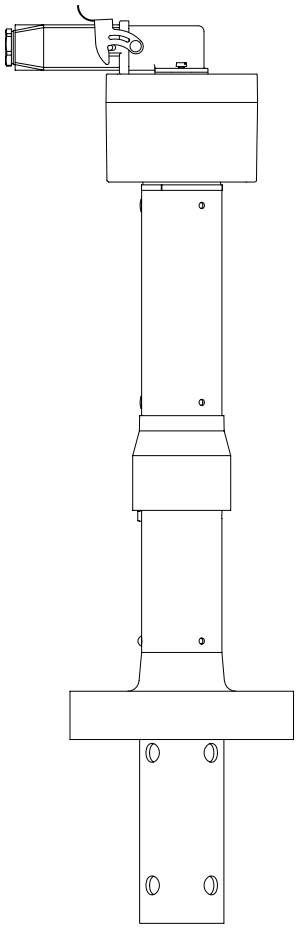


NRG29, NRG 29 N, NRG 29 L

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

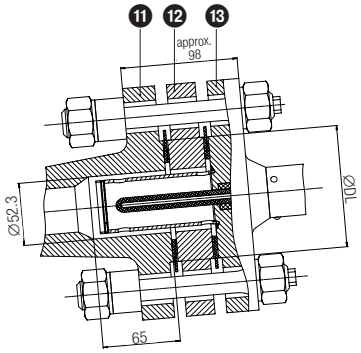
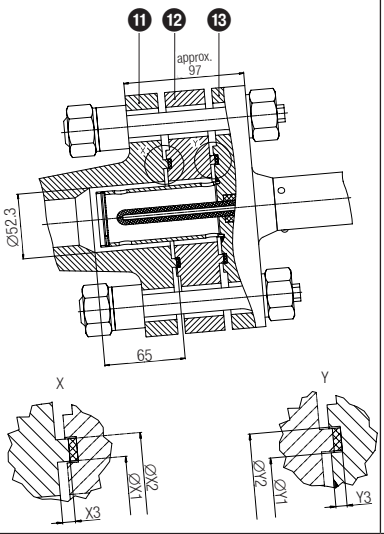
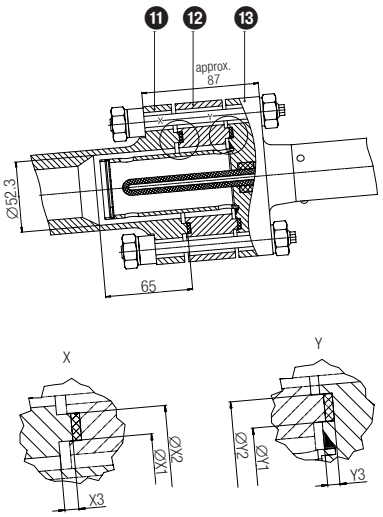
			NRG 29	NRG 29 N	NRG 29 L
Flange:					
	Pitch circle ∅	mm	145	145	95
	Hole ∅	mm	26	26	14
	No. of holes	Qty.	4	4	8
	Electrode flange thickness	mm	30	30	25.5
DL	Sealing strip ∅	mm	102	n/a	n/a
Y1	Groove inside ∅	mm	n/a	72	60
Y2	Groove outside ∅	mm	n/a	88	76
Y3	Groove depth	mm	n/a	3.5	3.5
X1	Tongue inside ∅	mm	n/a	73	61
X2	Tongue outside ∅	mm	n/a	87	75
X3	Tongue height	mm	n/a	4	4
	Gasket		1.7335/graphite	1.5415/graphite	1.7335/graphite

Fig. 1

Key

11 Coupling provided on site
12 Adapter flange
13 Electrode flange

Level Electrode

NRG 29
NRG 29 N
NRG 29 L

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, multicore 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

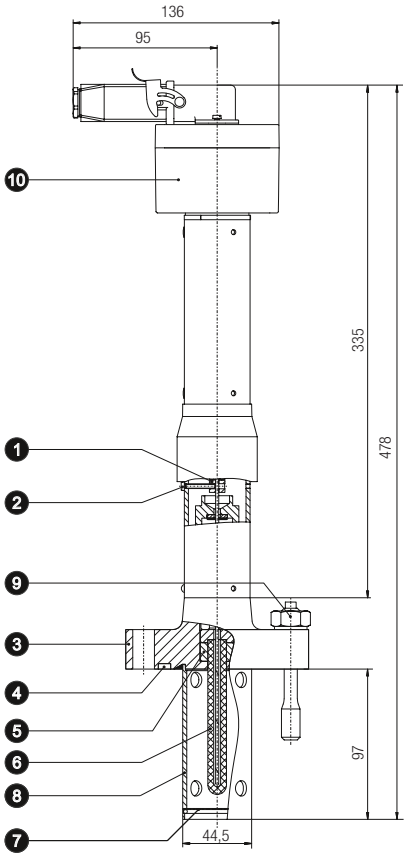


Fig. 2 NRG 29, NRG 29 N, NRG 29 L

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

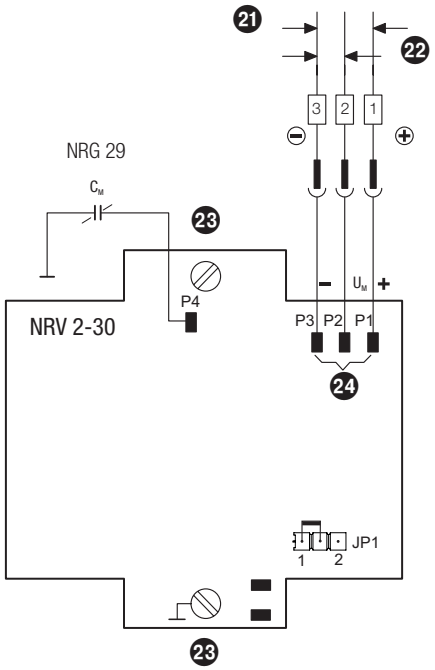


Fig. 3

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