



## EXPLOSION-PROOF Standard Pressure Transducer AST4600

### Overview

Constructed with a simple-yet-rugged design, the AST4600 Explosion-Proof Pressure Transducer/Transmitter stands up to a variety of applications where price and performance are critical.

### Factory Sealed Gauge Pressure Transducer

- Pressures from 100 to 20,000 PSI
- CSA approved for use in hazardous areas including:
  - ✓ UL1203/FM3615 Class I Zone 1 Group IIC
  - ✓ Class I Div 1 Groups A, B, C, D Explosionproof
  - ✓ Class II Div 1 Groups E, F, G Dust Ignition-proof

### Vented Gauge Pressure Transducer

- Pressures from 1 to 1,000 PSI Gauge
- CSA approved for use in hazardous areas including:
  - ✓ Class I Zone 1 Group IIC
  - ✓ Class I Div 1 Groups A, B, C, D Explosionproof

### Benefits

- ATEX / IECEx: Class I, Zone 1, Ex d IIC T5 Gb (Ta = -40°C to 85°C)
- ANSI/ISA-12.27.01.2003 Certified “Single Seal” (no secondary seal required)
- ABS (American Bureau of Shipping) Approved
- All Stainless Steel Construction | Rugged Design Withstands Harsh Environments
- Wide Operating Temperature | Low Static and Thermal Errors
- Suitable for High Shock and Vibration Applications
- Available in Exotic Alloys (Consult Factory for Inconel 718 or Hastelloy C276)

## EXPLOSION-PROOF

AST4600 Standard Pressure Transducer

### Applications

- Industrial OEM & Hydrogen Equipment
- Natural Gas Compressors
- Refrigeration
- Pipe Line Instrumentation
- Marine & Offshore
- Pressure Instrumentation
- Oil Platforms
- Well Head Pressure
- Power Generation
- Mining Applications
- Energy & Water Management

### Performance @ 25°C (77°F)

<b>Accuracy</b>	< ±0.25% BFSL   <±0.5% from 7,500 up to 20,000 PSI (includes non-linearity, hysteresis & non-repeatability)
<b>Stability (1 year)</b>	±0.25% FS, typical
<b>Over Range Protection</b>	2X Rated Pressure, Minimum
<b>Burst Pressure</b>	5X or 50,000 PSI (whichever is less)
<b>Pressure Cycles</b>	>100 Million

### Environmental Data

#### Temperature

<b>Operating Ambient</b>	-40 to 85°C (-40 to 185°F)
<b>Operating Media</b>	-55 to 125°C (-65 to 250°F)
<b>Storage</b>	-55 to 105°C (-67 to 221°F)

0-100% relative humidity, non-condensing

#### Thermal Limits

**Compensated Range** 0 to 55°C (32 to 132°F)

**TC Zero** <±1.5% of FS

**TC Span** <±1.5% of FS

#### Other

**Shock** EN 60068-2-27

**Vibration** EN 60068-2-6, 60068-2-64, and IEC 68-2-32

**EMI/RFI Protection:** Yes

**Rating:** IP-65 (vented), IP-66(factory sealed)

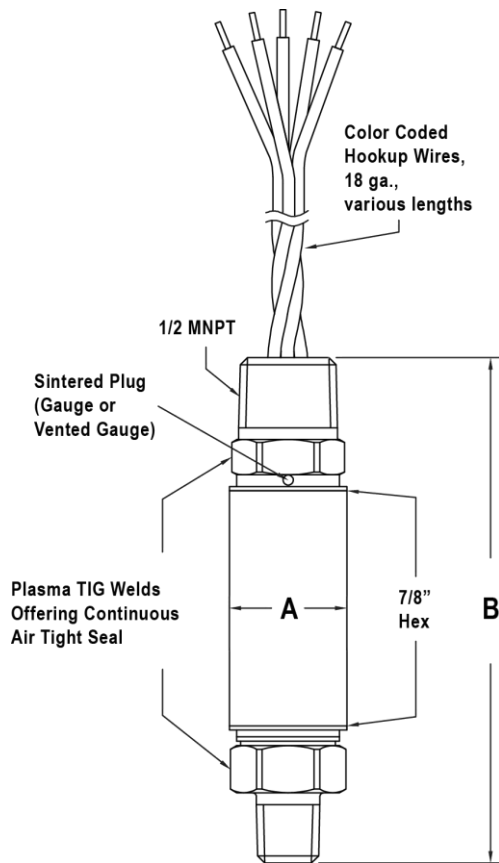
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## Electrical Data

<b>Output</b>	4-20mA	1-5VDC, 1-6VDC	0.5-4.5V ratiometric
<b>Excitation</b>	10-28VDC	10-28VDC	5VDC regulated
<b>Output Impedance</b>	>10k Ohms	<100 Ohms, Nominal	<100 Ohms, Nominal
<b>Current Consumption:</b>	25mA, typical	5mA, typical	<10mA
<b>Bandwidth</b>	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 1kHz
<b>Output Noise</b>	-	<2mV RMS	< 2mV RMS
<b>Zero Offset:</b>	<±1% of FS	<±1% of FS	<±1% of FS
<b>Span Tolerance:</b>	<±2% of FS	<±1.5% of FS	<±1.5% of FS
<b>Output Load:</b>	0-800 Ohms@10-28VDC	5k Ohms, Min.	10K Ohms, Min.
<b>Reverse Polarity Protection</b>	Yes	Yes	Yes

## Dimensions



Model Series	Body Diameter "A"	Overall Length "B"
AST4600	0.875"	3.64"
AST46HA	1"	4.3"
AST46PT (4-20mA)	1"	4.8"
AST46PT (Voltage)	1"	4.3"
AST46SW	1"	4.8"

Wiring				
Output	Red	Black	White	Green
<b>Voltage</b>	+V Supply	-V Supply	Output	Case Ground
<b>4-20mA</b>	+V Supply	-V Supply	Not Used	Case Ground

For U.S. installations, sensor case ground (green wire) must be bonded to ground according to Article 501 & 505 of the NEC.

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## AST4600 Standard Pressure Transducer

### Ordering Information

<b>AST4600</b>	<b>A</b>	<b>1</b>	<b>0000</b>	<b>P</b>	<b>4</b>	<b>T</b>	<b>1</b>	<b>000</b>	<b>-Z</b>
<b>Series Type</b>									
<b>Process Connection*</b>									
A= 1/4" NPT Male (up to 10,000 PSI)      F= 7/16"-20 UNF Male (up to 10,000 PSI)									
I= 1/4" NPT Female (up to 15,000 PSI)      P= 1/2" NPT Male (up to 15,000 PSI)									
W= F250C Female Autoclave (10,000 to 20,000 PSI)									
<small>* for other ports contact factory, "W" not available in 316L</small>									
<b>Pressure Range</b>									
G= Gauge Pressure**      V= Gauge Pressure (Vacuum Calibrated)**									
0= Sealed Gauge up to 9,999 PSI      1= Sealed Gauge up 10,000 to 19,999 PSI									
2= Sealed Gauge 20,000 PSI									
<small>** Not suitable for Class II</small>									
<b>Insert Pressure Code</b>									
Pressure PSI	0-1	Pressure Code Vented	G	0001	Pressure PSI	0-100	Pressure Code Vented	0	0100
	0-2.5++		G	0069		0-200		0	0200
	0-5		G	0005		0-500		0	0500
	0-7.5++		G	0208		0-1,000		0	1000
	0-10		G	0010		0-1,500		0	1500
	0-15		G	0015		0-2,500		0	2500
	0-25		G	0025		0-3,000		0	3000
	0-50		G	0050		0-5,000		0	5000
	0-100		G	0100		0-7,500		0	7500
	0-200		G	0200		0-10,000		1	0000
	0-500		G	0500		0-15,000		1	5000
	0-1,000		G	1000		0-20,000		2	0000
	<b>Pressure Unit</b>								
B= Bar      K= kg/cm2      P= PSI									
<b>Outputs</b>									
1= 0.5-4.5V ratiometric      3= 1-5V      4= 4-20mA (2 wire loop powered)      6= 1-6V									
<b>Electrical</b>									
T= 2ft. 18 AWG wires      U= 4ft. 18 AWG wires      W= 2 Meter 18 AWG wires									
<b>Wetted Material</b> (consult factory on availability of Inconel 718 and Hastelloy C276)									
0= 17-4PH      1= 316L      2= Inconel 718      4= Hastelloy C276									
<b>Options</b>									
000= No Options      588= 0.5-2.5V non-ratiometric (3-5VDC)									
<b>Approval</b>									
Insert code from approvals chart below [Leave blank for standard approvals (see front page for details)]									
-Z	CRN Registered to ANSI/ASME B31.3. Contact factory for material, pressure, and process connection options.								

Note: CSA approved products require case/earth ground electrical connection. See wiring installation sheet for further details

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