

CO<sub>2</sub>-Transducer

## GT10-CO2-1R

Art. no. 602599  
CO<sub>2</sub>-Transducer

## General:

Due to the fact, that CO<sub>2</sub> is an important indicator for the quality of air in rooms, it's super important to measure the CO<sub>2</sub> content. The recommended CO<sub>2</sub> limit value for ambient air is 1000 ppm. An exceeding of this limit causes tiredness and a loss of concentration. The high quality and precise CO<sub>2</sub>-transducer works according to the infrared principle (NDIR). An auto-calibration procedure compensates aging effects and is responsible for an excellent long term stability of this CO<sub>2</sub> transducer.

Due to the freely adjustable output signal the transmitter could be used for nearly each existing controller input etc. Additionally, there is a local display which shows beside the actual CO<sub>2</sub> concentration, the minimum and maximum values as well as an optical alarm.

## Highlights:

- excellent long term stability
- auto-calibration procedure
- for surveillance of the recommended CO<sub>2</sub> concentration in ambient air
- output signal free scaleable

## Specifications:

<b>Measuring range:</b>	standard: 0 ... 2000 ppm CO <sub>2</sub> (carbon dioxide) optional: 0 ... 5000 ppm CO <sub>2</sub> (carbon dioxide)
<b>Measuring principle:</b>	infrared principle (NDIR)
<b>Accuracy:</b>	standard: ±50 ppm ±2 % of meas. value (at 20 °C, 1023 mbar) opt. /5000: ±50 ppm ±3 % of meas. value (at 20 °C, 1023 mbar)
<b>Output signal:</b>	4 ... 20 mA (3-wire), standard 0 ... 1 V or 0 ... 10 V (3-wire), upon upcharge
<b>Output scaling:</b>	free scaleable, by entering display range
<b>Auxiliary energy:</b>	12 ... 30 V DC, max. 600 mA (at option 0 ... 10 V: 18 ... 30 V DC, max. 600 mA)
<b>Permissible burden (at 4 ... 20 mA):</b>	R <sub>A</sub> <200 Ω
<b>Perm. load (at 0...Volt):</b>	R <sub>L</sub> >3000 Ω
<b>Display:</b>	approx. 10 mm high, 4-digit LC-display
<b>Working condition:</b>	-10 ... +50 °C, 5 ... 95 % RH, 850 ... 1100 hPa
<b>Storage condition:</b>	-25 ... +60 °C, 5 ... 95 % RH, 700 ... 1100 hPa
<b>Electric connection:</b>	elbow-type plug acc. to EN 175301-803/A (IP65), max. wire cross section: 1.5 mm <sup>2</sup> , wire diameter from 4.5 ... 7 mm
<b>Housing:</b>	ABS, 82 x 80 x 55 mm (without elbow-type plug)
<b>Mounting:</b>	with fixing holes for wall mounting
<b>Mounting distance:</b>	70 x 50 mm (W x H)
<b>Fixing screws:</b>	max. shaft-Ø 4 mm
<b>Weight:</b>	approx. 225 g
<b>Features:</b>	min-/max-value memory, optical alarm, input of offset and scale for adjusting

## Option:

**MB2:**  
measuring range: 0 ... 5000 ppm CO<sub>2</sub>

**AV01:**  
output signal 0 ... 1 V

**AV010:**  
output signal 0 ... 10 V

## Accessories and spare parts:

**GSN 24-750**  
Art. no. 604387  
plug-in power supply (230 V AC => 24 V DC/750 mA)

## Air oxygen measuring transducer



## OXY 3690 MP

Art. no. 602027

Air oxygen measuring transducer incl. sensor

## Specifications:

## Measuring ranges:

**Oxygen concentration:** 0.0 ... 100.0 % O<sub>2</sub> (gaseous)  
**Temperature:** -20.0 ... +50.0 °C

## Accuracy device (at nominal temperature 25 °C):

**Oxygen:** ±0.1 % ±1 digit  
**Temperature:** ±0.1 °C ±1 digit  
**Output signal (only O<sub>2</sub>):** 4 - 20 mA (2-wire - standard), 0 - 10 V (3-wire - option)  
**Electric isolation:** input electrically isolated  
**Auxiliary energy:** 12 ... 30 V DC (at output 4 ... 20 mA)  
18 ... 30 V DC (at output 0 ... 10 V - option)

**Perm. impedance (at 4 ... 20 mA):** R<sub>A</sub> [Ω] ≤ (U<sub>v</sub> [V] - 12 V) / 0.02 A

**Permissible load (at 0 ... 10 Volt):** R<sub>L</sub> > 3000 Ω

**Working condition:** 0 ... +50 °C, 0 ... +95 % RH (non-condensing)

**Storage temperature:** -20 ... +70 °C

**Reverse voltage protection:** 50 V permanently

**Display:** approx. 10 mm high, 4-digit LCD-display

**Housing:** ABS (IP65 - with the exception of sensor plug)

**Dimensions:** 82 x 80 x 55 mm (without elbow-type plug and sensor plug)

**Electric connection:** elbow-type plug acc. to EN 175301-803/A (IP65), max. wire cross section: 1.5 mm<sup>2</sup>, wire diameter from 4.5 ... 7 mm

**Sensor connection:** 5-pin jack connector, screwable

**Calibration:** 1-point calibration in atmospheric air.

**Air pressure compensation:** 500 ... 2000 hPa abs., manually input

## Oxygen sensor:

<b>Sensor type:</b>	GGO 370-L01-MU
<b>Measuring range:</b>	0.0 ... 100.0 % O <sub>2</sub>
<b>Response time T<sub>90</sub>:</b>	<10 s, depending on temperature
<b>Warranty:</b>	12 months (assuming appropriate usage according to the manual)
<b>Application area:</b>	suitable for air and pure oxygen, suitable for high CO <sub>2</sub> -concentrations
<b>Temperature compensation:</b>	integrated in sensor housing
<b>Connection cable:</b>	approx. 1.3 m, with 5-pin plug, screwable
<b>Operating pressure:</b>	500 ... 2000 hPa (static).
For air and gas-stream use the option GOO.../MU.	
<b>Working condition:</b>	0 ... +45 °C, 0 ... +95 % RH (non-condensing)
<b>Storage temperature:</b>	-15 ... +60 °C
<b>Dimensions of housing:</b>	approx. Ø 40 x 103 mm (153 mm incl. anti-buckling glanding), housing with M16x1-screw thread (sensor can be connected to line tubes by means of an included adapter piece)
<b>Weight:</b>	approx. 135 g

## Option:

**AV010:**  
Output signal 0 ... 10 V

**GOO:**  
Oxygen sensor GOO 370-L01-MU, open sensor type, suitable for air and gas-stream. (further information p.r.t. page 66)

**KL10:**  
Sensor connection cable 10 m

**LO:**  
Design type for fast measurements of low oxygen contents (0 ... 25 %) with sensor element GOEL 380

## Accessories and spare parts:

**GOEL 370**  
Art. no. 601490  
spare sensor element for GGO 370 / MU