Specifications

Measurement Range	☐ 0...3000 ppm, ☐ 0...5000 ppm, ☐ 0...10000 ppm
Output Signal	☐ 0...20 mA, ☐ 4...20 mA, ☐ 0...10 V
Power Supply	15...32 VDC ± 1 Vp-p at 50 Hz
Consumption	60...90 mA
Output Load (mA / V)	max. 350 Ω (at 24V/20mA) / min.1 MΩ
Measurement Error	± 2 ppm (0…3000 ppm) at 10…50 °C
Temperature Drift	10 ppm for 1 °C
Warm-up Time	max. 90 s (at 25 °C)
Response Time	max. 30 s (w/o sintered filter)
Operating Temperature	0…50 °C
Operating Humidity	0…85% RH, non-condensing
Protection Class	IP65 (except gas inlet)
Local Indicator	☐ mounted (4-digit red LED, 0.2% accuracy)
Serial Interface	☐ mounted (CO2 transmitting, 9600 bps)
Sintered Filter	☐ mounted
Mounting	☐ free, ☐ duct
Connector	☐ top I, ☐ top L, ☐ bottom I, ☐ bottom L
Directives	CE (2004/108/EC), LVD (2006/95/EC)

Warranty and Support

……
serial number

……
manufacturing date

QC check mark ……(passed)
(stamp)

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QD-8.2.4-WC

Warranty

COMECO warrants this product to be free from defects in materials and workmanship for 1 year. If your unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see '**Specifications**').

Technical support

In the unlikely event that you encounter a problem with your COMECO device, please call your local dealer or contact directly our support team.

v1-12.11

COMECO
CONTROL & MEASUREMENT

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CARBON-DIOXIDE TRANSMITTER

PHG

OPERATION MANUAL

Please read this Operation Manual before mounting and operating!
Save the Manual for future references!

Overview

The PHG transmitter measures CO2 concentration in in-door atmospheres and converts it into standard current or voltage signal. PHG model uses dual NDIR carbon-dioxide sensor for better accuracy and sensitivity as well as low temperature and humidity dependence. The transmitter can be equipped with local 4-digit LED display and RS232 serial interface. PHG application area includes indoor air control, ventilation, air-conditioning, mushroom control, etc.

Mounting

Free mounting

- Remove 2 protection plastic caps (1) using a flat-screwdriver tip.
- Fix the unit using 4 M4 screws with proper length through holes (2) to your mounting construction or use the supplied COMECO mounting accessories.
- Return the protection caps to their original places.

Duct mounting

- Place the supplied flange to duct wall and mark 2~4 mounting holes.
- Drill on duct wall d4.5mm flange holes and a d17mm central hole.
- Fix the flange (3) using 2~4 M4 screws (4) with proper length.
- Place the transmitter inlet tube to the desired process depth and front rotation. Fix it with flange fixing screw (5).

Important notes:

- *Do not try to open the enclosure. It can damage the transmitter!*
- *Sintered filter significantly increases the response time!*

Wiring

- Check the pin numbers of the male connector located on housing top or bottom.
- Turn off power supply!

- Attach the female connector part wired to your system as shown on the left.
- Turn the power supply on.
- If RS232 interface is installed:
  - Baud Rate: 9600 bps
  - Transmit Update: 2 s
  - Transmit Frame:

1	2	3	4	5	6
CO2 value				CR	LF

  - Example for CO_2 = 1000ppm: 1000 [13] [10] (0x31, 0x30, 0x30, 0x30, 0x0D, 0x0A)

Waste Disposal

Do not dispose of electronic devices together with household waste material!

If disposed of within European Union, this product should be treated and recycled in accordance with the laws of your jurisdiction implementing the WEEE Directive 2002/96 on the Waste Electrical and Electronic Equipment.