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SEDCO2G5045

CO₂, Temperature, and Humidity Sensor**Description:**

The wireless CO₂ + TRH (Carbon Dioxide, Temperature, and Relative Humidity) sensor is a wall-mounted device with ambient (indoor) comfort monitoring and HVAC control applications. The measured data is communicated wirelessly using ZigBee® wireless protocol to an LG MultiSITE MS8000 Series Room Controller/CRC2 Series Remote Controller. Typical site installations can include indoor zones with constantly or periodically high concentrations of people, or in close proximity to commercial equipment generating high levels of CO₂ gas. Most importantly, the wireless feature allows the sensor to be installed in locations where hardwiring may be difficult.

Features:

- The sensor is powered by an embedded "AA" size lithium-thionyl chloride spiral battery (not rechargeable, not removable). The battery capacity allows up to 10 years of operating time at nominal conditions.
- Maintains high performance in varying air type environments.
- Provides accurate and reliable carbon dioxide, temperature, and humidity measurements.

Electrical:

Power Supply

3.4V to 4.5V

Operating Environment:

Operating Temperature

32°F to 122°F (0°C to 50°C)

Storage Temperature

-22°F to +158°F (-30°C to +70°C)

Operating Humidity

0% to 100%

Dimensions:

W x H x D (inch [mm])

3.26 x 2.85 x 0.72 (82.9 x 72.4 x 18.4)

- Conforms to ASHRAE specifications for Green Building Standards.
- Assists in achieving optimal ventilation, and helps reduce stagnant air.
- Helps customers to invest in improved Indoor Air Quality (IAQ).

Wall-Mounted ZigBee Room Sensor (CO₂, Temperature, and Humidity) Main Specifications:

Function	Description
Operating Principle	Non-dispersive infrared (NDIR)
Dimensions W x H x D (inch [mm])	3.26 x 2.85 x 0.72 (82.9 x 72.4 x 18.4)
Operating Temperature	32°F to 122°F (0°C to 50°C)
Temperature Accuracy	±0.54°F (0.3°C) typical within operating range
Humidity Range	0% to 100%
Humidity Accuracy	± 3% RH (typical within 0% to 80% RH)
Measurement Range	0 to 5,000 ppm
Measurement/ Transmission Intervals	2.5 minutes (day), 10 minutes (evening) (Battery life will be reduced should interval be shortened [i.e., using remote temperature / humidity functions].)
CO ₂ Accuracy at NTP	±60 ppm +3% of reading (400 to 2,000 ppm range)
CO ₂ Calibration	Automatic calibration
CO ₂ Measurement Pressure Dependency	0.13% of reading per mmHg (normal atmospheric conditions of ~100Kpa)
CO ₂ Resolution at NTP	+/- 20 ppm at 800 ppm
Transmission Protocol	ZigBee Wireless
Transmission Range	Up to 328 feet (100 m) free field; 66 to 98 feet (20 to 30 m) indoor
Battery Lifetime	10+ years (non-replaceable) (Battery life can be reduced when sensor is operated at temperatures approaching the operating limits.)
HMI	Push button and LED (for commissioning)
Power Supply / Battery Cell	3.6 V AA Lithium ion
Enclosure	Polycarbonate, white (front) and black (back)
Protection	IP 20
Environment and Health	Halogen free, RoHS, WEEE
Storage Temperature	-22°F to +158°F (-30°C to +70°C)

Firmware Version:

The LG MultiSITE MS8000 Series Room Controller must be running Firmware version 1.7 or greater to integrate with the wireless CO₂ + TRH sensors. The sensors will not function with any Firmware version below 1.7. Make sure to download the latest Firmware before attempting to integrate the sensors with any LG MultiSITE MS8000 Series Room Controller. Also, version 10 or greater of the Zigbee communication module is required to bind the sensors to the LG MultiSITE MS8000 Series Controller. The LG MultiSITE CRC2 Series Remote Controllers have no specific firmware limitations.

Notes:

ZigBee is a registered trademark of the ZigBee Alliance, Inc.
Must follow installation instructions in the applicable LG installation manual.
Available functions / features may differ based on the connected system.

For continual product development, LG reserves the right to change specifications without notice. SB_Wall-Mounted_RoomSensor_CO2_T_RH_SEDCO2G5045_2021_09_08_131931
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