Explosion-Proof Pressure Transducer / Transmitter with Display

AST46DS

CSA Certified: Class I & II Division 1 & 2 | Class III



Environmental Data

Temperature	
Operating	-40 to 85°C (-40 to 185°F)
Display Operating	-30 to 80°C (-22 to 176°F)
Storage	-55 to 105°C (-67 to 221°F)
Thermal Limits	
Compensated Range	0 to 55°C (30 to 130°F)
TC Zero	<±1.0% of FS
TC Span	<±1.0% of FS
Other	
Shock	100G, 11 msec, 1/2 sine
Vibration	10G peak, 20 to 2000 Hz.
EMI/RFI Protection:	Yes
Enclosure Rating:	Suitable for Outdoor Use; Type 4X Rated
Pollution Degree	2 (interior of enclosure)
Measurement (Installation) Category	I
Altitude	2000m

AST46DS explosion proof pressure transducers features the latest advances in transducer technology. With a power supply as low as an 8VDC and low current consumption, the AST46DS can operate in remote areas with minimal power. The re-zeroing function, allows for field calibration in a safe environment to further enhance well site or system readings. Pressure ranges are available up to 20,000 PSI; these explosion-proof pressure transducers and transmitters are designed for all common oil and gas pressures from shallow to deep wells.

- Explosion Proof: Class I & II Division 1 Groups A, B, C, D, E, F, G
- Non-Incendive: Class I & II Division 2 Groups A, B, C, D, E, F, G
- Class III Division 1 & 2
- ANSI/ISA 12.27.01-2003 Single Seal Approved
- Display Units: PSI | Bar | kpa | Mpa | kg/cm² | in WC | Volts | mA

Benefits -

- Low current consumption voltage output
- Re-zero push-button functionality
- Display pressure units or output signal
- Accurate, repeatable sensor technology
- Rugged design withstands harsh outdoor environments
- Available in exotic alloys
- High quality, NEMA 4X case and finish
- withstands salt spray and outdoor environments

Applications -

- SCADA systems
- Wellhead systems
- Compressor systems and stations
- Pipeline instrumentation
- Power generation equipment
- Offshore platforms
- Oil and gas pressure monitoring
- Test systems

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 45,000 PSI, whichever is less			
Pressure Cycles	> 100 Million			

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

Electrical Data		
Output	4-20mA	1-5VDC
Excitation	8-28VDC	8-28VDC
Output Impedance	>10k Ohms	<100 Ohms, Nominal
Current Consumption:	25mA, typical	2mA, typical
Bandwidth	(-3dB): DC to 1kHz	(-3dB): DC to 1kHz
Output Noise:	-	<2mV RMS
Zero Offset:	<± 0.5% of FS	<± 0.5% of FS
Span Tolerance:	<± 1.0% of FS	<± 1.0% of FS
Output Load:	0-800 Ohms@8-28VDC	5k Ohms, Min.
Reverse Polarity Protection	Yes	Yes





Pressure Code

G0001 G0069

G0005

G0208

G0010

G0015

Pressure Code

PSIG

Measurement 0-1

0-2.5

0-5 0-7.5

0-10

0-15

PSIG Measurement

material options.

Low Pressures

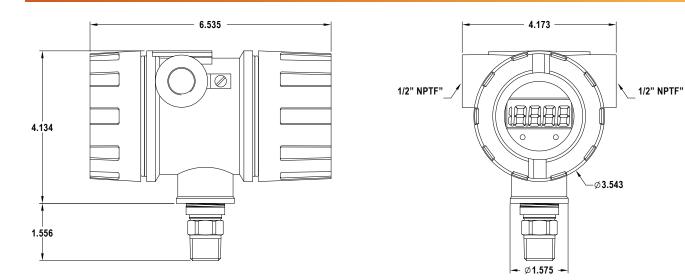
Pressures

			Ordering Information					
AST46DS	P	G	0500	P	3	2	1	000
Series Type								
Process Connecti A= 1/4" NPT Male I= 1/4" NPT Female P= 1/2" NPT Male W= F250C Autoclave F								
Pressure Referent G= Gauge Pressure* V= Gauge Pressure (Va 0= Sealed Gauge Refe 1= Sealed Gauge Refe 2= Sealed Gauge Refe	acuum Calibrated rence (0-9,999 Pt rence (10,000 to	SI) 19,999 PSI)						
Pressure Range Insert - 4 digit pressure	code							
Pressure Unit B= Bar K	= kg/cm²	P= PSI	H=Inche	s H ₂ O				
Outputs 3= 1-5V (3 Wire + Case 4= 4-20mA (Loop Powe		nection)						
Electrical 2= Terminal Blocks (1/2	" FNPT Conduit (Connections - s	tandard)					
Sensor Material 0= 17-4PH 1= 316L**			18 (contact factory C276 (contact fact					
Options								

Options 000= No Options

*Not suitable for Class II **NACE MR0175/ISO 15156 compatible material

Dimensional Data



For warranty information, please visit: www.astsensors.com

0-25 G0025 0-50 G0050 0-100 G0100 0-200 G0200 00500 0-500 0-1,000 01000

2.5 and 7.5 PSI Sensor must be ordered in inches of H₂O. Pressures from 0-1 to 0-15PSI are not suitable for hydrogen. 316L and Hastelloy C276 are the only

ť	0-3000	03000
High	0-5,000	05000
-	0-7,500	07500
	0-10,000	10000
	0-15,000	15000
	0-20,000	20000

For pressure 10,000 PSI and up, use pressure reference digit to specify first number. Example, AST46DSP15000P4X1000 = 15,000 PSI pressure range. Display for 20,000 PSI pressure range has maximum reading of 19,999 PSI.