

Pressure Sensors and Gauges

Pressure sensing devices measure pressure at a specific point in the process, used for monitoring or transmitting the measured value to a control device or system that performs functions such as starting/stopping a pump or opening a valve to regulate the pressure.

Pressure Switches

Pressure switches provide setpoint-triggered signals to indicate when a system has reached or lost pressure, depending on the limits set by the user. Electronic pressure switches have no moving parts and provide long-term stability without setpoint drift. Mechanical pressure switches typically provide precision snap-action SPDT contacts for their discrete outputs.



Pressure Transmitters

Pressure transmitters offer accurate sensing and a proportional analog output signal that can be used for continuous pressure monitoring or control. Ceramic sensing elements provide high burst and overpressure protection; stainless steel thin-film sensing elements offer rapid response times.



Digital Pressure Switches/Transmitters

Digital pressure switches and transmitters offer bright, multi-color LCD displays, and provide advanced features such as selectable response times, multiple operating modes, and user-defined engineering units. Models with both solid state and analog outputs can be used as a combination pressure switch and transmitter.



Differential Pressure Transmitters

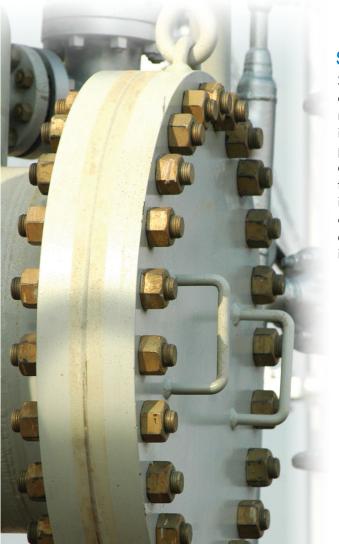
Differential pressure transmitters measure the pressure difference between two points and can detect any slight pressure change between them. These devices can be used to monitor for clogs in a pipeline, to determine the liquid level inside a tank in lieu of costly tank level mechanisms, or for low-cost flow measurement where pipe size may make flow meters too expensive.



Pressure Gauges

Pressure gauges are simple measurement and display devices for industrial and commercial applications. Mechanical dial pressure gauges use Bourdon tube sensing elements, while digital pressure gauges offer enhanced functionality. Differential gauges measure and display the pressure difference between two points.





Siphons, Snubbers, and Isolation Valves

Siphons protect pressure gauges, transmitters, and switches from the effect of high-temperature media such as steam. Pressure snubbers protect instruments by suppressing the effect of damaging pressure pulsations and spikes. Manual isolation and throttling needle valves isolate instruments from the sensed media, while block and bleed valves isolate instruments with the added ability to bleed off unwanted pressure. Both valves allow for quick and easy removal and maintenance of measurement instruments without shutting down the process.



www.automationdirect.com/pressure-sensors

Digital Pressure Switches/Transmitters



\$87,00

OrSense QPS Series Digital Pressure Switches/Transmitters

- Precision digital pressure switch/transmitter with 2 meter cable
- Two vacuum to pressure ranges (-14.5 to 14.5 and -14.5 psig to 145 psig)
- \bullet Two digital outputs (NPN or PNP) which may be set individually and a 4-20 mA analog output
- · Air, non-corrosive/non-flammable gases only
- Three operation modes: Easy, Window and Hysteresis
- 3-color digital LCD display
- 1/8in NPT male process connection
- Lockable keypad
- Optional panel mount and bracket kits
- IP40 protection rating

Or Sense EPS Series Digital Pressure Switches/Transmitters

- Precision digital pressure switch/transmitter with 4 pin M12 quick-disconnect
- Pressure ranges from vacuum up to 5800 psig
- Selectable engineering units include: psig, bar, mbar, kPa, MPa, inH2O, and inHg
- Two discrete switch outputs NO or NC(NPN or PNP)
- Output 2 can be configured as a scalable analog signal (4-20 mA or 0-10V) on select models
- Stainless steel housing with IP67 rating (washdown)
- Large 2 color, 4 digit display provides indication of measured pressure and switch setpoints, plus two bright output status LEDs
- Housing rotates 345° for optimum visibility after installation
- 1/4in NPT male process connection
- Protective cover and mounting bracket available



Pressure Switches

Or Sense PSD25 Series Electronic Pressure Switches

- Pressure ranges up to 5800 psig
- Simple setup using mechanical adjustment dials
- Durable housing with 316 stainless steel process connection
- M12 quick-disconnect electrical connection
- LEDs indicate switching and operating status
- Complementary switching outputs (N.O./N.C.), 500 mA DC
- 1/4in NPT male process connection
- IP67 protection rating







\$133.00

Orsense MPS25 Series Mechanical Pressure Switches

- Pressure ranges from 15 psig vacuum to 7500 psig
- 316 stainless steel housing
- All stainless welded diaphragm or stainless piston and Buna-N O-ring
- Tamper resistant field adjustment
- Integral 6-foot cable with 1/2 inch NPT male conduit connection, or DIN form C electrical connections
- 1/4in NPT male process connection
- Wide operating temperature range
- Precision snap-acting SPDT, 3 Amp mechanically operated switch
- IP67 protection rating

ASHCROFT B-Series Mechanical Pressure Switches

- Pressure ranges up to 3000 psig
- 15A SPDT relay output
- 1/4in NPT female 316 stainless steel process connection (select models include a 1/2in NPT male option)
- Easy mechanical setpoint adjustment with locking screw for secure settings

www.automationdirect.com/pressure-sensors

- Rugged epoxy-coated aluminum housing
- Wall mountable
- NEMA 4X/IP66 protection rating





Pressure and Vacuum Transmitters

Achie Ve™ LPPT25 Series

- Low-cost solution for pressure sensing applications
- All stainless steel wetted parts
- Pressure ranges from vacuum to 5000 psig
- Compact size ideal for space-limited applications
- 1/4in NPT male threaded process connection
- 4-20 mA output
- 4-pin M12 quick-disconnect electrical connection
- IP67 protection rating



DrSense SPTD25 Series



- All stainless steel wetted parts
- Pressure ranges from 100 psig to 5000 psig
- 1/4in NPT male process connection
- Output 4-20 mA
- 4-pin M12 quick-disconnect electrical connection

\$79,00

• IP67/69K protection rating

DrSense SPT25 Series

- All stainless steel wetted parts
- Pressure ranges from vacuum to 5000 psig
- Fast response time of <1ms
- Output options: 4-20 mA or 0-10 VDC
- 1/4in NPT male process connection
- Integral 6.6 ft cable or DIN connector
- IP65 or IP67 protection rating (depending on model)
- Made in USA





Or Sense PTD25 Series



- Pressure ranges from vacuum to 5000 psig
- Ceramic sensing element with Viton seals
- High overpressure ratings
- 1/4in NPT male threaded process connection
- Output options: 4-20 mA or 0-10 VDC
- M12 quick-disconnect electrical connection
- IP65 or IP68/69K protection rating (depending on model)

Pressure Transmitters (continued)

Hydro Mode. WPT25 Series

- UL Classified NSF/ANSI/CAN 61 and 372 for drinking water applications
- All 316L stainless steel wetted materials
- Pressure ranges from 0 to 300 psig
- 1/4in NPT male process connection
- 4 to 20 mA output
- 4-pin M12 quick-disconnect
- IP54 protection rating







Differential Pressure Transmitters

Or Sense DPTW Series Differential Pressure Transmitters



- Wet-wet design ideal for liquid, gas, and steam measurement of differential, positive, or negative pressures, hydrostatic liquid level, and flow
- Integral pressure port manifold with 1/4in NPT female process connections and built-in equalizing valve
- Digital filter function to dampen pulsations and provide a more stable output and display
- Key lock function to prevent unauthorized changes to configuration settings
- Bright backlit 6-digit LCD display
- Scaling function allows display to indicate user defined units of measure
- Internal "pushbutton" configurability allows quick range changes
- "Loop check" function allows unit to output 4-20 mA without applying pressure
- \bullet Up to 8X smaller than a conventional style DP transmitter
- Easily rotatable display, 90° increments
- Rugged NEMA 4X (IP65) aluminum die cast housing

OrSense DPTA Series

- Differential pressure measurement with a highly stable capacitive sensing element
- · Positive, negative, and bi-directional pressure measurement

www.automationdirect.com/pressure-sensors

- Pressure ranges from 0.1"w.c. to 25"w.c.
- Accuracy is +/-1% of span maximum
- · High overpressure rating of 15 psig
- 1/4in barbed process connections
- LED loop power status indicator
- Made in USA





Pressure Gauges

Orsense Mechanical Dial Pressure Gauges



- 1.5in, 2.0in, or 2.5in diameters
- Durable steel or stainless steel cases
- Dry or liquid filled models (Liquid filled gauges dampen the effects of vibration and pulsations)
- Brass wetted parts for air, oil, or water applications
- Stainless steel wetted parts for applications with corrosive materials
- Dual marked gauge dial faces (psig/kPa or inHg/kPa) in pressure ranges from vacuum up to 6000 psig
- 1/8in or 1/4in NPT male process connection (depending on model)

Or Sense DPG1 Series Digital Pressure Gauges

- ±0.5% accuracy
- · 2-button operation
- Backlight display turns on when on/off button is pressed
- Option for continuous peak pressure indication
- Continuous on display option or timeout to save battery life
- · Wide variety of pressure unit selections
- Reset to zero feature
- Powered via 2 x AAA batteries (included)
- · Rubber boot for added protection (included)
- 316L welded diaphragm seal
- 1/4in NPT male process connection



Differential Pressure Gauges



\$72.00

Orsense DGA Series Differential Pressure Gauges

- Industrial grade black die-cast aluminum case
- ±2% full scale accuracy
- High temperature tolerance
- · Resistance-free movement
- Re-zero adjustment
- · Mounting and connection hardware included.
- Other mounting accessories available.
- For practically any application involving air or non-combustible gases
- 1/8in NPT female process connections
- 5 year warranty

Pressure transmitters from a global leader in process measurement instrumentation

Since the 1950's, Endress+Hauser has been providing process control sensors/instruments to a wide variety of industries worldwide including chemical, petrochemical, food and beverage, oil and gas, water and wastewater, and more. They are known around the globe for highly reliable, accurate, and innovative measurement devices.



Endress + Hauser

Endress + Hauser 4

For the latest prices, please check AutomationDirect.com

Cerabar PMC11/PMC21 series with ceramic measuring cell

Ceramic is one of the hardest materials in the world and ensures the best material properties for the medium. Cerabar capacitive ceramic measuring cells have membranes up to 30 times thicker than conventional cells. Even the tiniest of deflections result in measuring signals with the highest accuracy.

The ultra-pure ceramic (99.9%) guarantees high resistance to corrosion, minimal temperature hysteresis, and the best overload

- · Compact pressure transmitter
- · Capacitive, oil-free ceramic sensor
- Measuring principle: gauge pressure



Starting at

\$309.00

- Measuring ranges up to 40 bar (600 psi *max pressure)
- Process temperature: -13 to +185°F
- Accuracy: ±0.5% of span
- · Output: 4 to 20 mA
- 1/2in NPT male or 1/4in NPT female process connection



- Measuring ranges up to 40 bar (600 psi *max pressure)
- Process temperature: -13 to +212°F
- Accuracy: ±0.3% of span
- · Output: 4 to 20 mA
- 1/2in NPT male or 1/4in NPT female process connection



Cerabar PMP11/PMP21 series with metallic measuring cell

As a high-performance solution for high pressure applications up to 400 bar (6,000 psi), these pressure transmitters have passed Endress+Hauser's stringent durability tests and work reliably across a large temperature range.

Cerabar metallic cell transmitters feature a piezo-resistive sensor and are designed to withstand the harsh conditions of the process industry by using high quality materials like 316L steel. With supreme longevity, these transmitters will reliably measure absolute and/or gauge pressure of gases or liquids for many years to come.

- · Compact, fully welded pressure transmitter
- · Piezo-resistive sensor, stainless steel sensing element
- Measuring principle: Gauge pressure or absolute pressure



PMP11

- Measuring ranges up to 40 bar (600 psi *max pressure)
- Process temperature: -13 to +185°F
- Accuracy: ±0.5% of span
- · Output: 4 to 20 mA
- 1/2in NPT male or 1/4in NPT female process connection



PMP21

- Measuring ranges up to 400 bar (6,000 psi *max pressure)
- Process temperature: -40 to +212°F
- Accuracy: ±0.3% of span · Output: 4 to 20 mA
- 1/2in NPT male or 1/4in NPT female process connection

Pressure Sensors and Gauges

VAUTOMATION DIRECT

1 - 8 0 0 - 6 3 3 - 0 4 0 5

Pressure Sensors and Gauges www.automationdirect.com/pressure-sensors

Endress+Hauser Pressure Transmitters (continued)

Endress+Hauser Cerabar PMP23 Series Hygienic Pressure Transmitters

Endress + Hauser Cerabar PMP23 series hygienic pressure transmitters feature a compact stainless steel housing, a fully welded 1-1/2in sanitary tri-clamp process connection, and are 3-A approved for Food and Beverage applications. Select models offer IO-Link v1.1 capability for easy setup, integration, and on-the-fly configuration changes.

- Pressure ranges up to 600 psig
- Suitable for gas, liquid, and vapor applications
- 4-20 mA analog or IO-Link output options
- Suitable for CIP/SIP cleaning
- Fully welded 1-1/2in sanitary tri-clamp process connections
- 316L stainless steel housing and process isolating diaphragm
- IP65/67 or IP66/69 protection rating (depending on model)



Endress+Hauser Ceraphant PTP31B Series Digital Pressure Transmitters

IO-Link

\$471.00

Endress+Hauser Ceraphant PTP31B series digital pressure transmitters safely measure and monitor gauge pressure. These highly stable pressure sensors feature a compact, stainless steel construction that is overload-resistant to up to 9000 psig. Their IO-Link compatibility allows easy setup, integration, and on-the-fly configuration changes.



IO-Link



- Pressure ranges up to 6000 psig
- Suitable for gas, liquid, and vapor applications
- 4-20 mA analog, N.O./N.C. selectable, or IO-Link output options
- Built-in one line 4-digit LCD display
- IO-Link v1.1 compatible
- 1/2in NPT male or 1/4in NPT female process connection
- 316L stainless steel housing and process isolating diaphragm
- IP67 protection rating

Endress+Hauser Ceraphant PTP33B Series Sanitary Digital Pressure Transmitters

People for Process Automation

Endress + Hauser Ceraphant PTP33B series digital pressure transmitters feature a stainless steel housing with a sanitary tri-clamp process connection and metal diaphragm to safely measure and monitor gauge pressure. The PTP33B pressure sensors offer a compact design, overload resistance up to 2400 psig, and are 3-A approved for Food and Beverage applications. Their IO-Link capability allows easy setup, integration, and on-the-fly configuration changes.

- Pressure ranges up to 600 psig
- Suitable for gas, liquid, and vapor applications
- 4-20 mA analog, N.O./N.C. selectable, or IO-Link output options
- Built-in one line 4-digit LCD display
- IO-Link v1.1 compatible
- Suitable for CIP/SIP cleaning
- Fully welded 1-1/2in sanitary tri-clamp process connections
- 316L stainless steel housing and process isolating diaphragm
- IP67 protection rating



IO-Link

\$515.00

Pressure Sensors Accessories

Pressure snubbers protect sensitive pressure sensors from the damaging effects of spikes and surges, while siphons provide separation from continuous high-temperature media. Needle valves allow precise flow rate regulation and the removal of downstream devices without shutting down the process.

WINIERS Siphons

Siphons protect pressure gauges, transmitters, transducers, and switches from the effect of high-temperature pressure media such as steam.



- Available in brass, carbon steel, or stainless steel for compatibility with different media
- 1/4in male NPT process connections
- Maximum operating pressure up to 1650 psi
- Maximum operating temperature up to 680° F (360° C)
- 5-year warranty

INIERS Pressure Snubbers

Pressure snubbers protect instruments such as gauges, transmitters, transducers, and switches by suppressing pressure spikes commonly found in harsh applications involving reciprocating pumps, compressors, hydraulic presses, or fluid power systems.



- · Snubbing element with large surface area ensures long term effectiveness
- Available in the three standard viscosity classifications: heavy oil, water and air
- Brass or stainless steel bodies depending upon pressure media and operating pressure
- Maximum operating pressure up to 20,000 psi Maximum operating temperature up to 1500° F
- 1/4in male NPT x 1/4in female NPT process connections
- ASME B40.100 compliant
- 5-year warranty

WINERS Adjustable Pressure Snubbers

Adjustable pressure snubbers meet a wide variety of media viscosity applications by providing an adjustable snubbing element to suppress pressure surges, improve readability, and prevent wear and damage to delicate instruments.



\$28,00

- depending upon pressure media • 1/4in male NPT x 1/4in female NPT
- process connections Maximum operating pressure:
- 6000 psi Maximum operating temperature: 248°F (120°C)
- ASME B40.100 compliant

www.automationdirect.com/pressure-sensors

• 5-year warranty

WINERS Manual Isolation and Throttling Needle Valves

Manual isolation and throttling needle valves isolate pressure instruments from the sensed media, allowing for quick and effortless removal and maintenance of the devices without shutting down the process. The needle valves allow for precise manual flow rate regulation.



- Excellent flow regulation and leak tight
- The one-piece body construction provides strength, safety and corrosion resistance
- · "Slow opening" prevents sudden pressure surge and instrument damage
- Materials include carbon steel and stainless steel
- Available in Soft and Hard Seat (6,000 psi)
- Maximum operating temperature: 977°F (525°C)
- 1/4in male NPT and 1/4in female NPT process connections
- ASME B1.20.1 compliant
- 5-year warranty

WINIERS Manual Block and Bleed Needle Valves

Manual block and bleed needle valves isolate pressure instruments from the sensed media pressure, allowing the devices to be easily removed and maintained without shutting down the process. The needle valve allows for precise manual flow rate regulation, while the bleed port permits downstream pressure to be relieved without disturbing the permanent piping installation.

- The one-piece body constriction provides strength and corrosion resistance
- Available in soft seat (6,000 psi) and hard seat (10,000 psi)
- All stems are 316 stainless steel
- Maximum operating pressure up to 10,000 psi
- Maximum operating temperature: 383°F(195°C)
- 1/4in male NPT and 1/4in female NPT process connections
- 5-year warranty





VAUTOMATIONDIRECT €