



New Product Release

Date: February 24, 2023

Announcing: **Introducing the CD-U Series Air Quality Sensors**

From: Building Technologies & Solutions (BT&S)—Field Device Marketing

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Introducing the Johnson Controls® CD-U Series Air Quality Sensors

The Johnson Controls® CD-U Series is a state-of-the-art line of air quality sensors that include the measurement of CO₂ and temperature. The CD-U Series is available in either an attractive, low profile room enclosure or in a weatherproof duct mount enclosure with integrated sampling probe.

The CD-U Series sensors use dual channel optics and adjustment signal processing technology to deliver industry-leading, long-term accuracy and reliability. These features ensure optimum measurement stability for both periodic and constant occupancy applications, so the device is equally suitable for return-air measurement from the classroom or a hospital room. The CD-U Series provides a high value offering designed to minimize installation costs and help maintain safe, healthy spaces for building occupants.

CD-U Series Air Quality Sensors features

The CD-U Series CO₂ and temperature sensors are available as an in-wall mounted room enclosure or duct mount enclosure. The CD-U Series provides installation flexibility and cost savings, and includes the following features:

- Field selectable output signal: 4 mA to 20 mA, 0 VDC to 5 VDC, or 0 VDC to 10 VDC
- Field programmable CO₂ measurement span: 0 ppm to 2000 ppm default, programmable 1000 ppm to 10,000 ppm
- Optional backlit alpha-numeric LCD with easy to use configurable menu
- Auto-calibration: can be turned on or off depending on application
- Altitude adjustment: adjust to altitude of installed device
- Output signal direction: set output for direct or reverse-acting
- Calibration: field-calibrate the device with or without a calibration kit

Figure 1: CD-W*-U Series non-display and display models



Figure 2: CD-P*-U Series duct model



Special sales and application information

The CD-U Series incorporates a dual channel nondispersive infrared (NDIR) CO₂ sensor and self-calibration feature to correct for a CO₂ sensor drift. This feature is useful for applications with periodic occupancy, for example, schools or offices, where the CO₂ sensor is exposed to fresh air (400 ppm) at least 1 h a day. For spaces with 24 h a day occupancy, for example, hospitals or call centers, or spaces that consistently maintain higher or lower levels of CO₂, it is possible to switch off the self-calibration feature and perform a yearly calibration instead.

The CD-U Series features a calibration reference screen that enables the user to set the calibration gas level used to calibrate the sensor. The minimum value is 400 ppm, the maximum value is 2000 ppm, and the increment value is 50 ppm for each step. If no calibration gas is available, expose the sensor to fresh outside air and calibrate with a 400 ppm value. Alternatively, use a calibrated unit as a reference to determine the CO₂ ambient level and adjust the calibration setting to the required value.

Ordering information

The following table lists the CD-U Series specifications and product code information.

Table 1: Product order codes

Product code	Description
CD-W00-00-2U	Room CO ₂ with 1000 platinum temperature sensor, wall mount, logo
CD-W00-N0-2U	Room CO ₂ with 1000 platinum temperature sensor, wall mount, no logo
CD-P1000-00-00U	Duct CO ₂ sensor, duct mount, logo
CD-P2016-00-00U	Duct CO ₂ sensor with 10k type 2 thermistor, temperature, duct mount, logo
CD-P2017-00-00U	Duct CO ₂ with 1000 platinum temperature sensor, duct mount, logo

Documentation

The following table lists the published documentation for the CD-U Series.

Table 2: Related documentation

Document title	Document number
CD-W00 Series Room Carbon Dioxide Transmitter Installation Guide	Part No. A16381UW1U
CD-W00 Series Room Carbon Dioxide Transmitter Product Bulletin	LIT-12014226
CD-P00 Series Duct Carbon Dioxide Transmitter Installation Guide	Part No. A16381UW1V
CD-P00 Series Duct Carbon Dioxide Transmitter Product Bulletin	LIT-12014227

Release schedule

The following table lists the release schedule for the CD-U Series.

Table 3: Release schedule

Item	Date
Orderable date	Effective immediately
Shipping date	Effective immediately
Sales documentation on Knowledge Exchange	Effective immediately
Technical documentation on Knowledge Exchange	Effective immediately
Product available in Selection Navigator Product Selector	Q2 2023
Product available in Selection Navigator Air Quality Selector	Q2 2023

Sincerely,

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