



## Key features

- ♣ Wide range of detectable gases
- ♣ Operation in non oxygen environment
- ♣ HART rev 7 communication as standard
- ♣ Advanced self-test and diagnostics
- ♣ Smart programming and auto calibration
- ♣ 4-20 mA output signal
- ♣ Easy in field calibration and maintenance
- ♣ Robust weather- and flame proof enclosure for indoor or outdoor applications
- ♣ Low cost of ownership
- ♣ Long service life (>5 years)
- ♣ IECEx, ATEX, SIL2, CE

## General specifications

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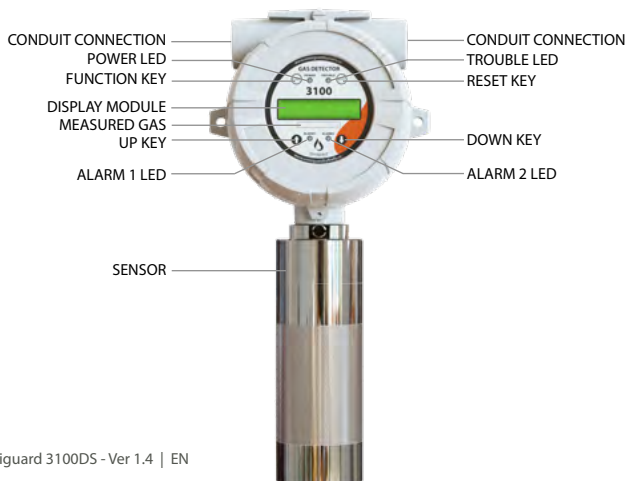
# Omniguard® model 3100

## Specifications (continued)

### Electrical specifications

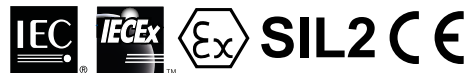
<b>Input voltage</b>	18 to 31 VDC Nominal: 24 VDC Ripple voltage: <1 V
<b>Power consumption</b>	Max. wattage: 9.6W@+24 VDC Max. current: 400 mA@+24 VDC
<b>Current loop</b>	0-20 mA (source or sink) 500 ohms max load
<b>Measured value signal:</b>	4 mA (zero) to 20 mA (full range)
<b>Fault:</b>	0 mA
<b>HART fault:</b>	2 mA
<b>Maintenance:</b>	3 mA
<b>0-100%:</b>	4 mA-20 mA
<b>100-109%:</b>	20 mA - 21.6 mA
<b>Over 110%:</b>	22 mA
<b>Current loop ripple &amp; noise max</b>	±20 µA
<b>Wiring requirement</b>	Power CVVS or CVVSB with shield Analog CVVS or CVVSB with shield
<b>Signal transmission distance</b>	Analog: 2500 m (8200 ft) RS485: 1000 m (3280 ft)
<b>EMC protection</b>	Complies with EN50270
<b>Mechanical considerations</b>	
<b>Housing</b>	Aluminium (ALDC) or Stainless Steel (316) Sensor: Stainless Steel (316)
<b>Weight</b>	3.2 kg (7.1 lbs) (aluminium) 4.8 kg (10.6 lbs) (stainless steel)
<b>Dimensions</b>	156 (W) x 322 (H) x 110 (D) mm (6.2 (W) x 12.7 (H) x 4.3 (D)) in
<b>Conduit entry</b>	3/4-14 NPT or M20-1.5
<b>Mounting holes</b>	Ø 7 ±0.1 (Ø 0.28 in)
<b>Optional accessories (Art.no.)</b>	
Pole mount	28237
Rain cover, plastic	27727
Rain cover, SS (304)	28346
Magnet bar	27730

**Warranty** 2 years (Transmitter) / 1 year (Sensor)



## Ordering information

<b>Type</b>	Omniguard® model 3100
<b>Designation</b>	Infrared gas detector
<b>Ordering number</b>	3100 - X X X X X X
<b>Housing material/conduit entry</b>	<ul style="list-style-type: none"> <li>0 Aluminium, 3/4-14 NPT (white)</li> <li>1 Stainless Steel, 3/4-14 NPT</li> <li>2 Aluminium, M20x1.5 (white)</li> <li>3 Stainless steel, M20x1.5</li> </ul>
<b>Detectable gas</b>	<ul style="list-style-type: none"> <li>0 CH<sub>4</sub> (methane)</li> <li>1 C<sub>4</sub>H<sub>10</sub> (butane)</li> <li>2 C<sub>3</sub>H<sub>8</sub> (propane)</li> <li>3 CO<sub>2</sub> (carbon dioxide)</li> <li>4 CO (carbon monoxide)</li> <li>5 N<sub>2</sub>O (nitrous oxide)</li> <li>9 Special gas</li> </ul>
<b>Measuring method</b>	0 Infrared
<b>Measuring range</b>	<ul style="list-style-type: none"> <li>0 0-4000 ppm (N<sub>2</sub>O)</li> <li>1 0-9999 ppm (CH<sub>4</sub>, C<sub>4</sub>H<sub>10</sub>, C<sub>3</sub>H<sub>8</sub>)</li> <li>2 200-4000 ppm (N<sub>2</sub>O)</li> <li>3 0-2% Vol (CO)</li> <li>4 0-5% Vol (CO<sub>2</sub>)</li> <li>5 0-20% Vol (CO<sub>2</sub>)</li> <li>6 0-100% Vol (CH<sub>4</sub>, C<sub>4</sub>H<sub>10</sub>, C<sub>3</sub>H<sub>8</sub>)</li> <li>7 0-100% LEL (CH<sub>4</sub>, C<sub>4</sub>H<sub>10</sub>, C<sub>3</sub>H<sub>8</sub>)</li> <li>9 Special range</li> </ul>
<b>Output signal</b>	0 4-20 mA, and HART rev 7, relays
<b>Configuration</b>	<ul style="list-style-type: none"> <li>0 Standard</li> <li>1 Remote option</li> </ul>
<b>Approvals</b>	0 IECEx, ATEX, SIL2, CE



For information on the specific certifications and approvals each Omniguard® Gas Detector holds please visit:  
<https://omniguardbyfirefly.com/gasdetectors>