

DATASHEET

rev. 01 - 18/10/2022

TOTAL AIR

CO₂ probe for heat recovery unit

ACD600027



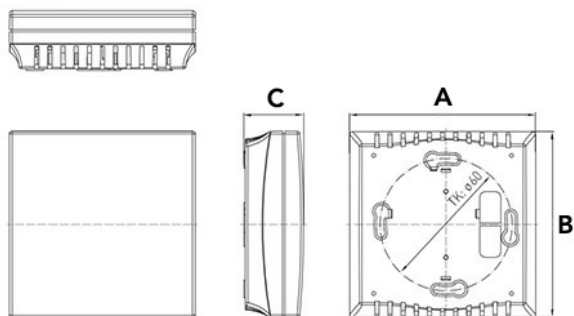
DESCRIPTION

The micro-processor controlled room probe is maintenance-free and allows the presence of CO₂ in the air to be detected. The measurement signals are transformed into standard 0-10V or 4...20 mA signals.

The room probe measures the CO₂ in the range of 0..2000 ppm or 0...5000 ppm.

In stylish plastic casing, with snap-on lid, bottom 4-hole fixing, for mounting in vertically or horizontally installed under-track boxes, with pre-determined breaking point for wall attachment. The CO₂ content of the air is detected by the NDIR optical sensor (non-dispersive infrared technology).

DIMENSIONS



CODE	A [mm]	B [mm]	C [mm]
ACD600027	85	85	27,5

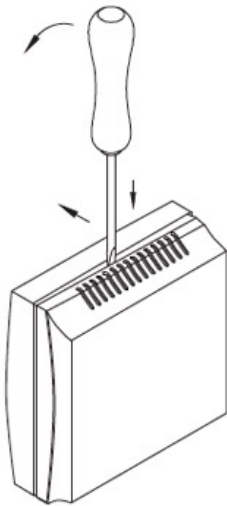
DATA

SPECIFICATIONS	DATA
Voltage supply	24V AC/DC ($\pm 10\%$)
Power consumption	< 1.5W/24V DC typical; < 2.9VA/24V AC typical; max. current 200 mA
CO2 Sensor	NDIR optical sensor (non-dispersive infrared technology) with automatic and manual calibration
CO2 measurement range	0... 2000 / 0... 5000 ppm 0... 2000 ppm; 0... 5000 ppm
CO ₂ outlet	0-10 V or 4...20 mA (selectable via DIP switch)
Measuring accuracy CO2	± 30 ppm $\pm 3\%$ of measurement value
Depending on the temperature CO ₂	± 5 ppm / °C or $\pm 0.5\%$ of the measurement value / °C whichever is greater
Pressure sensitivity	$\pm 0.13\%$ / mm Hg $\pm 0.5\%$ of the measurement value / °C whichever is greater
Long-term Stability	<2% in 15 years whichever is greater
Gas exchange	Diffusion based on the greater value
Relay output	with 24 V potential-zero exchange contact (selectable assignment via DIR switch) based on the greater value
Room temperature	0... +50 °C
Start-up time	about 1 hour
Response time	< 2 minutes
Electrical connection	0.14 - 1.5 mm ² , via screw clamps
Casing	plastic, ABS material, pure white colour (similar to RAL 9010)
Dimensions [mm]	85 x 85 x 27 mm
Assembly	wall-mounted or under-track, \varnothing 55 mm, bottom with 4 holes, for installation in vertical or horizontal under-track boxes
Protection class	III (according to EN 60730)
Protection rating	IP 30 (according to EN 60529)
Standards	EC compliant electromagnetic compatibility according to EN 61 326 EMC Directive 2014/30 EU Low Voltage Directive 2014/35/EU

TECHNICAL DATA

SPECIFICATIONS	DATA
CO2 measurement range	DIP1
0... 2000 ppm (default)	OFF
0... 5000 ppm	ON
Automatic CO ₂ adjustment of the zero point	DIP3
disabled	OFF
enabled (default)	ON
Outlet	DIP4
Voltage 0-10 V (default)	OFF
Current 4... 20 mA	ON
Note: DIP 2 and DIP 5 are not assigned!	--

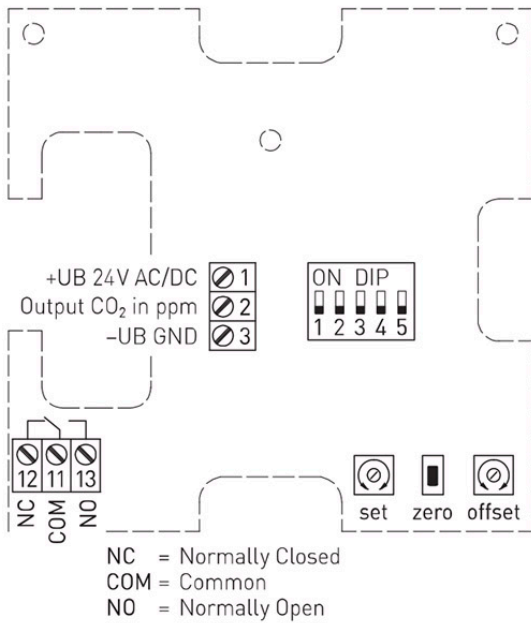
DIP switch



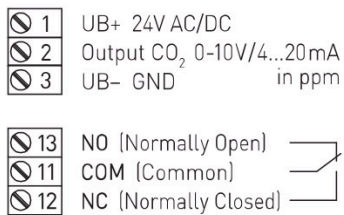
To open the case, insert a screwdriver (2.0) into the middle of the slot, press down and lift the frame slightly from the bottom.

Pull the lid forward and hold.

CONTROL DIAGRAM



CONNECTION DIAGRAM



potential-free
 changeover contact 24V
 optional

ITEMS

CODE	DESCRIPTION
ACD600027	CO2 A PROBE FOR "TOTAL AIR" HEAT RECOVERY UNIT