DUAL PRESSURE & TEMPERATURE CANbus TRANSMITTER

MODEL 543

Model 543
Dual Pressure & Temperature
CANbus Transmitter

FEATURES:

- Pressure and temperature in a single device
- Reduces I/O points
- Compact 1-inch (25.4 mm) diameter
- Rugged all-welded stainless steel design
- CANbus SAE J1939 or CANopen protocol
- Standard ranges from 0-50 PSI thru 0-10K PSI (3.5 thru 690 bar)
- Temperature ranges from -40°F to +300°F (-40°C to 150°C)

APPLICATIONS:

- Oilfield vehicle engine oil and transmission monitoring
- Oil rig topside controls
- Automotive test stands
- Process skids
- Medical equipment
- Laboratory R&D

PRODUCT OVERVIEW:

The Model 543 series from GP:50 is an all-stainless steel, dual pressure and temperature CANbus output transmitter. Its compact design reduces I/O and insertion points where size and weight are considerations. Units are available in a variety of pressure and temperature ranges, with support for both CANbus J1939 and CANopen protocols.

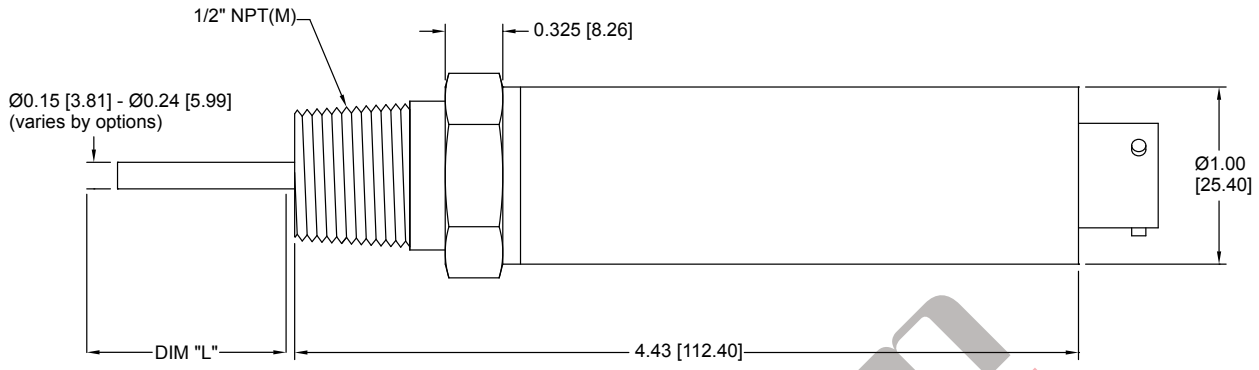
FIELD OPTIONS:

- Field adjustable zero & span
- Adjustable message addresses, bit rate and custom streaming
- Optional extended CAN 2.0B 29-bit CAN identifiers
- Alternate probe lengths, process ports and electrical connections
- Optional improved temperature specifications available. Please consult factory.

GP:50 MODEL 543

DIMENSIONAL DRAWING

All dimensions are in inches (mm)



STANDARD WIRING

PIN	MODEL 543
A/1	+EXC
B/2	-EXC
C/3	CASE GND
D/4	CANBUS HI
E/5	CANBUS LOW
F/6	N/C

L = 0.50 TO 7.00 INCH PROBE LENGTH

REFERENCE SPECIFICATIONS

ELECTRICAL

- **Supply Voltage:**
  Standard: 9-36 Vdc
  Optional Expanded: 4.5 to 37 Vdc
- **Output Signal:** CANbus SAE J1939
- **Current Draw:** 40 mA
- **Standard Resolution:** 18-bit
- **Zero Balance:** ±0.2% FSO at +70 °F
- **Standard Messaging:**
  Pressure, temperature & raw sensor signals
  (Up to four messages can be streamed)
- **Standard CAN Protocol:** 11-bit CAN identifiers
  (Optional Extended CAN 2.0B 29-bit CAN identifiers)
- **Connection:** 6-pin Bendix connector

MATERIALS OF CONSTRUCTION

- **Wetted Parts:** 17-4 PH stainless steel
- **Housing:** 300 series stainless steel

STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)

Standard: ±0.5% FSO
Improved: Optional ±0.2% FSO or ±0.1% FSO

MECHANICAL

- **Process connection:** ½" NPT (M) with 0.75" temperature probe
- **Proof Pressure:** 2X FSO (optional 5X)
- **Burst Pressure:** 5X FSO

Optional ports and probe lengths available

PRESSURE RANGES

- 0-50 thru 0-10K PSI (3.5 thru 690 BAR)
  gauge, sealed gauge, absolute

THERMAL SPECIFICATIONS (FOR PRESSURE OUTPUT)

- **Compensated:** +30 °F to -185 °F (-1 °C to -120 °C)
- **Operating Ambient:** -40 °F to +185 °F (-40 °C to +85 °C)
- **Operating Process:** -40 °F to +250 °F (-40 °C to +120 °C)
- **Storage:** -65 °F to +250 °F (-55 °C to +120 °C)
- **Effect on zero/span:** <±0.5 % FSO/100 °F

TEMPERATURE MEASUREMENT

- **Ranges:** -40 °F to +300 °F (-40 °C to +150 °C)
- **Standard Accuracy:** ±0.5 °C from -70 °F to +260 °F (-55° to +125°C)
- **Expanded Accuracy:** ±1.0 °C from -40 °F to +400° F (-40 °C to +205 °C)
- **Standard Resolution:** 32 °F (0.06 °C), 33 °F (0.5 °C) expanded

Standard configurations shown.
Please consult factory for other options.