

# AST4300 *Stainless Steel Media Isolated Pressure Sensor*

**CSA Approved For Hazardous Locations**



## Overview

The AST4300 is a media isolated stainless steel pressure sensor 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

- **ANSI/ISA - 12.27.01.2003 Certified "Single Seal"**  
(No need for expensive secondary seal)
- **CSA 213** Class 1 Div 2 Groups A, B, C, D
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature Range
- Ranges from Vacuum to 10,000 PSI
- Low Static and Thermal Errors
- Unparalleled Price and Performance
- Compatible with Wide Range of Liquids and Gases
- EMI/RFI Protection
- 500VAC Isolation

## Applications

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

## Performance @25°C (77°F)

Accuracy*	< ±0.25% 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



**SINGLE SEAL**

ANSI / ISA 12.27.01-2003



C US



## 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

## 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

**AST4300 A 00500 P 4 L 1 000 -SS**

**Series Type**

**Process Connection**  
 A=1/4" NPT Male  
 B=1/8" NPT Male  
 C=1/4" BSPP Male  
 I= 1/4" NPT Female  
 P=1/2" NPT Male

**Pressure Range**  
 Insert pressure range code from chart

**Pressure Unit**  
 B= Bar  
 K= kg/cm2  
 P= PSI

**Outputs**  
 1= 0.5-4.5V ratiometric      6= 1-6V  
 3= 1-5V                              A= 0-50mV (10mV/V)  
 4= 4-20mA (2 wire loop powered)

**Electrical**  
 I= DIN 43650A  
 L= Conduit fitting, Cable 2 ft. (0.6 m)  
 M= Conduit fitting, Cable 4 ft. (1.2 m)  
 N= Conduit fitting, Cable 6 ft. (1.8 m)  
 P= Conduit fitting, Cable 10 ft. (3.0 m)

**Wetted Material**  
 0=17-4PH  
 1=316 L

**Options**  
 000= No special options

**Single Seal**

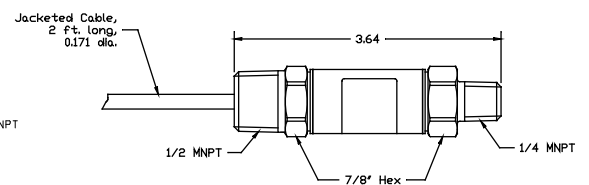
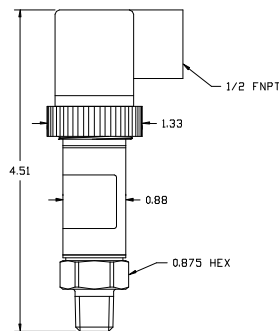
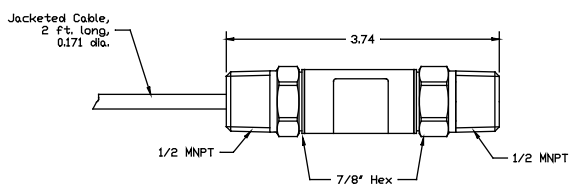
Now With DIN43650A!

### Pressure Ranges\*

PSIG Measurement Range	Pressure Range Code	BARG Measurement Range	Pressure Range Code
-14.7 to 30**	V0030**	-1 to 2**	V0002**
0-25	00025	0-2	00002
0-50	00050	0-5	00005
0-100	00100	0-10	00010
0-200	00200	0-20	00020
0-250	00250	0-50	00050
0-300	00300	0-100	00100
0-500	00500	0-250	00250
0-1,000	01000	0-350	00350
0-1500	01500	0-500	00500
0-2,500	02500	0-700	00700
0-3000	03000		
0-5,000	05000		
0-7,500	07500		
0-10,000	10000		

\*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



DIN43650A				
Output	Pin 1	Pin 2	Pin 3	Wide Pin
4-20mA	+V Supply	Ground	Case GND	N/C
3W Voltage	+V Supply	Ground	+ Signal	Case GND

CABLE				
Output	Red	Black	White	Green
4-20mA	+V Supply	Ground	N/C	Case GND
3W Voltage	+V Supply	Ground	+ Signal	Case GND

## 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.