



## CRYOGENIC & HIGH TEMPERATURE TRANSDUCER

### MODEL ASI 2050

#### FEATURES:

- Cryogenic service temperature range from -320 °F to 400°F (-196 °C to 200°C )
- Accuracy of  $\pm 1\%$  FSO
- Lightweight, <10 oz. (0.2 kg)
- Hydrogen and LOX compatibility
- Remote electronics provide high-level analog or digital outputs
- Rugged design

#### APPLICATIONS:

- Ground support equipment
- Rocket propulsion systems
- Military and defense
- Fuel test machine
- Cryogenic

#### PRODUCT OVERVIEW:

The Model 2050 from ASI is a cryogenic & high temperature transducer, designed to provide high-reliability low & high temperature measurements from -320 °F to 400°F (-196 °C to 200°C ) within a rugged, all-stainless steel package. Remotely mounted electronics provide a high-level signal output of either 4-20 mA; 0 to 5 Vdc; or 0 to 10 Vdc, as well as choice of RS232, RS485 or CAN protocol, for improved cryogenic measurement accuracy and higher resolution. provides added protection from extreme environmental conditions. Stainless steel armor jacketed cabling provides added protection from extreme environmental conditions.

#### FIELD OPTIONS:

- Custom temperature probe lengths
- 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA output
- RS232, RS485 or CAN protocol
- Cleaned for oxygen service
- Alternate remote cable lengths
- Designed to meet high shock & vibration
- Hastelloy or Inconel wetted parts



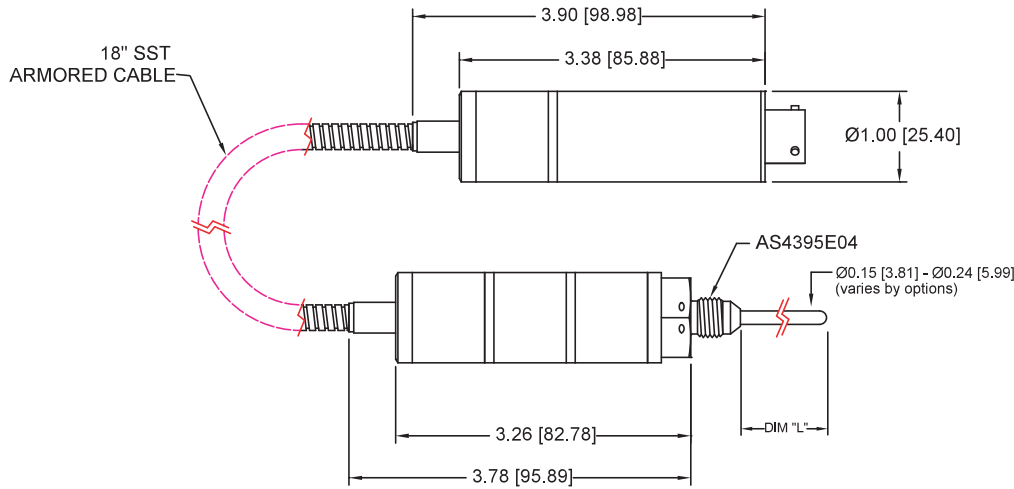
Model ASI 2050

Cryogenic & High Temperature Transducer

# MODEL ASI 2050

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)



### STANDARD WIRING

PIN	VDC	4-20mA
A/1	+EXC	+EXC/SIG
B/2	+SIG	N/C
C/3	-SIG	N/C
D/4	-EXC	-EXC/SIG
E/5	N/C	N/C
F/6	N/C	N/C

L = 0.50 TO 7.00 INCH PROBE LENGTH

## SPECIFICATIONS

### ELECTRICAL

- Output Signal: 0 to 5 Vdc, 0 to 10 Vdc (isolated or non-isolated) or 4-20 mA
- Supply Voltage: 18 to 36 Vdc
- Temperature Output: 100  $\Omega$  2-wire platinum RTD standard, 1,000  $\Omega$  2-wire platinum RTD optional
- Response Time: <2 sec
- Connection: MIL PTIH-10-6P standard, options available
- Circuit Protection: Designed to meet \*MIL-STD-461/462 EMI/RFI; some options will affect EMI/RFI rating

### MATERIALS OF CONSTRUCTION

- Probe: 316L stainless steel (Inconel and Hastelloy optional)
- Housing: 316 stainless steel
- Tubing 18" Flexible metal hose

### ACCURACY

Static Accuracy:  $\pm 3\%$  FSO,  $\pm 1\%$  optional

Please consult factory for your specific needs.

### MECHANICAL

- Process Connection: AS4395E04 pressure port
- O-Ring: Buna-N (Nitrile) is standard. For expanded temp ranges -65  $^{\circ}$ F to 350  $^{\circ}$ F Fluorosilicone is standard.
- Probe Length: 1.55" (custom lengths available)

### TEMPERATURE RANGES

-320 $^{\circ}$ F to +400 $^{\circ}$ F (-196 $^{\circ}$ C to +200 $^{\circ}$ C)

### SYSTEM PRESSURE

- Designed for up to 2000 PSI (138 BAR), higher system pressures also available

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**Standard configurations shown.**  
 Please consult factory for other options.

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.