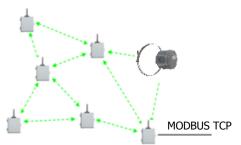


# **Intelligent Wireless SCADA Distributed Control System**





## **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.



#### **SPECIFICATIONS**

**Radio Specifications** 

Wireless Topology Auto Mesh with dynamic configuration

> Frequency 2.4 GHz ISM Band

Channels Hops 30 max.

+18dBm EIRP (internal antenna) Power Output

> 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)

Max. Power (Idle/Receive)

400mW 70mW

Sleep Mode

20uA @ 3V DC

1/0 IWS-R-025T

2 Inputs:

Temperature -30C to +115C, (-22F to +240F)

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

PVC (grey)

3-1/4" (dia) x 3" (depth) Enclosure

(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



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