

NRG29, NRG 29 N, NRG 29 L

Level Electrode

NRG 29 NRG 29 N NRG 29 L

Description

The NRG 29 level electrode is used to measure the water level in condensate lines. In combination with the NRS 2-4 level switch, the electrode is used as a limit switch with MAX alarm, for example.

The NRG 29 level electrode is a replacement product for the MRV 19, which has been discontinued. The replacement products are as follows:

MRV 19 → NRG 29

MRV 19 N → NRG 29 N

MRV 19 L → NRG 29 L

Function

The level electrode with NRV 2-30 electronic circuit board uses the capacitance measurement principle and converts the changes in level into a level-dependent voltage signal.

The electrode is designed to be self-monitoring, i.e. a leaking insulator will result in a fault indication.

In combination with the NRS 2-4 level switch, the level electrode detects when the maximum level has been reached. Combined in this way, it can be used in power plants as part of a controlled drainage system.

Use in potentially explosive atmospheres

Do not use the equipment in potentially explosive atmospheres.

Technical data

Level electrode pressure and temperature ratings

Admissible operating pressure	bar	100
	psi	1451
Admissible operating temperature	°C	311
	°F	592

Mechanical connection

Electrode	Special flange	Same as
NRG 29	PN 160/DN 50	MRV 19
NRG 29 N	PN 160/DN 50 with tongue/groove	MRV 19 N
NRG 29 L	PN 160/DN 50	MRV 19 L

Material of electrode and adapter flange

1.5415

Materials of other parts in contact with fluid

Protective tube	1.0345
Strainer	1.4571
Electrode rod insulation	Special ceramic
Flange seal	See table, Fig. 3

Fluid conductivity

0.01 - 200 µS/cm

pH value

Maximum admissible: 10

Weight

NRG 29: approx. 8.2 kg

NRG 29 N: approx. 8.3 kg

NRG 29 L: approx. 4.1 kg

Adapter flange for MRV 19 replacement:
approx. 6.3 kg

Adapter flange for MRV 19 N replacement:
approx. 6.2 kg

Adapter flange for MRV 19 L replacement:
approx. 2.1 kg

Electronic circuit board NRV 2-30

supply voltage

12 V DC +/- 10%

Output

U_M = 0 - 10V DC

Housing

Terminal box: painted aluminium.

Electrical connection

Six-pole connector, cable glands Pg 11.

Protection

IP 54 acc. to EN 60529

Admissible ambient temperature

0 °C up to 70 °C

Level Electrode

NRG 29

NRG 29 N

NRG 29 L

Dimensions for installation

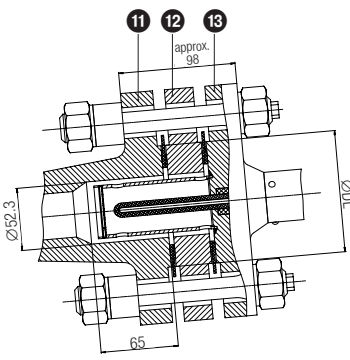
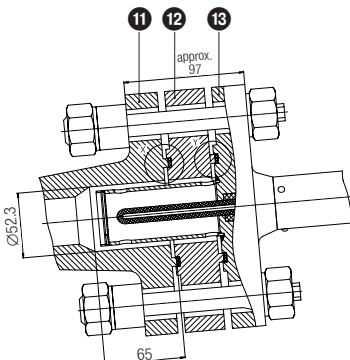
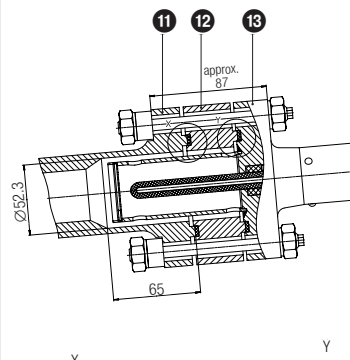
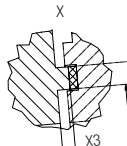
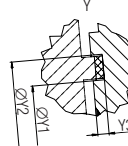
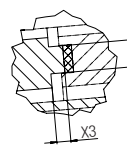
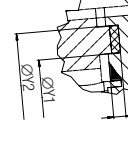
NRG 29			NRG 29 N			NRG 29 L		
								
								
								
Flange:								
Pitch circle Ø	mm		145			95		
Hole Ø	mm		26			14		
No. of holes	Qty.		4			8		
Electrode flange thickness	mm		30			25.5		
DL	Sealing strip Ø	mm	102			n/a		
Y1	Groove inside Ø	mm	n/a			60		
Y2	Groove outside Ø	mm	n/a			76		
Y3	Groove depth	mm	n/a			3.5		
X1	Tongue inside Ø	mm	n/a			61		
X2	Tongue outside Ø	mm	n/a			75		
X3	Tongue height	mm	n/a			4		
Gasket			1.7335/graphite			1.7335/graphite		

Fig. 1

- Key
- 11 Coupling provided on site
 - 12 Adapter flange
 - 13 Electrode flange

Level Electrode

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Important notes

Installation

- Weld-on couplings for an NRG 211 are not compatible with an NRG 29
- Dimensional check required before installation: The insertion depth and inside diameter of weld-on couplings must match the dimensions of the drawing in **Fig. 1**.
- For plants with a monitoring system, the relevant regulations must be complied with. For on-site connections, see the Technical Data and Installation & Operating Manual.

Electrical connection

- To connect the equipment, please use a shielded, multi-core control cable with a minimum conductor size of 0.5 mm², e.g. LiYCY 4 x 0.5 mm², maximum length 500 m.
- Connect the shield only at the control cabinet end to the central earthing point (CEP). Wire the terminal strip as shown in the wiring diagram.
- Route the connecting cable to the electrode separately from power lines.

How to order

GESTRA Level Electrode NRG 29

Adapter flange as replacement for.....

Material.....

Maximum operating pressure

Maximum operating temperature

Fluid

Directives and standards

You can find details on the conformity of the equipment and the relevant standards and directives, where applicable, in the Declaration of Conformity and associated certificates or approvals.

Please note our general terms of business.

Dimensions

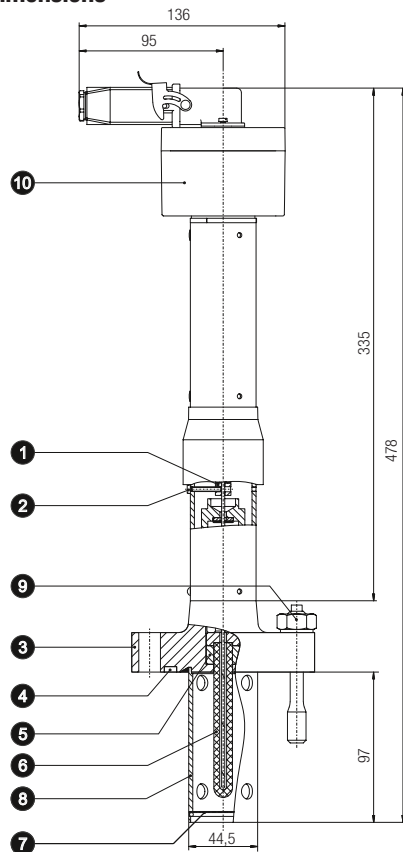


Fig. 2 NRG 29, NRG 29 N, NRG 29 L

Key

- 1 Transport lock
- 2 Locking screw
- 3 Flange
- 4 Groove for gasket
- 5 Stuffing box
- 6 Measurement electrode
- 7 Strainer
- 8 Protective tube
- 9 Expansion pin
- 10 Terminal box with electronic circuit board
- 21 Supply voltage 12 V DC
- 22 Measuring voltage $U_M = 0 - 10V$ DC
- 23 Screws for electronic circuit board
- 24 Connection pins

Electrical connection

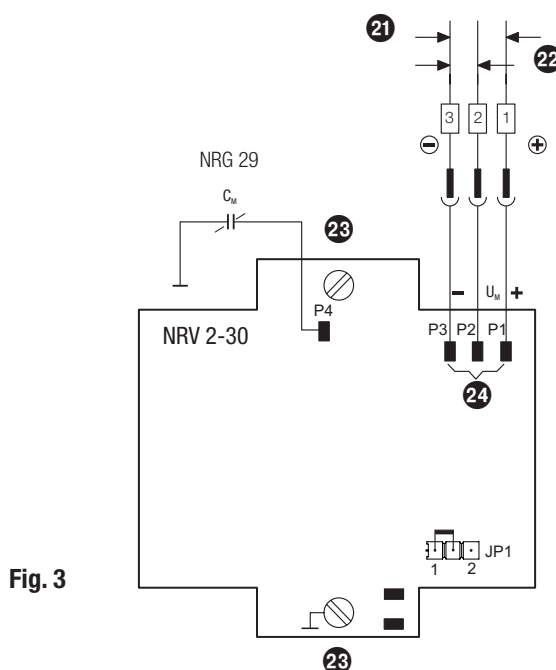


Fig. 3

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