

AST43LP Class 1 Div 2 Groups A, B, C, D Non-Incendive

Stainless Steel Media Isolated Low Pressure Sensor



Overview

The AST43LP is a low pressure media isolated stainless steel pressure sensor for use in hazardous areas. In addition to its rugged construction and the best price-to-performance ratio in the industry, the AST43LP is the solution for low 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 Welds or Internal O-rings
- Wide Operating Temperature Range
- Ranges from 0-2.5 to 0-15 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
- Vapor Recovery
- Water Management
- Oil & Gas Platforms
- Process Control
- Test Stands
- External Tank Level



Performance @25°C (77°F)

Accuracy*	< ±0.25% BFSL (< ±0.5% BFSL for 0-1 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	<10mA	<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	-	No

Ordering Information

AST43LP A 00005 P 4 L 1 000

Series Type

Process Connection

A=1/4" NPT Male
 F=7/16"-20 UNF Male
 I= 1/4" NPT Female

Pressure Range

Insert pressure range code from chart

Pressure Unit

H= Inches H₂O
 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
 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

1=316 L

Options

000 = No Options

*Consult factory on availability

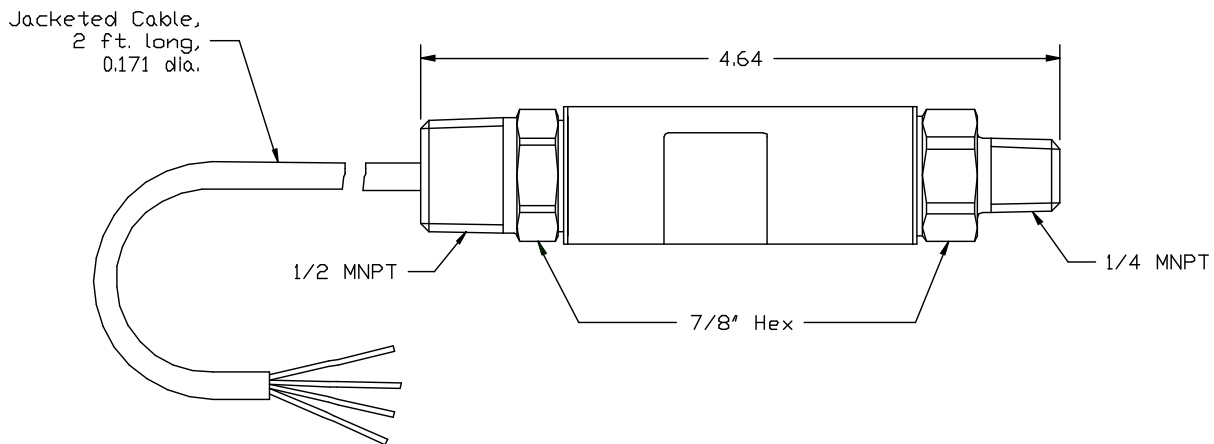
*Wiring information available at: <http://www.astensors.com/mediacenter.php>

Pressure Ranges

Gage PSIG	Pressure Range Code
0-1	00001
0-2.5	00069*
0-5	00005
0-7.5	00208*
0-10	00010
0-15	00015

*2.5 and 7.5 PSI Sensor must be ordered in inches of H₂O.

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. AST43LP is not recommended for use with hydrogen. 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