



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

Manufacturer: DEGA CZ s.r.o. | web: www.dega.co.com

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