Product Data Sheet Accutech TC10 Specifications

>	Accutech TC10
Functional	
Sensor Type	Thermocouple Temperature
Location	Field Unit
Frequency Range	900MHz and 2.4GHz license-free bands
Power	Integrated battery
Network Capacity	• 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	Integrated LCD with membrane-switch buttons; display rotates through tag number, temperature and RF status
Sensor Accuracy	Electronics accuracy: • ± 0.1 percent of full-scale reading plus 1°C (1.8 °F) for thermocouple cold-junction effect at reference conditions Ambient temperature effect: • ± 0.01% of reading per °C (1.8 °F) ambient temperature difference from reference condition (20°C or 68°F). Stability: • Deviation per year is less than 0.025% Thermocouple accuracy: • J-Type: the greater of +/- 1.1°C (2°F) or 0.4% of reading • K-Type: the greater of +/- 1.1°C (2°F) or 0.4% of reading • S-Type: the greater of +/- 0.6°C (1.1°F) or 0.1% of reading • T-Type: the greater of +/- 0.5°C (0.9°F) or 0.4% of reading • For user-provided thermocouples see the manufacturer's data sheet.
Stability	Deviation per year is less than 0.025%
RF Characteristics	900MHz: • 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 2.4GHz: • 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	• 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	• -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
Thermocouple Types	• J 0° to 760°C (32° to 1400°F) • K 0° to 1260°C (32° to 2300°F) • S 0° to 1480°C (32° to 2700°F) • T 0° to 370°C (32° to 700°F)
Power	• Standard Accutech field units include a single C-Cell (900MHz) or D-Cell (2.4GHz) lithium battery that offers battery life up to ten years of service, depending on data rates and battery options.
Physical Characteristics	• Base Plate: 304 Stainless Steel • Cover: GE Lexan®, V-0 rating and UV resistant • Process Connection: 1/2" MNPT
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 Immunity Standard and EN 55011 compatibility emissions standard.
Certifications	North America HAZLOC: • $_{c}CSA_{us}$ • Intrinsically Safe: Exia IIC; AEx ia IIC • Class I, Div. 1, Groups A, B, C & D, T3 • Class II, Div. 1, Groups E, F and G, T3 • Class III, T3 • Class 1, Zone 0, AEx ia IIC, T3 • Class I, Div. 2, Groups A, B, C & D, T4 • Class II, Div. 2, Groups F and G, T4 • Class III, T4 ATEX/IECEx HAZLOC: • LCIE • Intrinsically Safe: Ex ia IIC T3 EMC & Radio: • 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 TC10
Model Code

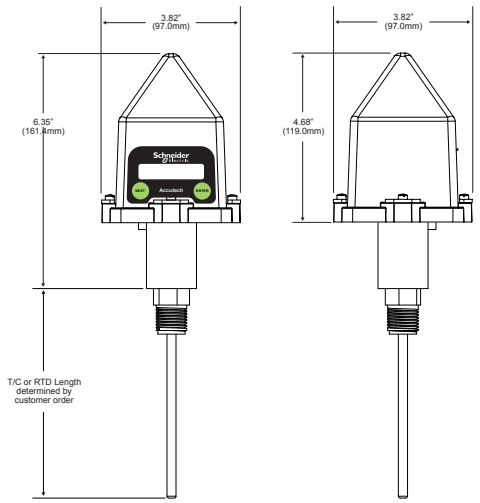
	TBUATCTJPN00A0N000 represents a typical part number.
Model	**Type**
TBUATC	Wireless Thermocouple Field Unit
Code	**Select: RF Module Type**
T	902MHz - 928MHz band (FCC / IC)
D	915MHz - 928MHz band (Australia)
N	915MHz - 921MHz band (New Zealand)
F	2.4GHz band
Code	**Select: Certifications**
J	Intrinsically 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 (Remotely mounted T/C options provide connections for 2 T/C)**
S	Integrated T/C (Requires selection of Type, Fitting and Probe length below)
A	Remotely mounted T/C - No junction box, exposed lead wires (T/C & Bracket not included)
B	Remotely mounted T/C - c/w NEMA4 Aluminum rear entry junction box (T/C & Bracket not included)
D	Remotely mounted T/C - c/w NEMA4X Stainless Steel rear entry junction box (T/C & Bracket not included)
Code	**Select: Thermocouple Type**
0	No Thermocouple (Purchased separately - TC10 supports Type B, C, E, J, K, L, N, R, S, T and U)
1	J Type
2	K Type
3	S Type
4	T Type
Code	**Select: Fitting**
N	No Thermocouple (Purchased separately – junction box provided for field termination)
B	Spring loaded fitting (Customer to install in thermowell)
D	Direct-insertion welded
Code	**Select: Probe Length - 0.5 inch increments only**
000	No Thermocouple (Purchased separately)
XXX	Enter Required Probe length XX . X inches as XXX (no decimal point) - contact factory for > 9 inches

Consult Accessories Section for mounting brackets

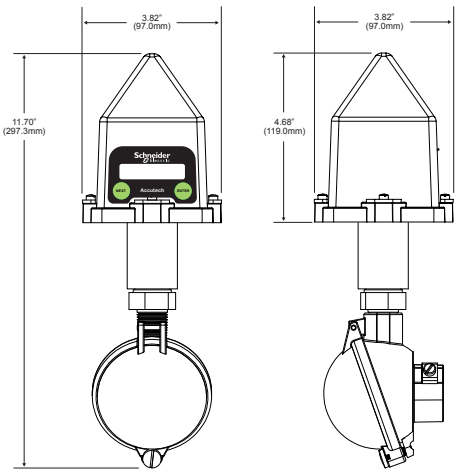
Product Data Sheet Accutech TC10
Dimensions

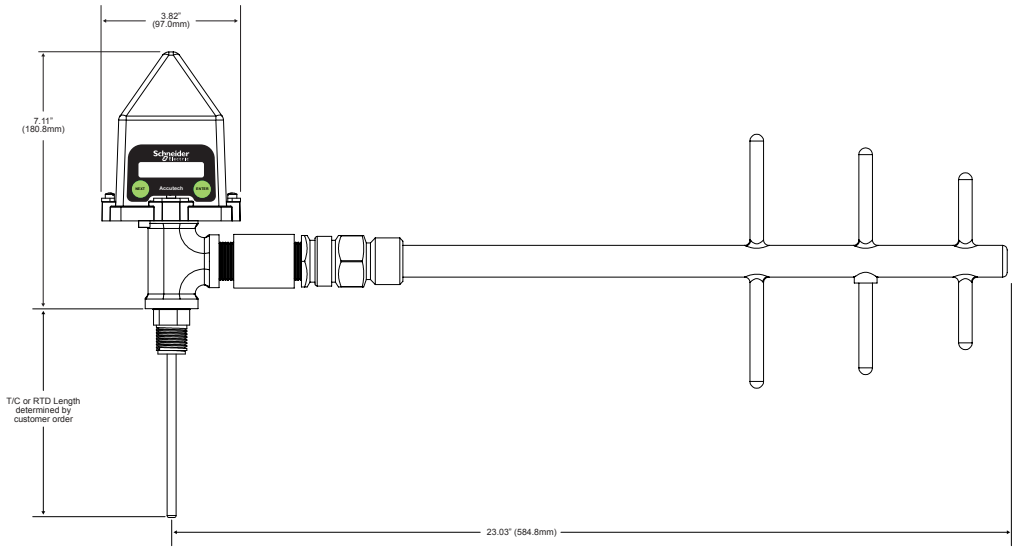
900MHz RF and Battery Unit
(Sensor and external antenna option shown)

Integral Sensor



Remote Sensor Option





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