

GESTRA Steam Systems

Conductivity Transmitters LRT 1-5b, LRT 1-6b

Product Range Group B1

LRT 1-5 LRT 1-6

Purpose and Application

Measuring transducer with analogue current output for continuous monitoring of the conductivity of liquids, signalling of limit values, remote indication or recording with the GESTRA conductivity electrode type LRG 12.

Application mainly in condensate systems to detect any pollution by foreign matter, for example in steam boiler plants for monitoring the boiler water or the condensate returned to the boiler.

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

Measuring transducer with analogue current output for conductivity with conductivity electrode type LRG 12-1, automatic temperature compensation within the range 25 ... 180 °C

Input

4 connections for the conductivity electrode type LRG 12-1.

Output

Current output 0 ... 20 mA or 4 ... 20 mA by an external wire link, max. load 500 Ω, galvanically separated from probe measuring circuit; residual ripple of output current 50 µA_p

Measuring ranges

LRT 1-5b: 0 ... 10 mS/cm, 0 ... 1 mS/cm

LRT 1-6b: 0 ... 100 µS/cm, 0 ... 10 µS/cm

(selection between the 2 ranges by switch on front panel, values referred to 25 °C)

Temperature compensation

Continuously adjustable within the range 0 ... 4 %/°C

Compensation range

25 – 180 °C

Temperature measurement

by integral NTC feeler

Cell constant of conductivity electrode

C = 1.0 [1/cm]

Indicator

1 meter, 45 x 45 mm, scale 0 ... 100 %

Electrode supply voltage

Delta voltage 0.5 V_p/1000 Hz

Mains supply

24 V, 110 V, 120 V, 230 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

0.5 kg

Import Notes

Cable required for wiring to the electrode: Screened cable, e.g. 6 x 0.8 mm² for LRT 1-5b, 4 x 0.8 mm² for LRT 1-6b, cable length see table under "Installation and Service Instructions".

Order and Enquiry Specifications

GESTRA conductivity transmitter as measuring transducer with current output used with the GESTRA conductivity electrode type LRG 12-1:

Conductivity transmitter type LRT 1-..., plug-in unit in plastic case for installation in control cabinets

Mains supply V

Associated Equipment

Max.-min. limit switch type URS 2b for MAX and MIN alarms

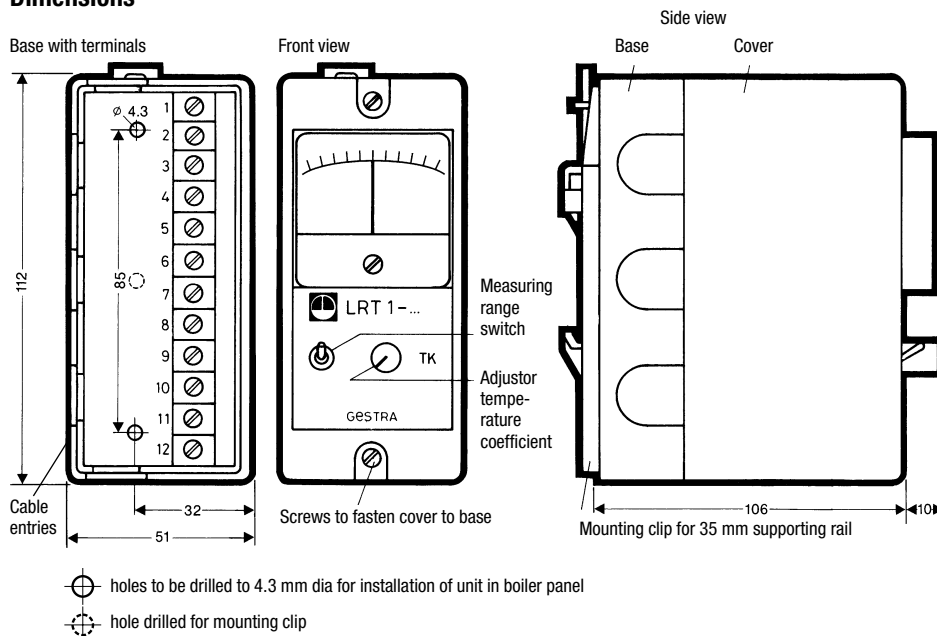
Level indicator type ARZ 4 with LED analogue display



Conductivity transmitter LRT 1-5b

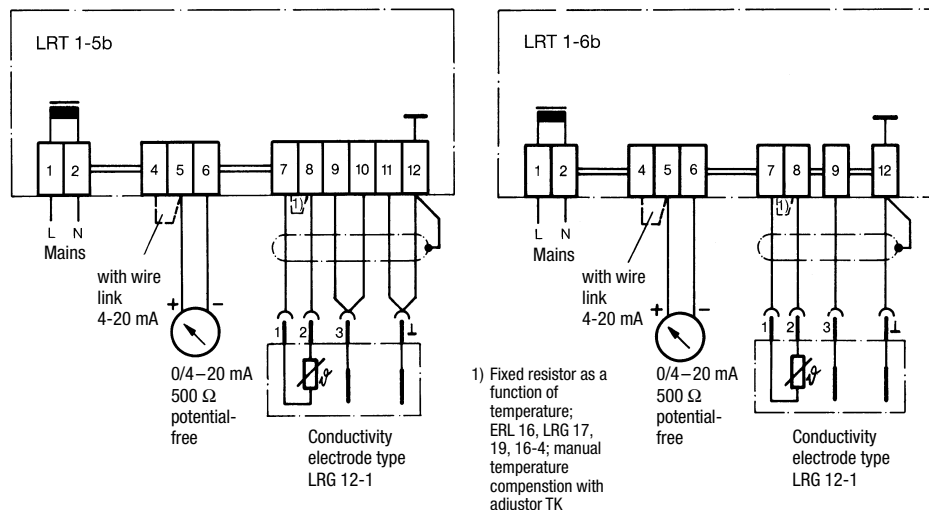
Conductivity Transmitters LRT 1-5b, LRT 1-6b

Dimensions



Dimensions of conductivity transmitter type LRT 1-5b, LRT 1-6b

Wiring Diagrams



Conductivity transmitter type LRT 1-5b

Conductivity transmitter type LRT 1-6b

Supply in accordance with our general terms of business.

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