



Intelligent Wireless SCADA Distributed Control System

110 Series RTU

Features and Benefits

- Next generation distributed, intelligent wireless SCADA system
- Accepts standard 4-20mA loop devices (power provided by RTU)
- Differential pressure ports inputs
- Integrated sensor technology
- Integrated antenna
- Reliable & scalable auto mesh
- Solar powered, no plant wiring or power required
- Full monitoring, control and back office support
- Low cost & fast install
- Rugged construction (NEMA6) for all weather conditions
- MODBUS support



DESCRIPTION

The Intelligent Wireless System (IWS) nodes comprise of a range of distributed wireless products from Plexus Controls providing advanced supervisory, control and data acquisition (SCADA) functionality for commercial and industrial applications.

With 'out the box' auto mesh wireless functionality, IWS nodes can be easily installed at a remote location and connected to standard sensors, supporting 4-20mA or 0-5V. Either through a direct wireless connection or automatically hopping through a series of other IWS nodes, the sensor data is relayed back to the IWS Hub for termination over Ethernet to the IWS Management Server application for display, logging and alarm management.

The Remote 110 Series of IWS nodes are ideally suited for locations in and around the station area and within 100ft of the hub unit.

The Remote 110 has one 4-20mA loop input with loop power provided by the system, one internal differential pressure sensor input (up to 100psi available) and one dry relay contact output to facilitate motor, solenoid valve, contactor operation or other peripheral controls

The Remote 110 is powered from a 5W or 10W solar panel (depending on the application). An internal sealed 1600mAH NiMH battery pack is provided.



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SPECIFICATIONS

Radio Specifications

Wireless Topology	Auto Mesh with dynamic configuration
Frequency	2.4 GHz ISM Band
Channels	16
Hops	30 max.
Power Output	+18dBm (antenna port), +23dBm max. EIRP with antenna supplied
RX Sens	-102 @ 10-6 BER
RF Data Rate	250 kbps
Indoor Range	up to 100ft
Outdoor Range	Up to 100m

Power (with current loop power)

IWS-R-110P

Supply Voltage	12-16V DC Solar Panel (10W recommended for active sites)
Max. Power (Transmit Active)	700mW
Max. Power (Idle/Receive)	400mW
Tx Power (Typ)*	360mW
Idle/Rx Power (Typ)*	165mW
Avg. Power	5mW (@ 30 sec. wakeup cycle)

I/O

IWS-R-110P

1 x 4-20mA loop
1 x Differential Pressure Input (up to 100psi available)
Internal power monitoring/reporting

Security

Data Encryption	AES 128bit available (optional)
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Management

Stand alone local or remote graphic display with SMS & email alarms. Supported on Windows XP
Modbus RTU support using Serial Hub, Modbus TCP support using Ethernet Hub

Physical, Electrical & Environmental

Mounting Bracket	Pole (1-1/2" or 2") or direct wall mount
Operating Temperature	-20C to +55C
Relative Humidity	0-100% (non condensing)
Wireless Certifications	802.15.4 (2.4GHz) FCC &, IC
Enclosure	Polycarbonate 8" (w) x 4-1/2" (h) x 2-1/2" (d) (203mm x 114mm x 64mm)
Weight	35oz (1kg) (approx)



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