## **GAS & SPECIALTY SENSORS**

# CARBON DIOXIDE SENSORS *T5100, 8041*



#### **DESCRIPTION**

The Telaire/Amphenol Advanced Sensors Models T5100 and 8041 Carbon Dioxide sensors are designed to monitor the CO2 levels to provide an indication of occupancy for use in demand-controlled ventilation according to ASHRAE Standard 62. Model T5100 wall-mount carbon dioxide sensors are designed to monitor the CO2 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 CO2.





8041





### FEATURES

- Analog output, 0-5/10 VDC (field selectable) or 4-20 mA models
- ABC Logic(TM) automated calibration
- Non-dispersive infrared technology



SPECIFICATIONS			
Supply Voltage		Warm Up Time	<2 minutes operational, 10 minutes
8041	18-30 VAC @ 1.7 VA, 50/60 Hz	16	to maximum accuracy
	reverse polarity protected or	Response Time	3-5 minutes for 90% step change
100	18-42 VDC @ 70 mA	Pressure	0.13% of reading per 0.54" W.C.
T5100	18-30 VAC @ 0.7 VA, 50/60 Hz;		(1 mm Hg)
	18-42 VDC @ 29 mA	Wiring Terminations	Leads, Terminals
Accuracy		Operating Temperature	32° to 122°F (0° to 50°C)
8041	Whchever is greater ±40 ppm	Operating Humidity	0% to 95% RH, noncondensing
	or 3% reading	Dimensions	100
T5100	Whichever is greater ±30 ppm	T5100-X	3.05"H x 3.05"W x 1.58"D
	or 3% reading		(7.46 x 7.46 x 4.02 cm)
Signal Output	0-5/10 VDC @ $1k\Omega$ , Field selectable,	8041	4.6"H x 3.2"W x 1.0"D
	4- 20 mA @ 500Ω		(11.6 x 8.1 x2.5 cm)
Linearity	<1% of Full scale	Weight	
Stability	<2% Full scale over life of sensor	T5100-X	0.4 lb (0.11 Kg)
Temperature		8041	0.5 lb (0.23 Kg)
Dependence	0.1% Full scale per °F	Approvals	CE, RoHS
	(0.2% FS per °C)	Warranty	2 years
Measurement Range	0-2000 ppm (factory setting)		
1		I .	

**Calibration Interval** 

None, uses ABC Logic (Automatic

**Background Calibration**)

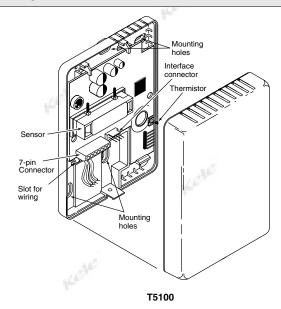


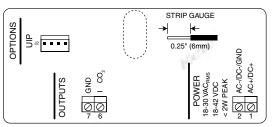
### **GAS & SPECIALTY SENSORS**

### **CARBON DIOXIDE SENSORS**

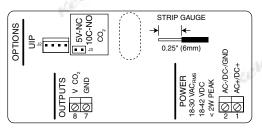
T5100, 8041

### **WIRING**

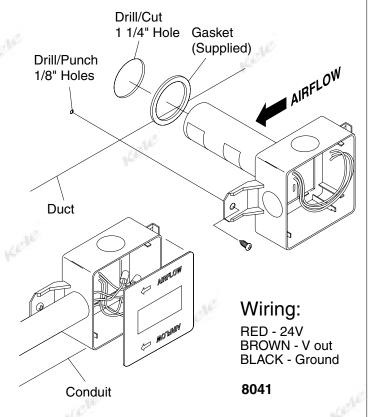




T5100-I



T5100-V



- 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 8041	DESCRIPTION Duct-mount carbon dioxide sensor, 0-10 VDC analog output, 4" probe	
T5100-V	Wall-mount carbon dioxide sensor, 0-5/10 VDC analog output, field selectable	
T5100-I	Wall-mount carbon dioxide sensor,4-20 mA analog output	
T5100-LED	Wall-mount carbon dioxide sensor,4-20 mA analog output with LED	

#### **RELATED PRODUCTS**

UCK-1 Universal calibration kit for non-corrosive gases (N2, CO2, CH4, H2, O2, CO, and refrigerants) **DCPA-1.2** Power supply, 120 VAC IN to 24 VAC/24 VDC OUT 691-K0A Control transformer, 120:24 VAC, 40 VA, Class 2 DCP-1.5-W Power supply, 24 VAC IN to 24 VDC OUT