

# Non-Incendive



## AST4300 Pressure Transducer / Transmitter



The AST4300 is a stainless steel pressure transducer / transmitter for use in hazardous areas. In addition to its rugged construction and best price-to-performance ratio in the industry, the AST4300 is the solution for pressure measurement for a variety of applications.

### Benefits

- Class I Div 2 Groups A, B, C, D
- ATEX / IECEx: Ex nA IIC T4 Gc (Ta = -40°C to 85°C) for conduit electrical connections
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature
- Pressures from Vacuum to 20,000 PSI
- Low Static and Thermal Errors
- Unparalleled Price and Performance
- Compatible with Wide Variety of Liquids and Gases
- EMI/RFI Protection

### Applications

- Refrigeration
- Water Management
- Industrial OEM Equipment
- Oil & Gas Platforms
- Pressure Instrumentation
- Process Control
- Gas Compression & Storage
- Test Stands
- Oxygen Delivery Systems
- Hydrogen Fuel (316L)

### Environmental Data

|  |   |
|--|---|
| <b>Temperature</b>                       |   |
| Operating                                | -40 to 80°C (-40 to 176°F)                |
| Storage                                  | -40 to 100°C (-40 to 212°F)               |
| 0-100% relative humidity, non-condensing |   |
| <b>Thermal Limits</b>                    |   |
| Compensated Range                        | 0 to 55°C (32 to 132°F)                   |
| TC Zero                                  | <±1.5% of FS                              |
| TC Span                                  | <±1.5% of FS                              |
| <b>Other</b>                             |   |
| 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, min                                |

### Performance @ 25°C (77°F)

|                       |  |
|-----------------------|--|
| Accuracy*             | < ±0.25% BFSL (<±0.5% from 7,500 up to 20,000 PSI) |
| Stability (1 year)    | ±0.25% FS, typical                                 |
| Over Range Protection | 2X Rated Pressure                                  |
| Burst Pressure        | 5X or 40,000 PSI (whichever is less)               |
| Pressure Cycles       | > 100 Million                                      |

\* Accuracy includes non-linearity, hysteresis & non-repeatability

### Electrical Data

| Output                      | 4-20mA               | 1-5VDC, 1-6VDC     | 0.5-4.5V Ratiometric |
|-----------------------------|----------------------|--------------------|----------------------|
| Excitation                  | 10-28VDC             | 10-28VDC           | 5VDC, regulated      |
| Output Impedance            | >10k Ohms            | <100 Ohms, Nominal | <100 Ohms, Nominal   |
| Current Consumption:        | 20mA, typical        | 5mA, typical       | 5mA, typical         |
| 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       | <±1.5% of FS         |
| Output Load:                | 0-800 Ohms@10-28VDC  | 10k Ohms, Min.     | 10K Ohms, Min.       |
| Reverse Polarity Protection | Yes                  | Yes                | Yes                  |



## Ordering Information

**AST4300**

**A**

**00500**

**P**

**4**

**L**

**1**

**000**

**-SS**

**Series Type**

**Process Connection**

A= 1/4" NPT Male                      I= 1/4" NPT Female\*\*  
 B= 1/8" NPT Male\*                    P= 1/2" MNPT\*\*  
 C= 1/4" BSPP Male                    W= F250C Female Autoclave\*\*\*

\*Not available under 50PSI (not available in 316L) \*\*Pressures up to 15,000 PSI  
 \*\*\*Pressures from 10,000 to 20,000 PSI, not available in 316L

**Pressure Measurement**

Insert 5-digit pressure code

**Pressure Unit**

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

**Outputs**

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

**Electrical**

I= DIN 43650A    N= Conduit fitting, Cable 6 ft. (1.8 m)  
 L= Conduit fitting, Cable 2 ft. (0.6 m)                                      P= Conduit fitting, Cable 10 ft. (3.0 m)  
 M= Conduit fitting, Cable 4 ft. (1.2 m)                                      4 = Mini-Fast (CSA Only)

**Wetted Material**

0= 17-4PH    2= Inconel 718 (consult factory on availability)  
 1= 316L    4= Hastelloy C276 (consult factory on availability)

**Options**

000= No Options

**Approval**

(Left Blank)= UL ANSI/ISA 12.12.01 Class I Div 2 Non-Incendive Groups A, B, C, D (formerly UL1604)  
 -SS= Add "-SS" for CSA213 Class I Div 2 Non-Incendive Groups A, B, C, D and ANSI/ISA 12.27.01 Single Seal Approval  
 -Z= Add "-Z" for CRN Registered to ANSI/ASME B31.3. Contact factory for material, pressure, and process connection options (includes -SS approvals)

Note: CSA approved products require case/earth ground electrical connection. See wiring installation sheet for further details

## Pressure Ranges<sup>+</sup>

|                         |               |                      |         |
|-------------------------|---------------|----------------------|---------|
| <b>PSIG Measurement</b> | -14.7 to 25** | <b>Pressure Code</b> | 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   |
| <b>CSA ONLY</b>         | 0-15,000      | <b>CSA ONLY</b>      | 15000   |
|                         | 0-20,000      |                      | 20000   |

|                         |           |                      |         |
|-------------------------|-----------|----------------------|---------|
| <b>BARG Measurement</b> | -1 to 2** | <b>Pressure Code</b> | 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   |

<sup>+</sup>Typical ranges. All ranges between 0-25 PSI and 0-20,000 PSI available.  
 \*\*Compound ranges up to -14.7 to 500 PSI available. Please consult factory.

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