Carbon Dioxide
AIR QUALITY
Transmitters
ACCESSORIES
Wall Mount Transmitters for validation and certification purposes
A-449, A-449A, "-NBC" option, allows remote indication and calibration of Dwyer®
configuration, transmitter output scaling, ambient barometric pressure, and field
configurations of the transmitters for access to the menu structure, but wall mount
accessed via the push buttons include: engineering units, relay output set points, display
The display can be configured to display temperature only, relative humidity only, CO₂
configuration or a wall mount configuration without the display, the Model A-449 or A-
remote LCD display can plug into the miniature connector port on the transmitter.
The display can be configured to display temperature only, relative humidity only, CO₂
only, CO₂ and humidity, or CO₂ and temperature. Push buttons are standard on all
configurations of the transmitters for access to the menu structure, but wall mount
configurations can be ordered without the buttons. To prevent tampering, the action of the
buttons can be locked out using an internal jumper selection. Menu items that can be
accessed via the push buttons include: engineering units, relay output set points, display
configuration, transmitter output scaling, ambient barometric pressure, and field
 calibration of the transmitter.

For buildings occupied 24 hours per day, it is recommended that calibration be
verified every 6 to 12 months depending on application.

ACCESSORIES
A-449, Remote LCD Display allows remote indication of select Dwyer Wall Mount Transmitters for validation or certification purposes
A-449A, Remote LCD Display with buttons, used when ordering the "-NBC" option, allows remote indication and calibration of Dwyer® Wall Mount Transmitters for validation and certification purposes

Series CDTR Carbon Dioxide, Relative Humidity and Temperature Transmitters
reduced the number of sensors mounted on a wall or in a duct. By combining CO₂, RH, and
temperature in one device, system integrators are able to lower installation time of
mounting multiple housings, while lowering material cost at the same time. Even with the
three sensors combined into a single unit, replacement cost is not increased due to the
pluggable nature of the humidity sensor, which allows it or the temperature to be replaced
at a fraction of the cost of a new CO₂ transmitter.

Like our popular Series CDT Carbon Dioxide Transmitter, a single-beam dual-wavelength
non-dispersive infrared (NDIR) sensor is used to automatically correct the measurement
in both occupied* and unoccupied buildings against light source aging effects. The single-
beam dual-wavelength sensor technology provides a higher level of accuracy compared to
Automatic Baseline Correction methods which can unintentionally shift the calibration
based on CO₂ levels and barometric pressure conditions. In order to achieve the best
possible accuracy, the Series CDTR also includes digital barometric pressure adjustment
and the ability to field-calibrate the sensor.

Universal outputs for both carbon dioxide and relative humidity allow users to select the
transmitter output to be 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC to work with virtually any
building management controller. Additionally, passive thermistor or RTD sensor can be
ordered for a temperature output. An optional relay for the carbon dioxide measurement
can be used to control exhaust fans, open actuated windows or dampers, or signal a light
or horn.

For applications that require visual indication, the wall mount configurations of the Series
CDTR can be ordered with an integral LCD display. When ordering a duct mount
configuration or a wall mount configuration without the display, the Model A-449 or A-
449A remote LCD display can plug into the miniature connector port on the transmitter.

SPECIFICATIONS
Range: CO₂: 0 to 2000 or 0 to 5000 ppm (depending on model); Relative Humidity: 0 to 100%; Temperature: 32 to 122°F (0 to 50°C).
Accuracy: ±40 ppm + 3% of reading (CO₂); ±2% (RH).
Temperature Dependence: ±8 ppm / °C at 1100 ppm.
Non-Linearity: 16 ppm.
Pressure Dependence: 0.13% of reading per mm of Hg.
Response Time: 2 minutes for 99%
Temperature Limits: 32 to 122°F (0 to 50°C).
Humidity Limits: 10 to 95% RH (non-condensing).
Power Requirements: 16 to 35 VDC / 19 to 28 VAC.
Power Consumption: Average: 2 watts; Peak: 3.75 watts.
Sensor: Single-beam, dual-wavelength NDIR.
Output: Current: 4 to 20 mA (max 500 Ω); Voltage: 0 to 5 VDC or 0 to 10 VDC (min 500 Ω); Relay: SPST NO 2A @ 30 VDC; RTD or thermistor per r-t curves (depending on model).
Weight: 5.6 oz (158.8 g).
Agency Approvals: CE.

Series CDTR - 2N44A4-LCD
Example: CDTR-2N44A4-LCD
Range 0 to 2000 ppm CO₂ range
0 to 5000 ppm CO₂ range
Configuration North American Wall Mount
European Wall Mount
Duct Mount
CO₂ Output 4 to 20 mA / 0 to (5 or 10) VDC
Temperature Output None
10 KΩ NTC thermistor type III
10 KΩ NTC thermistor type II
3 KΩ NTC thermistor
Pt100 Ω RTD
Pt1000 Ω RTD
20 KΩ NTC thermistor
RH Output 4 to 20 mA / 0 to (5 or 10) VDC
Options -FC Factory Calibration Certificate
-LCD LCD display (wall only)
-RLY Relay
-NBC No buttons (wall only)

GCCK-200CO-2000CO2. Calibration Gas Kit includes a 99.99% Nitrogen gas cylinder for calibrating the zero point and a 200 PPM CO₂ / 2000 PPM CO₂ gas cylinder for calibrating the span point on Dwyer’s gas sensing transmitters

A-CDT-KIT, Accessory Kit including Terminal Block and Power Supply