

# SUB SEA TEMPERATURE TRANSDUCER



Model 7850 Sub Sea Temperature Transducer

# **MODEL 7850**

## **FEATURES:**

- Depth rated to 30K ft WC (9,144 meters)
- $\bullet$  -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 ROV's
- Subsea oil and gas
- Naval exploration
- Ground and engine testing

## 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.

## FIELD OPTIONS:

- 0 to 5 Vdc, 0 to 10 Vdc or 4-20 mA output
- RS232, RS485 and Can protocols available
- Inconel, 316L or Hastelloy wetted parts
- Wide selection of subsea rated electrical and process connections
- Custom temperature probe lengths
- 100 or 1,000  $\Omega$  platinum RTD, J or K type thermocouple



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# **GP:50 MODEL 7850**

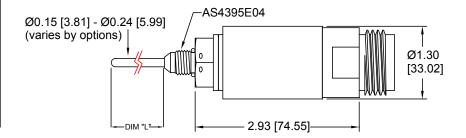
#### DIMENSIONAL DRAWING

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



#### REFERENCE SPECIFICATIONS

#### ELECTRICAL

- Output Signal: 0 to 5 Vdc, 0 to 10 Vdc (isolated or non-isolated) and 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, 0.5 sec optional
- Circuit Protection: Designed to meet \*MIL-STD-461/462 EMI/RFI, some options will affect EMI/RFI rating
- Connection: XSJJ-2-BCR (Seacon 2-pin) standard, options available

#### MATERIALS OF CONSTRUCTION

- Probe: 316 stainless steel (Inconel, Hastelloy and Monel available)
- Housing: 316 stainless steel

#### **ACCURACY**

Static Accuracy: ±3% FSO, ±1% optional

- \*Options may affect Mil-specifications.
- 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 °F to 350 °F Flourosilicone is standard.
- Probe Length: 1" From port end (custom lengths available)

#### **TEMPERATURE RANGES**

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

#### SYSTEM PRESSURE

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

#### **OPTIONAL**

- Workmanship: J-001/NASA 8739.3 standard
- Quality System: ISO 9001:2008

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 GP:50 for assistance with your application.

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