H-Guard TM

CO2 Transmitter



Typical Applications:

Building management for office areas and residental

Ventilation control system

The H-Guard is a CO2 transmitter series designed to be installed in HVAC applications. The $\rm CO_2$ 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.

Key Features:

- Real-time detecting CO2 level.
- NDIR infrared CO2 module inside with four CO2 detection range selectable.
- CO2 sensor has Self-Calibration Algorithm and 15 years lifetime
- Wall-mounting
- Providing one analog output with voltage or current selectable
- 0~10VDC/4~20mA selectable easily via jumpers
- Provide a special model with a on/off relay output with a touch button to operate a fan control.
- Design for HVAC, ventilation systems, offices, or other public places.
- Modbus RS485 communication interface optional: 15KV antistatic protection, independent address setting
- CE-Approval



H-Guard[™]

Sensor & Transmitter Specifications

Gas detected

Carbon Dioxide (CO2)

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

0-20,000ppm / 0-50,000ppm just for TSM-CO2-S series Up to 15 years

Power supply

24VAC/24VDC

Consumption

Sensor life

1.5 W max.; 0.8 W avg.

Analog outputs

0~10VAC or 4~20mA selectable by jumpers

Relay output

1X3A switch load

Four set points selectable by jumpers

Modbus interface

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

180g

Dimension

100mm×80mm×28mm

Installation standard

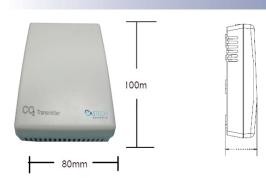
65mm×65mm or 2"×4"wire box

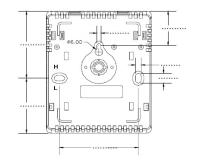
Approval

CE-Approval

Ordering information

65-9080 H-Guard CO2 Transmitter, 1x4-20mA output 1 x
Relay output0-2000ppm standard range
49-998-01Plug pack 240VAC/24Vdc 450mA





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