

SEnVA
SENSORS

**PW30 Series
Remote Wet-to-
Wet Differential
Pressure Sensor**



SEnVA PW30 Series Remote Wet to Wet Differential Pressure Sensor Owner's Manual

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SEnVA PW30 Series Remote Wet-to-Wet Differential Pressure Sensor



Product Usage Instructions

Description

The PW30 Series Remote Wet-to-Wet Differential Pressure Sensor features a revolutionary design that eliminates the need for plumbing/bypass assemblies. It offers 16 selectable differential ranges in one device and includes an LCD display for verification of high, low, and differential pressures.

Applications

- Remote sensors eliminate the need for bypasses
- Ease of installation with independent installation for mechanical & electrical trades
- Save on commissioning and maintenance by ordering fully assembled with bypass manifold
- Save time with available prewired armored cable or shielded cable
- High reliability with tamper-resistant enclosures providing an added layer of security
- Flexibility as it accepts rigid conduit and field wiring

Features

Easy plug-and-play with no wire twisting required

Ordering

For ordering or inquiries, contact [866-660-8864](tel:866-660-8864) or fax [503-296-2529](tel:503-296-2529). Visit www.senvainc.com for more information.

Dimensions

Refer to the installation instructions accompanying the product for accurate dimensions. Note that product improvement is a continuous process at Senva, and changes may occur without prior notice.

PW30 Series Remote Wet-to-Wet Differential Pressure Sensor

Revolutionary design eliminates plumbing/bypass assemblies 16 selectable differential ranges in one device LCD display for verification of high, low, and differential pressures Swap or replace remote sensors with ease

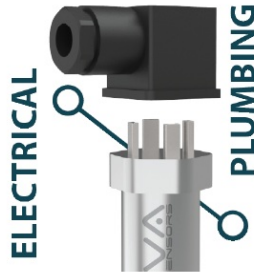
DESCRIPTION

The PW30 Series uses remote sensors to eliminate the need for costly bypass assemblies, enabling fast, cost effective installation. The remote sensors mount directly to pipe to eliminate bleeding and additional plumbing. Optional factory pre-wired harnesses also available in wire and armored cable versions. NEW! Order pre-

fabricated with a 3 or 5-valve bypass assembly for easy bleeding and installation where bypass is required. Standard LCD screen and dip switches make configuration a breeze. Measure 16 differential pressure ranges from 1-500 PSID with a single device without sacrificing accuracy. Selectable output 0-5V, 0- 10V, or 2 Wire 4-20mA.

APPLICATIONS

- Demand measurement in HVAC systems for pump speed control and local indication
 - Process control systems
 - Flow measurement of gases, vapors, and liquids compatible with 316L SS
 - Filter status monitoring
 - System leak detection
 - Great for data center wet pressure sensing
1. Remote sensors eliminate need for bypasses
 2. **Ease of installation** – Independent installation for mechanical & electrical trades
 3. **Save on commissioning and maintenance** – Order fully assembled with bypass manifold – sensors are field-swappable!



4. **Save time** – Available with prewired armored cable or shielded cable
5. **High reliability** – Metal or Plastic tamper-resistant enclosures provided added layer of security
6. **Flexibility** – Accepts rigid conduit and field wiring









FEATURES



- Drastically reduce plumbing needs and save installation time
- Order with pre-fabricated wire or pre-fabricated bypass assembly
- Single device for 1-500 PSID makes ordering easy
- Swap or replace remote sensors with ease
- LCD and dip switches make configuration fast and simple
- Remote sensors come standard with DIN43650 connection for easy plug-and-play, no wire twisting
- MEMS sensor technology
- Integrated surge snubber protects sensor from water hammer for reliable long term performance


- Manual and remote zero for maintained accuracy
- Port swap corrects plumbing errors
- Uni/bi-directional
- Conduit and wire connection compatible

ORDERING

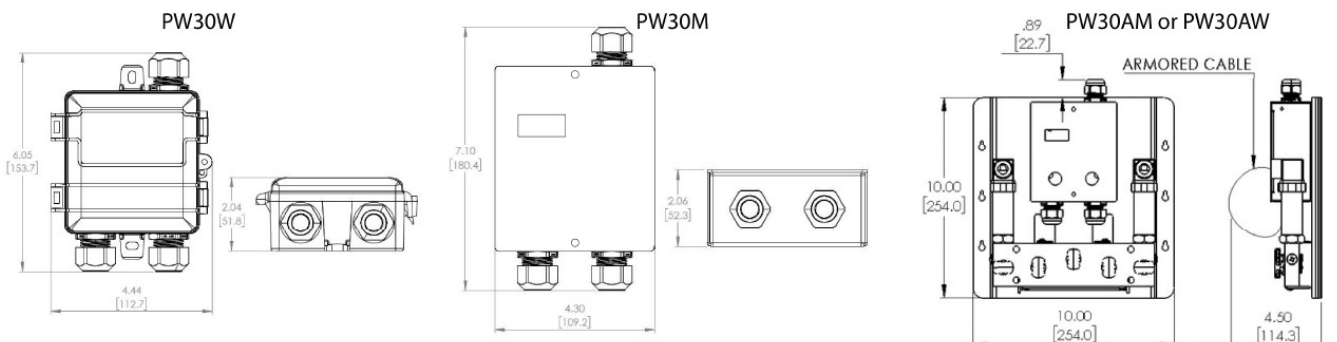
Transmitter		Cable		Remote Sensor	
PW30		—		—	
Enclosure W = Rugged Plastic M = Metal		User Provided Cable C = Conduit and terminal connections (for field wiring)		Factory Cable Type Blank = Standard A = Armored	
		Optional Factory Cable (Pre-wired) 003 = 3 feet (36in) 006 = 6 feet (72in) 009 = 9 feet (108in) 015 = 15 feet (180in) 020 = 20 feet (240in) 025 = 25 feet (300in) 030 = 30 feet (360in) 035 = 35 feet (420in) 040 = 40 feet (480in) 045 = 45 feet (540in) 050 = 50 feet (600in) 075 = 75 feet (900in) 100 = 100 feet (1200in)		Pipe Pressure Range 050 = 0-50 PSIG 100 = 0-100 PSIG 250 = 0-250 PSIG 500 = 0-500 PSIG	
Add a bypass manifold...  PWV-3 3-valve  PWV-5 5-valve				Optional Service Valve  PWBV Optional service valve PWBV for live sensor swap	

Fully Assembled with Bypass Manifold

Transmitter	Bypass	Remote Sensor
PW30		
Enclosure W = Rugged Plastic M = Metal	Bypass 3V = 3 Valves 5V = 5 Valves	Range 050 = 0-50 PSIG 100 = 0-100 PSIG 250 = 0-250 PSIG 500 = 0-500 PSIG



DIMENSIONS



Warning: The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may

occur to products without prior notice.

SPECIFICATIONS

Parameter	Details
Power Supply Voltage Output Mode (0-5 V)	12-30VDC/24VAC1 20mA max.
Power Supply Voltage Output Mode (0-10V)	13-30VDC/24VAC1 required for 10V FS output
Current (4-20mA) Output Mode	15-30VDC (0 Ohm)/16-30VDC (250 Ohm)/18-30VDC (500 Ohm), 20mA max.
Outputs	Switch selectable 2-wire 4-20mA, 3-wire 0-5V/10V
Operating Temperature	Transmitter: -22 to 158°F (-30 to 70°C)
Media Compatibility Type	Water, other 316 SS compatible media (316L diaphragm)
Media Temperature	32 to 250°F (0-125°C)
Zero Adjustment	Automatic Pushbutton, terminal block switch input
Zero Adjustment Button Operation	Press button for 5 seconds to re-zero; hold for 10 seconds to restore factory settings
Sensor Type	Micro-machined silicon strain gauge
PW Transmitter Accuracy² (PSIG)	25 PSIG, 50 PSIG, 100 PSIG, 250 PSIG, 500 PSIG
2% Accuracy Ranges	0-1 / 0-2 PSID, 0-10 / 0-15 PSID, 0-15 / 0-20 / 0-25 / 0-30 PSID, 0-30 / 0-40 / 0-50 PSID, 0-75 / 0-100 / 0-125 PSID
1% Accuracy Ranges	0-5 / 0-10 / 0-15 / 0-20 / 0-25 PSID, 0-20 / 0-25 / 0-30 / 0-40 / 0-50 PSID, 0-40 / 0-50 / 0-75 / 0-100 PSID, 0-75 / 0-100 / 0-125 / 0-150 / 0-250 PSID, 0-150 / 0-250 / 0-500 PSID
Sensor Performance Accuracy³	< ±0.25% BFSL
Stability (1 year)	±0.25% FS, typ
Over-range Protection	200% rated pressure
Pressure Cycles	> 100 Million
Compensated Operating Range	14 to 158°F (-10-70°C)
Temperature Compensation	Zero, <±0.03(<100kPa), <±0.02(>100kPa), Span, <±0.03(<100kPa), <±0.02(>100kPa)
Vibration	10G peak, 20 to 2000 Hz

Enclosure	Construction	Rating
PW30M	Powder-coated steel (metal)	Nema 3R (Metal), IP65
PW30W	PC/ABS (Plastic)	Nema 4X (Plastic), IP65
PWT [xxx]	Stainless Steel, 304, 1/4" MNPT, 1/2" Conduit Fitting	–

1. One side of the transformer secondary is connected to signal common. The dedicated transformer is recommended.
2. FS is defined as the full scale of the selected range. Accuracy includes non-linearity, hysteresis, and repeatability.
3. Because of lower accuracy, it is not factory-recommended to use an output range less than 10% of the total sensor PSIG.

Product improvement is a continual process at Senva and product features and specifications may change without prior notice. Refer to the instructions that accompany the product for installation and wiring.

[866-660-8864](tel:866-660-8864) | fax [503-296-2529](tel:503-296-2529) | www.senvainc.com

FAQ

Q: What is the power supply requirement for the PW30 Series sensor?

A: The power supply required is 13-30VDC/24VAC.

Q: Can the sensor be used with both metal and plastic enclosures?

A: Yes, the sensor can be used with either metal or plastic tamper-resistant enclosures for added security.

Documents / Resources



[SENVA PW30 Series Remote Wet to Wet Differential Pressure Sensor](#) [pdf] Owner's Manual PW30W-C-100, PW30 Series Remote Wet to Wet Differential Pressure Sensor, PW30 Series, Remote Wet to Wet Differential Pressure Sensor, Wet to Wet Differential Pressure Sensor, Differential Pressure Sensor, Pressure Sensor, Sensor

References

- [Senva inc: Gas Sensors, Toxic Sensors, Dry Pressure Sensors, Wet Pressure Sensors, Humidity/Temp Sensors, Current Switches, Current Transducers, Energy Measurement, Relays, Leak Detection, IoT Solutions, Smart Sensors](#)
- [User Manual](#)

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