

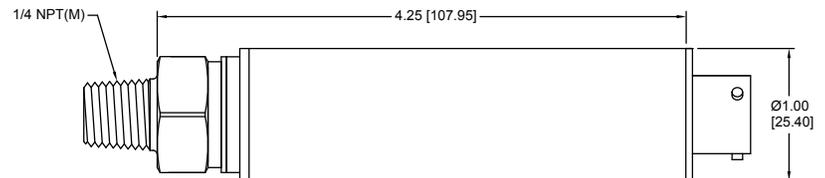
## MODEL 541

### HIGH-ACCURACY CAN BUS TRANSDUCER



#### STANDARD WIRING

PIN	MODEL 541
A/1	+EXC
B/2	-EXC
C/3	CASE GND
D/4	CANBUS HI
E/5	CANBUS LOW
F/6	N/A



Inches (mm)

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

#### 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  $\pm 0.05\%$  FSO, with a total thermal error of 0.25% FSO over the compensated temperature range.

#### FEATURES:

- CAN Bus protocol - J1939 or CAN Open
- High accuracy  $\pm 0.05\%$  FSO
- High thermal stability  $\pm 0.25\%$  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

#### OPTIONS:

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

# GP:50 MODEL 541

## REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	CAN Bus SAE J1939 CAN Open
Excitation Voltage:	Standard: 9 to 32 Vdc Optional Expanded: 4.5 to 32 Vdc
Circuit Protection:	RFI, EMI & Reverse polarity protected
Response Time:	Adjustable
Current Draw:	40 mA
Standard Resolution:	18 Bit
Standard Messaging:	Pressure, temperature & mV/V sensor (Up to four messages can be streamed)
Standard CAN Protocol:	11 Bit CAN identifiers Optional EXtended CAN 2.0B-29 Bit CAN identifiers

MATERIALS OF CONSTRUCTION	
Wetted Parts:	316 or 17-4 PH SST
Housing:	316 Series Stainless Steel
Internal Fill:	≤500 PSI Fomblin Oil (May contain Silicone oil fill)

ACCURACY (BFSL): Non-Linearity @ +70 °F	
Standard:	±0.1%
Improved:	±0.5% FSO available
Zero & Span Balance:	±0.1% FSO at +70 °F

MECHANICAL	
Process Connection:	1/4" NPT (M)
Electrical Connection:	PTIH-10-6P connector (Options available)
Proof Pressure:	2X FSO (optional 5X)
Burst Pressure:	5X FSO
Approximate Weight:	4 oz (0.11 kg)

PRESSURE RANGES	
0 to 1 thru 10 to 10,000 PSI (0.69 thru 690 BAR) Gauge, Sealed Gauge, Absolute, Vacuum	

THERMAL SPECIFICATIONS	
Operating Range:	-40 °F to +250 °F (-40 °C to +121 °C)
Compensated Range:	0 °F to +180 °F (-18 °C to +82 °C)
Storage Ambient:	-40 °F to 250 °F (-40 °C to +121 °C)
Effect on Zero/Span:	±0.5% FSO/100 °F each (±1.0% FSO/100 °F from -40 °F to +185 °F / (-40 °C to +85 °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))

