MODEL 541

FEATURES:
- CAN Bus protocol - J1939 or Can Open
- High accuracy ±0.05% FSO
- High thermal stability +/-0.25% FSO/100 °F
- -40 to +250 °F compensation
- Compact, lightweight, all stainless steel design
- Adjustable Response Time (1Hz to 200Hz)
- Temperature output

APPLICATIONS:
- Dynamometer testing
- Transmission testing
- Brake testing
- Hydraulic & Pneumatic valve testing
- Jet engine testing
- Emission test stands

PRODUCT OVERVIEW:
The Model 541 series is our most accurate CAN based pressure transducer. Designed specifically for test stand applications, the CAN Bus protocol provides high resolution, reduced noise and improved thermal performance. The compact, all-welded stainless steel design of the Model 541 offers ease of installation within space constrained environments. Static accuracy is available to ±0.05% FSO, with a total thermal error of 0.25% FSO over the compensated temperature range.

FIELD OPTIONS:
- Field adjustable zero
- Adjustable message addresses, bit rate and message streaming
- Optional extended CAN 2.0B 29-bit CAN identifiers

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**DIMENSIONAL DRAWING**

All dimensions are in inches (mm)

<table>
<thead>
<tr>
<th>PIN</th>
<th>MODEL 541</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/1</td>
<td>+EXC</td>
</tr>
<tr>
<td>B/2</td>
<td>-EXC</td>
</tr>
<tr>
<td>C/3</td>
<td>CASE GND</td>
</tr>
<tr>
<td>D/4</td>
<td>CANBUS HI</td>
</tr>
<tr>
<td>E/5</td>
<td>CANBUS LOW</td>
</tr>
<tr>
<td>F/6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**ELECTRICAL**

- **Supply Voltage:**
  - Standard: 9 to 32 Vdc
  - Optional Expanded: 4.5 to 32 Vdc

- **Output Signal:** CAN bus SAE J1939 and CAN Open
- **Current Draw:** 40 mA
- **Standard Resolution:** 18 Bit
- **Zero Balance:** +/-0.1% FSO @ 70°F
- **Standard Messaging:**
  - Pressure, temperature & mV/V sensor
  - (Up to four messages can be streamed)
- **Standard CAN Protocol:** 11 Bit CAN identifiers
- **Connection:** 1/2" NPT (M) conduit with 36" cable leads or 6-Pin Bendix connector

**MATERIALS OF CONSTRUCTION**

- **Wetted Parts:** 316 or 17-4 PH SST
- **Housing:** 300 series stainless steel

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

- Standard: ±0.1% FSO
- ±0.05% FSO available

**MECHANICAL**

- **Process connection:** 1/4" NPT (M)
- **Proof Pressure:** 2X FSO (optional 5X)
- **Burst Pressure:** 5X FSO

**PRESSURE RANGES**

- 0 to 1 thru 0 to 10,000 PSI (0.069 thru 690 BAR)
  - gauge, sealed gauge, absolute

**THERMAL SPECIFICATION**

- **Compensated:** 0°F to +180°F (-18°C to +82°C)
- **Effect on zero/span:** ±0.5% FSO/100°F each
  - (±1.0% FSO/100°F from -40 to 185°F / (-40°C to +85°C)
- **Operating Temp:** -40°F to +250°F (-40°C to +121°C)

**Improved Performance Options:**

- **Expanded Ranges:** -40°F to +250°F (-40°C to +121°C)
- **Improved Temperature Performance:** ±0.25% FSO/100°F
  - (-40°F to +250°F (-40°C to +121°C))

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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