

XYR 6000 Wireless High Level Analog Input Transmitter Model STIW600

0 to 5 Volts
1 to 5 Volts
0 to 20 mA
4 to 20 mA

34-XY-03-30
7/23/07

Specification and Model Selection Guide

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 WNSIA (Wireless Network for Secure Industrial Applications) compliant field devices.

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 a multinode or series of multinodes creating a MESH infrastructure. Wireless System Gateways (WSG) provides the path to bring that information into Experion PKS or any other control system wirelessly via OPC client or Modbus-TCP.

Each multinode accepts signals from up to 20 wireless transmitters reporting at 1 second, and up to 400 transmitters reporting at slower rates. Up to 20 multinodes can be implemented in the same infrastructure. WSG also provides Modbus-TCP data access to wireless data in addition to OPC.

Transmitter power is supplied by two "D" size lithium batteries with an expected lifetime of up to ten years. Transmitter range with the integral antenna is 1000' (305 m) under ideal conditions.

The HLAI Transmitter can be used to convert any measurement device with a 4-20mA/1-5 V output into a wireless sensor; for example, analytical, flow, or level measurements. The HLAI can be used with measurement devices that have Intrinsic Safety approval to make a wireless measurement while retaining the Intrinsic Safety rating.

Only 0/4 to 20 mA inputs are certified as Intrinsically Safe. 0/1 to 5 V inputs are not certified as Intrinsically Safe.



Figure 1—XYR6000 High Level Analog Input 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.

Specifications

Operating Conditions

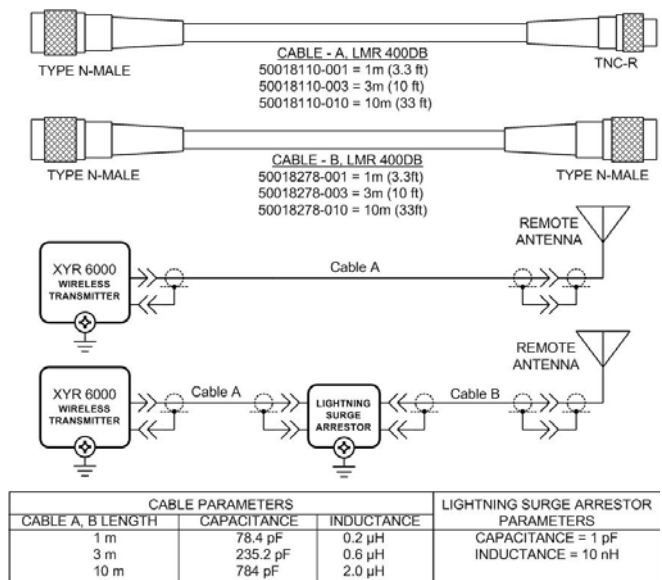
| Parameter | Reference Condition | | Rated Condition | | Operative Limits | | Transportation and Storage | |
|--|---------------------------------|-------|---|------------|------------------|------------|----------------------------|------------|
| | °C | °F | °C | °F | °C | °F | °C | °F |
| Ambient Temperature | 25 ±1 | 77 ±2 | -40 to 85 | -40 to 185 | -40 to 85 | -40 to 185 | -40 to 85 | -40 to 185 |
| Humidity %RH | 10 to 55 | | 0 to 100 | | 0 to 100 | | 0 to 100 | |
| Ambient Temperature LCD Display visible range | 25 ±1 | 77 ±2 | -40 to 85°C / -40 to 185°F -20 to 70°C / -4 to 158°F | | | | | |
| Vibration | Maximum of 4g over 15 to 200Hz. | | | | | | | |
| Shock | Maximum of 40g. | | | | | | | |

Wireless Specifications

| Parameter | Description |
|------------------------|---|
| Wireless Communication | 2,400 to 2,483.5 MHz (2.4 GHz) Frequency Hopping Spread Spectrum (FHSS) USA – FCC Certified Canada – IC Certified European Union – RTTE/ETSI Conformity |
| RF Transmitter Power | 125 mW (20.9 dBm) maximum per FCC/IC not including antenna, or 400 mW (26.0 dBm) maximum EIRP including antenna for USA and Canadian locations. 100 mW (20.0 dBm) maximum EIRP per RTTE/ETSI including antenna for EU locations. |
| Data | Rate: 250 Kbps |
| Antennas | Integral – 2 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 with a clear line of sight.* |

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

Remote antenna



Performance under Rated Conditions

| Parameter | Description |
|---|---|
| Accuracy | ±0.10% of range at reference conditions for linear inputs |
| Temperature Effects | ±0.10% of range per °C |
| Stability | ±0.10% of URL per year |
| Stray Rejection | <i>Common Mode</i> (50 or 60 Hz): 120 dB <i>Normal Mode</i> (50 or 60 Hz): 40 dB |
| Loop Resistance 0-20/4-20 mA input | 24.9 Ohms |
| 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 conform 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. |

Performance specifications are based on reference conditions of 25°C (77°F) and 10 to 55% RH.

Physical Specifications

| Parameter | Description |
|--------------------------------------|--|
| Mounting Bracket | Carbon Steel (Zinc-plated) or Stainless Steel angle bracket or Carbon Steel flat bracket available (standard options). |
| Terminal Assembly wiring gauge range | 28 to 14 AWG |
| Electronic Housing | Epoxy-Polyester hybrid paint. Low Copper-Aluminum. Meets NEMA 4X (hosedown and corrosion resistant), IP 66/67 (hosedown and submersible to 1m). |
| 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 3. |
| Dimensions | See Figure 4. |
| Net Weight | Approximately 6 pounds (2.7 Kg) |

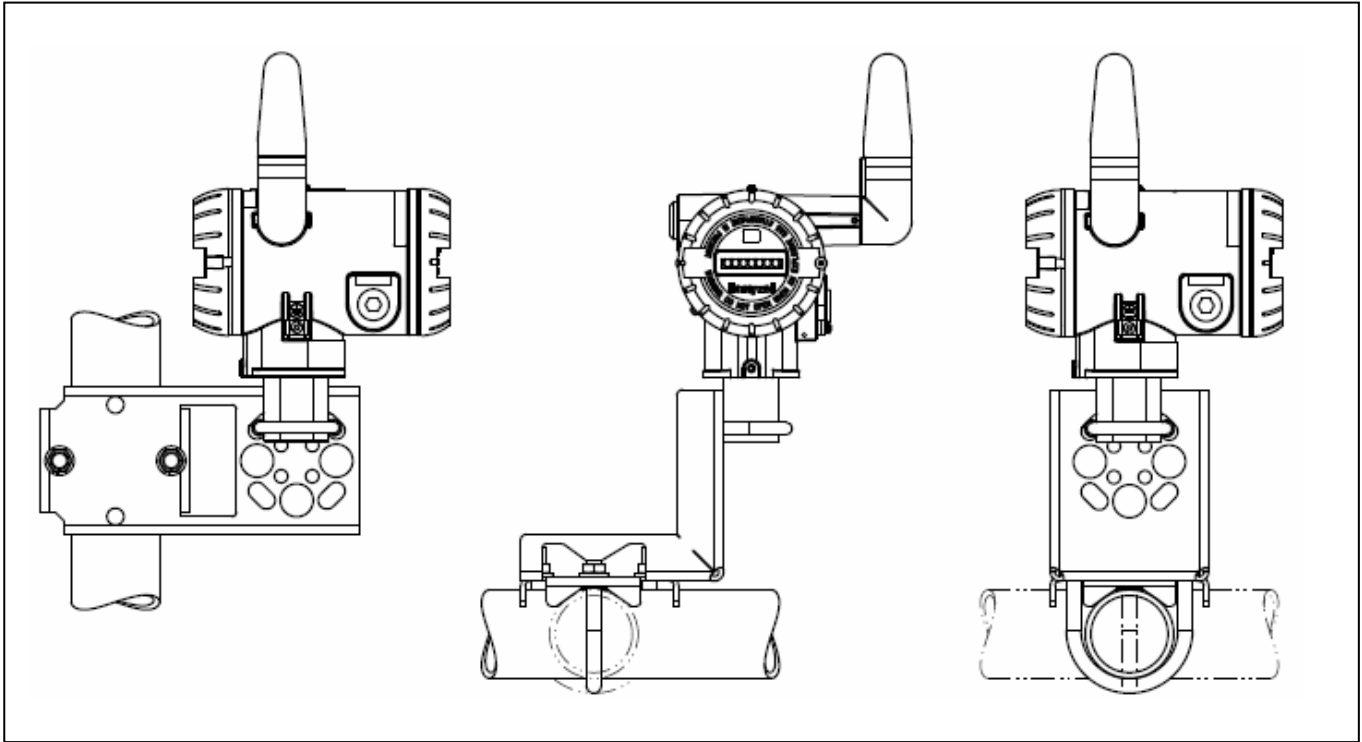


Figure 3—Examples of typical mounting positions

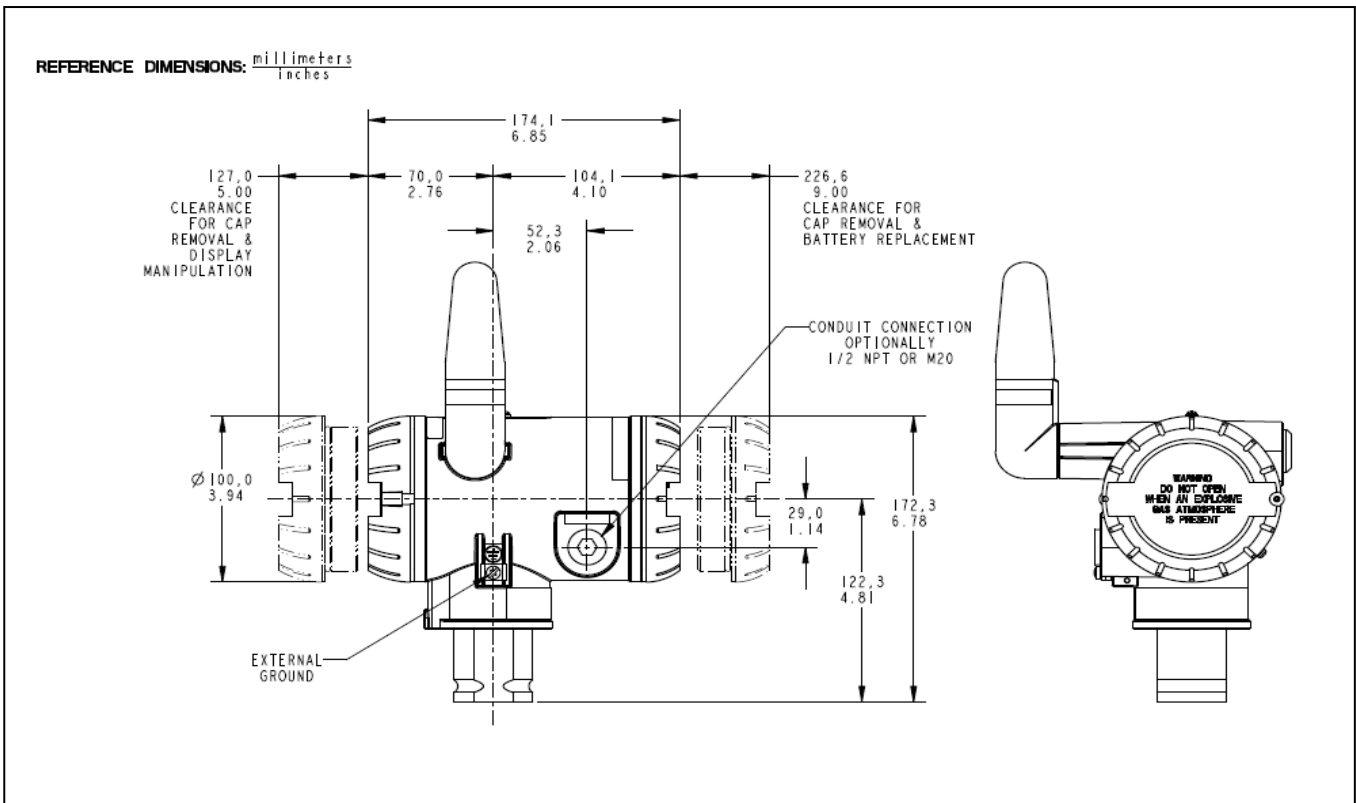


Figure 4—Typical mounting dimensions

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. 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 WNSIA network via READ/WRITE transactions.

Ordering Information

Contact your nearest Honeywell sales office, or

In the U.S.:

Honeywell
Industrial Automation & Control
16404 North Black Canyon Hwy.
Phoenix, AZ 85053
1-800-288-7491

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: <http://www.honeywell.com>

Specifications are subject to change without notice.

Model Selection Guide (34-XY-16-47)

Instructions

- Select the desired Key Number. The arrow to the right marks the selection available.
 - Make one selection from each Table, I and II.
 - 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.
- | Key Number | I | II | III | IV | XXXX |
|------------|-----|------|-------|-------|------|
| ----- | 000 | 0000 | ----- | ----- | XXXX |

| Key Number | Description | Selection | Availability |
|--|-------------|-----------|--------------|
| * Wireless Analog Input Interface (0/1 to 5 and 0/4-20 mA) | | STIW600 | ↓ |

* Only 0/4 to 20 mA input is certified as Intrinsically Safe. 0/1 to 5V input is not certified as Intrinsically Safe.

TABLE I - Options

| | | |
|--------|-----|---|
| Future | 000 | • |
|--------|-----|---|

TABLE II Options

| | | |
|--------|------|---|
| Future | 0000 | • |
|--------|------|---|

TABLE III - ANTENNA OPTIONS

| | | | |
|--|--|--|------------------|
| Antennas | Integral Right-angle, vertical (Standard) Integral Straight, horizontal Remote Omnidirectional, 8 dBi Remote Directional, 14 dBi | V _ _ _ _ S _ _ _ _ M _ _ _ _ D _ _ _ _ | d d e e |
| Cable A for Remote Antenna | None 1.0m remote Cable A, TNC-R - N (Req'd to connect to XYR 6000) 3.0m remote Cable A, TNC-R - N (Req'd to connect to XYR 6000) 10.0m remote Cable A, TNC-R - N (Req'd to connect to XYR 6000) | _ 0 0 _ _ 0 1 _ _ 0 3 _ _ 1 0 _ | • • • • |
| Lightning Protection for remote Antenna With Cable B | None Lightning Protection + 1.0m Cable B to Antenna, N - N Lightning Protection + 3.0m Cable B to Antenna, N - N Lightning Protection + 10.0m Cable B to Antenna, N - N | _ _ _ 0 0 _ _ _ 0 1 _ _ _ 0 3 _ _ _ 1 0 | • • • • |

TABLE IV - OPTIONS

| | | | |
|---|----|---|---|
| None | 00 | • | |
| Transmitter Housing & Electronics Options | | | |
| M20 Conduit Thread (1/2" NPT is standard) | A1 | • | b |
| 1/2" NPT to 3/4" NPT 316 SS Conduit Adapter | A2 | • | |
| 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 | • | b |
| End Cap Warning Label in Spanish | SP | • | |
| End Cap Warning Label in Portuguese | PG | • | b |
| End Cap Warning Label in Italian | TL | • | |
| End Cap-Warning Label in German | GE | • | |
| Transmitter Mounting Brackets Options | | | |
| Mounting Bracket - Carbon Steel | MB | • | b |
| Mounting Bracket - 304 SS | SB | • | |
| Flat Mounting Bracket - Carbon Steel | FB | • | |
| Services/Calibration/Conformance Options | | | |
| User's Manual Paper Copy | UM | • | b |
| Calibration Test Report and Certificate of Conformance (F3399) | F1 | • | |
| Certificate of Conformance (F3391) | F3 | • | |
| Certificate Options | | | |
| Certificate of Origin (F0195) | F5 | • | |
| Warranty Options | | | |
| Additional Warranty - 1 year | W1 | • | b |
| Additional Warranty - 2 years | W2 | • | |

TABLE IV - OPTIONS (continued)

| Approval Body | Approval Type | Location or Classification | Selection | Availability |
|---------------------------------|---------------|--|-----------|--------------|
| No hazardous location approvals | | | 9X | • |
| 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 nC IIC; T4, Ta ≤ 85°C, Zone 2; IP 66/67 | | |
| ATEX | Non-Sparking | Ex II 3 GD; Ex nL IIC; T4, Ta ≤ 85°C, Zone 2; IP 66/67 | 3N | • |

b

TABLE V

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

RESTRICTIONS

| Restriction Letter | Available Only With | | Not Available With | |
|--------------------|--|-----------------|--------------------|-----------|
| | Table | Selection | Table | Selection |
| b | Select only one option from this group | | | |
| d | III | _ 00 __, ___ 00 | | |
| e | | | III | _ 00 == |

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