

GESTRA Steam Systems

Product Range B

Level Probe NRG 26-21

NRG 26-21

Description

The compact system NRG 26-21 works according to the capacitance measurement principle. The NRG 26-21 is used for signalling different levels in electrically conductive and non-conductive liquids:

- Water level maintained within the control band defined by two preset limits.

The pre-amplifier NRV 2-29 is integrated in the terminal box of the level electrode.

Function

The principle of capacitance measurement is applied to determine the level. The electrode rod and the vessel wall form a capacitor. If the level of the dielectric located between these two capacitor plates changes, the current which flows through the plates changes proportionally to the level. A dielectric is by definition an insulating substance, which excludes many liquids such as water. In order to receive a useful measuring result the measuring rod, which is submerged to varying depths in the liquid, must be completely insulated. After the calibration of the zero point/measuring range (0% – 100%) of the control unit, the level can be read off from a remote display unit. The level measuring range can be changed during operation.

Design

Screwed 3/4", DIN ISO 228-1

Technical Data

Type approval no.

TÜV · WR · 01-320

Service pressure

32 bar g at 238 °C

Connection

Screwed 3/4", DIN ISO 228-1

Materials

Terminal box: PPO (Noryl®)

Stem: 1.4571 CrNiMoTi17-12-2

Measuring electrode: 1.4571 CrNiMoTi17-12-2

Electrode insulation: PTFE

Supply voltage

12 V

Overall length / measuring range

See table overleaf.

Response sensitivity

Range 1: Water $\geq 0.5 \mu\text{S}/\text{cm}$

Range 2: Water $\geq 20 \mu\text{S}/\text{cm}$

Range 3: Fuel oil EL $\epsilon_r 2.3$

Cable entry

Cable gland with integral cable clamp M16

Protection

IP 65 to DIN EN 60529

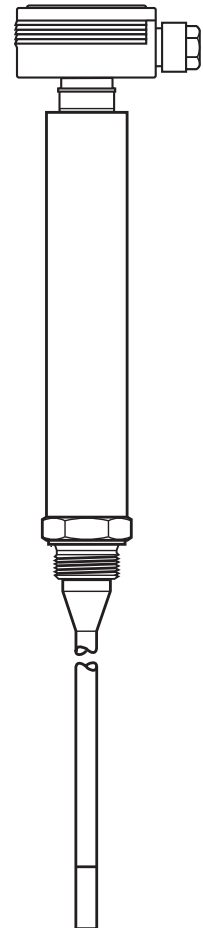
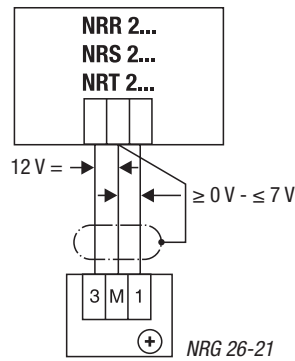
Max. admissible ambient temperature

Max. 70 °C

Weight

Approx. 1.8 kg

Wiring Diagram



NRG 26-21

Level Probe NRG 26-21

Important Notes

Cable required for wiring to the electrode: multi-core flexible control cable, min. conductor size 1.5 mm².

Order and Enquiry Specifications

GESTRA Level Probe **NRG 26-21**, PN 40

Mains voltage

Connection.....

Inspection.....

Length supplied..... mm

Fluid

The following test certificates can be issued on request, at extra cost:

In accordance with EN 10204-2.1, -2.2, 3.1 and 3.2.

All inspection requirements have to be stated with the order. After supply of the equipment certification cannot be established. For tests and inspection charges, please consult us.

Ancillary Equipment

- Level switch NRR 2...
- Level switch NRS 2...
- Level switch NRT 2...

Key

- 14 Max. length of installation out 238 °C
- 15 Measuring range
- 16 Flange PN 40, DN 50 (2"), DIN 2527
Flange PN 40, DN 100 (4"), DIN 2527
- 17 For the approval of the boiler standpipe with connecting flange the relevant regulations must be considered.
- 18 Vent hole
- 19 High water (HW)
- 20 Electrode rod d = 15 mm
- 21 Protection tube DN 80
- 22 Protection tube DN 100
- 23 Electrode distance ≥ 14 mm (LW)
- 24 Electrode distance ≥ 40 mm (LW)
- 25 Low water (LW)
- 26 Reducer DIN 2616-2, part 2
K-88.9 x 3.2 -42.4 x 2.6 W
- 27 Reducer DIN 2616-2, part 2
K-114.3 x 3.6 -48.3 x 2.9 W

ATEX (Atmosphère Explosible)

According to the European Directive 94/9/EC the equipment must **not** be used in explosion-risk areas.

Supply in accordance with our general terms of business.

Dimensions

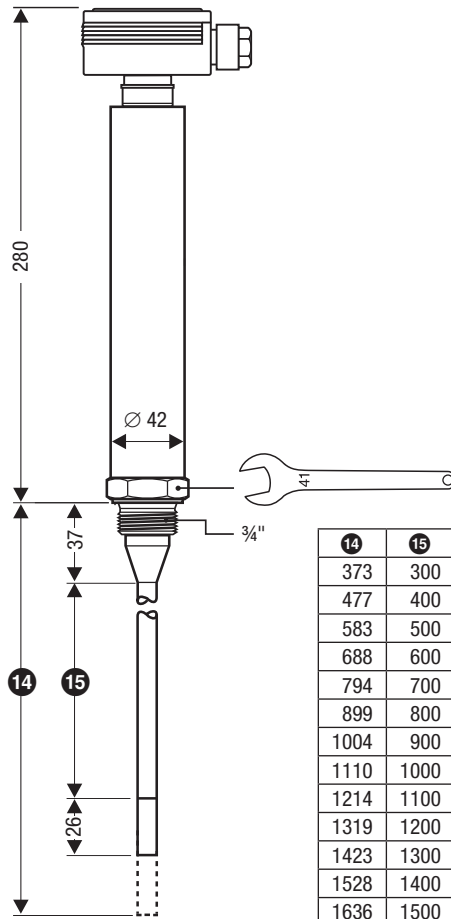


Fig. 1 NRG 26-21

14	15
373	300
477	400
583	500
688	600
794	700
899	800
1004	900
1110	1000
1214	1100
1319	1200
1423	1300
1528	1400
1636	1500
2156	2000

Examples of Installation

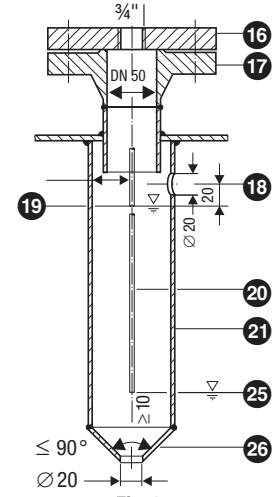


Fig. 2

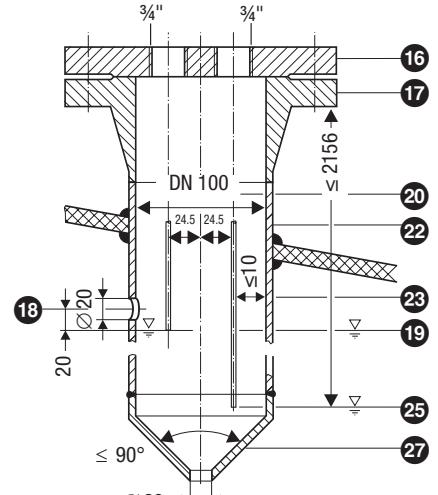


Fig. 3 Protection tube if electrode is installed inside the boiler

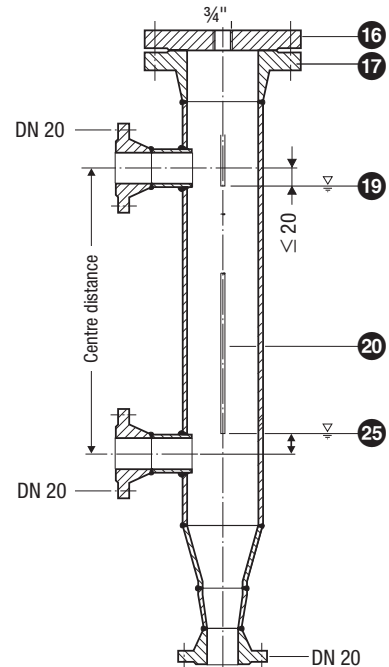


Fig. 4 External level pot

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