



# BFC-4 (4) Channel Controllers



## BFC-4 Controller with Serial Interface



The BFC-4 Quad Channel Controller provides simultaneous display and alarm functions for up to four transmitters or sensors. Easy to configure and user friendly, the BFC-4 can function as a critical alarm controller for toxic combustible gases, flame detection as well as other customizable values. Available with 900 MHz or 2.4GHz wireless send / receive capabilities.

### FEATURES

- Accepts inputs from up to four 4 – 20 mA sensors or transmitters as well as Buckeye Detection Systems wireless transmitters. Generates 24VDC external device power for transmitters and other devices.
- Three adjustable independent alarm levels per channel. “Relay Acknowledge” feature allows silencing of external audible devices during alarm conditions.
- Graphic LCD readout displays monitored data as bar graphs, engineering units and 30 minute trends. Alarm LED’s flash with new alarms and become steady after acknowledgement.
- Two standard programmable SPDT alarm relays are configurable for Horn, High, Warn or Fault conditions.

### ADDITIONAL FEATURES

- Modbus® master / slave RS-485 serial port interfaces to Modbus® devices such as other Buckeye Detection Systems controllers, PLC’s, DCS and PC’s.
- Cal Mode offers push button zero / span calibration functionality for direct sensor input applications.
- Authorization mode allows locking of critical configuration settings.
- Touch and magnetic keypad are standard for non-intrusive operation in potentially hazardous locations.
- Enclosures include: Non-metallic, Epoxy Coated Steel, 316 S.S., NEMA 4X, and NEMA 7 explosion proof wall mount options.
- Certified to CSA C22.2.No. 152 for combustible detection and Class I, Division 2, Groups A, B, C and D.
- Non-volatile memory retains all configuration data indefinitely.
- RS-485 Modbus® master / slave port for up to 128 devices to be multi-dropped on a single data high way for interrogation by another Modbus® master.
- Six additional 5 amp SPDT discrete channel alarm relays available. (Two are standard)
- 4 – 20 mA outputs, event log, strobe lights and audible annunciators are also available.
- 50 and 120 Watt 24VDC power supplies are available.

## **SPECIFICATIONS**

### **Inputs**

Available inputs include 4 – 20 mA with precision 100 ohm terminating resistor (0 – 2 volt inputs may be accepted by removing the socketed terminating resistor) and catalytic bead / IR sensor inputs with adjustable sensor excitation and balance settings. Accepts Buckeye Detection Systems 900 MHz or 2.4GHz wireless transmitter inputs.

### **Standard Alarm Relays**

Two programmable 5 amp 30VDC or 250VAC resistive form C.

### **Analog Outputs (Optional)**

10 bit 4 – 20 mA output. Max load 800 ohms with nominal 24VDC power supply.

### **Discrete Alarm Relays (Optional)**

Six programmable 5 amp 30 30VDC or 250VAC resistive Form C.

### **Serial Port (Optional)**

Master / Slave RS-485 port equipped with Tx / Rx LED's.  
Protocol is Modbus® RTU.

### **Display**

128 x 64 pixel graphic LCD with backlight. Displays bar graphs, trends and engineering units. Six discrete LED's indicate alarm status, Cal Mode and keypad activity.

### **Ambient Temperature Range**

-25° - 60° C (-13° - 140° F)

### **Power Supply**

100 – 240VAC / 10 – 30VDC are standard primary power supplies.

### **Approvals**

CSA 22.2 No. 1010.1 and C22.2 No. 152 for combustibles and ISA S82.02; UL 1604 / C22.2 No. 213 (NEMA-4X = Division 2 Groups A, B, C and D.  
EN55011 and EN61000 (CE Mark)  
BFC90-12 = NEMA 7 Division 1 Group B, C and D.

### **Models**

BFC-4PY in Non Metallic enclosure  
BFC-4PCS in NEMA 4X painted carbon steel enclosure  
BFC-4SS in NEMA 4X, 316 S.S. Steel enclosure  
BFC-4XP in bolt on lid NEMA 7 cast aluminum enclosure



## Warehouse Distribution Centers

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