**GMF 430 E****Important!**

The handling of the device requires the knowledge and observance of this manual.

Sensoric technology

The sensor GMF 430 is operated with electrochemical sensors.
The sensor signal is processed digitally and is available as information for reading via RS 485 BUS and analysis via a BUS-center.

Mounting

The sensor is suitable for surface wall mounting.

Sensor connection

The sensor GMF 430 E can be operated with an unregulated DC voltage of 12-30V.

For connecting, the shielded cable JY(St) 2x2x0.8 mm is used.

The wire colors are assigned as follows:

Terminal 1: +24V	=> red
Terminal 2: RS485 Terminal A	=> white
Terminal 3: RS485 Terminal B	=> yellow
Terminal 4: 0V	=> black
Terminal 5: shield bushing	=> drain wire

The drain wire in the cable is connected to the shield.

CAUTION: When mounting, make sure, that bare cable end and the bare drain wire is to be covered with a insulation and does not come in contact with the circuit.

Maintenance

The sensor is preset at the factory with calibration gas.
Regular maintenance is required to obtain its functionality.

Maintenance aids

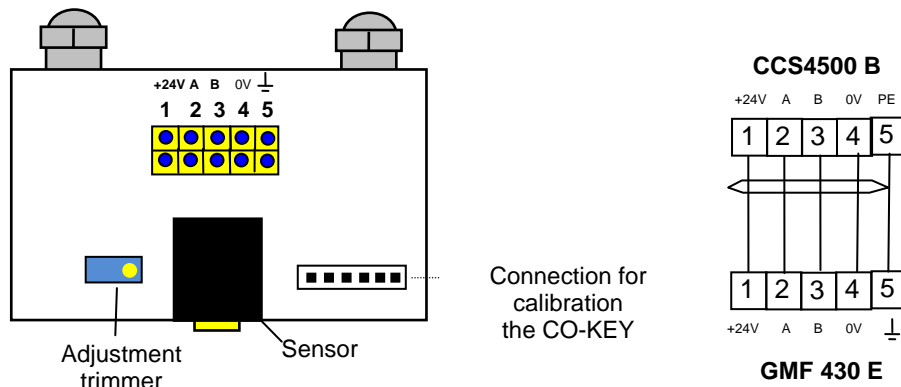
Operating element "CO-KEY"
Test gas (known CO/NO₂-concentration)
Gas feed adapter
Flow controller, flow meter 0-1 liters / min

Adjustment

The sensor can be calibrated using any known gas concentration:

1. For this, the CO key is connected, that displays the current gas concentration.
2. Use test gas adapter for feeding test gas (about. 0,2 l/min)
3. The balance of the adjustment trimmer until the required gas concentration is displayed.

Connecting diagram



Technical Datas: GMF 430 E

Suitability:	dusty and dirty areas, underground car parks etc.
Measuring principle:	electrochemical
Gas type:	diverse
Measuring range:	CO: 0..300 ppm, NO ₂ : 0..20 ppm, O ₂ : 0..25 vol%
Accuracy:	<+-1% of measuring range
Response time T ₉₀ :	< 30 sec
Temperature range:	-20..+55°C (ambient)
Humidity:	0..95% RH
Pressure range:	700-1300 hPa
Housing:	glass reinforces plastic, LxWxD: 100x80x30mm
Protection type:	IP65
Gas entry:	diffusion
Output signal:	digital über RS 485 BUS
Life time:	>5 Jahre (warranty: 2 years)
Storage time:	> 1/2Jahr
CE-conformity:	emission: residential, immunity: industrial area
Weight:	142g
Supply:	12..30 VDC (nominal 24VDC)
Current consumption:	15mA @ 24 V DC
Connection line:	up to 1200 m: JY (ST) Y 2x2x0,8 mm ²

Commissioning

The setting of the sensor must be checked during commissioning by a test gas feeding.

Maintenance

To maintain the functional safety at certain intervals a maintenance is required. The maintenance interval can be seen from the test sticker on the controller. There is a maximum of 1 year.

Außerbetriebnahme

Ist der Messfühler länger als 4 Wochen außer Betrieb, muß er nach einer Woche Betriebszeit mit Prüfgas überprüft und ggf. neu kalibriert werden.

Stand Februar 2009

Technische Änderungen vorbehalten