

MDT CO2 / VOC Combi Sensor 55, Flush mounted

Version		
SCN-CO2MGS.02	CO2 / VOC Combi Sensor	Flush mounted, White glossy finish, 55mm

The MDT CO2 / VOC Combi Sensor 55 monitors the air quality in closed rooms. With its separate sensors it measures the CO2 concentration, the VOC mixed gas concentration, the relative humidity and room temperature. The air quality controller is adjustable to operate as a Step / PI-controller for CO2 or as a VOC controller.

The air quality traffic light can be set in 3 or 4 steps and warns early of higher CO2- or VOC-concentration in the room. The additionally integrated room temperature controller in the Combi Sensor allows for a comfortable room temperature control, heating / cooling / heating and cooling.

Future actualisation of the CO2 / VOC Combi Sensor can be conducted via the MDT update tool (DCA). The download is available free of charge under www.mdt.de and www.knx.org

Fits 55mm systems / ranges

- GIRA Standard 55, E2, Event, Esprit
- BERKER S1, B3, B7
- JUNG A 500, A PLUS, A CREATION, AS 500, A550, A FLOW
- MERTEN 1M, M-Smart, M-Plan, M-Pure

The MDT CO2 / VOC Combi Sensor 55 is to be installed in an air-tight installation box.

The installation must be carried out in dry interior rooms. The delivery includes an installation ring.

For project design and commissioning of the Air quality VOC mixed gas sensor the ETS 5/6 is required.

You can find the database on our website www.mdt.de/downloads.html



- Production in Germany, certified according to ISO 9001
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- Combi Sensor for measuring the CO2 and Mixed gas concentration (VOC), the room temperature and the relevant humidity
- Upper and lower thresholds, adjustable per measured value
- Air quality control function adjustable as step / PI controller for CO2 or VOC sensor
- 4 step-controller with 1 Bit outputs or 1 Byte adjustable thresholds
- PI-controller with external adjustable setpoint and settable control parameters
- The air quality traffic light is configurable for the CO2 or the VOC Sensor with 4 colour channels and adjustable 1 Bit / scene /RGB or HSV output objects
- Installation in an air-tight installation box with the supplied installation ring
- Installation with support ring in wind sealed socket
- Power supply via KNX bus without auxiliary voltage
- Integrated bus coupling unit
- 3 years warranty

Technical Data	SCN-CO2MGS.02
Measurement range CO₂ concentration*	400-5000 ppm
Measurement range room temperature	0-40°C
Measurement range VOC concentration*	0-500 IAQ (Index for air quality)
Measurement range rel. humidity	0-95% rh
Specification KNX interface	TP-256
Available KNX database	ETS 5/6
Max. wire cross-section	
KNX bus connector	0,8mm Ø, rigid wire
Power supply voltage	KNX Bus
Power consumption KNX bus typ.	< 0,5 W
Ambient temperature range	0-45°C
Ambient humidity	max. 95% rh, avoid condensation
Protection classification	IP 20
Type of installation	Flush mounted (suitable for flat installation boxes from 35mm installation depth, airtight)
Recommended installation height	1,10m
Dimensions (W x H x D)	55 mm x 55 mm x 13 mm

* The air quality VOC Combi sensor 55 is not suitable for safety-relevant gas measurements

Evaluation of the CO₂ concentration	
400 ppm	Fresh, natural ambient air
401 - 800 ppm	Good indoor air quality
801 - 1000 ppm	Average indoor air quality
1001 - 1400 ppm	Moderate indoor air quality
1401 - 2000 ppm	Low indoor air quality, fatigue / drowsiness may set in
2001 - 5000 ppm	Poor indoor air quality, poor air hygiene
5000 ppm	Maximum Workplace concentration (max. 8 Hrs.)
Evaluation of the IAQ (Index Air Quality)	
0 - 50	Excellent indoor air quality
51 - 100	Good indoor Air quality, typical air quality value by ca. 100
101 - 150	Indoor Air, lightly polluted, ventilation recommended
151 - 200	Indoor Air, moderately polluted, low ventilation
201 - 250	Indoor Air, heavily polluted, average ventilation
251 - 350	Indoor Air, severely polluted, intensive ventilation
> 351	Indoor Air, extremely polluted, maximum ventilation

Exemplary circuit diagram SCN-CO2MGS.02

