

## AST4900 High Purity Media Isolated Pressure Sensor

### OVERVIEW

The AST4900 is a media isolated pressure sensor intended for the measurement of liquids and gases in high purity applications. Utilizing Krystal Bond™ Technology, each sensor is free of oil-fill, welds and internal O-rings, all of which eliminate the risk of system contamination. This one-piece design also promotes high cyclical life, high shock and vibration capability and will maintain long-term stability, even in extreme conditions.

### BENEFITS

- All 316L High Strength Stainless Steel Construction
- No Oil, Welds, or Internal O-rings
- Wide Operating Temperature Range
- UL/cUL508 Approved
- CE EN61326 Certified

### APPLICATIONS

- Gas Panels and Manifolds
- Test Stands
- Semiconductor Equipment
- Gas Pipeline Instrumentation
- Data Loggers
- Pressure Instrumentation

### Performance @25°C (77°F)

Accuracy*	< ±0.25% BFSL
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 (.25-5V, 1-5V, 1-6V)	0.5-4.5V Ratiometric
Excitation	10-28VDC	10-28VDC	5VDC
Output Impedance	-	<100 Ohms, Nominal	<100 Ohms, Nominal
Current Consumption:	25mA, max	<10mA	<10mA
Bandwidth	(-3dB): DC to 250 Hz	(3dB): DC to 1kHz	(3dB): DC to 1kHz
Output Noise:	-	<2mV RMS	<2mV RMS
Zero Offset:	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance:	<±2% of FS	<±1.5% of FS	<±2% of FS
Output Load:	0-800 Ohms@10-28VDC	10k Ohms, Min.	10K Ohms, Min.
Reverse Polarity Protection	Yes	Yes	No

# Ordering information

**AST4900 N 00500 B 3 E 1 000**

### Series Type

### Process Connection

A=1/4" NPT Male  
N=1/4" VCR Male

### Pressure Range

Insert pressure range from chart

### Pressure Unit

B= Bar  
K= kg/cm<sup>2</sup>  
P= PSI

### Outputs

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

### Electrical

A=2Ft.(0.6m)  
B=4Ft.(1.2m)  
C=6Ft.(1.8m)  
D=10Ft.(3.0m)  
E=Mini DIN 43650  
R=6 Pin Bendix Connector

### Wetted Material

1=316 L  
2=Inconel 718 (Limited Availability)

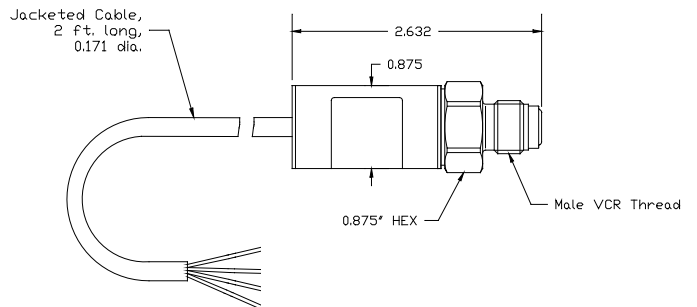
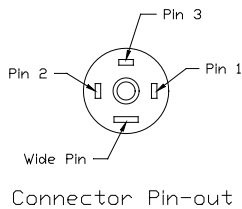
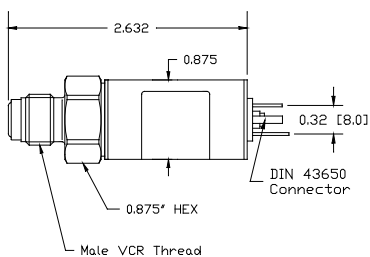
### Options

000= No special options

## Pressure Ranges

PSIG Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 25	V0025	-1 to 2	V0002
-14.7 to 85	V0085	0-2	00002
0-25	00025	0-5	00005
0-50	00050	0-7	00007
0-100	00100	0-10	00010
0-150	00150	0-20	00020
0-300	00300	0-35	00035
0-500	00500	0-50	00050
0-1,000	01000	0-70	00070
0-2,500	02500	0-100	00100
0-3000	03000	0-250	00250
0-5,000	05000	0-350	00350
0-7,500	07500	0-500	00500
0-10,000	10000	0-700	00700

## 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.

**Installation/Applications** - The purchaser is responsible for media compatibility, functional adequacy, and correct installation of the transmitter. AST's sensors are made with pride in New Jersey, USA. If in the area please feel free to stop by for a visit!

[www.ttiglobal.com](http://www.ttiglobal.com)