# Honeywell

# XYR 6000 Wireless Pressure Transmitter Differential Pressure Models

 STDW924
 0 to 400 inH2O

 STDW930
 0 to 100 psi

 STDW974
 0 to 3,000 psi

#### Introduction

Building upon the tremendously successful ST 3000 series transmitter line; Honeywell brings simple, safe, and secure wireless technology to its measurement portfolio in the XYR 6000 Series Wireless Transmitters.

The XYR 6000 series measurements are part of the Honeywell OneWireless system and are ISA100.11a Compliant.

Measurement and information without wires! The XYR 6000 wireless transmitter series enable customers to obtain data and create information from remote and hazardous measurement locations without the need to run wires, where running wire is cost prohibitive and/or the measurement is in a hazardous location. Without wires, transmitters can be installed and operational in minutes, quickly providing information back to your system.

XYR 6000 wireless transmitters send information to an ISA100.11a compliant MESH infrastructure. Wireless Data Managers (WDM) provide the path to bring that information into Experion PKS or any other control system wirelessly via OPC client or Modbus-TCP.

Transmitter power is supplied by two "D" size lithium batteries in an intrinsically safe module with an expected lifetime of up to ten years or by an external 24 Vdc power supply. Transmitter range with the integral antenna is 1000' (305 m) under ideal conditions.

Pressure transmitters continue to bring a proven technology to a wide spectrum of pressure measurement applications, from furnace combustion airflow rate to hydrostatic tank gauging.

The STDW series Differential Pressure can be used with any primary flow element to provide proven, repeatable flow measurement. 0 to 1,000 mbar 0 to 7,000 mbar 0 to 210,000 mbar



Figure 1 — XYR 6000 Differential Pressure Transmitters

Implement the value of wireless technology today:

- Measure remote access points simply, safe and securely
- Obtain and utilize previously inaccessible information due to high wiring cost or hazardous locations.
- Easily meet Regulatory Requirements
- Improve process efficiency
- Enhance Flexibility to
  - monitor applications:
    - that have no access to power
    - that are remote or difficult to reach
    - that may require frequent reconfiguration
    - where manual readings have been required previously.

34-XY-03-22 November 2010

### Specification and Model Selection Guide

### **Specifications**

### **Operating Conditions – All Models**

Parameter	Reference Condition (at zero static)		Rated C			Rated Condition Operative Limits Trans		Rated Condition		Operative Limits		tation and rage
	°C	°F	°C	°F	°C	°F	°C	°F				
Ambient Temperature**	25 ±1	77 ±2	-40 to 85*	-40 to 185*	-40 to 85*	-40 to 185*	-40 to 85	-40 to 185				
Ambient Temperature LCD Display visible range	25 ±1	77 ±2	-40 to 85°C	-40 to 185°F								
Meter Body Temperature	25 ±1	77 ±2	-40 to 110 <sup>1</sup>	-40 to 230 <sup>1</sup>	-40 to 125	-40 to 257	-40 to 85	-40 to 185				
Humidity %RH	10 to 55		0 to	100	0 to	0 to 100 0 to 100						
Vacuum Region - Minimum Pressure mmHg absolute inH <sub>2</sub> O absolute Maximum Allowable Working Pressure (MAWP) <sup>4</sup> (XYR6000 products are rated to Maximum Allowable Working Pressure. MAWP depends on Approval Agency and transmitter materials of construction.)	Atmospheric Atmospheric       25 13       2 (short term <sup>2</sup> ) 1 (short term <sup>2</sup> )         STDW924,STDW930, STDW974 = 4,500psi, 310 bar <sup>3</sup> Static Pressure Limit = Maximum Allowable Working Pressure (MAWP) = Overpressure I			ssure Limit								
Vibration	Maximu	m of 4g	over 15 to 200	)Hz.								
Shock	Maximu	m of 40g	].									
Power	There is 24 Vdc barrier (	an optic Wired Po 252 Ohn	on to have the ower (option) - ns Max. end to	thionyl chloride battery fitted c For I.S. Applic end resistanc to 30 Vdc Inpu	or not fitted for cation: 21 V to ce), Max input	shipping. 25 Vdc Ope current 26m	erated with					

<sup>1</sup> For CTFE fill fluid, the rating is –15 to 110°C (5 to 230°F)

<sup>2</sup> Short term equals 2 hours at 70°C (158°F)

<sup>3</sup> MAWP applies for temperature range –40 to 125°C. However Static Pressure Limit is de-rated to 3000 psi from -26 to -40°C. Use of graphite o-rings de-rates transmitter to 3625 psi. Use of Adapter with graphite o-rings de-rates transmitter to 3000 psi. <sup>4</sup> Consult factory for MAWP of XYR6000 transmitters with CSA approval.

\*24V power option rated 80°C (176°F)

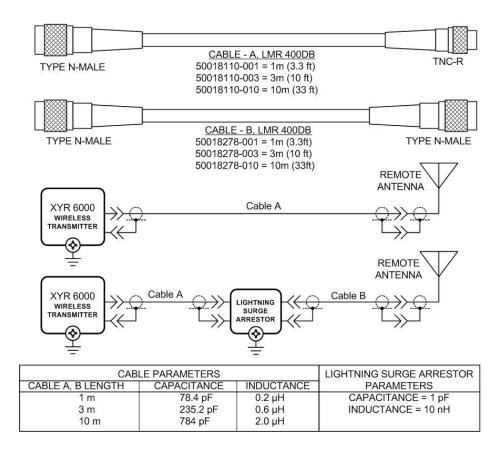
\*\* The Ambient Limits shown are for Ordinary Non-Hazardous locations only. Refer to the appropriate Control Drawing, FM/CSA, ATEX, or IECEx for the Ambient Limits when installed in Hazardous Locations.

# Wireless Specifications

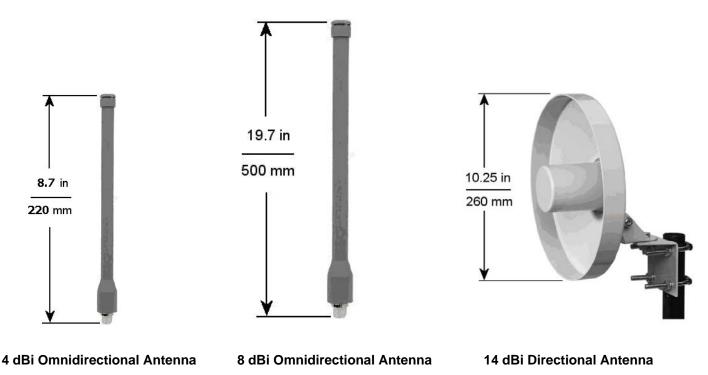
Parameter	Description
Wireless Communication	2,400 to 2,483.5 MHz (2.4 GHz) Industrial, Scientific and Medical (ISM) band
	FHSS Selection – Frequency Hopping Spread Spectrum DSSS Selection – Direct Sequential Spread Spectrum per FCC 15.247 / IEEE 802.15.4–2006. ISA100.11a Compliant (2.4 GHz Direct Sequence Spread Spectrum 802.15.4 DSSS-FH)
	Every data packet transmitted in either direction is verified (CRC check) and acknowledged by the receiving device.
	USA – FCC Certified Canada – IC Certified European Union – RTTE/ETSI Conformity Japan – Ministry of Internal Affairs and Communications Certified (DSSS Selection only)
ISA100.11a RF Transmitter Power (Optional)	NA Selection – 125 mW (20.9 dBm) maximum transmit power not including antenna per FCC/IC, or 400 mW (26.0 dBm) maximum EIRP including antenna for USA and Canadian locations.
	EU Selection – 10 mW (10.0 dBm) maximum EIRP including antenna per RTTE/ETSI for EU locations.
FHSS RF Transmitter Power (Optional)	NA Selection – 125 mW (20.9 dBm) maximum transmit power not including antenna per FCC/IC, or 400 mW (26.0 dBm) maximum EIRP including antenna for USA and Canadian locations.
	EU Selection – 100 mW (20.0 dBm) maximum EIRP including antenna per RTTE/ETSI for EU locations.
DSSS RF Transmitter Power (Optional)	NA Selection – 125 mW (20.9 dBm) maximum transmit power not including antenna per FCC/IC, or 400 mW (26.0 dBm) maximum EIRP including antenna for USA and Canadian locations.
	EU Selection – 10 mW (10.0 dBm) maximum EIRP including antenna per RTTE/ETSI for EU locations.
	JP Selection – 12.14 dBm/MHz [32mW (15.14 dbm)] maximum EIRP including antenna for Japanese locations.
Data	PV Publish Cycle Time: Configurable as 1, 5, 10 or 30 seconds
	Rate: 250 Kbps
Antennas	Integral – 2 dBi omnidirectional monopole
	Integral – 4 dBi omnidirectional monopole
	Remote – 8 dBi omnidirectional monopole with up to 20 m cable and lightning surge arrester
	Remote – 14 dBi directional parabolic with up to 20 m cable and lightning surge arrester.
Signal Range	Nominal 305 m (1,000 feet) between Field Transmitter and Infrastructure Unit (Multinode) or Gateway Unit when using 2 dBi Integral antenna with a clear line of sight.*
	Two XYR 6000 transmitters both having TX Power set to 16 dBm with a clear line of site nominal signal range is 150 m (490ft.)
Routing vs Non- Routing	Unit can be set as a Field Routing or non-Field Routing device; the number of routing devices is set by the system manager.
	Using the device as a routing device will impact battery life, the more messages routed through a device, the greater the impact on battery life.

\*Actual range will vary depending on antennas, cables and site topography.

### **Remote antenna cables**



### **Remote Antennas**



### Performance Under Rated Conditions\* - Model STDW924 (0 to 400 inH<sub>2</sub>O/1,000 mbar)

Parameter	Description
Upper Range Limit inH <sub>2</sub> O mbar	400 (39.2°F/4°C is standard reference temperature for inH <sub>2</sub> O range.) 1,000
Minimum Span inH₂O mbar	10 25
Zero Elevation and Suppression	-5 to +100% URL
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability)	$\pm$ 0.0625% of calibrated span or upper range value (URV), whichever is greater, terminal based. For URV below reference point (25 inH <sub>2</sub> O), accuracy equals:
<ul> <li>Accuracy includes residual error after averaging successive readings.</li> </ul>	$\pm \left[ 0.0125 + 0.05 \left( \frac{25 \text{ inH}_2 \text{O}}{\text{span inH}_2 \text{O}} \right) \right] \text{ or } \pm \left[ 0.0125 + 0.05 \left( \frac{62 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.15% of span. For URV below reference point (50 inH <sub>2</sub> O), effect equals:
	$\pm 0.15 \left( \frac{50 \text{ inH}_2 \text{O}}{\text{span inH}_2 \text{O}} \right) \text{ or } \pm 0.15 \left( \frac{125 \text{ mbar}}{\text{span mbar}} \right) \text{ in \% of span}$
Combined Zero and Span Temperature Effect per 28°C (50°F)	±0.225% of span. For URV below reference point (50 inH <sub>2</sub> O), effect equals:
	$\pm \left[ 0.075 + 0.15 \left( \frac{50 \text{ inH}_2 \text{O}}{\text{span inH}_2 \text{O}} \right) \right] \text{ or } \pm \left[ 0.075 + 0.15 \left( \frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Zero Static Pressure Effect per 1000 psi (70 bar)	±0.1625% of span. For URV below reference point (50 inH <sub>2</sub> O), effect equals:
	$\pm \left[ 0.0125 + 0.15 \left( \frac{50 \text{ inH}_2 \text{O}}{\text{span inH}_2 \text{O}} \right) \right] \text{ or } \pm \left[ 0.0125 + 0.15 \left( \frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	±0.30% of span. For URV below reference point (50 inH <sub>2</sub> O), effect equals:
	$\pm \left[ 0.15 + 0.15 \left( \frac{50 \text{ inH}_2 \text{O}}{\text{span inH}_2 \text{O}} \right) \right] \text{ or } \pm \left[ 0.15 + 0.15 \left( \frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Stability	±0.015% of URL per year

\* Performance specifications are based on reference conditions of 25°C (77°F), zero (0) static pressure, 10 to 55% RH, and 316L Stainless Steel barrier diaphragm.

### Performance Under Rated Conditions\* - Model STDW930 (0 to 100 psi/7,000 mbar)

	Description
Upper Range Limit psi bar	100 7
Minimum Span psi bar	5 0.35
Zero Elevation and Suppression	–5 to +100% URL.
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability)	<ul><li>±0.0625% of calibrated span or upper range value (URV), whichever is greater, terminal based.</li><li>For URV below reference point (20 psi), accuracy equals:</li></ul>
•Accuracy includes residual error after averaging successive readings.	$\pm \left[ 0.0125 + 0.05 \left( \frac{20 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.0125 + 0.05 \left( \frac{1.4 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.15% of span. For URV below reference point (30 psi), effect equals:
	$\pm 0.15 \left( \frac{30 \text{ psi}}{\text{span psi}} \right)$ or $\pm 0.15 \left( \frac{2 \text{ bar}}{\text{span bar}} \right)$ in % of span
Combined Zero and Span Temperature Effect per 28°C (50°F)	$ \pm 0.225\% \text{ of span.} $ For URV below reference point (30 psi), effect equals: $ \pm \left[ 0.075 + 0.15 \left( \frac{30 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.075 + 0.15 \left( \frac{2 \text{ bar}}{\text{span bar}} \right) \right] \text{ in } \% \text{ of span} $
Zero Static Pressure Effect per 1000 psi (70 bar)	$\frac{\pm 0.1625\% \text{ of span.}}{\pm 0.0125 + 0.15 \left(\frac{30 \text{ psi}}{\text{span psi}}\right)} \text{ or } \pm \left[0.0125 + 0.15 \left(\frac{2 \text{ bar}}{\text{span bar}}\right)\right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	$\begin{bmatrix} (span psi) \end{bmatrix} \begin{bmatrix} (span bar) \end{bmatrix}$ ±0.30% of span. For URV below reference point (30 psi), effect equals: $\pm \begin{bmatrix} 0.15 + 0.15 \left( \frac{30 \text{ psi}}{\text{span psi}} \right) \end{bmatrix} \text{ or } \pm \begin{bmatrix} 0.15 + 0.15 \left( \frac{2 \text{ bar}}{\text{span bar}} \right) \end{bmatrix} \text{ in % of span}$
Stability	

\* Performance specifications are based on reference conditions of 25°C (77°F), zero (0) static pressure, 10 to 55% RH, and 316L Stainless Steel barrier diaphragm.

### Performance Under Rated Conditions\* - Model STDW974 (0 to 3,000 psi/210 bar)

Parameter	Description
Upper Range Limit psi bar	3,000 210
Minimum Span psi bar	100 7
Zero Elevation and Suppression	-0.6 and +100% URL.
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability)	±0.175% of calibrated span or upper range value (URV), whichever is greater, terminal based. For URV below reference point (300 psi), accuracy equals: $\begin{bmatrix} 300 & psi \end{bmatrix} = \begin{bmatrix} 21 & bar \end{bmatrix}$
	$\pm \left[ 0.025 + 0.15 \left( \frac{300 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.025 + 0.15 \left( \frac{21 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.20% of span. For URV below reference point (500 psi), effect equals:
	$\pm 0.20 \left( \frac{500 \text{ psi}}{\text{span psi}} \right) \text{ or } \pm 0.20 \left( \frac{35 \text{ bar}}{\text{span bar}} \right) \text{ in \% of span}$
Combined Zero and Span Temperature Effect per 28°C (50°F)	$ \begin{array}{l} \pm 0.30\% \text{ of span.} \\ \text{For URV below reference point (500 psi), effect equals:} \\ \pm \left[ 0.10 + 0.20 \left( \frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.10 + 0.20 \left( \frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in } \% \text{ of span} \end{array} $
Zero Static Pressure Effect per 1000 psi (70 bar)	$\pm 0.1625\%$ of span. For URV below reference point (500 psi), effect equals:
<u></u>	$\pm \left[ 0.0125 + 0.15 \left( \frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.0125 + 0.15 \left( \frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	$ \pm 0.30\% \text{ of span.} $ For URV below reference point (500 psi), effect equals: $ \pm \left[ 0.15 + 0.15 \left( \frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[ 0.15 + 0.15 \left( \frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in } \% \text{ of span} $
Stability	

Performance specifications are based on reference conditions of 25°C (77°F), zero (0) static pressure, 10 to 55% RH, and 316L Stainless Steel barrier diaphragm.

### Performance under Rated Conditions – General for all Models

Parameter	Description
Lightning Surge Arrester (Remote antenna only)	Frequency range: 0 – 3 GHz, 50 Ohms, VSWR = 1:1.3 Max, Insertion Loss = 0.4 dB Connectors Type N Female, Max, Gas Tube Element: 90 V $\pm$ 20%, Impulse Breakdown Voltage = 1,000 V $\pm$ 20%, Maximum Withstand Current = 5 KA.
CE Conformity	These transmitters are in conformity with the protection requirements of European Council Directives: 89/336/EEC, the EMC Directive and 1999/5/EC, the Telecommunications Directive per EN 300 328 V1.7.1, EN301 893 V1.3.1, EN301 489-17 V1.2.1, EN301 489-1 V1.6.1 and EN61326-1 (1st Edition, 2002-02, Industrial Locations). Electrical Equipment for Measurement, Control and Laboratory Use – EMC Requirements.
Hazardous Location Certifications	See the Model Selection Guide on page 12.

### **Physical Specifications**

Parameter	Description
Barrier Diaphragms Material STDW924, STDW930, STDW974	316L SS, Hastelloy C-276, Monel, Tantalum, Gold plated 316LSS, Gold plated Hastelloy C-276, Gold plated Monel
Process Head Material STDW924, STDW930, STDW974	316 SS, Carbon Steel (zinc-plated), Monel, Hastelloy
Head Gaskets	Glass filled PTFE standard. Viton and graphite optional.
Meter Body Bolting	Carbon Steel (Zinc plated) standard. Options include 316 SS, NACE A286 SS bolts with NACE 304 SS nuts, and B7M.
Optional Adapter Flange and Bolts	Adapter Flange materials include 316 SS, Hastelloy C-276 and Monel. Options for bolting include carbon steel, 316SS, NACE A286SS and B7M. Standard adapter flange gasket material is glass filled PTFE. Viton and graphite optional.
Mounting Bracket	Carbon Steel (Zinc-plated) or Stainless Steel angle bracket or Carbon Steel flat bracket available (standard options).
Fill Fluid	Silicone DC 200 oil or CTFE (Chlorotrifluoroethylene)
Electronic Housing	Epoxy-Polyester hybrid paint. Low Copper-Aluminum. Meets NEMA 4X (hosedown and corrosion resistant), IP 66/67 (hosedown and submersible to 1m).
Stainless Steel Housing (option)	316 SS Electronics Housing - with M20 Conduit Connections 316 SS Housing with 1/2" NPT Conduit Connection
	316 SS or Grade CF8M, the casting equivalent of 316 SS with M20 or 1/2" NPT Conduit Connection.
	If ordered with the Remote Antenna options, the antenna parts are not SS or Marine type cables; the integral antenna uses SS parts.
Process Connections	1/4-inch NPT; 1/2-inch NPT with adapter. Process heads meet DIN 19213 requirements.
Mounting	Can be mounted in virtually any position using the standard mounting bracket. Mounting should result in the antenna being vertically oriented. Bracket is designed to mount on 2-inch (50 mm) vertical or horizontal pipe. See Figure 2.
Dimensions	See Figure 3 and Figure 4.
Net Weight	Approximately 11 pounds (5 Kg)

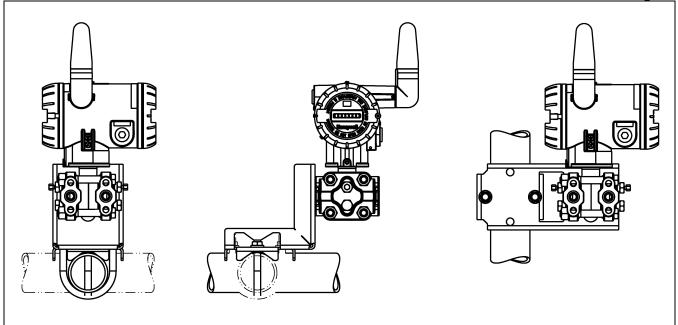


Figure 2 — Examples of typical mounting positions

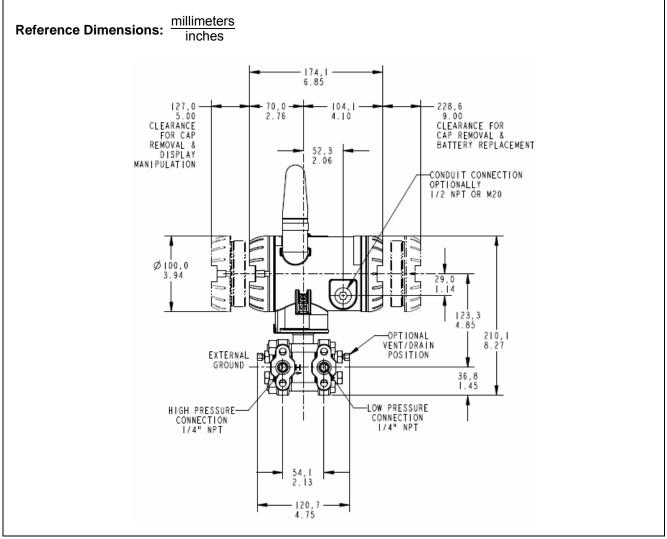


Figure 3 — Typical mounting dimensions for STDW924, STDW930 and STDW974 (side view)

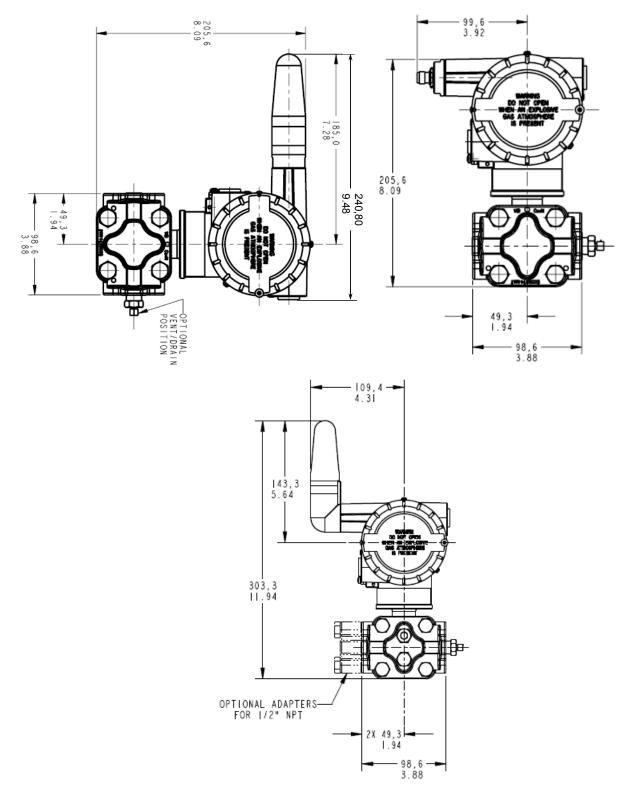


Figure 4 Typical mounting dimensions for STDW924, STDW930 and STDW974 (rear view)

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#### Options

#### Mounting Bracket

The angle mounting bracket is available in either zinc-plated carbon steel or stainless steel and is suitable for horizontal or vertical mounting on a two inch (50 millimeter) pipe, as well as wall mounting. An optional flat mounting bracket is also available in carbon steel for two inch (50 millimeter) pipe mounting.

#### Tagging (Option TG)

Up to 30 characters can be added on the stainless steel nameplate mounted on the transmitter's electronics housing at no extra cost. Note that a separate nameplate on the meter body contains the serial number and body-related data. A stainless steel wired on tag with additional data of up to 4 lines of 28 characters is also available. The number of characters for tagging includes spaces.

#### Transmitter Configuration

All configurable parameters are accessible via the OneWireless network via READ/WRITE transactions.

#### Ordering Information

Contact your nearest Honeywell sales office, or

In the U.S.:

Honeywell Process Solutions 1860 West Rose Garden Lane Phoenix, AZ 85053 1-800-423-9883

In Canada: The Honeywell Centre 155 Gordon Baker Rd. North York, Ontario M2H 3N7 1-800-461-0013

In Latin America: Honeywell Inc. 480 Sawgrass Corporate Parkway, Suite 200 Sunrise, FL 33325 (954) 845-2600

In Europe and Africa: Honeywell S. A. Avenue du Bourget 1 1140 Brussels, Belgium

In Eastern Europe: Honeywell Praha, s.r.o. Budejovicka 1 140 21 Prague 4, Czech Republic

In the Middle East: Honeywell Middle East Ltd. Khalifa Street, Sheikh Faisal Building Abu Dhabi, U. A. E.

In Asia:

Honeywell Asia Pacific Inc. Honeywell Building, 17 Changi Business Park Central 1 Singapore 486073 Republic of Singapore

In the Pacific:

Honeywell Pty Ltd. 5 Thomas Holt Drive North Ryde NSW Australia 2113 (61 2) 9353 7000

In Japan:

Honeywell K.K. 14-6 Shibaura 1-chrome Minato-ku, Tokyo, Japan 105-0023

Or, visit Honeywell on the World Wide Web at: <u>www.honeywell.com/ps</u>

Specifications are subject to change without notice.

Model Selection Guides are subject to change and are inserted into the specifications as guidance only. Prior to specifying or ordering a model check for the latest revision Model Selection Guides which are published at: <a href="http://hpsweb.honeywell.com/Cultures/en-US/Products/Instrumentation/ProductModelSelectionGuides/default.htm">http://hpsweb.honeywell.com/Cultures/en-US/Products/Instrumentation/ProductModelSelectionGuides/default.htm</a>

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# Honeywell

## XYR 6000 Wireless Transmitter Differential Pressure (DP) Series 900

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## **Model Selection Guide**

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#### Instructions

Key Number

STDW\_\_\_

Select the desired Key Number. The arrow to the right marks the selection available.
Make one selection from each table, I and II, using the column below the proper arrow.
Select as many Table III options as desired (if no options or approvals are desired, specify 9X).
A (•) denotes unrestricted availability. A letter denotes restricted availability. Restrictions follow Table V.

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				Selection	Availa
KEY NUMBER		Span			
	0-10" to 0-400" H <sub>2</sub> C	D/0-25 to 0-1000 mbar	•	STDW924	↓
	Body Rating: 4500	psi (310 bar)			
Differential	0-5 to 0-100 psi/0-			STDW930	$\mathbf{v}$
Pressure	Body Rating: 4500				
	0-100 to 0-3000 ps			STDW974	$\downarrow$
	Body Rating: 4500				
		,			
TABLE I -	Wetted	Vent/Drain			
IETER BODY	Process Heads	Valves <sup>2</sup> and Plugs	Barrier Diaphragms	Selection	
	Carbon Steel 1	316 SS	316L SS	Α	•
	Carbon Steel 1	316 SS	Hastelloy <sup>®</sup> C-276 <sup>3</sup>	B	•
	Carbon Steel <sup>1</sup>	316 SS	Monel 400 <sup>® 4</sup>	c	•
Materials of	Carbon Steel <sup>1</sup>	316 SS	Tantalum	D	•
Construction	316 SS <sup>5</sup>	316 SS	316L SS	E	•
	316 SS <sup>5</sup>	316 SS	Hastelloy <sup>®</sup> C-276 <sup>3</sup>	F	•
	316 SS <sup>5</sup>	316 SS	Monel 400 <sup>® 4</sup>	G	•
	316 SS <sup>5</sup>	316 SS	Tantalum	Η	•
	Hastelloy <sup>®</sup> C 3, 6	Hastelloy <sup>®</sup> C-276 <sup>3</sup>	Hastelloy <sup>®</sup> C-276 <sup>3</sup>	J	•
	Hastelloy <sup>®</sup> C 3, 6	Hastelloy <sup>®</sup> C-276 <sup>3</sup>	Tantalum	K	•
	Monel 400 <sup>® 4, 7</sup>	Monel 400® 10	Monel 400 <sup>® 4</sup>	L	•
Fill Fluid	Silicone			_1_	•
	CTFE			_2_	•
Process Head	1/4" NPT			A	•
Configuration	1/2" NPT with Adap	oter (on 1/4" NPT Hea	d)	H	k

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#### TABLE II

No Selection

<sup>1</sup> Carbon Steel heads are zinc-plated and not recommended for water service due to hydrogen migration. For that service, use 316 stainless steel wetted Process Heads.

<sup>2</sup> Vent/Drains are sealed with Teflon<sup>® 9</sup> or PTFE.

<sup>3</sup> Hastelloy<sup>®</sup> C-276 or UNS N10276

 $^4\,$  Monel 400  $^{\rm @}$  or UNS N04400  $\,$ 

<sup>5</sup> Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

<sup>6</sup> Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy<sup>®</sup>C-276

 $^7\,$  Supplied as indicated or as Grade M30C, the casting equivalent of Monel  $400^{\circledast}$ 

<sup>9</sup> Teflon<sup>®</sup> or PTFE

 $^{\rm 10}\,$  Monel 400  $^{\rm @}$  or UNS N04400 or UNS N04405

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TABLE III - ANTENN		Selection	Availa	abilit
ntenna's	Integral Right-angle, vertical 2dBi	V	d	
	Integral Straight, horizontal 2dBi	S	d	
	Integral Right-angle, vertical 4dBi	R	d	
	Remote Omnidirectional, 8 dBi	M	р	
	Remote Directional, 14 dBi	D	е	
	Remote Antenna Adapter, Type N Connection	A	d	
Cable A for	None	_00	•	
Remote Antenna	1.0m remote Cable A, Type TNC (Reg'd to connect to XYR 6000)	_01	f	
	3.0m remote Cable A, Type TNC (Req'd to connect to XYR 6000)	_03	f.	
	10.0m remote Cable A, Type TNC (Reg'd to connect to XYR 6000)		f	
	1.0m remote Cable A, Type N (Reg'd to connect to XYR 6000)	$-\frac{10}{21}$		
		_21	n	
	3.0m remote Cable A, Type N (Req'd to connect to XYR 6000)	-23	n	
	10.0m remote Cable A, Type N (Req'd to connect to XYR 6000)	_29	n	
Cable B	None	00	•	
or Remote Antenna	Accessory + 1.0m Cable B to Antenna, N - N	01	•	
v/Accessories*	Accessory + 3.0m Cable B to Antenna, N - N	03	•	
	Accessory + 10.0m Cable B to Antenna, N - N	10	•	
ABLE IV - OPTION	* See Supplemental Accessories			
adio Options	(Must choose a Radio Option)			l
.4 GHz Frequency H	lopping Spread Spectrum (FHSS)	XF	•	
2.4 GHz Direct Seque	ence Spread Spectrum (802.15.4 DSSS)	XD	•	
	nt (2.4 GHz Direct Sequence Spread Spectrum 802.15.4 DSSS-FH)	XS	•	
ower Option	(Must Choose Power Option)			
Battery Holder Only -		00	•	
Battery Power	,	BA	•	
4VDC		DC	•	
-	a & Electronics Options			
Custom Calibration a		CC	•	
	tion and ID in Memory	TC	•	
•	(1/2" NPT is standard)	A1	f	
	316 SS Conduit Adapter	A1 A2		
			g	
S16 SS <sup>3,8</sup> Electronics	Housing - with M20 Conduit Connections	SH	-	
316 SS <sup>5,9</sup> Housing with 1/2" NPT Conduit Connection		A3	•	_
Stainless Steel Customer Wired-On Tag		TG	•	
•	ers per line, customer supplied information)			
	mer Wired-On Tag (blank)	ТВ	•	
End Cap Warning Lal	bel in Spanish	SP	•	
End Cap Warning Lal	bel in Portuguese	PG	•	
End Cap Warning Lal	bel in Italian	TL	•	
End Cap Warning Label in Italian End Cap Warning Label in German		GE		
Alter Body Options				-
16 SS Bolts and 316	SS Nuts for Process Heads	SS	•	
37M Bolts and Nuts for	or Process Heads	B7	•	
ACE A286 SS Bolts	and NACE 304 SS Nuts for Process Heads	CR	•	
16 SS <sup>5</sup> Adapter Flan	ige - 1/2" NPT with CS Bolts	S2	с	
	ge - 1/2" NPT with 316 SS Bolts	S3	c	
	ge - 1/2" NPT with NACE A286 SS Bolts			
		S4	c	
	ige - 1/2" NPT with B7M Bolts	S5	C	
	Adapter Flange - 1/2" NPT with CS Bolts	T2	с	
lastelloy C-276 "	Adapter Flange - 1/2" NPT with 316 SS Bolts	T3	с	
	er Flange - 1/2" NPT with CS Bolts	V2	с	
	er Flange - 1/2" NPT with 316 SS Bolts	V3	С	
	r Flange with CS Bolts	B3	•	
16 SS <sup>5</sup> Blind Adapte	r Flange with 316 SS Bolts	B4	•	
16 SS <sup>5</sup> Blind Adapte	r Flange with NACE A286 SS Bolts	B5	•	
	r Flange with B7M Bolts	B6	•	
	Vent Drain is standard)	SV	•	
		CV	•	
316 SS Center Vent Drain and Bushing			•	H
/iton <sup>® 8</sup> Process Head Gaskets (adapter gaskets ordered separately)				
		VT GE	•	
	ad & Adapter Flange Gaskets	GF VF	• m	

<sup>3</sup> Hastelloy<sup>®</sup> C-276 or UNS N10276
 <sup>4</sup> Monel 400<sup>®</sup> or UNS N04400
 <sup>5</sup> Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.
 <sup>6</sup> Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy<sup>®</sup> C-276
 <sup>7</sup> Supplied as indicated or as Grade M30C, the casting equivalent of Monel 400<sup>®</sup>

<sup>8</sup> Viton<sup>®</sup> or Fluorocarbon Elastomer

<sup>9</sup> If ordered with Remote Antenna option, Table III Selection M \_\_\_\_\_ or D \_\_\_\_\_, antenna parts are not SS or Marine type cables

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TABLE IV - OPTIONS (continued)	Selection	Availa	ability
Transmitter Mounting Brackets Options			
Mounting Bracket - Carbon Steel	MB	•	
Mounting Bracket - 304 SS	SB	•	b
Flat Mounting Bracket - Carbon Steel	FB	•	
Services/Calibration/Conformance Options			
User's Manual Paper Copy	UM	•	
Clean Transmitter for Oxygen or Chlorine Service with Certificate	0X	h	
Over-Pressure Leak Test with F3392 Certificate	TP	•	
Calibration Test Report and Certificate of Conformance (F3399)	F1	•	
Certificate of Conformance (F3391)	F3	•	d b
Diaphragm Options			
Gold plated diaphragm(s) on 316 SS	G1	•	
Gold plated diaphragm(s) on Monel <sup>® 4</sup> or Hastelloy <sup>®</sup> C-276 <sup>3</sup> ONLY	G2	•	b
Certificate Options			
Certificate of Origin (F0195)	F5	•	
NACE Certificate (F0198)	F7	i	
Warranty Options			
Additional Warranty - 1 year	W1	•	
Additional Warranty - 2 years	W2	•	d

<sup>3</sup> Hastelloy<sup>®</sup> C-276 or UNS N10276
 <sup>4</sup> Monel 400<sup>®</sup> or UNS N04400

#### TABLE IV - OPTIONS (continued)

Approval Body	Approval Type	Location or Classification				
	ous location approvals	Eccation of oldssilication	9X	•		
		Class I, II, III, Div. 1, Groups A,B,C,D,E,F,G;				
	Intrinsically Safe	T4, Ta ≤ 85°C; Type 4X				
		Class I, AEx ia IIC; T4, Ta ≤ 85°C, Zone 0; IP66				
		Class I, Div. 1, Groups A,B,C,D;				
FM	Evaluation proof	CI II, Div. 1, Groups E, F & G;	1C			
FIVI	Explosion-proof	Cl III, Div. 1, T4, Ta ≤ 85°C; Type 4X				
		Class I, AEx d IIC; T4, Ta ≤ 85°C, Zone 1; IP66				
	Nonincendive	Class I, Div. 2, Groups A,B,C,D; T4,				
	Nonincentive	Ta ≤ 85°C; Type 4X				
	Non-Sparking	Class I, AEx nA IIC; T4, Ta ≤ 85°C, Zone 2; IP66				
	Nonincendive	Nonincendive, CL I, Div 2, Groups A,B,C & D,				
	Nonincentive	CL II & III, Div 2, Groups F & G, T4 Ta = 85°C	2N	•		
	Non-Sparking	Class I, Ex/AEx nA IIC; T4, Ta ≤ 85°C, Zone 2; IP66				
	Intrinsically Safe	Class I, Div. 1, Gp A,B,C,D; Class II, Div 1,	2C			
		Gp E,F,G; Class III, Div 1; T4, Ta ≤ 85°C; Type 4X				
CSA		Class I, Ex/AEx ia IIC; T4, Ta ≤ 85°C, Zone 0; IP66				
cus	Explosion-proof	Class I, Div. 1, Groups A,B,C,D;				
cus		Class II, Div. 1,Groups E, F & G;				
	Explosion-proof	Class III, Div. 1, T4, Ta ≤ 85°C; Type 4X	20			
		Class I, Ex/AEx d IIC; T4, Ta ≤ 85°C, Zone 1; IP66				
	Nonincendive	Class I, Div. 2, Groups A,B,C,D; T4,				
	Nonincentive	Ta ≤ 85°C; Type 4X				
	Non-Sparking	Class I, Ex/AEx nA IIC; T4, Ta ≤ 85°C, Zone 2; IP66				
	Intrinsically Safe	II 1 GD; Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66	3U			
		Ex tD A20 IP66 T90°C				
	Flameproof	II 2 GD; Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66	3B			
	Папергоог	Ex tD A21 IP66 T90°C	00			
	Non-Sparking	(Ex) II 3 GD; Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2	37	3Y	37	
ATEX	Non-opanning	Ex tD A22 IP66 T90°C	01			
Intr Fla	Intrinsically Safe	—— II 1 GD; Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66				
		Ex tD A20 IP66 T90°C	3C*			
	Flameproof	II 2 GD; Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66				
		Ex tD A21 IP66 T90°C				
	Non-Sparking	ر II 3 GD; Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2				
		Ex tD A22 IP66 T90°C				

Approval Body	Approval Type	Location or Classification		
IECEx Australia & New Zealand	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66	CU	•
		Ex tD A20 IP66 T90°C	0	
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66	СВ	
		Ex tD A21 IP66 T90°C		
	Non-Sparking	Ex nA IIC; T4, Ta ≤ 84°C, Zone 2; IP66	CY	
		Ex tD A22 IP66 T90°C		
	Intringiaally Safa	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66		
		Ex tD A20 IP66 T90°C		•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66	C1*	
		Ex tD A21 IP66 T90°C	CI	
	Non-Sparking	Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2; IP66		
		Ex tD A22 IP66 T90°C		
	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66	ZU	•
		Ex tD A20 IP66 T90°C	20	•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66	ZB	•
		Ex tD A21 IP66 T90°C	20	
	Non-Sparking	Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2; IP66	ZY	•
SAEx		Ex tD A22 IP66 T90°C		
South Africa	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66		
		Ex tD A20 IP66 T90°C Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66		
	Flameproof	Ex tD A21 IP66 T90°C	ZC*	٠
	Non-Sparking	Ex ID A21 1P66 190°C Ex nA [nL] IIC; T4, Ta $\leq$ 84°C, Zone 2; IP66		
		Ex tD A22 IP66 T90°C		
INMETRO Brazil	Intrinsically Safe	Ex ia IIC; T4, Ta $\leq$ 85°C, Zone 0; IP 66		
	Flameproof Ex d IIC; T4, Ta $\leq$ 85°C, Zone 1; IP 66		6C*	
	Non-Sparking Ex nA IIC; T4, Ta $\leq$ 85°C, Zone 2; IP 66			
	non-oparking	$1 \ge 10, 14, 10 \ge 00, 2010, 2, 10, 00$		

\* The user must determine the type of protection required for installation of the equipment. The user shall then check the box  $[\sqrt{}]$  adjacent to the type of protection used on the equipment certification nameplate. Once a type of protection has been check on the nameplate, subsequently the equipment shall not be reinstalled using any of the other certification types.

**WARNING** – Division 2 / Zone 2 apparatus may only be connected to processes classified as non-hazardous or Division 2 / Zone 2. Connection to hazardous (flammable or ignition capable) Division 1 / Zone 0, or 1 process is not permitted.

TABLE V				Availability	
Country	(Must Choose a Country Code)	Country Code			
North America, Canada		NA00	•		
European Union		EU00	•	b	
Japan		JP00	•		

#### RESTRICTIONS

Restriction	Available Only With		Not Available With		
Letter	Table	Selection	Table	Selection	
b	Select only one option from this group				
С	I	H			
d	III	_ 00 , 00			
е			III	_ 00	
f			IV	SH, A3	
g			IV	BA, SH, A1	
h	I	_2_			
i	IV	CR, S4, B5			
k	IV	Select from Table IV S2, S3, S4, S5, T2, T3, V2, V3			
m	IV	VT			
n	IV	SH, A3			
р			V	JP00	
r	IV	9X			

Notes: See ST-89 for Published Specials with pricing.

See ST-95 and User's Manual for part numbers.

To request a quotation for a non-published "special", fax RFQ to 602-313-6155 or email to ace@honeywell.com

# Supplemental Accessories & Kits

Description	Part Number
1/2 NPT Socket Plug (ZN Plated CS)	50021832-001
1/2 NPT Certified Conduit Plug (SS)	50021832-002
M20 Certified Conduit Plug (SS)	50000547-001
M20 Conduit Plug (ZN Plated CS)	50000547-002
Surge Diverter*	50018279-090
Lithium Thionyl Chloride Batteries (Qty 2)	50026010-501
Lithium Thionyl Chloride Batteries (Qty 4)	50026010-502
Lithium Thionyl Chloride Batteries (Qty 10)	50026010-503

\* Surge Diverter Accessory supplied with Table III, Selections XXX01, XXX03, XXX10

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