



History



Input



Input  
Output



**GAS AND FLAME DETECTION**  
DETEKCE PLYNU A PLAMENE



# DEGA UPA III 16/32

## GAS DETECTION CONTROL PANEL

- Possibility to connect 16 to 32 transmitters via RS485
- Possibility to connect 8 transmitters via 4-20 mA
- Output max. 10 x changeover relay 250 V/10 A (3 x default + 7 x Relay Module), 1 x 4-20 mA, Modbus
- 4 – level detection with history



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# Gas detection control panel **DEGA UPA III 16/32**

The third generation evaluation control panel is designed as a separate device designed for surface mounting. It is used to supply 16 to 32 gas transmitters connected via RS485 and up to 8 gas transmitters connected via a 4-20 mA current loop. For transmitters, it evaluates gas leakage in four levels. The status of all transmitters is indicated on the control panel by means of an LCD display. The control panel can be equipped with up to 10 arbitrarily configurable relays, output for optical and acoustic signaling, USB port, and RS485 for connection to a superior system (PLC, PC with visualization).

## TECHNICAL DETAILS:

Power voltage:	230 V AC/15 VA nebo 24 VDC/2 A nominal
Functional hazard:	EN61508
Dimensions without bushings:	280 x 200 x 85 mm (WxHxD)
Weight:	1,4 kg
Internal memory history capacity:	34 days with a recording interval of 60 s
Memory storage interval:	60 s (adjustable range 10-255 s)
Ambient temperature:	-20 °C to +60 °C
Relative humidity:	0-90 % RV
Degree of protection with cover:	IP 54
Working environment:	BE1 - non-explosive environment

## PRODUCT TYPES:

### DEGA UPA III 16

Evaluation control panel for up to 16 transmitters

### DEGA UPA III 32

Evaluation control panel for max. 32 transmitters

## OUTPUTS:

- 3 x potential-free changeover relay 250 V/10 A
- Max. 10 x changeover relay 250 V/10 A  
(3 x default + 7 x Relay Module)
- RS485 – DEGA or MODBUS protocol for superior system (PLC, PC)
- USB (for configuration via PC)

## INPUT:

- Up to 8 4-20 mA transmitters
- Up to 32 RS485 transmitters (max. 2 circuits)

## FUNCTION:

- Alarm history 34 days back
- 4 degrees of gas leakage, PEL, STEL
- Service mode
- Possibility of naming transmitter positions
- Reading values and states for the superior system using the MODBUS communication protocol
- Testing outputs using "TEST MENU"

## MODULES:



DEGA UPA III  
Power  
(Internal Power  
Supply 230 V AC/15  
VA)



DEGA UPA III I  
Relay Module  
(Internal Output,  
7-relays, 250  
V/10 A)



DEGA UPA III  
RS485 Modbus  
RTU Module  
(Internal Output  
RS485 Modbus  
RTU)

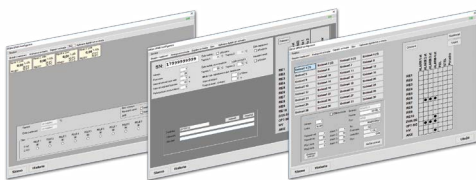


DEGA UPA III  
4-20 mA Input  
Module  
(Internal Input  
4-20 mA)



DEGA UPA III  
Memory Module  
(Internal memory  
with battery)

## SOFTWARE:



DEGA Config  
configuration and service software



DEGA VISIO III  
visualization software

## ACCESSORIES:



External box for  
accessories



Additional source



Zener barrier



UPS  
(Battery Backup  
12Ah/24Ah)



Cable Glades PG9  
(10 pcs)



DEGA Configuration KIT  
(Configuration software DEGA  
Config with USB cable)





History



Input



**GAS AND FLAME DETECTION**  
DETEKCE PLYNU A PLAMENE



# DEGA UKA III 4/8

## GAS DETECTION CONTROL PANEL

- Possibility to connect 4 to 8 transmitters
- Output max. 5 x changeover relay 250 V/10 A (2 x default + 3 x Relay Module)
- 4 – step detection
- Alarm history up to 34 days



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# Gas detection control panel **DEGA UKA III 4/8**

The third generation evaluation control panel is designed as a separate device designed for surface mounting. It is used to evaluate the signal from up to eight connected gas transmitters using RS485. It evaluates the gas concentration in four alarm levels. The status of all transmitters is indicated on the control panel by means of an LCD display. It is equipped with up to 5 pcs of freely configurable relays, an output for optical and acoustic signaling, a current loop for controlling devices with analog input, and a USB port for configuration.

## TECHNICAL DETAILS:

Power voltage:	230 V AC/15 VA or 24 VDC/0.63 A nominal
Functional hazard:	EN61508
Dimensions without bushings:	250x145x65 mm (WxHxD)
Weight:	1,0 kg
Internal memory history capacity:	34 days
Memory storage interval:	60 s (adjustable range 10-255 s)
Ambient temperature:	-20 °C to +60 °C
Relative humidity:	0-90 % RV
Degree of protection with cover:	IP 54
Working environment:	BE1 - non-explosive environment

## PRODUCT TYPES:

### DEGA UKA III 4

Evaluation control panel for max. 4 transmitters

### DEGA UKA III 8

Evaluation control panel for max. 8 transmitters

## OUTPUTS:

- Max. 5 x changeover relay 250 V/10 A (2 x default + 3 x Relay Module)
- Output for sound and optical signaling (max. 24 V/0.40 A)
- 1 x 4-20 mA for master system (PLC)
- 1 x USB (for configuration via PC)

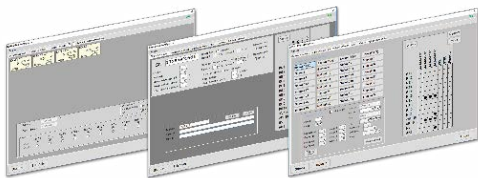
## INPUT:

- RS485

## FUNCTION:

- Alarm history 34 days back
- 4 degrees of gas leakage, PEL, STEL
- Service mode
- Possibility of naming transmitter positions
- Testing outputs using "TEST MENU"

## SOFTWARE:



DEGA Config  
configuration and service software

## MODULES:



DEGA UKA III  
Power  
(Internal Power  
Supply  
230 V AC/15 VA)



DEGA UKA III Relay  
Module  
(Internal 3-relays,  
250 V/10 A)



DEGA UKA III Memory  
Module  
(Internal memory with  
battery)

## ACCESSORIES:



External box for  
accessories



Additional source



Zener barrier



UPS  
(Battery Backup 12  
Ah/24 Ah)



Cable Glades PG11  
(10 pcs)



DEGA Configuration KIT  
(Configuration software DEGA  
Config with USB cable)





# DEGA UDA III

## GAS DETECTION CONTROL PANEL



- Up to 100/200 transmitters via RS485
- Color TFT LCD 7" touch screen (800x480)
- BUS/LOOP connection
- Protection class IP54
- ONLINE/HISTORY visualization
- HART/MODBUS protocol



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# Gas detection control **DEGA UDA III**

The third-generation evaluation controller is designed as a separate device, with the possibility of mounting on a wall or in a switchboard. It is used to power up to 488 transmitters, of which 288 pcs digitally (RS485) in 4 lines (BUS) and 2 circuits (LOOP) and up to 200 transmitters via an analog input (4-20 mA) using input modules (up to 25 DEGA UDA III A18 modules). For transmitters, it evaluates the gas leak in four levels. It is also possible to connect one DEGA Zc II flood transmitter and a DEGA Tc II temperature transmitter. The status of all transmitters is indicated on the controller through an LCD touch screen. The controller can be equipped with up to 20 arbitrarily configurable internal relays, output for optical and acoustic signaling, output for impulse closing of DEGA HV DNx emergency valves, USB port, and additional modules for connection to the control of secondary systems (fan, air conditioning, etc.). The basic configuration can be set using the LCD touch screen. The controller can also be expanded with a memory (HISTORY) with recording up to 300 days back, a backup source as well as many optional modules and accessories.

## TECHNICAL DETAILS

Power voltage	230 VAC nebo 24 V DC/6,3 A nominal
Dimensions without grommets	460mmx320mmx120mm(WxHxD)
Weight	4,5 Kg
Internal memory history capacity	300 days at 30 s record.
Relative humidity interval	20-90 % RV
Ambient temperature	-20 up to +85 °C
Protection class	IP54
Working environment	BE1 - noexplosion hazard

## TYPES:

### DEGA UDA III 72

Evaluation control panel for max. 100 transmitters

### DEGA UDA III 144

Evaluation control panel for max. 144 transmitters

### DEGA UDA III 216

Evaluation control panel for max. 216 transmitters

### DEGA UDA III 250

Evaluation control panel for max. 250 transmitters

## OUTPUTS:

- 20x potential-free switching relay 250V/10A
- 2x output for audio and optical signaling (max 24V/5A)
- LTE modem
- Ethernet port
- RS485 (MODBUS)
- USB (for PC configuration)

## INPUTS:

- 8x digital transmitter lines (100/200 transmitters)
- HART (with DEGA UDA III A18 expansion card)

## RECOMMENDED ACCESSORIES

### DEGA UDA III Power

Internal Power Supply 230 V AC/ max 150W

### DEGA UDA III Relay Modul

Internal Output, 10-relay, 250 V/10 A

### DEGA UDA III RS485 Modbus RTU Module

Internal RS485 Modbus RTU

### DEGA UDA III Memory Modul

Internal Output, 10-relay, 250 V/10 A

### DEGA UDA III Modbus TCP/IP Module

Internal Ethernet port for MODBUS TCP/IP

### DEGA UPA III Module Digital Input

Internal 2xDigital Input

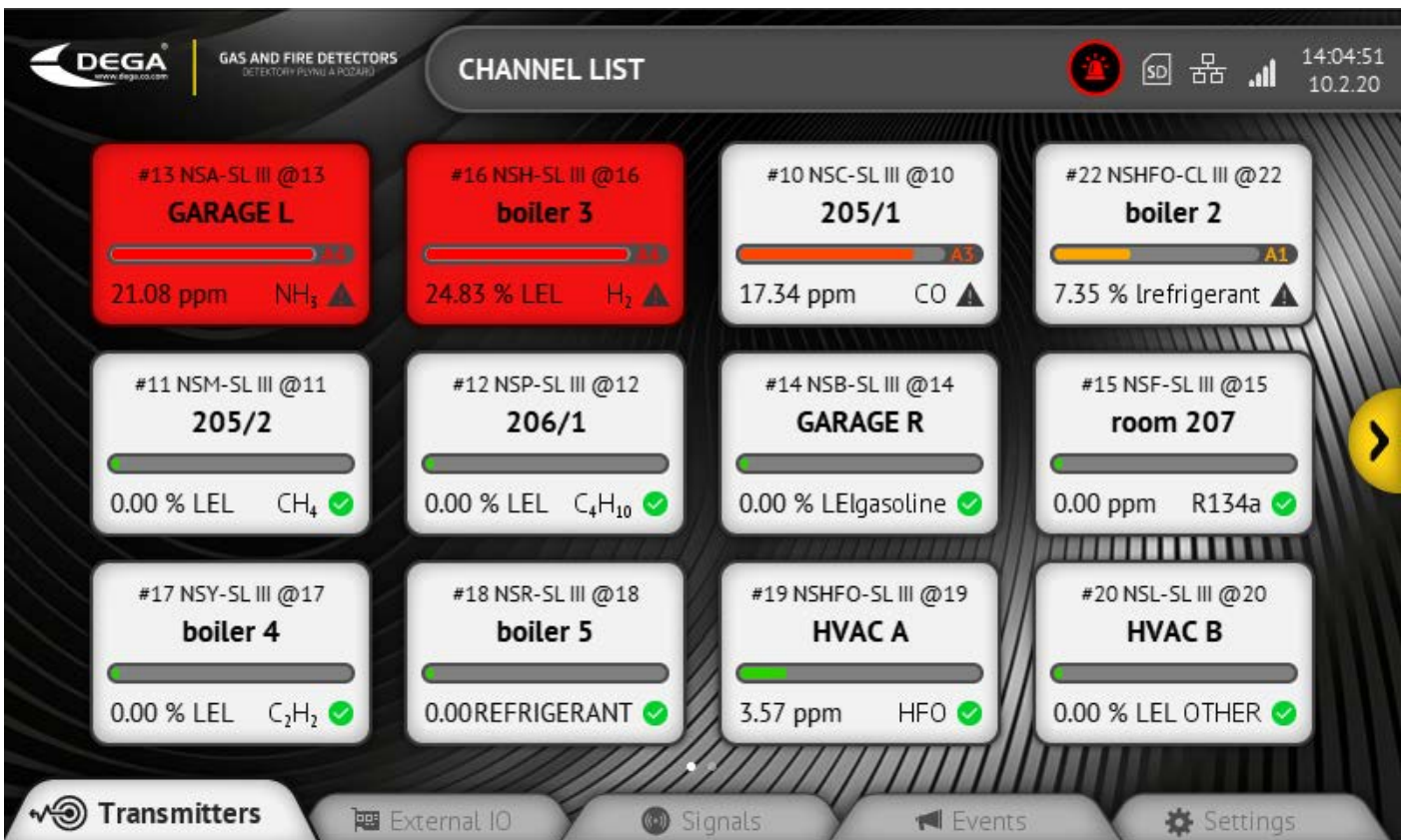
### DEGA UDA III CANBus

Internal CANbus

# Gas detection control **DEGA UDA III**

## FEATURES:

- ONLINE display of concentration and states (alarm) on the TFT LCD touch screen
- HISTORY of alarms 300 days retroactively (display by data and in a well-arranged graph)
- Option to name transmitter positions
- 1-4th degree of gas leakage, PEL, STEL
- Configuration of outputs (relays) and inputs by simple touch in MENU
- Service mode including the option to block individual transmitters
- Test mode with concentration simulation
- Reading of values and states for the higher-level system using Modbus communication protocol
- Testing outputs with "TEST MENU"



## VIEW OF RECORDS HISTORY (CHART)



## VIEW OF RELAY SETTINGS

**#13 NSA-SL III GARAGE L**

Time: 14:10:53, 10.2.20

Relay	RE1	RE2	RE3	RE4	RE5	RE6	RE7	RE8	RE9	RE10	RE11	RE12	RE13	RE14	RE15
ALARM1	Link														
ALARM2	Link														
ALARM3															
ALARM4		Link													
PEL ALARM															
STEL ALARM															
ERROR															

Buttons: Cut, Copy, Paste

Navigation: Transmitters, External IO, Signals, Events, Settings

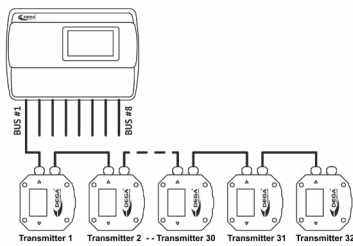


## ■ TRANSMITTER CONNECTION OPTIONS

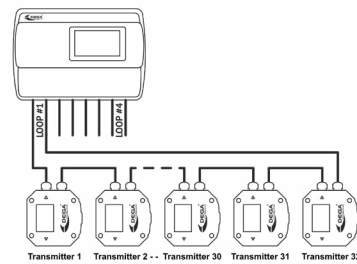
Transmitters can be connected to the control panel via the RS485 digital bus or with the optional DEGA UDA III AI8 module using 4-20mA (HART).

## ■ CONNECTION OF TRANSMITTERS VIA RS485

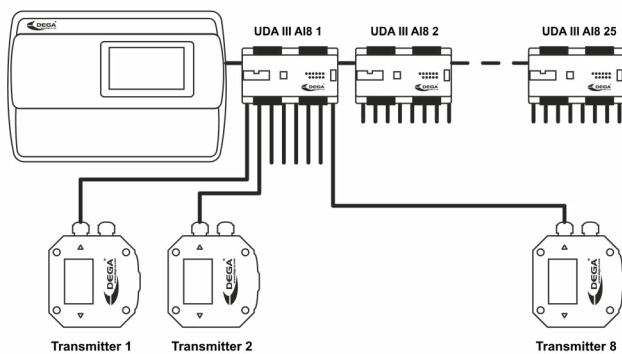
### ■ BUS TOPOLOGY



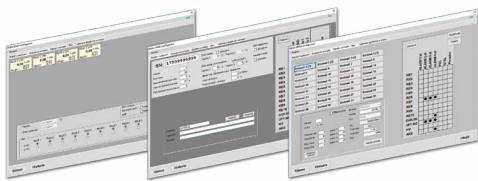
### ■ LOOP TOPOLOGY



## ■ CONNECTION OF TRANSMITTERS WITH ADDITIONAL MODULE DEGA UDAIII AI8,4-20MA (HART)



## ■ SOFTWARE



DEGA Config  
configuration and service software



DEGA VISIO III  
visualization software

## ■ ACCESSORIES



External power supply  
with External  
Mounting Box



Zener barrier



LTE modem (GSM)



UPS





History



**GAS AND FLAME DETECTION**  
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# DEGA NB III LCD

## GAS DETECTOR

- Designed for simple applications
- Power supply 24 VDC
- 2 x output relays
- Detection of toxic and explosive gases, including oxygen
- IP 54 protection



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# Gas detector **DEGA NB III LCD**

The DEGA NB III LCD gas detector is designed for simple applications where the concentration of dangerous explosives or toxic substances can occur.

## TECHNICAL DETAILS:

Power voltage:	24 VDC
Output:	2 x switching relays
Sensor type:	catalytic, electrochemical, infrared, photoionization (PID), semiconductor
Degree of protection by cover:	IP 54
Power consumption:	1.2 W
Dimensions:	100 x 110 x 40 mm (WxHxD)
Weight:	0.3 kg
Relative humidity of the surrounding air:	0-95% RH
Working environment:	BE1 – non-explosive environment

## NOMENCLATURE:

### DEGA NBx-yL III

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

## MODULE:



DEGA NB III  
Relay Module  
(Internal Z-relay, 250  
V/10 A)



The detector is not intended for detection in industrial and commercial areas requiring ATEX certification or in areas with an "Ex" explosion hazard. We recommend DEGA NS II LCD RE (zone 2) or DEGA NS III LCD RE (zone 1) for these areas.

## ACCESSORIES:



DEGA NB III LCD  
stainless steel cover



DEGA NB III LCD  
mechanical cover



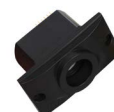
DEGA WATER CAP  
splash guard



DEGA FUNNEL  
funnel



DEGA GAS INLET  
calibration  
attachment



DEGA NB III SU  
replacement sensor  
unit



Cable Glades PG9

## ■ 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)"





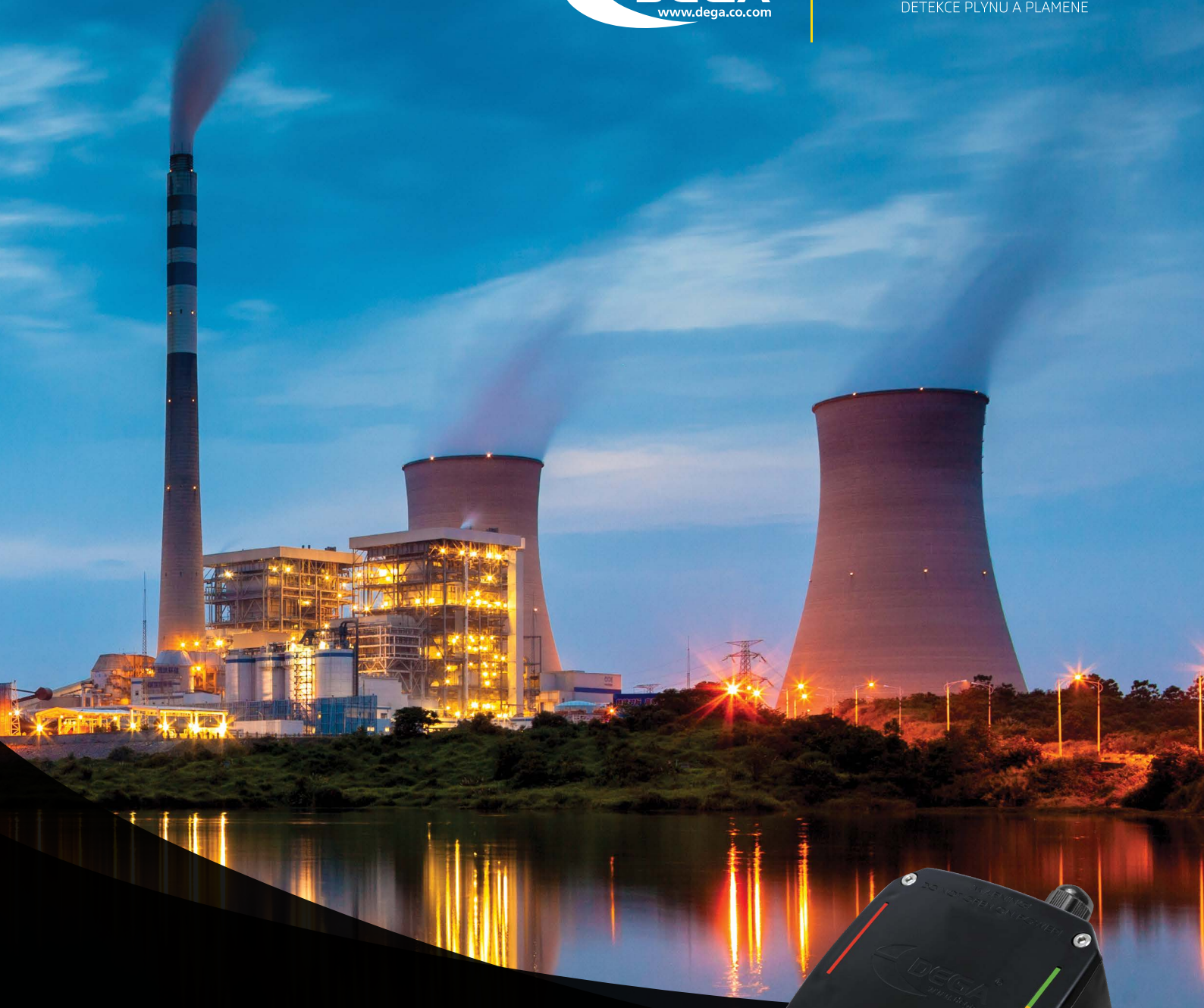
History



Input



**GAS AND FLAME DETECTION**  
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# DEGA NB III

## GAS DETECTION TRANSMITTER

- Types of detection: catalytic, electrochemical, infrared, photoionization (PID), semiconductor
- Detection of toxic and explosive gases, including oxygen
- IP 54 protection
- 4-20 mA output, RS485



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# Gas detection transmitter **DEGA NB III**

The DEGA NB III transmitter is part of the gas detection system. It is located in a monitored area where a critical concentration of flammable or toxic substances can be formed. The transmitter converts the measured concentration into a unified current signal of 4-20 mA and RS485. The transmitter can be connected to evaluation control panels DEGA UPA III, DEGA UKA III, and DEGA UDA III.

## TECHNICAL DETAILS:

Power voltage:	8-28 VDC
Output:	4-20 mA, RS485
Degree of protection by cover:	IP 54
Power consumption:	1,2 W
Dimensions:	100 x 110 x 40 mm (WxHxD)
Weight:	0,3 kg
Sensor type:	catalytic, electrochemical, infrared, photoionization (PID), semiconductor
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 % RV
Working environment:	BE1 - non-explosive environment

## NOMENCLATURE:

### DEGA NBx-yL III

→ **x** type of gas detected

→ **y** sensor type . . . (CL) Catalytic  
(EL) Electrochemical  
(IL) Infrared  
(PID) Photoionization  
(SL) Semiconductor

## MODULE:



DEGA NB III RS485  
(Internal output RS485)



The transmitter is not intended for detection in industrial and commercial areas with a risk of explosion, requiring ATEX certification. We recommend DEGA NS II (zone 2) or DEGA NS III (zone 1) transmitters for these areas.

## ACCESSORIES:



DEGA NB III  
stainless steel cover



DEGA NB III  
mechanical cover



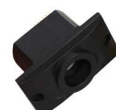
DEGA WATER CAP  
splash guard



DEGA FUNNEL  
funnel



DEGA GAS INLET  
calibration  
attachment



DEGA NB III SU  
replacement sensor  
unit



Cable Glades PG9

## ■ 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)"





History



Input



**GAS AND FLAME DETECTION**  
DETEKCE PLYNU A PLAMENE



# DEGA NS II 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



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# Gas detector **DEGA NS II LCD**

The DEGA NS II 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. The detector 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, 4 x relay, 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:	Ex ec nC IIC T5 Gc Ex db ec nC IIC T4 Gc Ex db ec nC IIC T5 Gc Ex ic ec nC IIC T4 Gc
Marking according to IECEx:	Ex d nA nC IIC T4 Ge Ex d nA nC IIC T5 Ge Ex nA nC IIC T5 Ge
Dimensions:	140 x 140 x 70 mm (WxHxD)
Weight:	0,8 kg
Sensor type:	catalytic, electrochemical, infrared, photoionization (PID), semiconductor
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 % RV

## NOMENCLATURE:

### DEGA NSx-yL II LCD

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

## MODULES:



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



DEGA NS II  
RS485  
(Internal output  
RS485)



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



The detector is designed for detection in industrial and commercial areas with a risk of explosion, requiring ATEX certification (zone 2).

## ACCESSORIES:



DEGA NS II LCD  
stainless steel cover



DEGA NS II LCD  
mechanical cover



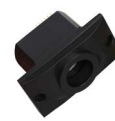
DEGA WATER CAP  
splash guard



DEGA FUNNEL  
funnel



DEGA GAS INLET  
calibration  
attachment



DEGA NS II SU  
replacement sensor  
unit



Cable Glades M20x1,5

## ■ 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)*





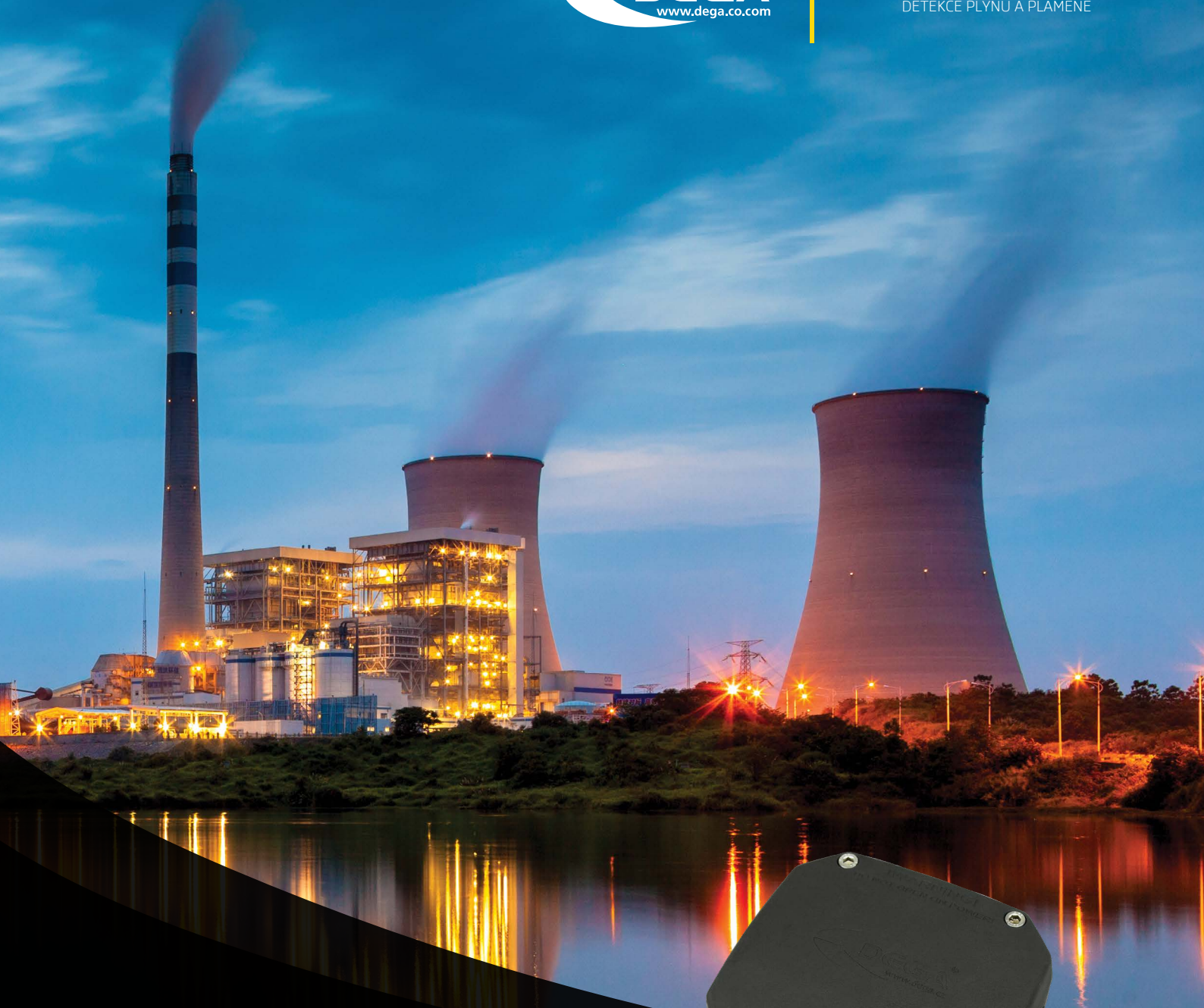
History



4-20  
mA  
Input



**GAS AND FLAME DETECTION**  
DETEKCE PLYNU A PLAMENE



# DEGA NS II

## GAS DETECTION TRANSMITTER

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



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# Gas detection transmitter **DEGA NS II**

The DEGA NS II transmitter 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 transmitter converts the measured substance concentration into a unified 4-20 mA current signal (DEGA UPA III). The transmitter can be connected to the evaluation control panels DEGA UPA III, DEGA UKA III, and DEGA UDA III (via RS485).

## TECHNICAL DETAILS:

Power voltage:	8-30 VDC
Output:	4-20 mA, RS485, Modbus
Degree of protection by cover:	IP 54, with DEGA WATER CAP IP 66 cover
Power consumption:	1,2 W
Marking according to ATEX:	II 3 G Ex db ec IIC T5/T4 Gc Tamb: -20 °C až +60 °C/0 °C až +40 °C
Marking according to IECEx:	Ex db ec IIC T4 Gc Ex db ec IIC T5 Gc Ex ec IIC T5 Gc Ex ic ec nC IIC T4 Gc
Marking according to IAC:	Ex d nA IIC T4 Ge Ex d nA IIC T5 Ge Ex nA IIC T5 Ge
Location:	BE3N2 – potentially explosive atmospheres, zone 2
Dimensions:	140 x 140 x 70 mm (WxHxD)
Weight:	0,7 kg
Sensor type:	catalytic, electrochemical, infrared, photoionization (PID), semiconductor
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)

## NOMENCLATURE:

### DEGA NSx-yL II

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

## MODULE:



DEGA NS II  
RS485  
(Internal output  
RS485)



The transmitter is designed for detection in industrial and commercial areas with a risk of explosion, requiring ATEX certification (zone 2).

## ACCESSORIES:



DEGA NS II  
stainless steel cover



DEGA NS II  
mechanical cover



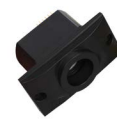
DEGA WATER CAP  
splash guard



DEGA FUNNEL  
funnel



DEGA GAS INLET  
calibration  
attachment



DEGA NS II SU  
replacement sensor  
unit



Cable Glades M20x1,5

# Gas detection transmitter **DEGA NS II**

## **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)*





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



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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	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)"





History



4-20 mA Input



**GAS AND FLAME DETECTION**  
DETEKCE PLYNU A PLAMENE



# DEGA NS III

## GAS DETECTION TRANSMITTER



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



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



# Gas detection transmitter **DEGA NS III**

The DEGA NS II transmitter 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 transmitter converts the measured concentration of substances into a unified 4-20 mA current signal and RS485. The transmitter can be connected to DEGA UPA III, DEGA UKA III, and DEGA UDA III evaluation control panels.

## TECHNICAL DETAILS:

Power voltage:	8-30 VDC
Output:	4-20 mA, RS485, Modbus
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
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

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

## MODULE:



DEGA NS III  
RS485  
(Internal output  
RS485)



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  
stainless steel cover



DEGA NS III  
mechanical cover



DEGA WATER CAP  
splash guard



DEGA FUNNEL  
funnel



DEGA GAS INLET  
calibration  
attachment



DEGA NS III SU  
replacement sensor  
unit



Cable Glades  
M20x1,5

# Gas detection transmitter **DEGA NS III**

## ■ GAS SPECIFICATIONS:

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