



# GAS & SPECIALTY SENSORS

## CARBON DIOXIDE SENSORS

**5001, 8041, 8042**

### DESCRIPTION

The **Model 5001** and **Models 8041, 8042** 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 **Models 8041 and 8042** have a probe to monitor the carbon dioxide inside a duct air stream. All units output a 0-10VDC signal representing a 0-2000 ppm concentration of CO<sub>2</sub>.

### FEATURES

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



Distributor  
GE Sensing & Inspection Technologies



5001



8041



### SPECIFICATIONS

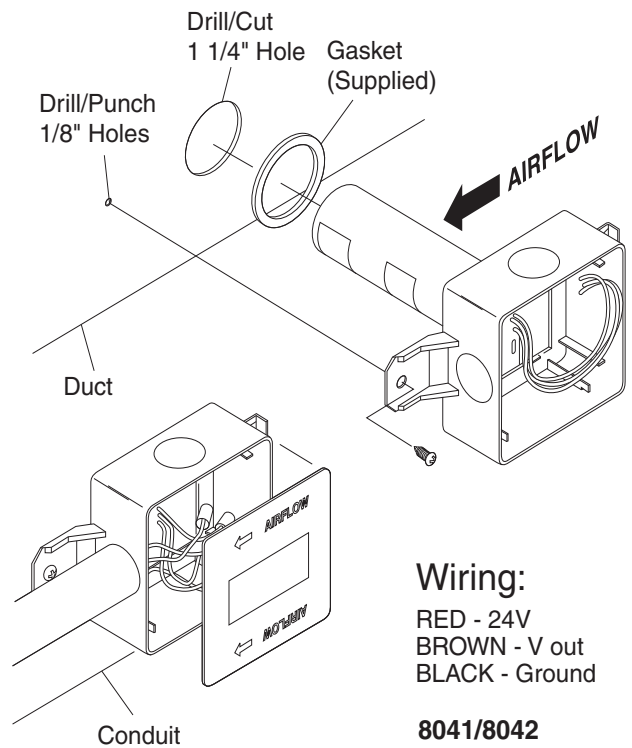
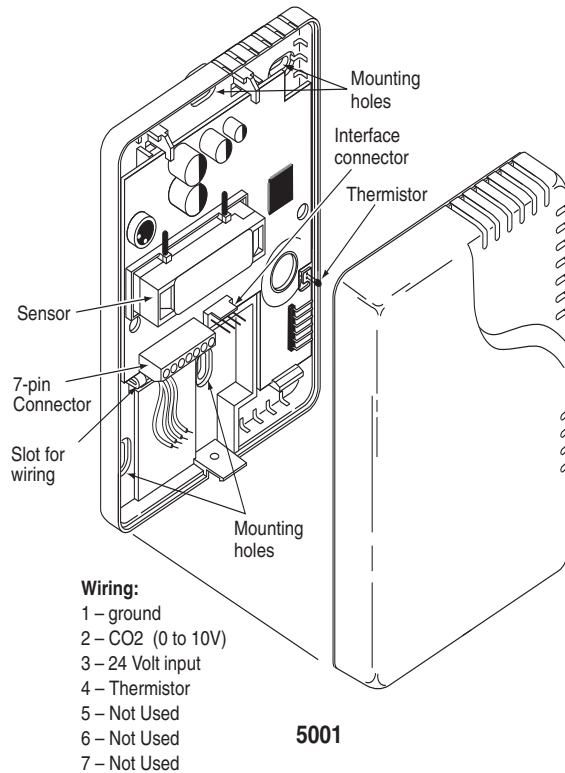
<b>Supply Voltage</b>	18-30 VAC RMS, 50/60 Hz or 18-42 VDC, polarity protected	<b>Response Time</b>	3-5 minutes for 90% step change
<b>Supply VA (5001)</b>	1.75 VA average, 3.25 VA peak	<b>Operating Humidity</b>	0% to 95% RH, noncondensing
<b>Supply Watts (8041/8042)</b>	0.65 watts average, 1.65 watts peak	<b>Operating Temperature</b>	32° to 122°F (0° to 50°C)
<b>Signal Output</b>	0-10 VDC	<b>Enclosure Rating</b>	Flammability UL 94V-5
<b>Minimum Output Impedance</b>	1000Ω	<b>Wiring Terminations</b>	Screw terminals for 18-28 AWG
<b>Accuracy</b>		<b>Dimensions</b>	
<b>5001</b>	±100 ppm @ 72°F (22°C)	<b>5001</b>	4.75"H x 3.25"W x 1.00"D (12.1 x 8.3 x 2.5 cm)
<b>8041/42</b>	±40 ppm + 3% reading	<b>8041/42</b>	Enclosure: 3.05"H x 3.05"W x 1.58"D (7.46 x 7.46 x 4.02 cm)
<b>Linearity</b>	<1% of FS	<b>8041 Probe</b>	4.09"L x 1.24"Ø (10.5 x 3.14 cm)
<b>Stability</b>	<2% FS over life of sensor	<b>8042 Probe</b>	8.07"L x 1.24"Ø (10.5 x 3.14 cm)
<b>Temperature Dependence</b>	0.1% FS per °F (0.2% FS per °C)	<b>Approvals</b>	FCC Part 15 Class B, CE, RoHS
<b>Pressure</b>	0.13% of reading per 0.54" W.C. (1 mm Hg)	<b>Weight</b>	
<b>Measurement Range</b>	0-2000 ppm (factory setting)	<b>5001</b>	4 oz (0.11 kg)
<b>Calibration Interval</b>	None, uses ABC Logic (Automatic Background Calibration)	<b>8041</b>	8 oz (0.23 kg)
<b>Warm Up Time</b>	<2 minutes operational, 10 minutes to maximum accuracy	<b>8042</b>	9 oz (0.23 kg)
		<b>Warranty</b>	2 years



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### WIRING



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.

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### ORDERING INFORMATION

MODEL	DESCRIPTION
<b>5001</b>	Wall-mount carbon dioxide sensor, 0-10 VDC analog output
<b>8041</b>	Duct-mount carbon dioxide sensor, 0-10 VDC analog output, 4" probe
<b>8042</b>	Duct-mount carbon dioxide sensor, 0-10 VDC analog output, 8" probe