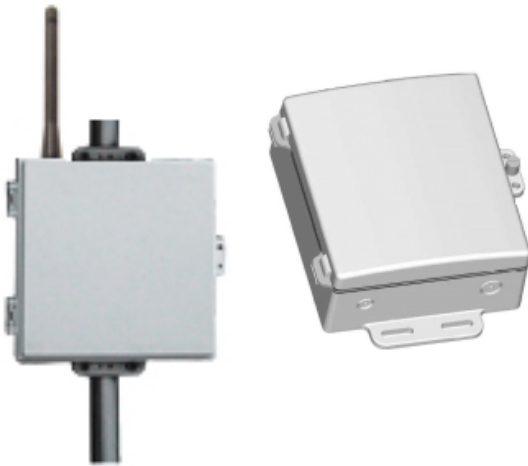




Intelligent Wireless SCADA Distributed RTU System



Features and Benefits

- Next generation distributed, intelligent wireless SCADA system
- Accepts standard SCADA voltage and current loop sensors
- Reliable & scalable auto mesh
- No wiring needed
- Ultra low power
- Full monitoring, control and back office Support
- Low cost & fast install
- Rugged construction (NEMA6) for all weather conditions

DESCRIPTION

The Intelligent Wireless System (IWS) nodes are part of a range of distributed wireless products from Wireless Options providing advanced supervisory, control and data acquisition (SCADA) functionality.

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

A network of IWS nodes can scale to over 1000 nodes and be supported by one or more IWS Hubs.

In addition to the basic IWS node supporting up to 4 standard SCADA inputs, several variants are available, offering output controls through either dry relay and 4-20mA current transmitter to facilitate motor or other analog peripheral controls

All IWS nodes can be provided to include local powering options. These include battery (primary or backup), solar and micro generator options such as from induction and vibration sources.

The IWS MS application provides a single point for managing the IWS sensors. Additionally, the IWS MS provides standard interfaces such as Modbus, DNP3 and IEC 60870 to other systems

ORDERING INFO

Part Number	Description	Comments
IWS-R-200	Intelligent wireless System Node (Remote), 2 x 4-20mA input, includes antenna and pole mounting U brackets	
IWS-R-220	Intelligent wireless System Node, (Remote), 2 x 4-20mA, 2 x 0-5V input, includes antenna and pole mounting U brackets	
IWS-R-222	Intelligent wireless System Node, (Remote), 2 x 4-20mA, 2 x 0-5V input + 2 dry relay output, includes antenna and pole mounting U brackets	
IWS-H-000	Intelligent wireless System Node (Hub, includes antenna and pole mounting U brackets)	
IWS-MS	Intelligent Wireless System Management Server Application	
PS-01	110V-220V AC input, 18V DC 1A output power adapter	
BA-01	12V 1.4Ah Sealed lead acid backup battery kit complete with bracket, screws and cable	

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 100m
Outdoor LOS Range	up to 1.0 km

Power (with current loop)

	IWS-R-200/220	IWS-R-222	IWS-M-111	IWS-H-000 (Hub)
Supply Voltage	11.5V-18V DC or 24V AC/DC	11.5V-18V DC or 24V AC/DC	12V DC Internal NiMH Battery	11.5-18V DC (power adapter with PoE combiner) or 24v AC/DC
Max. Power (Transmit Active)	1440mW			1100mW
Max. Power (Idle/Receive)	500mW			1000mW

Power Supply (without current loop)

	IWS-R-200/220	IWS-R-222	IWS-M-111	IWS-H-000 (Hub)
Supply Voltage	11.5V-18V DC or 24v AC/DC	11.5V-18V DC or 24v AC/DC		11.5-18V DC (power adapter with PoE combiner) or 24v AC/DC
Transmit Power (Typ)				1100mW
Idle/Receive Power (Typ)	360mW			1000mW
Avg. Power	165mW			
	5mW (@ 30 sec. wakeup cycle)			

I/O

	IWS-R-200/220	IWS-R-222	IWS-M-111	IWS-H-000 (Hub)
	2 x 4-20mA loop 1 x 0-5V DC input 1 x 0-5V or 0-3V analog input or pulse input	2 x 4-20mA loop 1 x 0-5V DC input 1 x 0-5V or 0-3V analog input or DC pulse input 2 x dry relay SPDT contacts 1 x 4-20mA loop transmitter	Mobile Water Depth Test System 0-50ft 16 x 2 LCD Display Internal pump & differential pressure sensor Accuracy to +-3"	2 x 4-20mA loop receiver 1 x 0-5V DC analog input 1 x 0-5V or 0-3V analog input or pulse input 10/100BT Ethernet (RJ45)

Security

Radio Access	Username and Password protected
Data Scrambling	AES 128bit (optional)

Management

IMS- MS	Stand alone local or remote graphic display with SMS & email alarms Modbus support and IEC 80750 Supported on Windows XP; Windows XP Prof
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Physical, Electrical & Environmental

Mounting Bracket	Pole (1-1/2" or 2") or direct wall mount
Operating Temperature	-40C to +55C
Relative Humidity	0-100% (non condensing)
Certifications	802.15.4 (2.4GHz) FCC: U90-RFET, IC: 7084A-RFET
Enclosure	7-1/8" (w) x 10" (h) x 2-1/4" (d) (180mm x 254mm x 57mm)
Weight	50oz (1.5kg) (approx)