# Series FX-1500ᵥ4
# Toxic Gas Detectors

The Foxcroft FX-1500v4 toxic gas detector, relied on for over 20 years, now features the simplest, most user friendly interface available.

There is no need to disassemble the detector for configuration, to look up code numbers in tables, or to set DIP switches and jumpers. Simply tap the buttons on the glass touch screen to configure the relays.

It can detect and alert you to minute levels of chlorine, ammonia, sulfur dioxide, low oxygen and other gases.

The microprocessor can accept software upgrades and feature enhancements.

Sound design and rugged high quality components deliver the long service life and dependability you need in a safety device.

## Features

- Remote display with one or two gas sensors

- Crystal clear 4.3" full color glass touch screen interface displays concentration, alarm status and onscreen configuration. Rated 1 million touches.

- High visibility 1" x 1.75"minimum alarm status fields, color coded for sensor status, alarm level and sensor fail for each channel.

- Universal AC input 24VDC power supply, no voltage selection needed. Optional 24VDC battery power for remote locations.

- Dependable 3-electrode electrochemical gas sensor combines fuel cell technology with a diffusion limited barrier, providing low maintenance, quick response and stability for long periods of time.

- (3) Gas alarm levels, non-adjustable to prevent erroneous  level entry, set to OSHA, NIOSH and ACGIH recommendations

- (1) 4-20mA output per channel, auto scaled to sensor range, for SCADA or network monitoring

- (4) 10A SPDT  form C Alarm relays per channel and (1) Sensor fail relay, 1A SPDT form C per channel

Single Channel FX-1500v4

Dual Channel FX-1502v4

# Technical Data, Foxcroft Series
# FX-1500ᵥ4 Gas Detector

## Gas Sensor

3-Electrode, electrochemical fuel cell

## Response Time (T90)

<60 Seconds at 20°C. Typically <8 seconds to full alarm

**Accuracy:** 0.1 PPM (@20 degree C)

**Resolution:** 0.1 PPM

**Long-term Sensitivity Drift:** <2% signal loss per month

**Temperature Range:** -20°C to +50°C (-4°F to 122°F)

**Humidity Range:** 15 - 90 % (non-condensing)

## Three Gas Alarm Levels, Non-Adjustable

Danger, Warning (set at OSHA, NIOSH and ACGIH recommendation), Caution. Non-standard alarm levels and operating ranges available optionally

## Sensor Fail Alarm

Indicates loss of sensor input >4 minutes or a break in the sensor circuit

## Visual Concentration, Status & Alarm Indication

3/8" high numeric concentration display. Both text description and color coded 1" x 1.75" minimum alarm status fields for each gas alarm level and sensor fail. White=OK, Yellow=Caution, Warning=Orange, Red=Danger, Sensor Fail=Blue, Red LED on the local sensor enclosure.

**Audible Alarm Notification:** 100 dB piezo buzzer

## Separate Silence & Reset Buttons

Displayed on the touch screen to silence the buzzer, reset the relays and alarm status if gas is below alarm levels.

**Operating Voltage:** Filtered 24VDC

## Power Supply

88-264 Volts AC, 50/60 Hz input, switching, 2.2A, 52.8W, no voltage selection is required

24VDC battery powered optional, 20VDC minimum to energize relays

## Power Connection

6A fused IEC #320-C14 inlet power input module, includes detachable 2-meter power cord with IEC #320-C13 and NEMA 5-15 connectors

**Power Consumption:** <10 watts

## Display

4.3" Resistive full color glass LCD touch screen, 480 x 272 screen resolution, 4MB flash memory, rated 1 million touches on any one point. Adjustable brightness. Weather resistant sealing.

## Sensor Cable

25-feet standard, up to 2,000 ft available, 22Ga, 4-conductor shielded cable
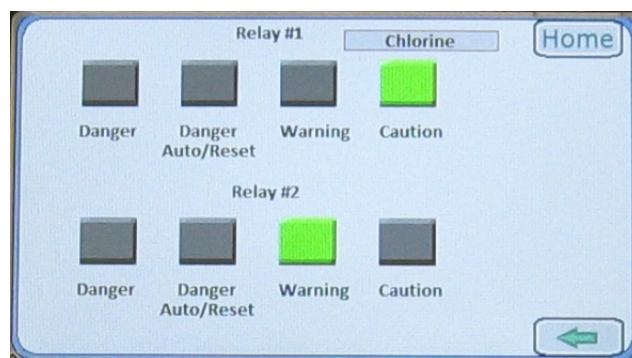
## 4-20 mA Retransmission Output

(1) 4-20mA for each channel, auto scaled to sensor range, into 750 Ohms max, diode protected to 50VDC, 2-wire

## Serial Output

RS-485 serial port (inactive as standard)

## Relay Configuration

Configure via touch screen pushbuttons without reference to lookup tables, without setting DIP switches or jumpers and without detector disassembly.



## Gas Alarm Relays

(4) 10A SPDT Form C relays per measurement channel in FX-1500 & FX-1502. Rated 10A @125 VAC, 7A @250VAC; 7A @ 28VDC resistive, onboard LED indicators.

(Two are factory-set Danger & manual reset, two are configurable to latching danger or auto reset at any alarm level)

## Sensor Fail Relays

(1) 5 VDC SPDT Form C per each channel, rated 1A @24VDC resistive, auto reset

**Alarm Setup** Onscreen page display of default gas alarm levels

# Technical Data, Foxcroft
# Series FX-1500$_V$4 Gas Detector

### Gas Sensor Life Display

Onscreen display of sensor life start and expiration dates

### Remote Silence, Reset, Test Buttons

Onscreen buttons for each channel to silence buzzer, reset relays and test sensor circuitry. Test button does not test gas sensing ability of the sensor

### Local Test Button

Normally closed switch on local sensor enclosure to test sensor circuitry, _this does not test gas sensing ability of the sensor_

### Remote Reset

Input terminal provided to reset the detector using a remote NC switch

### Screen Settings

Onscreen adjustment of screen volume and brightness

### Microprocessor Controlled Electronics

### Remote Main Enclosure

8.2" x 9.7" IP67/NEMA 4X  polycarbonate enclosure with UV stabilized polycarbonate clear door and hinged top panel.

### Local Sensor Enclosure

NEMA 4X, 4" x 4" on 7" square wall mount plate

### Storage of Sensors and Detectors

6 months if unpowered in original container

### Battery Powered UPS

A separate external battery backup / UPS is available for power loss or for locations with unreliable power**.**

Part #FX-BB110

### Order Numbers

Single channel model FX-1500v4-X

Dual channel model FX-1502v4-X-X

X=gas sensor order code

## Gas Sensors Available

| Gas | Standard Range | Order Code |
|---|---|---|
| Chlorine | 0-10 ppm | CL2 |
| Sulfur Dioxide | 0-10 ppm | SO2 |
| Ammonia | 0-100 ppm | NH3 |
| Oxygen | 0-25% | O2 |
| Carbon Monoxide | 0-500 ppm | CO |
| Chlorine Dioxide | 0-1 ppm | CLO2 |
| Hydrogen Sulfide | 0-10 ppm | H2S |
| Ozone | 0-2 ppm | O3 |
| Nitric Oxide | 0-50 ppm | NO |
| Nitrogen Dioxide | 0-10 ppm | NO2 |
| Hydrogen Cyanide | 0-10 ppm | HCN |
| Hydrogen Chloride | 0-10 ppm | HCl |

Other gas ranges and non-standard alarm levels are available optionally.



Foxcroft FX-1500v4 & FX-1502v4 Gas Detectors Dimensions