



025T Series Surface Temperature Sensor

Features and Benefits

- Next generation distributed, intelligent wireless SCADA system
- -30C to +115C
- Simple strap onto pipe installation
- Multi year battery life
- Integrated antenna
- Battery powered (2 x AA) no plant wiring or external power required
- Fully self contained
- Reliable & scalable auto mesh wireless
- Full monitoring, control and back office support
- Weatherproof
- 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, 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 Remote Termination Unit R-025T Is a completely integrated radio and surface temperature sensor package including 2 x AA batteries for operation. The R-025T has been designed to clamp onto a 2" to 6" diameter pipe or onto ducting and provide regular temperature readings through the Ethernet hub unit and back to a central database. An early warning of temperature level changes can be programmed through simple level limits that are entered into the NMS software or a more sophisticated package that can read the database and provide histograms and analysis information.

The R-025T 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 025T systems internal antenna communications range is within 50-100ft (indoors) or up to 1km (outdoors) from the hub unit.



Intelligent Wireless SCADA Distributed Control System

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 (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-025T

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-025T

2 Inputs:
1. Temperature -30C to +115C, (-22F to +240F)
2. Internal Battery Voltage

Security

Data Encryption	AES 128bit
-----------------	------------

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	Pipe clamp (supplied)
Operating Temperature	-30C 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) with batteries



Intelligent Wireless SCADA Distributed Control System

ORDERING INFORMATION

Part Number	Temperature Range
IWS-R-025T	-30C to +115C

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 nodes, resembling a network or molecular structure.

Copyright© 2014 Plexus Controls Inc.

To find out more, contact Plexus Controls:

Tel: 1-613-963-0751
Email: info@plexus-controls.com

www.plexus-controls.com