

## AST4000 *Industrial Grade* Stainless Steel Media Isolated Pressure Sensor



### OVERVIEW

Utilizing a one-piece stainless steel sensing element, the AST4000 covers a wide variety of applications that require rugged construction, high cycle life, as well as media compatibility to deliver outstanding and long-term performance. The AST4000 is offered with a variety of threads, pressure ranges, outputs and electrical connections in order to make system integration seamless.

### BENEFITS

- ◆ High Strength Stainless Steel Construction
- ◆ No Oil, Welds or Internal O-rings
- ◆ Wide Operating Temperature Range
- ◆ Ranges up to 10,000 PSI
- ◆ Low Static and Thermal Errors
- ◆ Unparalleled Price and Performance
- ◆ Compatible with Wide Range of Liquids and gases
- ◆ EMI/RFI Protection
- ◆ UL/cUL 508 Approved

### APPLICATIONS

- ◆ Industrial OEM Equipment
- ◆ Water Management
- ◆ Pneumatics
- ◆ Hydrogen Storage (316L SS)
- ◆ HVAC/R Equipment
- ◆ Control Panels
- ◆ Hydraulic Systems
- ◆ Data Loggers



### Performance @25°C (77°F)

Accuracy*	< ±0.5% 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 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 (housing only)

### Electrical Data

Output	4-20mA	1-5VDC, 1-6VDC	0-50mV	0.5-4.5V Ratiometric
Excitation	10-28VDC	10-28VDC	5VDC,typ	5VDC,reg
Output Impedance	>10k Ohms	<100 Ohms, Nominal	1100 Ohms, Nominal	<100 Ohms, Nominal
Current Consumption:	20mA, typ.	<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

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# Ordering Information

**AST4000 A 00500 P 4 E 0 000**

## Series Type

### Process Connection

A=1/4" NPT Male  
 B=1/8" NPT Male  
 C=1/4" BSPP Male  
 F=7/16" - 20 UNF 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  
 F=Packard Metripack 150 3-Pin Conn.

**No housing:**  
 G=4-pin Molex Connector  
 H=Flex Strip 3in.

### Wetted Material

0=17-4PH  
 1=316 L

### Options

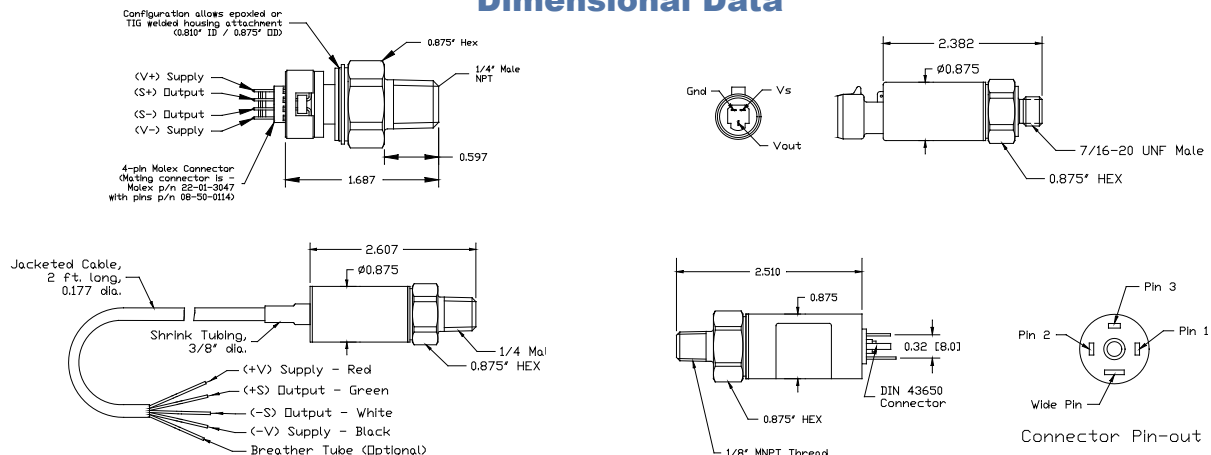
## Pressure Ranges\*

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 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.

**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.astensors.com](http://www.astensors.com)