

AST2000 *Industrial ASIC*



Stainless Steel Media Isolated Pressure Sensor

Overview

The AST2000 is an ASIC-compensated, high quality, stainless steel media isolated pressure sensor designed for use in the measurement of liquids and gases. Intended for high volume applications requiring excellent performance, the AST2000 succeeds by offering highly competitive pricing. Complete with a fully welded stainless steel housing, high shock and vibration and EMI/RFI protection, the AST2000 will survive in the most extreme conditions.

Benefits

- No Oil Fill, Welds, or Internal O-rings
- Wide Operating Temperature Range
- Wide Range of Media Compatibility
- Rugged, Compact Design

Applications

- Industrial OEM Equipment
- Hydraulic Systems
- HVAC Equipment
- Refrigeration Equipment
- Automotive
- Hydrogen Fuel Cells*
- Energy / Water Management
- Test Stands
- Off-Road/Construction Equipment

*Consult Factory for media compatibility



Environmental Data

Temperature

Operating	-40 to 125°C (-40 to 250°F)
Storage	-40 to 125°C (-40 to 250°F)

Thermal Limits

Compensated Range	0 to 70°C (32 to 160°F)
Total Error Band	±1% of FS

(Total Error = RSS of zero offset, span tolerance, TC zero, TC span and accuracy.)

Other

Shock	100G, 11 msec, 1/2 sine
Vibration	20G peak, 20 to 2400 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-66 (optional IP-67)

Performance @ 25°C (77°F)

Accuracy*	< ±0.5% BFSL
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

Electrical Data

Output	Voltage (.25-5V, 1-5V, 1-6V)	0.5-4.5V Ratiometric
Excitation	10-30VDC	5VDC
Output Impedance	<100 Ohms, Nominal	<100 Ohms, Nominal
Current Consumption:	<10mA	<10mA
Bandwidth	(-3dB): DC to 3KHZ	(3dB): DC to 3KHZ
Output Noise:	<2mV RMS	<2mV RMS
Zero Offset:	±0.5% of FS	±0.5% of FS
Span Tolerance:	±0.5% of FS	±0.5% of FS
Output Load:	10k Ohms, min	10K Ohms, min
Reverse Polarity Protection	Yes	Yes



Ordering Information

AST2000 A 00500 P 1 E 0 000

Series Type

Process Connection
 A = 1/4" Male NPT
 B = 1/8" Male NPT*
 C = 1/4" Male BSP
 F = 7/16"-20 Male UNF [SAE4]*
 K = 7/16"-20 Female UNF [SAE4]

Pressure Range
 Insert 5-digit pressure range code

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

Outputs
 1= 0.5-4.5V ratiometric
 3= 1-5V
 6= 1-6V

Electrical*
 E=Mini DIN 43650
 F=Packard Metripack 150 3-Pin
 R=6-Pin Bendix
 S=4-Pin Bendix
 Y=M12 Eurofast
 Z= DT04 Deutsch

Wetted Material
 0=17-4PH
 1=316L

Pressure Ranges*

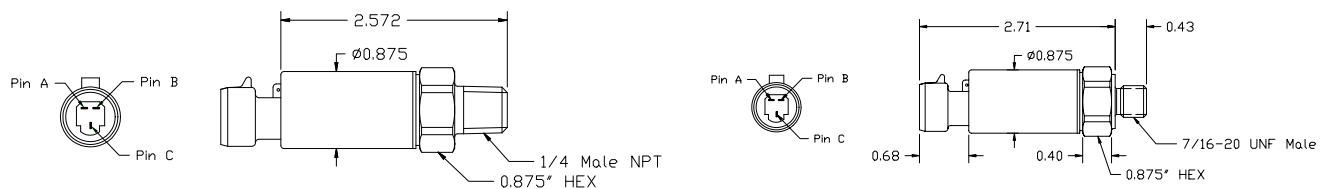
PSIG Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 25**	V0025**	-1 to 2**	V0002**
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-7	00007
0-150	00150	0-10	00010
0-200	00200	0-20	00020
0-250	00250	0-35	00035
0-500	00500	0-50	00050
0-1,000	01000	0-70	00070
0-2,500	02500	0-100	00100
0-5,000	05000	0-250	00250
0-7,500	07500	0-350	00350
0-10,000	10000	0-500	00500
		0-700	00700

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

Options
 000= No Special Options

* Not available under 50PSI (1/8" NPT Male not available 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.