Accutech GP10

Wireless Gauge Pressure 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.

GP10 Features:

- Highly accurate gauge pressure sensor
- 5 to 10,000 PSIG
- Adjustable sample and transmit rates

The Accutech GP10 wireless gauge pressure field unit provides pressure data in a variety of ranges from 250 to 5000 PSIG. With its integrated and highly sensitive sensor design, the product may be configured to sample and transmit updates between once per second and once per minute. Transmit rate changes can also be triggered based on events that are defined in terms of measurement limits or rates of movement. This function allows for maximization of battery life while ensuring that all important process events are monitored.

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).

GP10 Specifications

Functional	
Sensor Type	Gauge Pressure
Location	Field Unit
Frequency Range	902-928MHz
Power	Integrated battery

Features	
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	■ 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.
Sensor Accuracy:	± 0.1 % of sensor URL including the combined effects of linearity, hysteresis, repeatability and temperature (applies to standard unit without isolating seals).
Stability:	Combined zero and span stability: less than ± 0.1% of sensor URL per year at 70°F (21°C)
Output Resolution:	24-bit Analog to Digital conversion
Gauge Pressure Ranges:	250, 1000, 5000 PSIG (17, 70, 350 BAR)
RF Characteristics	■ 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	■ 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:	■ -40°F to +250°F (-40°C to +121°C), process temperature, steady-state ■ -40°F to +230°F (-40°C to +110°C) ambient temperature sensor ■ -40°F to +185°F (-40°C to +85°C) electronics ■ -4°F to +158°F (-20°C to +70°C) display (full visibility) ■ -40°F to +185°F (-40°C to +85°C) display (with reduced visibility) ■ Humidity: to 95 %, non-condensing
Materials of Construction:	■ Base Plate: 304 Stainless Steel ■ Cover: GE Lexan®, V-0 rating and UV stable ■ Process Connection: 1/2" MNPT
Power:	■ 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:	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. ■ Intrinsically Safe: 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

GP10

AC-GP10-TJ11N00-S005 represents a typical part number.

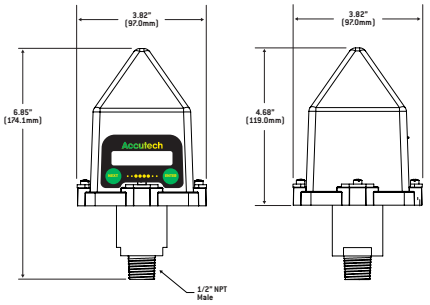
Model	Type
AC-GP10	Gauge Pressure Field Unit
Code	**Select: RF Module Type**
T	902MHz - 928MHz band (FCC/IC)
D	915MHz - 928MHz band (Australia)
N	915MHz - 921MHz band (New Zealand)
Code	**Select: Safety Rating**
G	General Purpose (non-hazardous locations)
	Intrinsically Safe
J	CSA - Exia IIC; AEx ia 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**

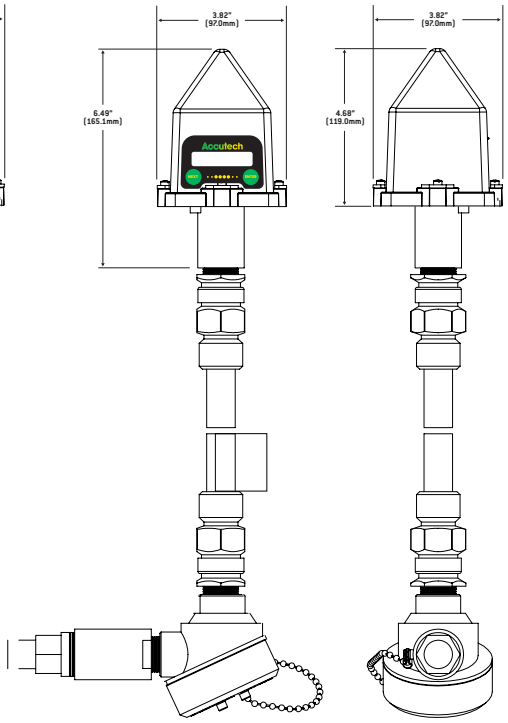
	Upper Range Overload Safety Limit (URL)		Overload Limit		Safety Limit	
	PSIG	**(BAR)**	**PSI**	**(BAR)**	**PSI**	**(BAR)**
005	5	(0.345)	10	(0.69)	30	(2)
015	15	(1)	30	(2)	500	(34)
030	30	(2)	60	(4)	500	(34)
100	100	(7)	200	(14)	500	(34)
250	250	(17)	500	(34)	1500	(103)
1K0	1000	(70)	2000	(138)	10000	(689)
2K5	2500	(170)	5000	(350)	10000	(689)
5K0	5000	(350)	12000	(827)	20000	(1279)
10K	* 10000	(700)	12000	(827)	20000	(1279)

* Consult factory for availability

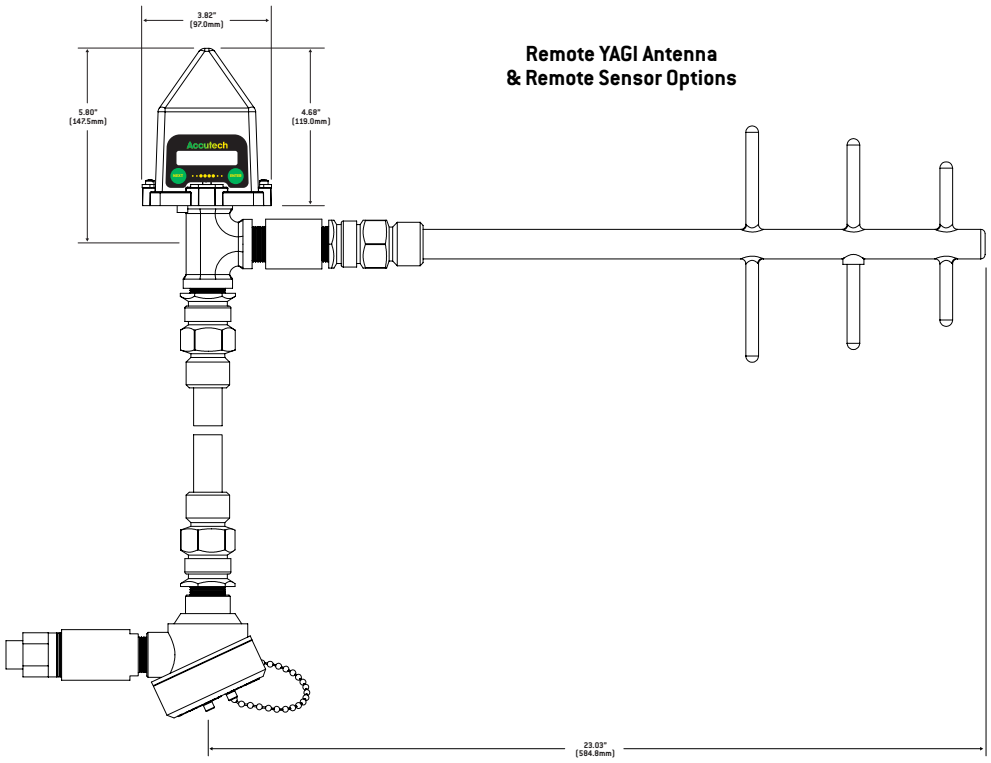
Internal OMNI Antenna & Integral Sensor



Internal OMNI Antenna & Remote Sensor Option



Remote YAGI Antenna & Remote Sensor Options



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