UMSITEC
Umwelt- und Sicherheitstechnik

OPERATING INSTRUCTION   GMF 730 NR BUS Wet Area Sensor
Sensor with infrared Sensor for wet Areas

Important!

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

Sensor Technology

The sensor GMF 730 NR is powered by infrared sensors.
The sensor signal is processed digitally and is available as information for reading via the RS 485 BUS and analysis via a bus center.

Mounting

The sensor is suitable for surface wall mounting.

Sensor Connection

The gas sensor 730 GMF IR can be operated with an unregulated DC voltage of 12-35V.

The shielded cable JY(St) 2x2s0.8 mm is used as connecting cable.
The wire colors can be 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 cable bushing => drain wire

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

CAUTION: When installing, make sure that naked wire and the bare wire will be covered with insulation and may not come into contact with the circuit.

Maintenance

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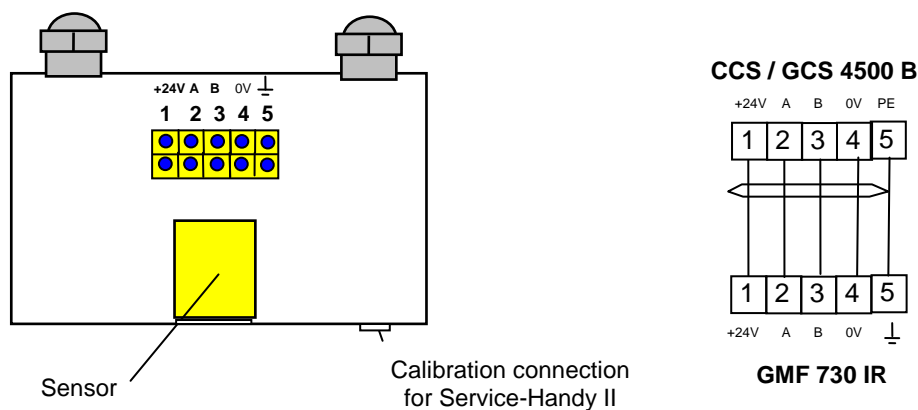
Maintenance aids

Operating element "Service Handy II"
Test gas (known gas 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 Service Handy is to be connected to the jack socket, that displays the current gas concentration
2. Using the test gas adapter to feed test gas (approx.. 0,2 l/min)
3. The balance is achieved by means of the adjustment trimmer on the Service-Handy until the required gas concentration is displayed.

Connecting diagram

CCS / GCS 4500 B

Sensor

Calibration connection for Service-Handy II

GMF 730 IR

Commissioning

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

Maintenance

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

Decommissioning

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

Technical Data: GMF 730 NR IR

Suitability: dusty, dirty rooms, garages, laboratories, etc.
Measuring principle: infrared absorption
Gas type: CO2
Measuring range: 0..5 vol%
Accuracy: <+- 1% of range
Response time T90:   <30 sec
Temperature range: -20 .. +55 ° C (ambient)
Humidity range: 0..95% RH
Pressure range: 700-1300 hPa
Housing: glass-reinforced plastic, LxWxH: 100x80x30mm
Protection type: IP65 (sensor IP 44)
Gas entry: diffusion
Output signal: digital via RS 485 BUS
CE conformity: emissions: Living area: Immunity: Industrial environment
Weight: 150 g
Supply: 12..36 VDC
Current consumption: 60mA @ 24VDC
Connection cable: up to 1200 m: JY (ST) Y 2x2x0.8 mm²

Order no.	Gas type	Measuring range
GMF 730 NR IR CO2 5V	Carbon dioxide	0...5 vol%
GMF 730 NR IR CO2 10V	Carbon dioxide	0...10 vol%
GMF 730 NR IR HC UEG	Hydrocarbon	0...100 LEL
GMF 730 NR IR CO2 3000	Carbon dioxide, air quality	0...3000 ppm
GMF 730 NR IR CH4 UEG	Methane	0...100 LEL
GMF 730 NR IR PRP LEL	Propane	0...100 LEL

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Reserve technical changes