



# GAS & SPECIALTY SENSORS

## CARBON DIOXIDE SENSORS

**5001, 8041**

### DESCRIPTION

The **Models 5001 and 8041** Carbon Dioxide sensors are designed to monitor the CO<sub>2</sub> levels to provide an indication of occupancy for use in demand-controlled ventilation according to ASHRAE Standard 62. **Model 5001** wall-mount carbon dioxide sensors are designed to monitor the CO<sub>2</sub> concentration in a room. The **Model 8041** is a duct-mount sensors with 4" probes that monitor the carbon dioxide levels inside a duct air stream. Each model outputs a 0-10 VDC signal representing a 0-2000 ppm concentration of CO<sub>2</sub>.

### FEATURES

- **Analog output, 0-10 VDC**
- **ABC Logic(tm) automated calibration**
- **Non-dispersive infrared technology**
- **Models 8041, 8042 senses in duct air stream**



Distributor  
GE Sensing & Inspection Technologies



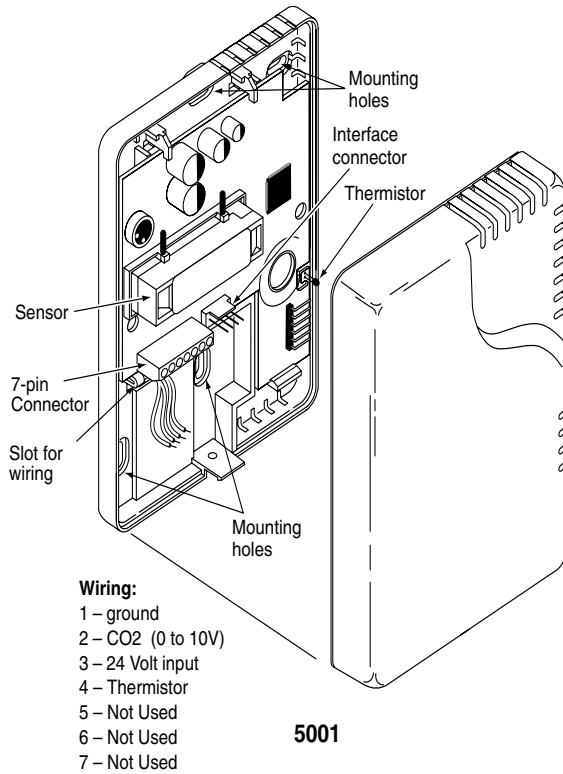
### SPECIFICATIONS

<b>Supply Voltage</b>	18-30 VAC @ 1.8 VA, 50/60 Hz reverse polarity protected or 18-42 VDC @ 15 mA
<b>Signal Output</b>	
CO <sub>2</sub>	0-10 VDC
Temperature	20k $\Omega$ ThermistorType 42
<b>Minimum Output</b>	
Impedance VDC	1000 $\Omega$
<b>Accuracy</b>	
5001	$\pm 100$ ppm @ 72°F (22°C)
8041	$\pm 40$ ppm + 3% reading
<b>Linearity</b>	<1% of FS
<b>Stability</b>	<2% FS over life of sensor
<b>Pressure Dependence</b>	0.13% of reading per 0.54" W.C. (1 mm Hg)
<b>Temperature Dependence</b>	0.1% FS per °F (0.2% FS per °C)
<b>Measurement Range</b>	0-2000 ppm (factory setting)
<b>Calibration Interval</b>	None, uses ABC Logic (Automatic Background Calibration)
<b>Warm Up Time</b>	<2 minutes operational, 10 minutes to maximum accuracy
<b>Response Time</b>	3-5 minutes for 90% step change

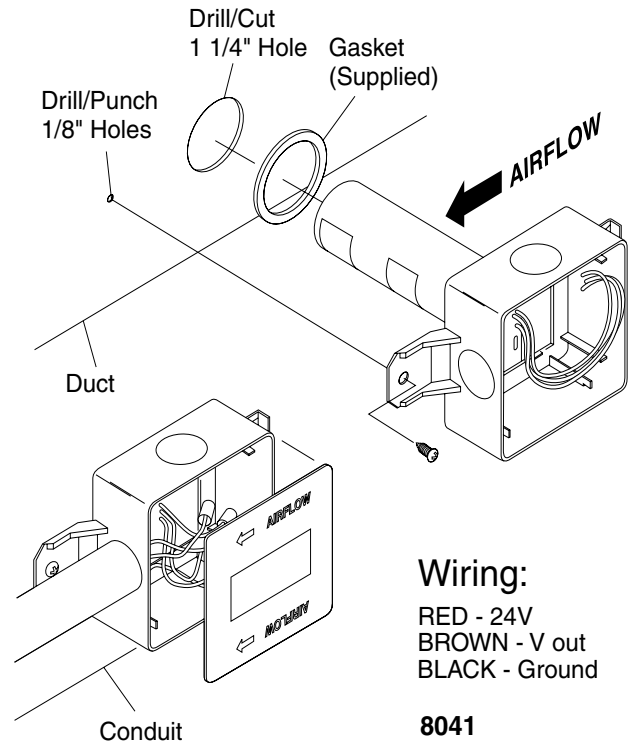
<b>Wiring Terminations</b>	
5001	Screw terminals for 18-28 AWG
8041	Leads
<b>Operating Humidity</b>	0% to 95% RH, noncondensing
<b>Operating Temperature</b>	32° to 122°F (0° to 50°C)
<b>Dimensions</b>	
5001	4.75"H x 3.25"W x 1.00"D (12.1 x 8.3 x 2.5 cm)
8041	3.05"H x 3.05"W x 1.58"D (7.46 x 7.46 x 4.02 cm)
<b>Probe</b>	4.12" long x 1.24" dia. (10.5 x 3.14 cm)
<b>Weight</b>	
5001	0.4 lb (0.11 kg)
8041	0.5 lb (0.23 kg)
<b>Approvals</b>	FCC Part 15 Class B, CE, RoHS
<b>Warranty</b>	1.5 years



### WIRING



5001



1. Before installing sensor, note the direction of the airflow. Ensure all mounting holes are sealed tightly.
2. Drill/Cut one 1-1/2" hole / Punch/Drill one 1/8" hole.
3. Slide sensor into 1-1/2" hole and secure with screws.
4. Connect conduit and make necessary wire connections.
5. Install lid, ensure it snaps into place.

### ORDERING INFORMATION

MODEL	DESCRIPTION
5001	Wall-mount carbon dioxide sensor, 0-10 VDC analog output
8041	Duct-mount carbon dioxide sensor, 0-10 VDC analog output, 4" probe

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 }