



## 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.

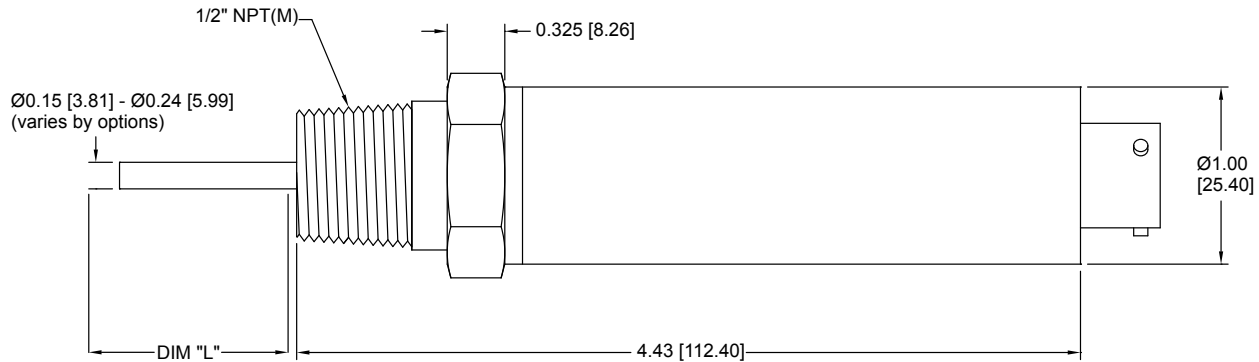
#### FIELD OPTIONS:

- 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	MECHANICAL
<ul style="list-style-type: none"> <li>Supply Voltage:                             <ul style="list-style-type: none"> <li>Standard: 9-36 Vdc</li> <li>Optional Expanded: 4.5 to 37 Vdc</li> </ul> </li> <li>Output Signal: CANbus SAE J1939</li> <li>Current Draw: 40 mA</li> <li>Standard Resolution: 18-bit</li> <li>Zero Balance: <math>\pm 0.2\%</math> FSO at <math>+70^\circ\text{F}</math></li> <li>Standard Messaging:                             <ul style="list-style-type: none"> <li>Pressure, temperature &amp; raw sensor signals (Up to four messages can be streamed)</li> </ul> </li> <li>Standard CAN Protocol: 11-bit CAN identifiers (Optional Extended CAN 2.0B 29-bit CAN identifiers)</li> <li>Connection: 6-pin Bendix connector</li> </ul>	<ul style="list-style-type: none"> <li>Process connection: <math>\frac{1}{2}</math>" NPT (M) with 0.75" temperature probe</li> <li>Proof Pressure: 2X FSO (optional 5X)</li> <li>Burst Pressure: 5X FSO</li> </ul> Optional ports and probe lengths available
<b>MATERIALS OF CONSTRUCTION</b> <ul style="list-style-type: none"> <li>Wetted Parts: 17-4 PH stainless steel</li> <li>Housing: 300 series stainless steel</li> </ul>	<b>PRESSURE RANGES</b> <ul style="list-style-type: none"> <li>0-50 thru 0-10K PSI (3.5 thru 690 BAR) gauge, sealed gauge, absolute</li> </ul>
<b>STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ <math>+70^\circ\text{F}</math>)</b> Standard: $\pm 0.5\%$ FSO Improved: Optional $\pm 0.2\%$ FSO or $\pm 0.1\%$ FSO	<b>THERMAL SPECIFICATIONS (FOR PRESSURE OUTPUT)</b> <ul style="list-style-type: none"> <li>Compensated: <math>+30^\circ\text{F}</math> to <math>-185^\circ\text{F}</math> (<math>-1^\circ\text{C}</math> to <math>-120^\circ\text{C}</math>)</li> <li>Operating Ambient: <math>-40^\circ\text{F}</math> to <math>+185^\circ\text{F}</math> (<math>-40^\circ\text{C}</math> to <math>+85^\circ\text{C}</math>)</li> <li>Operating Process: <math>-40^\circ\text{F}</math> to <math>+250^\circ\text{F}</math> (<math>-40^\circ\text{C}</math> to <math>+120^\circ\text{C}</math>)</li> <li>Storage: <math>-65^\circ\text{F}</math> to <math>+250^\circ\text{F}</math> (<math>-55^\circ\text{C}</math> to <math>+120^\circ\text{C}</math>)</li> <li>Effect on zero/span: <math>&lt; \pm 0.5\%</math> FSO/100 <math>^\circ\text{F}</math></li> </ul>
	<b>TEMPERATURE MEASUREMENT</b> <ul style="list-style-type: none"> <li>Ranges: <math>-40^\circ\text{F}</math> to <math>+300^\circ\text{F}</math> (<math>-40^\circ\text{C}</math> to <math>+150^\circ\text{C}</math>)</li> <li>Standard Accuracy: <math>\pm 0.5^\circ\text{C}</math> from <math>-70^\circ\text{F}</math> to <math>+260^\circ\text{F}</math> (<math>-55^\circ</math> to <math>+125^\circ\text{C}</math>)</li> <li>Expanded Accuracy: <math>\pm 1.0^\circ\text{C}</math> from <math>-40^\circ\text{F}</math> to <math>+400^\circ\text{F}</math> (<math>-40^\circ\text{C}</math> to <math>+205^\circ\text{C}</math>)</li> <li>Standard Resolution: <math>32^\circ\text{F}</math> (<math>0.06^\circ\text{C}</math>), <math>33^\circ\text{F}</math> (<math>0.5^\circ\text{C}</math>) expanded</li> </ul>

**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.

© 2015 GP:50 NY Ltd. | 2770 Long Rd, Grand Island, NY 14072 USA

Tel: +1.716.773.9300 Fax: +1.716.773.5019 Email: sales@gp50.com Web: www.gp50.com

