

**15900-710**

Rev 5

March 2007

## WiPS<sup>1</sup>-101 I/O Interface Transmitter and Receiver Set

### Features

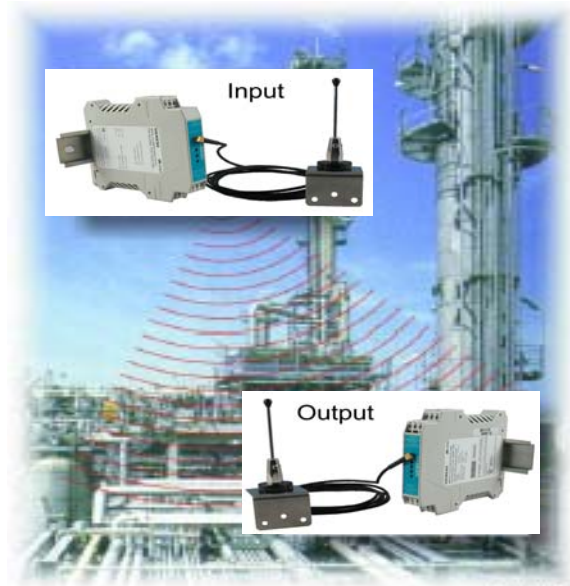
- 1-Watt transmit power
- Wireless conduit and wire replacement for one 4-20 mA and two digital signals
- Interference free – Frequency Hopping Spread Spectrum technology
- License-free 902-928 MHz industrial, scientific and medical (ISM) band
- Easy to use, wire in – wire out, no setup or programming
- Range: 600–1000 feet in-plant, no line of sight
- Class I, Division 2 approved for hazardous area installation (UL, CUL and CSA approved)

### Typical Applications

- SCADA systems
- Tank level
- PLC/RTU extensions
- Mills/quarries/factories
- Pump control
- Sensor monitoring
- Water/Wastewater
- Utilities
- Oil and gas
- Irrigation systems
- Petrochemical

### Benefits

- Reduce cost of labor and installation
- Eliminate conduit and wiring
- Reliable and dependable operation



### Frequency Hopping Spread Spectrum Technology

Each Siemens WiPS 100 Series receiver and transmitter includes an integrated radio and an I/O module designed to eliminate cable and conduit for one 4-20 mA current loop and two digital signals in harsh industrial environments. This unique addition to the Siemens Process Instrumentation line uses 902-928 MHz ISM band spread spectrum frequency hopping technology to guarantee a license-free, interference-free link between remote devices and the control room. Costly cable and conduit runs on new projects, or retrofitting of existing systems, are eliminated and replaced with a maintenance-free, reliable and versatile wireless solution.

**Technical Specifications, WiPS 100 Series****Transmitter**

Power .....	1 Watt
Range .....	600-1000 feet, in-plant, no line of sight
	4-5 miles, line of sight, flat terrain, raised antenna
	20+ miles, line of sight, flat terrain, professional propagation study, installation and directional antennas
Frequency.....	902-928 MHz
Power source .....	12-30 Vdc regulated
Power consumption ...	8.4W peak, 1.8W average (350 mA @ 24 Vdc peak, 75 mA @ 24 Vdc average)
Inputs.....	1, 4-20 mA analog (250 Ohm input impedance) 2, 5-30 Vac/Vdc digital (For 120 Vac digital inputs use relays to convert to specified voltage levels. Consult factory for relay options.)

**Receiver**

Frequency.....	902-928 MHz
Power source .....	12-30 Vdc regulated
Power consumption....	3W (125 mA @ 24 Vdc)
Outputs .....	1, 4-20 mA analog (12-bit resolution) 3, 120 Vac 0.5A digital (relay contact)
Loop impedance.....	450 to 1350 Ohms for power supply voltages of 12-30 Vdc
Repeatability.....	0.02%
Accuracy.....	0.2% of full scale

**General Specifications**

Temperature range.....	-40° to 70°C (-40° to 158°F)
Dimensions.....	102 x 114 x 17.5 (mm) 4 x 4.5 x 0.7 (inch)
Approvals.....	UL listed (Class 1, Division 2, Groups A, B, C, and D) CSA approved.
Mounting.....	DIN rail

**Ordering Information**

Kit & Order No.	Description
WiPS-101 Kit, Order P/N TGX:16347-301	DIN-rail mount transmitter and receiver, two 1/4-wave antennas with 6 foot cables, and I/O: Transmitter inputs - one 4-20 mA analog and two digital; Receiver outputs - one 4-20 mA and three digital

**Accessories**

Siemens Logo Power Supply – Order Number 6EP1331-1SH02
Antennas - omnidirectional and Yagi directional
Antenna Cables - e.g. RG213, LMR400, LMR600
Connector Adapters - e.g. MCX, type-N, SMA
Antenna Splitter - connect up to 21 receivers to a single antenna
Antenna Surge Protection - protect a receiver or transmitter against voltage surges (e.g. nearby lightning strikes)

**Contact Information**

Visit the Siemens Internet site (<http://www2.sea.siemens.com/Products/Process-Instrumentation/Wireless-Solutions/Wireless+Solutions.htm>) or telephone: 800-365-8766 for additional details.

Siemens sales representatives are available to provide sales and application support. For your Siemens office, visit <http://www2.sea.siemens.com/Products/Process-Instrumentation/Support/Customer-Support.htm>.

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