

Product Data Sheet Accutech GL10

Specifications



Accutech GL10

Functional

Sensor Type	Gauge Level
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

Accuracy	<ul style="list-style-type: none"> ± 0.25% of full-scale at 20°C (68°F) ± 0.5% of sensor URL over temperature range -40 to +85°C (-40 to +185°F)
Stability	Combined zero and span stability: less than ± 0.1% of sensor URL per year at 21°C (70°F)
Sampling and Transmission Characteristic	<p>The level field unit samples pressure at regular intervals. The data may then be transmitted to the base radio for centralized monitoring and data acquisition. The user specifies how frequently the process is monitored and how often data is transmitted.</p> <ul style="list-style-type: none"> 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) <p>Accutech Manager can be used for real-time monitoring of the process information. The user can set thresholds to represent “alarm” or abnormal conditions.</p>
Extended Sensors	The extended sensors enable installation of the electronics and wireless unit in an elevated, unobstructed location to enhance transmission range and isolate electronics from process vibration.
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 pressure reading and error messages, if applicable Configure sampling and RF parameters locally using membrane-switch buttons
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 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 +121°C (-40 to +250°F) steady-state process temperature -40 to +85°C (-40 to +185°F) electronics ambient temperature -20 to +70°C (-4 to +158°F) display ambient temperature -40 to +85°C (-40 to +185°F) display (extreme cold can reduce LCD visibility) ambient temperature 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 stable Process Connection: 1/2" MNPT
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 battery life up to ten years of service, depending on data rates and battery options.

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Operating Shock and Vibration	Tested per IEC 60068-2-6 (vibration) and 2-27 (shock)
Random Vibration Characteristics	<ul style="list-style-type: none"> • Level data only • Smart smoothing • User-configurable 22-point linearisation curve of level for non-linear (asymmetrical) reservoirs • Configurable 'rate of change' threshold, when exceeded, causes radio to immediately report data to base radio
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.
Safety 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 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 <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

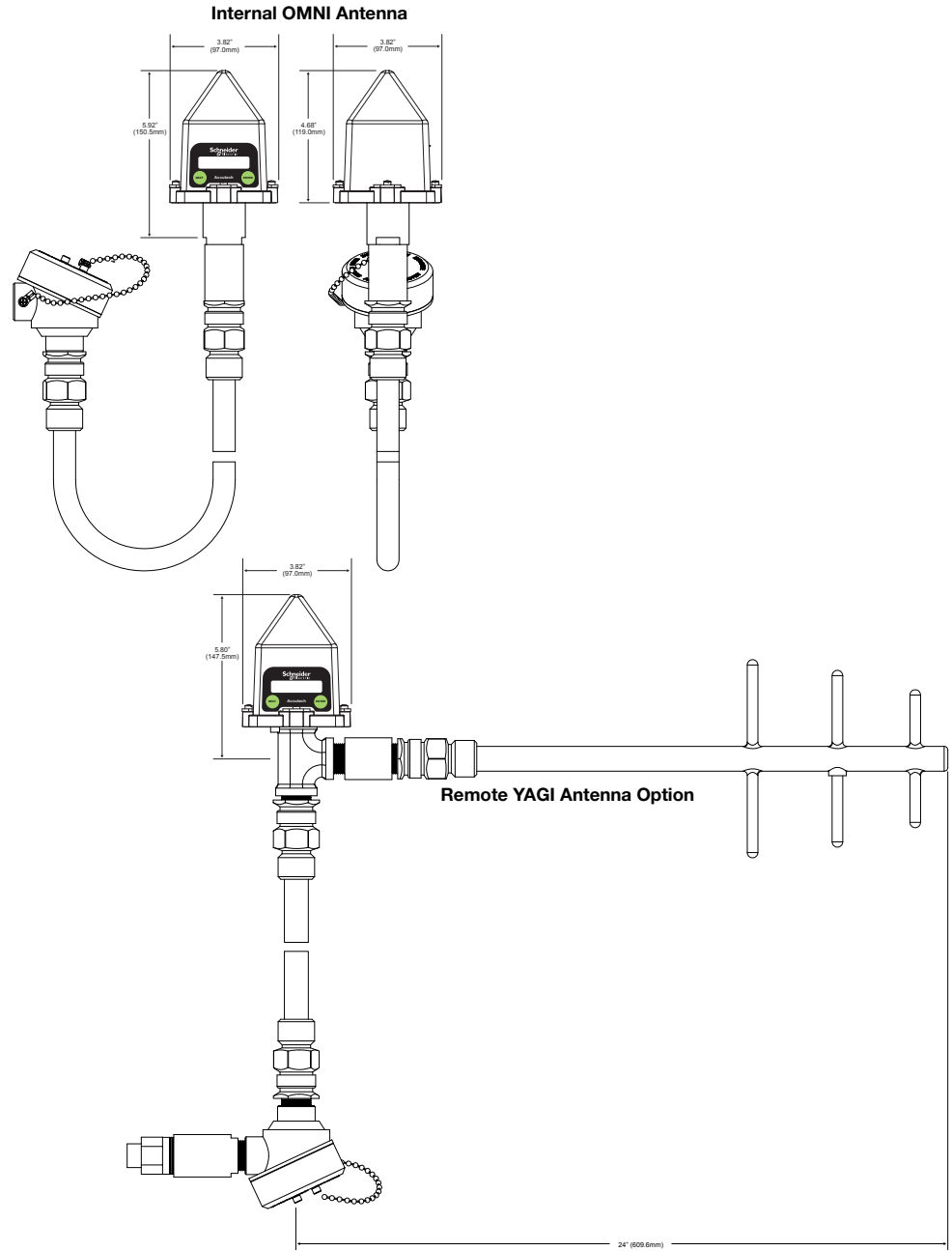
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Product Data Sheet Accutech GL10 Model Code

	TBUAGLTJPN00S015A represents a typical part number.					
Model	Type					
TBUAGL	Wireless Gauge Level 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 cCSAus: Intrinsically safe protection: see specifications page					
Q	ATEX/IECEx: Intrinsically safe protection: see specifications page					
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					
S	Integral					
R	Remote Sensor with 10ft. (3.05m) cable					
Code	Select: Sensor Range					
	Upper Range Overload Safety Limit (URL)		Overload Limit		Safety Limit	
	PSIG	(BAR)	PSI	(BAR)	PSI	(BAR)
015	15	(1.034)	30	(2.068)	500	(34.5)
030	30	(2.068)	60	(4.137)	500	(34.5)
Code	Select: Future Option					
A	None					

Product Data Sheet Accutech GL10 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)

