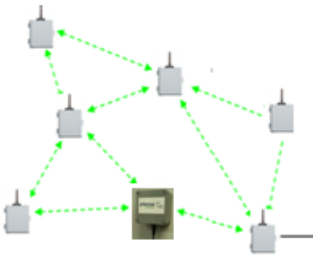
Intelligent Wireless SCADA Distributed Control System



R-020 Series
Industrial Smart Repeater
Remote Wireless System

Features and Benefits

- Next generation distributed, intelligent wireless SCADA system
- Powered by 110V wall adapter (included)
- Indoor use
- Rugged enclosure
- Reliable & scalable auto mesh wireless
- System voltage reporting/alarm
- Full monitoring, control and back office 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, 0-5V, 0-10V, HART, temperature, pressure and many other interfaces. Either through a direct wireless connection or automatically hopping through a series of repeater 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 R-020-L Remote Signal Regenerator a completely integrated radio and power pack to repeat signals received from systems beyond the radio range of the hub. The R-020-L plugs into a 110V AC source providing permanent power during operation. An early warning of low battery power is sent from the unit if the batteries are low.

The R-020-L is provided with an external omni-directional antenna and wall power adapter and is ideal to extend the radio transmission range of Plexus wireless products ensuring strong and reliable communications between Plexus remote systems and the hub gateway.

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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 EIRP (+3dBi with external antenna)
RX Sens	-102 @ 10-6 BER
RF Data Rate	2Mb/s
Indoor Range	up to 500ft
Outdoor Range	up to 2 miles

Power	IWS-R-020-L
Supply Voltage	12V DC 0.5A wall adapter (included)
Max. Power (Transmit Active)	400mW
Max. Power (Idle/Receive)	70mW
Sleep Mode	N /A

I/O	IWS-R-020-L
	Internal voltage reporting only

Security	
Data Encryption	AES 128bit

Management	
	Plexus Controls Network Management System or Portal
	Plexus Controls Configuration Management System

Physical, Electrical & Environmental	
Mounting	Holes in back of enclosure for wall mount
Operating Temperature	-20C to +55C
Relative Humidity	0-95% (non condensing)
Wireless Certifications	802.15.4 (2.4GHz) FCC &, IC
Enclosure	PVC (grey) 3-1/4” (dia) x 3” (depth) (83mm x 75mm)
Weight	1lb (0.45kg) (approx)

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ORDERING INFORMATION

Part Number	Description
IWS-R-020-L	Repeater System, External 3dBi omni-directional antenna

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