

Wireless Pressure Transmitter Series XYR 6000 S100 Differential Pressure Models Specifications

34-XY-03-44, October 2012



Models:

STDW120	0 to 400 in H ₂ O	0 to 1,000 mbar
STDW130	0 to 100 psi	0 to 7,000 mbar
STDW170	0 to 3,000 psi	0 to 210,000 mbar

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 Series 100 XYR 6000 Wireless pressure transmitters offer improved accuracy and performance for those critical applications that require it

The XYR 6000 series measurements are part of the Honeywell OneWireless™ system and are ISA100a 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 Manager (WDM) provides 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 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.



Figure 1 — XYR 6000 Differential Pressure Transmitters

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.

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.

Specifications

Operating Conditions – All Models

Parameter	Reference Condition (at zero static)		Rated Condition		Operative Limits		Transportation and Storage	
	°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	-40 to 185				
Meter Body Temperature STDW120, STDW130, STDW170	25 +/-1	77 ±2	-40 to 110 ¹	-40 to 230 ¹	-40 to 125	-40 to 257	-40 to 85	-40 to 185
Humidity %RH	10 to 55		0 to 100		0 to 100		0 to 100	
Vacuum Region - Minimum Pressure mmHg absolute in H₂O absolute	Atmospheric Atmospheric		25 13		2 (short term ²) 1 (short term ²)			
Maximum Allowable Working Pressure (MAWP)⁴ (XYR6000 products are rated to Maximum Allowable Working Pressure. MAWP depends on Approval Agency and transmitter materials of construction.)	STDW120, STDW130, STDW170 = 4,500psi, 310 bar ³ Static Pressure Limit = Maximum Allowable Working Pressure (MAWP) = Overpressure Limit							
Vibration	Maximum of 4g over 15 to 200Hz.							
Shock	Maximum of 40g.							
Power	Battery powered 3.6V Lithium thionyl chloride (LiSOCl ₂) batteries non rechargeable, size D. There is an option to have the battery fitted or not fitted for shipping. 24 Vdc Wired Power (option) - For I.S. Application: 21 V to 25 Vdc Operated with MTL7728P+ barrier (252 Ohms Max. end to end resistance), Max input current 26mA. For Non I.S. application: 11 V to 30 Vdc Input range, Max input current 100mA.							

¹ For CTFE fill fluid, the rating is -15 to 110°C (5 to 230°F)

² Short term equals 2 hours at 70°C (158°F)

³ 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.

⁴ Consult factory for MAWP of XYR6000 transmitters with CSA approval.

*24V power option rated 80°C (176°F)

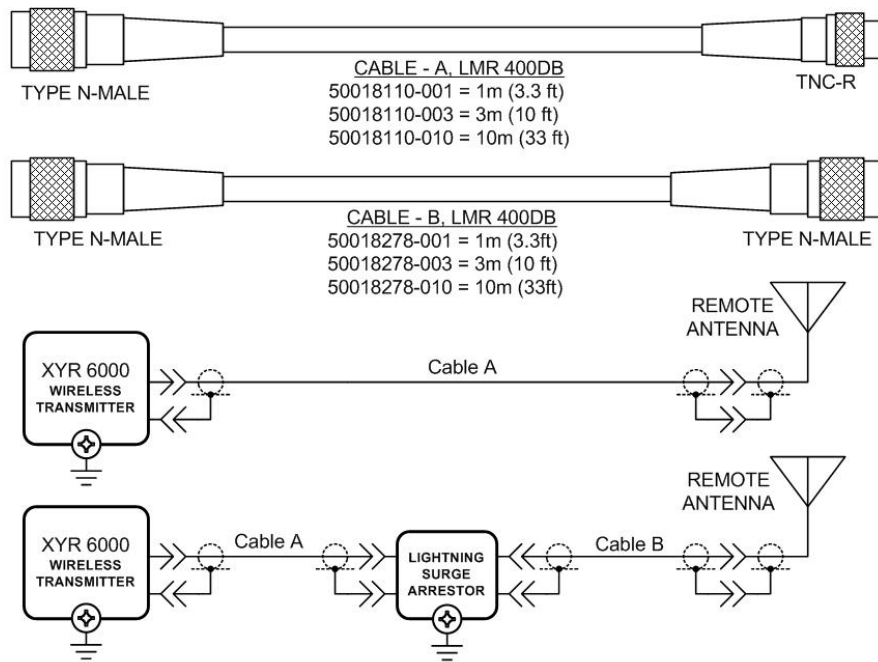
** The Ambient Limits shown are for Ordinary Non-Hazardous locations only. Refer to the appropriate Control Drawing, FM/CSA, ATEX, or IECEx for the Ambient Limits when installed in Hazardous Locations.

Wireless Specifications

Parameter	Description
Wireless Communication	<p>2,400 to 2,483.5 MHz (2.4 GHz) Industrial, Scientific and Medical (ISM) band</p> <p>DSSS Selection – Discrete Sequential Spread Spectrum per FCC 15.247 / IEEE 802.15.4–2006</p> <p>ISA100.11a Compliant (2.4GHz Direct Sequence Spread Spectrum 802.15.4 DSSS-FH)</p> <p>Every data packet transmitted in either direction is verified (CRC check) and acknowledged by the receiving device.</p> <p>USA – FCC Certified Canada – IC Certified European Union – RTTE/ETSI Conformity Japan – Ministry of Internal Affairs and Communications Certified</p>
ISA100.a RF Transmitter Power (Optional)	<p>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.</p> <p>EU Selection – 100 mW (20.0 dBm) maximum EIRP including antenna per RTTE/ETSI for EU locations.</p>
DSSS RF Transmitter Power	<p>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.</p> <p>EU Selection – 10 mW (10.0 dBm) maximum EIRP including antenna per RTTE/ETSI for EU locations.</p> <p>JP Selection – 12.14 dBm/MHz [32mW (15.14 dbm)] maximum EIRP including antenna for Japanese locations.</p>
Data	<p>PV Publish Cycle Time: Configurable as 1, 5, 10, 30 or 60 seconds</p> <p>Rate: 250 Kbps</p>
Antennas	<p>Integral – 2 dBi omnidirectional monopole</p> <p>Integral – 4 dBi omnidirectional monopole</p> <p>Remote – 8 dBi omnidirectional monopole with up to 20 m cable and lightning surge arrester</p> <p>Remote – 14 dBi directional parabolic with up to 20 m cable and lightning surge arrester.</p>
Signal Range	<p>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.*</p> <p>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.)</p>
Routing vs Non-Routing	<p>Unit can be set as a Field Routing or non-Field Routing device; the number of routing devices is set by the system manager.</p> <p>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.</p>

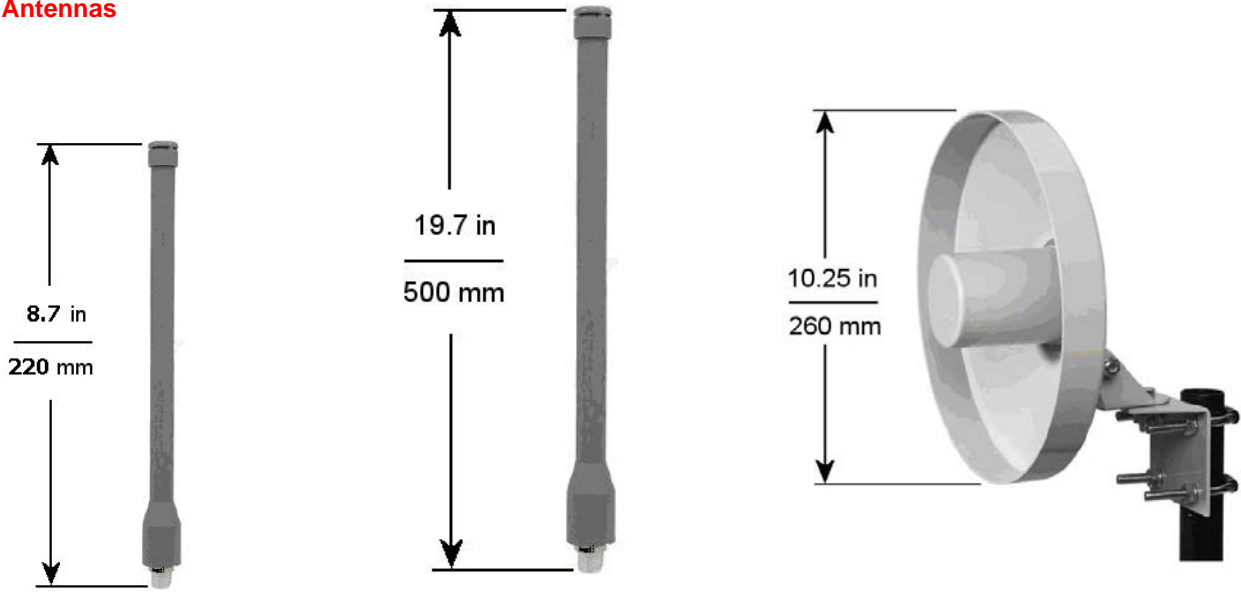
*Actual range will vary depending on antennas, cables and site topography.

Remote Antenna Cables



CABLE PARAMETERS			LIGHTNING SURGE ARRESTOR PARAMETERS
CABLE A, B LENGTH	CAPACITANCE	INDUCTANCE	
1 m	78.4 pF	0.2 μH	CAPACITANCE = 1 pF INDUCTANCE = 10 nH
3 m	235.2 pF	0.6 μH	
10 m	784 pF	2.0 μH	

Remote Antennas



4 dBi Omnidirectional Antenna

8 dBi Omnidirectional Antenna

14 dBi Directional Antenna

Performance under Rated Conditions* - Model STDW120 (0 to 400 inH₂O/1,000 mbar)

Parameter	Description
Upper Range Limit in H₂O mbar	400 (39.2°F/4°C is standard reference temperature for in H ₂ O range.) 1,000
Minimum Span in H₂O mbar	1 2.5
Zero Elevation and Suppression	-5 to +100% URL
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability) • Accuracy includes residual error after averaging successive readings.	±0.0375% of calibrated span or upper range value (URV), whichever is greater, terminal based. For URV below reference point (25 in H ₂ O), accuracy equals: $\pm \left[0.0125 + 0.025 \left(\frac{25 \text{ inH}_2\text{O}}{\text{span inH}_2\text{O}} \right) \right] \text{ or } \pm \left[0.0125 + 0.025 \left(\frac{62 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.20% of span. For URV below reference point (50 in H ₂ O), effect equals: $\pm 0.20 \left(\frac{50 \text{ inH}_2\text{O}}{\text{span inH}_2\text{O}} \right) \text{ or } \pm 0.20 \left(\frac{125 \text{ mbar}}{\text{span mbar}} \right) \text{ in \% of span}$
Combined Zero and Span Temperature Effect per 28°C (50°F)	±0.225% of span. For URV below reference point (50 in H ₂ O), effect equals: $\pm \left[0.025 + 0.20 \left(\frac{50 \text{ inH}_2\text{O}}{\text{span inH}_2\text{O}} \right) \right] \text{ or } \pm \left[0.025 + 0.20 \left(\frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Zero Static Pressure Effect per 1000 psi (70 bar)	±0.075% of span. For URV below reference point (50 in H ₂ O), effect equals: $\pm \left[0.0125 + 0.0625 \left(\frac{50 \text{ inH}_2\text{O}}{\text{span inH}_2\text{O}} \right) \right] \text{ or } \pm \left[0.0125 + 0.0625 \left(\frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	±0.15% of span. For URV below reference point (50 in H ₂ O), effect equals: $\pm \left[0.0875 + 0.0625 \left(\frac{50 \text{ inH}_2\text{O}}{\text{span inH}_2\text{O}} \right) \right] \text{ or } \pm \left[0.0875 + 0.0625 \left(\frac{125 \text{ mbar}}{\text{span mbar}} \right) \right] \text{ in \% of span}$

* 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 STDW130 (0 to 100 psi/7,000 mbar)

Parameter	Description
Upper Range Limit psi bar	100 7
Minimum Span psi bar	1 0.07
Zero Elevation and Suppression	-5 to +100% URL.
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability) •Accuracy includes residual error after averaging successive readings.	±0.0625% of calibrated span or upper range value (URV), whichever is greater, terminal based. For URV below reference point (15 psi), accuracy equals: $\pm \left[0.0125 + 0.05 \left(\frac{15 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.0125 + 0.05 \left(\frac{1.0 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.05% of span. For URV below reference point (30 psi), effect equals: $\pm 0.05 \left(\frac{30 \text{ psi}}{\text{span psi}} \right) \text{ or } \pm 0.05 \left(\frac{2 \text{ bar}}{\text{span bar}} \right) \text{ in \% of span}$
Combined Zero and Span Temperature Effect per 28°C (50°F)	±0.075% of span. For URV below reference point (30 psi), effect equals: $\pm \left[0.025 + 0.05 \left(\frac{30 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.025 + 0.05 \left(\frac{2 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Static Pressure Effect per 1000 psi (70 bar)	±0.075% of span. For URV below reference point (30 psi), effect equals: $\pm \left[0.0125 + 0.0625 \left(\frac{30 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.0125 + 0.0625 \left(\frac{2 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	±0.15% of span. For URV below reference point (30 psi), effect equals: $\pm \left[0.0875 + 0.0625 \left(\frac{30 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.0875 + 0.0625 \left(\frac{2 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$

* 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 STDW170 (0 to 3,000 psi/210 bar)

Parameter	Description
Upper Range Limit psi bar	3,000 210
Minimum Span psi bar	30 2.1
Zero Elevation and Suppression	-0.6 and +100% URL.
Accuracy (Reference – Includes combined effects of linearity, hysteresis, and repeatability)	±0.125% of calibrated span or upper range value (URV), whichever is greater, terminal based. For URV below reference point (300 psi), accuracy equals: $\pm \left[0.025 + 0.10 \left(\frac{300 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.025 + 0.10 \left(\frac{21 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Temperature Effect per 28°C (50°F)	±0.10% of span. For URV below reference point (500 psi), effect equals: $\pm 0.10 \left(\frac{500 \text{ psi}}{\text{span psi}} \right) \text{ or } \pm 0.10 \left(\frac{35 \text{ bar}}{\text{span bar}} \right) \text{ in \% of span}$
Combined Zero and Span Temperature Effect per 28°C (50°F)	±0.15% of span. For URV below reference point (500 psi), effect equals: $\pm \left[0.05 + 0.10 \left(\frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.05 + 0.10 \left(\frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Zero Static Pressure Effect per 1000 psi (70 bar)	±0.075% of span. For URV below reference point (500 psi), effect equals: $\pm \left[0.0125 + 0.062 \left(\frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.0125 + 0.062 \left(\frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$
Combined Zero and Span Static Pressure Effect per 1000 psi (70 bar)	±0.15% of span. For URV below reference point (500 psi), effect equals: $\pm \left[0.088 + 0.062 \left(\frac{500 \text{ psi}}{\text{span psi}} \right) \right] \text{ or } \pm \left[0.088 + 0.062 \left(\frac{35 \text{ bar}}{\text{span bar}} \right) \right] \text{ in \% of span}$

* 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.

Physical Specifications

Parameter	Description
Barrier Diaphragms Material STDW120, STDW130, STTDW170	316L SS, Hastelloy® C-276 ² , Monel® 400 ³ , Tantalum, Gold-plated 316L SS, Gold-plated, Hastelloy C-276, Gold-plated Monel 400 (refer to model selection guide for specific details)
Process Head Material STDW120, STDW130, STDW170	316 SS ⁴ , Carbon Steel (Zinc-plated) ⁵ , Hastelloy C-276 ⁶ , Monel 400 ⁷
Vent/Drain Valves & Plugs	316 SS4, Hastelloy C-2762, Monel 400 ⁸
Head Gaskets	Glass filled PTFE standard. Viton and graphite optional. See MSG.
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 400. Bolt material for flanges is dependent on process head bolts material chosen. Standard adaptor o-ring material is glass-filled PTFE. Viton® and graphite are 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 optional 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) ⁹

¹ Vent/Drains are sealed with Teflon® or PTFE

² Hastelloy® C-276 or UNS N10276

³ Monel® 400 or UNS N04400

⁴ Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

⁵ 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.

⁶ Hastelloy® C-276 or UNS N10276. Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy® C-276

⁷ Monel® 400 or UNS N04400. Supplied as indicated or as Grade M30C, the casting equivalent of Monel® 400

⁸ Monel 400® or UNS N04400 or UNS N04405

⁹ Add 8.0 pounds (3.6 kg) to any model equipped with the stainless steel housing option. (Model Selection Guide Table IV selections A3 or SH)

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 ± 20%, Impulse Breakdown Voltage = 1,000 V ± 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.

Certifications

MSG CODE	AGENCY	TYPE OF PROTECTION
2C	CSA 1903673 (USA and Canada)	Intrinsically Safe: Class I; Division 1; Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1; T4 Class I, Zone 0 Ex ia IIC T4 Class I, Zone 0 AEx ia IIC T4
		Nonincendive: Class I; Division 2; Groups A, B, C, D; Class II, Division 2, Groups F, G; Class III, Division 2, T4 Class I, Zone 2 Ex nA IIC, T4 Class I, Zone 2 AEx nA IIC, T4
		Explosion-Proof/ Flameproof: Class I, Division 1; Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1; T4 Class I, Zone 1 Ex d IIC T4 Class I, Zone 1 AEx d IIC, T4
		Ambient Temperature -40 °C to +85 °C : Battery -40 °C to +80 °C : DC Supply
		Enclosure: Type 4X/ IP66
1C	FM Approvals™ 3032450 (USA)	Intrinsically Safe: Class I; Division 1; Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1; T4 Class I, Zone 0 AEx ia IIC T4
		Nonincendive: Class I; Division 2; Groups A, B, C, D; Class II, Division 2, Groups F, G; Class III, Division 2, T4 Class I, Zone 2 AEx nA IIC, T4
		Explosion-Proof/ Flameproof: Class I, Division 1; Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III, Division 1; T4 Class I, Zone 1 AEx d IIC, T4
		Ambient Temperature -40 °C to +85 °C : Battery -40 °C to +80 °C : DC Supply
		Enclosure: Type 4X/ IP66

MSG CODE	AGENCY	TYPE OF PROTECTION
3C	ATEX- KEMA 08ATEX0062X	Intrinsically Safe: II 1 G Ex ia IIB T4 II 1 D Ex tD A20 IP66 T90 °C
		Flameproof: II 2 G Ex d [ia] IIB T4 II 2 D Ex tD A21 IP66 T90 °C
		Ambient Temperature -40 °C to +70 °C : Battery -40 °C to +80 °C : DC Supply
		Enclosure: IP66
C1	IECEX- CSA 09.0001X	Intrinsically Safe: Ex ia IIB T4 Ex tD A20 IP66 T90 °C
		Flameproof: Ex d [ia] IIB T4 Ex tD A21 IP66 T90 °C
		Nonincendive: Ex nA [nL] IIC T4 Ex tD A22 IP66 T90 °C
		Ambient Temperature -40 °C to +70 °C (Ex ia, Ex d) -40 °C to +84 °C (Ex nA) : Battery -40 °C to +80 °C : DC Supply
ZC	SAEx S/09-036X (South Africa)	Intrinsically Safe: Ex ia IIB T4 Ex tD A20 IP66 T90 °C
		Flameproof: Ex d [ia] IIB T4 Ex tD A21 IP66 T90 °C
		Nonincendive: Ex nA [nL] IIC T4 Ex tD A22 IP66 T90 °C
		Ambient Temperature -40 °C to +70 °C (Ex ia, Ex d) -40 °C to +84 °C (Ex nA) : Battery -40 °C to +80 °C : DC Supply
6C	INMETRO NCC 11.0331 X (BRAZIL)	Intrinsically Safe: Ex ia IIB T4 Ga
		Flameproof: Ex d [ia] IIB T4 Ex tb IIIC T90 °C IP66
		Nonincendive: Ex nA [ic] IIC T4 Ex tc IIIC T90 °C IP66
		Ambient Temperature -40 °C to +70 °C (Ex ia, Ex d) -40 °C to +84 °C (Ex nA) : Battery -40 °C to +80 °C : DC Supply
		Enclosure: IP66

Electrical Data

Battery

Two in series connected (D size) Lithium batteries, type TL 5930/s manufactured by Tadiran, type XL-205F manufactured by Zeno Energy or type PT-2300H manufactured by Eagle Picher. Additionally for ATEX and IECEx certifications, Lithium Battery SL-2780, manufactured by Tadiran, GmbH may be used.

DC Supply

For Ordinary Locations, Explosion-proof and Non Incendive:
16.0 V min to 28.0 V max, Current = 100 mA

For Intrinsically Safe:

A Barrier, MTL 728P+ or MTL 7728P+ mounted in a suitable enclosure, or in a non-hazardous location is needed, see Agency Certification drawings in Section 6.

Mounting

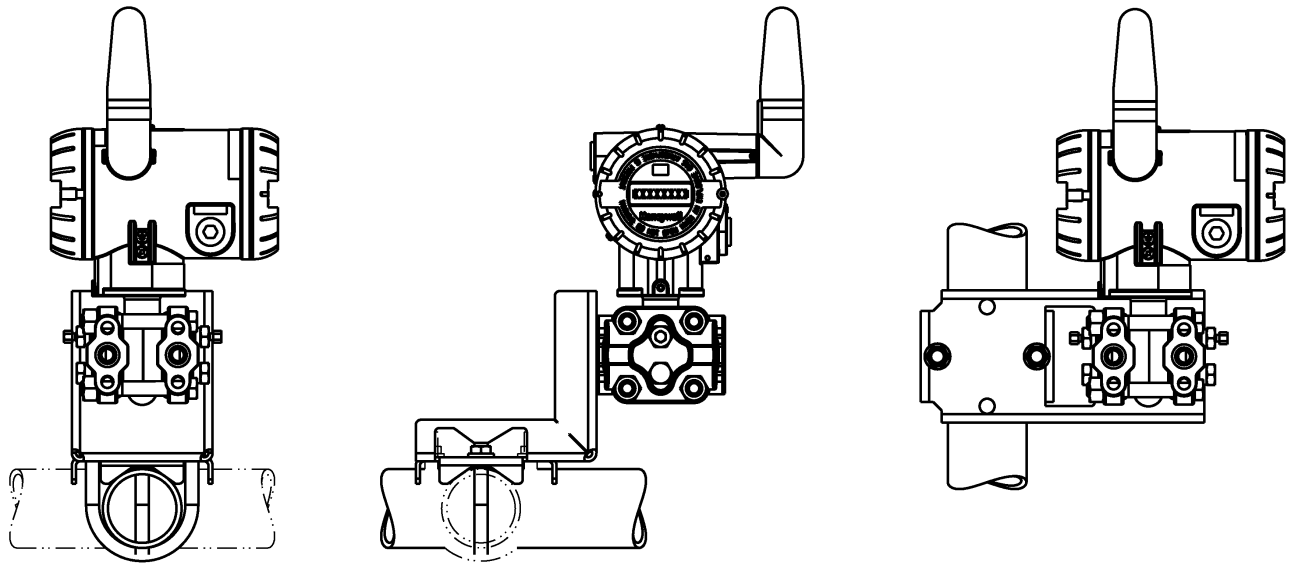


Figure 2 — Examples of typical mounting positions

Dimensions

Reference Dimensions: $\frac{\text{millimeters}}{\text{inches}}$

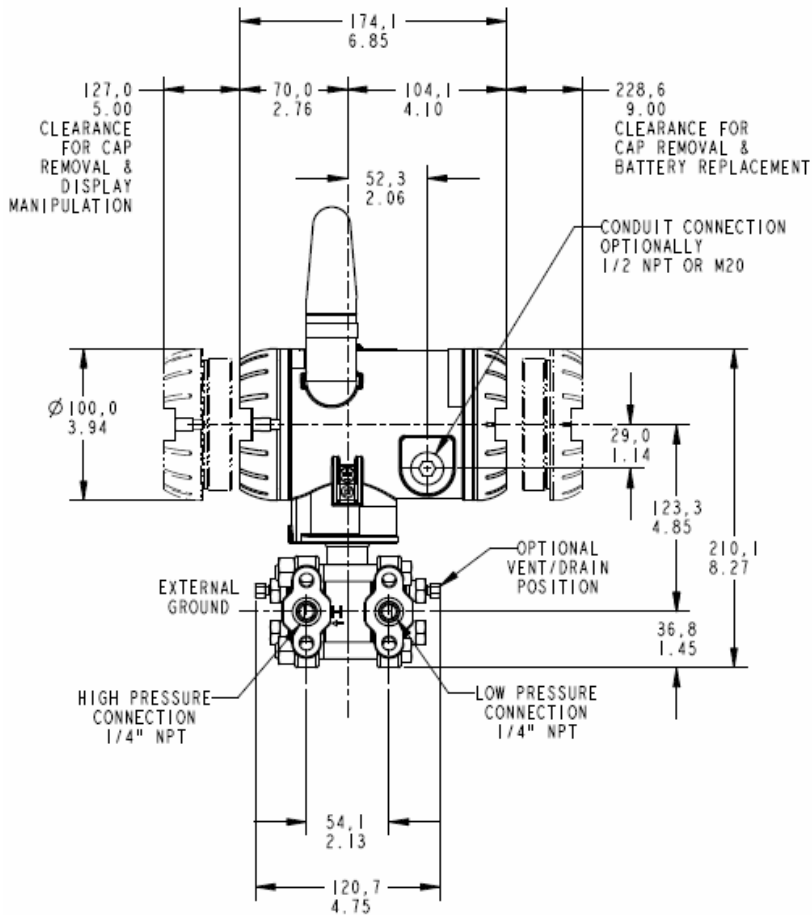


Figure 3 — Typical mounting dimensions for STDW120, STDW130 and STDW170 (side view)

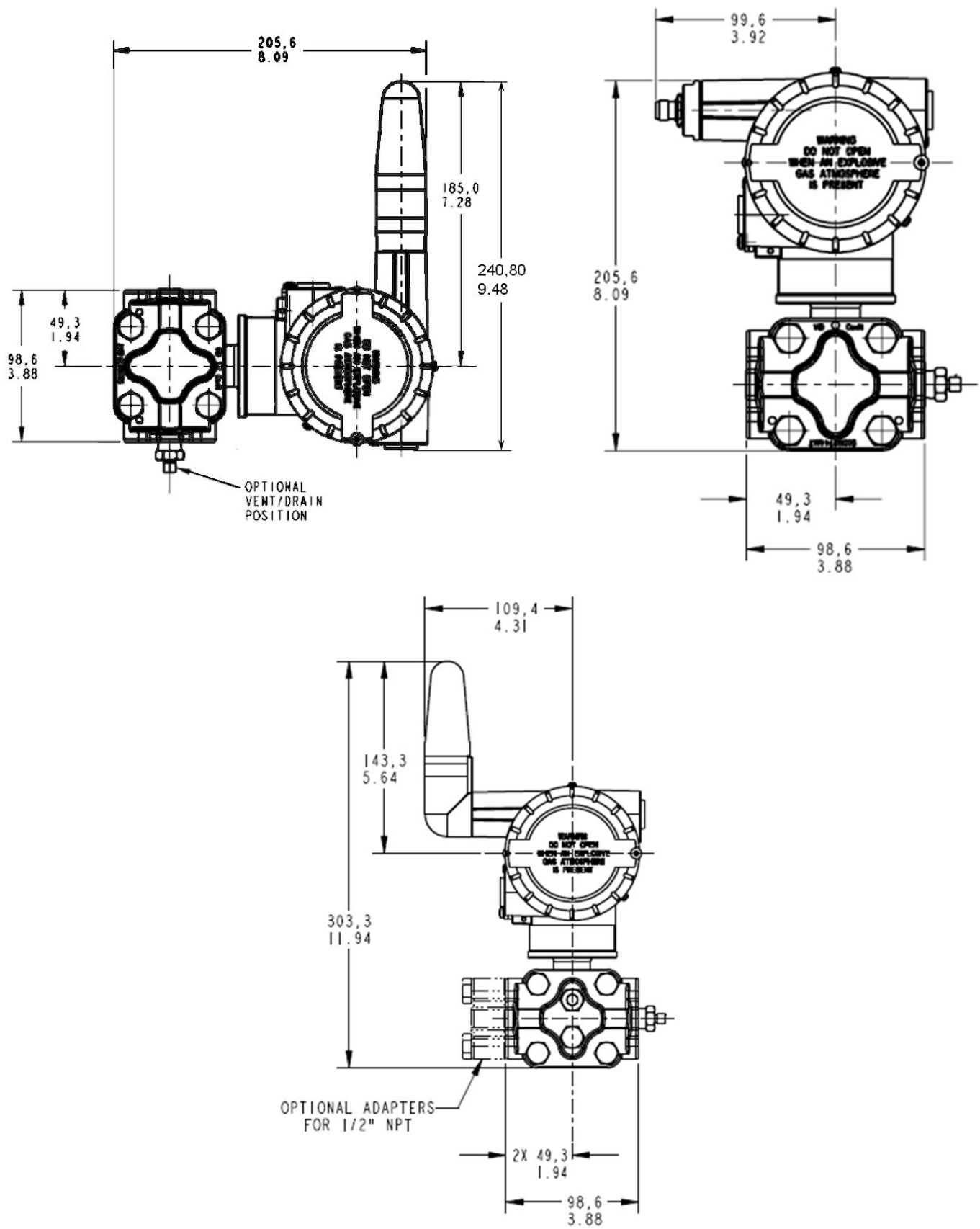


Figure 4 — Typical mounting dimensions for STDW120, STDW130 and STDW170 (rear view)

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.

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC

(TAC)

hfs-tac-support@honeywell.com

Australia

Honeywell Limited
Phone: +(61) 7-3846 1255
FAX: +(61) 7-3840 6481
Toll Free 1300-36-39-36
Toll Free Fax:
1300-36-04-70

China – PRC - Shanghai

Honeywell China Inc.
Phone: (86-21) 5257-4568
Fax: (86-21) 6237-2826

Singapore

Honeywell Pte Ltd.
Phone: +(65) 6580 3278
Fax: +(65) 6445-3033

South Korea

Honeywell Korea Co Ltd
Phone: +(822) 799 6114
Fax: +(822) 792 9015

EMEA

Honeywell Process Solutions,
Phone: + 80012026455 or +44
(0)1202645583

FAX: +44 (0) 1344 655554

Email: (Sales)

sc-cp-apps-salespa62@honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

NORTH AMERICA

Honeywell Process Solutions,
Phone: 1-800-423-9883
Or 1-800-343-0228

Email: (Sales)

ask-ssc@honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

SOUTH AMERICA

Honeywell do Brasil & Cia
Phone: +(55-11) 7266-1900
FAX: +(55-11) 7266-1905

Email: (Sales)

ask-ssc@honeywell.com

or

(TAC)

hfs-tac-support@honeywell.com

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:

<http://hpsweb.honeywell.com/Cultures/en-US/Products/Instrumentation/ProductModelSelectionGuides/default.htm>

Model Selection Guide (34-XY-16-21)

XYR 6000 Wireless Transmitter Differential Pressure (DP) Series 100 Model Selection Guide



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Instructions

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

Key Number I II III IV V VI
 [STDW___] - [___] - [00000] - [_____] - [_____] - [_____] - [XXXX]

KEY NUMBER	Span	Selection	Availability
Differential Pressure	0-1" to 0-400" H ₂ O/0-2.5 to 0-1000 mbar Body Rating: 4500 psi (310 bar)	STDW120	↓
	0-5 to 0-100 psi/0-0.34 to 0-7 bar Body Rating: 4500 psi (310 bar)	STDW130	↓
	0-100 to 0-3000 psi/0-7 to 0-210 bar Body Rating: 4500 psi (310 bar)	STDW170	↓

TABLE I - METER BODY	Wetted Process Heads	Vent/Drain Valves ² and Plugs	Barrier Diaphragms	Selection	
Materials of Construction	Carbon Steel ¹	316 SS	316L SS	A __	•
	Carbon Steel ¹	316 SS	Hastelloy® C-276 ³	B __	•
	Carbon Steel ¹	316 SS	Monel 400® ⁴	C __	q
	Carbon Steel ¹	316 SS	Tantalum	D __	•
	316 SS ⁵	316 SS	316L SS	E __	•
	316 SS ⁵	316 SS	Hastelloy® C-276 ³	F __	•
	316 SS ⁵	316 SS	Monel 400® ⁴	G __	q
	316 SS ⁵	316 SS	Tantalum	H __	•
	Hastelloy® C ^{3,6}	Hastelloy® C-276 ³	Hastelloy® C-276 ³	J __	•
	Hastelloy® C ^{3,6}	Hastelloy® C-276 ³	Tantalum	K __	•
Fill Fluid	Monel 400® ^{4,7}	Monel 400® ¹⁰	Monel 400® ⁴	L __	q
	Silicone			_ 1 _	•
	CTFE			_ 2 _	•
Process Head Configuration	1/4" NPT			_ _ A	•
	1/2" NPT with Adapter (on 1/4" NPT Head)			_ _ H	k

TABLE II

No Selection		00000	•
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¹ 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.

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

³ Hastelloy® C-276 or UNS N10276

⁴ Monel 400® or UNS N04400

⁵ Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

⁶ Supplied as indicated or as Grade CW12MM, the casting equivalent of Hastelloy® C-276

⁷ Supplied as indicated or as Grade M30C, the casting equivalent of Monel 400®

⁹ Teflon® or PTFE

¹⁰ Monel 400® or UNS N04400 or UNS N04405

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TABLE III - ANTENNA OPTIONS

		Selection	Availability
Antenna'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_____	e
	Remote Directional, 14 dBi	D_____	e
	Remote Antenna Adapter, Type N Connection	A_____	d
Cable A for Remote Antenna	None	_ 0 0 _ _	•
	1.0m remote Cable A, Type N (Req'd to connect to XYR 6000)	_ 2 1 _ _	•
	3.0m remote Cable A, Type N (Req'd to connect to XYR 6000)	_ 2 3 _ _	•
	10.0m remote Cable A, Type N (Req'd to connect to XYR 6000)	_ 2 9 _ _	•
Cable B for Remote Antenna w/Accessories*	None	___ 0 0	•
	Accessory + 1.0m Cable B to Antenna, N - N	___ 0 1	•
	Accessory + 3.0m Cable B to Antenna, N - N	___ 0 3	•
	Accessory + 10.0m Cable B to Antenna, N - N	___ 1 0	•

* See Supplemental Accessories

TABLE IV - OPTIONS

Radio Options (Must choose a Radio Option)			
2.4 GHz Direct Sequence Spread Spectrum (802.15.4 DSSS)	XD	•	b
ISA 100.11a Compliant (2.4 GHz Direct Sequence Spread Spectrum 802.15.4 DSSS-FH)	XS	•	
Power Option (Must Choose Power Option)			
Battery Holder Only - No Battery Included	00	•	b
Battery Power	BA	•	
24VDC	DC	•	
Transmitter Housing & Electronics Options			
Custom Calibration and I.D. in Memory	CC	•	b
Transmitter Configuration and ID in Memory	TC	•	
M20 Conduit Thread (1/2" NPT is standard)	A1	f	b
1/2" NPT to 3/4" NPT 316 SS Conduit Adapter	A2	g	
316 SS ^{5,9} Electronics Housing - with M20 Conduit Connections	SH	•	b
316 SS ^{5,9} Housing with 1/2" NPT Conduit Connection	A3	•	
Stainless Steel Customer Wired-On Tag (4 lines, 28 characters per line, customer supplied information)	TG	•	b
Stainless Steel Customer Wired-On Tag (blank)	TB	•	
End Cap Warning Label in Spanish	SP	•	b
End Cap Warning Label in Portuguese	PG	•	
End Cap Warning Label in Italian	TL	•	
End Cap Warning Label in German	GE	•	
Meter Body Options			
316 SS Bolts and 316 SS Nuts for Process Heads	SS	•	b
B7M Bolts and Nuts for Process Heads	B7	•	
NACE A286 SS Bolts and NACE 304 SS Nuts for Process Heads	CR	•	b
316 SS ⁵ Adapter Flange - 1/2" NPT with CS Bolts	S2	c	
316 SS ⁵ Adapter Flange - 1/2" NPT with 316 SS Bolts	S3	c	b
316 SS ⁵ Adapter Flange - 1/2" NPT with NACE A286 SS Bolts	S4	c	
316 SS ⁵ Adapter Flange - 1/2" NPT with B7M Bolts	S5	c	b
Hastelloy [®] C-276 ^{3,6} Adapter Flange - 1/2" NPT with CS Bolts	T2	c	
Hastelloy [®] C-276 ^{3,6} Adapter Flange - 1/2" NPT with 316 SS Bolts	T3	c	b
Monel 400 ^{®4,7} Adapter Flange - 1/2" NPT with CS Bolts	V2	c	
Monel 400 ^{®4,7} Adapter Flange - 1/2" NPT with 316 SS Bolts	V3	c	b
316 SS ⁵ Blind Adapter Flange with CS Bolts	B3	•	
316 SS ⁵ Blind Adapter Flange with 316 SS Bolts	B4	•	b
316 SS ⁵ Blind Adapter Flange with NACE A286 SS Bolts	B5	•	
316 SS ⁵ Blind Adapter Flange with B7M Bolts	B6	•	b
Side Vent/Drain (End Vent Drain is standard)	SV	•	
Viton ^{®8} Process Head Gaskets (adapter gaskets ordered separately)	VT	•	b
Graphite Process Head & Adapter Flange Gaskets	GF	•	
Viton ^{®8} Adapter Flange Gaskets	VF	m	

Table IV continued on next page

³ Hastelloy[®] C-276 or UNS N10276

⁴ Monel 400[®] or UNS N04400

⁵ Supplied as 316 SS or as Grade CF8M, the casting equivalent of 316 SS.

⁶ Supplied as indicated or as Grade CW12MW, the casting equivalent of Hastelloy[®] C-276

⁷ Supplied as indicated or as Grade M30C, the casting equivalent of Monel 400[®]

⁸ Viton[®] or Fluorocarbon Elastomer

⁹ 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	Availability
Transmitter Mounting Brackets Options		
Mounting Bracket - Carbon Steel	MB	•
Mounting Bracket - 304 SS	SB	•
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	OX	h
Over-Pressure Leak Test with F3392 Certificate	TP	•
Calibration Test Report and Certificate of Conformance (F3399)	F1	•
Certificate of Conformance (F3391)	F3	•
Diaphragm Options		
Gold plated diaphragm(s) on 316 SS	G1	s
Gold plated diaphragm(s) on Monel ^{®4} or Hastelloy [®] C-276 ³ ONLY	G2	t
Certificate Options		
Certificate of Origin (F0195)	F5	•
NACE Certificate (F0198)	F7	j
Material Traceability Certification per EN 10204 3.1 (FC33341)	FX	•
Warranty Options		
Additional Warranty - 1 year	W1	•
Additional Warranty - 2 years	W2	•

³ Hastelloy[®] C-276 or UNS N10276

⁴ Monel 400[®] or UNS N04400

TABLE IV - OPTIONS (continued)

Approval Body	Approval Type	Location or Classification		
No hazardous location approvals			9X	•
FM	Intrinsically Safe	Class I, II, III, Div. 1, Groups A,B,C,D,E,F,G; T4, Ta ≤ 85°C; Type 4X Class I, AEx ia IIC; T4, Ta ≤ 85°C, Zone 0; IP66	1C	•
	Explosion-proof	Class I, Div. 1, Groups A,B,C,D; Cl II, Div. 1, Groups E, F & G; 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, Ta ≤ 85°C; Type 4X		
	Non-Sparking	Class I, AEx nA IIC; T4, Ta ≤ 85°C, Zone 2; IP66		
CSA cus	Nonincendive	Nonincendive, CL I, Div 2, Groups A,B,C & D, 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, Gp E,F,G; Class III, Div 1; T4, Ta ≤ 85°C; Type 4X Class I, Ex/AEx ia IIC; T4, Ta ≤ 85°C, Zone 0; IP66	2C	•
	Explosion-proof	Class I, Div. 1, Groups A,B,C,D; Class II, Div. 1, Groups E, F & G; Class III, Div. 1, T4, Ta ≤ 85°C; Type 4X Class I, Ex/AEx d IIC; T4, Ta ≤ 85°C, Zone 1; IP66		
	Nonincendive	Class I, Div. 2, Groups A,B,C,D; T4, Ta ≤ 85°C; Type 4X		
	Non-Sparking	Class I, Ex/AEx nA IIC; T4, Ta ≤ 85°C, Zone 2; IP66		
ATEX	Intrinsically Safe	Ⓢ II 1 GD; Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66 Ex tD A20 IP66 T90°C	3U	•
	Flameproof	Ⓢ II 2 GD; Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66 Ex tD A21 IP66 T90°C	3B	•
	Non-Sparking	Ⓢ II 3 GD; Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2 Ex tD A22 IP66 T90°C	3Y	•
	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	Ⓢ II 3 GD; Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2 Ex tD A22 IP66 T90°C		

Table IV continued on next page

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Approval Body	Approval Type	Location or Classification		
IECEX Australia & New Zealand	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66 Ex tD A20 IP66 T90°C	CU	•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66 Ex tD A21 IP66 T90°C	CB	•
	Non-Sparking	Ex nA IIC; T4, Ta ≤ 84°C, Zone 2; IP66 Ex tD A22 IP66 T90°C	CY	•
	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66 Ex tD A20 IP66 T90°C	C1*	•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66 Ex tD A21 IP66 T90°C		
	Non-Sparking	Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2; IP66 Ex tD A22 IP66 T90°C		
SAEx South Africa	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66 Ex tD A20 IP66 T90°C	ZU	•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66 Ex tD A21 IP66 T90°C	ZB	•
	Non-Sparking	Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2; IP66 Ex tD A22 IP66 T90°C	ZY	•
	Intrinsically Safe	Ex ia IIB; T4, Ta ≤ 70°C, Zone 0; IP66 Ex tD A20 IP66 T90°C	ZC*	•
	Flameproof	Ex d [ia] IIB; T4, Ta ≤ 70°C, Zone 1; IP66 Ex tD A21 IP66 T90°C		
	Non-Sparking	Ex nA [nL] IIC; T4, Ta ≤ 84°C, Zone 2; IP66 Ex tD A22 IP66 T90°C		
INMETRO Brazil	Intrinsically Safe	Ex ia IIC; T4, Ta ≤ 85°C, Zone 0; IP 66	6C*	•
	Flameproof	Ex d IIC; T4, Ta ≤ 85°C, Zone 1; IP 66		
	Non-Sparking	Ex nA IIC; T4, Ta ≤ 85°C, Zone 2; IP 66		

* The user must determine the type of protection required for installation of the equipment. The user shall then check the box [v] adjacent to the type of protection used on the equipment certification nameplate. Once a type of protection has been checked 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	•
Japan		JP00	•
Brazil		BZ00	•

TABLE VI Selection

Factory Identification	XXXX	•
------------------------	------	---

RESTRICTIONS

Restriction Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
b	Select only one option from this group			
c	I	__ H		
d	III	_ 00 __ , __ __ 00		
e			III	_ 00 __
f			IV	SH, A3
g			IV	BA, SH, A1
h	I	_ 2 _		
j	IV	CR, S4, B5		
k	IV	Select from Table IV S2, S3, S4, S5, T2, T3, V2, V3		
m	IV	VT		
q			IV	F7
s	I	A __ , E __		
t	I	B __ , C __ , F __ , G __ , J __ , L __		

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

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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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Specifications are subject to change without notice.

For More Information

Learn more about how Honeywell's Wireless Pressure Transmitters Differential Pressure Models can be installed and operated in minutes, visit our website www.honeywellprocess.com/xyr6000 or contact your Honeywell account manager.

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