



FLAMMABLE GAS DETECTOR

Omniguard® model 1100

The Omniguard model 1100 gas detector is designed to detect and measure the presence and level of flammable gases in industrial applications such as Refineries, Drilling and production platforms, Gas turbines, Chemical plants, Fuel loading facilities, Compressor stations, Waste water treatment facilities, LNG/LPG processing and storage facilities, Transportation facilities and Manufacturing processes.

The Omniguard model 1100 gas detector is based on well proven sensor cell technologies and has excellent measuring accuracy and long term stability.

The microprocessor controlled functionality and simple calibration procedure makes the Omniguard 1100 gas detector reliable in field operation.

Easy to read display and standard 4-20 mA and HART Rev 7 output makes installation and operation of the detector quick and easy.

Specifications

Performance ratings

Measuring Type	Diffusion
Measuring Method	Heated semiconductor cell Thermal conductivity cell Catalytic cell
Detectable Gases	Flammable gases (LNG, LPG, H ₂ , Methane, Buthane etc.)
Measuring Range	Depending on gas, see Ordering information
Accuracy	≤ ±3% / Full range
Zero Drift	≤ ±2% / Full range
Response Time	90% of range in less than 15 sec

Environmental ratings

Certification	Ex II 2 G Ex db IIC Gb T4, T5, T6 UL - Class I, Division 1, Groups A,B, C & D (explosion proof) SIL2
Protection class	IP66
Operating temperature range	Body: -40° to +80°C (-40° to +176°F) Sensor: Dependent on sensor
Pressure Range	90 to 110 kPa
Operation Humidity	5 to 99% RH (non-condensing)

Specifications continue on next page...

Key features

- Continuous detection of flammable gases in explosion hazardous area
- Robust weather- and flame proof enclosure for indoor or outdoor applications
- HART Rev 7 communication which enables easy configuration and monitoring
- Self-test diagnosis with built-in microprocessor
- High performance for detecting gas below TLV
- Program setting and auto calibration using a magnet bar and active display
- 4-20mA DC output signal
- Easy in field calibration and maintenance
- Low cost of ownership
- ATEX, IECEx, UL, SIL2, CE

Omniguard® model 1100

Specifications (continued)

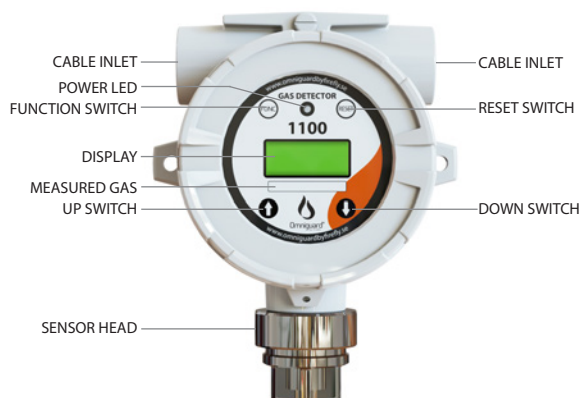
Electrical Specifications

Input Voltage	18-31 VDC Nominal: 24 VDC Ripple voltage: <1 V
Power consumption	Max. power: 4.8W@+24 VDC Max. current: 200 mA@+24 VDC
Current loop	0-20mA (source or sink)
Measured value signal:	4mA (Zero) to 20 mA (Full range)
Maintenance:	3mA
HART:	2mA
Fault:	0mA
0-100% LEL:	4mA-20mA
100-109% LEL:	20mA-21.4mA
Over 110% LEL:	21.6mA
Current loop ripple & noise max	±20 µA
Wiring requirement	Power+Signal: 3-wire ≥1.5 mm ² (AWG16)
Cable connection Length	Analog: 2500 m (8200 ft)
EMC Protection	Complies with EN50270
Mechanical properties	
Material	Housing: Aluminium (ALDC) or Stainless Steel (316) Sensor: Stainless Steel (316)
Weight	1.5 kg (3.3 lbs) (Aluminum) 4.3 kg (9.5 lbs) (SS)
Dimensions	136 (W) x 166 (H) x 110 (D) (5.4 x 6.5 x 4.3 in)
Conduit entry	3/4-14 NPT or M20-1.5
Mounting holes	Ø 7 ±0.1 (Ø 0.28 in)

Optional accessories (Art.no.)

Rain cover	27727
Splash Guard	27728
Collecting Cone	27729
Magnet bar	27730

Warranty	2 years (Transmitter) / 1 year (Sensor)
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Ordering information

To order, please specify

Type	Omniguard® model 1100
Designation	Flammable gas detector
Ordering number	1100 - X X X X X X
Housing material/conduit entry	0 Aluminium, 3/4-14 NPT (white) 1 Stainless Steel, 3/4-14 NPT 2 Aluminium, M20-1.5 (white) 3 Stainless Steel, M20-1.5
Detectable gas	0 CH ₄ (Methane) 1 C ₄ H ₁₀ (Buthane) 2 C ₃ H ₈ (Propane) 3 H ₂ (Hydrogen) 9 Special gas
Measuring method	0 Heated semiconductor cell 1 Thermal conductivity cell 2 Catalytic cell
Measuring range	0 0-2000 ppm (C ₄ H ₁₀) 1 0-100% Vol (H ₂) 2 0-100% LEL (CH ₄ , C ₄ H ₁₀ , C ₃ H ₈ , H ₂) 9 Special range
Output signal	0 4-20mA, and HART Rev 7
Remote Option	0 Standard configuration 1 Special configuration
Approvals	0 ATEX, IECEx, UL, SIL2, CE



SIL2



HART
COMMUNICATION PROTOCOL

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