

AST4100 Compact



Stainless Steel Media Isolated Pressure Sensor

Overview

American Sensor Technologies, presents the AST4100 as a compact, price-competitive stainless steel pressure sensor. Compatible with a wide range of liquids and gases over pressure ranges up to 10,000 PSI, the AST4100 covers a diversified variety of applications. AST4100 sensors are available with outputs of 10mV/V, as well as high level outputs that utilize AST's proprietary Krystal Bond™ Technology.

Benefits

- ◆ High Strength Stainless Steel Construction
- ◆ No Oil, Welds or Internal O-rings (one piece sensing element)
- ◆ Wide Operating Temperature Range
- ◆ Ranges up to 10,000 PSI
- ◆ Low Static and Thermal Errors
- ◆ Price to Performance Ratio Delivers Value
- ◆ Compatible with Wide Range of Liquids and Gases
- ◆ UL/cUL 508 Approved

Applications

- ◆ Test Equipment
- ◆ Control Panels
- ◆ Hydraulic Systems
- ◆ Data Loggers
- ◆ HVAC/R Equipment
- ◆ Pneumatics
- ◆ Hydrogen Storage (316L SS)

Performance @ 25°C (77°F)

Accuracy*	< ±0.5% 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

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



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:	No
Rating:	IP-65

