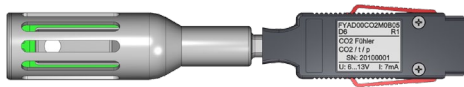


Digital carbon dioxide sensor FYAD 00-CO2Mx for assessing the indoor air quality and for checking ventilation in line with requirements.

With built-in temperature sensor and air pressure sensor for automatic measured value compensation, with ALMEMO® D6 connector.



CO₂ sensor
FYAD 00-CO2M1B05



CO₂ sensor,
FYAD 00-CO2M0B05

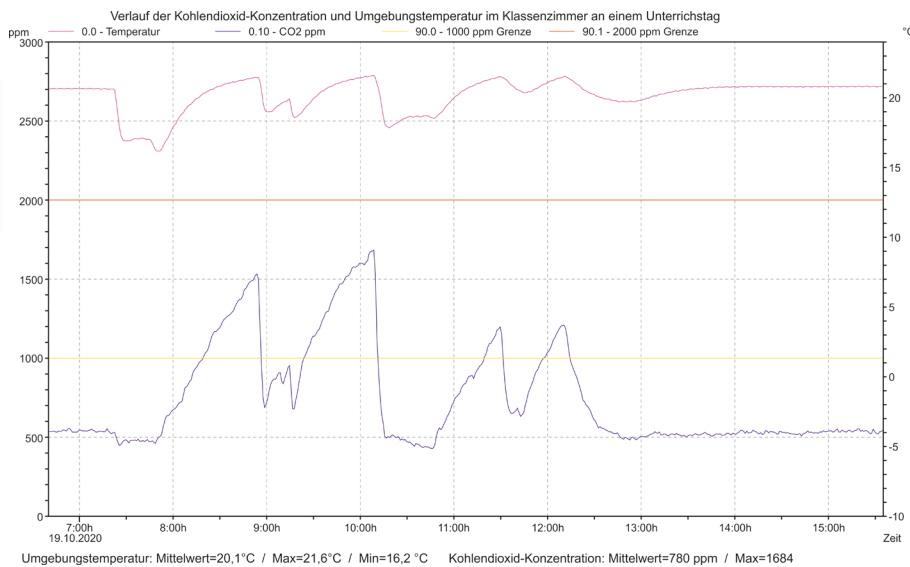
Technical data and functions

- Assessment of air quality for checking demand-oriented ventilation in recreation and work rooms, including classrooms, lecture halls, day care centers, meeting rooms, event rooms, production halls, health care facilities, public transportation.
- In combination with an ALMEMO® data logger, the measured values are continuously recorded with date, time. Based on the stored data, a differentiated analysis of the air quality during the room usage times is possible.
- Simultaneous measurement of air temperature as a criterion for assessing the quality of stay (comfort) in the rooms.
- Quantitative measurement of CO₂ concentration, measured value in ppm. Differentiated decision for concentrations near the quality levels 1000 ppm and 2000 ppm. On request: calibration of the sensor (traceable) by an accredited calibration laboratory.
- Calibrated reference system for CO₂ concentration for checking CO₂ sensors permanently installed in the building management system (BMS) / room ventilation system (AHU).
- Digital sensor with integrated signal processor. All calibration and sensor data are stored in the sensor.
- Unique auto-calibration procedure (without fresh air supply): aging effects are automatically compensated.
- Open protection cap for fast response time. Filter inside on the sensor carrier.
- Automatic compensation of carbon dioxide concentration with built-in digital temperature and barometric pressure sensor.
- Low power consumption. Long-term measurements with ALMEMO® data logger in sleep mode; only for current instrument types with sleep delay.
- 3 primary measurement channels (real measured variables): carbon dioxide concentration, air temperature, air pressure.

Technical Data

Sensor:	2-beam infrared sensing element. Non-dispersive infrared technology (NDIR).
Measuring range: 0...5 000 ppm.	Automatic compensation of pressure and temperature dependence of CO ₂ measurement with the built-in sensors.
Accuracy:	±(50 ppm +3 % of measured value)
Nominal conditions:	25°C, 1013 mbar
Switch-on time (initialization):	15 s
Response time t63:	140 s
Measuring interval:	fixed 15 s as exponential moving average over 60 s (= 4 instantaneous values 15 s).
Range of application:	FYAD 00-CO2M1B05: -40 ... 60 °C FYAD 00-CO2M0B05: -10 ... 60 °C 0...95 % r.h. (non-condensing), 700 ... 1100 mbar
Protection cap:	Material PA12, diameter approx. 20 mm, length approx. 51 mm
Sensor tube:	FYAD 00-CO2M1B05: stainless steel, diameter 12 mm, length approx. 130 mm,
Sensor supply:	via ALMEMO® D6 connector

Connection:	FYAD 00-CO2M1B05: permanently connected cable 2 m with ALMEMO® plug FYAD 00-CO2M0B05: sensor mounted directly on ALMEMO® connector
Digital air pressure sensor (built-in)	Measuring range: 700 ... 1100 mbar Accuracy: typ. ± 2 mbar (at 25 °C)
Digital air temperature sensor (built-in)	Measuring range: -40 ... +60 °C Accuracy: typ. ± 0.5 °C (at 25 °C)
ALMEMO® D6 connector:	Measuring channels: Carbon dioxide concentration, air temperature, air pressure Refresh rate: 15 sec. for all 3 channels
Supply voltage:	6 ... 13 V DC
Current consumption:	typ. approx. 7 mA (average current at measuring interval 15 s)



Measured Value Recordings of CO₂ Concentration and Room Temperature (Example)



ALMEMO® measuring system (example):
CO₂ sensor
with data logger ALMEMO® 202/204

Versions (incl. works test certificate)

Digital carbon dioxide sensor, measuring range 5 000 ppm, digital air temperature sensor and air pressure sensor built-in.

With handle, permanently connected cable with ALMEMO® D6 connector.

Sensor, directly mounted on ALMEMO® D6 connector

Order no.

FYAD00CO2M1B05

FYAD00CO2M0B05

ÖKD calibration KY96xx, carbon dioxide concentration, for digital probe, see chapter calibration certificates
The ÖKD calibration fulfills the requirements of DIN EN ISO/IEC 17025 for test equipment.