CR-4000
"The Independent"

BW Technologies

Four Channel Gas Detection Controller

Loop Powered

Provides 24 VDC power to the gas sensing transmitter

CSA C US   CE   **ISO 9001**

Fixed Gas Monitoring Systems

FEATURES

For continuous monitoring and control of toxic gases, combustible gases and oxygen hazards, the CR-4000 is designed for installation and operational simplicity.

△ *"STATUS at a Glance"* Individual continuous alphanumeric *"Status"* LCD for each channel

△ Slim profile, depth only 2.4 inches (6.35 cm)

△ Easy Installation - simply hang on the wall, connect the power (AC or DC) and gas transmitters

△ Local 85 dB audible alarm

△ Field programmable alarm levels on each channel

△ Simple operation

△ Mix, match or change the gases monitored

△ Three standard common, 10 amp SPDT relays. Low, High and Fault general Alarms

△ Up to eight additional discrete relays - 2 per channel for LOW and HIGH Alarms. Each channel is programmable for energized/de-energized, latching/non-latching and audible ON/OFF

△ Multi-functional external RESET. Can be used to reset or cancel all latched alarms; displays Peak (maximum) gas detected on each channel and tests all audible/visual alarms

△ Accepts 4-20 mA signal input from any 4-20 mA gas transmitter

Ordering Information

CR-4000 4-20 mA AC/DC Controller

Accessories and Options
Optional 10 amp SPDT Low and High Alarm relays
CR4-R1000	Channel 1
CR4-R1200	Channels 1/2
CR4-R1230	Channels 1/2/3
CR4-R1234	Channels 1/2/3/4

CR4-BAT1 Battery Back-up (110/220 VAC or 24 VDC)

Compatible with BW 4-20 mA Gas Transmitters
GasPoint	CD-420
GasPoint IR	ToxyPoint
I. S. Plant Rat	RRJ Monitors

CR-4000

Four Channel Gas Detection Controller

Simply select the pre-programmed channel switch for:

△ Gas type
△ Sensor range
△ Alarm level

Standard Common Relays (included)
High alarm, Low alarm and Fault

Special Features

Records and Displays Peak (Max) gas detected by each channel on demand.

Auto Fuses protect all circuits. Fuses reset automatically when the circuit power returns to normal. No fuse replacement required.

Accessories and Options

Relays (up to eight)
Two (2) factory installed 10 amp SPDT relays per channel. The Low Alarm/High Alarm independent discrete relays are user adjustable for power and assignment, including normally energized/de-energized, latching/non-latching, zoning (Park) and audible alarm activation.

Battery Back-up
The two (2) 1.2 amp hr. 12 volt batteries can be installed at any time in the field.

Select from the BW family of 4-20 mA gas transmitters:
- GasPoint • GasPoint IR • CD-420
- I.S. Plant Rat • ToxiPoint • RRJ

CR-4000 Gas Detection Channels
Measuring Ranges Applicable

Combustibles: 0-100% LEL
Oxygen: 0-25% v/v
H_2S: 0-20, 0-50, 0-100, 0-500 ppm
CO: 0-50, 0-100, 0-200, 0-500, 0-1000 ppm
SO_2: 0-10, 0-20, 0-50, 0-100 ppm
NH_3: 0-50, 0-100 ppm
Cl_2: 0-5.0, 0-10.0, 0-100 ppm
HCN: 0-20.0, 0-50.0, 0-100 ppm
NO: 0-50, 0-100 ppm
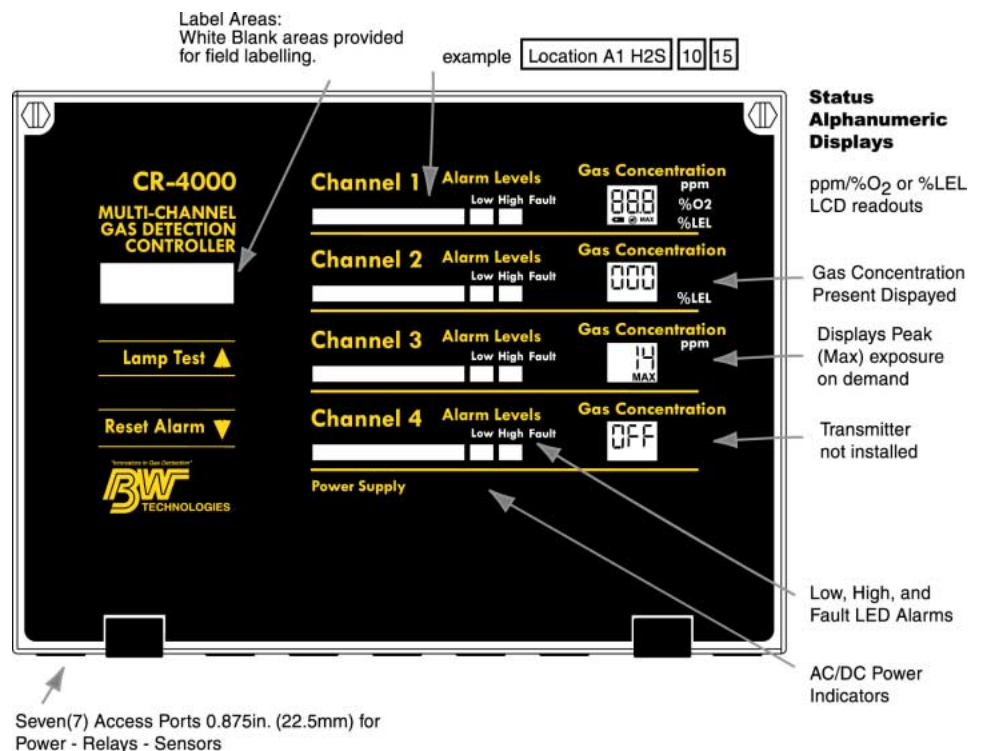NO_2: 0-10.0 ppm

"INNOVATORS IN GAS DETECTION"

BW Technologies

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CR-2001/1

SPECIFICATIONS

POWER:	Field selectable for AC (115 and 230 VAC) or DC (24 VDC)
AC Input:	115 VAC 50-60 Hz standard; 230 VAC 50-60 Hz
DC Input:	24 VDC (18 to 28 VDC)
Back-up:	Optional battery back-up 24 VDC supply. Approx. 3 hours in normal operation

ENVIRONMENTAL

Operating Temperature:	-4 to +122°F (-20 to +50°C)
Relative Humidity:	5 to 99% non-condensing
Enclosure Rating	Nema 12

PHYSICAL

Dimensions (dxwxh):	2.4 x 13 x 9.5 inches (6 x 33 x 24 cm)
Weight:	4.85 lb. (2.2 kg)
Enclosure:	Enameled steel RFI/EMI protected
Wire Terminations:	Screw type terminal blocks
Wiring Ports:	Seven (7) each 3/4 inch (22 mm) NPT ports
Mounting:	Wall mounted—equipped with hanging slots and hinged door

ALARMS:

	Two set points—user programmable—with simple rotary switch
Audible:	85 dB buzzer

OUTPUTS

	SPDT relays; 10 amp @ 110 VAC/24 VDC, 8 amp @ 230 VAC
Alarm Relays:	Standard: One (1) common low gas alarm, de-energized, non-latching
	One (1) common high gas alarm, de-energized, latching
	One (1) common fault alarm, normally energized, non-latching
	Optional: Two (2) per channel; one (1) low gas and one (1) high gas alarm
	Field selectable: energized/de-energized; latching/non-latching;
	zoning (Park) function and audible alarm ON/OFF

DISPLAY PANEL

Backlit LCDs:	Four (4) independent 3 digit alphanumeric *Status* displays
	Field selectable readouts for: %LEL, PPM and/or O_2 % v/v.
LED Indicators:	Alarms: Three (3) - "LOW" (red), "HIGH" (red), "FAULT" (amber)
	Power: Two (2) "ON" AC icon (green), DC icon (green)
	Gas: Concentration Icons — ppm, %LEL , %O_2,

CONTROLS:

	Two (2) large push-buttons: Alarm Reset/Acknowledge, Peak exposures, Lamp Test (audible/visual alarm test)
	Alarm set points: Simple Up/Down buttons

WARRANTY: Two (2) years non-prorated

DUE TO ON-GOING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

RATINGS AND CERTIFICATIONS: cCSAus Ordinary locations
International Electrical Code: IEC No. 1010
U.S. Standard: ANSI/ISA S82.01
Canadian Standard Electrical Code: C22.2 No. 1010

Label Areas:
White Blank areas provided for field labelling.

example   Location A1 H2S 10 15

CR-4000
MULTI-CHANNEL
GAS DETECTION
CONTROLLER

Channel 1 Alarm Levels Low High Fault Gas Concentration ppm %O2 %LEL
Channel 2 Alarm Levels Low High Fault Gas Concentration %LEL
Channel 3 Alarm Levels Low High Fault Gas Concentration ppm
Channel 4 Alarm Levels Low High Fault Gas Concentration
Lamp Test ▲
Reset Alarm ▼
Power Supply

Status Alphanumeric Displays

ppm/%O2 or %LEL LCD readouts

Gas Concentration Present Dispayed

Displays Peak (Max) exposure on demand

Transmitter not installed

Low, High, and Fault LED Alarms

AC/DC Power Indicators

Seven(7) Access Ports 0.875in. (22.5mm) for Power - Relays - Sensors

Nongbang Electrical and Mechanical Technology Ltd