



## Field-Ready, Field-Proven Wireless Instrumentation That Works

Accutech wireless instrumentation eliminates complex, hardwired installations and makes it easy to deploy and monitor sensor networks across a wide range of applications. The Accutech product line includes a series of self-contained, battery-powered, wireless field units and central base radios to collect process data and pass it to a PLC, RTU, DCS or HMI network.

All Accutech instruments incorporate innovative wireless communication and power saving technologies in an easy-to-install package that does not require any additional power or data cabling.

### Key Features

- Wireless, battery-powered field units – completely self-contained
- Up to 10 years on internal battery power
- License-free 900MHz spread-spectrum, frequency-hopping radios
- Up to 100 wireless field units per base radio
- Range: Up to 5000ft. (1524m)
- Field data available at base radio via Modbus protocol
- Accutech Manager software for remote configuration and monitoring
- Available in a wide range of safety certifications
- Three-year parts and labor warranty

**BR10**  
Base Radio



**BR20**  
Base Radio (with optional long haul Trio radio)



**AI10 | AV10**  
Current | Voltage  
Multi-Input Field Unit



**AM20**  
Acoustic Monitor  
Field Unit



**AP10**  
Absolute Pressure  
Field Unit



**AS10**  
Arrival Sensor  
Field Unit



**DP10**  
Differential Pressure  
Field Unit



**FL10**  
Float Level Field Unit



**GL10**  
Gauge Level  
Field Unit



**GP10**  
Gauge Pressure  
Field Unit



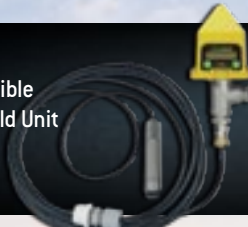
**RT10**  
RTD Temperature  
Field Unit



**SI10**  
Switch Input  
Field Unit



**SL10**  
Submersible  
Level Field Unit



**TC10**  
Thermocouple  
Temperature Field Unit



**TM10**  
Turbine Meter Totalizer  
Field Unit



**4AO, 8SW,  
4AO-8SW**  
Output Modules



# Practical & Versatile

## Install and Expand with Ease

Networks of up to 100 instruments can be created and polled by a single base radio. With the capability to scale up to 16 wireless networks, Accutech's wireless instrumentation technology easily accommodates future expansion plans.

## Up to Ten Years of Operation on Internal Battery Power

Accutech instruments feature patented wireless communication technology and optimized power usage to offer up to 10 years of self-sufficient operation on the internal battery.

## Secure Wireless Communication

Accutech wireless instruments and base radios offer License-free 900MHz spread-spectrum, frequency-hopping wireless connectivity. With a practical range up to 5000ft. (1524m) it is easy to deploy large sensor networks quickly. For greater wireless range and performance in demanding environments, an optional external, high-gain antenna is available for both the base radio and selected instruments.

## Modbus Protocol Support

Accutech supports industry-standard Modbus protocol to ensure interoperability and compatibility with a wide range of industrial equipment from third-party vendors.

## Designed for Durability and Safety

Accutech products are designed for the most demanding applications ranging from the plant floor to field applications with extreme temperature and humidity ranges and are available in a wide range of certifications.

## Built-In Keypad and Display

All Accutech products are equipped with a built-in keypad and LCD display for local configuration and monitoring.

## Field Units for a Wide Range of Applications

Accutech field units are available in a wide range of sensor and input configurations to fit many applications including pressure, level, acoustic monitor, switch and arrival sensor, turbine meter and combination analog and digital input.

Optional remote sensors are available for select configurations.

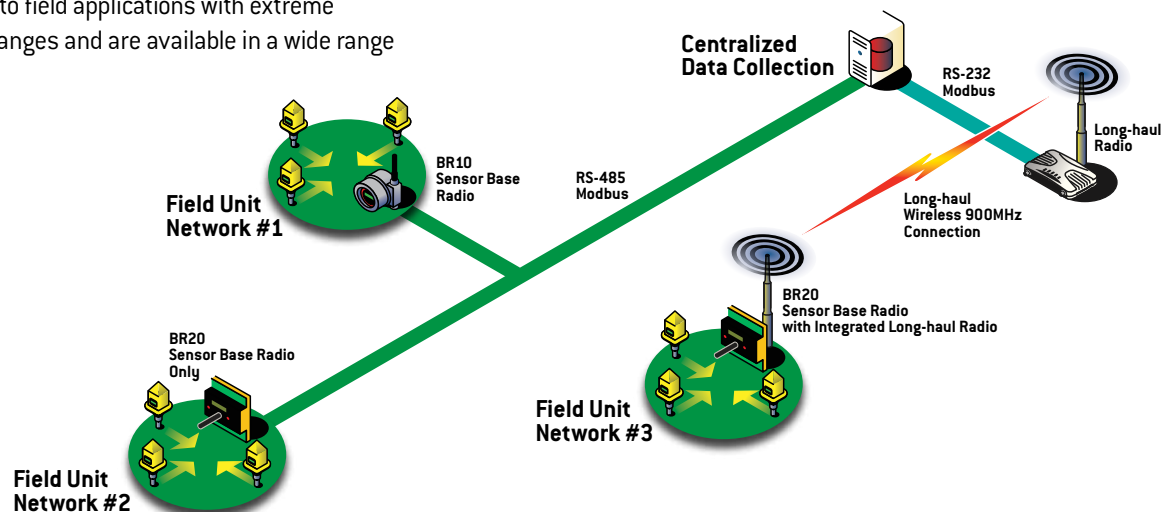
## Configure and Monitor with Accutech Manager

Accutech Manager configuration and management software provides a user-friendly, graphic interface for Accutech base radios and wireless instruments. Accutech Manager offers remote configuration, diagnostics, and wireless network management tools and can be used for temporary data collection and testing.

## Industry-leading Warranty

All Accutech products are manufactured to exacting standards and backed by an industry-leading three-year warranty.

## Typical Connections



# Features

## BR10 Base Radio



- Supports up to 100 field units
- Multiple base radio support
- Serial Modbus RTU via RS-485
- Explosion-proof housing
- Integrated or remote antenna options
- 9-38VDC input power

## BR20 Base Radio (with optional long haul radio)



- Accutech base radio with optional long-haul Trio K-Series radio
- Supports up to 100 field units
- DIN-rail mounted enclosure
- RS-232 and RS-485 connections for configuration and communication
- 11-30VDC input power
- LCD for local base radio configuration

## AI10 | AV10 Current | Voltage Multi-Input Field Unit



- Dual current (4-20mA) or voltage (0-10V) based analog inputs
- Dual discrete contact-closure inputs
- Explosion-proof junction box option

## AM20 Acoustic Monitor Field Unit



- Highly accurate acoustic (ultrasound) monitor
- Ideal for PRVs, steam traps etc.
- On/off conditions of compressors and pumps
- Operates in 40KHz range, optimal for vapor/gas vent determination

## AP10 Absolute Pressure Field Unit



- Highly accurate gauge pressure sensor: accuracy:  $\pm 0.1\%$  of sensor URL
- 30 and 250psia (2 and 17 bar)
- Remote pressure sensor option

## AS10 Arrival Sensor Field Unit



- Arrival sensor switch-input
- Ideally suited for plunger lift applications
- Continuous count of state transitions
- 5Hz input sampling rate

## DP10 Differential Pressure Field Unit



- Highly accurate differential pressure sensor
- Static pressure up to 2000PSI
- Four operational modes
  - Differential Pressure
  - Orifice Flow
  - Open Channel Flow
  - Level
- 22-point custom curve capability

## FL10 Float Level Field Unit



- Reliable and accurate digital fluid level measurement
- Integrated level (standard)
- Single or dual float
- Retrofits with Siemens Model 1000 level sensor

## GL10 Gauge Level Field Unit



- Extended gauge level sensor
- 30 psig (2.068 bar)
- Supports specific-gravity correction and multiple units of level measurement

# Features

## GP10

Gauge Pressure  
Field Unit



- Highly accurate gauge pressure sensor: accuracy:  $\pm 0.1\%$  of sensor URL
- 250, 1000, 2500, and 5000 psig (17, 35, 70, 350 bar)
- 10kPSI on special order
- Remote pressure sensor option

## RT10

RTD Temperature  
Field Unit



- RTD input:
  - 100 Ohm DIN, US Curves
  - 1000 Ohm DIN
- Basic accuracy  $\pm 0.1\%$  of reading
- Probes available with either spring-loaded or direct-insertion fitting

## SI10

Switch Input  
Field Unit



- Dual contact-closure switch-input
- Input de-bounce filter
- Flying leads option

## SL10

Submersible Level Field Unit



- Sensor type – FM Approved KPSI
- Pressure ranges:
  - 5 psi, 11.55ft. Cable 15ft
  - 10 psi, 23.11ft. Cable 30ft
  - 15 psi, 46.21ft. Cable 40ft
  - 30 psi, 69.32ft. Cable 50ft
- Vent options
  - Desiccant
  - Hydrophobic
  - Bellows

## TC10

Thermocouple  
Temperature Field Unit



- Thermocouple input type: K
- Basic accuracy  $\pm 0.1\%$  of reading
- Probes are available with either spring-loaded or direct-insertion fitting
- Two thermocouples available with remote sensor mounting option

## TM10

Turbine Meter  
Totalizer Field Unit



- Highly accurate turbine meter pulse counter
- Measures liquid and gas volumetric flow
- Totalizes accumulated flow volume
- Frequency range 1Hz to 10kHz

## 4AO, 8SW, 4AO-8SW Output Modules



- 4-channel analog output module
- 8-point contact closure module
- Combination output module
- Outputs controlled by associated field unit
- RS-485 connection to base radio
- DIN rail-mounted

All devices available with integral YAGI or remote high-gain antennas.