

Gas Sensor ME 1250

Nitrogen Monoxide NO



NO

Gas	Nitrogen Monoxide
Formula	NO
CAS number	10102-43-9
Max. workplace concentration	5 ppm
Relative density	1.04 ▼
Appearance	Colorless Odorless
Hazards	Toxic Nausea

- 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 nitrogen monoxide. This toxic gas is mainly found in the exhaust gases of diesel engines. However, the gas quickly converts to nitrogen dioxide. The nitrogen dioxide sensor is therefore used in underground car parks.

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.

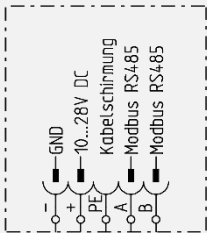
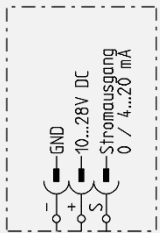
Thanks to bus communication, only one cable is required, which can be continued from sensor to sensor. The ME 1250 Gas Sensor is also available with an analogue output signal of 4...20 mA. The measured gas concentration can thereby be processed by other PLC (Programmable Logic Controllers).

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.

■ Technical Specifications

Measurement method	Electrochemical	
Measuring range	0...20 ppm	other measuring ranges on request
Alarm thresholds	Alarm 1: 1 ppm Alarm 2: 5 ppm	recommendation
Lifespan in air	up to 3 years	according to cell manufacturer
Break-in period	4 h	according to cell manufacturer
Response time t_{90}	< 25 sec	
Operating voltage	10...28 VDC	nominal 24 VDC
Ambient temperature	-40...+50 °C	
Humidity	15...90% rF	non-condensing
Mounting height	30-150 cm above floor	
Casing	<i>Default:</i> ABS plastic Light gray RAL 7035 81 x 121 x 56 mm 250 g	<i>Optional:</i> Powder-coated aluminum Orange RAL 2004 80 x 125 x 59 mm 500 g
Cable entry	M20	
EU conformity	CE mark including EMC test	

■ Versions

Article code	12BUS-NO-21	1250-NO-21
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 mm ² 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-NO-C25	Measuring cell for nitrogen monoxide Lifespan: up to 3 years

- Exposure above 20 ppm requires recalibration
- Exposure above 50 ppm can destroy the measuring cell