

**GESTRA® Industrial Electronics · Product Range Group B2**
**Level Switch Type  
NRS 2-5**
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**System Description**

The level switch NRS 2-5 is an analogue electronic amplifier for the capacitance electrode NRG 211.

In combination with this level electrode it can detect low water level. In addition, the level switch evaluates possible malfunction signals coming from the electrode and monitors the electrode supply cable and can therefore be used as part of a minimum level monitoring system/low-level alarm.

**Function**

The measuring voltage delivered by the electrode is decoded as a function of its magnitude and indicated by LEDs when there is a malfunction in the electrode supply cable or in the electrode and when the electrode is exposed or submerged.

In the case of a malfunction the output relay MALFUNCTION is de-energized. When the electrode tip is submerged (normal level) the output relay is energized to cancel the alarm output.

Optocouplers are connected in parallel and assigned to the output relays. They will be de-energized in the event of a malfunction or an alarm.

**Design**
**NRS 2-5 c**

19" slide-in unit with guide rails and 32 pole screw-type connector for installation in 19" magazines to DIN 41494 part 5.

**NRS 2-5 d**

Spare 19" slide-in unit.

**Important Note**

Use screened four-core cable, e. g. 4 x 0.5 mm<sup>2</sup>.  
Max. cable length 500 m.

**Technical Data**
**Supply voltage**

24 V DC

**Power consumption**

2 VA

**Output – Measuring circuit**

12 V DC (supply voltage going to level electrode)

30 mA

**Input – Measuring circuit**

1 – 10 V DC (measuring voltage coming from level electrode)

**Output – Control circuit**

2 volt-free relay contacts.

Max. contact rating with switching voltages of 24/115/230 V AC: 4 A resistive, 0.75 A inductive at cos 0.5.

Max. contact rating with switching voltage 24 V DC: 4 A

Service life or relay: 30 x 10<sup>6</sup> switching cycles

2 Optocouplers (npn), short-circuit protected

due to inherent current limiting characteristics

Max. ratings: 70 V, 10 mA

**Indicators and adjustors**

1 green LED OPERATION, 1 red LED LOW LEVEL,

1 yellow LED MALFUNCTION IN ELECTRODE,

1 yellow LED MALFUNCTION IN CABLE

**Protection**

IP 10 to DIN 40050

**Max. admissible ambient temperature**

0 °C to +70 °C

**Case**

19" slide-in unit with front panel to DIN 41494 part 5 and rear 32 way Euro card connector to DIN 41612 for installation into 19" magazine.

Front panel: aluminium.

**Weight**

approx. 0.6 kg

**Order and Enquiry Specification**

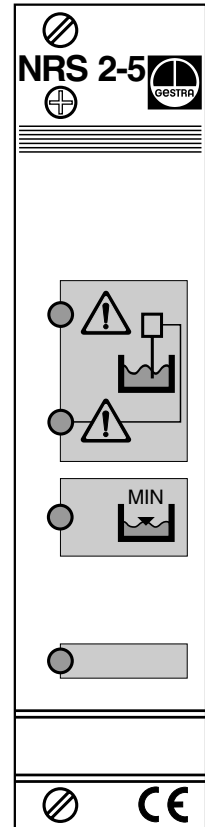
GESTRA Level switch NRS 2-5

■ 19" slide-in unit with guide rails

NRS 2-5 c

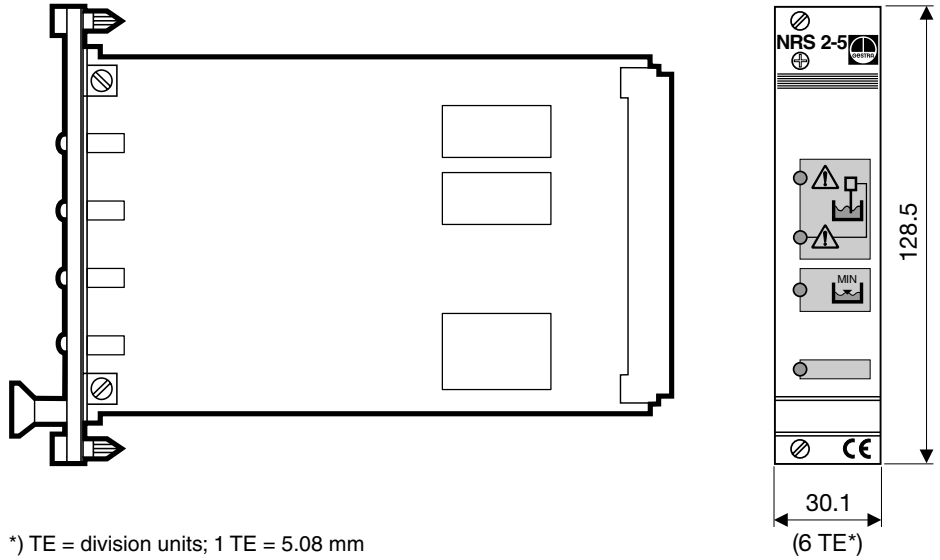
■ spare 19" slide-in

unit NRS 2-5 d



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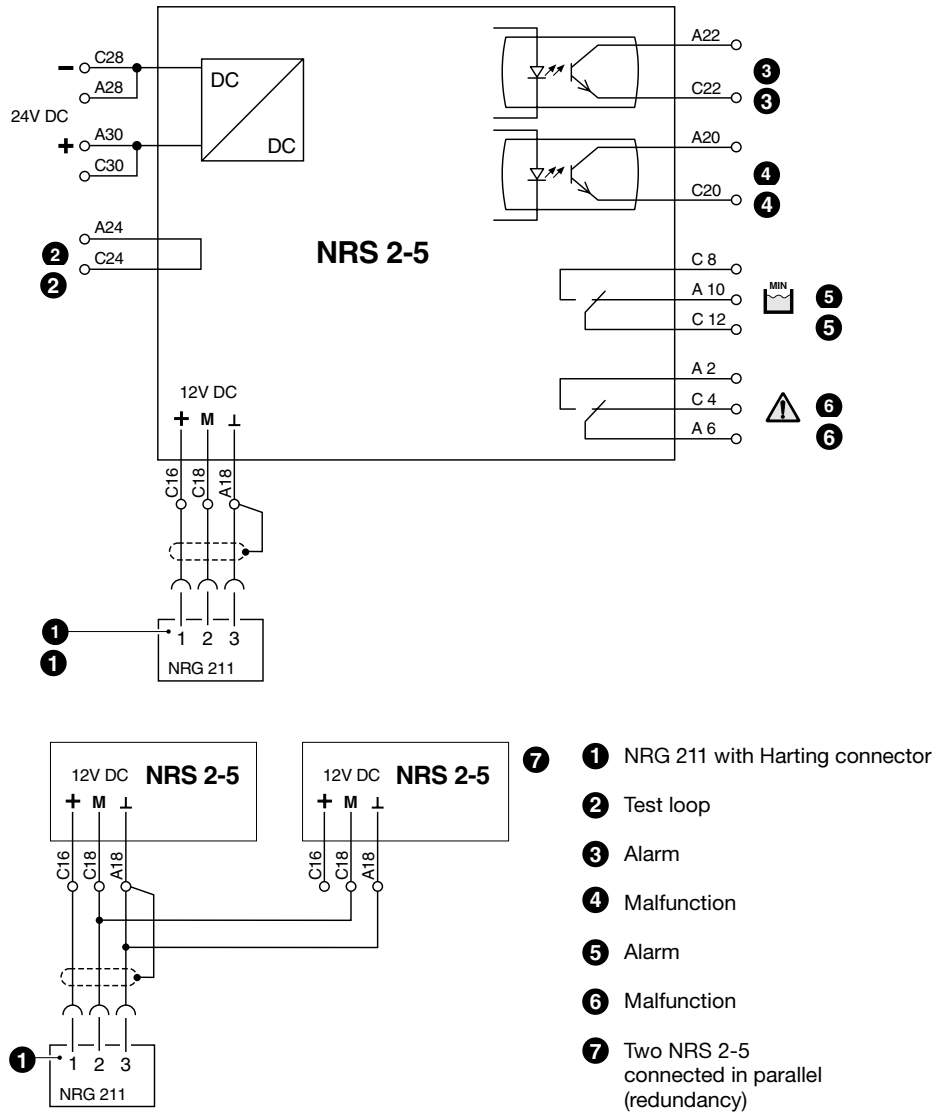
## Dimensions



\*) TE = division units; 1 TE = 5.08 mm

## Wiring diagram

Design "c"/"d"



Supply in accordance with our general terms of business.

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