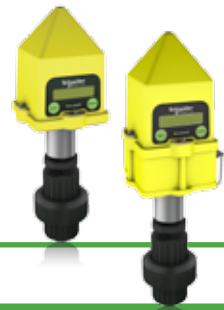


Product Data Sheet Accutech TM10

Specifications



> Accutech TM10

Functional

Sensor Type	Turbine Meter Totaliser
Location	Field Unit
Frequency Range	900MHz and 2.4GHz license-free bands
Power	Integrated battery
Network Capacity	<ul style="list-style-type: none"> • Max. 100 field units per base radio • Max. 256 base radios per network

Features

Remote Configuration Interface	Accutech Manager, Windows™-based GUI software, providing network-wide monitoring and performance-management features and field unit configuration capabilities
Local Configuration Interface	<ul style="list-style-type: none"> • Integrated LCD with membrane-switch buttons • Display provides flow, total and error messages • Configure sampling and RF parameters locally using membrane-switch buttons

Turbine Meter

Electronic Accuracy and Stability	<ul style="list-style-type: none"> • Flow Rate accurate to $\pm 0.01\%$ of reading (not including turbine meter and pickup) • Applies to pulse frequencies above low cut-off of 1Hz
Physical Connection	1in. female NPT connection to Turbine Meter Union for easy removal, pickup installation and replacement
Magnetic Pickup	Two-wire, connector supplied. See supported model numbers in the Sensor Pickup section of the model code
Frequency Range	1Hz. to 10KHz
Input Sensitivity (typical)	<ul style="list-style-type: none"> • 3.5mV RMS @ 5Hz • 3.5mV RMS @ 50Hz • 5mV RMS @ 500Hz • 45mV RMS @ 5000Hz
RF Characteristics	<p>900MHz:</p> <ul style="list-style-type: none"> • 902 to 928MHz Frequency Hopping Spread Spectrum (FHSS), FCC certified ISM license-free band • 915 to 928MHz (Australia) • 921 to 928MHz (New Zealand) • Data Rates: 4,800, 19,200 or 76,800bps • 0.4W maximum <p>2.4GHz:</p> <ul style="list-style-type: none"> • 2400 to 2483.5MHz ISM license-free band Frequency Hopping Spread Spectrum (FHSS) Radio • Data Rates: 50/100kbps (FSK Modulation), 200kbps (GFSK Modulation) • Typical Electrical Transmit Power: +10.6dBm • Typical Receive Sensitivity (0.1% BER): - 102dBm @ 50kbps, - 99dBm @ 100kbps, - 99dBm @ 200kbps • Typical CW Receiver Blocking Rejection: 64dB for CW @ +/- 5MHz, 74dB for CW @ +/- 30MHz
Self-Diagnostics	<ul style="list-style-type: none"> • Low battery notification – indicates the need to replace the battery (approximately one month advance notification) • Contains extensive self-checking software and hardware that continuously monitors operation. Any sensor or device parameter that is out of spec is identified and reported

General

Operating Ambient Environment	<ul style="list-style-type: none"> • -40 to +85°C (-40 to +185°F) electronics • -20 to +70°C (-4 to +158°F) display • -40 to +85°C (-40 to +185°F) display (extreme cold can reduce LCD visibility) • Humidity: 0 to 95%, non-condensing
Materials of Construction	<ul style="list-style-type: none"> • Base Plate: 304 Stainless Steel • Cover: GE Lexan®, V-0 rating and UV resistant
Power	<ul style="list-style-type: none"> • Self-contained power • Standard Accutech field units include a single C-Cell (900MHz) or D-Cell (2.4GHz) lithium battery that offers 3+ years of maintenance-free service (up to 10 years depending on data rates and battery options).
Operating Shock and Vibration	Tested per IEC 60068-2-6 (vibration) and 2-27 (shock)
Random Vibration Characteristics	Tested to withstand 6 g's, 15 minutes per axis from 9 – 500Hz
Electromagnetic Compatibility	Operates within specification in fields from 80 to 1,000MHz with field strengths to 30V/m. Meets EN 50082-1 General
Certifications	<p>North America HAZLOC:</p> <ul style="list-style-type: none"> • cCSAus • Intrinsically Safe: Exia IIC; AEx ia IIC • Class I, Div. 1, Groups A, B, C & D, T3 • Class 1, Zone 0, AEx ia IIC, T3 • Class I, Div. 2, Groups A, B, C & D, T4 <p>ATEX/IECEX HAZLOC:</p> <ul style="list-style-type: none"> • LCIE • Intrinsically Safe: Ex ia IIC T3 <p>EMC & Radio:</p> <ul style="list-style-type: none"> • North America : FCC , IC • Europe: CE Mark (R&TTE) • Australia/New Zealand: C-Tick

Disclaimer: Schneider Electric reserves the right to change product specifications. For more information visit www.schneider-electric.com.

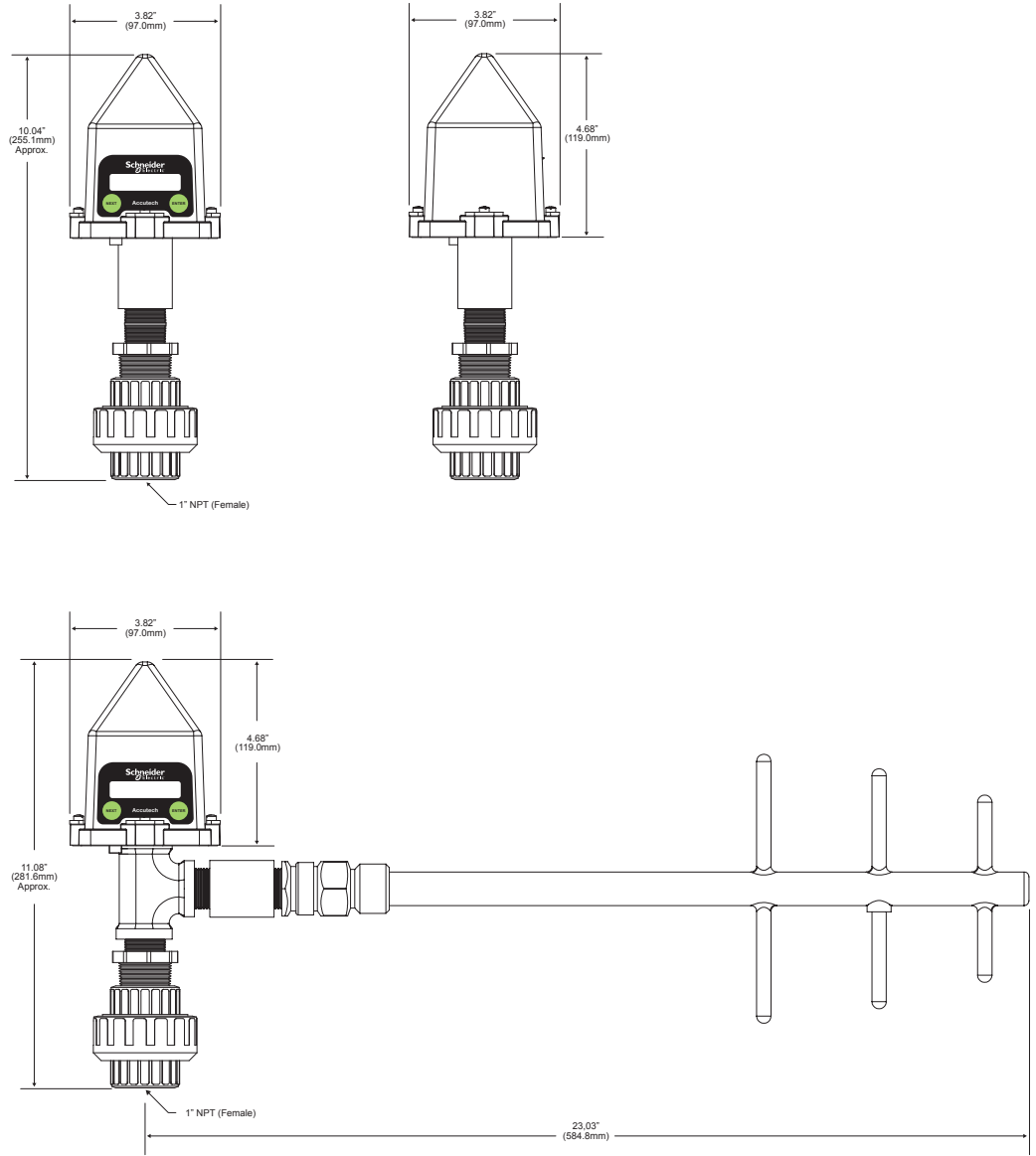
Product Data Sheet Accutech TM10

Model Code

	TBUATMTJPN00A00NA represents a typical part number.
Model	Type
TBUATM	Wireless Turbine Meter Totaliser Field Unit
Code	Select: RF Module Type
T	902MHz - 928MHz band (FCC / IC)
D	915MHz - 928MHz band (Australia)
N	915MHz - 921MHz band (New Zealand)
F	2.4GHz
Code	Select: Certifications
J	Intrinsically Safe Protection CSA – see product data sheet for certification details
Q	ATEX & IECEx – see product data sheet for certification details
Code	Select: Housing & Battery Pack
P	NEMA4 Polycarbonate Housing with 1 Cell (Available with Intrinsically Safe Rating)
Code	Select: Future Option
N	None
Code	Select: Integral Antenna or Cable & Connector Interface
00	Integral Antenna with Antenna Cover, the 2.4GHz NEMA4 unit also comes with an external antenna connector
01	For 900MHz RF Module Systems – or – the 2.4GHz in a NEMA4X Aluminum Housing External YAGI Antenna, 6db, attached to base of unit (not available with 2.4GHz RF NEMA4 unit)
10	10ft. (3.01m) cable with N-Male connector for remote antenna configurations (not available with 2.4GHz RF NEMA4 unit)
25	25ft. (7.62m) cable with N-Male connector for remote antenna configurations (not available with 2.4GHz RF NEMA4 unit)
Code	Select: Sensor Mounting
A	Integral (direct connect of magnetic pick-up below, or customer-supplied – no Junction Box)
R	Remote Sensor (requires selection of a Junction Box below)
Code	Select: Sensor Pickup
00	None (Intrinsic Safety rating “Option J” is available for customer-supplied pick-ups meeting specifications)
01	Magnetic pick-up, Electronic Data Devices model 4.303 - for turbine meters with an I.D. $\geq 7/8$ "
02	Magnetic pick-up, Electronic Data Devices model 4.5050 - for turbine meters with an I.D. $\leq 3/4$ "
Code	Select: Sensor Union
N	None (customer-supplied)
A	PVC Union, for Integral Sensor Mounting only (Shipped Assembled)
B	Aluminum Union, for Integral Sensor Mounting only (Shipped Assembled)
C	Stainless Steel Union, for Integral Sensor Mounting only (Shipped Assembled)
Code	Select: Junction Box
A	No Junction Box (exposed lead wires)
B	NEMA4 - Aluminum Rear Entry, for Remote Sensor Mounting only
D	NEMA4X - Stainless Steel Rear Entry, for Remote Sensor Mounting only

Product Data Sheet Accutech TM10
Dimensions

900MHz RF and Battery Unit
(Sensor and external antenna option shown)



2.4GHz RF and Battery Unit
(Sensor and external antenna not shown for clarity)

