

# Bristol® ControlWave® GFC Corrector Integrated Automation Plus Measurement Solution

## Features

For users who expect more from their correctors than simple meter correction functionality, Bristol® ControlWave® GFC, from Emerson Process Management, comes through with synergy of automation and measurement. Now, you can install a single instrument without the hassles you face when you try to use separate equipment for automation and measurement operations at remote sites.

A single, integrated package includes the following:

- Bristol ControlWave family platform that is pre-programmed to meet API 21.1 requirements for a two-run metering and regulating station
- Integral LCD and optional, 25-key keypad allows operators to change configurable parameters, on site, without packing a PC
- High performance, smart sensor assembly is a separate component that can be removed and replaced independently of the electronics platform
- Optional, pre-installed RTD assembly
- Wide variety of solar and battery power systems to best meet a range of applications needs—and extremely low power consumption keeps power systems costs under control
- Open communication and a broad selection of modem and wireless communication options best suit your networking needs
- I/O complements interface with external, process equipment
- Class I, Division 1 IS (for a subset of configurations) and Class I, Division 2 NI hazardous area approvals

Unlike other correctors, Bristol ControlWave GFC Corrector employs a hardware/firmware platform that readily handles automation tasks:



*Bristol® ControlWave® GFC Corrector comes in a very compact package that includes a smart gauge pressure sensor assembly, battery/solar power system and a broad selection of modem and radio communications options.*

- Ample processing horsepower means that users need not worry about running out of resources for demanding applications
- Multitasking kernel securely manages multiple automation, communication and measurement operations
- For users wishing to write their own programs, or modify ours, we offer a complete, IEC 61131-3 programming environment and full support from Emerson Process Management is available, every step of the way.

After more than 90 years in process control and 115 years in measurement, Emerson remains committed to delivering superior life cycle economics to automation and measurement systems, today and tomorrow. We are proud to offer ControlWave GFC Corrector, a product that stands up to the tradition.

## Product Overview

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# Bristol® ControlWave® GFC Corrector

## Bristol ControlWave GFC Corrector at a Glance

### Base Configuration

- Integral electronics assembly with the following major components:
  - ARM9 CPU platform
  - RS 232 Serial Local Port and Network port
  - Third serial port, RS 485
  - Dc/dc section accepts nominal 6 Vdc or 12 Vdc input power
  - Display/keypad interface
  - Dedicated interface for smart pressure transducer assembly
  - Three-wire RTD interface
  - 2 DI/ pulse input points
  - Charge regulator for use with the solar panel and lead acid cell battery
  - Switch output for operation of auxiliary devices such as a radio
- Pre-loaded application program for a 2-meter run M&R station
- Weatherproof Lexan housing, 15.77" H x 7.8" W x 9.0" D

### Selection Options

- I/O selections:
  - 2 DI/DO, 4 DI, 2 DO, 2 high speed counter inputs
  - 2 DI/DO, 4 DI, 2 DO, 2 high speed counter inputs, plus 3 AI
  - 2 DI/DO, 4 DI, 2 DO, 2 high speed counter inputs, plus 3 AI and 1 AO
- Display/Keypad Options: 2-line LCD with 2 push-buttons or no pushbuttons, or a 4-line LCD with 25-key keypad

- Hazardous area approval – either Class I Division 1 or Class I, Division 2
- Internal power systems selections are as follows:
  - Single, 7.2 V lithium battery
  - Dual, 7.2 V lithium battery
  - 6 V, 7 AH lead acid cell battery with 1 Watt solar panel
  - 12 V, 7 AH lead acid cell battery with 4.5 Watt solar panel
- Emerson's Bristol smart sensor assembly, which provides measurement of gauge pressure – available in the following ranges:
  - 100" (inches H2O); 25 psi; 100 psi; 300 psi; 1000 psi and 2000 psi
- Bendable RTD assembly, pre-wired, available with cable length of 6 feet, 15 feet or 25 feet
- Thermowell, available in insertion lengths of 2 ½", 4 ½" and 7 ½"
- Standard model modem or radio, installed on an internal plate and connected to the network port (RS 232); the following radios are available:
  - Freewave spread spectrum
  - MDS Transnet 900 spread spectrum
  - MDS 4710 A and B licensed
  - MDS 9710 A and B licensed
  - MDS 9810 spread spectrum
  - MDS entraNet IP spread spectrum (Access Point, Ethernet Remote and Serial Remote models)
  - MDS iNet Ethernet Radio (Access Point/Remote Dual Gateway, Remote Serial Gateway and Remote Ethernet Bridge models)
  - "Radio ready" configurations are also available for each of the radios listed, above.
  - Dial-up modem
- Polyphaser surge suppressor for radio
- TeleCounter pulser assembly

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