



LOW COST / COMPACT Pressure Sensor & Transducer AST4100

Overview

The AST4100 is a compact, low cost pressure transducer with a cable electrical connection. Mainly used in benign environments, the AST4100 is an economical option for pressure sensing.

Benefits

- ◆ High Strength Stainless Steel Construction
- ◆ No Oil, Welds or Internal O-rings
- ◆ Wide Operating Temperature
- ◆ Pressures up to 10,000 PSI
- ◆ Low Static and Thermal Errors
- ◆ Unparalleled Price and Performance
- ◆ Compatible with Wide Variety of Liquids and Gases
- ◆ UL/cUL 508 Approved

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Applications

- ◆ Industrial OEM Equipment
- ◆ Water Management
- ◆ Pneumatics
- ◆ Hydrogen Storage
- ◆ Sub Sea Pressure
- ◆ HVAC/R Equipment
- ◆ Control Panels
- ◆ Hydraulic Systems
- ◆ Data Loggers

Performance @ 25°C (77°F)

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

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 (32 to 132°F) |
| TC Zero | <±1.5% of FS |
| TC Span | <±1.5% of FS |

Other

| | |
|----------------------------|---|
| Shock | EN 60068-2-27 |
| Vibration | EN 60068-2-6, 60068-2-64, and IEC 68-2-32 |
| EMI/RFI Protection: | No |
| Rating: | IP-66 |

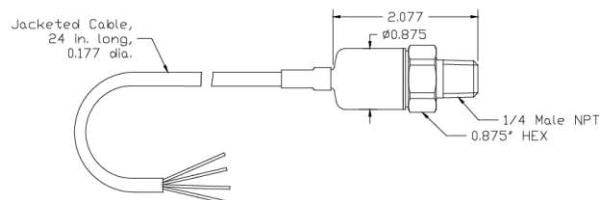
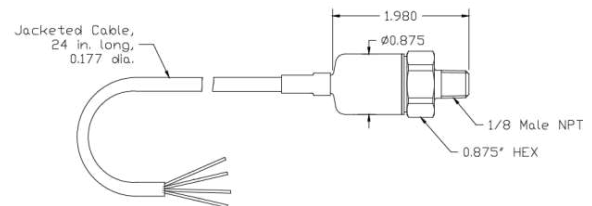
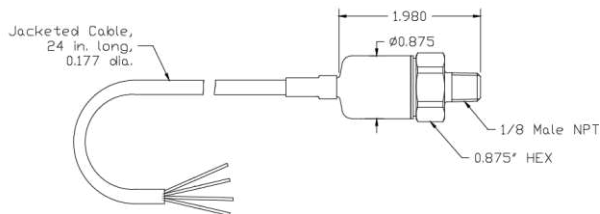
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Electrical Data

| | | | | |
|------------------------------------|----------------------|--------------------|-------------------------|----------------------|
| 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: | <±1.5% 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 | - | Yes |

Dimensions



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Ordering Information

AST4100

A

00500

P

4

A

1

000

Series Type

Process Connection

A= 1/4" NPT Male
B= 1/8" NPT Male*
C= 1/4" BSPP Male
F= 7/16" - 20 UNF Male*
* "B" and "F" not available under 50PSI ("B" not available in 316L)

Pressure Range

Insert 5-digit pressure range code (example: 0-100 PSI = 00100)
Ranges between 0-25 PSI and 0-10,000 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)

Wetted Material

0= 17-4PH 1= 316L

Options

(contact factory for additional options)
000= No Options

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