Accutech SL10

Wireless submersible level field unit

Schneider Electric

The Accutech™ SL10 wireless submersible level field unit measures hydrostatic level in a vented tank or well. The product samples and reports pressure readings at specified intervals and allows for user-defined low-rate and high-rate conditions. The sensor is cable-mounted and submersed in the tank liquid, dropping in from the top of the tank, pool or well. Specific Gravity correction and common level units of measure are supported.

Accutech field units automatically report field data to a centralised Accutech base radio over distances of up to 3000ft (~1000m). Each field unit is self-contained, featuring an integrated 900MHz or 2.4GHz (license-free band), frequency hopping, spread-spectrum transceiver and antenna, and long-lasting battery that offers 5+ years of maintenance-free service (up to 10 years depending on data rates and battery options). Accutech networks are highly scalable with the possibility of 100 field units per base radio and 256 base radios per installation. Accutech field units are housed within a weather-resistant NEMA 4X enclosure with options for a remote sensor and remote antenna on select models. Field units are available in a wide range of certifications and come with a 3-Year warranty (parts and labor).

Product Data Sheet Accutech SL10
Specifications

>	Accutech SL10
Functional	
Sensor Type	Submersible Hydrostatic Level
Location	Field Unit
Frequency Range	900MHz and 2.4GHz band license-free bands
Power	Integrated battery
Network Capacity	Max. 100 field units per base radio Max. 256 base radios per network
Features	
Accuracy	± 0.5% of sensor URL over temperature range -20 to +60°C (-4 to +140°F)
Stability	Combined zero and span stability: less than ± 0.5% of sensor URL per year at 21°C (70°F)
Sampling and Transmission Characteristic	The level field unit samples pressure at regular intervals. The data may then be transmitted to the base radio for centralised monitoring and data acquisition. The user specifies how frequently the process is monitored and how often data is transmitted. • Level – user designates low rate and high rate conditions • Sampling rate – user selectable from 1 to 60 seconds (low rate) and from 1 to 30 seconds (high rate) • Transmission rate – user selectable from 1 second to 60 seconds (low and high rate) Accutech Manager can be used for Real-time monitoring of the process information. The user can set thresholds to represent out of spec conditions.
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 provides pressure reading and error messages, if applicable • Configure sampling and RF parameters locally using membrane-switch buttons
RF Characteristics	900MHz: • 902 to 928MHz Frequency Hopping Spread Spectrum (FHSS), FCC certified ISM license-free band • 915 to 928MHz (Australia) • 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) • Typical Electrical Transmit Power: +10.6dBm • Typical Receive Sensitivity (0.1% BER): - 102dBm @ 50kbps, - 99dBm @ 100kbps • 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) head unit electronics • -40 to +85°C (-40 to +185°F) display (below -20°C LCD visibility reduced) • -2- to +60C (-4 to +140F) process fluid temperature • Humidity: 0 to 95%, non-condensing
Power	• Self-contained power • 1: D Cell, Lithium Thionyl battery • Battery life up to ten years of service, depending on configuration
Physical Characteristics	• Fittings: 316L Stainless Steel • Epoxy coated Aluminum enclosure • Sensor Body: 316L Stainless Steel with Buna-N seal • Submersible Sensor Cable: Sensor cable and vent tube is encased in polyethylene jacket, rated for use in many harsh environments. Vent tube protected with a hydrophobic filter.
Operating Shock and Vibration	Tested per IEC 60068-2-6 (vibration) and 2-27 (shock)
Electromagnetic Compatibility	Operates within specification in fields from 80 to 1,000MHz with field strengths to 30V/m. Meets IEC 61000-6-2 General Immunity Standard and IEC 61000-6-4 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: C-Tick

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

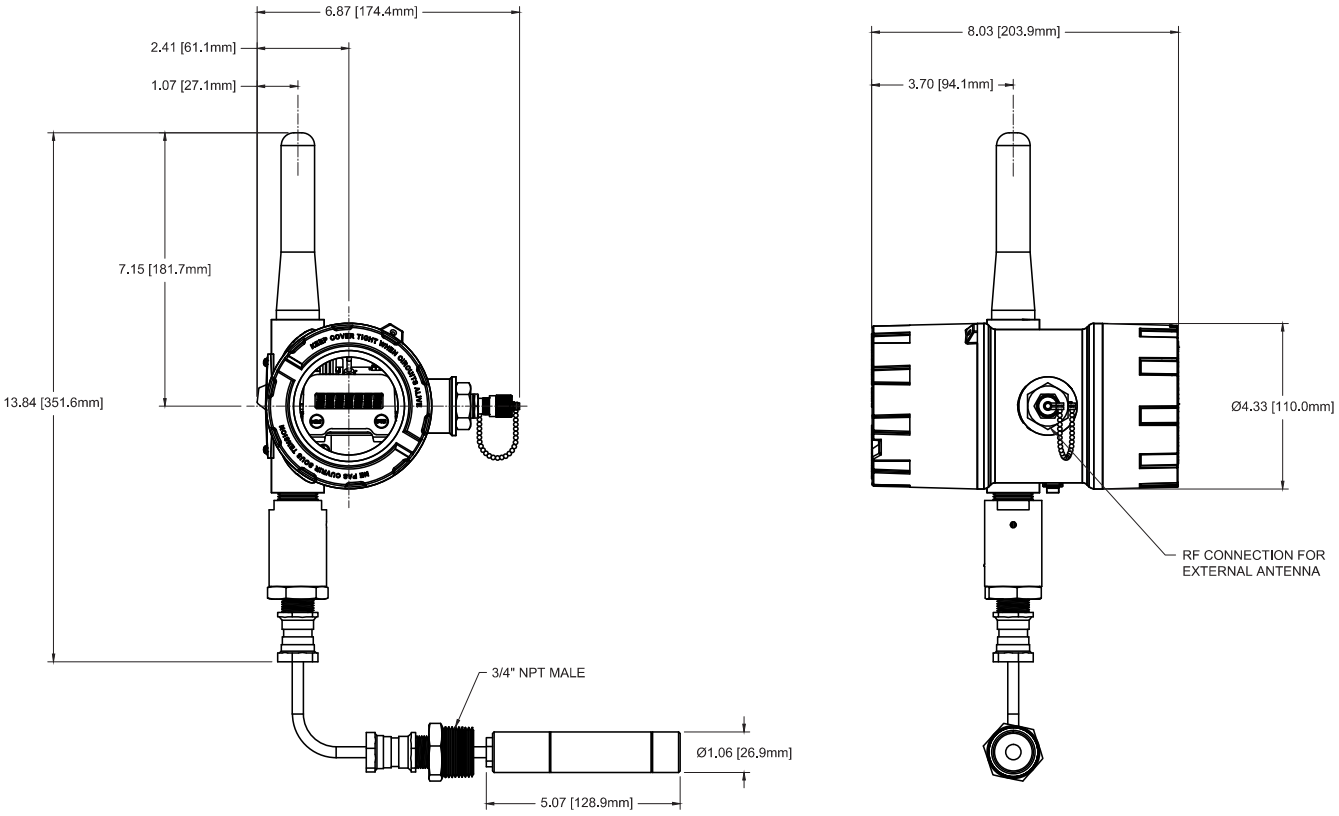
Product Data Sheet Accutech SL10
Model Code

	TBUASLTJPN00RA15A represents a typical part number.					
Model	**Type**					
TBUASL	Wireless Submersible Level Field Unit					
Code	**Select: RF Module Type**					
T	902MHz - 928MHz band (FCC / IC)					
D	915MHz - 928MHz band (Australia)					
F	2.4GHz band					
Code	**Select: Certifications**					
J	Intrinsically Safe Protection CSA – see certification details on previous page					
Q	ATEX & IECEx – see certification details on previous page					
Code	**Select: Housing & Battery Pack**					
1	NEMA 4X Housing with 1 D Cell					
Code	**Select: Future Option**					
N	None					
Code	**Select: Integral Antenna**					
00	Integral Antenna (2.4GHz unit comes default with integral antenna and external antenna connector)					
04	External Antenna connector (900MHz only, antenna and cables purchased separately)					
Code	**Select: Sensor Mounting**					
	Standard Field Unit					
N	Remote Sensor with no intermediate cable gland					
R	Remote Sensor with SS & Brass intermediate cable gland					
T	Remote Sensor with Nylon intermediate cable gland					
	Direct Tank Port Connect Field Unit (1" NPT Male) – For Integral Antenna units only					
D	Remote Sensor with no intermediate cable gland					
Code	**Select: Sensor Range & Cable Length**					
	First letter in Code designates the Sensor Range; following two-digit number specifies sensor cable length					
	Upper Range Limit		**Proof Pressure**		**Standard Cable Length**	
	PSIG	**(BAR)**	**PSI**	**(BAR)**	**Feet**	**(Meters)**
A15	5*	(0.345)	10	(0.689)	15	(4.6)
B30	10*	(0.689)	20	(1.379)	30	(9.1)
C40	15	(1.034)	30	(2.068)	40	(12.2)
F75	30*	(2.068)	60	(4.137)	75	(22.9)
Code	**Future Option**					
A	None					

* Consult factory for lead time on units requiring non-standard lengths as listed.

Sensor Element Size: Length = 5.0" (12.7cm) , Outer Diameter = 1.063" (2.7cm)

Product Data Sheet Accutech SL10
Dimensions



2.4GHz INTEGRAL ANTENNA AND CABLED ANTENNA OPTIONS

Schneider Electric

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