

# Carbon Dioxide Detector

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## ◆ Introduction

CD-30M/30I are designed for air conditioning system being installed on air conditioning duct system. With built-in transmitter, CD-30M/30I can detect CO<sub>2</sub> gas density using NDIR (Non Dispersive Infrared) and convert the measured density signal into linear current or voltage signal to be transmitted to external monitoring unit or controlling unit such as PLC or DDC.

## ◆ Features

- Non Dispersive Infrared(NDIR) CO<sub>2</sub> sensor  
State-of-the-art Non Dispersive Infrared (NDIR) CO<sub>2</sub> sensor realizes the highest detection accuracy and the longest sensor life time with the least affection from other gases.
- Built-in transmitter  
Built-in transmitter transforms the sensor signal into stable standard current output signal (4-20mA) to be transmitted to external controlling equipments such as PLC or DDC.
- Robust metal housing  
Robust metal housing firmly protects the stable operation against harsh environment or impact in spite of open & close structure.

## ◆ Sensor options

Measurement range	accuracy(±)
0-2,000ppm / 0-5,000ppm	30ppm ± 5% rel.
0-2.00%	200ppm ± 5% rel.

## ◆ Specification

	CD-30M	CD-30I
Mounting type	Wall mounting	Duct mounting
Detection principle	NDIR (Non-Dispersive Infrared)	
Detection method	Diffusion	
Response time	Within 20 seconds - 0.1 liter air flow / min.	
Accuracy	±1% / full scale, ±5% / reading	
Zero variance	<±0.3% / full scale / year	
Measurement range	0-2,000ppm / 0-5,000ppm / 2.00%	
Output	4-20mA	
D / A resolution	12bit	
D / A accuracy	Voltage mode: ±2% / reading ±20mV, current loop: ±2% / reading ±0.3mA	
Input power	24V AC/DC ±20%, 50-60Hz	
Power consumption	≤ 3W	
Signal wire	CWS & CWSB 1.25sq X 3 wire - shield type	
Terminal	Screw terminal	
Housing	Metal case with metal tube	
Operation temperature / humidity	0-50°C / 0-95% RH (non-condensing)	
Initialization time	Within 1 min	

## ◆ Dimension & wiring

