



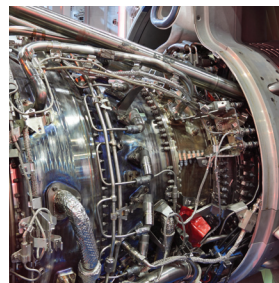
**A WORLD LEADER IN PRESSURE STABILITY  
AND ACCURACY OVER TEMPERATURE**

## 2015 Catalog

# Honeywell Delivers Advanced Pressure Transducers and Barometer Solutions



Honeywell's Precision Pressure Transducers and Barometers are known for their exceptional accuracy and stability. These transducers combine industry leading technology and reliability in extreme conditions and a variety of small packages with flexible configurations optimized to your application. The ability to provide exceptionally accurate pressure readings over a wide temperature range, coupled with many advanced features and a compact rugged design, makes Honeywell's precision pressure transducers among the highest value, most versatile solutions available. In addition to our standard productions, Honeywell has the capability to customize transducer solutions to meet specific customer needs. Our transducers and barometers are designed to function optimally in a wide variety of environments whether on land, sea or in the air.



We build all Honeywell products with our Total Quality Management (TQM) commitment, which means we do more than just supply products for your needs – we aim to exceed expectations. Plus, all our products are backed by Honeywell, recognized as a global leader in sensor manufacturing, technology and quality.



## Transducers with a Smart Sensor Design

Honeywell combines over forty years of experience in world leading, silicon piezoresistive pressure sensors with advanced technology to offer digital, networkable pressure transducers with exceptional accuracy.



Honeywell's proprietary smart sensor is the heart of our transducers and barometers, gathering and translating pressure into stable, accurate readings. We designed our sensors using a micro-electro-mechanical system (MEMS) silicon die with integrated piezoresistive strain gauges to perform exceptionally in even rugged environments. Our transducers integrate microprocessors, standard bus interface electronics and many software features to allow you to customize them to fit a variety of applications. This flexibility enables analog as well as digital output readings. You benefit from the Honeywell quality, expertise and innovation to provide high accuracy pressure readings in a wide variety of applications.

Product <sup>1</sup>	Precision Pressure Transducer 2 (PPT2)	Precision Pressure Transducer (PPT)	Honeywell Precision Barometer (HPB)	Honeywell Precision Barometer Altimeter (HPA)	Integrated Pressure Transducer (IPT)
<b>Description</b>	The PPT2 is Honeywell's next generation pressure transducer designed with enhanced features that result in higher resolution and tighter accuracy performance over a wider temperature range.	The PPT pressure transducer provides digital output and temperature compensation in a compact, rugged design with many software features that support a wide range of applications.	The HPB provides a high-value solution for accurate and stable barometric pressure measurements.	The HPA is a variant of the HPB, configured for altimeter applications, providing the same accurate and stable pressure measurements.	The IPT provides a size sensitive, high accuracy solution with an industry standard SPI digital output. Applying coefficients stored in the on-board EEPROM to the normalized IPT pressure and temperature output yields highly accurate and stable pressure readings.
<b>Total Error<sup>2</sup></b>	±0.0375% FS Typical	±0.05% FS Typical	±0.4 hPa Max ±0.8 hPa Max	±0.03% FS Max ±0.06% FS Max	±0.04% FS Max, Abs ±0.10% FS Max, Gau/Diff
<b>Long Term Stability<sup>3</sup></b>	0.025% FS Max per year	0.025% FS Max per year	0.25 hPa Max per year	0.02% FS Max per year	0.025% FS Max per year
<b>Communication Type</b>	RS-232, RS-485	RS-232, RS-485	RS-232, RS-485, TTL	RS-232, RS-485, TTL	SPI
<b>Baud Rate</b>	1200 to 115200	1200 to 28800	1200 to 28800	1200 to 28800	N/A
<b>Networkable</b>	Yes	Yes	Yes	Yes	N/A
<b>Media<sup>4</sup></b>	Dry	Dry	Dry	Dry	Dry
<b>Operating Temperature Range</b>	-40° to 85°C -55° to 110°C	-40° to 85°C	-40° to 85°C	-40° to 85°C	-40° to 85°C
<b>Pressure Range</b>	10 standard ranges 1 to 500 PSI	10 standard ranges 1 to 500 PSI	500 to 1200 hPa	0 to 17.6 PSIA	6 standard ranges 1 to 50 PSI
<b>Pressure Type</b>	Absolute, Gauge, Differential	Absolute, Gauge, Differential	Absolute	Absolute	Absolute, Gauge, Differential
<b>Analog Output</b>	0 – 5 VDC (16-bit)	0 – 5 VDC (12-bit)	N/A	N/A	N/A
<b>Customizable Fittings</b>	Yes	Yes	Yes	Yes	No
<b>Typical Applications</b>	Secondary Air Data, Altimeters, Engine Testing, Flight Testing, Meteorology, Flow and Pressure Calibrators, Instrumentation and Analytical Equipment, Process Control, R&D	Secondary Air Data, Altimeters, Engine Testing, Flight Testing, Meteorology, Flow and Pressure Calibrators, Instrumentation and Analytical Equipment, Process Control, R&D	Remote Meteorological Stations, Data Buoys, Environmental Data Logging, Meteorology, Airborne Measurements, Airports	Altimeters, Remote Meteorological Stations, Data Buoys, Environmental Data Logging, Meteorology, Airborne Measurements, Airports	Secondary Air Data, Altimeters, Cabin Air Pressure, Engine Test Systems, Flight Test Systems, Meteorology, Flow and Pressure Calibrators, Instrumentation and Analytical Equipment, R&D
<b>Customizable</b>	Yes	Yes	Yes	Yes	Yes
<b>Power Supply</b>	6 – 34 VDC, 50 mA max	5.5 – 30 VDC, 30 mA max	5.5 – 30 VDC, 30 mA max TTL: 6 – 26 VDC, 9 mA max	5.5 – 30 VDC, 30 mA max TTL: 6 – 26 VDC, 9 mA max	4 – 12 VDC, 7.5 mA max
<b>Weight</b>	4.4 oz (125 g)	5 oz (142 g)	5 oz (142 g)	5 oz (142 g)	0.28 oz (8 g) Abs 0.34 oz (9.7 g) Gau/Diff
<b>RoHS Compliant</b>	Yes	No	No	No	Yes
<b>Export Classification</b>	EAR99	EAR99	EAR99	EAR99	EAR99

<sup>1</sup> These specifications are provided for product comparisons and may be updated at anytime by Honeywell. Check product datasheets at [www.pressuresensing.com](http://www.pressuresensing.com) for current information.

<sup>2</sup> Total Error is the sum of worst case linearity, repeatability, hysteresis, thermal effects and calibration errors over the operating temperature range. Typical is the average of absolute value of errors at all pressures and temperatures.

<sup>3</sup> Beyond max. total error band when continuously powered at 25±10°C, <90%RH and 28 to 32 inHg atmospheric pressure.

<sup>4</sup> Dry is suitable for non-condensing, non-corrosive, and non-combustible gases. Wet is suitable for media compatible with 316 stainless steel.

## Honeywell Aerospace Plymouth

Under one facility, Honeywell Aerospace Plymouth provides a state-of-the-art semiconductor foundry and design engineering services for a single customer interface, to create, produce, and deliver leading pressure transducer solutions according to your needs.

## Find out more

To learn more visit [www.pressuresensing.com](http://www.pressuresensing.com) or call us at 1-800-601-3099 or 602-365-3099.

## Ask us about Honeywell's additional advanced sensor solutions

- Magnetic Sensors and Magnetometers
- Accelerometers
- Thermal Switches



Product <sup>1</sup>	Precision Pressure Transducer Ruggedized (PPTR)	Precision Pressure Transducer Explosion Proof (PPE)	Precision Pressure Transducer Submersible (PPTR-S)	Smart Absolute Pressure Transducer (LG1237)
<b>Description</b>	The PPTR provides a rugged transducer for use in harsh environments. It is designed with an isolation diaphragm, which offers pressure sensing solutions for both gaseous and liquid media applications. It's hermetically-sealed, stainless steel construction eliminates humidity effects and provides excellent emission and immunity protection.	The PPE is an explosion-proof version of the PPTR. Built with the ruggedness of the PPTR, the PPE is an excellent choice to be used in applications where protection in hazardous locations is critical. The PPE has been tested and approved by Factory Mutual (FM) and the Canadian Standards Association (CSA).	The PPTR has a submersible connector option available for use in the harsh environments.	The Honeywell LG1237 is a smart absolute pressure transducer designed to provide extremely precise and stable pressure measurements. Its rugged design withstands high levels of acceleration, vibration and shock.
<b>Total Error<sup>2</sup></b>	±0.10% FS Typical	±0.10% FS Typical	±0.07% FS Max	Varies between models ±0.047% FS Max to ±0.03% FS Max
<b>Long Term Stability<sup>3</sup></b>	unspecified	unspecified	unspecified	Less than ±0.010% FS per year
<b>Communication Type</b>	RS-232, RS-485	RS-232, RS-485	RS-232, RS-485	TTL is standard configuration. RS-485 and RS-422 are available upon request
<b>Baud Rate</b>	1200 to 28800	1200 to 28800	1200 to 28800	9600 – 375k (Asynchronous) 1M baud (Synchronous)
<b>Networkable</b>	Yes	Yes	Yes	Yes
<b>Media<sup>4</sup></b>	Wet/Dry	Wet/Dry	Wet/Dry	Dry
<b>Operating Temperature Range</b>	-40° to 85°C	-40° to 85°C	-4° to 60°C	-55° to 125°C
<b>Pressure Range</b>	9 standard ranges 15 to 3000 PSI	9 standard ranges 15 to 3000 PSI	7 standard ranges 40 to 3000 PSI	8 standard ranges 0.5 to 1000 PSI
<b>Pressure Type</b>	Absolute, Gauge	Absolute, Gauge	Absolute	Absolute
<b>Analog Output</b>	0 – 5 VDC (12-bit)	0 – 5 VDC (12-bit)	N/A	N/A
<b>Customizable Fittings</b>	¼ – 18 NPT (internal)	¼ – 18 NPT (internal)	¼ – 18 NPT (internal)	Manifold with flush port
<b>Typical Applications</b>	Process Control, Remotely Operated Underwater Vehicles (ROV), Engine Test Stands, Flight Test, Manufacturing Test Stations, Laboratory and Medical Instruments, Water Depth Measurement, Instrumentation and Analytical Equipment	Process Control, Chemical Refineries, Oil and Gas, Paper and Pulp	Remotely Operated Underwater Vehicles (ROV), Liquid Measurements	Jet Engine FADEC, Avionics, Flight Test, Engine Test Cells, Instrumentation and Analytical Equipment
<b>Customizable</b>	Yes	Yes	Yes	Yes
<b>Power Supply</b>	6 – 30 VDC, 27 mA max	6 – 30 VDC, 27 mA max	6 – 30 VDC, 27 mA max	+5 VDC, 120 mA max 9 – 16 VDC, 15 mA max
<b>Weight</b>	14 oz (397 g)	22 oz (624 g)	15 oz (424 g)	2.7 oz (75 g)
<b>RoHS Compliant</b>	No	No	No	No
<b>Export Classification</b>	EAR99	EAR99	EAR99	9A991.d Hardware 9E991 Technology Data

## Honeywell Aerospace

12001 Highway 55

Plymouth, MN 55441

U.S. Toll Free: 1.800.601.3099

International: 1.602.365.3099

www.honeywell.com

N61-1027-000-001

April 2015

© 2015 Honeywell International Inc.