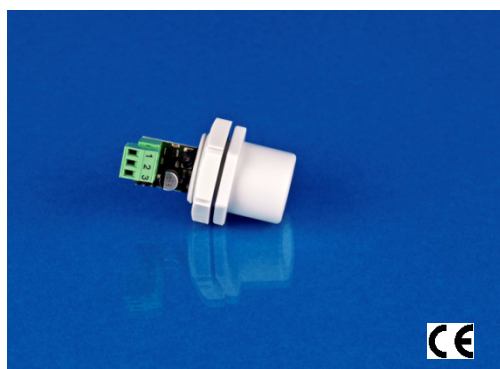




Combustible gas detector G-series
for wall mounting



Combustible gas detector with LCD display G-series
for wall mounting



Combustible gas sensor with PCB,
easy to replace when life time exceeded

Gases

- Methane, CH₄
- Liquid Petroleum Gas, LPG
- Hydrogen, H₂
- Propane, C₃H₈
- Ethylene, C₂H₄
- Ethyl alcohol, C₂H₅OH
- Methanol, CH₃OH
- Acetone, C₃H₆O
- Isopropyl alcohol, C₃H₈O
- Iso/n-Butane, C₄H₁₀
- Toluene, C₇H₈
- Petrol Vapors

On request: other combustible gas detectors

Features

- Pellistor (Catalytic Bead) sensor
- Power supply 24 Vdc for output 4-20 mA
- Power supply 24 Vac for output 2-10 Vdc
- Measuring ranges: see ordering on page
- IP65 enclosure with quick locking screws
- Digital measurement value processing incl. temperature compensation
- Internal function control with integrated hardware watchdog
- Data / measured values in micro controller of sensor unit, therefore simple exchange uncalibrated <-> calibrated
- High accuracy, selectivity and reliability
- Low zero point drift
- Hardware & software according to SIL2 compliant development process
- Easy maintenance and calibration by exchange of the sensor unit or by comfortable on-site calibration

Options

- LCD display
- LCD display for values & operation, 2 x open-collector for horn & warning lamp.
- Duct mounting set available for sensing combustible gas in ventilation ducts.

Design features

Exchangeable gas sensor unit including digital value processing, temperature compensation and self control for the continuous monitoring of the ambient air.

The gas sensor unit G-series houses a module with micro controller, analog output and power supply in addition to the Pellistor sensor element including amplifier.

The micro controller calculates a linear 4-20 mA or 2-10 Vdc signal out of the measurement signal and also stores all relevant measured values and data of the sensor element.

Calibration is done either by simply replacing the sensor unit or by using the comfortable, integrated calibration routine directly at the system.

Due to the standard analogue signal the Combustible gas detectors G-series is compatible with any electronic analogue control, DDC/PLC control or automation system.

Duct Mounting

Duct mounting set for sensing Combustible gas detectors G-series as in ventilation ducts.

The duct mounting set DMS 300G includes:

- 300 mm long duct probe with neoprene gasket on the duct flange for good sealing into the duct.
- 2 x 1 meter silicone hose
- Plug-connector to the Combustible gas detectors G-series gas sensor head.



Duct Mounting Set DMS 300G



Duct Mounting Set DMS 300G assembled with Combustible gas detectors G-series

Technical data**Electrical**

Power supply	16-29 Vdc, reverse-polarity protect.; 18-27 Vac (only for output signal 2-10 Vdc)
Power consumpt.	75 mA, max. (1.8 VA for 24 V)
Analog output signal	Proportional, overload and short-circuit proof, load < 500 Ohm for current signal, < 50 kOhm for voltage signal 4 - 20 mA or 2 - 10 V = measuring range 3.2 < 4 mA or 1.6 - 2 V = under range > 20- 21.2 mA or 10 - 10.6 V = over range 2 mA or 1 V = fault > 21.8 mA or 10.9 V = fault High

Sensor performance

Gas type	See Order Information
Sensor element	Pellistor (Catalytic Bead)
Accuracy	+/-1%
Resolution	0.2%
Response time ₉₀	<15 sec.
Zero Point variation	0.5%
Long-term zero-point drift	<0.5% LEL
Long-term sensivity drift	<1%
Temp. range	+20 °C to +50 °C
Humidity range	5 to 95% RH non-condensation
Sensor life time	> 36 months / normal ambient conditions
Calibration interval	6 months
Poisoning	
Pressure range	Atmospheric ± 20 %
Storage temp.	+5 °C to +30 °C
Storage time	6 months
Poisoning	Sensitivity of pellistor sensor can be influenced by substances containing silicon compounds and even poisoned and destroyed them

Cont. Technical data**Physical**

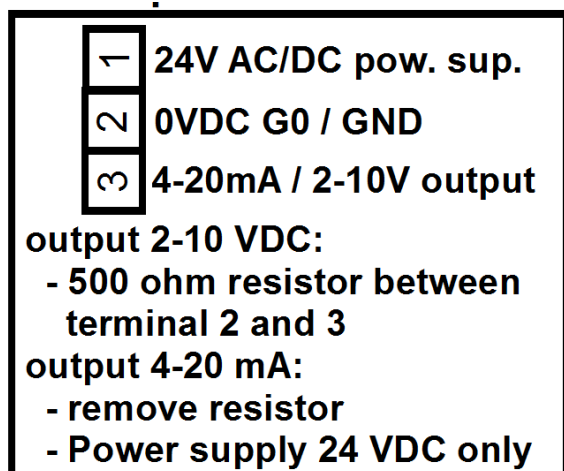
Housing	Polycarbonate UL 94 V2
Enclosure color	RAL 7032 (light grey)
Dimensions	(W x H x D)94 x 130 x 57 mm
Protection class	IP 65
Wire connection	Screw-type terminal min. 0.25 mm ² , max. 1.3 mm ² , 3-pin
Directives	EMC directives 2014/30/EU CE Compliance with: EN 50271 EN 61010-1:2010 ANSI/UL 61010-1 CAN/CSA-C22.2 No. 61010-1
Warranty	12 months (not if sensor is poisoned or overloaded)

Options

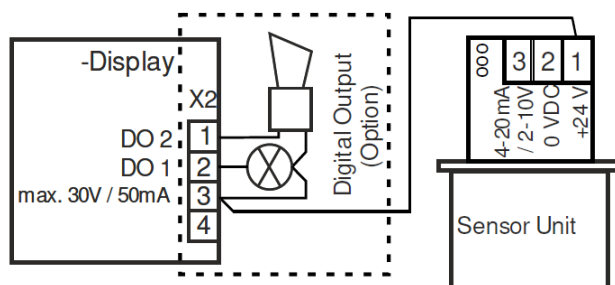
LCD display	Two lines, 16 characters each, monochrome
LCD display Open-collector (transistor) output (2)	Two lines, 16 characters each, monochrome For horn (resettable) and warning lamp
Switching capacity	24 Vdc / 50 mA (+ switching)
Duct Mounting Set	for sensing gases in duct

Gas detector	Mounting height	Gas density (air = 1)
Methane, CH ₄	Ceiling	0.55
Liquid Petroleum Gas, LPG	-	-
Hydrogen, H ₂	Ceiling	0.07
Propane, C ₃ H ₈	Floor	1.55
Ethylene, C ₂ H ₄	Ceiling	0.98
Ethyl alcohol, C ₂ H ₅ OH	Floor	1.59
Methanol, CH ₃ OH	Floor	1.11
Acetone, C ₃ H ₆ O	Floor	2.00
Isopropyl alcohol, C ₃ H ₈ O	Floor	2.08
Iso/n-Butane, C ₄ H ₁₀	Floor	2.11
Toluene, C ₇ H ₈	Floor	3.18
Petrol Vapors	-	-

Wiring



Gxx LCD DO



Ordering

Type number	Description	Measuring range
GCH4 100	Methane, CH ₄ gas detector	0-100 % LEL
GLPG 100	Liquid Petroleum Gas, LPG gas detector	0-100 % LEL
GH2 100	Hydrogen, H ₂ gas detector	0-100 % LEL
GC3H8 100	Propane, C ₃ H ₈ gas detector	0-100 % LEL
GC2H4 100	Ethylene, C ₂ H ₄ gas detector	0-100 % LEL
GC2H5OH 100	Ethyl alcohol, C ₂ H ₅ OH gas detector	0-100 % LEL
GCH3OH 100	Methanol, CH ₃ OH gas detector	0-100 % LEL
GC3H6O 100	Acetone, C ₃ H ₆ O gas detector	0-100 % LEL
GC3H8O 100	Isopropyl alcohol, C ₃ H ₈ O gas detector	0-100 % LEL
GC4H10 100	Iso/n-Butane, C ₄ H ₁₀ gas detector	0-100 % LEL
GC7H8 100	Toluene, C ₇ H ₈ gas detector	0-100 % LEL
GPV 100	Petrol Vapors gas detector	0-100 % LEL



GCH4 100



GCH4 100 LCD

Options

Type number	Description
LCD	LCD display for indication of measurement values
LCD DO	LCD display for values & operation, 2x open-collector for horn & warning lamp
DMS 300G	Duct Mounting Set for sensing gas in duct.

Ordering examples

When LCD display for indication of measurement values is required for Methane (CH₄) detector GCH4 100, the type number is GCH4 100 LCD.

When LCD display for values & operation, 2x open-collector for horn & warning lamp is required For Methane (CH₄) detector GCH4 100, the type number is GCH4 100 LCD DO.

Duct Mounting Set DMS 300G is a separate type number

Important notes before ordering

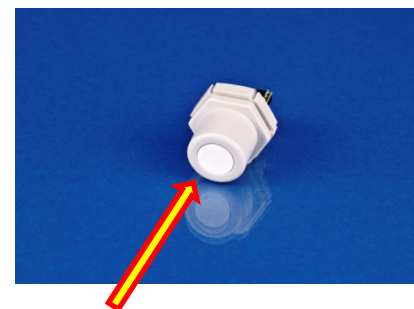
Combustible gas detectors G-series manufactured on request.
As the storage life is limited for unpowered Combustible gas detectors G-series we need pre-payment before process the order, this to avoid any cancellation of order.
Delivery time is normally 5 weeks after receipt of payment.

Ordering

Type number	Description	Measuring range
XGCH4 100	Methane, CH ₄ gas sensor with PCB	0-100 % LEL
XGLPG 100	Liquid Petroleum Gas, LPG gas sensor with PCB	0-100 % LEL
XGH2 100	Hydrogen, H ₂ gas sensor with PCB	0-100 % LEL
XGC3H8 100	Propane, C ₃ H ₈ gas sensor with PCB	0-100 % LEL
XGC2H4 100	Ethylene, C ₂ H ₄ gas sensor with PCB	0-100 % LEL
XGC2H5OH 100	Ethyl alcohol, C ₂ H ₅ OH gas sensor with PCB	0-100 % LEL
XGCH3OH 100	Methanol, CH ₃ OH gas sensor with PCB	0-100 % LEL
XGC3H6O 100	Acetone, C ₃ H ₆ O gas sensor with PCB	0-100 % LEL
XGC3H8O 100	Isopropyl alcohol, C ₃ H ₈ O gas sensor with PCB	0-100 % LEL
XGC4H10 100	Iso/n-Butane, C ₄ H ₁₀ gas sensor with PCB	0-100 % LEL
XGC7H8 100	Toluene, C ₇ H ₈ gas sensor with PCB	0-100 % LEL
XGPV 100	Petrol Vapors gas sensor with PCB	0-100 % LEL



Combustible gas sensor with PCB,
for example XGCH4 100



Special filter for IP65 protection
of combustible gas sensor

Important notes before ordering

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As the storage life is limited for unpowered Combustible gas detectors
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Delivery time is normally 5 weeks after receipt of payment.



Combustible gas sensor with PCB,
easy to replace when life time exceeded.

This means the wall enclosure does not need
to be removed when life time exceeded.
for the Combustible gas sensor with PCB.