

## GESTRA Steam Systems

### Conductivity Electrode LRG 16-9

### Product Range B

### LRG 16-9

#### Description

The conductivity electrode LRG 16-9 is designed for use with conductivity switch LRS 1-7 as conductivity monitoring and control system.

The electrical conductivity of

- Condensate,
- Boiler feedwater,
- Cooling and cleaning water,
- Boiler water

is monitored. In steam boiler plants the conductivity monitoring & control system is used as limit switch and continuous blowdown controller.

#### Function

The conductivity electrode LRG 16-9 in conjunction with the conductivity switch LRS 1-7 measures the electrical conductivity in conductive liquids. The integrated resistance thermometer enables the conductivity electrode LRG 16-9 to measure the fluid temperature.

A short circuit or wire breakage in the conductivity electrode will trigger an error message in the conductivity switch.

#### Technical Data

##### Type approval

TÜV.WÜL.xx-xxx

##### Service pressure

PN 40, max. 32 bar at 238 °C

##### Mechanical connection

Screwed ½, to ISO 228-1

##### Cell constant

0.5 cm<sup>-1</sup>

##### Materials

Screw-in body: 1.4571, X6CrNiMoTi17-12-2

Measuring electrode: 1.4571, X6CrNiMoTi17-12-2

Electrode rod insulation: PTFE

##### Electrical connection

M 12 sensor connector, 5 poles, A coded

##### Protection

IP 65 to DIN EN 60529

##### Ambient temperature at terminal box

Max. 80 °C

##### Weight

Approx. 0.3 kg

#### Important Notes

The conductivity electrode is designed for installation in pipes. The conductivity electrode is installed in a socket end, a measuring chamber or a mounting flange. Measuring chamber and mounting flange available as optional extra.

The conductivity electrode LRG 16-9 and the conductivity switch are equipped with M 12 sensor plug connectors with 5 poles, A coded. For connecting the equipment control cable assemblies (with plug and connector) of various lengths are available as add-on equipment.

**Note that the recommended control cable is not UV-resistant and, if installed outdoors, must be protected by a UV-resistant plastic tube or cable duct.**

If the above-mentioned control cable assembly is not used, a screened five-core control cable, e. g. Ölflex 110 CH, manufactured by Lapp, 5 x 0.5 mm<sup>2</sup> or LiVCY 5 x 0.5 mm<sup>2</sup> must be used for wiring.

Max. cable length between conductivity electrode and switch: 30 m, with conductivities from 0.5 to 10 µ S/cm: max. 10 m.

#### Order & Enquiry Specification

GESTRA Conductivity electrode type LRG 16-9  
PN 40, screwed ½ ISO 228-1

#### Associated conductivity switch

- GESTRA Conductivity switch LRS 1-7

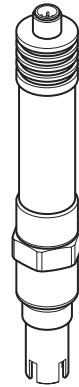
#### Accessories

GESTRA Measuring chamber, screwed ½ PN 10

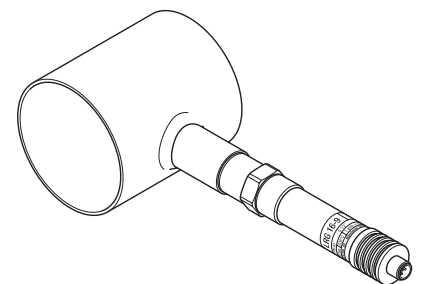
GESTRA Mounting flange, DN ... PN 40 DIN 2527, with female thread ½

#### ATEX (Atmosphère Explosible)

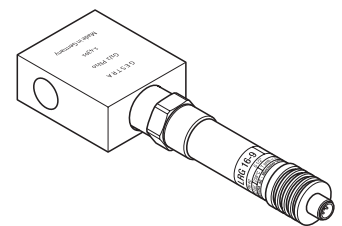
The equipment constitutes a simple item of electrical equipment as defined in DIN EN 50020 section 5.4. According to the European Directive 94/9/EC the equipment must be equipped with approved Zener barriers if used in potentially explosive areas. Applicable in Ex zones 1, 2 (1999/92 EC). The equipment does not bear an Ex marking. The suitability of the Zener barriers is certified in a separate document.



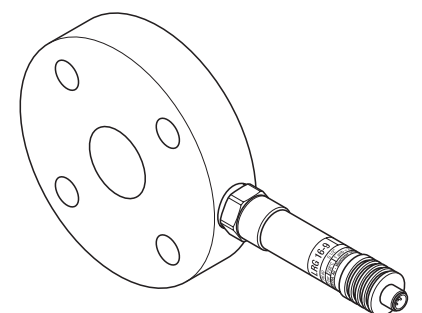
LRG 16-9



LRG 16-9 with on-site socket end for installation in pipes.



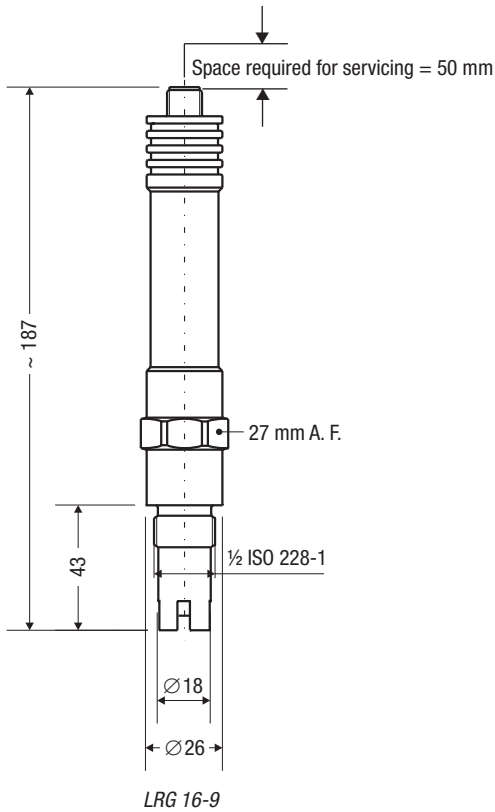
LRG 16-9 with measuring chamber for installation in pipes.



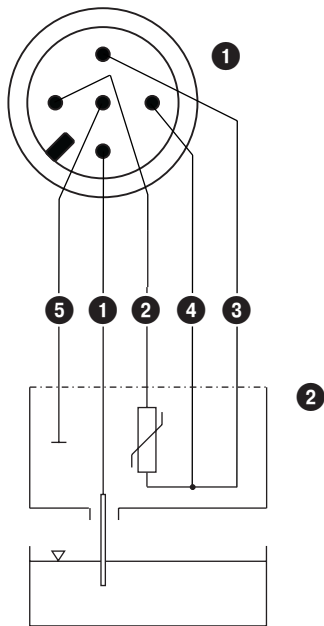
LRG 16-9 with mounting flange for sandwiching between flanges.

# Conductivity electrode LRG 16-9

## Dimensions



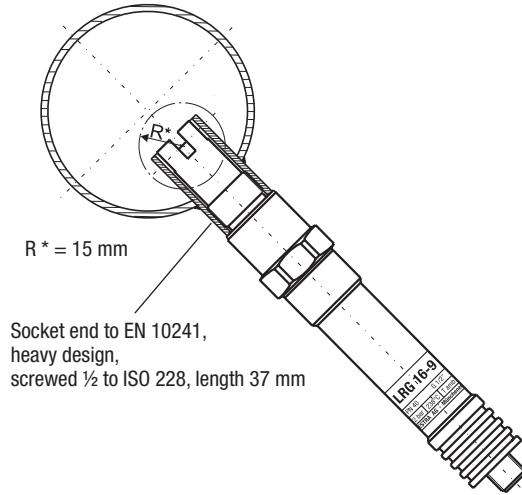
## Electrical Connection



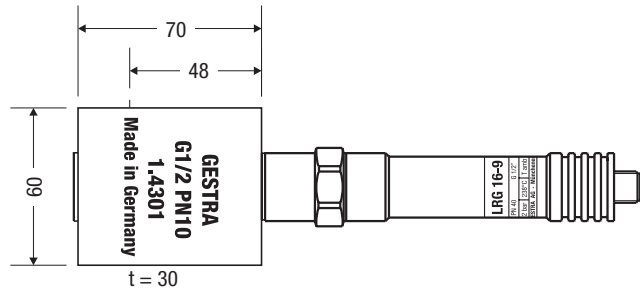
- 1 M 12 sensor connector, 5 poles, A coded (on conductivity electrode)
- 2 Conductivity electrode LRG 16-9

Supply in accordance with our general terms of business.

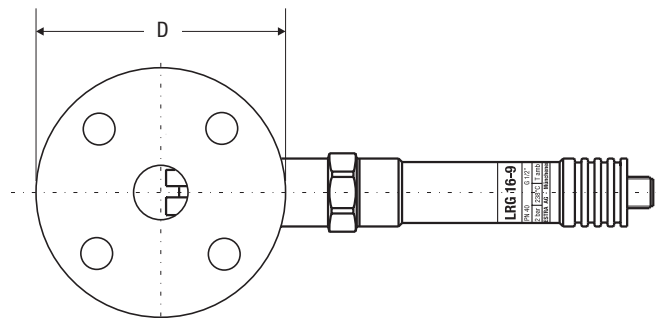
## Dimensions of installation



LRG 16-9 with on-site socket end for installation in pipes.



LRG 16-9 with measuring chamber for installation in pipes.



DN [mm]	Diameter of flange	Thickness of flange
15	95	32
20	105	32
25	115	32
32	150	32

LRG 16-9 with mounting flange for sandwiching between flanges.

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