

AST4300 Class 1 Div 2 Groups A, B, C, D Non-Incendive



Stainless Steel Media Isolated Pressure Sensor

Overview

The AST4300 is a media isolated stainless steel pressure sensor for use in hazardous areas. In addition to its rugged construction and best price-to-performance ratio in the industry, the AST4300 is the solution for pressure measurement for a variety of applications.

Benefits

- UL/cUL 1604 (CSA 213) Class 1 Div 2 Groups A, B, C, D
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature Range
- Ranges from Vacuum to 10,000 PSI
- Low Static and Thermal Errors
- Unparalleled Price and Performance
- Compatible with Wide Range of Liquids and Gases
- EMI/RFI Protection

Applications

- Refrigeration
- Industrial OEM Equipment
- Pressure Instrumentation
- Gas Compression & Storage
- Oxygen Delivery Systems
- Water Management
- Oil & Gas Platforms
- Process Control
- Test Stands
- Hydrogen Fuel (316L)



Performance @ 25°C (77°F)

Accuracy*	< ±0.25% BFSL (<±0.5% for 7,500 & 10,000 PSI)
Stability (1 year)	±0.25% FS, typical
Over Range Protection	2X Rated Pressure
Burst Pressure	5X or 20,000 PSI (whichever is less)
Pressure Cycles	> 100 Million

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

Environmental Data

Temperature

Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 100°C (-40 to 212°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-66

Electrical Data

Output	4-20mA	1-5VDC, 1-6VDC	0-50mV (10mV/V)	0.5-4.5V Ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, typical	5VDC, regulated
Output Impedance	>10k Ohms	<100 Ohms, Nominal	1100 Ohms, Nominal	<100 Ohms, Nominal
Current Consumption:	20mA, typical	5mA, typical	<5mA	<10mA
Bandwidth	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 5kHz, min	(-3dB): DC to 1kHz
Output Noise:	-	<2mV RMS	-	<2mV RMS
Zero Offset:	<±1% of FS	<±1% of FS	< ±2% of FS	<±1% of FS
Span Tolerance:	<±2% of FS	<±1.5% of FS	< ±2% of FS	<±1.5% of FS
Output Load:	0-800 Ohms@10-28VDC	10k Ohms, Min.	>1M Ohms	10K Ohms, Min.
Reverse Polarity Protection	Yes	Yes	-	Yes



Ordering Information

AST4300 A 00500 P 4 L 1 000

Series Type

Process Connection

- A=1/4" NPT Male
- B=1/8" NPT Male*
- C=1/4" BSPP Male
- I= 1/4" NPT Female
- P=1/2" NPT Male

Pressure Range

Insert pressure range code from chart

Pressure Unit

B= Bar K= kg/cm2 P= PSI

Outputs

- 1= 0.5-4.5V ratiometric 6= 1-6V
- 3= 1-5V A= 0-50mV (10mV/V)
- 4= 4-20mA (2 wire loop powered)

Electrical**

- I= DIN 43650A (mate included)
- L= Conduit fitting, Cable 2 ft. (0.6 m)
- M= Conduit fitting, Cable 4 ft. (1.2 m)
- N= Conduit fitting, Cable 6 ft. (1.8 m)
- P= Conduit fitting, Cable 10 ft. (3.0 m)

Wetted Material

- 0= 17-4PH
- 1= 316 L
- 2= Inconel 718 (consult factory on availability)

Options

000= No special options

Pressure Ranges

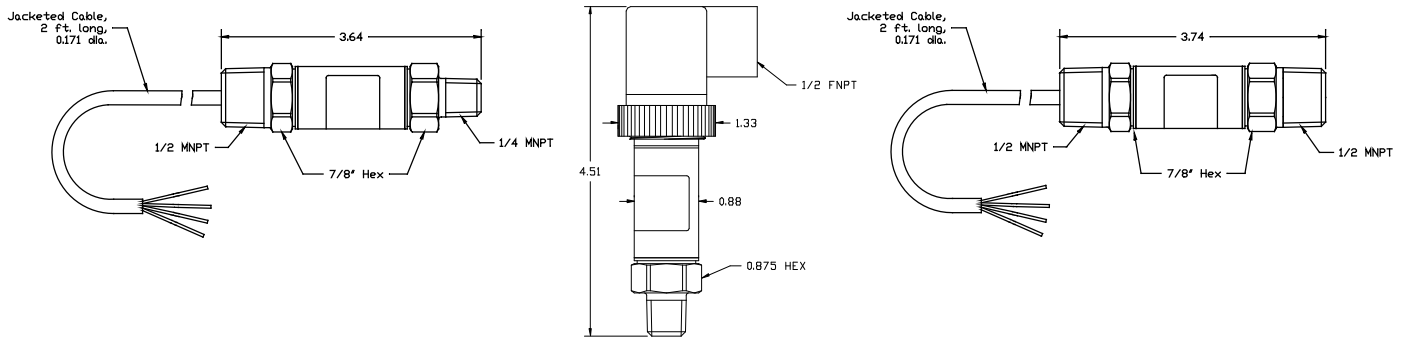
PSIG Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 30*	V0030	-1 to 2*	V0002
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-10	00010
0-200	00200	0-20	00020
0-250	00250	0-50	00050
0-300	00300	0-100	00100
0-500	00500	0-250	00250
0-1,000	01000	0-350	00350
0-1,500	01500	0-500	00500
0-2,500	02500	0-700	00700
0-3,000	03000		
0-5,000	05000		
0-7,500	07500		
0-10,000	10000		

Typical ranges. All ranges between 0-25 and 0-10,000 PSI available.
*Compound ranges up to -14.7 to 500 PSI available. Please consult factory.

*Not available under 50PSI, or in 316L

**Wiring information available at: <http://www.astensors.com/mediacenter.php>

Dimensional Data



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.