

▶ NS II

ATEX zone 2 fixed gas detector



Technical specifications

Detected gases: Alcohol, Br₂, C₂H₂, C₂H₄, C₂H₄O, C₂H₅OH, C₂H₆, C₃H₆, C₄H₁₀, C₅H₁₂, CH₂O, CH₄, Cl₂, ClO₂, CO, CO₂, H₂, H₂O₂, H₂S, HBr, HCl, HCN, HF, Hydrocarbons, N₂O, NH₃, NO, NO₂, O₂, O₃, Organic acids, PH₃, R1234yf, R401A, R404A, R407C, R32, R410A, R12, R22, SiH₄, SO₂, VOC.

Sensor technology: catalytic, electrochemical, infrared, photoionization, semiconductor

Supply voltage: 8-30 Vcc / 24 Vcc nominal

Output: 4-20 mA, RS485 (DEGA protocol) and Modbus (option)

Connections:

- 4-20 mA: shielded cable 3 x 1 mm (max. 1200 m)
- RS485: shielded cable 4 x 0.8 mm (max. 1200 m)

Protection index: IP 54

Dimensions (WxHxD): 140 x 140 x 70 mm

Weight: 0,7 kg

Operating temperature:

- Electrochemical, semiconductor and catalytic sensors: -20 °C to + 60 °C
- Infrared and PID sensors: -20 °C to + 50 °C

Relative humidity: 10 to 95% RH (non-condensing)

Certification:

ATEX: II 3 G Ex db ic ec nC IIC T5/4 Gc Temp: 0°C to +40°C

Internal recording capacity:

- Adjustable capacity from 1 to 255 seconds
- 44 days with 1 point every 60 seconds

Product description

The **NS II** is an **ATEX fixed gas detector** specially designed for continuous monitoring of dangerous gas concentrations in classified areas. Available with or without display, it is a 4-20 mA or RS485 linear output transmitter for the detection of explosive (hydrocarbons, solvents or alcohols), toxic, asphyxiating, refrigerant or volatile organic compounds gas leaks.

With a very large number of interchangeable sensors (**88 available**), the **NS II** gas transmitter covers most ATEX industrial applications. Many options are available such as a 3 relay module, a MODBUS communication module or an internal 88 dBA buzzer transforming it into a stand-alone detector.

The **NS II** is available in a simple version without display or equipped with an LCD screen which displays for example error or alarm states, measured value, measurement unit, or the time. It is set with a magnetic magnet for configuration, calibration, alarm history consultation, as well as next calibration date and calibration operations (non-intrusive).

▶ Advantages of the NS II fixed gas detector

- ATEX zone 2
- Outputs: analog 4-20 mA & RS485
- 88 pre-calibrated interchangeable sensors available
- History of values for the previous 44 days (FIFO)
- Available in catalytic, electrochemical, infrared, semiconductor or photoionization (PID) version.
- Available options: 3 relay card, Modbus card, 88 dBA buzzer

Particularly suitable in industry and classified sites, the **NS II** fixed gas detector is equipped as standard with an analog output but also with an RS485 digital output allowing up to 250 detectors to be connected to a controller unit thus achieving substantial wiring and installation savings.

▶ Options

Code	Equipment
30200003	Internal card 3 relays 250 Vac / 10A
30200010	Modbus internal card
30200011	Internal buzzer 88 dBA
30300006	Circulation head (calibration adapter)

Detected gas	Mesure range	NS II	NS II LCD
Catalytic sensor transmitter			
Butane (C4H10) Propane-Butane LPG	0-100 % LEL	30100070	30100159
Hydrogen (H2)	0-100 % LEL	30100071	30100160
Methane (CH4) Natural gas CNG	0-100 % LEL	30100069	30100158
Other flammable gases and vapors	0-100 % LEL	30100068	30100157
Electrochemical sensor transmitter			
Alcohol	0-200 ppm	30100002	30100091
Ammonia (NH3)	0-100 ppm	30100039	30100128
Ammonia (NH3)	0-500 ppm	30100040	30100129
Ammonia (NH3)	0-1000 ppm	30100041	30100130
Ammonia (NH3)	0-2000 ppm	30100042	30100131
Ammonia (NH3)	0-5000 ppm	30100043	30100132
Ammonia (NH3)	0-10000 ppm	30100044	30100133
Bromine (Br2)	0-20 ppm	30100003	30100092
Bromine (Br2)	0-200 ppm	30100004	30100093
Carbon monoxide (CO)	0-200 ppm	30100019	30100108
Carbon monoxide (CO)	0-500 ppm	30100020	30100109
Carbon monoxide - highly selective	0-500 ppm	30100021	30100110
Carbon monoxide (CO)	0-1000 ppm	30100022	30100111
Carbon monoxide (CO)	0-2000 ppm	30100023	30100112
Chlorine (Cl2)	0-20 ppm	30100016	30100105
Chlorine (Cl2)	0-200 ppm	30100017	30100106
Chlorine dioxide (ClO2)	0-5 ppm	30100018	30100107
Ethylene (C2H4)	0-10 ppm	30100008	30100097
Ethylene (C2H4)	0-200 ppm	30100010	30100099
Ethylene (C2H4)	0-1500 ppm	30100009	30100098
Ethylene oxide (C2H4O)	0-10 ppm	30100011	30100100
Ethylene oxide (C2H4O)	0-100 ppm	30100012	30100101
Ethylene oxide (C2H4O)	0-500 ppm	30100014	30100103
Ethylene oxide (C2H4O)	0-1000 ppm	30100013	30100102
Formaldehyde (CH2O)	0-10 ppm	30100005	30100094
Formaldehyde (CH2O)	0-50 ppm	30100006	30100095
Formaldehyde (CH2O)	0-1000 ppm	30100007	30100096
Hydrogen (H2)	0-1000 ppm	30100024	30100113
Hydrogen (H2)	0-4000 ppm	30100025	30100114
Hydrogen (H2)	0-400000 ppm	30100026	30100115
Hydrogen bromide (HBr)	0-20 ppm	30100033	30100122
Hydrogen bromide (HBr)	0-200 ppm	30100034	30100123
Hydrogen chloride (HCl)	0-20 ppm	30100035	30100124
Hydrogen chloride (HCl)	0-200 ppm	30100036	30100125
Hydrogen cyanide (HCN)	0-50 ppm	30100037	30100126
Hydrogen fluoride (HF)	0-10 ppm	30100038	30100127
Hydrogen sulfide (H2S)	0-50 ppm	30100032	30100121
Hydrogen sulfide (H2S)	0-100 ppm	30100029	30100118
Hydrogen sulfide (H2S)	0-500 ppm	30100030	30100119
Hydrogen sulfide (H2S)	0-2000 ppm	30100031	30100120
Hydrogen peroxide (H2O2)	0-100 ppm	30100027	30100116

Detected gas	Mesure range	NS II	NS II LCD
Hydrogen peroxide (H2O2)	0-500 ppm	30100028	30100117
Nitric oxide (NO)	0-25 ppm	30100045	30100134
Nitric oxide (NO)	0-250 ppm	30100046	30100135
Nitric oxide (NO)	0-1000 ppm	30100047	30100136
Nitrogen dioxide (NO2)	0-20 ppm	30100048	30100137
Nitrogen dioxide (NO2)	0-100 ppm	30100049	30100138
Nitrogen dioxide (NO2)	0-500 ppm	30100050	30100139
Organic acids	0-100 ppm	30100015	30100104
Oxygen (O2)	0-1 %	30100051	30100140
Oxygen (O2)	0-30 %	30100052	30100141
Oxygen (O2) High humidity	0-30 %	30100053	30100142
Ozone (O3)	0-5 ppm	30100055	30100143
Ozone (O3)	0-100 ppm	30100054	30100144
Phosphine (PH3)	0-5 ppm	30100059	30100148
Phosphine (PH3)	0-20 ppm	30100056	30100145
Phosphine (PH3)	0-200 ppm	30100057	30100146
Phosphine (PH3)	0-2000 ppm	30100058	30100147
Silane (SiH4)	0-50 ppm	30100060	30100149
Sulfur dioxide (SO2)	0-20 ppm	30100064	30100153
Sulfur dioxide (SO2)	0-100 ppm	30100061	30100150
Sulfur dioxide (SO2)	0-200 ppm	30100065	30100154
Sulfur dioxide (SO2)	0-1000 ppm	30100062	30100151
Sulfur dioxide (SO2)	0-2000 ppm	30100066	30100155
Sulfur dioxide (SO2)	0-10000 ppm	30100063	30100152
VOC - high sensitivity	0-20 ppm	30100067	30100156
Infrared sensor transmitter			
Butane / LPG / Propane-Butane	0-100 % LEL	30100080	30100169
Carbon dioxide (CO2)	0-5 % vol.	30100075	30100164
Carbon dioxide (CO2)	0-100 % vol.	30100076	30100165
Carbon dioxide (CO2)	0-500 ppm	30100077	30100166
Ethane (C2H6)	0-100 % LEL	30100084	30100173
Ethanol (C2H5OH)	0-100 % LEL	30100082	30100171
Ethylene (C2H4)	0-100 % LEL	30100083	30100172
Ethylene oxide (C2H4O)	0-100 % LEL	30100081	30100170
Hexane (essence)	0-100 % LEL	30100087	30100176
Methane, CNG, Coal gas	0-100 % LEL	30100079	30100168
Nitrous oxide (N2O)	0-1 % LEL	30100088	30100177
Pentane (C5H12)	0-100 % LEL	30100086	30100175
Propylene (C3H6)	0-100 % LEL	30100085	30100174
Other flammable gases and vapors	0-100 % LEL	30100078	30100167
Semiconductor sensor transmitter			
Acetylene (C2H2)	0-100 % LEL	30100074	30100163
Refrigerant: R401A, R404A, R407C, R32, R410A, R12, R22	0-2000 ppm	30100073	30100162
Refrigerant: R1234yf	0-2000 ppm	30100072	30100161
PID sensor transmitter			
VOC	0-4000 ppm	30100089	30100178

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