

Duct CO₂/VOC/Temperature/RH



Energy &
Atmosphere



Indoor
Environmental
Quality



QPM 2100 CO₂ only Sensor.

Description

The QPM Series Duct CO₂ Sensors monitor and transmit changes in CO₂ to the building control systems. Several models are available for CO₂ only, CO₂/Temp, CO₂/Temp/RH and CO₂/VOC. All variants for CO₂ and combination versions with Temperature or VOC deliver 0 to 10 Volt to 5 Volt (field selectable) proportional signals to the controller.

No calibration of the CO₂ sensor is necessary — these microprocessor-based units consist of an NDIR sensor that experiences less than 1% drift per year for the first two years of operation and negligible drift thereafter.

Features

- LCD display option
- Various models:
 - CO₂
 - CO₂/VOC
 - CO₂/Temp
 - CO₂/Temp/RH
- Jumper selectable °C/°F units for temp models w/display
- **No Logo** versions available
- QPM2080 include multiple resistance temperature elements

Applications

These units are especially suited for applications where precise, stable CO₂ sensing is required.

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Sensors

QPM Series Specifications

General

Installation..... 18 AWG cable length shared in conduit with other sensor wiring 750 ft. (229 m) max.

Connections Screw terminals

Voltage Requirement..... 13.5 to 35 Vdc
Q Series sensors with 0-10 Vdc outputs can also operate on 24 Vac

Input Impedance (4 to 20 mA versions only) Less than 500 Ohms

CO₂ Element

Operating Range..... 0 - 2000 ppm

Accuracy at Room Temperature ≈ 73°F (20°C)+2% mean value

Operating Temperature -31 to +113°F (-35 to +45°C)

Temperature Effect Less than 0.1% per degree C

Sensing Element..... NDIR CO₂ sensing module

Output Signal 0 to 10 Vdc, 0-100% linear, proportional

Polarity Protection..... Yes

Permissible Air Velocity in the Duct <26.2 ft./s

Temperature Element (for Combination CO₂/T unit only)

Operating Temperature -31 to +113°F (-35 to +45°C)

Time Constant <1 min

Accuracy ±1K

Output Signal 0 to 10 Volt

Calibration None Required

QPM Series Product Ordering

Application	Description	Part No.
Duct Sensor, CO ₂	0 to 5 or 0 to 10 Vdc	QPM2100
Duct Sensor, CO ₂	0 to 5 or 0 to 10 Vdc, No Logo	QPM2100N
Duct Sensor, CO ₂ and VOC	0 to 5 or 0 to 10 Vdc	QPM2102
Duct Sensor, CO ₂ and VOC	0 to 5 or 0 to 10 Vdc with Display	QPM2102D
Duct Sensor, CO ₂ and Temp. (Active)	0 to 5 or 0 to 10 Vdc	QPM2160
Duct Sensor, CO ₂ and Temp. (Passive*)	0 to 5 or 0 to 10 Vdc (Selectable Resistance)	QPM2180
Duct Sensor, CO ₂ and Temp. (Active)	0 to 5 or 0 to 10 Vdc with Display	QPM2160D
Duct Sensor, CO ₂ , RH and Temp. (Active)	0 to 5 or 0 to 10 Vdc	QPM2162
Duct Sensor, CO ₂ , RH and Temp. (Active)	0 to 5 or 0 to 10 Vdc with Display	QPM2162D
Duct Sensor, VOC	0 to 5 or 0 to 10 Vdc	QPM1100

*Units include interchangeable resistance elements for LG-Ni1000, Pt1000, Pt100, and NTC 10K Ohm.

Accessories & Service Kits

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Sensors