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#### OPERATING INSTRUCTION

GMF 330 P RS485-BUS-Sensor

Sensor with Pellistor (Heat tinting) for combustible Gases



**GMF 330 P** 

#### Important!

The device may only be operated if this operation instruction has been understood and is applied.

## Sensor technology

The sensor GMF 330 is operated with pellistors (heat tinting).

The sensor signal is processed digitally and is available as information for querying via the RS 485 bus and for evaluation via a bus center.

#### Mounting

The sensor is suitable for surface wall mounting.

#### Sensor connection

The gas sensor GMF 330 P can be operated with an unregulated DC voltage of 12-35V.

The shielded cable JY (St) 2x2x0.8 mm is used as connecting cable The wire colors can be assigned as follows:

Terminal 1: +24 V => rot
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 shielding.

CAUTION: When installing, make sure that bare wire and the bare ground wire are to be covered with insulation and cannot come into 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**

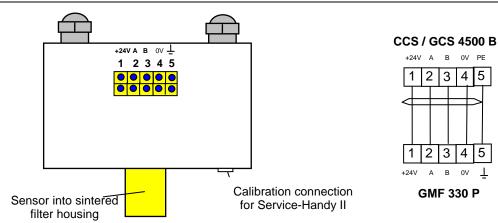
Operating element "Service Handy II"
Test gas (known gas concentration)
Gas feeding adapter
Flow controller, flow meter 0-1 liters / min

#### **Adjustment**

The sensor can be calibrated using any known gas concentration:

- 1. For this, the service is connected to the jack socket, that displays the current gas concentration.
- 2. Using the test gas adapter for test gas feeding (about 0.21/min)
- 3. The balance is achieved by means of the adjustment trimmer on Service Handy until the required gas concentration is displayed

# **Connecting diagram**



### Technical Data: GMF 330 P

Suitability: dusty and dirty areas, underground car parks, laboratories etc.

Measuring principle: heat tinting diverse
Measuring range: 0..100 %LEL

Accuracy: <+-1% of measuring range

Response time T90: < 20 sec

Temperature: -20...+55°C (ambient)

Humidity range: 0...95% RH Pressure range: 700-1300 hPa

Housing: glass reinforced plastic, LxWxD: 100x80x30 mm

Protection type: IP65 (sensor IP 44)

Gas entry: diffusion

Output signal: digital via RS 485 BUS

CE-conformity: emission: residential area, immunity: industrial area

Weight: 150g Supply: 12..36 VDC

Current consumption: 50mA @ 24 V DC

Connection line: up to 1200 m: JY (ST) Y 2x2x0,8 mm<sup>2</sup>

# Commissioning

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

### **Maintenance**

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

# **Decommissioning**

Is the sensor for longer than 4 weeks off, it must be checked after a week uptime using test gas or must be recalibrated.

Status February 2009

Subject to technical changes