Gas Sensor ME 1250
Hydrogen Peroxide H_2O_2

Müller-Elektronik AG
Gaswarnanlagen & Wasserqualität

Data Sheet

Version 04/2023, Technical changes reserved

H_2O_2

Gas	Hydrogen Peroxide
Formula	H_2O_2
CAS number	7722-84-1
Max. workplace concentration	1 ppm
Relative density	1.17
Appearance	Colorless Almost odorless
Hazards	Toxic Corrosive

- **Automatic zero point calibration**
- **Active noise reduction on the output signal**
- **Linear measurement signal depending on the gas concentration**
- **High response sensitivity with a short response time**
- **Selective and reliable measurement with stable measuring signal and zero point**
- **Temperature compensated measurement**
- **Long service life**

The ME1250 Gas Sensor is a remote measuring unit for monitoring gas concentration of hydrogen peroxide and is used to control ventilation systems and to alert for personal protection.

The microprocessor-controlled electronics of the sensor, adapted to the specific properties of the measuring cell, enable fast and reliable signal processing. The measured gas concentration is transmitted to a Gas Control Panel, which can manage a large number of distributed gas sensors.

Thanks to bus communication, only one cable is required, which can be continued from sensor to sensor. The ME 1250 Gas Sensor is also available with an analogue output signal of 4…20 mA. The measured gas concentration can thereby be processed by other PLC (Programmable Logic Controllers).

The optional relay module expands the ME 1250 Gas Sensor internally with 3 relays for direct switching of signal transmitters without the use of a control panel.

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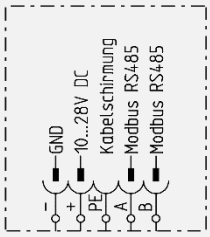
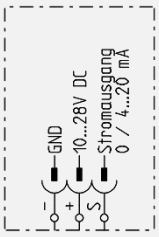
Technical Specifications

Measurement method	Electrochemical	
Measuring range	0…100 ppm	other measuring ranges on request
Alarm thresholds	Alarm 1: 40 ppm Alarm 2: 60 ppm	recommendation
Lifespan in air	up to 2 years	according to cell manufacturer
Break-in period	4 h	according to cell manufacturer
Response time t_{90}	< 60 sec	
Operating voltage	10…28 VDC	nominal 24 VDC
Ambient temperature	-20…+50 °C	
Humidity	15…90% rF	non-condensing
Mounting height	30 cm above floor	heavier than air
Casing	*Default:* Powder-coated aluminum Orange RAL 2004 80 x 125 x 59 mm 500 g	*Optional:* ABS plastic Light gray RAL 7035 81 x 121 x 56 mm 250 g
Cable entry	M20	
EU conformity	CE mark including EMC test	

Versions

Article code	**12BUS-H2O2-12**	**1250-H2O2-12**
Description	ME 1250 Bus	ME 1250 Analogue
Output signal	Bus communication with Control Panel	Analogue 4…20 mA Load max. 800 Ω at 24V input
Connection	4-core cable U72M 1x4x0.6 mm Shielded	3-core cable U72M 1x4x0.6 mm or CY 0.5 mm² Shielded
		
Topology	Bus, tree or star topology	Star topology
Power	< 0.15 W	< 0.8 W

Cross sensitivity

Due to the electrochemical measurement principle, the measurement is more selective than other measurement methods. The cross-sensitivity table can be found in the online version of this data sheet.

Accessories

Article code	
1250-REL	Relay module for single sensor
1250-AIR-BOX	Add-on box for ventilation duct
1250-AIR-FLOW	Hose fitting
1250-SUP	Mounting plate for round columns
1250-SCHUTZ	Weather protection

Maintenance

Annual calibration and function check
with calibration gas, carried out by trained staff.

Consumables

Article code	
CELL-H2O2-CB100	Measuring cell for hydrogen peroxide Lifespan: up to 2 years

- Exposure above 100 ppm requires recalibration
- Exposure above 200 ppm can destroy the measuring cell

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