

AST4600 Vented Gauge Pressure Transducer



Explosionproof CSA Approved For Hazardous Locations

Overview

AST4600 Explosionproof Pressure Transducer/Transmitter is CSA approved for use in hazardous areas including:

- ✓ CSA 30 (UL1203/FM3615) Class 1 Zone 1 Group IIC
- ✓ CSA 30 Class 1 Div 1 Groups A, B, C, D Explosionproof

Constructed with a simple-yet-rugged design, the AST4600 stands up to a variety of Explosionproof applications where price and performance are critical.

Benefits

- ANSI/ISA-12.27.01.2003 Certified "Single Seal" (no secondary seal required)
- ABS (American Bureau of Shipping) Approved
- All Stainless Steel Construction
- No Oil-filled cavities, Welds, or Internal O-rings
- Wide Operating Temperature Range
- Ranges from 2.5 to 1,000 PSI Gauge*
- Low Static and Thermal Errors
- Rugged Design Withstands Harsh Environments
- Suitable for High Shock and Vibration Applications
- Available in Exotic Alloys (Consult Factory for Inconel 718 or Hastelloy C276)

Applications

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

* For pressures over 1000 PSI, see **AST4600 Factory Sealed Gauge** data sheet.

Performance @ 25°C (77°F)

Accuracy**	< ±0.25% BFSL
Stability (1 year)	±0.25% FS, typical
Over Range Protection	2X Rated Pressure
Burst Pressure	5X Rated Pressure or 5,000 whichever is less
Pressure Cycles	> 100 Million

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

Electrical Data

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



Environmental Data

Temperature

Operating	-40 to 85°C (-40 to 185°F)
Storage	-55 to 105°C (-67 to 221°F)

Thermal Limits

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	10G peak, 20 to 2000 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-65



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Capteurs et Systèmes de mesure

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Ordering Information

AST4600 **A** **G 0500** **P** **3** **T** **1** **000**

Series Type

Process Connection
(for other ports contact factory)
A= 1/4" NPT Male
I= 1/4" NPT Female
P= 1/2" NPT Male

Pressure Reference
G= Gauge Pressure
V= Gauge Pressure (Vacuum Calibrated)

Pressure Range (Vented Gauge)
Insert 4 digit pressure range code from chart

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

Outputs
3= 1-5V (3 Wire + Case Connection)
4= 4-20mA (Loop Powered + Case Connection)
6= 1-6V (3 Wire + Case Connection)

Electrical Interface
T= 2ft. 18 AWG wires U= 4ft. 18 AWG wires W= 2 Meter 18 AWG wires

Wetted Material
0= 17-4PH 2= Inconel 718*
1= 316 L 4= Hastelloy C276*

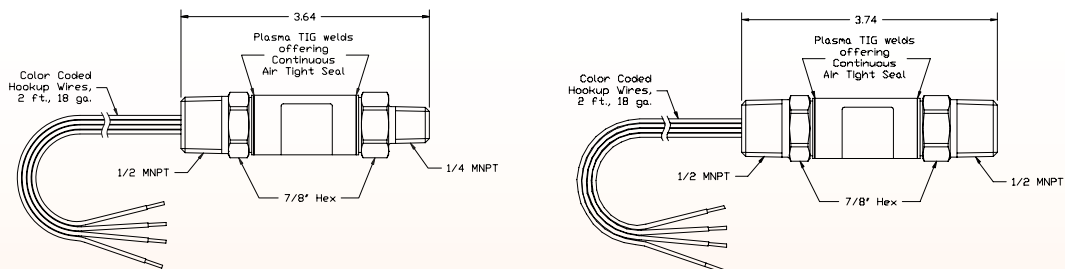
Pressure Ranges*	
Pressure in PSIG	Pressure Range Code
0-2.5	0069*
0-5	0005
0-7.5	0208*
0-10	0010
0-15	0015
0-25	0025
0-50	0050
0-100	0100
0-200	0200
0-500	0500
0-1,000	1000

* For sealed pressure units, see **AST4600 Factory Sealed Gauge** data sheet. 2.5 and 7.5 PSI Sensor must be ordered in inches of H₂O.

Options: Use 000 for no options

*Consult factory on availability

Dimensional Data



Output	Red	Black	White	Green	For U.S. installations, sensor case ground (green wire) must be bonded to ground according to Article 501 & 505 of the NEC.
Voltage	+V Supply	-V Supply	Output	Case Ground	
4-20mA	+V Supply	-V Supply	Not Used	Case Ground	

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.