

Accutech BR10 Wireless Base Radio

Features:

- Master base radio (to multiple slave field units)
- Support for max. 100 field units
- Up to 5000ft (~1500m) typical range to field unit
- Integrated transmitter, receiver and antenna
- Unlicensed 902MHz (915MHz Australia) to 928MHz band
- Secure frequency-hopping, spread-spectrum transmission
- 9-38VDC Input Power, 24VDC @ 200mA typical
- LCD/keypad for local configuration and monitoring
- Accutech Manager, configuration and diagnostics software
- Explosion, weather and corrosion-proof baked enamel housing
- CSA Class I, Div 1 and Div 2 rating
- 3-Year Warranty (parts and labor)

At the heart of any Accutech wireless instrument network is the BR10 wireless base radio. This device automatically communicates with all deployed instrumentation field units attached to it in a local area star network and makes the field data available to an existing control system through a local serial Modbus interface. A third-party Modbus TCP/IP converter can also be employed to add Ethernet connectivity.

One base radio can communicate with up to a maximum 100 field units. Multiple base radios can be used to accommodate additional field units. With the capability to scale up to as many as 16 wireless instrumentation LANs, Accutech easily accommodates even the most aggressive expansion plans.

The product is powered by readily-available 9-38VDC and is self-contained for use in extreme environments.

The BR10 base radio may be configured locally through its LCD/keypad or remotely with Accutech Manager, which also provides a user-friendly environment for wireless network diagnostics and management.



BR10 Specifications

Functional	
Device	Base Radio
Location	Interfaced with controller or PC
Frequency Range	902-928MHz
Input Power	9-38VDC, 24 VDC @ 200mA typical
Features	
Remote Configuration Interface	Accutech Manager, Windows™-based GUI software, providing network-wide fault and performance-management features and field unit configuration capabilities
RF Characteristics	<ul style="list-style-type: none"> ■ 902MHz - 928MHz band (FCC/IC) ■ 915MHz - 928MHz band (Australia) ■ 915MHz - 921MHz band (New Zealand) ■ The RF module in each radio 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
Output Options	<ul style="list-style-type: none"> ■ RS-485 digital communications with conversion to RS-232 or USB for interface with PC or server and Accutech Manager ■ Serial Modbus RTU over RS-485 ■ Modbus TCP over Ethernet (with optional third-party converter)
Self-Diagnostics	<ul style="list-style-type: none"> ■ 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	<p>Operating Ambient Environment: Rated for industrial use: -40 to +185°F (-40 to +85°C)</p> <p>Materials of Construction: <ul style="list-style-type: none"> ■ Baked enamel explosion-proof, weather-proof and corrosion-proof housing </p> <p>Operating Shock and Vibration: Certified per IEC EN00068 2-6 (vibration) and 2-27 (shock)</p> <p>Electromagnetic Compatibility: <ul style="list-style-type: none"> ■ 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 ■ CSA Rated -40 to +104°F (-40 to +40°C) and EN55011 compatibility emissions standard </p> <p>Industrial <ul style="list-style-type: none"> ■ CSA Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1 (see note) ■ NEMA 4X weather-proof housing </p>

Note: Div 1 hardware certifications are under original WI-BR- model number. Re-certification as AC-BR10- pending certification process completion.

BR10

AC-BR10-TG20N00 represents a typical part number.

Model	Type
AC-BR10	Base Radio
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)
X	Explosion Proof (available only with integral antenna with explosion proof antenna cover)
Code	Select: Housing
2	Aluminum
Code	Protocol
0	Streaming output for Accutech Manager and output modules
1	Modbus and streaming output for Accutech Manager and output modules
Code	Future Option
N	None
Code	Select: Integral Antenna or Cable & Connector Interface
00	Integral Antenna with Explosion Proof Antenna Cover (meets Xproof Div 1/ Div 2 & Intrinsically Safe rating)
10	10ft. Cable with N-Male connector for remote antenna configurations (meets Xproof Div 2 & IS rating)
25	25ft. Cable with N-Male connector for remote antenna configurations (meets Xproof Div 2 & IS rating)



