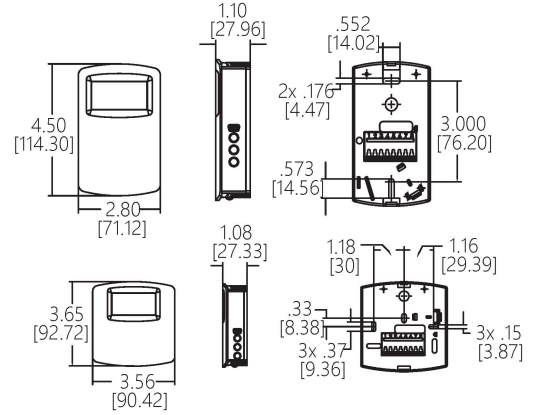


# 带通讯协议的CO2传感器

NDIR CO<sub>2</sub> 传感器，测量CO<sub>2</sub>，温度，带温度设定点



CDTC系列带通讯的二氧化碳传感器将两个室内传感器的功能组合到一个紧凑的外壳中。参数包括二氧化碳，温度和带强制设定的温度设定点。现场可选Modbus®或BACnet通讯，只需四根电线即可连接电源和通信信号。以菊链式连接在一起，更加降低安装成本。为了减少配置时间，采用自带的拨码开关设置RS-485 MAC地址。第二组拨码开关用于选择输出Modbus® RTU还是BACnet MS/TP的通信协议，并可设置菜单访问的安全级别。

和我们的CDT系列二氧化碳变送器一样，CDTC系列使用单光束双波长无弥散红外（NDIR）传感器来测量二氧化碳浓度。这项技术可用于每天24小时连续监测。为了提高精度，可以根据设备的环境条件对变送器进行现场校准。同样，可以对大气压力进行设定以校正海拔高度带来的影响。

所有参数可选自带显示或分体显示。如果建筑物使用者对于CO<sub>2</sub>浓度不了解，可以将LCD显示设置为只显示温度或温度设定点。

### 技术指标

**量程：**0-2000或5000PPM CO<sub>2</sub>（取决于型号）；0-50°C（32至122°F）温度。  
**精度：**±40PPM±二氧化碳读数的3%；温度在25°C时为±1°C。  
**响应时间：**<2分钟，扩散，二氧化碳。  
**传感器技术：**NDIR（无弥散红外）；15年光源。  
**温度限制：**0-50°C（32-122°F）。  
**输出：**2线RS-485，Modbus®RTU或BACnet MS/TP通信协议。  
**温度影响：**二氧化碳1100PPM时为±8PPM/°C。  
**非线性：**16PPM二氧化碳。  
**压力影响：**每毫米汞柱二氧化碳读数的0.13%。  
**湿度限制：**10-95%RH（无凝结）。  
**电源要求：**10-42VDC或10-30VAC。  
**重量：**125克（4.4盎司）。  
**机构认证：**BTL，CE。

### 特点与优势

- 现场可选Modbus®或BACnet通信，减少接线工作量
- 单光束双波长二氧化碳传感器
- 硬件锁定
- 可选分体显示器

### 应用领域

- 学校，办公大楼，医院和其它室内环境的通风控制
- LEED®认证

型号表	CO <sub>2</sub> 浓度量程	外壳款式	显示
CDTC-2N000	2000 PPM	北美	无
CDTC-2N000-LCD	2000 PPM	北美	有
CDTC-2E000	2000 PPM	欧洲	无
CDTC-2E000-LCD	2000 PPM	欧洲	有
CDTC-5N000	5000 PPM	北美	无
CDTC-5N000-LCD	5000 PPM	北美	有
CDTC-5E000	5000 PPM	欧洲	无
CDTC-5E000-LCD	5000 PPM	欧洲	有

配件	描述
GCK-200CO-2000CO2	校准气体套件包括一个校准零点的99.99%氮气瓶和用于校准Dwyer气体变送器量程的200PPM CO/2000PPM CO <sub>2</sub> 气瓶
A-449	LCD分体显示器用于Dwyer®墙装式变送器的验证或校准
A-CDT-KIT	附件套件，包括接线排和电源

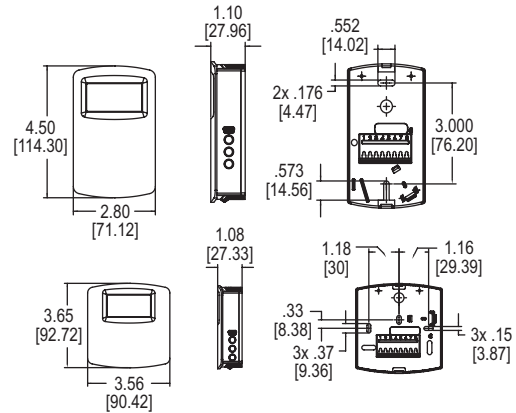
选项	描述
订购时加后缀	
-FC	工厂校准证书
举例：CDTC-2N000-FC	

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Modbus®是Schneider Automation, Inc.的注册商标。

如英文版与中文版有任何歧异，概以英文版为准。  
In case of any inconsistency between English and Chinese version, the English version shall prevail.  
2020-06 Translated and edited by William

# COMMUNICATING CARBON DIOXIDE SENSOR

NDIR CO<sub>2</sub> Sensor, Measures CO<sub>2</sub>, Temperature, Temperature Set Point, and Override



The **Series CDTC Communicating Carbon Dioxide Sensor** combines the function of two room sensors into a single, compact housing. Parameters include carbon dioxide, temperature, and temperature set point with override. By having field selectable Modbus® and BACnet Communications, only four wires are needed for power and the communication signal. The communicating detectors can be daisy chained together to further reduce installation cost. In order to reduce the set up time, the RS-485 MAC address is set up using on-board DIP switches. A second set of DIP switches are used to select whether output is Modbus® RTU or BACnet MS/TP communication protocols and to limit access to the set up menu.

Like our Series CDT Carbon Dioxide Transmitter, the Series CDTC uses a Single Beam Dual Wavelength Non-Dispersive Infrared (NDIR) sensor to measure the carbon dioxide level. This technology can be used in installations that will be occupied 24 hours per day. For improved accuracy, the transmitter can be field calibrated to the environmental conditions of the installation. Also, the barometric pressure can be programmed to correct for altitude.

Optional local and remote displays are available to display any of the parameters. For applications in which the building occupants aren't familiar with CO<sub>2</sub> concentrations, the LCD can be programmed to display temperature or temperature set point instead.

**FEATURES/BENEFITS**

- Field selectable Modbus® and BACnet communications reduce wiring
- Single beam dual wavelength CO<sub>2</sub> sensor
- Physical hardware lockout
- Optional remote display tool

**APPLICATIONS**

- Demand control ventilation in schools, office buildings, hospitals, and other indoor environments
- LEED® certification

MODEL CHART			
Model	CO <sub>2</sub> Concentration	Housing Style	Display
CDTC-2N000	2000 PPM	North American	No
CDTC-2N000-LCD	2000 PPM	North American	Yes
CDTC-2E000	2000 PPM	European	No
CDTC-2E000-LCD	2000 PPM	European	Yes
CDTC-5N000	5000 PPM	North American	No
CDTC-5N000-LCD	5000 PPM	North American	Yes
CDTC-5E000	5000 PPM	European	No
CDTC-5E000-LCD	5000 PPM	European	Yes

OPTIONS	
To order add suffix:	Description
-FC	Factory calibration certificate
Example: CDTC-2N000-FC	

SPECIFICATIONS	
<b>Range:</b>	0 to 2000 or 5000 PPM CO <sub>2</sub> (depending on model); 32 to 122°F (0 to 50°C) temperature.
<b>Accuracy:</b>	±40 PPM ±3% of reading carbon dioxide; ± 1°C @ 25°C temperature.
<b>Response Time:</b>	<2 minutes, diffusion, carbon dioxide.
<b>Sensor Technology:</b>	NDIR (non-dispersive infrared); 15 year light source.
<b>Temperature Limits:</b>	32 to 122°F (0 to 50°C).
<b>Output:</b>	2-wire RS-485, Modbus® RTU or BACnet MS/TP communication protocol.
<b>Temperature Dependence:</b>	±8 PPM / °C at 1100 PPM carbon dioxide.
<b>Non-Linearity:</b>	16 PPM carbon dioxide.
<b>Pressure Dependence:</b>	0.13% of reading per mm Hg carbon dioxide.
<b>Humidity Limits:</b>	10 to 95% RH (non-condensing).
<b>Power Requirements:</b>	10-42 VDC or 10-30 VAC.
<b>Weight:</b>	4.4 oz (125 g).
<b>Agency Approvals:</b>	BTL, CE.

ACCESSORIES	
Model	Description
GCK-200CO-2000CO2	Calibration gas kit includes a 99.99% nitrogen gas cylinder for calibrating the zero point and a 200 PPM CO / 2000 PPM CO <sub>2</sub> gas cylinder for calibrating the span point on Dwyer's gas sensing transmitters
A-449	Remote LCD display allows remote indication of select Dwyer® wall mount transmitters for validation or certification purposes
A-CDT-KIT	Accessory kit including terminal block and power supply