

# 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
- ◆ HVAC/R Equipment
- ◆ Control Panels
- ◆ Hydraulic Systems
- ◆ Data Loggers

### 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



### Environmental Data

<b>Temperature</b>	
Operating	-40 to 85°C (-40 to 185°F)
Storage	-40 to 100°C (-40 to 212°F)
<b>Thermal Limits</b>	
Compensated Range	0 to 55°C (30 to 130°F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS
<b>Other</b>	
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 (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

**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 5-digit pressure range code

**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= 2 ft. (0.6m)
- B= 4 ft. (1.2m)
- C= 6 ft. (1.8m)
- D= 10 ft. (3.0m)
- E= Mini DIN 43650
- F= Packard Metripack 150 3-Pin Conn.
- No housing: G= 4-pin Molex Conn.
- H= Flex Strip 3in.
- I= DIN 43650A
- Y= M12 Eurofast
- Z= DT04 Deutsch

**Wetted Material**

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

**Options**

000= No Options

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

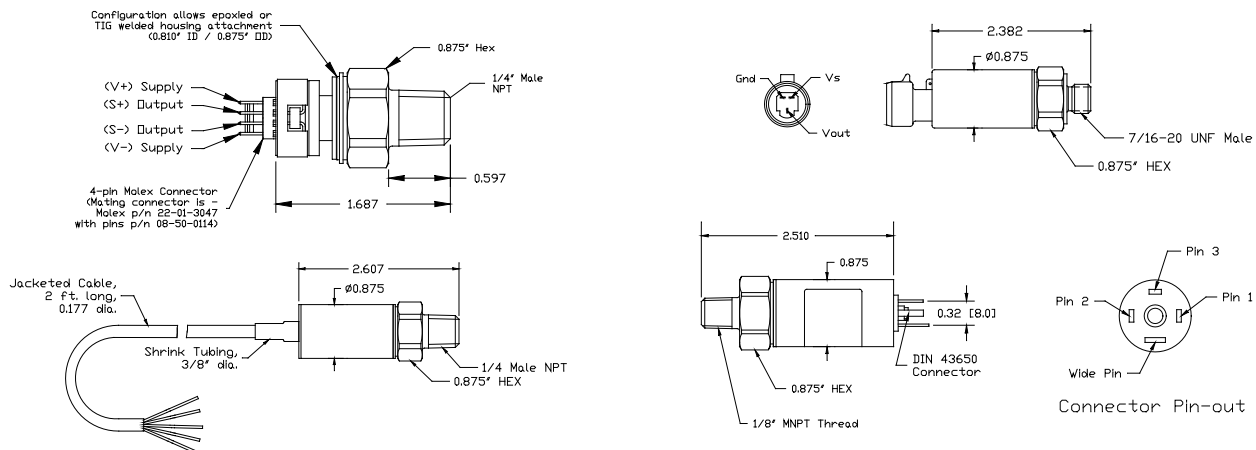
### Pressure Ranges\*

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. 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.