

H-Guard-D™

CO2 Transmitter



The H-Guard-D is a CO2 transmitter series designed to be installed in HVAC return air ducts. The CO₂ sensing element uses the Non-Dispersive Infrared Technology (NDIR) with the patented self-calibration system to guarantee the long term stability and up to 15 years life time. H-Guard-D duct probe transmitter offers temperature and humidity option. The high accuracy temperature and humidity combined sensor provide a digital interface and outstanding full range linearity. The one or three analog 0-10V or 4~20mA outputs are selectable by jumpers. Modbus RS485 communication interface is provided. Optional backlit LCD can display all measurements and is usable easily in more applications. H-Guard-D offers simplicity in design and installation with the special demountable and replaceable filter to avoid pollution and influence of measurement.

Typical Applications:

Building management for office areas and residential

Ventilation control system

Key Features:

- Special used to real-time detect CO2 level in air ducts.
- NDIR infrared CO2 sensor inside with Self-Calibration and up to 15 years lifetime
- Humidity and temperature detection optional
- Combined temperature and humidity sensor provide the highest accuracy in full range
- Backlit LCD display option can display CO2 measurement and temperature+ RH measurements
- Providing one or three 0~10VDC or 4~20mA or 0~5VDC analog outputs
- Modbus RS485 communication interface makes usage and test more convenient
- Smart structure and attractive housing provide you a unique operation feeling
- Simple and skillful design and installation with a demountable and replaceable filter to provides dust-proof protection
- Special a 180° rotatable fastness position for the probe can change the direction of air detection.
- All housing and probe are IP54 class
- CE-Approval

H-Guard-D™

Sensor & Transmitter Specifications

Gas detected	Carbon Dioxide (CO ₂)
Sensing element	Non-Dispersive Infrared Detector (NDIR)
Accuracy@25(77),2000ppm	±40ppm + 3% reading
Stability	<2% of FS over life of sensor (15 yr typical)
Calibration interval	ABC Logic Self Calibration System
Response time	<2 minutes for 90% step change
Warm up time	2 hours (first time) 2 minutes (operation)
CO₂ measuring range	0-2,000ppm / 0-5,000ppm selectable in orders
Sensor life	Up to 15 years
Power supply	24VAC/24VDC
Consumption	1.5 W max. ; 0.8 W avg.
Analog outputs	0~10VAC or 4~20mA selectable by jumpers
Relay output	1X3A switch load
Modbus interface	Four set points selectable by jumpers Modbus RS485 interface 9600/14400/19200(default)/28800 or 38400bps (programmable selection), 15KV antistatic protection.
Operation conditions	0~50(32~122); 0~95%RH, non condensing
Storage conditions	-40~70(-40~158)
Net weight	240g
Dimension	Junction box 100mm×85mm×50mm Probe 124.5mm x 40mm
Approval	CE-Approval
Ordering information	65-9081 H-Guard-D CO ₂ Transmitter, 1x4-20mA output 1 x Relay output 0-2000ppm standard range 49-9998-01Plug pack 240VAC/24Vdc 450mA

Distributed By

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