



# GP SERIES

## Gage Pressure Transducer (Air, Gasses, & Liquid)



The GP Series is designed to provide excellent accuracy and reliability in commercial, industrial, and process control applications where performance is critical. The bulk micro-machined transducer features a stainless steel diaphragm with welded construction that contains no O-rings, which makes them compatible with any gas or liquid compatible with 304L stainless steel. Some of the compatible gases and liquids include refrigerants, glycol, motor oil, diesel, hydraulic fluid, brake fluid, water, waste water, Hydrogen, Nitrogen and air. The GP Series transducers can also be ordered in an optional NEMA 4 rated, weatherproof metal enclosure (See on-line GP-NEMA 4 data sheet) or a NIST Calibration Certificate. Accessory items such as pressure snubbers and pigtail syphons are available to protect the transducers from line pressure surges (pulsations) or extreme operating temperatures. This series features packard connectors and separate harnesses allowing for installation flexibility.

**Applications:** Refrigeration, Fuel Cells, Pumps, Hydraulics, Compressors, Robotics, Pneumatics, Agriculture, Spraying Systems, Process Control, Flow, Hydrogen Storage, Steam Lines, Boilers, Chillers

### PRODUCT SPECIFICATIONS

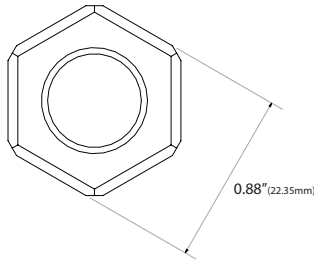
<b>Supply Voltage:</b>	<b>250 Ohm Load:</b> +13 to 30 VDC   <b>500 Ohm Load:</b> 18 to 30 VDC
<b>Reverse Polarity Protection:</b>	+/- 16 V over 5 minutes
<b>Maximum Load Resistance:</b>	800 Ohms @ 24 VDC   <b>Formula:</b> (Supply VDC – 8 VDC) / 0.020A
<b>Supply Current:</b>	25 mA minimum
<b>Output Signal:</b>	4 to 20 mA (2-Wire, Loop Powered)
<b>Response Time:</b>	< 1 ms
<b>Pressure Ranges:</b>	See "Ordering Grid" on back of data sheet
<b>Accuracy <sup>1</sup> @ 22°C (71.6°F):</b>	<b>15 to 60 psig:</b> < +/- 1.0% FS   <b>75 to 300 psig:</b> < +/- 0.5% FS   <b>500 psig <sup>3</sup>:</b> < +/- 0.5% FS
<b>Thermal Error <sup>2</sup> (-40° to 105°C):</b>	<b>15 to 60 psig:</b> < +/- 1.0 FS   <b>75 to 300 psig:</b> < +/- 0.5% FS   <b>500 psig <sup>3</sup>:</b> < +/- 0.5% FS
<b>Stability (250 Hours @ 225°F (125°C)):</b>	+/- 0.03% FS @ 0 PSIG; +/- 0.12% FS @ 1000 PSIG
<b>Proof Pressure:</b>	<b>15 to 300 psig:</b> 3x FS   <b>500 psig:</b> 3x FS
<b>Burst Pressure:</b>	<b>15 to 300 psig:</b> 3x FS   <b>500 psig:</b> 3x FS
<b>Thermal Shock:</b>	300 Cycles (105°C to -40°C, 0.5 hr soaks @ Temp. (2s Transfer))
<b>Vibration (100 to 2000Hz, 20g Sinusoidal, 3 Axes):</b>	144 Hours
<b>Operating Temperature Range:</b>	-40 to 221°F (-40 to 105°C)
<b>Storage Temperature Range:</b>	-40 to 176°F (-40 to 80°C)
<b>Operating Humidity Range:</b>	0 to 95% RH, non-condensing
<b>Media Types:</b>	Any gas or liquid compatible with 304L Stainless Steel
<b>Transducer Housing Material:</b>	Stainless Steel
<b>Process Fitting Material   Thread Size:</b>	304L Stainless Steel   1/4"-18 NPT
<b>Recommend Torque Specification:</b>	150 lbs-in (16.95 N-m)
<b>Wiring Connections:</b>	Packard Connector (Cables ordered separately per "Ordering Grid" on back of data sheet)
<b>NIST Certificate:</b>	Ordered Separately (See "Ordering Grid" on back of data sheet)
<b>Approvals:</b>	<b>EMC Compliance:</b> 10 V/m (EN61000-4-3), CE, RoHS2, WEEE, ISO 9001
<b>Product Dimensions (Length x Diameter):</b>	2.60" (66.6 mm) x 0.875" (22.23 mm)
<b>Product Weights:</b>	<b>A/GP Series Transducer:</b> 0.30 lbs. (0.136 kg)   <b>A/GP 2' Harness:</b> 0.09 lbs. (0.040 kg) <b>A/GP 6' Harness:</b> 0.20 lbs. (0.091 kg)   <b>A/GP 10' Harness:</b> 0.32 lbs. (0.145 kg) <b>A/GP 20' Harness:</b> 0.62 lbs. (0.282 kg)   <b>A/GP 30' Harness:</b> 0.92 lb.s (0.417 kg) <b>A/GP 40' Harness:</b> 1.22 lbs. (0.554 kg)

**Note<sup>1</sup>:** Accuracy includes Hysteresis, Repeatability, and Non-linearity (BFSL) | **Note<sup>2</sup>:** Additional error over temperature range | **Note<sup>3</sup>:** Sealed Gage pressure transducers are not vented to atmosphere, but are calibrated to have 4 mA at 14.5 PSIG to resemble a standard gauge pressure transducer output

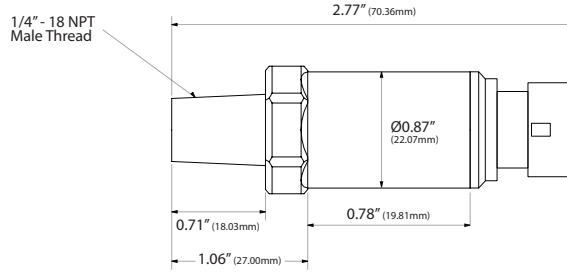




**DIMENSIONAL DRAWING**



Front View



Right View

**STANDARD ORDERING**

Model # Example: GP(0-300G)-20-P -OR- 135749

Model #	Item #	Description	Gage	Sealed Gage	Packard Connector	Harness Required
GP(0-15G)-20-P	135751	0-15 psig (103 kPa), 1/4" NPT, Packard	●		●	●
GP(0-30G)-20-P	143160	0-30 psig (207 kPa), 1/4" NPT, Packard	●		●	●
GP(0-50G)-20-P	143161	0-50 psig (345 kPa), 1/4" NPT, Packard	●		●	●
GP(0-100G)-20-P	135747	0-100 psig (689 kPa), 1/4" NPT, Packard	●		●	●
GP(0-200G)-20-P	135748	0-200 psig (1379 kPa), 1/4" NPT, Packard	●		●	●
GP(0-300G)-20-P	135749	0-300 psig (2069 kPa), 1/4" NPT, Packard	●		●	●
GP(0-500S)-20-P	135750	0-500 psig (3447 kPa), 1/4" NPT, Packard		●	●	●

**ACCESSORIES ORDERING**

Model # Example: A/GP 30' HARNESS -OR- 135703

Model #	Item #	Description
A/GP 2'HARNESS	142606	A/GP 2' (.61m) Packard Wire Harness, Plenum Rated
A/GP 6'HARNESS	135614	A/GP 6' (1.83m) Packard Wire Harness, Plenum Rated
A/GP 10'HARNESS	116601	A/GP 10' (3.05m) Packard Wire Harness, Plenum Rated
A/GP 20'HARNESS	135613	A/GP 20' (6.10m) Packard Wire Harness, Plenum Rated
A/GP 30'HARNESS	135703	A/GP 30' (9.14m) Packard Wire Harness, Plenum Rated
A/GP 40'HARNESS	136995	A/GP 40' (12.19m) Packard Wire Harness, Plenum Rated
A/0.25"SNUB A/G	137105	1/4" NPT Stainless Steel Snubber for Air/Gas
A/0.25"SNUB WTR	137104	1/4" NPT Stainless Steel Snubber for Water/Light Oils
GP NIST*	142927	GP NIST Calibration Certificate

Note\*: The A/GP Harness and GP NIST must be ordered separately when ordering transducers w/ Packard Connector or any of the Gage Pressure transmitters with a NIST Calibration Certificate

