PPT2

Honeywell

Next Generation Precision Pressure Transducer

Highly Accurate Over a Wide Temperature Range

Applications

- Secondary Air Data
- Altimeters
- Engine Testing
- Flight Testing
- Meteorology
- Flow and Pressure Calibrators
- Instrumentation and Analytical Equipment
- Process Control
- Research and Development

Features & Benefits

- **Highly Accurate**

  ±0.0375%FS total accuracy over operating temperature range

  Simplifies System Design
  No additional signal compensation needed to gain the benefits of a very accurate sensor

- **Smart, Digital Sensing and Control**

  Efficient Data Acquisition
  Network up to 89 units

  Easy Interface
  Connects to PC via communication ports

- **Versatile and Configurable**

  Works with existing and new systems
  0-5V analog and either RS-232 or RS-485 digital output

  Handles most dry gas media

  Optimizes Output
  User-configurable pressure units, sampling, update rate

  Flags Problems
  Internal diagnostics set flags, indicates errors

- **User Selectable Software Features**

  Baud Rate, Parity Setting, Continuous Broadcast, ASCII or Binary Output, Sensor Temperature Output (°C), Deadband, Sensitivity, Tare Value, Configurable Analog Output

CE Qualified

ISO-9001, ISO-14001

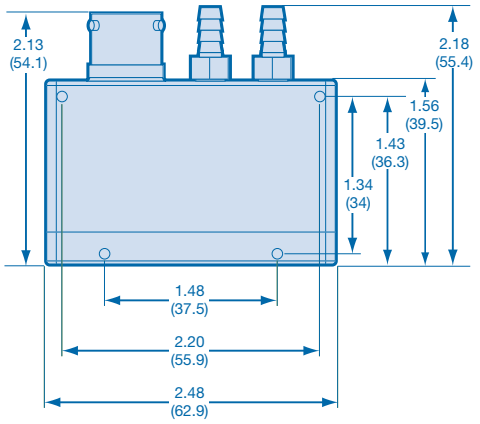
Honeywell's Next Generation Precision Pressure Transducer (PPT2) combines proven silicon sensor technology with microprocessor-based signal conditioning to provide an extremely smart pressure transducer. Available in a compact, rugged design, the PPT2 has many software features that support a wide range of digital and analog applications.

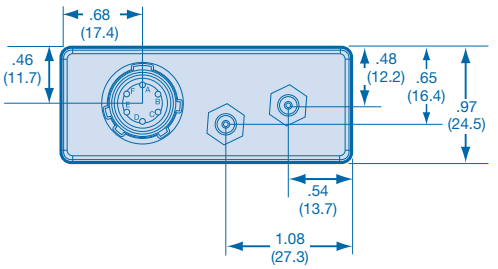
Specifications

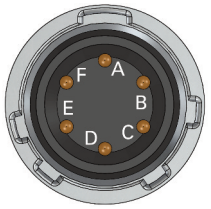
Performance	
Total Accuracy	Digital: ±0.0375% FS Typ., ±0.075% FS Max.(1, 2) Analog: ±0.045% FS Typ., ±0.09% FS Max.(1, 2)
Temperature Range(3)	Operating: -40 to 85°C Storage: -50 to 100°C
Reading Rate	1000 readings/sec to 42.67min/reading (5)
Resolution	Digital: Up to 0.001% FS, Analog: 0.1mV typical (15+ bits)
Minimum Response Delay	2 ms
Long Term Stability	0.025%FS max per year (7)
Mechanical	
Pressure Units (5)	atm, bar, cmwc, ftwc, hPa, inHg, inwc, kg/cm2, Kpa, mBar, mmHg, Mpa, mwc, psi, user, pfs
Static Pressure (Gauge & Differential Only)	≤ 150psi: no effect on accuracy of PPT2 > 150psi: out of spec, returns spec ≤ 150psi
Media Compatibility	Suitable for non-condensing, non-corrosive, and non-combustible gases.
Weight	4.4 oz. (125 gm) without fittings
Electrical	
Output	RS-232 Digital with 0-5V Analog (5,6), RS-485 Digital with 0-5V Analog (5,6)
Power Requirements	Supply Voltage: 6.0 to 34 VDC, Operating Current: 50 mA maximum
Baud Rate(5)	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200
Bus Addressing(5)	Address up to 89 units
Connector	MIL-C-26482, Shell Size #10, 6-pin, #20 size
Environmental	
Overpressure	3X FS, maximum 600psi (4)
Burst Pressure	3X FS, maximum 700psi (4)
EMC Directive	Compliant
RoHS	Compliant

(1) Accuracy 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. Full scale for differential ranges is the sum of + and – ranges. Pressure range 1psi gauge has digital accuracy of ±0.075% FS typical, ±0.15% FS maximum; analog accuracy of ±0.09% FS typical, ±0.18% FS maximum. Calibration is traceable to NIST. (2) Tighter accuracy available on some models - consult factory. (3) Consult factory for special temperature requirements. (4) Exposure to overpressure will not permanently affect calibration or accuracy of unit. Burst pressure is the sum of the measured pressure plus the static pressure and exceeding it may result in media escape. (5) User configurable. (6) Recommended load impedance of 100 k-ohm or greater. (7) When powered continuously at 25±10°C, <90%RH and 28 to 32 inHg atmospheric pressure.

Dimensions: inches (mm)





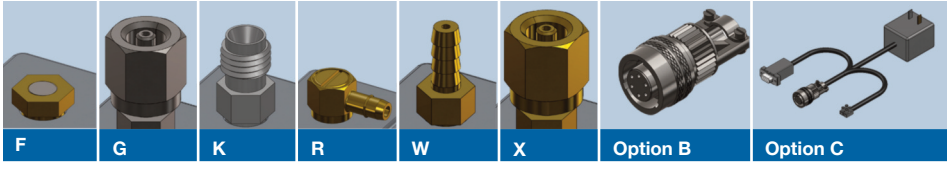


Signal Name

- **A** RS-232 (TD) / RS-485 (B)
- **B** RS-232 (RD) / RS-485 (A)
- **C** Case Ground
- **D** Common Ground
- **E** DC Power In
- **F** Analog Output

Ordering Information

Precision Pressure Transducer												
PPT2	**Full Scale Pressure Range**								Absolute	Gauge	Differential
	0001								N/A	1 PSI (1)	±1 PSI
	0002								N/A	2 PSI	±2 PSI
	0005								N/A	5 PSI	±5 PSI
	0010								N/A	10 PSI	±10 PSI
	0015								15 PSI	N/A	N/A
	0020								20 PSI	20 PSI	±20 PSI
	0050								50 PSI	50 PSI	±50 PSI
	0100								100 PSI	100 PSI	±100 PSI
	0300								300 PSI	300 PSI	±300 PSI
	0500								500 PSI	500 PSI	±500 PSI
		Type							P1 Pressure	P2 Pressure	
		A	Absolute						0(vacuum) to FS	N/A	
		G	Gauge						Reference to FS	Reference	
		D	Differential						+FS to –FS rel. to P2	+FS to –FS rel. to P1	
			P1						Pressure Connection (Absolute, Gauge, Differential)		
			G						Stainless Swagelok™ (1/8 inch female)		
			K						Stainless Swagelok-compatible (1/8 inch male)		
			R						Brass barbed, right angle (1/8 inch ID tubing)		
			W						Brass barbed (1/8 inch ID tubing)		
			X						Brass Swagelok™ (1/8 inch female)		
				P2					Pressure Connection (Gauge, Differential)		
				F					Filter (blocks debris)		
				G					Stainless Swagelok™ (1/8 inch female)		
				K					Stainless Swagelok-compatible (1/8 inch male)		
				R					Brass barbed, right angle (1/8 inch ID tubing)		
				W					Brass barbed (1/8 inch ID tubing)		
				X					Brass Swagelok™ (1/8 inch female)		
				N					Not Applicable (Absolute)		
					Outputs						
					2V				RS-232 digital, 0-5V analog(2)		
					5V				RS-485 digital, 0-5V analog(2)		
						Operating Temperature Range					
						S			Standard: -40 to 85°C		
							Options				
							B		Mating Connector (See Below)		
							C		Power Supply/Data Cable (RS-232 only, See Below)		
PPT2	**0020**	**A**	**W**	**N**	**2V**	**S**	**-**	**B**			



(1) Pressure range 1psi gauge has digital accuracy of ±0.075% FS typical, ±0.15% FS maximum; analog accuracy of ±0.09% FS typical, ±0.18% FS maximum. (2) 0-5V analog output only available with standard operating temperature range.

Find out more

For more information on Honeywell's Precision Pressure Transducers visit us online at www.pressuresensing.com or contact us at 800.323.8295 or 763.954.2474. Customer Service Email: ps.customer.support@honeywell.com

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