



CDD 041

Features

- Output 0-10 Vdc
- Measures 0-2.000 ppm
- Power supply 24 Vac/dc
- Accuracy +/-40 ppm or 3% of reading
- No calibration required
- Lifetime calibration guarantee

Technical data

Measurement range	0-2000 ppm factory calibrated
Duct air velocity	0 to 450 meter/min
Temp dependence	0.2% of full scale per °C
Stability	<2% of full scale over the life of the sensor (15 years typical)
*Accuracy	±40 ppm +3% of reading at +22°C
Non-linearity	<1% of full scale at +22°C
Pressure dependence	0.13% of reading per mm of mercury
*Calibration	Sensors will be calibrated at zero and span at the factory. Calibration in the field will not be required.
Response time	3 minutes typical for a 90% step change at low duct speeds.
Sampling rate	Every 2 seconds, 25% duty cycle
Warm-up time	< 2 minutes (operational); 10 minutes to achieve maximum accuracy
Operating conditions	
- Temperature:	0°C to +50°C
- Humidity:	0 to 95% relative humidity, non-condensing
Storage conditions	-20°C to +70°C
Output	Analog 0 to 10 Vdc (100 ohm output impedance)
Power supply	18 to 30 Vac RMS, 50/60 Hz or 18 to 42 Vdc, polarity protected.
Power consumption	Typical values (1.65 watts peak, 0.65 watts avg. at 42 Vdc)
Color	Grey (6Y6275)
Flammability classification	UL 94V-5

*Note:

The CDD 041 software for selfcorrection of drift to better than ±20 ppm per year. The system is virtually free of maintenance and typically has a lifetime of more than 10 years.

Application

CO₂ transmitters can be used in a broad range of applications including air quality monitoring in buildings.

CO₂ concentration levels in buildings are monitored to provide an indication of occupancy and to drive a ventilation control strategy.

An effective DCV (DemandControlled Ventilation) strategy will conserve energy and maintain indoor air quality.

Technology

The technology is based on the absorption of light in a gold-plated reflective light pipe or waveguide diffusion gas chamber.

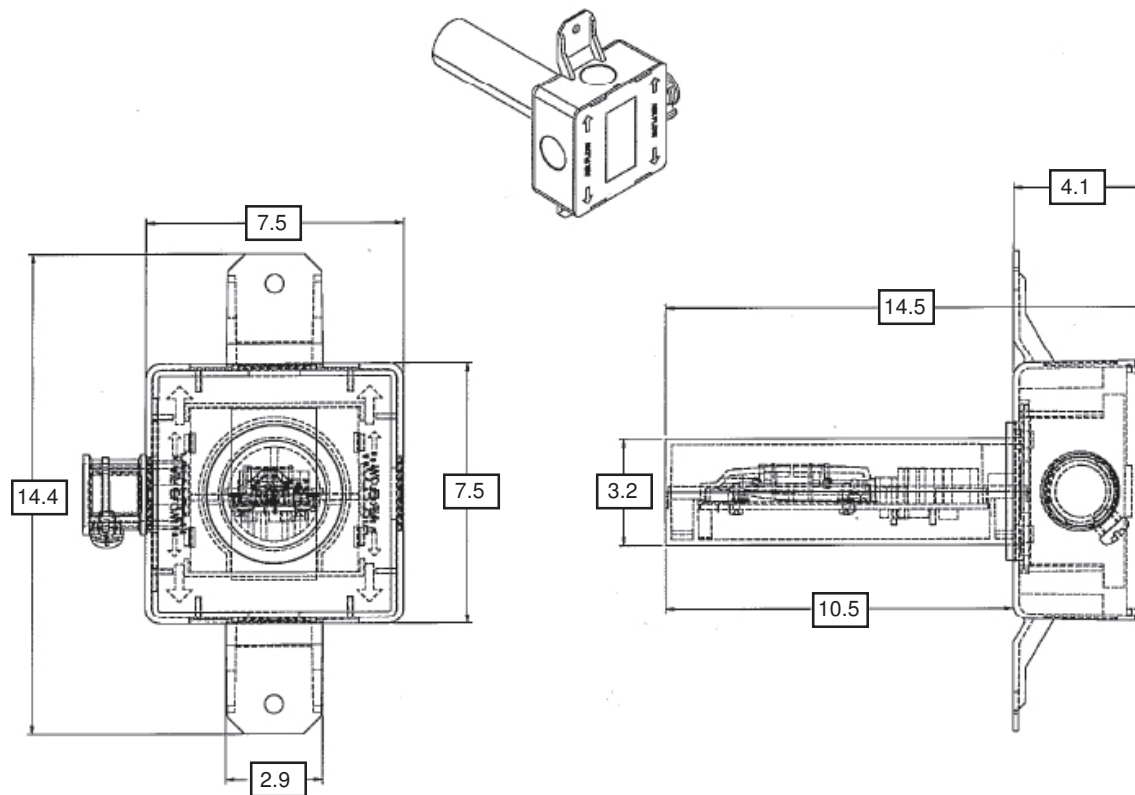
A gas permeable PTFE filter prevents particulate and water contamination of the sensor. Light is absorbed in proportion to the CO₂ concentration and the remaining light is measured and converted into an analog signal.

The CDD 041 is a CO₂ transmitter designed to be installed in HVAC return air ducts. This product offers simplicity in design and installation.

Ordering

Type no.	Description
CDD 041	carbon dioxide (CO ₂) transmitter for duct mounting output 0-10 Vdc, 0-2000 ppm

Dimensions in cms

**Wiring**

Black wire = Ground (Common)

Brown = Vout (0-10 Vdc)

Red wire = 24 V (18-30 Vac or 18-42 Vdc)

We reserve the right to make changes in our products without any notice which may effect the accuracy of the information contained in this leaflet.