MB– Systemtechnik
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Datasheet: CO_2 Measuring device Digital Design CO_2 MD 100

The microprocessor-controlled CO2 measuring device is used to record the CO2 content of the air in the range from 0 to 5,000 ppm and the room air temperature. The measurement signals are reproduced by a digital display.
The CO2 content of the air is determined by means of an optical sensor (NDIR), non-dispersive infrared technology. By using the sensor according to the dual principle, disturbances of the measurement by pollution and aging can be excluded as far as possible, so that a long function time of the device is ensured. Calibration is not necessary under normal operating conditions.
Due to the large display, the application range of the CO2 meter is particularly recommended in rooms or areas where you want to visualize the values over a large Horizon.

Technical data		**CO2 MD 100**
Accuracy	Measuring method CO_2	Dual Wavelength NDIR
	Temperature	PT 1000
	Measuring range CO_2	0-5.000 ppm
	Measuring range temperature	-10-50°C
	Measurement accuracy	± (4 % fixed value + 3 % reading)
	Response	< 40 sec
	Measuring interval	1,5 sec
General	Warm-up time	< 3 min
	Ambient temperature	-40 - + 70 °C
	Temperature dependence	0,2 % FS/ °C
Operating characteristics	Operating temperature	0 - 50 °C
	Perm. rel. humidity	0 - 95 % non condensing
	Max. Air velocity	0,2 - 1 m/s
Power	Power supply	9 VDC, 1,5 A external power supply unit
Output	Output	Display, Relay SPST, Ton
	Communication	RS485
Dimensions	Length x width x depth	460 mm x 220 mm x 40 mm

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Operating Instructions: CO2 Meter Digital Design CO2 MD 100

1. After electrical connection

- Initialization of the device
- After initialization of the device, the display shows the current CO2 value and the room temperature
- During initial start-up approx. 5 minutes stabilization phase
- In case of errors Display E1 = Temperature sensor error E2 = Temperature sensor not connected

2. Changing the settings

- Mode

(CO2, Temperature)
- UP Increase setting or Yes
- Down Reduction of the setting or No

Nr.	Initial Character	Description	Selection by actuation ▲ ▼
0	xxx ppm	State	
1	xxx on	Setting CO2 value for relay contact ON	▲ CO2 + 50 ppm ▼ CO2 - 50 ppm
2	xxx off	Setting CO2 value for relay contact OFF	▲ CO2 + 50 ppm ▼ CO2 - 50 ppm
3	on bu	Setting the audible alarm	▲ ON ▼ OFF
4	on bl	Setting the blink display	▲ ON ▼ OFF
5	on Cds	Brightness setting	▲ ON ▼ OFF
6	tD-C tdt	Temperature selection °C/°F	°C/°F
7	xx CCL	Calibration CO2 value	± 10 ppm
8	x.x tCl	Calibration temperature	± 0,5 °C
9	x CID	Setting the ID NR	± 1

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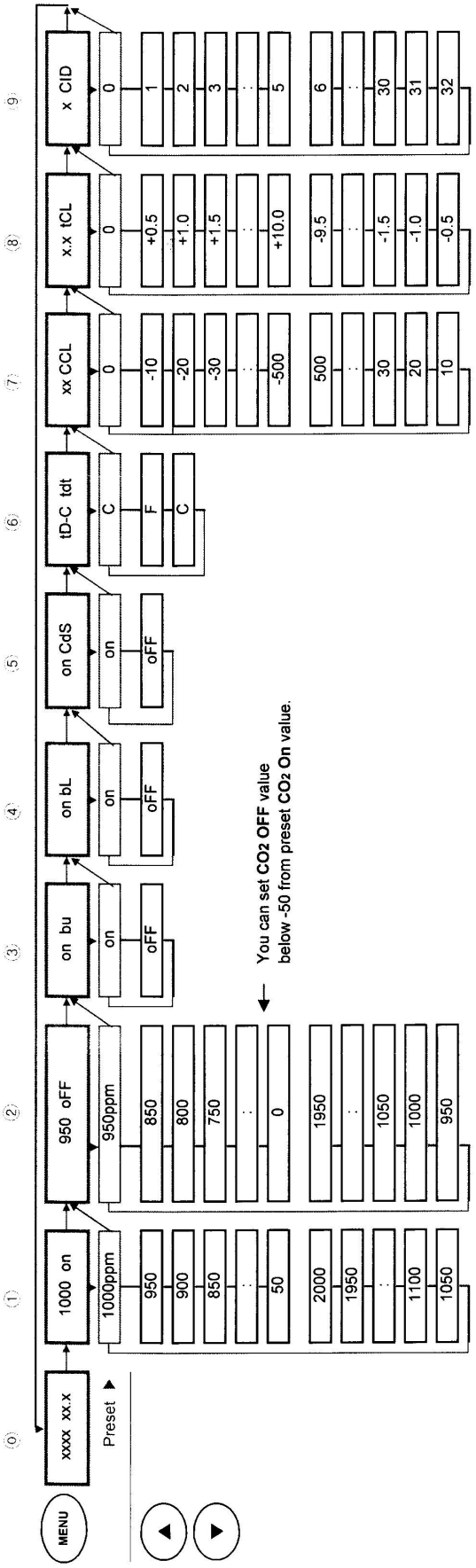
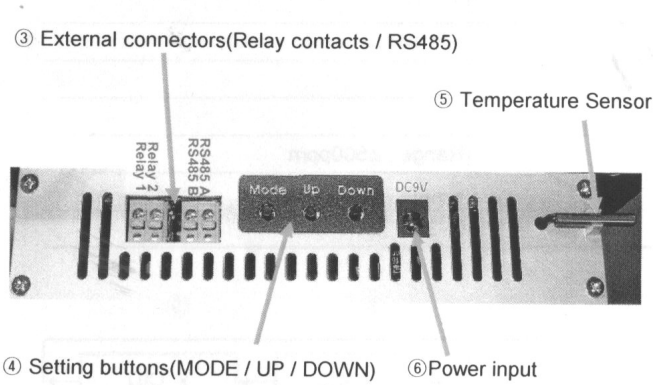
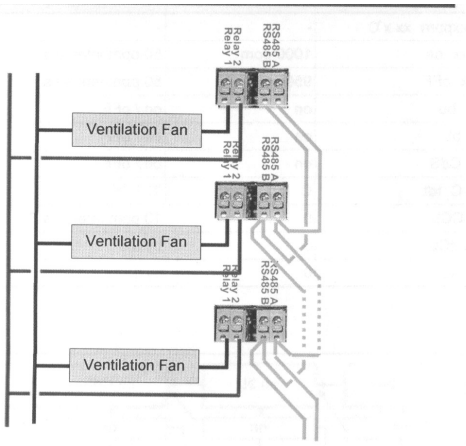
Menu displays



Side view



Connection diagram



Relay output maximum 230 V, 2 A