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GP SERIES

Gage Pressure Transducer (Air, Gases, & 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 seperate 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, www.workaci.com.

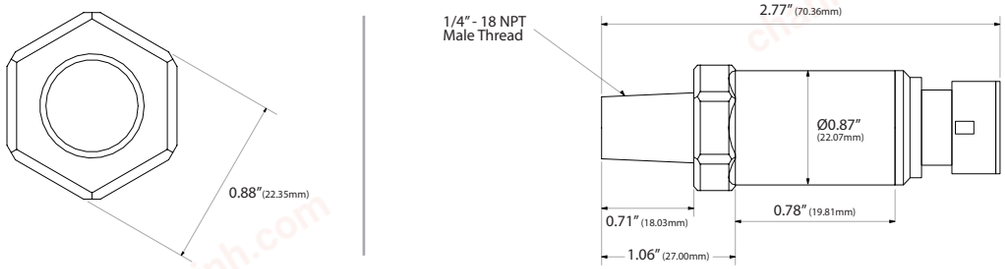
PRODUCT SPECIFICATIONS

Supply Voltage:	**250 Ohm Load:** +13 to 30 VDC | **500 Ohm Load:** 18 to 30 VDC
Reverse Polarity Protection:	+/- 16 V over 5 minutes
Maximum Load Resistance:	800 Ohms @ 24 VDC | **Formula:** (Supply VDC – 8 VDC) / 0.020A
Supply Current:	25 mA minimum
Output Signal:	4 to 20 mA (2-Wire, Loop Powered)
Response Time:	< 1 ms
Pressure Ranges:	See "Ordering Grid" on back of data sheet
Accuracy [1] @ 22°C (71.6°F):	**15 to 60 psig:** < +/- 1.0% FS | **75 to 300 psig:** < +/- 0.5% FS | **500 psis [3]:** < +/- 0.5% FS
Thermal Error [2] (-40° to 105°C):	**15 to 60 psig:** < +/- 1.0 FS | **75 to 300 psig:** < +/- 0.5% FS | **500 psis [3]:** < +/- 0.5% FS
Stability (250 Hours @ 225°F (125°C)):	+/- 0.03% FS @ 0 PSIG; +/- 0.12% FS @ 1000 PSIG
Proof Pressure:	**15 to 300 psig:** 3x FS | **500 psis:** 3x FS
Burst Pressure:	**15 to 300 psig:** 3x FS | **500 psis:** 3x FS
Thermal Shock:	300 Cycles (105°C to -40°C, 0.5 hr soaks @ Temp. (2s Transfer))
Vibration (100 to 2000Hz, 20g Sinusoidal, 3 Axes):	144 Hours
Operating Temperature Range:	-40 to 257°F (-40 to 125°C)
Storage Temperature Range:	-40 to 176°F (-40 to 80°C)
Operating Humidity Range:	0 to 95% RH, non-condensing
Media Types:	Any gas or liquid compatible with 304L Stainless Steel
Transducer Housing Material:	Stainless Steel
Process Fitting Material | Thread Size:	304L Stainless Steel | 1/4"-18 NPT
Recommend Torque Specification:	150 lbs-in (16.95 Nm)
Wiring Connections:	Packard Connector (Cables ordered separately per "Ordering Grid" on back of data sheet)
NIST Certificate:	Ordered Separately (See "Ordering Grid" on back of data sheet)
Approvals:	**EMC Compliance:** 10 V/m (EN61000-4-3), CE, RoHS2, WEEE, ISO 9001
Product Dimensions (Length x Diameter):	2.60" (66.6 mm) x 0.87" (22.23 mm)
Product Weights:	**A/GP Series Transducer:** 0.30 lbs. (0.13 kg) | **A/GP 2' Harness:** 0.09 lbs. (0.04 kg) **A/GP 6' Harness:** 0.20 lbs. (0.09 kg) | **A/GP 10' Harness:** 0.32 lbs. (0.14 kg) **A/GP 20' Harness:** 0.62 lbs. (0.28 kg) | **A/GP 30' Harness:** 0.92 lbs. (0.41 kg) **A/GP 40' Harness:** 1.22 lbs. (0.55 kg)

Note[1]: Accuracy includes Hysteresis, Repeatability, and Non-linearity (BFSL) | **Note[2]:** Additional error over temperature range | **Note[3]:** 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

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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), ¼″ NPT, Packard	●		●	●
GP(0-30G)-20-P	143160	0-30 psig (207 kPa), ¼″ NPT, Packard	●		●	●
GP(0-50G)-20-P	143161	0-50 psig (345 kPa), ¼″ NPT, Packard	●		●	●
GP(0-100G)-20-P	135747	0-100 psig (689 kPa), ¼″ NPT, Packard	●		●	●
GP(0-200G)-20-P	135748	0-200 psig (1379 kPa), ¼″ NPT, Packard	●		●	●
GP(0-300G)-20-P	135749	0-300 psig (2069 kPa), ¼″ NPT, Packard	●		●	●
GP(0-500S)-20-P	135750	0-500 psis (3447 kPa), ¼″ 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	¼″ NPT Stainless Steel Snubber for Air/Gas
A/0.25″SNUB WTR	137104	¼″ NPT Stainless Steel Snubber for Water/Light Oils
GP NIST*	142927	GP NIST Calibration Certificate
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 and GP NIST must be ordered separately when ordering transducers with Packard Connector or any of the Gage Pressure transmitters with a NIST Calibration Certificate

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)