

PRODUCT DESCRIPTION

CO2G-xx probe with the I²C output is designed to measure carbon dioxide concentration in the air in chemically non-aggressive environments. The CO₂ measurement is based on the dual wavelength NDIR principle, which automatically compensates for ageing effects. The probe is IP65 rated, and the replaceable filter offer protection in harsh environment. **It is designed for connection to COMET devices equipped with input for external CO₂ probes.** The probe is interchangeable, the calibration constants are saved in the internal memory of the probe.

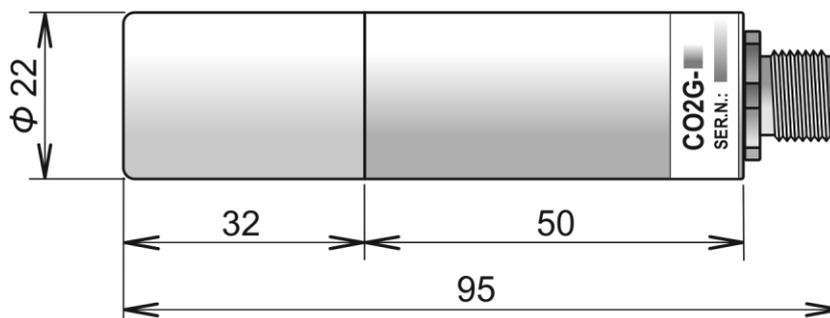
List of models in production: Probe CO2G-10, range (0 to 10 000) ppm.

TECHNICAL PARAMETERS

- Carbon dioxide concentration:
 - Range: (0 to 10 000) ppm
 - Accuracy: $\pm (100 \text{ ppm} + 5 \% \text{ of measured value})$ at 25 °C and 1013 hPa
 - Temperature dependency: $\pm (1 + \text{measured value [ppm]} / 1\,000) \text{ [ppm/°C]}$
in the temperature range (-20...45) °C
 - Pressure dependency ⁽¹⁾: $\pm 0.014 \% \text{ of measured value [ppm]} / \text{hPa}$
(referenced to 1 013 hPa)
 - Response time: $t_{90} < 200 \text{ s}$
- ⁽¹⁾ ... *it is a residual dependency (the measured value is automatically compensated to the current barometric pressure)*
- Measuring interval: 15 s
the measuring interval depends on the settings of the instrument to which the probe is connected
- Operating temperature range: (-25 to +60) °C with fixed cable
(-5 to +60) °C with moving cable
- Operating relative humidity range: (0 to 95) % RH (without condensation)
- Operating barometric pressure range: (700 to 1100) hPa
- Supply voltage: (3.3 to 5) V DC $\pm 5 \%$
- Current consumption: 67 mA typically during measurement, 170 μ A between measurements
- Probe connection: M12 circular connector
- Recommended calibration interval: 5 years

- Storage temperature: (-25 to +60) °C
- Storage relative humidity: (0 to 95) %RV (without condensation)
- Electromagnetic compatibility: EN 61326-1 (tested with device)
- Protection: IP65 (probe with connected cable)
- Sensor cover filter: PTFE – Filtering ability 0.025 mm
- Working position: without restriction
- Weight: 35 g approx.
- Material: body of probe Ertalyte, filtering cover PTFE

DIMENSIONS



INSTALLATION

Connect the probe to your newly purchased U2422 using an extension cable (see optional accessories). Cables are available in 1 m (**UWP001**), 2 m (**UWP001-2**) or 4 m (**UWP001-4**) lengths. The probe does not require any special service or maintenance. We recommend you periodically to verify the accuracy of measurement by calibration.

Important notice:

- if you want to connect this probe to a U2422 datalogger which you have previously purchased with an older SN220 probe type, you may need to upgrade the device firmware and change probe settings. In this case, contact the service department.
- if you want to connect this probe to any other Comet device, first check www.cometsystem.com to see if this probe is suitable for this device or what cables you will need. Older devices did not support this type of probe!

TECHNICAL SUPPORT AND SERVICE

Technical support and service is provided by distributor. For contact see warranty certificate.

WARNING



- It is not recommended to use the probe for long time under condensation conditions.
- Don't use the probe in chemically aggressive environments.
- Don't connect or disconnect the probe cable while the device is turned on - incorrect values could be recorded to the device memory.
- Don't use and don't store the probe without the sensor cover.
- The probe contains electronic components, it needs to liquidate them according to legal requirements.

Warranty certificate

This product has three years warranty since the date of sale to the end user. Defects due defective materials, defective manufacturing or design will be repaired free of charge by the manufacturer. The location of repair is at manufacturer's. No warranty is given to products operated in conditions not matching the conditions specified by the manufacturer in instruction manual. Also no warranty is given to products which were modified by the user, products with broken seal, products which were connected to power or input signals not matching the technical specification (Instruction manual). No warranty is given to consumables, e.g. batteries, fuses and eventual changes of parameters created by wear (influence of aggressive environment etc.).

Serial number:

Sale date:

DISTRIBUTOR