



ABSOLUTE Pressure Transducer / Transmitter AST4710

Overview

The AST4710 is built for applications requiring absolute pressure measurement of liquids and gases that are compatible with stainless steel. Due to its stainless steel construction, welded housing and high shock and vibration ratings, the AST4710 translates into a rugged, reliable absolute pressure transducer.

Supplied with various pressure port, output and electrical connection options, the AST4710 is well-suited for a variety of applications across many industries.

Benefits

- High Accuracy
- High Strength Stainless Steel Construction
- Wide Variety of Media Compatibility
- No Internal O-rings
- Rugged Construction
- CE EN61326
- Suitable for High Shock and Vibration

Applications

- Test Stands
- Energy and Water Management
- Autoclave
- Pressure Instrumentation
- Data Loggers
- Barometric Correctors

Environmental Data

Ambient Temperature: 25°C (77°F) (Unless otherwise specified)

Operating Ambient	-40 to 85°C (-40 to 185°F)
Storage	-40 to 125°C (-40 to 257°F)

Shock, Vibration & Ingress Protection (IP)

Standard	Description	Test Value
EN 60067-2-27	Shock Test	500m/s ² , 6ms, half sine-wave, 6 shocks (3/direction), horizontal and vertical axis, 12 total shocks
EN 60068-2-6	Sinusoidal Vibration	5-25 Hz, 2mm, 25-150 Hz, 50m/s, Sweep rate: 1 octave/min, Duration: 24 hours/axis (48 hours total), horizontal and vertical axis
EN 60068-2-64	Random Vibration	10-2000 Hz, vibration level: 0.0314 (m/s ²) ² /Hz, 24 hrs/axis (48 hrs total), 2 directions: horizontal and vertical
IEC 60068-2-32	Drop Test	Drop of 1 meter to floor made of concrete. Dropped twice on the threaded end and two times perpendicular to the threaded end.
IP-66	Ingress Protection	Dust-tight, protected against powerful water jets

Performance

Ambient Temperature: 25°C (77°F) (Unless otherwise specified)

Parameters	MIN	TYP	MAX	UNITS	NOTES
Accuracy	-0.25		+0.25	%Span	1
Zero Error	-1.5		+1.5	%Span	2
Span Error	-2.0		+2.0	%Span	3
Span Error (4-20mA)	-2.0		+2.0	%Span	3
Thermal Error, Zero	-1.5		+1.5	%Span	4
Thermal Error, Span	-1.5		+1.5	%Span	5
Stability (1 year)		±0.25		%Span	
Proof Pressure		2X Rated Pressure		PSI	6
Burst Pressure		5X Rated Pressure		PSI	7
Compensated Temp. Range		0 to 70° (32 to 158°)		°C (°F)	

Electrical Data

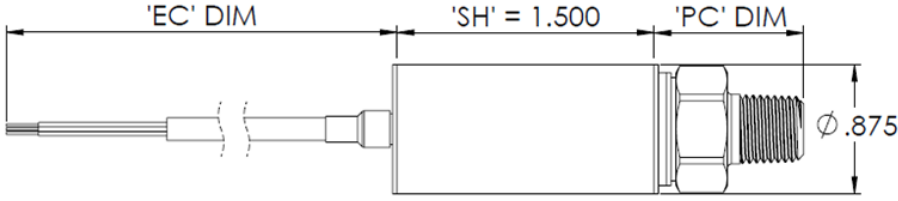
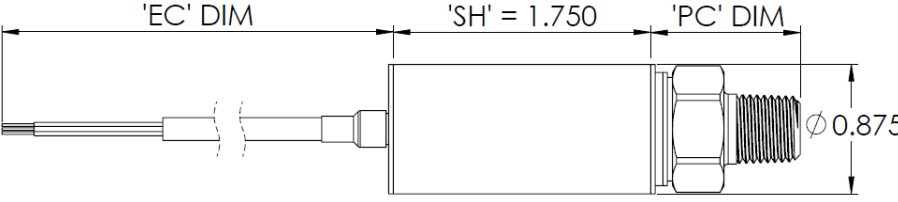
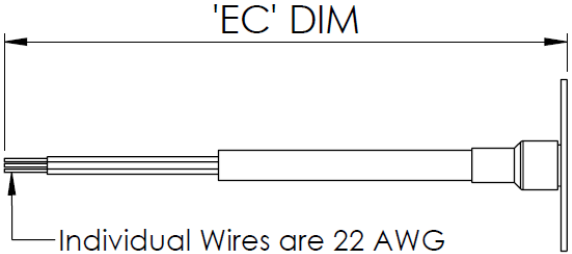
Model	AST4710		
Excitation	4-20mA	0-5V, 1-6V	0.5-4.5V Ratiometric
Output Impedance	10-28VDC	10-28VDC	5.0 ± 0.5VDC
Current Consumption	> 10k Ω	< 100 Ω	< 100 Ω
Output Noise	-	<10mA	<10mA
Output Load	-	<2mV RMS	<2mV RMS
Reverse Polarity Protection	0-800Ω	10k Ω Min.	10k Ω Min.
Bandwidth	Yes	Yes	Yes

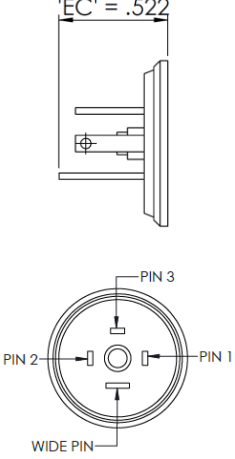
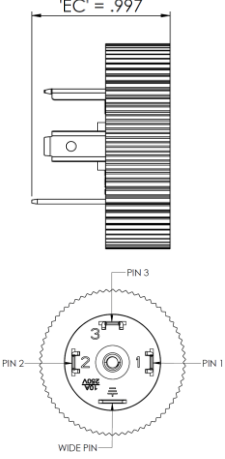
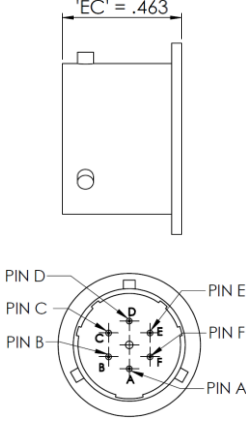
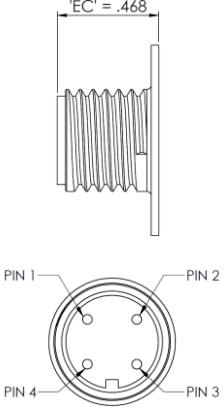
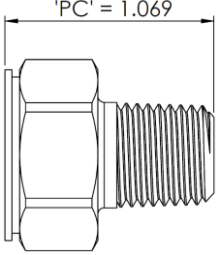
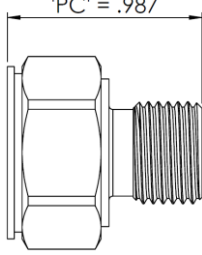
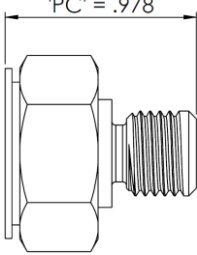
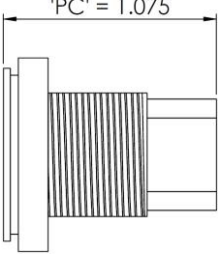
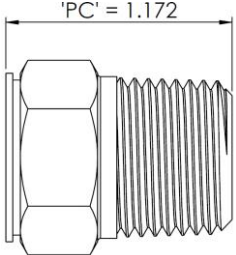
Notes

1. The maximum deviation from a best fit straight line (BFSL) fitted to the output measured over the pressure range at 25°C. Includes all errors due to pressure non-linearity, hysteresis, and non-repeatability. Span is the algebraic difference between full scale output and zero pressure offset.
2. The maximum variation from the ideal offset measured at 25°C.
3. The maximum variation from the ideal full-scale span measured at 25°C.
4. The maximum variation of offset within the compensated temperature range relative to 25°C.
5. The maximum variation of full-scale span within the compensated temperature range relative to 25°C.
6. The maximum pressure that can be safely applied to the product for it to remain in specification once pressure is returned to the operating pressure range.
7. The maximum pressure that can be applied without causing escape of the pressure media.

Dimensions & Electrical Connection

Unless otherwise specified, all dimensions are in inches

<p style="text-align: center;"><i>EC + SH + PC = Total Nominal Product Length</i></p> 	<p>Ranges 25 PSI and Above</p> <p>EC = Electrical Connector SH = Sensor Housing PC = Process Connection V = Voltage Supply N/C = Not Connected WP = Wide Pin S = Signal</p>																	
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Cable																		
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P 1/2 NPT Male																																																																					
																																																																					

Legend	
✓	Standard Available
X	Not Available

Available Process Connection, Material Configurations & Pressure Codes

316L PSI

Pressure Range	Pressure Range Code	PSI Unit	Process Connection Code				
			A	C	F	J	P
0 - 15	A0015	P	✓	✓	✓	✓	✓
0 - 30	A0030	P	✓	✓	✓	✓	✓
0 - 50	A0050	P	✓	✓	✓	✓	✓
0 - 100	A0100	P	✓	✓	✓	✓	✓
0 - 200	A0200	P	✓	✓	✓	✓	✓
0 - 300	A0300	P	✓	✓	✓	✓	✓

*See Ordering Information for list of options.

INDUSTRIAL OEM

AST4710 Pressure Transmitter

Ordering Information

AST4710

A

A0100

P

4

A

1

000

Process Connection

A= 1/4" NPT Male
C= 1/4" BSPP Male
F= 7/16" - 20 UNF Male (not available under 50PSI)
J= 1/8" NPT Female (Panel Mount)
P= 1/2" NPT Male

Pressure Range

Insert Pressure Range Code (see table for availability)

Pressure Unit

P= PSI

Output

2= 0-5V
3= 1-5V
4= 4-20mA (loop powered)
5= 0-10V

Electrical Connection

A= 2 ft. (0.6m)
B= 4 ft. (1.2m)
C= 6 ft. (1.8m)
D= 10 ft. (3.0m)
E= Mini DIN 43650
I= DIN 43650A
R= 6- Pin Bendix
Y= M12x1 Eurofast

Wetted Material

1= 316L

Option Codes

000= No Options

NORTH AMERICA

American Sensor Technologies, Inc. (AST),
a TE Connectivity Company
Tel: 800-522-6752
Email: customercare.molive@te.com

ASIA

Hong Kong Sensor Technologies (HKST),
a TE Connectivity Company
Tel: 0400-820-6015
Email: customercare.shzn@te.com

TE.com/sensors

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