



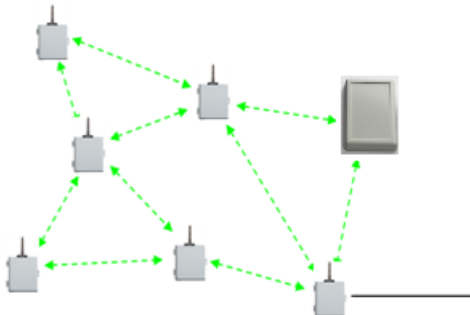
Intelligent Wireless SCADA Distributed Control System



025A Series Triple Axis Accelerometer

Features and Benefits

- Next generation distributed, intelligent wireless SCADA system
- X, Y & Z Axis Measurement with 3g acceleration range
- Integrated antenna
- Battery powered (2 x AA) no plant wiring or external power required
- Fully encapsulated (ASTM D 638)
- Reliable & scalable auto mesh wireless
- Full monitoring, control and back office support
- Clip-on install
- MODBUS support at hub



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, pulse totalizer and many other interfaces. 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 Termination Unit R-025A Is a completely integrated radio and accelerometer package including 2 x AA batteries for operation. The R-025A has been designed to clamp onto the cooling fins of an electric motor and provide an early warning of any increase in vibration either through simple level limits that are entered into the NMS software or more sophisticated packages that can read the database and provide predictive analysis information.

The R-025A is powered by internal 2 x AA Alkaline or Lithium batteries (not supplied). Battery life is expected to be 1 to 3 years depending on the frequency of the reading cycles (programmable through Plexus Element Configuration Tool). Using the 025A systems internal antenna communications range is within 50-100ft (indoors) or up to 1km (outdoors) from the hub unit.



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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 with internal antenna
RX Sens	-102 @ 10-6 BER
RF Data Rate	2Mb/s
Indoor Range	up to 100ft
Outdoor Range	1km+

Power (with current loop power)

IWS-R-025A

Supply Voltage	3V DC (internal 2 x AA primary batteries, lithium recommended)
Max. Power (Transmit Active)	400mW
Max. Power (Idle/Receive)	70mW
Sleep Mode	20uA @ 3V DC

I/O

IWS-R-025A

4 Outputs:
1. X-Axis Acceleration (0-3g)
2. Y-Axis Acceleration (0-3g)
3. Z-Axis Acceleration (0-3g)
4. Internal battery voltage (V DC)

Security

Data Encryption	AES 128bit
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Management

Stand alone local or remote graphic display with SMS & email alarms. Supported on Windows 7/8
Modbus TCP support through Ethernet Hub

Physical, Electrical & Environmental

Mounting Bracket	Screw clamp (supplied)
Operating Temperature	-20C to +55C
Relative Humidity	0-100% (non condensing)
Wireless Certifications	802.15.4 (2.4GHz) FCC &, IC
Enclosure	PVC (black) 3" (w) x 5" (h) x 1" (d) (75mm x 125mm x 25mm)
Weight	1lb (0.45kg) (approx) with batteries



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ORDERING INFORMATION

Part Number	Acceleration Range
IWS-R-025A	0-3g

The logo for Plexus Controls features the word "plexus" in a bold, blue, lowercase sans-serif font, with "CONTROLS" in a smaller, green, uppercase sans-serif font directly below it. To the right of the text is a stylized graphic consisting of several curved lines in shades of blue and green, ending in small circular dots, resembling a network or signal diagram.

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