History

4-20 mA Input

Modbus

DEGA®
www.dega.co.com

GAS AND FLAME DETECTION
DETEKCE PLYNU A PLAMENE

DEGA NS III LCD

GAS DETECTOR

- Types of detection: catalytic, electrochemical, infrared, photoionization (PID), semiconductor
- Detection of toxic and explosive gases, including oxygen
- Sound and optical signaling
- Certification for explosive atmospheres
- Protection IP 54/IP 66 (with cover)
- 4-20 mA output, RS485 (Modbus), 4 x relays

SYSTEM CERTIFICATION ISO 9001 SGS

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

Ex

ilac

IECEx

Gas detector **DEGA NS III LCD**

The DEGA NS III LCD detector is a part of the gas detection system and is located in the monitored area, where a critical situation can be created by the accumulation of flammable or toxic substances, even in an explosive environment. The detector converts the measured substance concentration into a unified 4-20 mA current signal (for DEGA UPA II and DEGA UPA III). The transmitter is equipped with an LCD display for displaying the currently measured concentration of the detected substance and four relays.
The detector can be connected to DEGA UPA III, DEGA UKA III, and DEGA UDA III evaluation control panels via RS485.

TECHNICAL DETAILS:	
Power voltage:	8-30 VDC
Output:	4-20 mA, RS485, Modbus, Piezo buzzer
Degree of protection by cover:	IP 54, with DEGA WATER CAP IP 66 cover
Power consumption:	1,2 W
Marking according to ATEX:	II 2G Ex d IIB + H2 T6 Gb Tamb: -40 °C to +60 °C
Location:	BE3N2 – potentially explosive atmospheres, zone 1
Dimensions:	150 x 170 x 65 mm (WxHxD)
Weight:	2.1 kg
Sensor type:	catalytic, semiconductor, electrochemical, infrared, photoionization (PID)
Estimated sensor life in the transmitter in a clean environment:	catalytic/semiconductor (1-2 years), electrochemical (1-3 years), infrared (5 years and more), photoionization (5000 hours)
Relative humidity of the surrounding air:	0-95% RH

NOMENCLATURE:

DEGA NSx-yL III LCD

- **x** type of gas detected
- **y** sensor type . . .
  - **(CL)** Catalytic
  - **(EL)** Electrochemical
  - **(IL)** Infrared
  - **(PID)** Photoionization
  - **(SL)** Semiconductor

MODULES:

DEGA NS III
Relay Module
(Internal 4-relay, 250 V/10 A)

DEGA NS III
RS485
(Internal output RS485)

DEGA NS III
Buzzer
(Internal buzzer on PCB, 4 VDC, 7 VDC, 30 mA, 88 dB)

The transmitter is designed for detection in industrial and commercial areas with a risk of explosion, requiring ATEX certification (zone 1).

ACCESSORIES:

DEGA NS III LCD
stainless steel cover

DEGA NS III LCD
mechanical cover

DEGA WATER CAP
splash guard

DEGA FUNNEL
funnel

DEGA GAS INLET
calibration attachment

DEGA NS III SU
replacement sensor unit

DEGA NS III SU
Cable Glades M20x1,5

Manufacturer: DEGA CZ s.r.o, Malesicka 2850/22c, Prague, Czech Republic I e-mail: export@dega.co.com I www.dega.co.com
VAT number: CZ27902943, EORI: CZ27902943, CIN/TIN: CZ27902943

GAS SPECIFICATIONS:

Gas	Formula	Cas	Measuring range
Acetylene	C2H2	74-86-2	0-100 % LEL
Ammonia	NH3	7664-41-7	0-100 ppm
Ammonia	NH3	7664-41-7	0-1000 ppm
Ammonia	NH3	7664-41-7	0-10000 ppm
Ammonia	NH3	7664-41-7	0-500 ppm
Ammonia	NH3	7664-41-7	0-5000 ppm
Ammonia	NH3	7664-41-7	0-2000 ppm
Bromine	Br	7726-95-6	0-20 ppm
Bromine	Br	7726-95-6	0-200 ppm
Butane / Propan-Butane / LGP	C4H10	106-97-8	0-100 % LEL
Carbon dioxide	CO2	124-38-9	0-5 % vol.
Carbon dioxide	CO2	124-38-9	0-100 % vol.
Carbon monoxide	CO	630-08-0	0-1000 ppm
Carbon monoxide	CO	630-08-0	0-200 ppm
Carbon monoxide	CO	630-08-0	0-500 ppm
Carbon monoxide	CO	630-08-0	0-2000 ppm
Ethane	C2H6	74-84-0	0-100 % LEL
Ethanol	C2H5OH	64-17-5	0-100 % LEL
Ethylene	C2H4	74-85-1	0-10 ppm
Ethylene	C2H4	74-85-1	0-200 ppm
Ethylene	C2H4	74-85-1	0-1500 ppm
Ethylene	C2H4	74-85-1	0-100 % LEL
Ethylene oxide	C2H4O	75-21-8	0-10 ppm
Ethylene oxide	C2H4O	75-21-8	0-100 ppm
Ethylene oxide	C2H4O	75-21-8	0-1000 ppm
Ethylene oxide	C2H4O	75-21-8	0-500 ppm
Ethylene oxide	C2H4O	75-21-8	0-100 % LEL
Formaldehyde	CH2O	50-00-0	0-10 ppm
Formaldehyde	CH2O	50-00-0	0-50 ppm
Formaldehyde	CH2O	50-00-0	0-1000 ppm
Hexane (Petrol)	C6H14	110-54-3	0-100 % LEL
Hydrogen	H2	1333-74-0	0-100 % LEL
Hydrogen	H2	1333-74-0	0-1000 ppm
Hydrogen	H2	1333-74-0	0-4000 ppm
Hydrogen	H2	1333-74-0	0-40000 ppm
Hydrogen bromide	HBr	10035-10-6	0-20 ppm
Hydrogen bromide	HBr	10035-10-6	0-200 ppm
Hydrogen cyanide	HCN	74-90-8	0-50 ppm
Hydrogen fluoride	HF	7664-39-3	0-10 ppm
Hydrogen chloride	HCl	7647-01-0	0-20 ppm
Hydrogen chloride	HCl	7647-01-0	0-200 ppm

Gas	Formula	Cas	Measuring range
Hydrogen peroxide	H2O2	7722-84-1	0-100 ppm
Hydrogen peroxide	H2O2	7722-84-1	0-500 ppm
Hydrogen sulfide	H2S	7783-06-4	0-50 ppm
Hydrogen sulfide	H2S	7783-06-4	0-500 ppm
Hydrogen sulfide	H2S	7783-06-4	0-100 ppm
Hydrogen sulfide	H2S	7783-06-4	0-2000 ppm
Chlorine	CL2	7782-50-5	0-20 ppm
Chlorine	CL2	7782-50-5	0-200 ppm
Chlorine dioxide	ClO2	10049-04-4	0-50 ppm
Methane	CH4	74-82-8	0-100 % LEL
Nitric oxide	NO	10102-43-9	0-25 ppm
Nitric oxide	NO	10102-43-9	0-250 ppm
Nitric oxide	NO	10102-43-9	0-1000 ppm
Nitrogen dioxide	NO2	10102-44-0	0-20 ppm
Nitrogen dioxide	NO2	10102-44-0	0-100 ppm
Nitrogen dioxide	NO2	10102-44-0	0-500 ppm
Nitrous oxide	N2O	10024-97-2	0-1 % vol.
Organic acids	RCOOH	–	0-100 ppm
Other flammable and combustible gases and vapors	HC	–	0-100 % LEL
Oxygen	O2	17778-80-2	0-1 %
Oxygen	O2	17778-80-2	0-30 %
Ozone	O3	10028-15-6	0-5 ppm
Ozone	O3	10028-15-6	0-100 ppm
Pentane	C5H12	109-66-0	0-100 % LEL
Phosphine	PH3	7803-51-2	0-5 ppm
Phosphine	PH3	7803-51-2	0-20 ppm
Phosphine	PH3	7803-51-2	0-200 ppm
Phosphine	PH3	7803-51-2	0-2000 ppm
Propylene	C3H6	115-07-1	0-100 % LEL
Refrigerant	R	–	0-2000 ppm
Refrigerant	HFO	754-12-1	0-2000 ppm
Silane	SiH4	7803-62-5	0-1 ppm
Sulfur dioxide	SO2	7446-09-5	0-20 ppm
Sulfur dioxide	SO2	7446-09-5	0-200 ppm
Sulfur dioxide	SO2	7446-09-5	0-2000 ppm
Sulfur dioxide	SO2	7446-09-5	0-100 ppm
Sulfur dioxide	SO2	7446-09-5	0-1000 ppm
Sulfur dioxide	SO2	7446-09-5	0-10000 ppm
Volatile organic compounds	VOC	–	"0-20 ppm (el. sensor)"
Volatile organic compounds	VOC	–	"0-3000 ppm - according to gas (PID sensor)"

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