

# H-GUARD-D

## CO<sup>2</sup> Transmitter

The H-Guard-D is a CO<sup>2</sup> transmitter series designed to be installed in HVAC return air ducts.

The CO<sup>2</sup> 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.

### KEY FEATURES

- **Used to real-time detect CO<sup>2</sup> levels in air ducts**
- **NDIR infrared CO<sup>2</sup> sensor featuring self-calibration**
- **Humidity and temperature detection optional**
- **Modbus RS485 communication interface**
- **Backlit LCD display option enables display of CO<sup>2</sup> measurement and temperature and RH measurements**
- **Smart structure with demountable replaceable filter provides dust-proof protection**
- **A 180° rotatable fastness position for the probe can change direction of the air detection**
- **IP54 (housing and probe)**
- **CE Approval**

## H-GUARD-D

**SPECIFICATIONS** Specifications subject to change without notice

<b>Gas detected</b>	Carbon Dioxide (CO <sub>2</sub> )
<b>Sensing element</b>	Non-Dispersive Infrared Detector (NDIR)
<b>Accuracy</b>	±40ppm + 3% reading
<b>Stability</b>	<2% of FS over life of sensor
<b>Calibration interval</b>	ABC Logic Self Calibration System
<b>Response time</b>	<2 minutes for 90% step change
<b>Warm up time</b>	2 hours (initial start-up) / 2 minutes (operation)
<b>CO<sub>2</sub> measuring range</b>	0-2000ppm or 0-5000ppm
<b>Sensor life</b>	Up to 15 years
<b>Power supply</b>	24VAC/24VDC
<b>Consumption</b>	1.5 W max; 0.8 W average
<b>Analog outputs</b>	0~10VAC or 4~20mA selectable by jumpers
<b>Relay output</b>	1 x 3A switch load – 4 set points selectable by jumpers
<b>Modbus interface</b>	Modbus RS485 interface 9600/14400/19200(default)/28800 or 38400bps 15KV antistatic protection
<b>Temperature</b>	0-50°C / 32-122°F
<b>Humidity</b>	0-95% RH, non-condensing
<b>Storage</b>	-40- 70°C / -40- 158°F
<b>Net weight</b>	240g
<b>Dimensions</b>	10cm x 8.5cm x 5cm (Junction box) 12.5cm x 4cm (Probe)
<b>Approvals</b>	CE approval
<b>Part numbers</b>	65-9081 (H-Guard-D CO <sub>2</sub> transmitter with 1 x 4-20mA output and 1 x relay output 0-2000ppm standard range)
<b>Optional</b>	49-9998-01 (Plug pack 240VAC/24Vdc 450mA)



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