

Precision Pressure Transducer / Transmitter



AST20HA



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

Applications

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

Environmental Data

Temperature

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

Thermal Limits

Compensated Range	0-70°C (30 to 158°F)
TC Zero	<± 0.5% FS
TC Span	<± 0.5% FS

Other

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

Performance @ 25°C (77°F)

Accuracy*	< ±0.1% BFSL (<±0.2% BFSL over 15,000 PSI)
Stability (1 year)	±0.1% FS, typical
Proof Pressure **	2X Rated Pressure, standard
Burst Pressure	5X or 50,000 PSI, whichever is less
Pressure Cycles	> 100 Million

* Accuracy includes non-linearity, hysteresis & non-repeatability **For higher proof pressures, contact factory

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	400Hz	400Hz	400Hz	400Hz
Output Noise:	< 1mV, RMS	< 1mV, RMS	< 1mV, RMS	< 1mV, RMS
Zero Offset	< ± 0.5% FS	< ± 0.5% FS	< ± 0.5% FS	< ± 0.5% FS
Span Tolerance	< ± 0.5% FS	< ± 0.5% FS	< ± 0.5% FS	< ± 0.5% FS
Output Load:	0-800 Ohms@10-28VDC	5k Ohms, min.	5k Ohms, min.	5k Ohms, min.
Reverse Polarity Protection	Yes	Yes	Yes	Yes



Ordering Information*

AST20HA	A	05000	P	4	E	O	H	000
Series Type								
Process Connection								
A = 1/4" NPT Male			F = 7/16"-20 UNF Male [SAE4]**					
B = 1/8" NPT Male**			P = 1/2" NPT Male***					
C = 1/4" BSPP Male			W = F250C Female Autoclave****					
E = 9/16"-18 UNF Male [SAE6]								
** 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 code								
Pressure Unit								
B= Bar			K= kg/cm ²			P= PSI		
Outputs								
1= 0.5-4.5V ratiometric			3= 1-5V			5= 0-10V(3 wire)		
2= 0-5V(3 wire)			4= 4-20mA			G= 1-10V		
Electrical (for wiring information visit: http://www.astensors.com/wiring.php)								
A= 2 ft.(0.6m)			D= 10 ft.(3.0m)			R= 6- Pin Bendix		
B= 4 ft.(1.2m)			E= Mini DIN 43650C			Y= M12x1		
C= 6 ft.(1.8m)			I= DIN 43650A					
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								

*Minimum order quantities may apply to certain configurations, please contact factory for more information.

Pressure Ranges*

PSIG Measurement	-14.7 to 25**	V0025**
	0-25	00025
	0-50	00050
	0-100	00100
	0-150	00150
	0-200	00200
	0-250	00250
	0-500	00500
	0-1,000	01000
	0-2,500	02500
	0-5,000	05000
	0-7,500	07500
	0-10,000	10000
	0-15,000	15000
	0-20,000	20000
	0-30,000	30000
0-45,000	45000	
Pressure Code		

BARG Measurement	-1 to 2**	V0002**
	0-2	00002
	0-5	00005
	0-7	00007
	0-10	00010
	0-20	00020
	0-35	00035
	0-50	00050
	0-100	00100
	0-250	00250
	0-350	00350
	0-500	00500
	0-700	00700
	0-1,000	01000
	0-1,400	01400
	0-2,000	02000
0-3,000	03000	
Pressure Code		

**All pressures between 0-25 PSI and 0-45,000 PSI available. **Compound pressures up to -14.7 to 500 PSI available. Please consult factory.

Precision Pressure Transducer / Transmitter



AST20HA

