GAS & SPECIALTY SENSORS

CARBON DIOXIDE SENSORS
KCD SERIES

DESCRIPTION

The **Kele KCD Series** was designed to offer an economical, reliable, non-dispersive infrared carbon dioxide sensor. It measures environmental carbon dioxide levels for use in demand-controlled ventilation, air-quality monitoring, and other HVAC applications in accordance with ASHRAE standards. Voltage or milliamp analog output and convenient terminals on the wall mount make installation both simple and trouble-free. The analog output is available in 0-10 VDC or 4-20 mA, over the industry standard 0-2000 ppm CO2 range. Also has 1000 ohm platinum 385 curve or 10K ohm Either Type II or II sensor options avalible.

FEATURES

- *24 VAC/VDC power*
- *0-10 VDC or 4-20 mA output*
- *0-2000 ppm CO2 range*
- *Wall-mount and duct versions*
- *Reverse polarity protected*
- *Simple push-button calibration*
- *Factory calibrated*
- *Temperature option*

Wall Mount   **Duct Mount**

SPECIFICATIONS

Supply Voltage	18-28 VAC @ 8 VA, 50/60 Hz, reverse polarity protection or 18-30 VDC @ 330 mA	**Temperature**	
		Thermistor	10,000Ω Type II & III
		RTD	1,000Ω Platinum 385 curve
Accuracy	±3% of reading or ±40 ppm	**Operating Temperature**	31° to 122°F (0° to 50°C)
Signal Output	0-10V (10k min.) or 4-20 mA (600Ω max) (0-5V on Duct w/ Temp only)	**Operating Humidity**	0% to 99% RH (noncondensing)
		Dimensions	
Repeatability	±20 ppm	**Wall**	4.5"H x 2.8"W x 1.0"D
Measurement Range	0-2000 ppm CO2		(11.4 x 7.3 x 2.54 cm)
Sensing Technology	Non-dispersive IR (NDIR)	**Duct**	4.5"H x 2.8"W x 6.9"D
Calibration	Push button @ 2000 ppm		(11.4 x 7.3 x 17.5 cm)
Calibration Interval	5 years	**Duct probe**	1.7" (4.3 cm) diameter. 6.25"
Life Expectancy	10 years typical		(15.9 cm) long
Visual Indication	Green < 1000 ppm, Yellow > 1000 ppm, Red > 2000 ppm	**Weight**	
		Wall	0.25 lb (0.11 Kg)
Warm Up Time	3 minutes	**Duct**	0.5 lb (0.23 Kg)
Response Time	<1 minute	**Warranty**	1 year

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WIRING
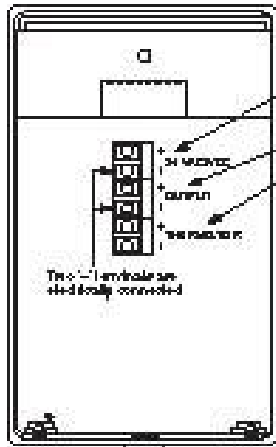
Wall Mount

Power input
20-30 VDC
18-28 VAC

Current or voltage output

Optional direct thermistor connection (amid present on all units. Check product manual for thermistor type if not present)

The '-' terminals are electrically connected

Duct Mount - Without Temp

CO2 Cal Port   UNUSED

CO2 OUTPUT   +

24 VOLTS AC or DC   +   -
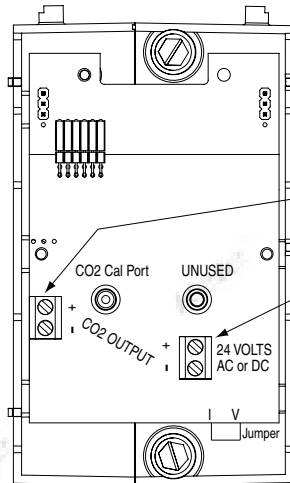
Voltage or current output '-' terminals of OUTPUT and power input are electrically connected.

Power input
18-30 VDC
20-28 VAC
(polarity applies to VDC only)
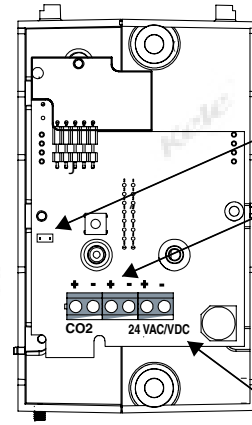
I   V   Jumper

Duct Mount - With Temp

0-10 V Jumper "off"
0-5 V Jumper "on"

Temperature (optional)

CO2   24 VAC/VDC

Power input
18-30 VDC
20-28 VAC
(polarity applies to VDC only)

* Note: On duct units with temperature options, a jumper is provided for 0-5 VDC CO2 output selection.

ORDERING INFORMATION

MODEL	DESCRIPTION			
KCD	CO2 sensor			
	MOUNTING			
	W	Wall mount		
	D	Duct mount		
		ANALOG OUTPUT		
		V	0-10 VDC*	
		A	4-20 mA	
			T85	1kΩ 385 curve RTD
			T24	10kΩ Type II thermistor
			T3	10kΩ Type III thermistor

KCD	–	W	–	V	T3

Example: **KCD-W-V-T3** Wall-mount CO2 sensor with 0-10 VDC output

* Note: On duct units with temperature options, a jumper is provided for 0-5 VDC CO2 output selection.

ACCESSORIES

691-K0A	Control transformer, 120:24 VAC, 40 VA, Class 2
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT
DCPA-1.2	Power supply, 120 VAC In to 24 VAC/24 VDC Out
GAS-CO2-2000	2000 ppm carbon dioxide (CO2) in nitrogen (N2), 17L
UCK-1	Universal calibration kit for non-corrosive gases (N2, CO2, CH4, H2, O2, CO, and refrigerants)

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