

**Honeywell**

# **Test and Measurement: Pressure Transducers**


Product Range Guide





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**M**aximize 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 FP5000 Series offers a high-frequency response as well as high sensitivity and overload capability, and is available with gage, absolute, barometric, or vacuum pressure measurement.



Series	FP5000	LM
Type	Silicon Based	Foil Based
Range	10 in-H <sub>2</sub> O [0.36 psi] up to 5000 psi	1 psig to 10,000 psig
Accuracy	0.2 %FSS BFSL (Standard accuracy) 0.1 %FSS BFSL (High accuracy)	±0.50 % FS BFSL
Output	selectable: 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, or 4 mA to 20 mA (two wire)	mV/V
Max Line Pressure	-	-
Temperature, Operating	various, based on connector*	-54 °C to 121 °C [-65 °F to 250 °F]
Temperature, Compensated	various, based on connector*	16 °C to 71 °C [60 °F to 160 °F]
Electrical Termination	Selectable*	Cable, 0.91 m [3 ft]
Wetted Parts	Hastelloy C276 and 316L stainless steel	Hastelloy 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
Case Material	Stainless steel	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.

# Pressure Sensors | General Process - Pressure

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.

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.



TJE	STJE	Z	Series
Foil Based	Foil Based	Foil Based	<b>Type</b>
1 psig to 60,000 psig 1 psia to 60,000 psia	10 psig to 7,500 psig; 10 psia to 7,500 psia	0.5 psig to 60,000 psig 1 psia to 60,000 psia	<b>Range</b>
±0.10 % FS BFSL	±0.05 % FS BFSL	±0.25 % FS	<b>Accuracy</b>
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	mV/V; 4 mA to 20 mA; 0 Vdc to 5 Vdc; 0 Vdc to 10 Vdc	<b>Output</b>
-	-	N/A	<b>Max Line Pressure</b>
-100 °F to 325 °F (up to 1,000 psi) -100 °F to 250 °F (1,500 psi and above)	-65 °F to 250 °F	-100 °F to 325 °F (up to 1,000 psi) -100 °F to 250 °F (1,500 psi and above)	<b>Temperature, Operating</b>
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]	<b>Temperature, Compensated</b>
PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	<b>Electrical Termination</b>
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)	17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)	<b>Wetted Parts</b>
304 Stainless steel	Stainless steel	304 Stainless steel	<b>Case Material</b>

## 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 psig/a up to 60,000 psig/a (based on model)
- Accuracies of 0.1 % or 0.25 % (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 Differential	KZ Low
<b>Type</b>	Silicon Based	Foil Based
<b>Range</b>	0.5 psid to 1,000 psid (FDW, FDD)	±0.5 psid to 30 psid
<b>Accuracy</b>	±0.10 % BFS; ±0.25 % BFS	±0.25 % FS BFS
<b>Media</b>	Gases, liquids compatible with wetted parts	All fluid and gases compatible with 316 stainless steel
<b>Output</b>	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 20 mA; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc
<b>Max Line Pressure</b>	500 psi (FDW, FDD)	1,500 psi
<b>Temperature, Operating</b>	-40 °C to 116 °C [-40 °F to 240 °F]	-1 °C to 88 °C [30 °F to 190 °F]
<b>Temperature, Compensated</b>	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]
<b>Electrical Termination</b>	Selectable *	Bendix PTIH-10-6P or equiv.
<b>Wetted Parts</b>	HA C276/316L stainless steel	316 stainless steel
<b>Case Material</b>	Stainless steel	Stainless steel

# Pressure Sensors | General Process - Differential Pressure



Z Mid	Z High	HL-Z	Series
Foil Based	Foil Based	Foil Based	<b>Type</b>
50 psid to 750 psid	2,000 psid to 10,000 psid	50 psid to 7,500 psid	<b>Range</b>
±0.25 % FS BFSL	±0.25 % FS BFSL	±0.25 % FS BFSL	<b>Accuracy</b>
Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	<b>Media</b>
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	<b>Output</b>
1,500 psi	2,000 psi	2500 psi	<b>Max Line Pressure</b>
-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]	<b>Temperature, Operating</b>
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]	<b>Temperature, Compensated</b>
PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equiv. (hermetic stainless)	<b>Electrical Termination</b>
17-4 PH stainless steel	17-4 PH stainless steel	17-4 PH stainless steel	<b>Wetted Parts</b>
Stainless steel	Stainless steel	Stainless steel	<b>Case Material</b>

# 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. Honeywell's Model DPS with CANopen<sup>®</sup> are designed to work with a variety of media and built to provide consistent performance in harsh environments. CANopen<sup>®</sup> 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 <sup>®</sup>
<b>Range</b>	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
<b>Accuracy</b>	0.1 % typ. (TEB)	≤ 30 psi: ±0.25 %FS; >30 psi: ±0.1 %FS or ±0.25 %FS
<b>Output</b>	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 <sup>®</sup> protocol
<b>Temperature, Operating</b>	-40 °C to 82 °C [-40 °F to 180 °F]	-25 °C to 85 °C [-13 °F to 185 °F]
<b>Temperature, Compensated</b>	4 °C to 60 °C [40 °F to 140 °F]	4 °C to 60 °C [40 °F to 140 °F]
<b>Electrical Termination</b>	Bendix PT02-12-8P or equivalent mates with PT06A-12-8S	Bendix 6-pin; 5-pin M12 connector
<b>Wetted Parts</b>	Hastelloy C276/316 stainless steel	Hastelloy C276/316L stainless steel
<b>Case Material</b>	Stainless steel	Stainless steel

## Features

- 0.1 % total error band (includes temperature)
- 1200 Hz analog response (Model DS)
- CANbus with CANopen<sup>®</sup> 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<sup>®</sup> C276

## 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.

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
<b>Type</b>	Pressure	Pressure
<b>Range</b>	100 psig to 15,000 psig	150 psig to 20,000 psig
<b>Accuracy</b>	1.0 % FS BFSL	1.0 % FS BFSL
<b>Media</b>	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
<b>Output</b>	2 mV/V	2 mV/V
<b>Max Line Pressure</b>	N/A	N/A
<b>Temperature, Operating</b>	-54 °C to 149 °C [-65 °F to 300 °F]	-54 °C to 149 °C [-65 °F to 300 °F]
<b>Temperature, Compensated</b>	16 °C to 71 °C [60 °F to 160 °F]	16 °C to 71 °C [60 °F to 160 °F]
<b>Electrical Termination</b>	Four twisted leads (1.83 m [5 ft]) with external balance board	Four twisted leads (1.83 m [5 ft]) with external balance board
<b>Wetted Parts</b>	17-4 PH stainless steel	17-4 PH stainless steel
<b>Case Material</b>	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 psig to 20,000 psig with 1.0 % 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-205	355
<b>Range</b>	100 psi to 10,000 psi 100 psi to 15,000 psig	100 psi to 10,000 psi 100 psig to 10,000 psig	0 psi to 500 psi to 0 psi to 5,000 psi
<b>Accuracy</b>	±0.50 % FS BFSL	±0.50 % FS BFSL	±0.25 % FS BFSL
<b>Media</b>	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
<b>Output</b>	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)	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
<b>Temperature, Operating</b>	-54 °C to 149 °C [-65 °F to 300 °F] -29 °C to 85 °C [-20 °F to 185 °F]	-54 °C to 149 °C [-65 °F to 300 °F] -29 °C to 149 °C [-20 °F to 300 °F]	-29 °C to 85 °C [-20 °F to 185 °F]
<b>Temperature, Compensated</b>	-1 °C to 71 °C [30 °F to 160 °F] 16 °C to 71 °C [60 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F] 16 °C to 71 °C [60 °F to 160 °F]	15 °C to 71 °C [60 °F to 160 °F]
<b>Electrical Termination</b>	PTIH-10-6P or equiv. (hermetic stainless)	PTIH-10-6P or equivalent	PTIH-10-6P
<b>Wetted Parts</b>	17-4 PH stainless steel	17-4 PH stainless steel	17-4 PH stainless steel
<b>Case Material</b>	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 with up to ±0.50 % accuracy; 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 <sup>+</sup> 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



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# Pressure Sensors | Hazardous Location: Pressure & Diff. 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	811FM	911FMD Mid	911FMD High
<b>Type</b>	Pressure	Differential Pressure	Differential Pressure
<b>Range</b>	2 psig to 10,000 psig 2 psia to 10,000 psia	50 psid to 750 psid	1,000 psid to 10,000 psid
<b>Accuracy</b>	±0.25 % FS	±0.25 % FS BFSL	±0.25 % FS BFSL
<b>Media</b>	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts	Liquids compatible with wetted parts
<b>Output</b>	4 mA to 20 mA	4 mA to 20 mA	4 mA to 20 mA
<b>Max Line Pressure</b>	N/A	1,500 psi	Full scale capacity +2,000 psi max.
<b>Temperature, Operating</b>	-18 °C to 82 °C [0 °F to 180 °F]	18 °C to 82 °C [0 °F to 180 °F]	18 °C to 82 °C [0 °F to 180 °F]
<b>Temperature, Compensated</b>	16 °C to 71 °C [60 °F to 160 °F]	16 °C to 71 °C [60 °F to 160 °F]	16 °C to 71 °C [60 °F to 160 °F]
<b>Electrical Termination</b>	1/2-14 NPT male with 7/8 in wrench flat. 20 GA 0,61 m [2 ft] cable with case ground	22 GA cable with case ground 609,6 mm [2 ft], 1/2 NPT to 14 NPT	22 GA cable with case ground 609,6 mm [2 ft], 1/2 NPT to 14 NPT
<b>Wetted Parts</b>	17-4 PH stainless steel (<2,000 psi); 15-5 PH stainless steel (≥2,000 psi)	17-4 PH stainless steel	17-4 PH stainless steel
<b>Case Material</b>	Stainless steel	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
- Media: gases and liquids compatible with wetted parts
- Intrinsically safe option available

## 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

# 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 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	434	435	437
<b>Range</b>	0 psi to 5000 psi; 0 psi to 6000 psi; 0 psi to 10000 psi; 0 psi to 15000 psi; 0 psi to 20000 psi <sup>2</sup> ; 0 bar to 350 bar; 0 bar to 400 bar; 0 bar to 700 bar; 0 bar to 1000 bar; 0 bar to 1350 bar <sup>2</sup>		
<b>Accuracy<sup>1</sup></b>	±0.2 %FSS BFSL	±0.1 %FSS BFSL (high accuracy); ±0.2 %FSS BFSL (standard)	±0.2 %FSS BFSL
<b>Output</b>	4 mA to 20 mA, 2-wire	4 mA to 20 mA, 2-wire	4 mA to 20 mA, 2-wire
<b>Temperature, Operating</b>	-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]
<b>Temperature, Compensated</b>	-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]
<b>Aperture</b>	standard	standard	free flow pressure port with wide aperture
<b>Protective Cage Option</b>	yes	yes	yes
<b>Calibration</b>	standard five-point calibration: 0 %, 50 %, 100 % of full scale; special 10-point and 20-point calibration options available		
<b>Electrical Termination</b>	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		
<b>Pressure Port</b>	Wecco® 2002, 2202	Wecco® 1502	Wecco® 1502
<b>Wetted Parts</b>	Inconel® 718 (NACE compliant)	Inconel® 718 (NACE compliant)	Inconel® 718 (NACE compliant)

## Features

- Rugged stainless steel and 718 Inconel® construction
- Hermetically sealed for use in liquid or wet environments
- 0.2 % accuracy or 0.1 % high accuracy (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

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

<sup>2</sup>Working 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
<b>Range</b>	10 psig to 600 psig (CP100; CP200; CP300) 10 psia to 600 psia (CP101; CP201; CP301)
<b>Accuracy</b>	0.1 % BFSL (CP100; CP101) 0.25 % BFSL (CP200; CP201) 0.5 % BFSL (CP300; CP301)
<b>Output</b>	4 mA to 20 mA, 2-wire
<b>Temperature, Operating</b>	-1°C to +82°C (30°F to 180°F) - see datasheet
<b>Temperature, Compensated</b>	40°F to 140°F
<b>Electrical Termination</b>	1/2-14 NPT conduit exit with 1,5 m [5 ft] cable
<b>Wetted Parts</b>	HA C276/316 stainless steel
<b>Case Material</b>	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-H <sub>2</sub> O 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	JH	JK
<b>Range</b>	15,000 psi to 60,000 psig	1 psig to 10,000 psig
<b>Accuracy</b>	±0.2 % FS BFSL	±0.2 % FS BFSL
<b>Media</b>	Gases, liquids compatible with wetted parts	Gases, liquids compatible with wetted parts
<b>Output</b>	4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs (optional)	Readout
<b>Temperature, Operating</b>	-1 °C to 71 °C [30 °F to 160 °F]	-1 °C to 71 °C [30 °F to 160 °F] (higher available)
<b>Electrical Termination</b>	Cable w/ output option	Not required
<b>Wetted Parts</b>	15-5 PH stainless steel	Hastelloy C276/316 stainless steel for ranges up to 1,500 psi or 15-5 PH stainless steel for ranges 1,500 psi and above
<b>Case Material</b>	Stainless steel	Stainless steel

## Features

- Rugged, stainless steel construction
- Gage, absolute, vacuum or compound measurements
- Field selectable units of measure
- 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





<b>Series</b>	<b>JS</b>
<b>Range</b>	1 psig to 10,000 psig
<b>Accuracy</b>	±0.2 % FS BFSL
<b>Media</b>	Gases, liquids compatible with wetted parts
<b>Output</b>	4 mA to 20 mA 0 Vdc to 5 Vdc analog outputs
<b>Temperature, Operating</b>	-1 °C to 71 °C [30 °F to 160 °F]
<b>Electrical Termination</b>	3 ft. cable
<b>Wetted Parts</b>	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
<b>Case Material</b>	Stainless steel

# 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



**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 | Instruments and Amplifiers



Honeywell offers a complete line of single-channel, multi-channel and micro-processor-based units, as well as, a variety of in-line amplifiers for use with transducers and transmitters, including those from other manufacturers. Each one of Honeywell's instrumentation products features a regulated power supply for use with your transducer and is designed to provide a high dynamic frequency response.



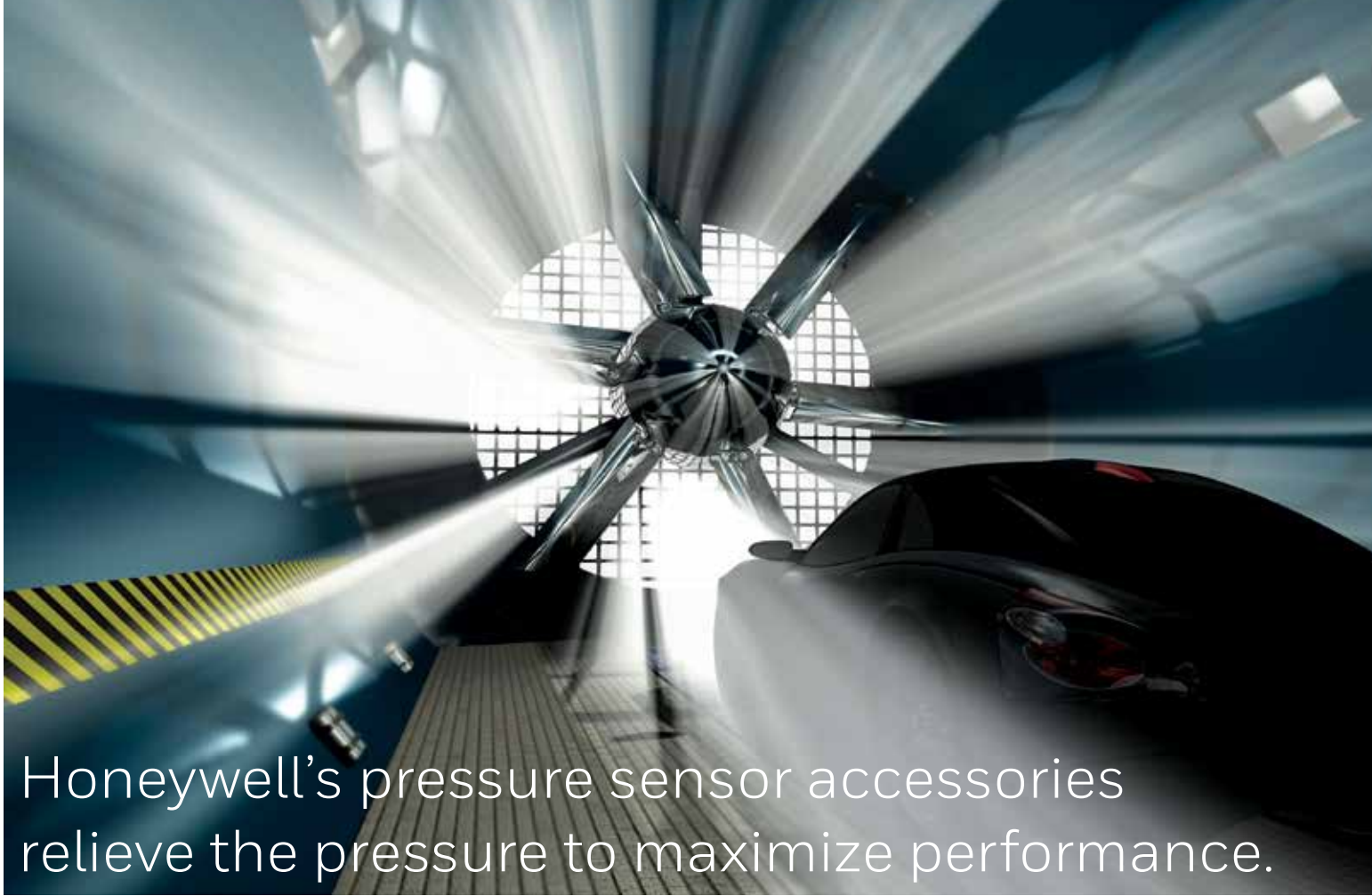
Series	SC500	GM
Display Type	Vacuum/Fluorescent	LED
Display Digits	5	4.5
Input Types	Strain gage, amplified, LVDT	Strain gage, amplified
Input Range	Strain gage: 0.5 mV/V to 21 mV/V Amplified: - $\pm 5$ Vdc or $\pm 10$ Vdc or 4 mA to 20 mA LVDT: 0.1 - 15 VRMS	1: 5 mV/V or 5 mV/V to 50 mV/V 0: 5 Vdc or 4 mA to 20 mA
Excitation Voltage	Strain gage: 5 Vdc Amplified: 12 Vdc or $\pm 15$ Vdc or 28 Vdc LVDT: 3 Vac	Strain gage $\pm 2.5$ Vdc $\pm 5$ Vdc
Power Requirements - Voltages	100 Vac to 240 Vac or 10 Vdc to 26 Vdc	115 Vac or 220 Vac or 12 Vdc



Series	Model UV / UW	Model DV / DA
Input Type	Strain gage	Strain gage
Output Type	$\pm 5$ Vdc three-wire $\pm 10$ Vdc three-wire 4 mA to 20 mA three-wire 4 mA to 20 mA two-wire	$\pm 5$ Vdc three-wire $\pm 10$ Vdc three-wire 4 mA to 20 mA three-wire
Excitation Voltage	3 Vdc or 5 Vdc @ 70 mA or 10 Vdc @ 50 mA	3 Vdc or 5 Vdc @ 30 mA or 9 Vdc @ 30 mA
Power Requirements - Voltages	11 Vdc to 28 Vdc 8 Vdc to 32 Vdc 18 Vdc to 32 Vdc	11 Vdc to 28 Vdc 15 Vdc to 28 Vdc 13 Vdc to 28 Vdc
Mounting	NEMA 4 plastic housing or painted aluminum	DIN rail

## Features

- Single and multi-channel units – portables and handhelds
- Digital pressure gage
- In-line amplifiers
- Power supplies
- Transducer simulation
- Analog and micro-processor base



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

**S**ince 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://sensing.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 distributor.

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

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

## For more information

Honeywell Sensing and Internet of Things services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit [sensing.honeywell.com](http://sensing.honeywell.com) or call:

International +815 618 3231  
USA/Canada +302 327 8920

**Honeywell**  
**Sensing and Internet of Things**  
9680 Old Bailes Road  
Fort Mill, SC 29707

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