

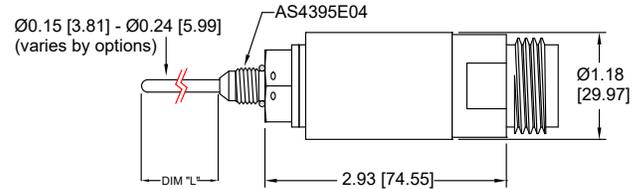


## MODEL 7850 SUBSEA TEMPERATURE TRANSDUCER

### 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



**REF DIMENSIONS ONLY.  
CONSULT FACTORY FOR ACTUAL DIMENSIONS.**

### PRODUCT OVERVIEW:

The Model 7850 from GP:50 is a rugged, sub-sea temperature transducer, tested to 30,000 FT sea water. The highly corrosion resistant design meets the tough environmental challenges of offshore oil and gas, Naval and ROV applications.

### FEATURES:

- Depth rated to 30K ft WC (9,144 meters)
- -100 °F to +392 °F (-73 °C to +200 °C) standard medium
- High accuracy temperature output up to 1% FSO
- Compact, sea water rated design
- Up to 0.5 second temperature response time
- 100 Ω platinum RTD

### APPLICATIONS:

- Military and commercial ROVs
- Subsea oil and gas
- Naval exploration
- Ground and engine testing

### OPTIONS:

- 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA output
- RS232, RS485 and Can protocols available
- Inconel, 316L or Monel wetted parts
- Wide selection of subsea rated electrical and process connections
- Custom temperature probe lengths
- 100 or 1,000 Ω platinum RTD, J or K type thermocouple
- Various MIL-SPECS available. Consult factory.

# GP:50 MODEL 7850

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	0 to 5 Vdc, 0 to 10 Vdc (isolated or non-isolated) and 4-20 mA
Temperature Output:	100 $\Omega$ 2-wire platinum RTD standard 1,000 $\Omega$ 2-wire platinum RTD optional
Excitation Voltage:	9 to 32 Vdc for 4-20 mA, 0-5 Vdc 14 to 32 Vdc for 0 to 10Vdc or isolated input
Circuit Protection:	EMI/RFI, some options will affect EMI/RFI rating
Response Time:	<2 sec

MATERIALS OF CONSTRUCTION	
Probe:	316 Stainless Steel (Inconel and Monel available)
Housing:	316 Stainless Steel
O-Ring:	Buna-N (Nitrile) is standard. For expanded temp ranges -65 °F to +350 °F (-54 °C to +177 °C) Fluorosilicone is standard.

ACCURACY (RSS): Hysteresis, Non-Linearity & Repeatability @ +70 °F	
Static Accuracy:	$\pm 1.0\%$ FSO
Zero/Span Balance:	$\pm 1.0\%$ FSO

(BFSL method used. Improved options available.)

Calibration:	NIST Traceable Cert
Workmanship:	IPC-A-610 Soldering
Quality System:	AS9100

Options may affect specifications.  
Please consult factory for your specific needs.

MECHANICAL	
Process Connection:	AS4395E04 pressure port
Electrical Connection:	XSJJ-2-BCR (Seacon 2-pin) standard, options available
Probe Length:	0.5 to 7.00 Inch Options
Pressure Rating:	2,000 PSI (138 BAR), Optional 0-10K PSI (689 BAR)
Random Vibration:	25 G RMS (20 Hz to 2,000 Hz)
Sinusoidal Vibration:	>7.5 G's 5 Hz to 100 Hz
Constant Acceleration:	5 G's for 30 minutes
Approximate Weight:	5 oz (142 gm)

SYSTEM PRESSURE	
Up to 2000 PSI (138 BAR) (Optional 0-10,000 PSI available)	

TEMPERATURE RANGES	
-100°F to +392 °F (-73 °C to +200 °C)	

