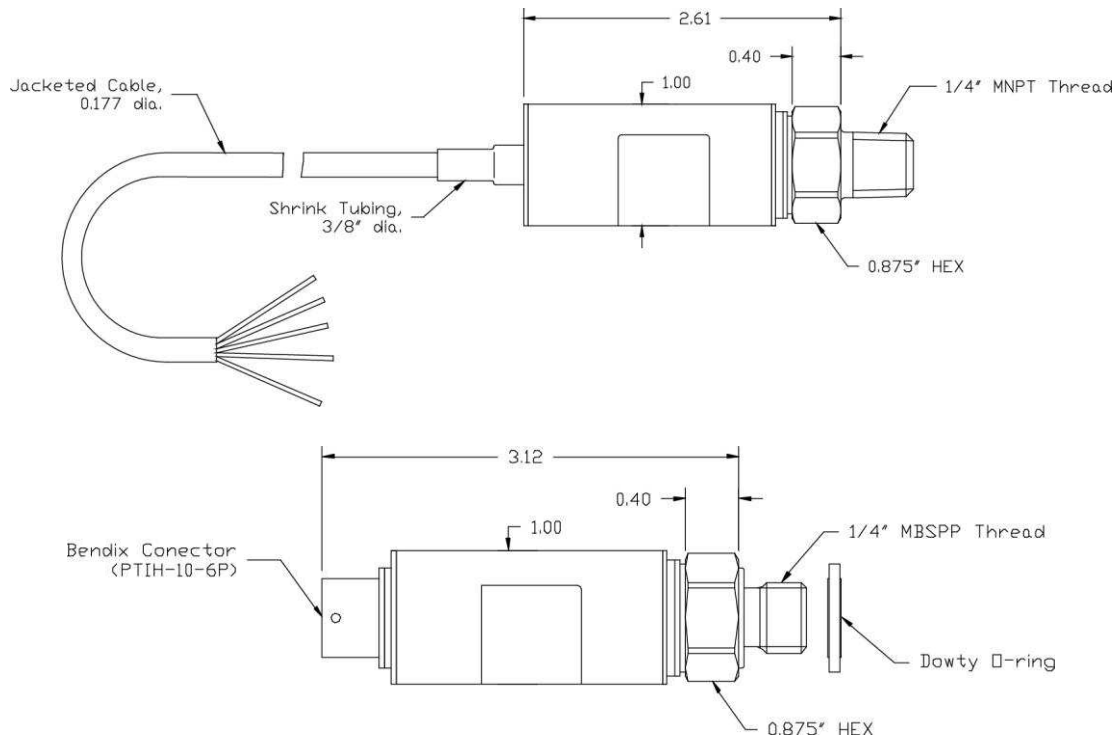
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Electrical Data

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

Dimensions



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Ordering Information

AST20HA	A	05000	P	4	E	0	H	000
Series Type								
Process Connection A = 1/4" NPT Male B = 1/8" NPT Male** C = 1/4" BSPP Male E = 9/16"-18 UNF Male [SAE6] F = 7/16"-20 UNF Male [SAE4]** P = 1/2" NPT Male*** W = F250C Female Autoclave**** ** Not available under 50PSI (1/8" NPT Male not available in 316L) *** Pressures up to 15,000 PSI **** Pressures from 10,000 to 45,000 PSI, not available in 316L								
Pressure Range 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.								
Pressure Unit B= Bar K= kg/cm2 P= PSI								
Outputs 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								
Electrical 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								
Wetted Material 0=17-4PH 1=316 L (available up to 10,000 PSI) 2= Inconel 718 (consult factory on availability)								
Fail Condition N= Not Specified H= Fail High L= Fail Low								
Options (contact factory for additional options) 000= No Options								

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