

Pressure Sensors

Honeywell



**Test and Measurement
Product Range Guide**



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Maximize up-time. Choose the right sensor the first time. Make sure your outputs are precise and accurate. Don't go with the wrong supplier. We understand – you're under pressure. That's where we come in.

Honeywell's pressure sensors are designed to meet a wide range of test and measurement application requirements, both broad and deep, in aerospace, transportation, oil and gas, and factory automation to name just a few. Rugged, yet sensitive, our sensors provide accurate and dependable readings in some of the most challenging environments imaginable.

Browse through our extensive offering of pressure sensors available in different sizes, materials, and porting configurations to meet almost any requirement. Still can't find exactly what you are looking for? Contact us to discuss a custom solution - we'll work with you to modify a design or develop a completely new product to suit your individual application needs. When you require rugged, reliable pressure sensor solutions for your test and measurement applications, Honeywell has got you covered.



Don't let the pressure get to you.
Just get to us for all your pressure sensing needs.

Pressure Sensors

General Process - Pressure



Honeywell offers both pressure and differential pressure sensors in either silicon-based or foil-based strain gage technology for applications in automotive, aerospace, chemical, semiconductor manufacturing, and industrial automation. Our popular and versatile silicon-based FP2000 series, which offers a high frequency response as well as high sensitivity and overload capability, is available with gage, absolute, barometric, or vacuum pressure measurement. For more challenging high pressure applications, choose Honeywell's rugged foil-based strain gauge pressure sensors. Models available to handle up to 60,000 psig/psia.



Series	FP2000	A-5
Type	Silicon Based	Foil Based
Range	0.5 psi to 10,000 psi (FPA); 0 in-Hg to 30 in-Hg (FPB); 0.5 psi to 10,000 (FPG); 1 psi to 15 psi (FPV); 0.5 psid to 1,000 psid (FDW, FDD)	0.5 psig to 60,000 psig 1 psia to 60,000 psia
Accuracy	±0.10 % BFSL ±0.25 % BFSL	±0.50 % FS
Output	mV/V; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc; 4 mA to 20 mA	mV/V; 4 mA to 20 mA; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc
Max Line Pressure	500 psi (FDW, FDD)	N/A
Temperature, Operating	-40 °C to 116 °C [-40 °F to 240 °F]	-100 °F to 325 °F (up to 1,000 psi) -100 °F to 250 °F (1,500 psi and above)
Temperature, Compensated	For ranges below 30 psi: 10 °C to 44 °C [50 °F to 110 °F] For ranges 30 psi and greater: 4 °C to 60 °C [40 °F to 140 °F]	15 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	Selectable *	PTIH-10-6P or equiv. (hermetic stainless)
Wetted Parts	HA C276®/316L stainless steel	17-4 PH stainless steel (< 2,000 psi); 15-5 PH stainless steel (≥ 2,000 psi)
Case Material	Stainless steel	304 Stainless steel

* See Datasheet for options



Don't see what you need? Contact us to discuss modifications or a complete custom design to meet your requirements.

For more information, specifications, etc. or to place an order, please visit us online at <http://measurementsensors.honeywell.com> or contact us at 800-848-6564 or +1 614-850-5000.

These sensors feature rugged, all welded, stainless steel construction and provide high accuracy, enhanced reliability, and measurement stability. Intrinsically safe options are available for hazardous environments. All are highly configurable for multiple accuracies, outputs, pressure ports, electrical terminations, and pressure ranges.



Z	TJE
Foil Based	Foil Based
0.5 psig to 60,000 psig 1 psia to 60,000 psia	1 psig to 60,000 psig 1 psia to 60,000 psia
±0.25 % FS	±0.10 % FS BFSL
mV/V; 4 mA to 20 mA; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc	mV/V; 4 mA to 20 mA; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc
N/A	N/A
-100 °F to 325 °F (up to 1,000 psi) -100 °F to 250 °F (1,500 psi and above)	-100 °F to 325 °F (up to 1,000 psi) -100 °F to 250 °F (1,500 psi and above)
15 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]
PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)
17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)	17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)
304 Stainless steel	304 Stainless steel

Features

- All-welded stainless steel construction
- Gage, absolute, barometric, or vacuum pressure measurements
- Differential pressures in wet/wet and wet/dry models
- Ranges from 0.5 psid up to 60,000 psid (based on model)
- Accuracies of 0.1 %, 0.25 % or 0.5 % (based on model)
- Media: gases and liquids compatible with wetted parts
- Intrinsically safe options available
- Highly configurable to meet different application needs

Typical Applications

- Engine and transmission test stands
- Fluid pump pressure
- Fuel line pressure, fuel / air ratio
- Tire manufacturing mold pressure control
- Air bag system fill pressure
- Brake testing: brake assembly, brake pressure/ hydraulics, pedal forces, ABS pressure
- Hydraulic and pneumatic system monitoring
- Flow measurement
- Depth sensing, liquid level
- Pressure equalization
- Leak detection

Pressure Sensors

General Process - Differential Pressure



Series	FP2000	A-5 Low
Type	Silicon Based	Foil Based
Range	0.5 psi to 10,000 psi (FPA); 0 in-Hg to 30 in-Hg (FPB); 0.5 psi to 10,000 (FPG); 1 psi to 15 psi (FPV); 0.5 psid to 1,000 psid (FDW, FDD)	±0.5 psid to 30 psid
Accuracy	±0.10 % BFLS ±0.25 % BFLS	±0.5 % FS BFLS
Media	Gases, liquids compatible with wetted parts	All fluid and gases compatible with 316 stainless steel
Output	mV/V; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc; 4 mA to 20 mA	1.0 mV/V; 1.5 mV/V; 2.0 mV/V (range dependent); 4 mA to 20mA; 0 to 5 & 0 to 10 Vdc
Max Line Pressure	500 psi (FDW, FDD)	1,500 psi
Temperature, Operating	-40 °C to 116 °C [-40 °F to 240 °F]	-1 °C to 88 °C [30 °F to 190 °F]
Temperature, Compensated	For ranges below 30 psi: 10 °C to 44 °C [50 °F to 110 °F] For ranges 30 psi and greater: 4 °C to 60 °C [40 °F to 140 °F]	-1 °C to 54 °C [30 °F to 130 °F]
Electrical Termination	Selectable *	Bendix PTIH-10-6P or equiv.
Wetted Parts	HA C276®/316L stainless steel	316 stainless steel
Case Material	Stainless steel	Stainless steel



Series	Z Low	KZ Low
Type	Foil Based	Foil Based
Range	±0.5 psid to 30 psid	±0.5 psid to 30 psid
Accuracy	±0.25 % FS BFLS	±0.25 % FS BFLS
Media	All fluid and gases compatible with 316 stainless steel	All fluid and gases compatible with 316 stainless steel
Output	1.0 mV/V; 1.5 mV/V; 2.0 mV/V (range dependent) 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc	1.0 mV/V; 1.5 mV/V; 2.0 mV/V (range dependent) 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc
Max Line Pressure	1,500 psi	1,500 psi
Temperature, Operating	-1 °C to 88 °C [30 °F to 190 °F]	-1 °C to 88 °C [30 °F to 190 °F]
Temperature, Compensated	-1 °C to 54 °C [30 °F to 130 °F]	-1 °C to 54 °C [30 °F to 130 °F]
Electrical Termination	Bendix PTIH-10-6P or equiv.	Bendix PTIH-10-6P or equiv.
Wetted Parts	316 stainless steel	316 stainless steel
Case Material	Stainless steel	Stainless steel



A-5 Mid

A-5 High

HL-A-5

Foil Based	Foil Based	Foil Based
50 psid to 750 psid	2,000 psid to 10,000 psid	50 psid to 7,500 psid
±0.5 % FS BFSL	±0.5 % FS BFSL	±0.5 % FS BFSL
Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
2.0 mV/V nominal 4 mA to 20 mA; 0 Vdc to 5 Vdc & 0 Vdc to 10 Vdc	2.0 mV/V nominal 4 mA to 20 mA; 0 Vdc to 5 Vdc & 0 Vdc to 10 Vdc	2.0 mV/V nominal 4 mA to 20 mA; 0 Vdc to 5 Vdc & 0 Vdc to 10 Vdc
1,500 psi	2,000 psi	2500 psi
-54 °C to 121 °C [-65 °F to 250 °F]	-54 °C to 121 °C [-65 °F to 250 °F]	-54 °C to 121 °C [-65 °F to 250 °F]
15 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]
Bendix PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)
17-4 PH stainless steel	17-4 PH stainless steel	17-4 PH stainless steel
Stainless steel	Stainless steel	Stainless steel



Z Mid	Z High	HL-Z	TJE Low	TJE Mid
Foil Based	Foil Based	Foil Based	Foil Based	Foil Based
50 psid to 750 psid	2,000 psid to 10,000 psid	50 psid to 7,500 psid	±0.5 psid to 30 psid	50 psid to 750 psid
±0.25 % FS BFSL	±0.25 % FS BFSL	±0.25 % FS BFSL	±0.1 % FS BFSL	±0.1 % FS BFSL
Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	All fluid and gases compatible with 316 stainless steel	Gases, liquids compatible with wetted parts
2.0 mV/V nominal; 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc	2.0 mV/V nominal; 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc	2.0 mV/V nominal; 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc	1.0 mV/V; 1.5 mV/V; 2.0 mV/V (range dependent); 4 mA to 20 mA; 0 to 5 and 0 to 10 Vdc	2.0 mV/V nominal; 4 mA to 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc
1,500 psi	2,000 psi	2500 psi	1,500 psi	1,500 psi
-54 °C to 121 °C [-65 °F to 250 °F]	-54 °C to 121 °C [-65 °F to 250 °F]	-54 °C to 121 °C [-65 °F to 250 °F]	-1 °C to 88 °C [30 °F to 190 °F]	-54 °C to 121 °C [-65 °F to 250 °F]
15 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]	-1 °C to 54 °C [30 °F to 130 °F]	15 °C to 71 °C [60 °F to 160 °F]
PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	Bendix PTIH-10-6P or equiv.	PTIH-10-6P or equiv. (hermetic stainless)
17-4 PH stainless steel	17-4 PH stainless steel	17-4 PH stainless steel	316 stainless steel	17-4 PH stainless steel
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel

Pressure Sensors

Precision/Technical Grade



When you need an ultra-precision pressure sensor to withstand ultra high temperatures and pressure, consider Honeywell's Model STJE. Available in true gage, absolute, or as a differential (wet/wet) model, these sensors feature a unique true-gage design with a second welded stainless steel diaphragm that hermetically seals the strain gage circuitry from atmospheric contamination. This design references the primary pressure sensing diaphragm to the atmosphere and provides a stable zero regardless of the environment. Standard features such as overload stops and stainless steel construction provide unit durability in rugged industrial applications.



Series	STJE
Range	10 psig to 7,500 psig; 10 psia to 7,500 psia
Accuracy	±0.05 % FS BFSL
Output	mV/V 4 mA to 20 mA 0 Vdc to 5 Vdc 0 Vdc to 10 Vdc
Temperature, Operating	-65 °F to 250 °F
Temperature, Compensated	15 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	PTIH-10-6P or equiv. (hermetic stainless)
Wetted Parts	17-4 PH stainless steel (< 2,000 psi); 15-5 PH stainless steel (≥ 2,000 psi)
Case Material	Stainless steel

Features

- True gage, absolute, and differential (wet/wet)
- Ultra precision pressure sensors
- Durable, stainless steel construction
- True and absolute sensors measure 10 psig to 7,500 psig and offer 0.05 % accuracy with 0.0015 % FS/°F temperature effect
- Differential pressure models measure 50 psid to 750 psid with 0.1 % accuracy
- mV/V, 4 mA to 20 mA, 0 Vdc to 5 Vdc, or 0 Vdc to 10 Vdc output
- Media: gases and liquids compatible with wetted parts
- Intrinsically safe options available

Typical Applications

- Engine and transmission test stands
- Fluid pump pressure
- Fuel line pressure & fuel / air ratio
- Brake assembly test
- Tire manufacturing mold pressure control
- Pressure brake testing, hydraulic sensor: brake pedal forces, ABS pressures
- Transfer pressure standards
- Long-term testing

Pressure Sensors

Digital

Our Model DS digital output pressure sensors offer a smart combination of microprocessor-based internal signal conditioning and micro-machined silicon pressure sensor technology for digital communications directly to your PC with superior accuracy and stability. Honeywell's Model DPS with CANopen® are designed to work with a variety of media and built to provide consistent performance in harsh environments. CANopen® protocol allows customers to connect to longer cable distances without sacrificing accuracy and reduce the amount of wires that need to be connected to the system, simplifying installation.



Series	DS	DPS with CANopen®
Range	5 psig to 2,500 psig (AP611; AP613) 5 psia to 2,500 psia (AP612; AP614)	10 psi to 10K psi; 1 bar to 700 bar; 70 kPa to 70,000 kPa
Accuracy	0.1 % typ. (TEB)	≤ 30 psi: ±0.25 %FS; >30 psi: ±0.1 %FS or ±0.25 %FS
Output	Digital and Analog; RS-485 or RS-232, plus 0 Vdc to 5 Vdc (non-isolated) Baud rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 Data framing: 1 start bit, 8 data bits, 1 stop bit Output response: > 300 readings/second at 115 k baud Output response analog: Max. 2500 updates, second with < 1 ms step response	Standard CANopen® protocol
Temperature, Operating	-40 °C to 82 °C [-40 °F to 180 °F]	-25 °C to 85 °C [-13 °F to 185 °F]
Temperature, Compensated	4 °C to 60 °C [40 °F to 140 °F]	4 °C to 60 °C [40 °F to 140 °F]
Electrical Termination	Bendix PT02-12-8P or equivalent mates with PT06A-12-8S	Bendix 6-pin; 5-pin M12 connector
Wetted Parts	HA C276®/316 stainless steel	Hastelloy® C276/316L stainless steel
Case Material	Stainless steel	Stainless steel

Features

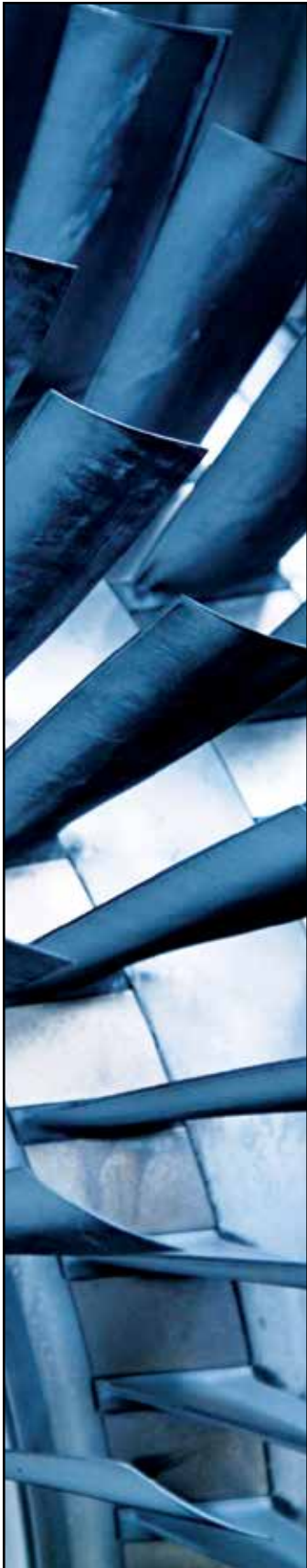
- 0.1 % total error band (includes temperature)
- 1200 Hz analog response (Model DS)
- CANbus with CANopen® protocol (Model DPS)
- All-welded stainless steel construction
- Selectable RS-232 or RS-485 (Model DS)
- 380 readings/second digital output (Model DS)
- Media: Gas and liquid compatible with 316L SS and HASTELLOY® C-276

Typical Applications

- Automotive performance analysis
- Aerospace monitoring and test/research labs
- Agriculture and construction equipment
- Rail equipment testing
- Train communication networks
- General industrial process control
- Injection/blow molding machines
- Packaging machines
- HVAC testing
- Semiconductor manufacturing
- Blood dialysis equipment
- Medical equipment systems

Pressure Sensors

Compact / Miniature / Subminiature



For extremely small spaces with tight clearances, Honeywell offers a full line of lightweight, subminiature pressure transducers featuring a compact, flush mount, low-profile design, and flush diaphragm. With their thin diaphragm and heavy sidewalls constructed from one piece of stainless steel, these sensors are very rugged yet thin enough to measure low pressures.

Honeywell's wet/wet subminiature differential pressure sensors offer a high degree of accuracy over pressure measurement ranges from 5 psid to 2,000 psid. Their small size, bi-directional overload protection, wide temperature compensation, and high natural frequencies make them well-suited for aerospace, chemical, and other precision applications.



Series	S	G
Type	Pressure	Pressure
Range	100 psig to 15,000 psig	150 psig to 20,000 psig
Accuracy	1.0 % FS BFSL	1.0 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	2 mV/V	2 mV/V
Max Line Pressure	N/A	N/A
Temperature, Operating	-54 °C to 149 °C [-65 °F to 300 °F]	-54 °C to 149 °C [-65 °F to 300 °F]
Temperature, Compensated	16 °C to 71 °C [60 °F to 160 °F]	16 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	Four twisted leads (1.83 m [5 ft]) with external balance board	Four twisted leads (1.83 m [5 ft]) with external balance board
Wetted Parts	17-4 PH stainless steel	17-4 PH stainless steel
Case Material	Stainless steel	Stainless steel



F	P-30-P
Pressure	Differential Pressure
150 psig to 3,000 psig	5 psid to 25 psid 50 psid to 2,000 psid
1.0 % FS*	±0.3 % FS BFLS
Gas, liquid, not conductive	Gases, liquids compatible with wetted parts
2 mV/V; 2 mV/psi to 5 mV/psi (@ 5 Vdc up to 100psi) (10mV/V to 20mV/V >100psi) (BP345/BP346)	100 Mv 2 mV/V
N/A	250 psi 500 psi or 2X FS up to 2,000psi
-54 °C to 149 °C [-65 °F to 300 °F] -29 °C to 121 °C [-20 °F to 250 °F (BP346/BP346)]	-54 °C to 121 °C [-65 °F to 250 °F]
16 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]
Four twisted leads (1.83 m [5 ft])	Teflon cable, 1.5 m [5 ft]
17-4 PH stainless steel	17-4 PH stainless steel
Stainless steel	Stainless steel

Features

- Subminiature size fits in extremely small spaces
- Lightweight, one-piece stainless steel construction with thin diaphragm for rugged performance and low pressure measurements
- Pressure measurements ranges of: 100 psi up to 20,000 psi; or 10 psig to 3,000 psig with 1.0 % accuracy
- Differential (wet/wet) pressure measurements of 5 psid to 2,000 psid with 0.3 % accuracy
- High frequency
- Media: gases and liquids compatible with wetted parts

Typical Applications

- Engine and transmission test stands
- Brake assembly test
- Tire manufacturing mold pressure control
- Air bag system fill pressure
- Pressure brake testing, hydraulic sensor: brake pedal forces, ABS pressures
- Well stimulation
- Measurement While Drilling (MWD)
- Fluid dispensing
- Fluid pump pressure

Pressure Sensors

Flush



Honeywell's flush pressure sensors are designed with a miniature footprint to fit very small spaces with tight clearances. Each features a thin diaphragm and heavy sidewalls, constructed from one piece stainless steel to make them rugged yet thin enough to measure low pressures. All-welded electrical connectors are integral to the transducer body so they can be used for applications involving rough handling or where an all-welded stainless steel transducer is required, such as in corrosive fluid environments. The flush diaphragm design also makes them ideal for spraying or application of sealants, paints, coating, etc. that could clog conventional pressure ports.



Series	A-105	A-105a
Range	100 psi to 15,000 psig	100 psi to 10,000 psi
Accuracy	±0.50 % FS	±0.50 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	2 mV/V nominal	4 mA to 20 mA @ 9 Vdc to 28 Vdc (BP313/BP316) 1 Vdc to 5 Vdc @16 Vdc to 28 Vdc (BP314/BP317) 1 Vdc to 10 Vdc @16 Vdc to 28 Vdc (BP315/BP318)
Temperature, Operating	-54 °C to 149 °C [-65 °F to 300 °F]	-29 °C to 85 °C [-20 °F to 185 °F]
Temperature, Compensated	16 °C to 71 °C [60 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F]
Electrical Termination	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equivalent
Wetted Parts	17-4 PH stainless steel	17-4 PH stainless steel
Case Material	Stainless steel	Stainless steel



A-205

A-205a

355

100 psig to 10,000 psig

100 psi to 10,000 psi

0 psi to 500 psi to 0 psi to 5,000 psi

±0.50 % FS BFSL

±0.50 % FS BFSL

±0.25 % FS BFSL

Gases, liquids compatible with wetted parts

Gases, liquids compatible with wetted parts

Gases, liquids compatible with wetted parts

2 mV/V

4 mA to 20 mA @ 9 Vdc to 28 Vdc (BP314)
1 Vdc to 5 Vdc @16 Vdc to 28 Vdc (BP315)
1 Vdc to 10 Vdc @16 Vdc to 28 Vdc (BP316)

4 mA to 20 mA
0 Vdc to 5 Vdc

-54 °C to 149 °C [-65 °F to 300 °F]

-29 °C to 82 °C [-20 °F to 180 °F]

-29 °C to 85 °C [-20 °F to 185 °F]

16 °C to 71 °C [60 °F to 160 °F]

-1 °C to 71 °C [30 °F to 160 °F]

15 °C to 71 °C [60 °F to 160 °F]

PTIH-10-6P or equivalent

PTIH-10-6P or equivalent

PTIH-10-6P

17-4 PH stainless steel

17-4 PH stainless steel

17-4 PH stainless steel

Stainless steel

Stainless steel

Stainless steel

Features

- Miniature size to fit in very small spaces
- One piece stainless steel fully welded construction with thin flush diaphragm for rugged performance and low pressure measurements
- Pressure measurement ranges: 100 psig up to 15,000 psig; 0 psig up to 5,000 psig with up to ±0.25 % accuracy
- No dead volume
- Can be used in corrosive fluid environments
- Media: gases and liquids compatible with wetted parts
- Intrinsically safe options available

Typical Applications

- Engine and transmission test stands
- Fluid pump pressure
- Fuel line pressure and fuel / air ratio
- Brake assembly test
- Tire manufacturing mold pressure control
- Air bag system fill pressure
- Pressure brake testing, hydraulic sensor: brake pedal forces, ABS pressures
- Spraying or application of sealants, paints, coatings, or other congealable media

Pressure Sensors

High Pressure



Honeywell's high-pressure transducers are designed to accept extreme pressure ranges of 50,000 to 100,000 psi. Equipped with a special safety blow-out plug in their outer case, these transducers will permit excess pressure to gradually leak out if the pressure element ruptures. These stainless steel devices operate over a wide temperature range from -65 °F to 250 °F.



Series	HP
Range	50,000 psi to 100,000 psi
Accuracy	±0.50 % FS BFSL
Media	Gases, liquids compatible with wetted parts
Output	1 mV/V
Temperature, Operating	-65 °F to 250 °F
Temperature, Compensated	15 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	PTIH-10-6P or equiv. (hermetic stainless)
Wetted Parts	Custom 465® stainless steel
Case Material	304 stainless steel

Features

- Stainless steel construction
- Extreme pressure ranges from 50,000 psi to 100,000 psi
- 0.5 % accuracy
- MV/V, 4 mA to 20 mA, 0 Vdc to 5 Vdc, or 0 Vdc to 10 Vdc output
- Media: gases and liquids compatible with wetted parts
- Intrinsically safe option available
- CE approved

Typical Applications

- Well fracturing oil and gas
- Isostatic press monitoring
- Rock mechanics
- Aseptic food processing



Don't see what you need? Contact us to discuss modifications or a complete custom design to meet your requirements.

For more information, specifications, etc. or to place an order, please visit us online at <http://measurementsensors.honeywell.com> or contact us at 800-848-6564 or +1 614-850-5000.

Pressure Sensors

Industrial

Honeywell offers a variety of cost-effective, general purpose pressure transducers suitable for industrial and OEM test and measurement applications. Both gas and liquid pressure overloads of up to 50 % over capacity are safely accepted. Packaging is designed for demanding industrial environments as well as ease of application and all designs incorporate Honeywell standards for accuracy and on-going reliability.



Series	LM	IP IS
Range	1 psig to 10,000 psig	100 psig to 5,000 psig [7 bar to 350 bar]
Accuracy	±0.50 % FS BFSL	±0.15 %, ±0.25 % BFSL
Output	mV/V	4 mA to 20 mA with I.S.
Temperature, Operating	-54 °C to 121 °C [-65 °F to 250 °F]	-40 °C to 85 °C [-40 °F to 185 °F]
Temperature, Compensated	16 °C to 71 °C [60 °F to 160 °F]	-10 °C to 85 °C [14 °F to 185 °F]
Electrical Termination	Cable, 0.91 m [3 ft]	Bendix PTIH-10-6P DIN 43650, standard DIN 40050, mini
Wetted Parts	HA C276®/316 stainless steel for ranges 100 psi and less; 17-4 PH stainless steel ranges above 100 psi to 1,500 psi; 15-5 PH stainless steel for ranges 2,000 psi and above	Hastelloy®/300 Series stainless steel
Intrinsic Safe Approvals	–	cFMus/ATEX, IEC Ex certification
Case Material	Stainless steel	300 Series stainless steel

Features

- Intrinsically safe: cFMus/ATEX, IEC Ex certification (IP IS)
- Rugged welded stainless steel construction
- Gas and liquid pressure overloads of up to 50 % over capacity safely accepted
- Pressure ranges from 1 psig to 10,000 psig
- Accuracies of 0.15 %, 0.25 %, 0.50 % BFSL depending on model
- Media: gases and liquids compatible with wetted parts

Typical Applications

- General industrial process control
- Oil and gas industrial process control (gas head control panels)
- Factory automation / industrial equipment
- Pump / compressor control
- Power generation (wind, propulsion)
- Flammable inventory control
- Engine and transmission test stands
- Fuel line pressure and fuel / air ratio
- Pressure brake testing, hydraulic sensor: brake pedal forces, ABS pressures
- Hydraulic and pneumatic system monitoring
- Paint booth spraying
- Construction equipment

Pressure Sensors

Hazardous Location: Pressure & Differential Pressure



Honeywell offers both pressure and differential pressure sensors made of rugged, hermetically-sealed, stainless steel, designed for operation in hazardous locations. All-welded, stainless steel diaphragms allow these sensors to be used with liquid, gas, or corrosive vapors.



Series	440
Type	Pressure
Range	5 psig to 10,000 psig 5 psia to 10,000 psia
Accuracy	±0.25 % FS BFSL
Media	Gases, liquids compatible with wetted parts
Output	4 mA to 20 mA
Max Line Pressure	N/A
Temperature, Operating	-29 °C to 85 °C [-20 °F to 185 °F]
Temperature, Compensated	-1 °C to 54 °C [30 °F to 130 °F]
Electrical Termination	DIN 43650 water resistant
Wetted Parts	HA C276®/316 stainless steel for ranges 300 psi and less; 17-4 PH stainless steel ranges ranges above 300 psi to 1,500 psi; 15-5 PH stainless steel for ranges 2,000 psi and above
Case Material	Stainless steel



Series	420 DP Low	420 DP Mid
Type	Differential Pressure	Differential Pressure
Range	2 psid to 25 psid	50 psid to 750 psid
Accuracy	±0.5 % FS BFSL	±0.5 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	4 mA to 20 mA	4 mA to 20 mA
Max Line Pressure	1,500 psi	1,500 psi
Temperature, Operating	18 °C to 82 °C [0 °F to 180 °F]	18 °C to 82 °C [0 °F to 180 °F]
Temperature, Compensated	-1 °C to 54 °C [30 °F to 130 °F]	16 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)
Wetted Parts	316 stainless steel	17-4 PH stainless steel
Case Material	Stainless steel	Stainless steel

Features

- Rugged stainless steel construction
- All welded stainless steel diaphragms
- True gage or absolute design
- Differential pressure (wet/wet) with low, mid, and high ranges



811FM

Pressure
2 psig to 10,000 psig 2 psia to 10,000 psia
±0.25 % FS
Gases, liquids compatible with wetted parts
4 mA to 20 mA
N/A
-18 °C to 82 °C [0 °F to 180 °F]
16 °C to 71 °C [60 °F to 160 °F]
1/2-14 NPT male with 7/8 in wrench flat. 20 GA 0,61 m [2 ft] cable with case ground
17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)
Stainless steel

- Media: gases and liquids compatible with wetted parts
- Intrinsically safe option available



415

Pressure
2 psig to 20,000 psig 2 psia to 20,000 psia
±0.10 % FS BFSL
Gases, liquids compatible with wetted parts
4 mA to 20 mA
N/A
-29 °C to 93 °C [-20 °F to 200 °F]
16 °C to 71 °C [60 °F to 160 °F]
PTIH-10-6P or equiv. (hermetic stainless)
17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)
Stainless steel

Typical Applications

- Bulk liquid inventory control
- Steam management
- Power plant / power generation
- Oil and gas exploration, refining, process monitoring
- Chemical process control
- Flow measurement
- Depth sensing
- Pressure equalization
- Liquid level and leak detection



420 DP High

Differential Pressure
2,000 psid to 10,000 psid
±0.5 % FS BFSL
Gases, liquids compatible with wetted parts
4 mA to 20 mA
1,500 psi
18 °C to 82 °C [0 °F to 180 °F]
16 °C to 71 °C [60 °F to 160 °F]
PTIH-10-6P or equiv. (hermetic stainless)
17-4 PH stainless steel
Stainless steel



911FMD Low

Differential Pressure
2 psid to 25 psid
±0.25 % FS BFSL
Gases, liquids compatible with wetted parts
4 mA to 20 mA
1,500 psi
18 °C to 82 °C [0 °F to 180 °F]
-1 °C to 54 °C [30 °F to 130 °F]
22 GA cable with case ground 609,6 mm [2 ft], 1/2 NPT to 14 NPT
316 stainless steel
Stainless steel



911FMD Mid

Differential Pressure
50 psid to 750 psid
±0.25 % FS BFSL
Gases, liquids compatible with wetted parts
4 mA to 20 mA
1,500 psi
18 °C to 82 °C [0 °F to 180 °F]
16 °C to 71 °C [60 °F to 160 °F]
22 GA cable with case ground 609,6 mm [2 ft], 1/2 NPT to 14 NPT
17-4 PH stainless steel
Stainless steel



911FMD High

Differential Pressure
1,000 psid to 10,000 psid
±0.25 % FS BFSL
Liquids compatible with wetted parts
4 mA to 20 mA
Full scale capacity +2,000 psi max.
18 °C to 82 °C [0 °F to 180 °F]
16 °C to 71 °C [60 °F to 160 °F]
22 GA cable with case ground 609,6 mm [2 ft], 1/2 NPT to 14 NPT
17-4 PH stainless steel
Stainless steel

Pressure Sensors

Oil and Gas



Honeywell's Wing Union (Hammer Union) pressure sensors are designed for use in demanding oil and gas applications. These all-welded, hermetically sealed, stainless steel pressure sensors with X750 Inconel® or Inconel® 718 construction and 1502, 2002, or 2202 WECO® fittings can withstand the rigors of mud pumping, cementing, well stimulation, and coiled-tubing applications.



Series	424	425	427
Range	0 psi to 20,000 psi	0 psi to 20,000 psi	0 psi to 20,000 psi
Accuracy¹	±0.2 % BFSL	±0.1 % BFSL; ±0.2 % BFSL	±0.2 % BFSL
Output	4 mA to 20 mA, 2-wire	4 mA to 20 mA, 2-wire	4 mA to 20 mA, 2-wire
Temperature, Operating	-43 °C to 93 °C [-45 °F to 200 °F]	-43 °C to 93 °C [-45 °F to 200 °F]	-43 °C to 93 °C [-45 °F to 200 °F]
Temperature, Compensated	-34 °C to 82 °C [-30 °F to 180 °F]	-34 °C to 82 °C [-30 °F to 180 °F]	-34 °C to 82 °C [-30 °F to 180 °F]
Aperture	standard	standard	free flow pressure port with wide aperture
Protective Cage Option	no	no	no
Calibration	no	no	no
Electrical Termination	MS-3102E-14S-2P, 4-pin stainless steel hermetic equal. Glenair compatible	MS-3102E-14S-2P, 4-pin stainless steel hermetic equal. Glenair compatible	MS-3102E-14S-2P, 4-pin stainless steel hermetic equal. Glenair compatible
Pressure Port	Weco® 2202	Weco® 1502	Weco® 1502
Wetted Parts	Inconel® X-750	Inconel® X-750	Inconel® X-750
Case Material	Inconel® X-750	Inconel® X-750	Inconel® X-750



434



435



437

0 psi to 5000 psi; 0 psi to 6000 psi; 0 psi to 10000 psi; 0 psi to 15000 psi; 0 psi to 20000 psi²;
0 bar to 350 bar; 0 bar to 400 bar; 0 bar to 700 bar; 0 bar to 1000 bar; 0 bar to 1350 bar²

±0.2 %FSS BFSL

±0.1 %FSS BFSL (high accuracy); |
±0.2 %FSS BFSL (standard)

±0.2 %FSS BFSL

4 mA to 20 mA, 2-wire

4 mA to 20 mA, 2-wire

4 mA to 20 mA, 2-wire

-40 °C to 125 °C [-40 °F to 257 °F]

-40 °C to 125 °C [-40 °F to 257 °F]

-40 °C to 125 °C [-40 °F to 257 °F]

-40 °C to 85 °C [-40 °F to 185 °F]

-40 °C to 85 °C [-40 °F to 185 °F]

-40 °C to 85 °C [-40 °F to 185 °F]

standard

standard

free flow pressure port with wide aperture

yes

yes

yes

standard five-point calibration: 0 %, 50 %, 100 % of full scale; special 10-point and 20-point calibration options available

MS Series compatible 4-pin (32A-14S-2P-10-M2); Bendix PT, 6-pin (PTIH-10-6P); Jupiter M and TP Series (4-pin);
Jupiter M and TP Series (7-pin); Rota B-Series 4-pin

Wecco® 2002, 2202

Wecco® 1502

Wecco® 1502

Inconel® X-750; Inconel® 718 (NACE compliant)

Inconel® X-750

Inconel® X-750

Inconel® X-750

Inconel® X-750

Inconel® X-750

Features

- Rugged stainless steel and X-750 or 718 Inconel® construction
- Hermetically sealed for use in liquid or wet environments
- 0.2 % accuracy or 0.1 % high accuracy (Models 425 / 435 only)
- Pressure ranges up to 20,000 psig
- Corrosive and abrasive service compatible with wetted parts
- Intrinsically safe option available

Typical Applications

- Oil and gas drilling
- Mud pumps / mud logging
- Measurement while drilling (MWD)
- Fracturing and cementing
- Acidizing
- Well head measurement
- Standpipe
- Stimulation

¹Accuracies stated are with respect to best fit straight line (BFSL) for all errors including linearity, hysteresis, and non-repeatability through zero.

²Working pressure and approval limited to 15000 psi [1000 bar]. Amplifier enhancement options 3H and 3HJ will allow overpressure reading to 20000 psi [1350 bar].

Pressure Sensors

Sanitary



Honeywell's CIP (Clean-In-Place) stainless steel sanitary process transmitters are designed to meet strict environmental and cleanliness requirements typical of food, beverage, cosmetic, pharmaceutical and other manufacturing processes. Available with a variety of flanges, electrical connections, and operating temperatures.



Series	CIP
Range	10 psig to 600 psig (CP100; CP200; CP300) 10 psia to 600 psia (CP101; CP201; CP301)
Accuracy	0.1 % BFSL (CP100; CP101) 0.25 % BFSL (CP200; CP201) 0.5 % BFSL (CP300; CP301)
Output	4 mA to 20 mA, 2-wire
Temperature, Operating	-1°C to +82°C (30°F to 180°F) - see datasheet
Temperature, Compensated	40°F to 140°F
Electrical Termination	1/2-14 NPT conduit exit with 1,5 m [5 ft] cable
Wetted Parts	HA C276®/316 stainless steel
Case Material	316-L stainless steel

Features

- Designed for use in food, beverage, pharmaceutical, and other clean manufacturing processes
- Stainless steel construction
- Pressure ranges: 10 psig/a to 600 psig/a
- Accuracy to 0.1 %
- Track temperature changes, 93 °C per minute [200 °F per minute]
- 500 s pressure response time
- Secondary containment exceeds 1,500 psi
- 4 mA to 20 mA output
- Media: steam, ethylene oxide, liquid, gas
- Intrinsically safe option available
- CE approved

Typical Applications

- Food Processing
- Pharmaceuticals
- Dairy and cheese
- Chemical manufacturing
- Beverage processing
- Biological systems
- Paint and ink
- Cosmetics, perfumes
- Clean-in-place systems
- Clean Gas systems
- Sanitizers and cleaning systems
- Microprocessor
- Pulp and paper

Pressure Sensors

Liquid Level

Our liquid level sensors are designed for complete fluid submersion via vertical entry into a tank or stilling well. The all-welded stainless steel housing and pressure sensing diaphragm is resistant to most corrosive fluids. The four-conductor electrical cable has an atmospheric vent tube inside the cable jacket and is attached to the true-gage, all-welded chamber inside the sensor for an atmospheric zero reference.



Series	LL-V
Range	20 in-H2O to 50 psig
Accuracy	±0.10 % BFSL
Media	Liquids compatible with stainless steel
Output	0 Vdc to 5 Vdc or 4 mA to 20 mA
Temperature, Operating	-18 °C to 82 °C [0 °F to 180 °F]
Temperature, Compensated	16 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	Cable only
Wetted Parts	17-4 PH stainless steel
Case Material	All-welded stainless steel

Features

- Submersible
- True gage design
- All welded stainless steel construction
- Conduit connection
- 0.1 % accuracy
- Media: liquids compatible with stainless steel

Typical Applications

- Well detection
- Sewer and drainage monitoring
- Vertical-entry fluid tanks

Pressure Sensors

Digital Gauges - Pressure



Our stainless steel digital gauges are highly portable force measurement devices for calibrating pressure and differential pressure measuring equipment. These gauges utilize Honeywell sensor technology and have no moving parts, require little recalibration, and have excellent overpressure tolerance to deliver long-lasting performance with enhanced accuracy.



Series	AC	JC
Range	15 psig to 10,000 psig	1 psig to 10,000 psig
Accuracy	±0.05 % FS BFSL	±0.2 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	Readout	Readout
Temperature, Operating	-1 °C to 71 °C [30 °F to 160 °F] (higher available)	-1 °C to 71 °C [30 °F to 160 °F] (higher available)
Electrical Termination	Not required	Not required
Wetted Parts	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above
Case Material	Stainless steel	Stainless steel



AK	JA	JH	JK
15 psig to 10,000 psig	10 psig to 10,000 psig	15,000 psi to 60,000 psig	1 psig to 10,000 psig
±0.05 % FS BFSL	±0.1 % FS BFSL	±0.2 % FS BFSL	±0.2 % FS BFSL
Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Readout	4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs	4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs (optional)	Readout
-1 °C to 71 °C [30 °F to 160 °F] (higher available)	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F] (higher available)
Not required	Cable	Cable w/ output option	Not required
HA C276®/316 stainless steel for ranges up to 7,500 psi or 15-5 PH stainless steel for ranges 7,500 psi and above	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above	15-5 PH stainless steel	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above
Stainless steel	Stainless steel	Stainless steel	Stainless steel

Features

- Rugged, stainless steel construction
- Ranges up to 10,000 psi
- Gage, absolute, vacuum or compound measurements
- Field selectable units of measure
- High accuracy: up to 0.05 % full scale
- Easy to read digital display with large buttons
- Quick and easy setup and operation
- Storage of calibration data and setup on internal memory chip
- Hi / lo capture and store
- Media: gases and liquids compatible with wetted parts
- Select models available which meet industry standards as required: NEMA 4 , NIST traceability, etc.

Typical Applications

- Calibration
- Industrial quality or statistical control
- Laboratory applications

Pressure Sensors

Digital Gauges - Pressure and Differential Pressure



Series	JP	JR
Range	1 psig to 500 psig	1 psig to 10,000 psig
Accuracy	±0.2 % FS BFSL	±0.2 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	Readout	Readout
Temperature, Operating	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F]
Electrical Termination	Not required	Not required
Wetted Parts	HA C276®/316 stainless steel	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above
Case Material	Stainless steel	Stainless steel



Series	JD	JG
Range	1.5 psid to 10,000 psid	15 psid to 10,000 psid (0-1 psid and 0-5 psid ranges available)
Accuracy	±0.2 % FS BFSL	±0.2 % FS BFSL
Media	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
Output	4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs (optional)	Readout
Temperature, Operating	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F]
Electrical Termination	3 ft cable	Not required
Wetted Parts	316 L stainless steel for ranges 1 psi to 30 psi or 17-4 PH stainless steel for ranges above 30 psi	HA C276®/316 stainless steel
Case Material	Stainless steel	Stainless steel



JS	JV	ZK
1 psig to 10,000 psig	1 psig to 10,000 psig	15 psig to 2,000 psig
±0.2 % FS BFSL	±0.2 % FS BFSL	0.1 % reading from 20 % to 80 % of range
Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs	Readout	Readout
-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F] (higher available)
3 ft. cable	Not required	Not required
HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above	HA C276®/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above	HA C276®/316 stainless steel
Stainless steel	Stainless steel	Stainless steel



Don't see what you need? Contact us to discuss modifications or a complete custom design to meet your requirements.

For more information, specifications, etc. or to place an order, please visit us online at <http://measurementsensors.honeywell.com> or contact us at 800-848-6564 or +1 614-850-5000.

Pressure Sensors Calibration



Honeywell's Accu-Gage series combines a pressure transducer and digital readout in one compact unit for industrial and laboratory applications. Accu-Gage sensors offer cost-effective portability, enhanced accuracy, and industrial grade durability for long-term performance. Each unit features a sturdy metal case and handle for extra protection against potential failure caused by shock and vibration.



Series	Accu-Gage AG400	Accu-Gage AG401
Range	15 psig/A/V to 15,000 psig/A/V	15 psig/A/V to 60,000 psig/A/V
Accuracy	0.05 %	0.10 %
Output	Readout	Readout
Temperature, Operating	16 °C to 41 °C [60 °F to 105 °F]	16 °C to 41 °C [60 °F to 105 °F]
Temperature, Compensated	N/A	N/A
Electrical Termination	N/A	N/A

Features

- Combination pressure transducer and digital readout in one portable, rugged display
- Choose either single or double-line displays
- Enhanced accuracy of 0.05 % (AG-400) or 0.10 % (AG-401) full scale
- Often used as replacements for precision dial gauges, mercury columns, or quartz tube barometers
- Media: gases and liquids compatible with wetted parts
- NIST traceable instrument and transducer
- CE approved

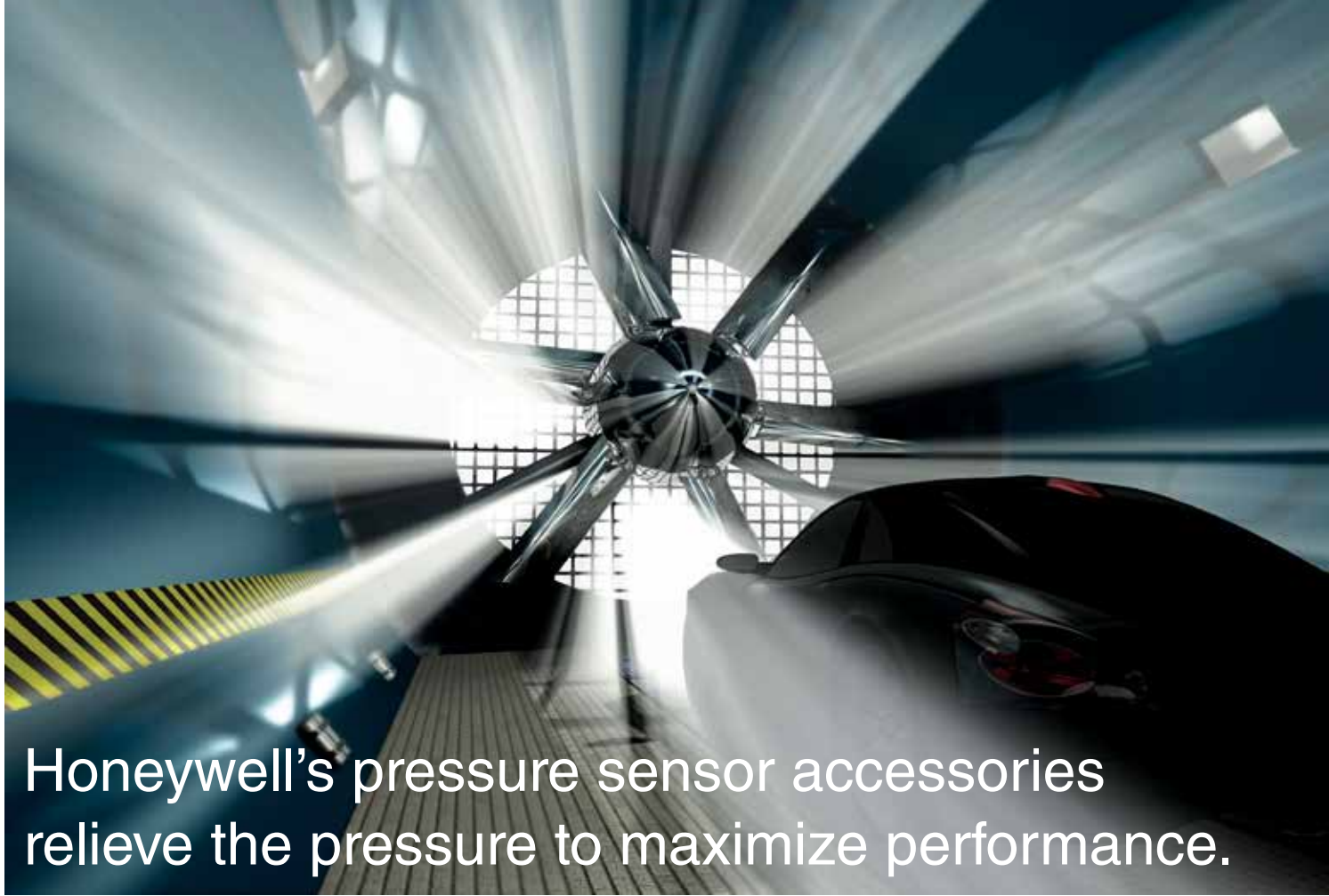
Typical Applications

- Calibration
- Industrial quality or statistical control
- Laboratory applications



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Honeywell's pressure sensor accessories relieve the pressure to maximize performance.

Since our pressure sensors are used in literally thousands of different applications and hundreds of industries, we know you may need a specific accessory, connector, or display to help maximize sensor performance and meet your individual application requirements.

Honeywell provides a wide range of both new and replacement accessories, and many types of display instruments, amplifiers, and other products to complement all of our test and measurement products. Many can be customized to meet the needs of your particular application or environment.



For example, we offer a wide variety of pressure port adapters, explosion proof enclosures, and cables and mating connectors designed for proper fitting and connection of your pressure

sensor to your particular application.

Our in-line amplifiers are available in several configurations and



materials, including plastic or die cast, din rail mount, and your choice of unamplified transducer input or strain gage transducer input.

Display and conditioning units for your pressure sensors can be selected from single channel, multi-channel, handheld, or portable options.

Most of these items are available to order with your new sensor, or you can visit our website at <http://measurementsensors.honeywell.com> to find replacement items.



Should you have questions about any of our products or need help in finding exactly the accessory or instrument you need, please contact our Inside Sales team at **800-848-6564** or **+1 614-850-5000** or your local representative.

Like we said, when it comes selecting the right sensor for your test and measurement applications – and the right sensor company – we can relieve the pressure of making the best decision. Contact us today.

Warranty/Remedy

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