

WiPS 200 Series Master and Remote Transceivers



Expandable



Features

The WiPS¹ 200 Series wireless network with I/O Expansion Modules² provides:

- Modular DIN-rail mount Transceivers and I/O
- No programming needed
- Multiple wireless networks can be installed at a site
- One master transceiver and up to eight (8) remote transceivers per wireless network
- Up to 16 I/O modules per wireless network
- Up to thirty-two (32) analog or sixty-four (64) digital signals or sixteen (16) pulse/frequency in one direction
- Dry contact RF LINK diagnostic output
- Class 1, Division 2 approved

Typical Applications

- SCADA
- PLC/RTU extensions
- Pump Controls
- Tank level/pressure/temperature monitoring

- Water/wastewater
- Petrochemical

Description

A Siemens WiPS 200 Series wireless network is comprised of one *Master* transceiver and up to eight *Remote* transceivers. Additional I/O capacity is provided by up to eight (8) I/O Expansion Modules at the master transceiver and up to eight (8) complementary I/O Expansion modules at the remote transceiver(s). A transceiver is an integrated receiver/transmitter and I/O module intended for bi-directional interfacing of a 4-20 mA current loop and two digital signals in harsh industrial environments. I/O Expansion Modules allow you the flexibility to add multiple channels of I/O.

Transceivers employ Frequency Hopping Spread Spectrum (FHSS) technology and operate in the 902-928 MHz ISM³ band for a license-free, interference-free link between remote devices and the control room. The WiPS 200 Series wireless network is ideal for moving numerous signals within high interference environments without costly cable and conduit runs.

Transceiver Ordering Information

Order Number: TGX:16347-320; specify quantity

¹ WiPS – Wireless Process Solutions

² See Siemens Data Sheet 15900-714 for I/O Expansion Module specifications and ordering information.

³ Industrial, Scientific, and Medical

Transceiver Specifications

Communications

Transmit Power	1 Watt (30 dBm)
Frequency.....	902 to 928 MHz, license-free ISM band
Range	
In Plant/Obstructed	600 to 1000 feet (180 to 305m)
Line of Sight, Omni ⁴ Antenna	4 to 5 miles (6 to 8 km)
Line of Sight, Yagi ⁵ Antenna.....	20+ miles (32+ km)
Antenna Connector	MCX, female
Transceiver ID	All transceivers for a network are factory configured with unique ID; easily configuration of spares with Hop Key
LED Indicators.....	Power, RF Link, I/O Status

I/O

Inputs

Analog	One (1) 4-20 mA, 16-bit resolution; 125 Ohms impedance
Digital	Two (2) 5 to 36 Vdc

Outputs

Analog	One (1) 4-20 mA, 16-bit resolution; short circuit protected
Digital	Two (2) SPST relays, dry contacts, normally open; contact rating 250 Vac @ 5A

Current Loop Accuracy.....0.2% of full scale @ 77°F (25°C)

Current Loop Repeatability.....0.02%

Wiring Connections

12-24 AWG (3.3-0.23 mm ²) screw-type terminals
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Power

Input.....	9 to 30 Vdc
Consumption	75 mA @ 24V (average)
Reverse Polarity and Surge Protection	yes

Environmental

Temperature	-40° to 70°C (-40° to 158°F)
Humidity.....	20% to 90%, non-condensing
Approvals.....	USA: FCC 47CFR15.247 Canada: ISC RSS 210
Certifications.....	CSA/C & US UL: Class I, Div. 2, Groups A, B, C, D

Dimensions, Mounting

Module.....	4.5" x 3.9" x 0.9" (114 mm x 99 mm x 22.5 mm)
Mounting.....	DIN Rail

Contact Information

Visit the Siemens Internet site www.usa.siemens.com/pi or telephone: 800-365-8766 for additional details.

Siemens sales representatives are available to provide sales and application support. For your Siemens office, visit www.usa.siemens.com/pisupport.

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⁴ Omni – Omnidirectional antenna with a circular radiation pattern

⁵ Yagi – Directional antenna with a narrow, concentrated radiation pattern