Overview

The AST4400 is a stainless steel pressure transducer with a wide variety of options. With its rugged construction and best price-to-performance ratio in the industry, the AST4400 is the solution for pressure measurement in Intrinsically Safe areas.

Benefits

- Class I Div 1 Intrinsically Safe Groups C, D when installed with an approved barrier
- ATEX / IECEx: Class I Zone 0 Exia IIB T4 Ga (Ta = -40°C to +80°C)
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature
- Pressures up to 20,000 PSI
- Low Static and Thermal Errors
- Unparalleled Price and Performance
- Compatible with Wide Variety of Liquids and Gases

Applications

- Industrial OEM Equipment
- HVAC/R Equipment
- Water Management
- Control Panels
- Pneumatics
- Hydraulic Systems
- Data Loggers
Performance @ 25°C (77°F)

**Accuracy**<br> 0.25% BFSL (<±0.5% from 7,500 up to 20,000 PSI)

**Stability (1 year)**<br> ±0.25% FS, typical

**Over Range Protection**<br> 2X Rated Pressure, Minimum

**Burst Pressure**<br> 5X or 40,000 PSI (whichever is less)

**Pressure Cycles**<br> >100 Million

Environmental Data

**Temperature**

**Operating**<br> -40 to 80°C (-40 to 176°F)

**Storage**<br> -40 to 100°C (-40 to 212°F)

0-100% relative humidity, non-condensing

**Thermal Limits**

**Compensated Range**<br> 0 to 55°C (32 to 132°F)

**TC Zero**<br> <±1.5% of FS

**TC Span**<br> <±1.5% of FS

**Other**

**Shock**<br> EN 60068-2-27

**Vibration**<br> EN 60068-2-6, 60068-2-64, and IEC 68-2-32

**EMI/RFI Protection:** Yes

**Rating:** IP-66, min

Electrical Data

**Output**<br> 4-20mA 1-5VDC, 1-6VDC 0.5-4.5V Ratiometric

**Excitation**<br> 10-28VDC 10-28VDC 5VDC, regulated

**Output Impedance**<br> >10k Ohms <100 Ohms, Nominal <100 Ohms, Nominal

**Current Consumption:**<br> 20mA, typical 5mA, typical <10mA

**Bandwidth**<br> (-3dB): DC to 250 Hz (-3dB): DC to 1kHz (-3dB): DC to 1kHz

**Output Noise**<br> - <2mV RMS <2mV RMS

**Zero Offset:**<br> <±1% of FS <±1% of FS <±1.5% of FS

**Span Tolerance:**<br> <±2% of FS <±1.5% of FS <±1.5% of FS

**Output Load:**<br> 0-800 Ohms@10-28VDC 10k Ohms, Min. 10K Ohms, Min.

**Reverse Polarity Protection**<br> Yes Yes Yes
Dimensions
UL Approved Barrier Installation / A01657

Class I, Div. 1, Groups C,D,E,F,G
Class I, Zone 0
Nonhazardous Location

CSA Approved Barrier Installation / A08949

Class I, Div. 1, Groups C,D,E,F,G
Class I, Zone 0
Nonhazardous Location

The transducers listed below are designed for installation in EITHER Class I, Division I, Groups C,D,E,F,G; Class I, Zone 0 Group IIIB; or Class I, Division II, Groups A,B,C,D,E,F,G; Class I, Zone 2 Group IIIA, hazardous locations when connected to associated apparatus as described in note 1.

Entity Parameters

Models AST4400, AST4404, AST4408, AST4410, AST4414

Class I, Div. 1, Groups C,D,E,F,G; Class I, Zone 0
Excited / Isolated Inputs

Vmax = 28VAC

Model AST4414

Class I, Div. 1, Groups C,D,E,F,G; Class I, Zone 0
Excited / Isolated Inputs

Vmax = 28VAC

4-20mA with integral connector

4-20mA with integral connector

Integral cable

Integral cable

The following conditions must be satisfied:

1. All EXCEPT 4-20mA

2. Ground Wire

3. Non-hazardous area

4. Control Room equipment shall not generate noise in excess of 250V (rms).

5. Canadian installations should be in accordance with Canadian Electrical Code, Part I. U.S. installations should be in accordance with Article 504 in the National Electrical Code, ANSI/NFPA 70.

6. A grounding method is not provided by the manufacturer as part of the integral design of the Transducer. For units which are connected through a ground short and safety barrier, ensure that the transducer is mounted to a surface which is at the same potential as the barrier ground.

7. See user manual for installation conditions.
## Ordering Information

<table>
<thead>
<tr>
<th>AST4400 Series Type</th>
<th>A</th>
<th>00500</th>
<th>P</th>
<th>4</th>
<th>L</th>
<th>1</th>
<th>000</th>
<th>-SS</th>
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### Process Connection
- A= 1/4" NPT Male
- B= 1/8" NPT Male*
- C= 1/4" BSPP Male
- F= 7/16"-20 UNF Male*
- I= 1/4" NPT Female**
- 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 Range
Insert 5-digit pressure range code (example: 0-100 PSI = 00100)
Ranges between 0-25 PSI and 0-20,000 PSI available. Compound pressure up to -14.7 to 500 PSI.

### Pressure Unit
- B= Bar
- K= kg/cm²
- P= PSI

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

### Electrical
- A= 2 ft. (0.6m)
- B= 4 ft. (1.2m)
- C= 6 ft. (1.8m)
- D= 10 ft. (3.0m)
- E= Mini DIN 43650C
- F= Packard Metripack 150 3-Pin
- I= DIN 43650A
- L= Conduit, Cable 2 ft. (0.6 m)
- M= Conduit, Cable 4 ft. (1.2 m)
- N= Conduit, Cable 6 ft. (1.8 m)
- P= Conduit, Cable 10 ft. (3 m)
- R= 6- Pin Bendix
- Y= M12x1
- 4= Mini-Fast (CSA Only)

### Wetted Material
- 0= 17-4PH
- 1= 316L
- 2= Inconel 718
- 4= Hastelloy C276
- 588= 0.5-2.5V non-ratiometric (3-SVDC)

### Options
- 000= No Options
- 588= 0.5-2.5V non-ratiometric (3-SVDC)

### Approval
- Insert code from approvals chart below [Leave blank for UL ANSI/ISA 12.2.01 Class I Div 1 Intrinsically Safe Groups C, D (formerly UL913)]
- -SS CSA/UL Class I Div 1 Grps C, D Intrinsically Safe, ANSI/ISA 12.2.01
- -Z DIN 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

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