MAX Range Encoder MDT

Metering Data Transceiver



The MAX Range Encoder MDT has a true encoder interface that directly reads the meter face value of encoded meters to transmit an accurate reading towards the DCAP once per hour. The MAX Range radio has three to four times the range of our Standard Range MDT, which allows for far fewer or even zero Repeaters for faster system installations. It is ideal for manufactured housing or multifamily properties with limited Repeater installation locations.

The MAX Encoder MDT auto-detects the data format between Sensus meters, Sensus compatible meters (Master-Meter, Badger, etc.), and Neptune meters. It has a ten-mile open field range and is shipped with two AA batteries with expected battery life from five to seven years.

The MDT is available either with a single encoded input for single meter usage or dual encoded inputs for co-located hot and cold water meters. A special Pulse + Encoder Dual MDT is also available.

Other variations and features are available such as:

- GWF-AllRead Encoder (pairs with the GWF UNICOcoder® water meter available from Tehama). MDT also reads Units, Count Factor, Hot/Cold from GWF meters.
- IP-68 rated Submersible version for pit or outdoor installation
- Integrated Remote Display version, California approved

Specifications

Inputs Options	• Encoder signal from water meters • Sensus, Neptune, GWF M-Bus
MDT Data Storage	• TW-170B-E/G: Four to five readings max
Data Resolution	• TW-170B-E/G: 1-hour interval
Radio	902 – 928 MHz; FCC and IC Certified Open field range nearly ten miles*
LED	Indicates on/off and RF network connection status
Operating Envir.	-20 to 145-degree F, up to 90% RH, non-condensing.
Power	• Two AA Alkaline (standard) • Two AA Lithium (Optional, for sub-freezing temperatures) • Sealed primary lithium battery (Submersible)
Typical Battery Life	5-7 years @ 50 to 90 deg. F, Reduced at extreme temperatures 10-12 years @ 40 to 100 deg. F (Submersible)
Dimensions	4.3" x 2.2" x 1.2" (Regular), 6.2” x 2.4” x 1.5” (Submersible)

Continual product enhancements may cause specifications to change without notice.
*Actual range may vary depending on installation location and topography.

Models

Battery powered		
Encoder MDT, battery powered	TW-170B-E	Single Encoder input, one-hour interval data, no on-board memory
Single M-Bus MP MDT, battery powered	TW-170B-G	Single GWF M-Bus MP Encoder Meter input, one-hour interval data, no on-board memory
Multi-input		
Dual Encoder MDT, Battery Power	TW-170B-EE	Dual Encoder input, one-hour interval data, no on-board memory
Dual M-Bus MDT, Battery Power	TW-170B-GG	Dual GWF M-Bus Encoder Meter input, one-hour interval data, no on-board memory
Encoder + Pulse Dual input MDT, Battery Power	TW-170B-EP	Single Encoder input, Singe Pulse input, one-hour interval data, no on-board memory
Submersible MDT, fully potted with sealed 10+year battery		
Submersible MDT, Encoder	TW-177S-E	Single Encoder input, one-hour interval data. Fully potted for submersible pit meter applications and outdoor environments *Separate Data Sheet available on web site*
Submersible GWF M-Bus MP MDT	TW-177S-G	Single GWF M-Bus MP Encoder Meter input, one-hour interval data. Fully Potted for submersible pit meter applications and outdoor environments *Separate Data Sheet available on web site*

*: Adequate repeater coverage is required for guaranteed delivery.
Other combinations and sensor inputs are available by special order. Please contact Tehama for details.

Note Standard and MAX Range systems are NOT compatible: only MAX Range MDTs must be used with a MAX Range Repeater (and MAX Range DCAP) and vice versa.
Refer to AN-119 in the documents section of our website for more information.

Are you unsure how an Encoder Water meter works or what the Count Factor might be for a particular meter? Please see our App Note AN-117 Encoder Meter FAQ for the answer to all your questions. You can find this on our web site.

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