

GESTRA Steam Systems

Product Range B1

Level Switch NRS 1-3b

NRS 1-3

Description

Two-channel low-water-level alarm with test button in conjunction with the GESTRA multiple level-control electrode type ER... or level-control electrode type ER 16.

Application in steam boiler plants to TRD 401 and TRD 602.

Function

Type-approved two-channel level switch with test button in conjunction with the multiple level-control electrode type ER... or level-control electrode type ER 16/NRG 16-4.

Design

Plug-in unit in plastic case for installation in control cabinets. The terminals in the case are accessible after loosening two screws and unplugging the unit from its base. To avoid confusion with other plug-in units of the GESTRA range, inserts are fitted in the bases so that only the correct unit may be plugged into each base.

The plug-in units may be snapped onto a 35 mm supporting rail or screwed into position on a mounting panel.

Field enclosures for several plug-in units are available on request.

Technical Data

Type-approval no.

TÜV-WR/WB-03-302

Note:

TÜV-WR... applies to NRS 1-1, 1-2, 1-5,

TÜV-WB... applies to NRS 1-3;

combinations of water-level controllers (WR) and low-level alarms (WB) are possible due to the type approval

Input

2 connections for one electrode tip

Output

2 potential-free relay contacts mounted in series; max. contact rating: 250 V, 500 W, 3 A resistive with a life of 4×10^5 switching cycles or 0.35 A inductive with a life of 2×10^6 cycles; contact material silver, hard-gold plated

Sensitivity

10 μ S/cm

(other values available on request)

Electrode supply voltage

11 V AC, free from DC voltage

Indicators and adjustors

2 LEDs "low-level alarm (LW)"

1 "Test" button for checking electrical circuits

1 "Reset" button for resetting burner-protection circuit after "lock-out" (the connection of an additional push button on site is possible; by removing the wire link the reset button is without effect)

Mains supply

24 V, 110 V, 120 V, 220 V, 240 V, 50... 100 Hz, 3.5 VA (please state voltage when ordering),

24 V DC supply also possible with the ancillary unit type URN-1

Protection

IP 40

Permissible ambient temperature

0... 50 °C

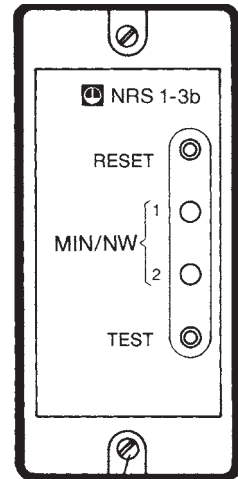
Case materials

Base: ABS plastic, black

Cover: polystyrene (highly shock-resistant), stone grey

Approx. weight

0.8 kg



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Important Notes

Recommended cable for wiring to the electrode: Screened cable, e.g. I-Y (St) Y 2 x 2 x 0.8, max. cable length 100 m.

When mounting the electrode into steam or pressurized hot water boilers the relevant regulations must be considered.

The burner-protection circuit should be fused with 2.5 A (slow blow fuse).

Order and Enquiry Specifications

GESTRA level switch for two-channel low-level alarm with test button, according to TRD 401 and TRD 602.

Level switch type NRS 1-3b, plug-in unit in plastic case for installation in control cabinets.

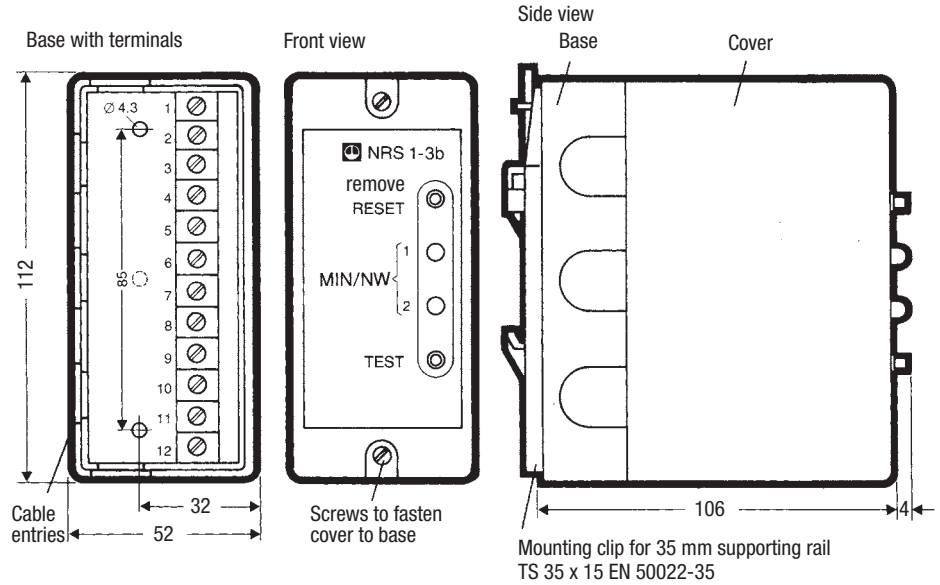
Mains supply..... V

Associated Equipment

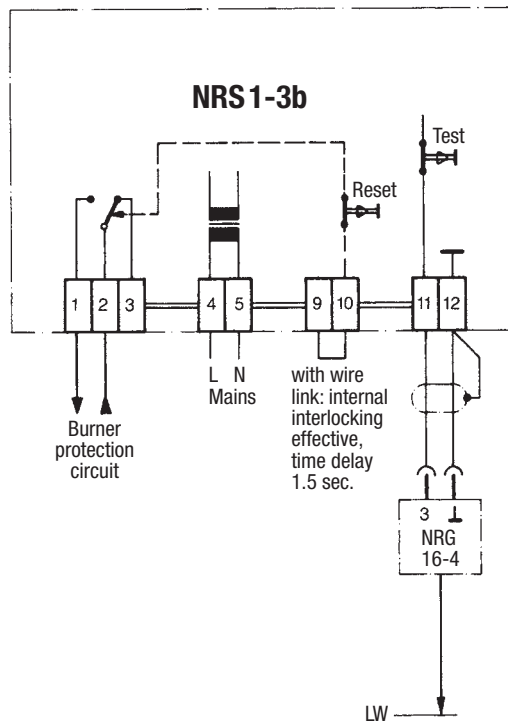
Multiple level-control electrode type ER... with 3 electrode tips and a common earth tip.

Level control electrode type NRG 16-4 with one electrode tip.

Dimensions



Wiring Diagram



Wiring diagram for level switch type NRS 1-3b, drawn position of contacts: relays deenergized, i. e. alarm

Supply in accordance with our general terms of business.

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