



Features

- CO₂ measuring range 0-2.000 ppm
- CO₂ output 0-10 Vdc
- Temperature measuring range 0 to +50°C
- Temperature output 0-10 Vdc
- Enclosure material ABS Plastic
On request: Stainless steel

Description

The Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T is a self-calibrating microprocessor-controlled unit.

The Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T using an Optical sensor - Non-Dispersive Infrared Detector (NDIR).

Carbon Dioxide (CO₂) measuring range for the Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T is 0-2000 ppm converted into signal 0-10 Vdc.

Temperature measuring range for the Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T is 0 to +50°C converted into signal 0-10 Vdc.

The Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T have an elegant enclosure made of plastic, with snap-on lid, base with 4-hole attachment for installation on vertically or horizontally installed in-wall flush boxes, with predetermined breaking point for on-wall cable entry.

As option the Carbon Dioxide (CO₂) + Temperature transmitter can be supplied in enclosures made of stainless steel (CDR 010T SS), top and bottom part are of stainless steel, the lid is screwed on, vandalism-secure version e.g. for schools, military barracks, and public buildings.

The detection range of the Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T is calibrated for standard applications such as monitoring of residential rooms or conference rooms.

Room ventilation on an as-needed basis, improvement of well-being and customer benefit, increased comfort as well as a reduction of operating costs by energy conservation are only some of the beneficial results of employing Carbon Dioxide (CO₂) + Temperature transmitter CDR 010T transmitters.

Ordering

Type no.	CO ₂ measurement	CO ₂ output	Temp. measurement	Temp. output
CDR 010T	0-2000 ppm	0-10 Vdc	0 to +50°C	0-10 Vdc

OneTemp^o pty ltd
MEASURE | CONTROL | RECORD
www.onetemp.com.au
1300 768 887

Technical data

Power supply	24 Vac/dc (+/-10%)
Power consumption	< 1.5 W / 24 Vdc typical < 2.9 VA/ 24 Vac, peak current 200 mA
Pressure dependence	+/- 0.13% / mmHg
Long-term stability	< 2% in 15 years
Gas exchange	by diffusion
Warm up-time	approx. 1 hour
Response time	< 2 minutes
Enclosure material	ABS Plastic (on request Stainless steel)
Protection type	IP30
Protection class	III (according to EN 60 730)
Standards	CE-conformity, electro compatibility according to EN- 61 326 EMC directive 2014 / 30 / EU. low-voltage directive 2015 / 35 / EU

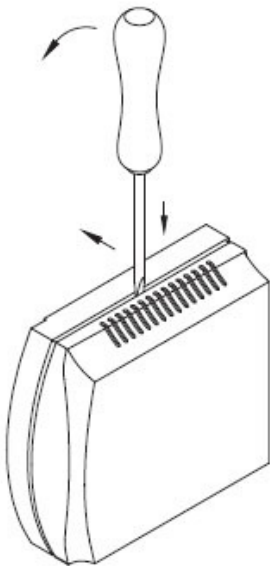
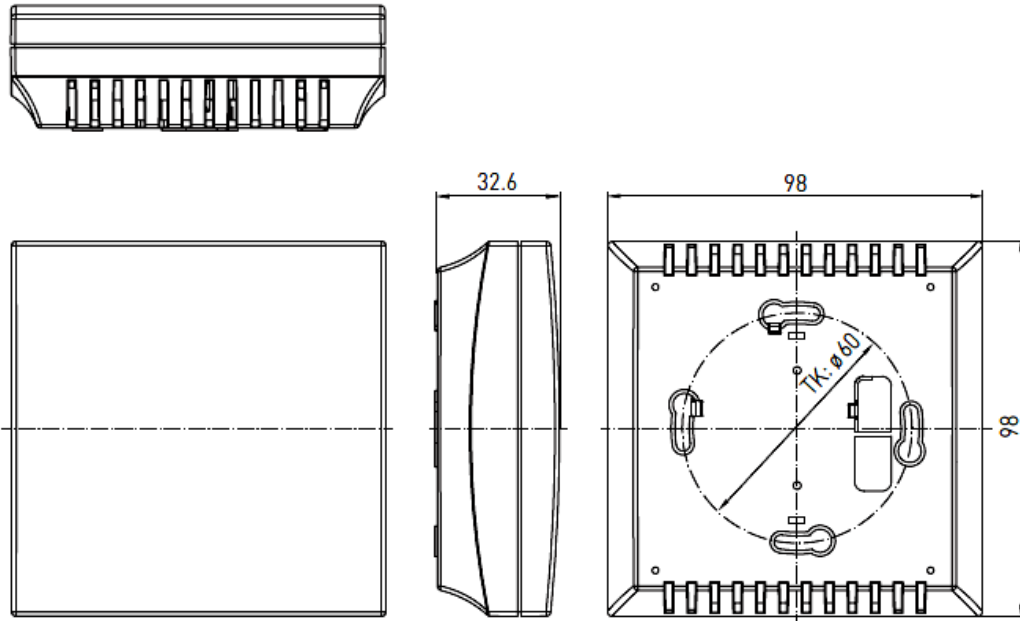
Carbon Dioxide (CO₂)

CO₂ sensor	Optical NDIR sensor (non-dispersive infra-red technology) with manual calibration (via zero button)
CO₂ measuring range	0-2000 ppm
CO₂ output	0-10 Vdc
CO₂ accuracy	+/-30 ppm plus 3% of measured value
Temperature dependence CO₂	+/-5 ppm / °C or +/- 0.5% of measured value /°C (whichever is higher)
Service life	> 12 years

Temperature

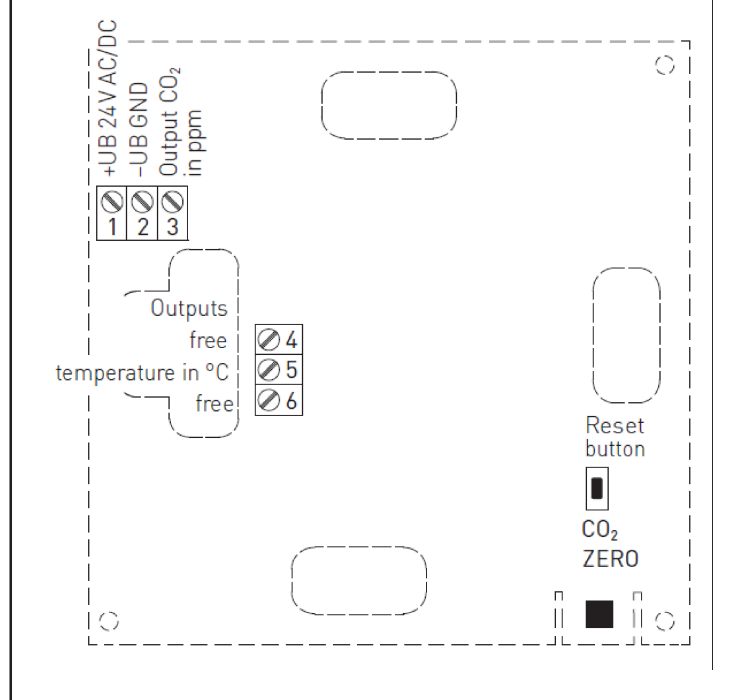
Temperature measuring range	0 to +50°C
Operation measuring range	0 to +50°C
Temperature output	0-10 Vdc
Deviation, temperature	+/- 0.2 K at 25°C

Dimensions in mm for ABS plastic housing



To open the enclosure, set a screwdriver (2.0) in the groove at centre, press down, and lift up the bottom frame slightly. Pull top cover forward and hold it.

Schematic diagram



Supply Voltage

For operating voltage reverse polarity protection, a one-way rectifier or reverse polarity protection diode is integrated in this device variant. This internal one-way rectifier also allows operating 0-10 Vdc devices on AC supply voltage.

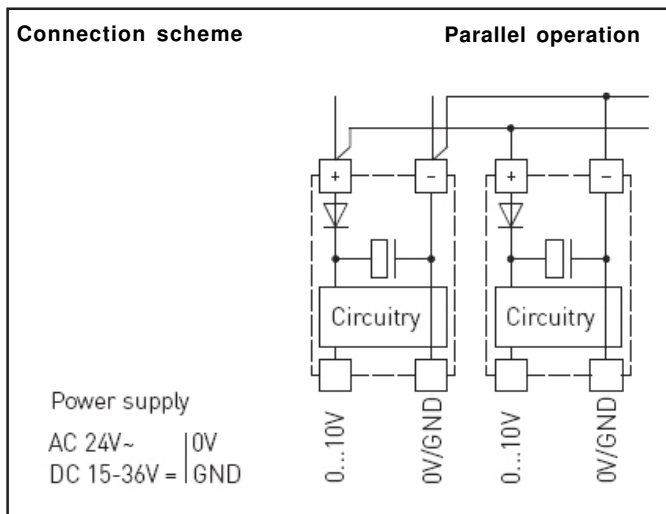
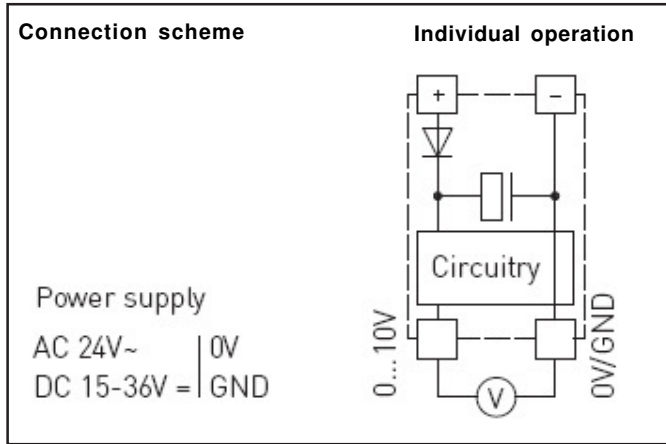
The output signal is to be tapped by a measuring instrument. Output voltage is measured here against zero potential (0 V) of the input voltage!

When this device is operated on **DC supply voltage**, the operating voltage input UB+ is to be used for 15 to 36 V DC supply and UB- or GND for ground wire!

When several devices are supplied by one 24 V **AC voltage supply**, it is to be ensured that all "positive" operating voltage input terminals (+) of the field devices are connected with each other and all "negative" operating voltage input terminals (-) (= reference potential) are connected together (in-phase connection of field devices). All outputs of field devices must be referenced to the same potential!

In case of reversed polarity at one field device, a supply voltage short-circuit would be caused by that device. The consequential short-circuit current flowing through this field device may cause damage to it.

Therefore, pay attention to correct wiring!



OneTemp^o pty ltd
MEASURE | CONTROL | RECORD
www.onetemp.com.au
1300 768 887

We reserve the right to make changes in our products without any notice which may effect the accuracy of the information contained in this leaflet.