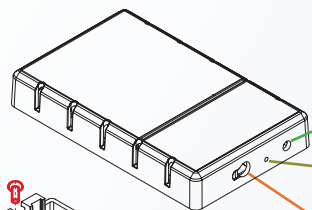




KCD Wall Mount Wiring and Calibration Instructions

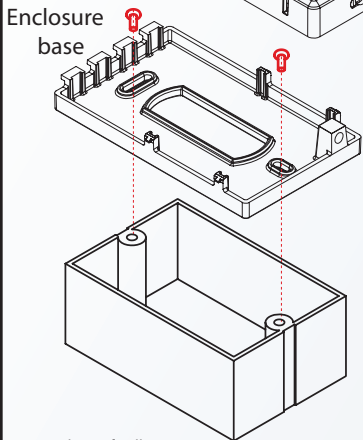
Enclosure cover



Locking Set Screw

CO2 Calibration Activation

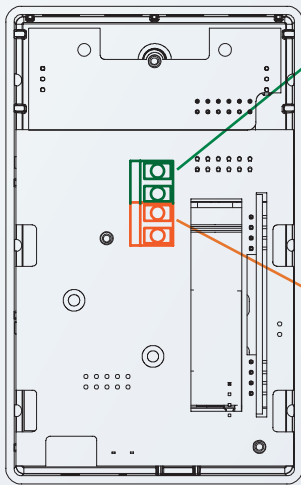
CO2 Calibration Gas Port



To wall-mount your KCD Series controller:

1. Feed wires through enclosure base and mount the base either directly onto a junction box or wall;
2. Connect wires to screw terminals on circuit board per instructions at right;
3. Align and snap enclosure cover closed;
4. Install set screw to secure enclosure cover.

Junction box is for illustration purposes: not included with KCD



Power input
18-30 VDC
18-28 VAC
(polarity matters for VDC only)

Outputs available in either
Voltage (0-10V) or Current (4-20mA)

All '-' terminals are electrically connected.

Output	Sensors
Output 1	CO2

Warning And Alarm Indication		
Sensors	Warning level LED is YELLOW	Alarm level LED is RED
CO2	1000 ppm	2000 ppm

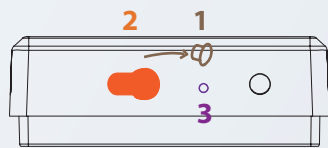
Analog Output Scaling		
	Output	CO2 ppm
Current Output	4 mA	0
	12 mA	1000
	20 mA	2000
Voltage Output	0 Volts	0
	5 Volts	1000
	10 Volts	2000

Calibration-Kit

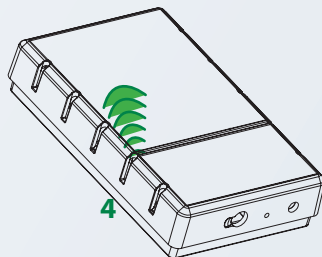


Your sensor comes factory-calibrated and does not need to be calibrated upon initial installation. Calibration kits are available.

CO2 Calibration Procedure



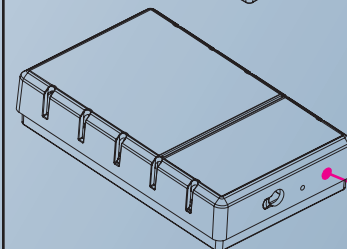
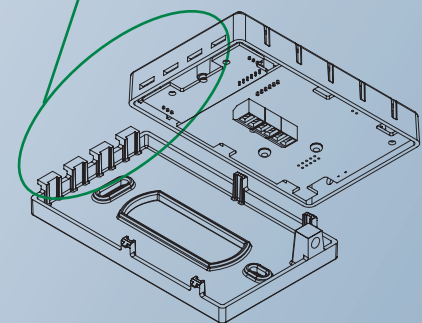
Bottom Side



Isometric View

1. Temporarily remove dust cover from left side of enclosure cover.
2. Place 2000 PPM CO2 calibration gas tube in side port and slide onto the fitting inside. Turn on gas.
3. Allow calibration gas to flow for one minute, then use a 1/16" allen wrench (or equivalent) to depress switch (inside hole 3 at left) for 5 seconds. LED will blink yellow.
4. After 5 minutes the LED will blink green. The calibration process is completed.
5. Press and hold switch (labeled 3 at left) to accept calibration. The LED will turn solid green after only a few seconds, indicating that calibration is complete.
6. At this point it is safe to turn off gas and remove gas tubing from calibration port.
7. When calibration is complete, replace dust cover on gas calibration port.

Align top and bottom latch and snap closed



Once lid is closed, back out set-screw to secure enclosure cover.

Requires 3/32" Allen wrench.

Introduction

The KCD Series is a non-dispersive infrared analyzer for measuring environmental CO2 concentration in ventilation systems and indoor living spaces. Its measurement range of 0 - 2000 ppm (parts per million; 1000 ppm = 0.1%) covers the range required to monitor compliance with ASHRAE or other ventilation efficiency standards. The KCD comes configured for:

- Wall or duct-mounting;
- Voltage or 4-20mA outputs

A simple one-point calibration procedure and a built-in calibration port that requires no special fittings or adapters make the KCD simple to operate and maintain.

Displays and Indicators

The KCD Series includes a single tri-color LED on the front panel which illuminates whenever the unit is operating. This LED indicates:

- **Green** -> CO2 sensor at normal levels
- **Yellow** -> CO2 sensor at Warning levels
- **Red** -> CO2 sensor at Alarm level
- **Blinking Red** -> Sensor error

CARBON DIOXIDE SENSOR (CO2)	
Parameter	Value
Operating Principle	Non-dispersive infrared (NDIR)
Gas Sampling Method	Diffusion
Measurement Range	0-2000 ppm
Repeatability	± 20 ppm CO2
Measurement Accuracy	± 30 ppm ± 2% of reading
Recommended Calibration Interval	5 years
Warm Up Time	Less than 1 minute
Power Requirements	18 - 30 VDC or 18 - 28 Vrms AC
Operating Temperature Range	0 - 50 °C
Operating Humidity Range	0 - 99% RH, non-condensing
Voltage Output (linear)	0 - 10 VDC full-scale standard
Optional Current Output (linear)	4-20 mA $R_{LOOP} < 600 \Omega$
Calibration	ONE Point : Single-button calibration (Patented)
Dimensions	4.5 x 2.8 x 0.9 inches



Kele

KCD Series