



# GP SERIES

## Gage Pressure Transducer (Air, Gases & Liquids)



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). 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

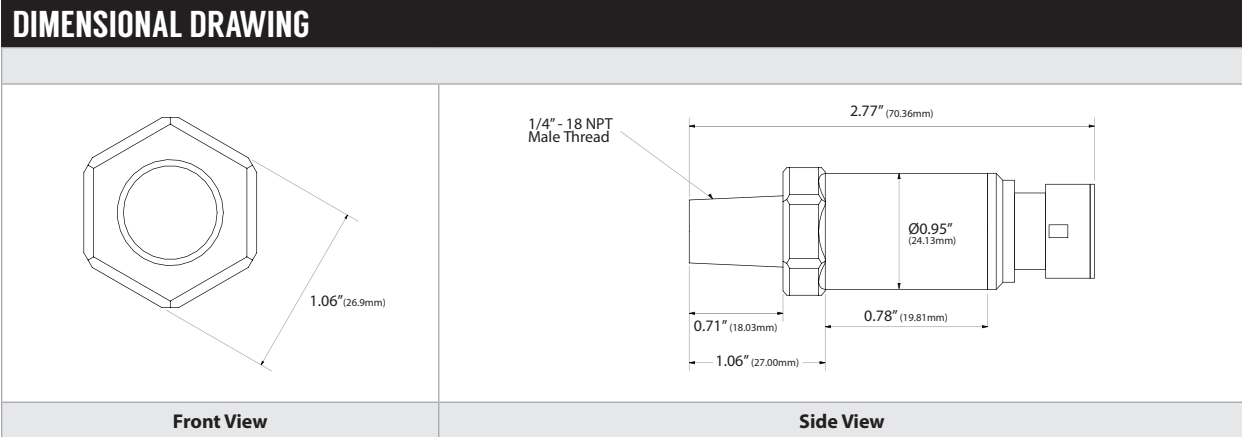
The GP Series is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [workaci.com](http://workaci.com).

### PRODUCT SPECIFICATIONS

<b>Supply Voltage:</b>	<b>250 Ohm Load:</b> +14.5 to 30 VDC   <b>500 Ohm Load:</b> +20 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 Range:</b>	See "Ordering Grid" on back of data sheet
<b>Accuracy @ 22°C (71.6°F)<sup>1</sup>:</b>	+/-1.5% FS
<b>Stability:</b>	≤ +/- 0.25% of span/year
<b>Proof Pressure</b>	2x FS
<b>Burst Pressure:</b>	3x FS
<b>Thermal Shock:</b>	50 Cycles (105°C to -40°C, 0.5 hr soaks @ Temp. (10s Transfer))
<b>Vibration (100 to 2000Hz, 20g Sinusoidal, 3 Axes):</b>	10 Hours
<b>Operating Temperature Range:</b>	-40 to 257°F (-40 to 125°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 Type:</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>Recommended Torque Specification:</b>	150 lbs-in (16.95 Nm)
<b>Wiring Connections:</b>	Packard Connector (Cables ordered separately per "Ordering Grid" on back of data sheet)
<b>Approvals:</b>	RoHS2, WEEE, ISO 9001
<b>EMC Compatibility:</b>	150 V/m
<b>Product Dimensions (Length x Diameter):</b>	2.77"(70.36mm) x 0.95 (24.13mm)
<b>Product Weight:</b>	<b>A/GP Series Transducer:</b> 0.30 lbs. (0.13 kg)   <b>A/GP 2' Harness:</b> 0.09 lbs. (0.04 kg) <b>A/GP 6' Harness:</b> 0.20 lbs. (0.09 kg)   <b>A/GP 10' Harness:</b> 0.32 lbs. (0.14 kg) <b>A/GP 20' Harness:</b> 0.62 lbs. (0.28 kg)   <b>A/GP 30' Harness:</b> 0.92 lbs. (0.41 kg) <b>A/GP 40' Harness:</b> 1.22 lbs. (0.55 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 0.5 VDC, 1 VDC or 4 mA at +14.5 PSIG





### 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' (0.610 m) Packard Wire Harness, Plenum Rated
A/GP 6' Harness	135614	A/GP 6' (1.83 m) Packard Wire Harness, Plenum Rated
A/GP 10' Harness	116601	A/GP 10' (3.05 m) Packard Wire Harness, Plenum Rated
A/GP 20' Harness	135613	A/GP 20' (6.10 m) Packard Wire Harness, Plenum Rated
A/GP 30' Harness	135703	A/GP 30' (9.14 m) Packard Wire Harness, Plenum Rated
A/GP 40' Harness	136995	A/GP 40' (12.19 m) 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
A/GP M10'HARNESS	147878	A/GP 10' (3.05m) Harness, Metal Clad
A/GP M20'HARNESS	147881	A/GP 20' (6.1m) Harness, Metal Clad

**Note:** The A/GP Harness must be ordered separately when ordering transducers with Packard Connector

### ADDITIONAL ACCESSORIES ORDERING

Item # Example: **100307**

Item #	Description
100307	249 Ohm, 1/4W, +/- 1% Tolerance, 50 PPM Resistor (Only Needed to Convert to 1-5 VDC)
100306	249 Ohm, 1/4W, +/- 0.1% Tolerance, 50 PPM Resistor (Recommended for Best Accuracy) (Only Needed to Convert to 1-5 VDC)
100469	499 Ohm, 1W, +/- 1% Tolerance, 50 PPM Resistor (Only Needed to Convert to 2-10 VDC)

