



EXPLOSION-PROOF Pressure Transducer with Display AST46DS

Overview

AST46DS explosion proof pressure transducer 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.

Benefits

- Explosion Proof: Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F and G; Class III Division 1
- ATEX and IECEx: Ex db IIC T5 Gb (Ta = -40°C to +85°C)
- ANSI/ISA 12.27.01-2003 Single Seal Approved
- ABS (American Bureau of Shipping) Approved
- Display Units: PSI | Bar | kpa | Mpa | kg/cm2 | in WC | Volts | mA

EXPLOSION-PROOF

AST46DS Pressure Transducer with Display

Applications

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

Performance @ 25°C (77°F)

Error Tolerance	< ±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

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)

0-100% relative humidity, non-condensing

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 Outdoors; Type 4X Rated
Pollution Degree	2 (interior of enclosure)
Measurement (Installation) Category	I
Altitude	2000m

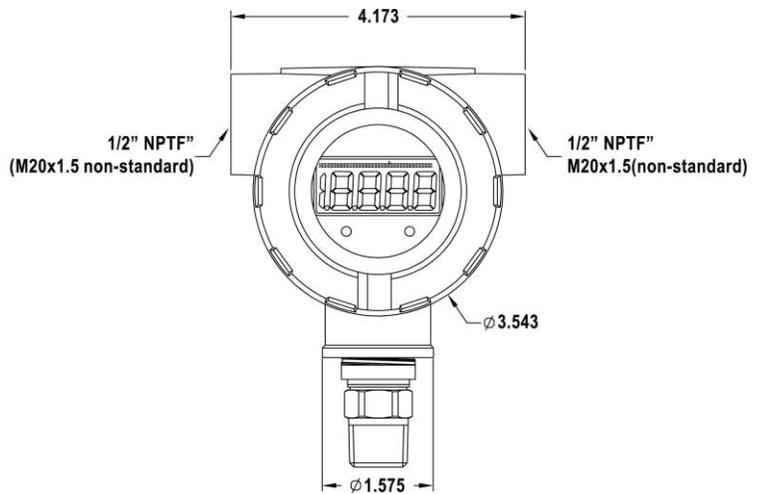
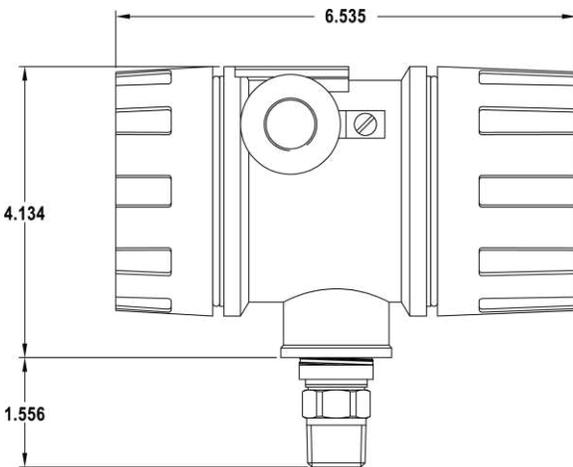
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Electrical Data

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

Dimensions



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Ordering Information

AST46DS	P	G	0500	P	3	2	1	000	-Z
Series Type									
Process Connection									
A= 1/4" NPT 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)									
Pressure Range									
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									
Insert Pressure Code									
PSIG Measurement	0-1	Pressure Code	G	0001	PSIG Measurement	-14.7 to 25	Pressure Code/Vented	V	0025
	0-2.5+		G	0069		-14.7 to 30		V	0030
			0-5	G		0005		-14.7 to 50	V
	0-7.5+			G		0208		0-25	G
			0-10	G		0010		0-50	G
	0-15			G		0015		0-100	G
PSIG Measurement	Pressure Code	PSIG Measurement	Pressure Code/Vented	0-200	G	0200			
				0-500	0	0500			
				0-1,000	0	1000			
				0-3000	0	3000			
				0-5,000	0	5000			
				0-7,500	0	7500			
				0-10,000	1	0000			
				0-15,000	1	5000			
				0-20,000	2	0000			

Pressure Unit

B= Bar K= kg/cm² P= PSI H= Inches H₂O

Outputs

3= 1-5V 4= 4-20mA (2 wire loop powered)

Electrical

2= Terminal Blocks (1/2" FNPT Conduit Connections - standard)

Wetted Material (consult factory on availability of Inconel 718 and Hastelloy C276)

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

Options

000= No Options

Approval

-Z= Add "-Z" for CRN Registered to ANSI/ASME B31.3. Contact factory for material, pressure, and process connection options.

*Not suitable for Class II; Sensing element corrects for barometric pressure through base sensor assembly. **NACE MR0175/ISO 15156 compatible material

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