

Accutech GL10 Wireless Gauge Level Field Unit

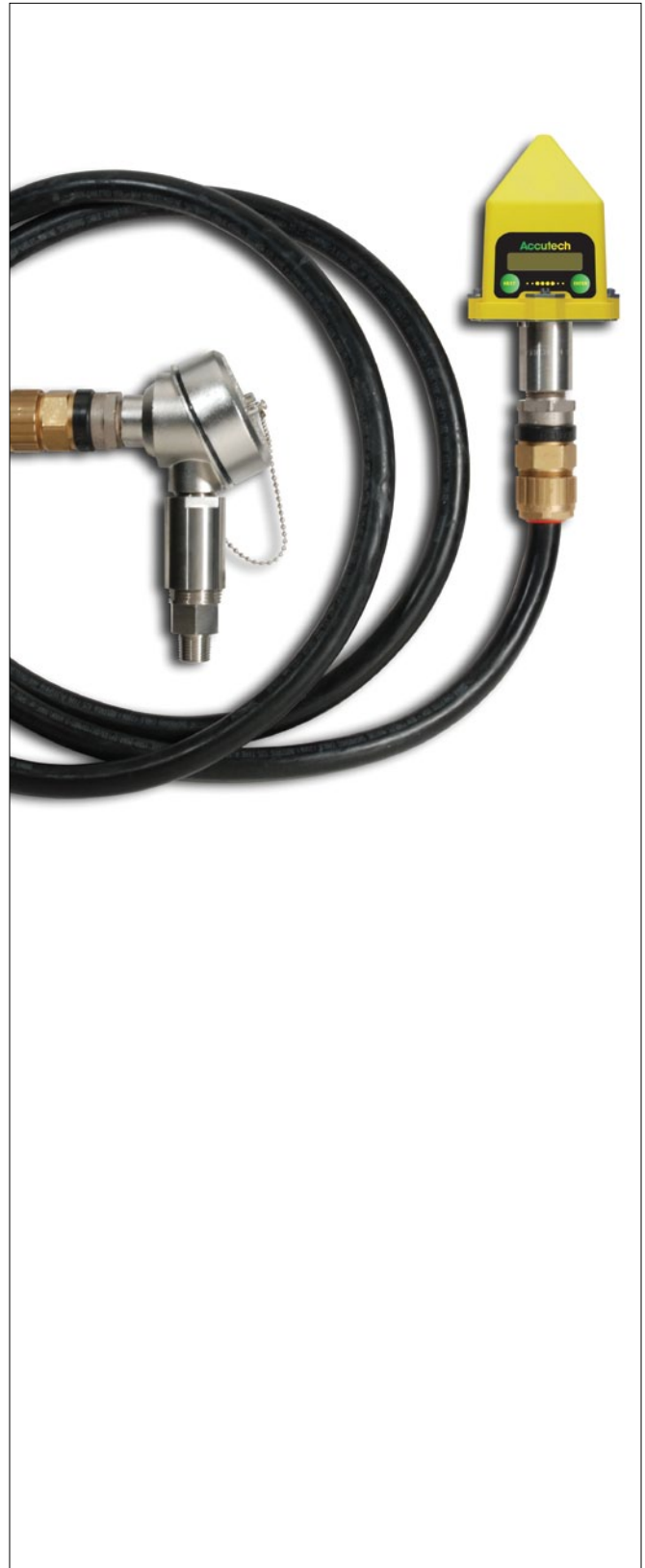
Accutech field units eliminate costly hard wired installations by providing an easy-to-install and secure wireless link between field-based process instrumentation and control/monitoring infrastructure. They are intended for use in extreme environments where typical wired installation is not feasible or economical. Field units are configured locally through a LCD/keypad or remotely with Accutech Manager, which also provides a user-friendly environment for wireless network diagnostics and management. A wide range of process types are supported with a maximum of 100 field units possible per base radio network.

GL10 Features:

- Extended gauge level sensor
- Specific-gravity correction
- Multiple units of level measurement

The Accutech GL10 wireless gauge level field unit is designed to measure hydrostatic level in a vented tank and is equipped with an extended sensor, allowing for more advantageous positioning of the wireless transceiver without compromising the sensor's measurement accuracy. Specific gravity correction and multiple units of level measurement are supported.

All Accutech field units automatically report field data to a centralized Accutech base radio over distances of up to 5000ft (~1500m). Each field unit is self contained, featuring an integrated 900MHz (license-free band), frequency hopping, spread-spectrum transceiver and antenna, and long-lasting battery for up to 10 years of maintenance-free operation. Accutech field units are housed within a compact and weather-proof NEMA 4 enclosure with options for a remote sensor and remote antenna on select models. Field units are available in a wide range of certifications and are protected by an industry-leading 3-Year warranty (parts and labor).



GLIO Specifications

Functional	
Sensor Type	Gauge Level
Location	Field Unit
Frequency Range	902-928MHz
Power	Integrated battery
Features	
Accuracy	± 0.1 % of sensor URL over temperature range -40 to +185°F (-40 to +85°C)
Stability	Combined zero and span stability: less than ± 0.1% of sensor URL per year at 70°F (21°C)
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 fault 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	<ul style="list-style-type: none"> ■ 902MHz - 928MHz band (FCC/IC) ■ 915MHz - 928MHz band (Australia) ■ 915MHz - 921MHz band (New Zealand) ■ Up to 5000ft (~1500m) typical range with obstructions ■ The RF module in each field unit is individually tested and calibrated over the full temperature range to ensure reliable wireless operation ■ Transmit Power: +13dBm ■ Receive Sensitivity: -113dBm ■ Adjacent Channel Rejection: 48dBc ■ Alternate Channel Rejection: 62dBc
Self-Diagnostics	<ul style="list-style-type: none"> ■ Low battery alarm – indicates the need to replace the battery (approximately one month warning) ■ 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 +250°F (-40 to +121°C) steady-state process temperature ■ -40 to +185°F (-40 to +85°C) electronics ambient temperature ■ -4 to +158°F (-20 to +70°C) display (full visibility) ambient temperature ■ -40 to +185°F (-40 to +85°C) display (with reduced visibility) ambient temperature ■ Humidity: 0 to 95 %, non-condensing
Materials of Construction:	<p>Base Plate: 304 Stainless Steel Cover: GE Lexan®, V-0 rating and UV stable Process Connection: 1/2" MNPT</p>
Power:	<ul style="list-style-type: none"> ■ Self-contained power ■ One 'C' Cell ■ Up to ten (10) year battery life (depends on sample rate and RF-update rate)
Operating Shock and Vibration:	Certified per IEC EN00068 2-6 (vibration) and 2-27 (shock)
Random Vibration Characteristics:	Certified to withstand 6 g's, 15 minutes per axis from 9 – 500Hz
Electromagnetic Compatibility	
Safety Certifications:	<p>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.</p> <ul style="list-style-type: none"> ■ Rated for industrial use -40 to 185°F (-40 to 85°C) ■ Intrinsically Safe: <ul style="list-style-type: none"> CSA - Exia IIC; AEx ia IIC: Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1, Groups E, F & G; Class III, Div. 1

GL10

AC-GL10-TJ11N00-S015 represents a typical part number.

Model	Type																								
AC-GL10	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)																								
Code	Select: Safety Rating																								
G	General Purpose (non-hazardous locations)																								
	Intrinsically Safe																								
J	CSA - Exia IIC; AEx ia IIC: Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1, Groups E, F & G; Class III, Div. 1																								
Code	Select: Housing																								
1	NEMA 4 - Available with general purpose or intrinsically safe ratings																								
Code	Select: Battery Pack																								
1	One 'C' Cell																								
Code	Future Option																								
N	None																								
Code	Select: Integral Antenna or Cable & Connector Interface																								
00	Integral Antenna with Antenna Cover																								
01	External YAGI Antenna, 6db, attached to base of unit																								
10	10ft. Cable with N-Male connector for remote antenna configurations																								
25	25ft. Cable with N-Male connector for remote antenna configurations																								
Code	Select: Sensor Mounting																								
S	Integral																								
R	Remote Sensor with 10ft. cable (other cable lengths available as special order)																								
Code	Select: Sensor Range																								
	<table border="1"> <thead> <tr> <th colspan="2">Upper Range Overload Safety Limit (URL)</th> <th colspan="2">Overload Limit</th> <th colspan="2">Safety Limit</th> </tr> <tr> <th>PSIG</th> <th>(BAR)</th> <th>PSI</th> <th>(BAR)</th> <th>PSI</th> <th>(BAR)</th> </tr> </thead> <tbody> <tr> <td>015</td> <td>15 (1.034)</td> <td>30</td> <td>(2.068)</td> <td>500</td> <td>(34.5)</td> </tr> <tr> <td>030</td> <td>30 (2.068)</td> <td>60</td> <td>(4.137)</td> <td>500</td> <td>(34.5)</td> </tr> </tbody> </table>	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)
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