Honeywell

HCD2OS Series of Outside Carbon Dioxide Transmitter

The outside CO_2 transmitter device uses a highly accurate and reliable non-dispersive infrared (NDIR) sensor in an vented, weatherproof enclosure to monitor outside CO_2, levels. The sensor uses dual wavelength optics and LTA (long term adjustment) signal processing technology to deliver industry leading long-term accuracy and reliability.

Standard features include a field selectable output signal of either 4-20 mA, 0-5 Vdc or 0-10 Vdc for the highest versatility, programmable CO2 measurement span, a backlit alpha-numeric LCD and easy menu operation for configuration.

Optional features include a resistive temperature sensor output and a control relay with programmable setpoint,hysteresis and time delay.

SPECIFICATIONS

Gas Type Detected	Carbon dioxide (CO_2)
Sensor Type	Dual Wavelength Non-Dispersive Infrared (NDIR)
Sensor Accuracy	± (30 ppm + 3% of measured value)
Measurement Range	0-2000 ppm, adjustable 1000-10000 ppm
Temperature Dependency	±2.5 ppm/°C
Response Time	20 seconds (T63)
Warm-Up Time	1 minute
Sensor Life Span	>15 years
Transmitter Accuracy	±0.25% of span (including linearity, hysteresis and repeatability)
Power Supply	24 Vdc ±20% or 24 Vac ±10% (non-isolated half-wave rectified)
Protection Circuitry	Reverse voltage and transient protected
Input Voltage Effect	Negligible over specified operating range
Output Signal Type	4-20 mA (3-wire), 0-5 or 0-10 Vdc (field selectable)
Current Consumption (4-20 mA OUTPUT)	**Heated:** 1.0 A max @ 24 Vdc, 1.1 A max @ 24 Vac **Unheated:** 75 mA max @ 24 Vdc, 150 mA max @ 24 Vac
Current Consumption (0-5/10 Vdc OUTPUT)	**Heated:** 1.0 A max @ 24 Vdc, 1.1 A max @ 24 Vac **Unheated:** 50 mA max @ 24 Vdc, 100 mA max @ 24 Vac
Output Drive @ 24 Vdc	**Current:** 550Ω max **Voltage:** 10,000Ω min
Operating Conditions	**Heated**: -40 to 50°C (-40 to 122°F), **Unheated**: 0 to 50°C (32 to 122°F) 5 to 90 %RH non-condensing
Storage Conditions	-40 to 70°C (-40 to 158°F) 5 to 90 %RH non-condensing
Concealed LCD Display (Used for setting parameters)	**Unit**: ppm (CO2) **Range**: 0-10000ppm **Size**: 35mm W x 15mm H (1.4” x 0.6”), Alpha-numeric 2 line x 8 character
Optional Temperature Sensor	**Type**: Thermistor and RTD (see ordering chart) **Accuracy**: See ordeing chart **Output**: 2-wire resistive
Optional Relay (2-wire Output)	Selectable CO_2 high or CO_2 low **Rating**: Form A (N.O.), 2 Amps @ 140 Vac / 30 Vdc
Enclosure	110mm W x 180mm H x 89mm D (4.3” x 7.125” x 3.5”) IP65 (NEMA 4X)
Wiring	Screw terminal block (14 - 22 AWG) Optional Temperature: Pigtail, 2 or 3 wire
Approvals	CE
Country of Origin	Canada

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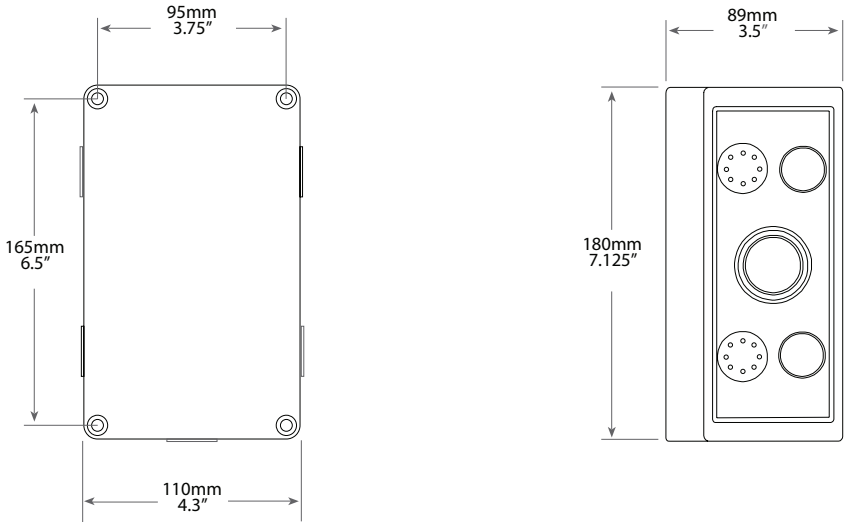

NOTE: The outside enclosure slows the sensor response time to approximately 30 minutes for a 90% step change of CO_2 concentrations.

ORDERING

MODEL	Product Description
HCD2OS	Outside Carbon Dioxide Transmitter

CODE	Enclosure
H	Weatherproof, heated
N	Weatherproof, unheated

CODE	Optional Temperature Sensor
XX	None
02	100Ω Platinum, IEC 751, 385 Alpha, thin film, 3 wire
05	1801Ω NTC Thermistor, ±0.2°C
06	3000Ω NTC Thermistor, ±0.2°C
07	10,000Ω Type 3, NTC Thermistor, ±0.2°C
08	2.252KΩ NTC Thermistor, ±0.2°C
12	1000Ω Platinum, IEC 751, 385 Alpha, thin film
13	1000Ω Nickel, Class B, DIN 43760
14	10,000Ω Type 3, NTC Thermistor, ±0.2°C c/w 11,000 shunt resistor
20	20,000Ω NTC Thermistor, ±0.2°C
24	10,000Ω Type 2, NTC Thermistor, ±0.2°C
59	10,000Ω @ 25°C, ±1%, B = 3435 ±1% (25/85)

CODE	Optional Relay
X	None
R	Relay

HCD2OS	H	XX	X

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