



History



Input



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



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



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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

GAS SPECIFICATIONS:

Gas	Formula	Cas	Measuring range
Acetylene	C ₂ H ₂	74-86-2	0-100 % LEL
Ammonia	NH ₃	7664-41-7	0-100 ppm
Ammonia	NH ₃	7664-41-7	0-1000 ppm
Ammonia	NH ₃	7664-41-7	0-10000 ppm
Ammonia	NH ₃	7664-41-7	0-500 ppm
Ammonia	NH ₃	7664-41-7	0-5000 ppm
Ammonia	NH ₃	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	C ₄ H ₁₀	106-97-8	0-100 % LEL
Carbon dioxide	CO ₂	124-38-9	0-5 % vol.
Carbon dioxide	CO ₂	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	C ₂ H ₆	74-84-0	0-100 % LEL
Ethanol	C ₂ H ₅ OH	64-17-5	0-100 % LEL
Ethylene	C ₂ H ₄	74-85-1	0-10 ppm
Ethylene	C ₂ H ₄	74-85-1	0-200 ppm
Ethylene	C ₂ H ₄	74-85-1	0-1500 ppm
Ethylene	C ₂ H ₄	74-85-1	0-100 % LEL
Ethylene oxide	C ₂ H ₄ O	75-21-8	0-10 ppm
Ethylene oxide	C ₂ H ₄ O	75-21-8	0-100 ppm
Ethylene oxide	C ₂ H ₄ O	75-21-8	0-1000 ppm
Ethylene oxide	C ₂ H ₄ O	75-21-8	0-500 ppm
Ethylene oxide	C ₂ H ₄ O	75-21-8	0-100 % LEL
Formaldehyde	CH ₂ O	50-00-0	0-10 ppm
Formaldehyde	CH ₂ O	50-00-0	0-50 ppm
Formaldehyde	CH ₂ O	50-00-0	0-1000 ppm
Hexane (Petrol)	C ₆ H ₁₄	110-54-3	0-100 % LEL
Hydrogen	H ₂	1333-74-0	0-100 % LEL
Hydrogen	H ₂	1333-74-0	0-1000 ppm
Hydrogen	H ₂	1333-74-0	0-4000 ppm
Hydrogen	H ₂	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	H ₂ O ₂	7722-84-1	0-100 ppm
Hydrogen peroxide	H ₂ O ₂	7722-84-1	0-500 ppm
Hydrogen sulfide	H ₂ S	7783-06-4	0-50 ppm
Hydrogen sulfide	H ₂ S	7783-06-4	0-500 ppm
Hydrogen sulfide	H ₂ S	7783-06-4	0-100 ppm
Hydrogen sulfide	H ₂ S	7783-06-4	0-2000 ppm
Chlorine	Cl ₂	7782-50-5	0-20 ppm
Chlorine	Cl ₂	7782-50-5	0-200 ppm
Chlorine dioxide	ClO ₂	10049-04-4	0-50 ppm
Methane	CH ₄	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	NO ₂	10102-44-0	0-20 ppm
Nitrogen dioxide	NO ₂	10102-44-0	0-100 ppm
Nitrogen dioxide	NO ₂	10102-44-0	0-500 ppm
Nitrous oxide	N ₂ O	10024-97-2	0-1 % vol.
Organic acids	RCOOH	-	0-100 ppm
Other flammable and combustible gases and vapors	HC	-	0-100 % LEL
Oxygen	O ₂	17778-80-2	0-1 %
Oxygen	O ₂	17778-80-2	0-30 %
Ozone	O ₃	10028-15-6	0-5 ppm
Ozone	O ₃	10028-15-6	0-100 ppm
Pentane	C ₅ H ₁₂	109-66-0	0-100 % LEL
Phosphine	PH ₃	7803-51-2	0-5 ppm
Phosphine	PH ₃	7803-51-2	0-20 ppm
Phosphine	PH ₃	7803-51-2	0-200 ppm
Phosphine	PH ₃	7803-51-2	0-2000 ppm
Propylene	C ₃ H ₆	115-07-1	0-100 % LEL
Refrigerant	R	-	0-2000 ppm
Refrigerant	HFO	754-12-1	0-2000 ppm
Silane	SiH ₄	7803-62-5	0-1 ppm
Sulfur dioxide	SO ₂	7446-09-5	0-20 ppm
Sulfur dioxide	SO ₂	7446-09-5	0-200 ppm
Sulfur dioxide	SO ₂	7446-09-5	0-2000 ppm
Sulfur dioxide	SO ₂	7446-09-5	0-100 ppm
Sulfur dioxide	SO ₂	7446-09-5	0-1000 ppm
Sulfur dioxide	SO ₂	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)"