

JOWA USA

MetriLink Wireless Transceiver (MWT)



Description:

The MetriLink Wireless Transceiver, model MWT, is an ideal addition to any resistance-tape level or combined level / temperature sensor where power and signal wires do not exist. This product allows for monitoring in places that were previously considered cost prohibitive due to the expense of running wire or adding a power source.

The MWT is an integrated signal conditioner and RF transceiver with self-contained power operating in the 2.4 GHz ISM license-free band.

Sampling and Transmission Characteristics:

The model MWT samples sensor resistance at regular intervals. The data is then transmitted to the Base Radio for centralized monitoring and data acquisition. The user specifies how frequently the inputs are sampled and data is transmitted.

- Transmission rate – user selectable from 5 seconds to 36 hours
- Slower transmission rates increase battery life

Features:

- Self-contained signal conditioner and transceiver
- External power not required
- Mounts to standard resistance-tape sensor housing
- FCC License-free operation
- Up to 3000' range (clear line of sight) 500' to 1000' with obstructions
- Up to 4 year battery life
- No Field Setup required - everything done remotely
- Mesh network for improved data transmission in difficult areas
- Repeaters available to increase range
- FM Approved for use in Hazardous Areas (Pending)

Technical Details:

Inputs

- Resistance-tape sensor up to 65 feet long (20 meters)

Output Characteristics

- See the Wireless Base Radio description for analog and digital output options

Accuracy

- ± 5 ohms
- Ambient temperature effect of 10 ppm per °C

The Data Management software can be used for real-time monitoring of the process information and remote configuration of field units. The user can also set thresholds to represent "alarm" or abnormal conditions.

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Technical Details (Continued):

Power Characteristics

- Self-contained power
- 3.6 V lithium battery
- Battery life is inversely proportional to the update rate. A typical installation of up to 25 transceivers with an update rate of once every 2 minutes would have a battery life of 3 years.

RF Characteristics

- 2.4 GHz Spread Spectrum (802.15.4), FCC certified ISM license-free band
- Up to 3000' range from base radio with clear line of sight; 500' to 1000' range with obstructions
- The RF module in each field unit is individually tested and calibrated over the full temperature range to ensure reliable wireless operation

Network Characteristics

- The transceiver runs an operating system with advanced mesh network functionality.
- The link settings are optimized to balance battery life and signal reliability
- The settings can be changed to better suit unique installations such as high transceiver density or a large number of transceivers out of range of the base radio.

Self-Diagnostics

- Low battery alarm – indicates the need to replace the battery (approximately one month warning)
- Contains self-checking software and hardware that continuously monitors the operation. Any sensor or device parameter out of spec is identified and reported

Operating Temperature Range

- -22°F to +140°F (-30°C to +60°C)

Compliant to FCC CFR-47 Part 15

Weight: 8 oz (.23kg).

Housing: NEMA 4X; ABS 2.5" x 4.5" x 1.5" (6.35 x 11.43 x 3.81 cm)

Installed View:



Disclaimer:

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