

AST4700 Capteur de pression de précision

AST4700 *High Accuracy* Stainless Steel Media Isolated Pressure Sensor

OVERVIEW

The AST4700 is a competitively priced, high quality stainless steel media isolated pressure sensor intended for the use of measurement of liquids and gases. Utilizing Krystal Bond™ Technology, the AST4700 offers a one piece stainless steel sensing element free of welds, internal o-rings, and oil fill. This translates into rugged construction, high cycle life, wide range of media compatibility, along with all of the benefits of MEMs technology. The AST4700 can be packaged with a variety of process connections including NPT, SAE(UNF), and BSP. Voltage, current and frequency output signals are all standard choices when selecting an AST4700. Electrical connection options include cable, Hirschmann, and Bendix.

BENEFITS

- ✓ High Accuracy
- ✓ High Strength Stainless Steel Construction
- ✓ Pressure Ranges up to 10,000 PSI
- ✓ Wide Range of Configurations
- ✓ Suitable for High Shock and Vibration
- ✓ CE EN61326 Certified

APPLICATIONS

- ✓ Test Stands & Lab Equipment
- ✓ Pressure Instrumentation
- ✓ HVAC/R Systems
- ✓ Data Loggers
- ✓ Hydraulic Systems
- ✓ Water Management

Performance @ 25°C (77°F)	
Accuracy*	< ± 0.25% BFSL (0.1% optional on some configurations)
Stability (1 year)	±0.25%FS, typ
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 125°C (-40 to 250°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	20G peak, 20 to 2400 Hz.
EMI/RFI Protection:	Yes
Rating:	IP-66

Electrical Data				
Output	4-20mA	Voltage (3 or 4 Wire)	Frequency (1-6KHz)	0-50mV
Excitation	10-28VDC	10-28VDC	10-28VDC	5VDC
Output Impedance	-	<100 Ohms, Nominal	10K pull-up	1100 Ohms, Nominal
Current Consumption:	25mA max	<10mA	<15mA	<5mA
Bandwidth	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 250 Hz	(-3dB): DC to 5kHz, min
Output Noise:	Not Applicable	<2mV RMS	<2mV RMS	Not Applicable
Zero Offset:	<±1% of FS	<±1% of FS	<±1% of FS	<±2% of FS
Span Tolerance:	<±2% of FS	<±1.5% of FS	<±1.5% of FS	<±2% of FS
Output Load:	0-800 Ohms@10-28VDC	10k Ohms, Min.	10k Ohms, Min.	>1M Ohms
Reverse Polarity Protection	Yes	Yes	Yes	Not Applicable

ORDERING INFORMATION

(Many other options are available. Please consult factory.)

AST4700	A	00100	P	4	A	1	000
Series Type							
Process Connection							
A=1/4" NPT Male							
B=1/8" NPT Male							
C=1/4" BSP Male							
F=7/16" - 20 UNF Male							
Pressure Range							
Insert 5-digit pressure range code from chart							
Pressure Unit							
B=BAR							
K=kg/cm ²							
P=PSI							
Outputs							
A=10mV/V		5=0-10V (3-Wire)					
2=0-5V (3-Wire)		H=1-6kHz					
3=1-5V (3-Wire)		K=0-5V (4-Wire)					
4=4-20mA (Loop Powered)		L=0-10V (4-Wire)					
Electrical							
A=2Ft. Cable		D=10Ft. Cable		R=Bendix 6 Pin			
B=4Ft. Cable		E=Mini DIN 43650C		V=Mini-DIN 43650B			
C=6Ft. Cable		I=DIN 43650A					
Wetted Material							
0=17-4PH, 1=316 L							

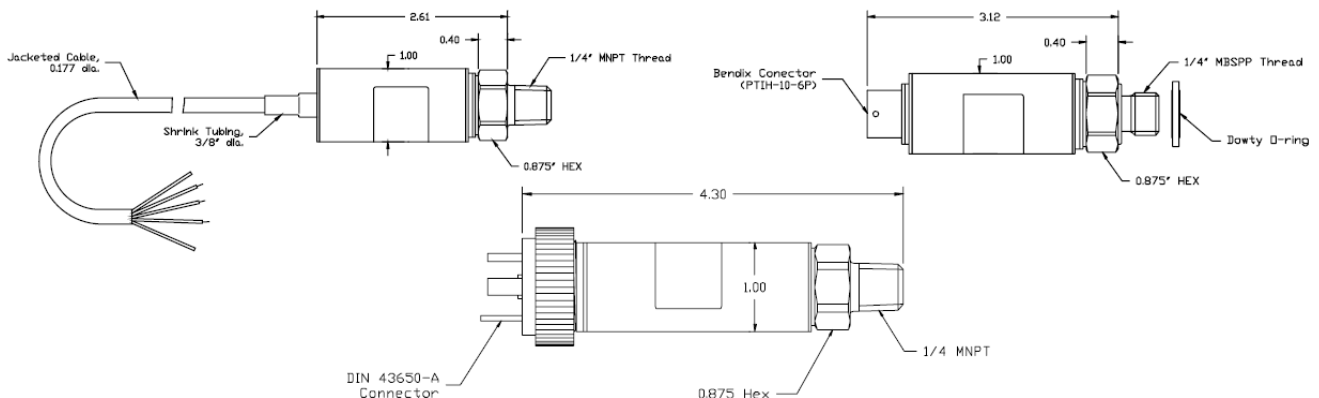
Options
000= No Special Options

PRESSURE RANGES*

PSI Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 25**	V0025**	-1 to 2**	V0002**
0-15	00015	0-1	00001
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-7	00007
0-200	00200	0-10	00010
0-500	00500	0-20	00020
0-1,000	01000	0-35	00035
0-2,500	02500	0-50	00050
0-5,000	05000	0-70	00070
0-7,500	07500	0-100	00100
0-10,000	10000	0-250	00250
		0-350	00350
		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 2500 PSI available. Please consult factory.

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. AST4700 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.