



Model: WRHX-WM3-24

Wireless Relative Humidity (RH) Transmitter



FEATURES & BENEFITS

- Wireless Bridge Between RH Sensor and Instrument
- 0-100% RH Measurement - Accuracy Up To +/- 3%
- Receiver Models 0-5, 0-10V DC or 4-20mA Output
- Up To 1 Mile Line-of-site Transmit/Receive Distance
- Powered by any 12V-24V DC Supply
- Rugged Painted Aluminum Enclosures
- Pre-configured, Ready-To-Operate
- Sold As Transmitter/Receiver Matched Set
- License Free Radio Operation

APPLACATIONS

- Relative Humidity Measurement
- Remote Sensor Monitoring & Control
- Air Quality Monitoring

Description

Model WRHX-WM3-24 Wireless Relative Humidity Transmitter features a factory programmed transmitter / receiver matched set. The transmitter sends RH sensor measurements to a base receiver up to 1 mile away using license free 2.4 GHz RF technology. The receiver base provides analog voltage or current output. Each Transmitter/Receiver set is factory coded as a matched set and requires no field programming.

Transmitter Operation

The wireless transmitter reads data from a RH sensor and then sends the measured data over the air to a remote location. The measured relative humidity signals are converted to digital packets and then transmitted via a license free radio transmission to a waiting control receiver.

Receiver Operation

The wireless receiver decodes any incoming radio packets and converts them into linear voltage or current output signals for interfacing with PLCs, Controllers, Data Loggers or Process Measurement Instruments.

General Specifications

Radio Frequency: 2.4 GHz
Regulatory: FCC Part 15 (No license required)
Antenna Connection: RP-SMA
Antennas: 5dbi, Omni-directional (Included)
Transmit/Receive Distance:
 with included antennas:
 Indoor/Urban 100ft, Line-of-site 600ft
 with optional antennas:
 Indoor/Urban 300ft, Line-of-site 1 Mile
Transmitter/Receiver Code Matching: Factory set
Wire Connection: Terminal Blocks
Operating Temperature: -22 to 113 °F (-30 to 45 °C)
Enclosures: Rugged Painted Aluminum Enclosures

Transmitter Specifications

RF Power Output: 63mW
RF Output Impedance: 50 Ohm nominal
RF Data Rate: 250 kbps
Operating Power: 12-24V DC @ 3W max
Input Type: RH Sensor
Measurement Range: 0-100% RH
Measurement Accuracy: +/- 3% @23 °C

Receiver Specifications

Receive Sensitivity: -100 dBm
Operating Power: 12-24V DC @ 3W max
Output: Analog, 0-5V DC, 0-10V DC or 4-20mA
RF Signal Loss Result: Holds output at last reading.

Model: **WRHX-WM3-24**



Each Set Includes 5dbi Antennas and 9ft Antenna Extension Cables



Optional 1 Mile Distance Antenna Set

Regulatory Approvals

FCC(USA) - OUR-XBEEPRO
 IC (Canada) - 4214A-XBEEPRO

Model Number	Description
WRHX-WM3-24-05	Wireless Relative Humidity (RH) Transmitter/Receiver, 0-5V DC Output
WRHX-WM3-24-10	Wireless Relative Humidity (RH) Transmitter/Receiver, 0-10 DC Output
WRHX-WM3-24-420	Wireless Relative Humidity (RH) Transmitter/Receiver, 4-20mA Output

Available Options

Model Number	Description
DRWC-24-LRANT	Optional Long-Distance Yagi Directional Antenna Set (up to 1 Miles line-of-site)

Note: Continued product improvements make specifications subject to change without notice.
 Check www.imagineinstruments.com for the latest product information and updates

© 2019 :: Imagine Instruments LLC :: 4500 Williams Drive, Ste 212-318 :: Georgetown, TX 78633 :: p. 512.778.6850
 e-mail: info@imagineinstruments.com :: www.imagineinstruments.com
 Released: 18 February, 2019 :: Rev: A