American Sensing Inc (ASI)

Made in the USA

SUB-SEA UNDERWATER PRESSURE TRANSDUCER

MODEL ASI 9010

Model ASI 9010
Sub-Sea Underwater Pressure Transducer

FEATURES:

- Up to ±0.1% FSO accuracy (BFSL)
- Optional 4X proof pressure
- 0 to 100 thru 0 to 10K PSIA, PSISG options (7 thru 700 BAR)

APPLICATIONS:

- Deep sea manifold
- Unmanned deep sea vehicles
- Underwater warfare munition
- Underwater test measurement

PRODUCT OVERVIEW:

The Model ASI 9010 series from ASI is a sub-sea underwater static pressure transducer. Designed to provide high-accuracy pressure measurements. This highly rugged pressure transducer is designed to meet both MIL-STD-461* and MIL-STD-810G* standards. It is available in both test and program volumes to suit a variety of requirements.

FIELD OPTIONS:

- mV/V, 0 to 5 Vdc, 0 to 10 Vdc and 4-20 mA outputs
  (Optional 4-wire isolated grounds on Vdc Units)
- Temperature output
- Inconel 718, Hastelloy C276 wetted parts
- Wide selection of pressure ports and electrical connections
- Improved Static Accuracy less than ±0.1% FSO see Option.

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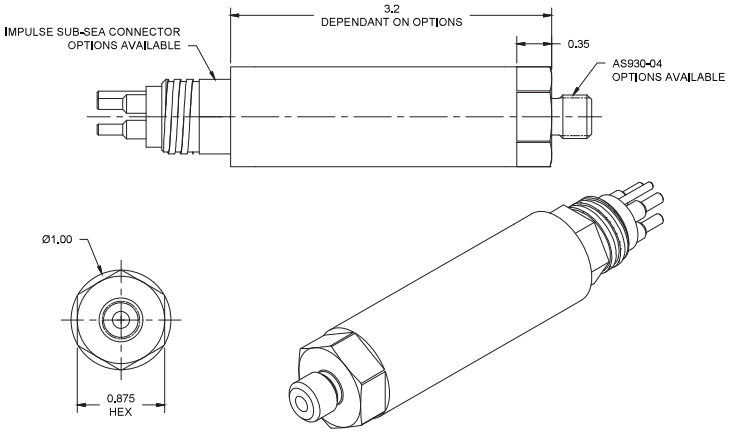
MODEL ASI 9010

DIMENSIONAL DRAWING

All dimensions are in inches (mm)



WIRING CONFIGURATION

PIN(A/#)	mV/V	4-20 mA	VDC, 3 WIRE	VDC, 4 WIRE NON-ISOLATED	VDC, 4 WIRE ISOLATED
A/1	+EXCITATION(R)	+EXCITATION(R)	+EXCITATION(R)	+EXCITATION(R)	+EXCITATION(R)
B/2	+OUTPUT(G)	-EXC/OUTPUT(B)	-EXC/COM(B)	+OUTPUT(G)	+OUTPUT(G)
C/3	-OUTPUT(W)	NO CONNECT	+OUTPUT(G)	-OUTPUT(W)*	-OUTPUT(W)
D/4	-EXCITATION(B)	NO CONNECT	NO CONNECT	-EXCITATION(B)*	-EXCITATION(B)
E/5	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT
F/6	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT

*COMMONS JUMPERED
** PARENTHESES() REPRESENT COLORS FOR CABLE OPTION. (R) = RED, (B) = BLACK, (G) = GREEN, (W) = WHITE
***CUSTOM PINOUTS AVAILABLE. SHUNTS AND TEMPERATURE PINS MAY BE USED WITH ADDITIONAL COLORS

SPECIFICATIONS

ELECTRICAL

- Output Signal: mV/V, 0 to 5 Vdc, 0 to 10 Vdc and 4-20 mA
- Supply Voltage:
  10V max for mV/V
  9 to 32 Vdc (0-5 Vdc output), 14-32 Vdc (0-10 Vdc output)
  9 to 32 Vdc (4-20 mA output)
- Load Impedance:
  1,350 Ω max. at 36 Vdc
  750 Ω max. at 24 Vdc
  300 Ω max. at 18 Vdc
- Input Current: Less than 20mA
- Response Time: <2 ms typical
- Connection: D3899 9/27YA35PN standard, options available

ACCURACY

- Static Accuracy (BFSL): <±0.25 FSO and ± 0.10 FSO and
- Zero/span balance: Less than ±1.0% FSO
- Non-repeatability: Less than ±0.1% FSO
- Hysteresis: < ±0.1% FSO
- Non-linearity: < ±0.2 FSO
- Total Error Band: Less than ±1.5% FSO

MATERIALS OF CONSTRUCTION

- Wetted Parts: 17-4 PH sensor (<50 PSI 316L stainless steel)
  (Inconel 718, Hastelloy C276 optional)
- Housing: 304SS
- Pressure ranges < 50 PSI contain silicone or fomblin oil

MECHANICAL

- Process connection: 7/16-20UNF-2A standard.
  Consult factory for other options
- Proof Pressure: 1.5X FSO, 4X optional
- Burst Pressure 3.0X FSO, 10X optional
- Random Vibration: >25 G RMS (20 Hz to 2,000 Hz)
- Sinusoidal Vibration: 7.5 G's from 5 Hz to 100 Hz
- Shock: 100 G
- Weight: <8 oz (<0.2 kg)

PRESSURE RANGES

- 0 to 100 thru 0 to 10K PSIA, PSISG options
  (7 thru 700 BAR)

THERMAL SPECIFICATION

- Operating: -65 °F to +250 °F (-35 °C to +125 °C)
- Compensated : -4 °F to +185 °F (-20 °C to +85 °C)
- Thermal Error: ±0.5% FSO/100 °F (±0.25% FSO improved)

*Please consult factory for your specific needs.

Standard configurations shown.

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact ASI for assistance with your application. updated: Jan, 2021

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