

# 0-5V / 0-10V / 1-6kHz Pressure Transducer



AST4700



The AST4700 is a competitively priced, high quality stainless steel pressure transducer intended for the use of measurement of liquids and gases. Utilizing Krystal Bond™ Technology. Offering a one piece stainless steel sensing element the AST4700 is 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. Zero-based voltage and frequency output signals are all standard choices when selecting this product. Electrical connection options include cable, Hirschmann, and Bendix.

## Benefits

- High Strength Stainless Steel Construction
- Pressures up to 10,000 PSI
- Wide Variety of Configurations
- Suitable for High Shock and Vibration
- CE Certified

## Applications

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

## 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 (32 to 131°F) |
| TC Zero           | <±1.5% of FS            |
| TC Span           | <±1.5% of FS            |

### Other

|                     |                                           |
|---------------------|-------------------------------------------|
| Shock               | EN 60068-2-27                             |
| Vibration           | EN 60068-2-6, 60068-2-64, and IEC 68-2-32 |
| EMI/RFI Protection: | Yes                                       |
| Rating:             | IP-66                                     |

## Performance @ 25°C (77°F)

|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Accuracy*             | < ±0.5% BFSL (0.25% and 0.1% optional - some configurations) |
| 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                      | 0-5V (3 or 4 Wire) | 0-10V (3 or 4 wire) | Frequency (1-6KHz)   |
|-----------------------------|--------------------|---------------------|----------------------|
| Excitation                  | 10-28VDC           | 15-28VDC            | 10-28VDC             |
| Output Impedance            | <100 Ohms, Nominal | <100 Ohms, Nominal  | 10K pull-up          |
| Current Consumption:        | <10mA              | <10mA               | <15mA                |
| Bandwidth                   | (-3dB): DC to 1kHz | (-3dB): DC to 1kHz  | (-3dB): DC to 250 Hz |
| Output Noise:               | <2mV RMS           | <2mV RMS            | <2mV RMS             |
| Zero Offset:                | <±1% of FS         | <±1% of FS          | <±1% of FS           |
| Span Tolerance:             | <±1.5% of FS       | <±1.5% of FS        | <±1.5% of FS         |
| Output Load:                | 10k Ohms, min      | 10k Ohms, min       | 10k Ohms, min        |
| Reverse Polarity Protection | Yes                | Yes                 | Yes                  |



## Ordering Information

**AST4700****A****00100****P****5****A****1****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

\* "B" and "F" not available under 50PSI ("B" not available in 316L)

#### Pressure Range

Insert 5-digit pressure code

#### Pressure Unit

B= Bar

K= kg/cm<sup>2</sup>

P= PSI

#### Outputs

2= 0-5V (3-Wire)  
5= 0-10V (3-Wire)  
H= 1-6kHz

K= 0-5V (4-Wire)  
L= 0-10V (4-Wire)

#### Electrical (for wiring information visit: <http://www.astensors.com/wiring.php>)

A= 2 ft. (0.6m)  
B= 4 ft. (1.2m)  
C= 6 ft. (1.8m)  
D= 10 ft. (3.0m)

E= Mini DIN 43650C  
I= DIN 43650A  
R= Bendix 6 Pin

#### Wetted Material

0= 17-4PH

1= 316L

#### Options (contact factory for additional options)

000= No Options

## Pressure Ranges\*

| PSIG Measurement | -14.7 to 25** | Pressure Code | V0025** |
|------------------|---------------|---------------|---------|
|                  | 0-25          |               | 00025   |
|                  | 0-50          |               | 00050   |
|                  | 0-100         |               | 00100   |
|                  | 0-150         |               | 00150   |
|                  | 0-200         |               | 00200   |
|                  | 0-250         |               | 00250   |
|                  | 0-500         |               | 00500   |
|                  | 0-1,000       |               | 01000   |
|                  | 0-2,500       |               | 02500   |
|                  | 0-5,000       |               | 05000   |
|                  | 0-7,500       |               | 07500   |
|                  | 0-10,000      |               | 10000   |

| BARG Measurement | -1 to 2** | Pressure Code | V0002** |
|------------------|-----------|---------------|---------|
|                  | 0-2       |               | 00002   |
|                  | 0-5       |               | 00005   |
|                  | 0-7       |               | 00007   |
|                  | 0-10      |               | 00010   |
|                  | 0-20      |               | 00020   |
|                  | 0-35      |               | 00035   |
|                  | 0-50      |               | 00050   |
|                  | 0-100     |               | 00100   |
|                  | 0-250     |               | 00250   |
|                  | 0-350     |               | 00350   |
|                  | 0-500     |               | 00500   |
|                  | 0-700     |               | 00700   |

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

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