

## 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

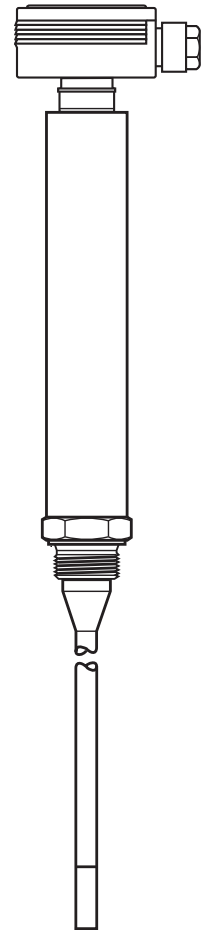
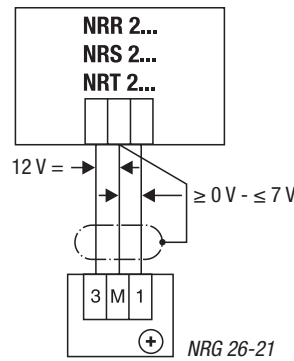
##### Max. admissible ambient temperature

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 mm<sup>2</sup>.

## 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

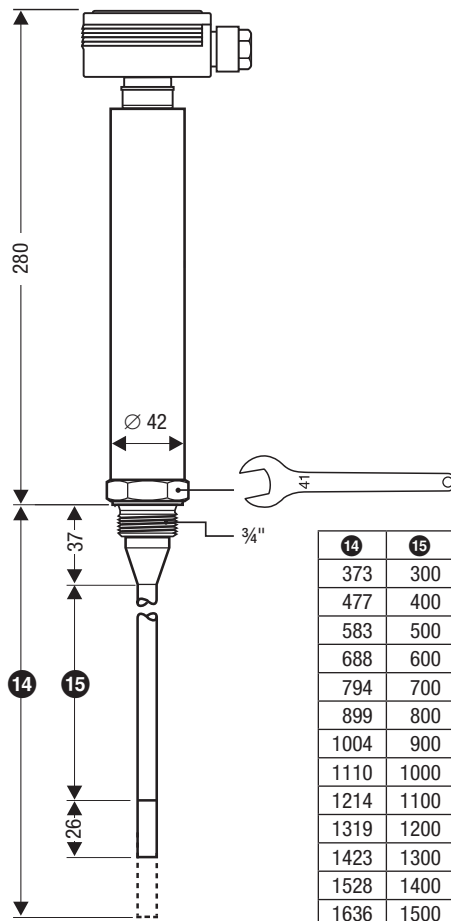


Fig. 1 NRG 26-21

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

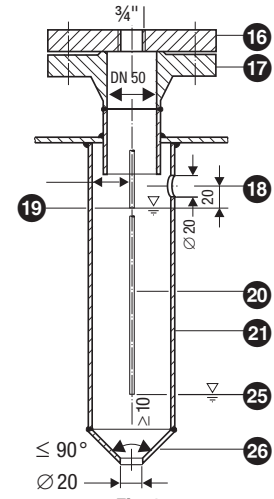


Fig. 2

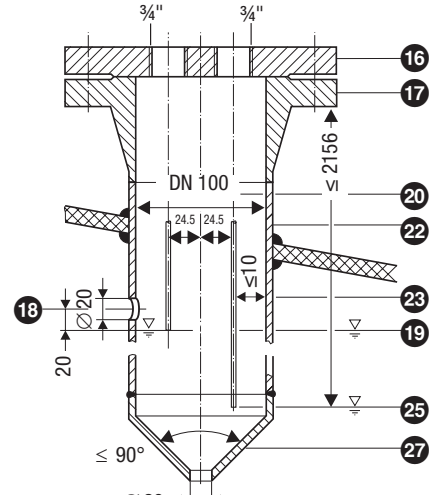


Fig. 3 Protection tube if electrode is installed inside the boiler

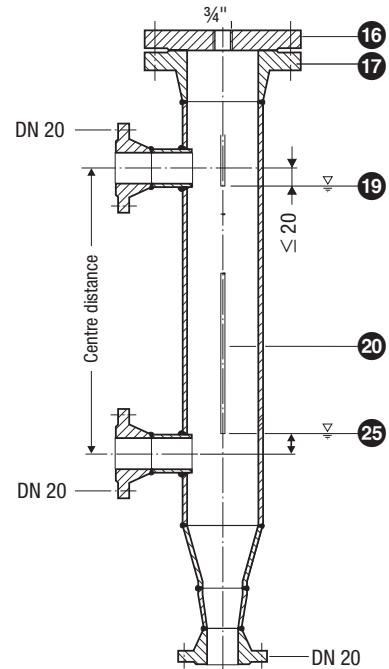


Fig. 4 External level pot

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