

GESTRA Steam Systems

Product Range B1

Level Controller NRS 1-5b

NRS 1-5

Purpose and Application

On-off feedwater control and high-level alarm with the GESTRA multiple level-control electrode type **ER 5** . . . or level control electrodes type **ER 16**.

Application for feed (fill) control or drain (discharge) control with high-level alarm in steam boilers, condensate and other tanks.

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

Function

On-off feedwater control and high-level alarm with multiple level-control electrode type **ER 5** . . . or level control electrodes type **ER 16**.

Type-approval no.

TÜV-WR/WB-98-302

Input

4 connections for 3 electrode tips

Output

1 potential-free working contact for the controller,
1 potential-free relay contact for the alarm;
max. contact rating: 250 V, 500 W, 3 A ohmic 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

Standard design: 10 μ S/cm

Special design: 0.5 μ S/cm

Electrode supply voltage

11 VAC, free from DC voltage

Indicators and adjustors

1 LED "Pump ON", 1 LED "MAX/HW",

1 switch for selection of operation "Feed" or "Drain" control,

1 "Test" button for simulating "high-level alarm" (HW)

Mains supply

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

24 VDC 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

Important Notes

Recommended cable for wiring to the electrode(s): Screened cable, e.g. I-Y (St) Y 2 x 2 x 0.8 or LIYC Y 0.5 mm², max. cable length 100 m.

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

Order and Enquiry Specifications

GESTRA level controller for water-level control and high-level alarm:

Levelcontroller type NRS 1-5b, plug-in unit in plastic case for installation in control cabinets.

Mains supply..... V

Associated Equipment

Mutiple level-control electrode type ER 5... with 3 electrode tips and a common earth tip.

Level control electrodes type ER 16 with one electrode tip.

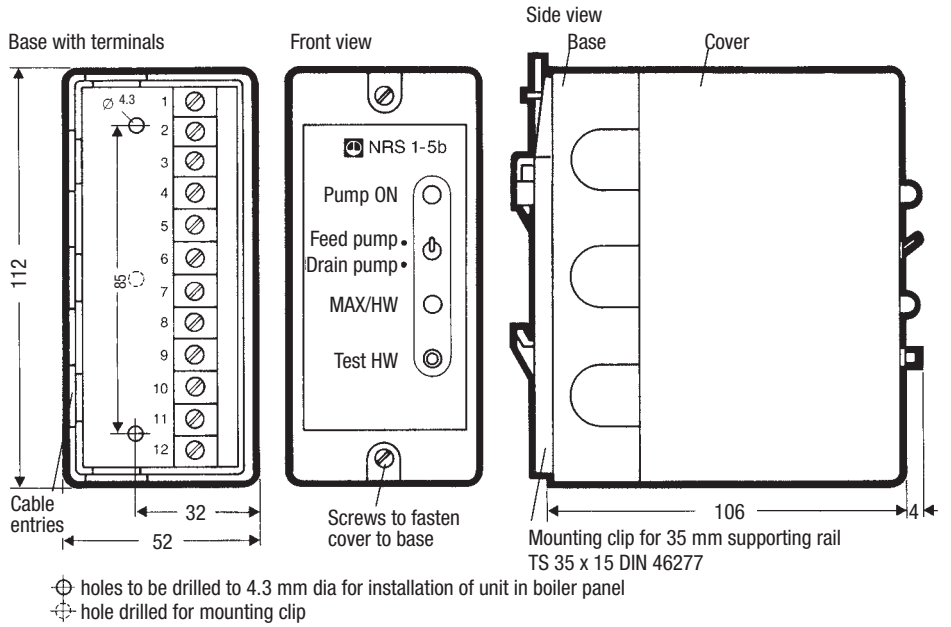
Level switch type NRS 1-2b for signalling of additional MAX and MIN levels.



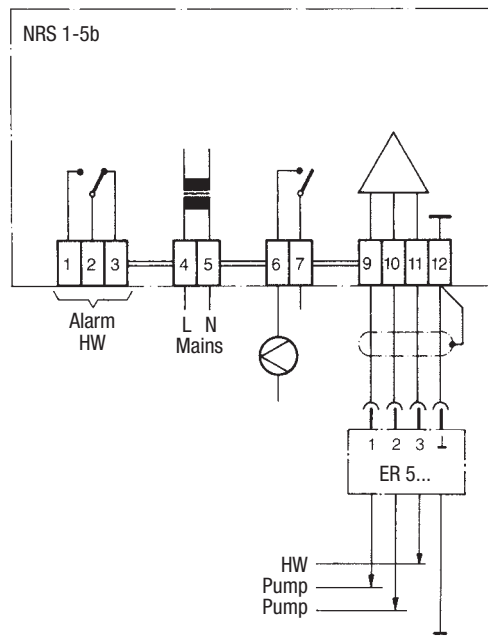
NRS 1-5b

Level Controller
NRS 1-5b

Dimensions



Wiring Diagram



Wiring diagram for level controller type NRS 1-5b, drawn position of contacts: relays deenergized i.e. alarm

Supply in accordance with our general terms of business.

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