SIEMENS

Technical Specification Sheet
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QPM Series Indoor Air Quality Duct Sensors

Description

The QPM Series Indoor Air Quality Duct Sensors optimize room comfort by enabling demand-controlled ventilation. Models are available that measure CO_2, CO_2 and temperature, or CO_2, temperature and relative humidity.

For models with humidity, a capacitive humidity sensing element changes capacitance as a function of the relative humidity. An electronic measuring circuit converts the humidity signal to a continuous 0 to 10 Vdc or 0 to 5 Vdc signal that corresponds to a relative humidity range of 0 to 100%. For models with temperature, the sensor acquires room temperature with a sensing element that changes electrical resistance as a function of the temperature. The resistance is converted to an active 0 to 10 Vdc or 0 to 5 Vdc output signal that corresponds to a temperature range of 32°F to 122°F (0°C to 50°C) or -31°F to 95°F (-35°C to 35°C).

The QPM2102 models measure both CO_2 and volatile organic compounds (VOC) for optimized indoor air quality. A single 0-10V or 0-5V (selectable) output signal is automatically adjusted to reflect the higher of the two values. This enables the combination CO_2 + VOC sensor to be easily substituted for a CO_2 sensor in any demand control ventilation control system.The duct-mounted sensors are designed for use with all systems and devices capable of acquiring and handling a 0 to 10 Vdc or 0 to 5 Vdc output signal.

QPM Series Air Quality Duct Sensors and.
QPM21xxD Indoor Air Quality Duct Sensor with Display.

Features

- Non-Dispersive Infrared (NDIR) sensing technology is ideal for use in facilities that are occupied 24/7.
- Combination units enable a single sensor to take the place of up to three individual sensors.
- Maintenance-free infrared CO_2 sensing element never requires recalibration.
- 24 Vac or 15 to 35 Vdc operating voltage, 0 to 10 Vdc or 0 to 5 Vdc output signals (field selectable).

Ordering Information

Part Number	Description
QPM2100	Duct CO_2 Sensor
QPM2102	Duct CO_2 + VOC Sensor*
QPM2102D	Duct CO_2 + VOC Sensor w/Display*
QPM2160	Duct CO_2 + Temperature Sensor
QPM2160D	Duct CO_2 + Temperature Sensor w/Display
QPM2162	Duct CO_2 + Temperature + RH Sensor
QPM2162D	Duct CO_2 + Temperature + RH Sensor w/Display

* Siemens CO_2 + VOC sensors are designed to help maximize occupant comfort and are not suitable for use in life safety applications.

General Specifications

Output Signal:
0-10V or 0-5V, selectable, linear

CO_2 Measuring:
Range: 0-2000 ppm
Accuracy: ≤±50 ppm +2% of measured value*
Temperature dependency: ±2 ppm/°C (typical)
Long term drift: ≤ ±5% measuring range/5 yrs
* Allow up to 96 hours for unit to reach published accuracy.

Temperature Measuring:
Range: - 31°F to 113°F (-35°C to 45°C)
Accuracy: ± 1.4°F (± 0.8°C)

Humidity Measuring
Range: 0 to 100% rh
Accuracy: ± 3% rh (typical 30 to 70% rh)

Power Supply:
Operating voltage (SELV): 24 Vac or 15 to 35 Vdc ±20% Frequency: 50/60 Hz
Power consumption: ≤2 VA

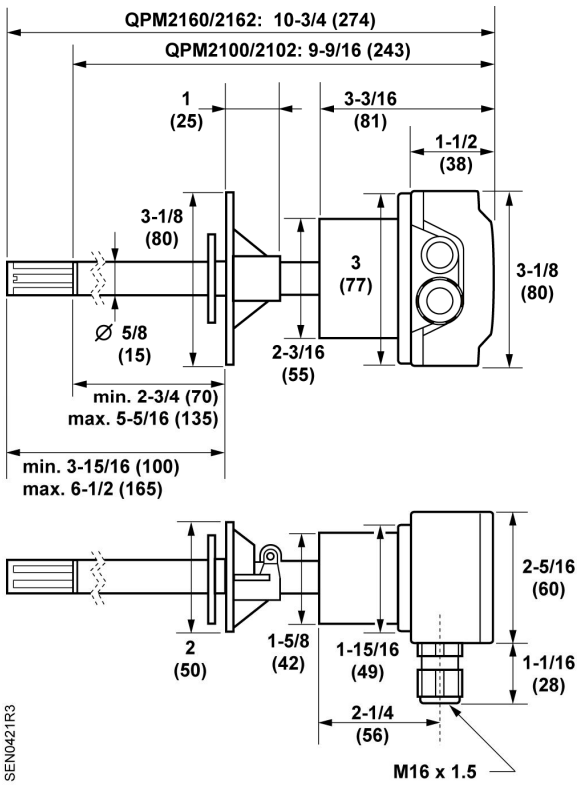
Electrical:
Screw terminals: 2 × 16 AWG or 1 × 14 AWG

Environmental:
Transport:
Temperature: -13°F to 158°F (-25°C to 70°C)
Humidity: < 95% rh

Physical:
Weight (including packaging): 0.60 lb (0.272 kg)

Miscellaneous:
No calibration required for 8 years

Dimensions



Dimensions in Inches (mm).

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