Gas Sensor ME 1250 Propane C₃H₈

Data Sheet





Version 04/2023, Technical changes reserved



- 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
- Insensitive to other gases
- Insensitive to room temperature and humidity
- No destruction of the measuring cell at high gas concentrations
- Very long service life due to the optical measuring method

The ME1250 Gas Sensor is a remote measuring unit for monitoring gas concentration and is used as a leak detector or for explosion 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

| Measuring range0100% LELother measuring ranges on requestAlarm thresholdsAlarm 1:20% LELrecommendationAlarm 2:40% LELrecommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period10 secoperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Measuring range0100% LELother measuring ranges on requestAlarm thresholdsAlarm 1: Alarm 2: 40% LELrecommendation recommendation Alarm 2: 40% LELLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time t₂₀10 seconominal 24 VDCOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidityHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminum Orange RAL 2004 80 x 125 x 59 mm 500 gABS plastic 250 gCable entryM20250 g | | | |
|--|--|-------------------------------|----------------------------|-----------------------------------|
| Alarm thresholdsAlarm 1: Alarm 2: 40% LEL20% LEL recommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period10 sec0Operating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °C-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Alarm thresholdsAlarm 1: Alarm 2: 40% LELrecommendation recommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time too10 secominal 24 VDCOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °C-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plasticOrange RAL 2004 S00 gLight gray RAL 7035 S0 s0 s 125 x 59 mm S00 g81 x 121 x 56 mm 250 gCable entryM20-40+40 | Measurement method | Infrared / Optical | |
| Alarm thresholdsAlarm 1: Alarm 2: 40% LEL20% LELrecommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period10 secoperating to cell manufacturerOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Coperating voltageHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Alarm thresholdsAlarm 1: Alarm 2: 40% LELrecommendation recommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time too10 secominal 24 VDCOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °C-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | | | |
| Alarm thresholdsAlarm 1: Alarm 2: 40% LEL20% LELrecommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period10 secoperating to cell manufacturerOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Coperating voltageHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Alarm thresholdsAlarm 1: Alarm 2: 40% LELrecommendation recommendationLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time too10 secominal 24 VDCOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °C-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plasticOrange RAL 2004 S00 gLight gray RAL 7035 S0 s0 s 125 x 59 mm S00 g81 x 121 x 56 mm 250 gCable entryM20-40+40 | | | IK |
| Alarm 2:40% LELLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time too10 secresponse time tooOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Cresponse time tooHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Alarm 2:40% LELLifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time tso10 secresponse time tsoOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Cresponse time tsoHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional: Powder-coated aluminumPowder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 7035 80 x 125 x 59 mm 500 g81 x 121 x 56 mm 250 gCable entryM20 | Measuring range | 0100% LEL | other measuring ranges on request |
| Lifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time tao10 secOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Cnon-condensingHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Lifespan in air10 yearsaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerBreak-in period3 minaccording to cell manufacturerResponse time too10 secnominal 24 VDCOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °Cnon-condensingHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Alarm thresholds | Alarm 1: 20% LEL | recommendation |
| Break-in period3 minaccording to cell manufacturerResponse time tao10 secOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Break-in period3 minaccording to cell manufacturerResponse time tso10 secOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 g | | Alarm 2: 40% LEL | |
| Response time t9010 secOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Response time tso10 secOperating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Lifespan in air | 10 years | according to cell manufacturer |
| Operating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Operating voltage1028 VDCnominal 24 VDCAmbient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Break-in period | 3 min | according to cell manufacturer |
| Ambient temperature -40+60 °C Humidity 2098% rF non-condensing Mounting height 30 cm above floor heavier than air Casing Default: Optional: Powder-coated aluminum ABS plastic | Ambient temperature-40+60 °CHumidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Response time t ₉₀ | 10 sec | |
| Humidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Humidity2098% rFnon-condensingMounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Operating voltage | 1028 VDC | nominal 24 VDC |
| Mounting height30 cm above floorheavier than airCasingDefault: Powder-coated aluminumOptional: ABS plastic | Mounting height30 cm above floorheavier than airCasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 gCable entryM20 | Ambient temperature | -40+60 °C | |
| Casing Default: Optional: Powder-coated aluminum ABS plastic | CasingDefault:Optional:Powder-coated aluminumABS plasticOrange RAL 2004Light gray RAL 703580 x 125 x 59 mm81 x 121 x 56 mm500 g250 g | Humidity | 2098% rF | non-condensing |
| Powder-coated aluminum ABS plastic | Powder-coated aluminum ABS plastic Orange RAL 2004 Light gray RAL 7035 80 x 125 x 59 mm 81 x 121 x 56 mm 500 g 250 g | Mounting height | 30 cm above floor | heavier than air 🔻 |
| | Orange RAL 2004 Light gray RAL 7035 80 x 125 x 59 mm 81 x 121 x 56 mm 500 g 250 g Cable entry M20 | Casing | Default: | Optional: |
| | 80 x 125 x 59 mm 81 x 121 x 56 mm 500 g 250 g Cable entry M20 | | Powder-coated aluminum | ABS plastic |
| Orange RAL 2004 Light gray RAL 7035 | 500 g 250 g Cable entry M20 | | Orange RAL 2004 | Light gray RAL 7035 |
| 80 x 125 x 59 mm 81 x 121 x 56 mm | Cable entry M20 | | 80 x 125 x 59 mm | 81 x 121 x 56 mm |
| 500 g 250 g | · | | 500 g | 250 g |
| Cable entry M20 | El conformity CE mark including EMC test | Cable entry | M20 | |
| EU conformity CE mark including EMC test | | EU conformity | CE mark including EMC test | |

Versions

| Article code | 12IRB-C3H8-12 | 12IR-C3H8-12 |
|---------------|--|--|
| Description | ME 1250 Bus | ME 1250 Analogue |
| Output signal | Bus communication with Control Panel | Analogue 420 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 |
| | of the second se | o |
| Topology | Bus, tree or star topology | Star topology |
| Power | < 1.2 W | < 1.8 W |

Cross sensitivity

Due to the optical measuring method, the measurement is very selective.

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

No wearing parts.

Related Products

| Article code | |
|---------------|---|
| 12BUS-C3H8-12 | Gas Sensor ME 1250 |
| | Bus |
| | Propane C ₃ H ₈ Pellistor |
| 1250-C3H8-12 | Gas Sensor ME 1250 |
| | Analogue |
| | Propane C ₃ H ₈ Pellistor |

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