



DEGA NB III

GAS DETECTION TRANSMITTER



- Detection types: catalytic, electrochemical, infrared, photoionization (PID), semiconductor
- Detection of toxic and combustible gases and oxygen
- Protection level IP54
- Produced in compliance with standard SIL



ISO 9001:2015
Quality management Systems
Système de Qualité
www.sgs.com



Gas detection transmitter **DEGA NB III**

DEGA NB III transmitter is a part of the gas detection system. Transmitter is located in monitored premises in which critical situations due to accumulation of flammable or toxic substances can occur. Transmitter converts the measured concentration of substances into a unified signal 4 - 20mA and RS485.

The transmitter can be connected to control panels DEGA UPA III, DEGA UKA III and DEGA UDA III.

TECHNICAL SPECIFICATION:

| | |
|--|---|
| Power supply: | 8-28 V DC |
| Output: | 4 - 20 mA RS485 |
| Cover protection level: | IP 54 |
| Input: | 1,2 W |
| Dimensions(WxHxD): | 100 x 110 x 40 mm |
| Weight: | 0,3 kg |
| Sensor technology: | catalytic, electrochemical, infrared, photoionization, semiconductor |
| Estimated life of sensor in clean environment: | catalytic (1-2 years),electrochemical (1-3 years),infrared (minimum 5 years), photoionization (1 year), semiconductor (1-2 years) |
| Relative humidity of the ambient air: | max. 95% |
| List of detected substances: | BE1 - environment without danger of explosion |

SYSTEM OF TRANSMITTER MARKING:

DEGA NBx-yL III

→ **x** type of detected substance

→ **y** detection technology

- (CL)** Catalytic
- (EL)** Electrochemical
- (IL)** Infrared
- (PID)** Photoionization
- (SL)** Semiconductor

| Detected substance | Formula | Range | Sensor | Product type |
|------------------------|---------|------------|--------|-----------------------|
| Flammable | LEL | 0-100% LEL | CL | DEGA NBHC-CL III |
| Flammable | LEL | 0-100% LEL | IL | DEGA NBHC-IL III |
| Acetone | C3H6O | 0-5000 ppm | PID | DEGA NBC3H6O-PID III |
| Ammonia | NH3 | 0-100 ppm | EL | DEGA NBA-EL III |
| Ammonia | NH3 | 0-1000 ppm | EL | DEGA NBA-EL III HC |
| Petrol vapour | C6H14 | 0-100% LEL | CL | DEGA NBB-CL III |
| Petrol vapour | C6H14 | 0-100% LEL | IL | DEGA NBB-IL III |
| Petrol vapour | C6H14 | 0-5000 ppm | PID | DEGA NBB-PID III |
| Hydrogen bromide | HBr | 0-20 ppm | EL | DEGA NBHBR-EL II |
| Butane | C4H10 | 0-100% LEL | CL | DEGA NBP-CL III |
| Butane | C4H10 | 0-100% LEL | IL | DEGA NBP-IL III |
| Butane | C4H10 | 0-5000 ppm | PID | DEGA NBP-PID III |
| Ethanol | C2H5OH | 0-100% LEL | IL | DEGA NBC2H5OH-IL III |
| Ethanol | C2H5OH | 0-450 ppm | PID | DEGA NBC2H5OH-PID III |
| Ethen | C2H4 | 0-100% LEL | IL | DEGA NBC2H4-IL III |
| Ethylenoxide | C2H4O | 0-10 ppm | EL | DEGA NBC2H4O-EL III |
| Ethylenoxide | C2H4O | 0-100% LEL | IL | DEGA NBC2H4O-IL III |
| Ethen | C2H4 | 0-10 ppm | EL | DEGA NBC2H4-EL III |
| Formaldehyde | CH2O | 0-10 ppm | EL | DEGA NBCH2O-EL III |
| Phosphane | PH3 | 0-5 ppm | EL | DEGA NBPH3-EL III |
| Hexane | C6H14 | 0-100% LEL | IL | DEGA NBC6H14-IL III |
| Refrigerant HFO-1234yf | HFO | 0-100% LEL | CL | DEGA NBHFO-CL III HC |
| Refrigerant HFO-1234yf | HFO | 0-5000 ppm | SL | DEGA NBHFO-SL III |
| Chloride | Cl2 | 0-20 ppm | EL | DEGA NBCL2-EL III |
| Hydrogen chloride | HCl | 0-20 ppm | EL | DEGA NBHCL-EL III |
| Isopropyl alcohol | C3H8O | 0-1250 ppm | PID | DEGA NBC3H8O-PID III |
| Hydrogen cyanide | HCN | 0-100 ppm | EL | DEGA NBHCN-EL III |
| Oxygen | O2 | 0-30% vol. | EL | DEGA NBO-EL III |

| Detected substance | Formula | Range | Sensor | Product type |
|--|---------|--------------------|--------|---------------------------|
| Methane | CH4 | 0-100% LEL | CL | DEGA NBM-CL III |
| Methane | CH4 | 0-100% LEL | IL | DEGA NBM-IL III |
| Butanone | C4H8O | 0-5000 ppm | PID | DEGA NBC4H8O-PID III |
| Nitrogen dioxide | NO2 | 0-20 ppm | EL | DEGA NBNO2-EL III |
| Nitric oxide | NO | 0-250 ppm | EL | DEGA NBNO-EL III |
| Nitrous oxide | N2O | 0-1% vol. | IL | DEGA NBN2O-IL III |
| Chlorine dioxide | ClO2 | 0-1 ppm | EL | DEGA NBCLO2-EL III |
| Sulfur dioxide | SO2 | 0-20 ppm | EL | DEGA NBSO2-EL III |
| Carbon monoxide | CO | 0-1000 ppm | EL | DEGA NBC-EL III |
| Carbon dioxide | CO2 | 0-5% vol. | IL | DEGA NBCO2-IL III |
| Ozone | O3 | 0-5 ppm | EL | DEGA NB03-EL III |
| Pentane | C5H12 | 0-100% LEL | IL | DEGA NBC5H12-IL III |
| Hydrogen peroxide | H2O2 | 0-100 ppm | EL | DEGA NBH2O2-EL II |
| Propene | C3H6 | 0-100% LEL | IL | DEGA NBC3H6-IL III |
| Silan | SiH4 | 0-50 ppm | EL | DEGA NBSiH4-EL III |
| Hydrogen sulphide | H2S | 0-50 ppm | EL | DEGA NBH2S-EL III |
| Hydrogen sulphide | H2S | 0-2000 ppm | EL | DEGA NBH2S-EL II HC |
| Styrene | C8H8 | 0-9999 ppm | PID | DEGA NBC8H8-PID III |
| Toluene | C7H8 | 0-9000 ppm | PID | DEGA NBC7H8-PID III |
| Hydrogen | H2 | 0-1000 ppm | EL | DEGA NBH-EL III |
| Hydrogen | H2 | 0-100% LEL | CL | DEGA NBH-CL III |
| Hydrogen | H2 | 0-100% LEL | EL | DEGA NBH-EL III HC |
| Refrigerant R134A, R401A, R404A, R407C, R32, R410A, R12, R22 | Rx | 0-5000 ppm | SL | DEGA NBR-SL III |
| Other VOC | - | 0-5000 ppm | PID | DEGA NBL-PID III |
| Other TOX | - | According gas type | EL | More than 100 other gases |
| Other LEL | - | According gas type | IL | More than 100 other gases |
| Other LEL | - | According gas type | CL | More than 100 other gases |



Transmitter is not designed for detection and monitoring in industrial and commercial premises which required ATEX certification. For ATEX application we recommend transmitters DEGA NS II (zone 2) or DEGA NS III (zone 1).

AVAILABLE ACCESSORIES:



Protection box, stainless steel



Mechanical protection frame



DEGA NB III SU spare sensor unit