



# DEGA NS III

## GAS DETECTION TRANSMITTER

- Detection types: catalytic, electrochemical, infrared, photoionization (PID), semiconductor
- Detection of toxic and combustible gases and oxygen
- For explosive environment ATEX zone 1
- Protection level IP64/ IP66 (with protection cover)
- Produced in compliance with standard SIL



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# Gas detection transmitter **DEGA NS III**

DEGA NS 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. Detector 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, Modbus  |
| Cover protection level:                        | IP 64, with water protection cover DEGA WATER CAP IP66  |
| Input:   | 1,2 W   |
| Specification in compliance with ATEX:         | II 2G Ex d IIB+H2 T6 Gb Tamb: -40°C - +60°C   |
| Placement:                                     | BE3N2 - areas with danger of explosion, zone 1  |
| Dimensions(WxHxD):                             | 150 x 170 x 65 mm   |
| Weight:  | 2,1 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%  |

## SYSTEM OF TRANSMITTER MARKING:

### DEGA NSx-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 NSHC-CL III      |
| Flammable              | LEL     | 0-100% LEL   | IL     | DEGA NSHC-IL III      |
| Acetone                | C3H6O   | 0 - 5000 ppm | PID    | DEGA NSC3H6O-PID II   |
| Ammonia                | NH3     | 0-100 ppm    | EL     | DEGA NSA-EL III       |
| Ammonia                | NH3     | 0-1000 ppm   | EL     | DEGA NSA-EL III HC    |
| Petrol vapour          | C6H14   | 0-100% LEL   | CL     | DEGA NSB-CL III       |
| Petrol vapour          | C6H14   | 0-100% LEL   | IL     | DEGA NSB-IL III       |
| Petrol vapour          | C6H14   | 0-5000 ppm   | PID    | DEGA NSB-PID III      |
| Hydrogen bromide       | HBr     | 0-20 ppm     | EL     | DEGA NSHBR-EL III     |
| Butane                 | C4H10   | 0-100% LEL   | CL     | DEGA NSP-CL III       |
| Butane                 | C4H10   | 0-100% LEL   | IL     | DEGA NSP-IL III       |
| Butane                 | C4H10   | 0-5000 ppm   | PID    | DEGA NSP-PID III      |
| Ethanol                | C2H5OH  | 0-100% LEL   | IL     | DEGA NSC2H5OH-IL III  |
| Ethanol                | C2H5OH  | 0-450 ppm    | PID    | DEGA NSC2H5OH-PID III |
| Ethen                  | C2H4    | 0-100% LEL   | IL     | DEGA NSC2H4-IL III    |
| Ethylenoxide           | C2H4O   | 0-10 ppm     | EL     | DEGA NSC2H4O-EL III   |
| Ethylenoxide           | C2H4O   | 0-100% LEL   | IL     | DEGA NSC2H4O-IL III   |
| Ethen                  | C2H4    | 0-10 ppm     | EL     | DEGA NSC2H4-EL III    |
| Formaldehyde           | CH2O    | 0-10 ppm     | EL     | DEGA NSCH2O-EL III    |
| Phosphane              | PH3     | 0-5 ppm      | EL     | DEGA NSPH3-EL III     |
| Hexane                 | C6H14   | 0-100% LEL   | IL     | DEGA NSC6H14-IL III   |
| Refrigerant HFO-1234yf | HFO     | 0-100% LEL   | CL     | DEGA NSHFO-CL III HC  |
| Refrigerant HFO-1234yf | HFO     | 0-5000 ppm   | SL     | DEGA NSHFO-SL III     |
| Chloride               | Cl2     | 0-20 ppm     | EL     | DEGA NSCL2-EL III     |
| Hydrogen chloride      | HCl     | 0-20 ppm     | EL     | DEGA NSHCL-EL III     |
| Isopropyl alcohol      | C3H8O   | 0-1250 ppm   | PID    | DEGA NSC3H8O-PID III  |
| Hydrogen cyanide       | HCN     | 0-100 ppm    | EL     | DEGA NSHCN-EL III     |
| Oxygen                 | O2      | 0-30% vol.   | EL     | DEGA NSO-EL III       |

| Detected substance   | Formula | Range              | Sensor | Product type              |
|--|---------|--------------------|--------|---------------------------|
| Methane  | CH4     | 0-100% LEL         | CL     | DEGA NSM-CL III           |
| Methane  | CH4     | 0-100% LEL         | IL     | DEGA NSM-IL III           |
| Butanone   | C4H8O   | 0-5000 ppm         | PID    | DEGA NSC4H8O-PID III      |
| Nitrogen dioxide   | NO2     | 0-20 ppm           | EL     | DEGA NSNO2-EL III         |
| Nitric oxide   | NO      | 0-250 ppm          | EL     | DEGA NSNO-EL III          |
| Nitrous oxide  | N2O     | 0-1% vol.          | IL     | DEGA NSN2O-IL III         |
| Chlorine dioxide   | ClO2    | 0-1ppm             | EL     | DEGA NSCLO2-EL III        |
| Sulfur dioxide   | SO2     | 0-20 ppm           | EL     | DEGA NSSO2-EL III         |
| Carbon monoxide  | CO      | 0-1000ppm          | EL     | DEGA NSC-EL III           |
| Carbon dioxide   | CO2     | 0-5% vol.          | IL     | DEGA NSCO2-IL III         |
| Ozone  | O3      | 0-5 ppm            | EL     | DEGA NSO3-EL III          |
| Pentane  | C5H12   | 0-100% LEL         | IL     | DEGA NSC5H12-IL III       |
| Hydrogen peroxide  | H2O2    | 0-100 ppm          | EL     | DEGA NSH2O2-EL III        |
| Propene  | C3H6    | 0-100% LEL         | IL     | DEGA NSC3H6-IL III        |
| Silan  | SiH4    | 0-50ppm            | EL     | DEGA NSSiH4-EL III        |
| Hydrogen sulphide  | H2S     | 0-50ppm            | EL     | DEGA NSH2S-EL III         |
| Hydrogen sulphide  | H2S     | 0-2000 ppm         | EL     | DEGA NSH2S-EL III HC      |
| Styrene  | C8H8    | 0-9999 ppm         | PID    | DEGA NSC8H8-PID III       |
| Toluene  | C7H8    | 0-9000 ppm         | PID    | DEGA NSC7H8-PID III       |
| Hydrogen   | H2      | 0-1000 ppm         | EL     | DEGA NSH-EL III           |
| Hydrogen   | H2      | 0-100% LEL         | CL     | DEGA NSH-CL III           |
| Hydrogen   | H2      | 0-100% LEL         | EL     | DEGA NSH-EL III HC        |
| Refrigerant R134A, R401A, R404A, R407C, R32, R410A, R12, R22 | Rx      | 0-5000 ppm         | SL     | DEGA NSR-SL III           |
| Other VOC  | -       | 0-5000 ppm         | PID    | DEGA NSL-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 designed for detection in industrial and commercial environments requiring certification ATEX (Zone 1).

## AVAILABLE ACCESSORIES:



Protection box, stainless steel



Mechanical protection frame



DEGA WATER CAP protection cover



DEGA FUNNEL



DEGA INLET calibration cover



DEGA NS III SU spare sensor unit

Manufacturer: DEGA CZ s.r.o. | web: [www.dega.co.com](http://www.dega.co.com)

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