

# LSK Conductive Level Sensor



LSK320



LSK420



LSK350



LKP100  
Ver. 1



LKP100  
Ver. 2



DNGA230100

## WARNING

This product contains no replaceable parts.

In case of malfunction the product must be shipped to Baumer for repair.

## Safety Instructions

This instrument is built and tested according to the current EU-directives and packed in technically safe condition. In order to maintain this condition and to ensure safe operation, the user must follow the hints and warnings given in this instruction.

During the installation the valid national rules have to be observed. Ignoring the warnings may lead to severe personal injury or substantial damage to property.

The product must be operated by trained staff. Correct and safe operation of this equipment is dependent on proper transport, storage, installation and operation.

All electrical wiring must conform to local standards. In order to prevent stray electrical radiation, we recommend twisted and shielded input cables, as also to keep power supply cables separated from the input cables. The connection must be made according to the connecting diagrams.

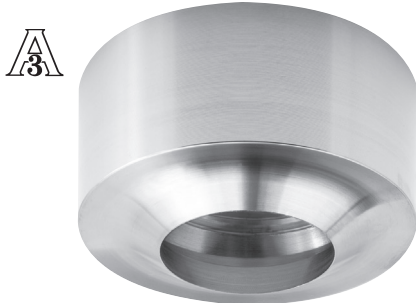
Before switching on the power supply take care that other equipment is not affected. Ensure that the supply voltage and the conditions in the environment comply with the specification of the device.

Before switching off the supply voltage check the possible effects on other equipment and the processing system.

## Mechanical Installation

### Welding part

Please refer to "Accessories" data sheet. The welding part has an engraved mark or hole. When the product has been mounted and correctly tightened the gland or M12 plug will align with this mark. Make sure that the gland/plug is pointing downwards to prevent fluids from penetrating into the instrument.



### Cautions

Use only the authorised special designed accessories.  
The product warranty is void when installed with other adapters.

#### **The sensor can be shortened.**

Coated rods: Remove approx. 10 mm of the coating from the rod tip to ensure a proper contact to the media.

Do not use teflon, paper or other gaskets.

The process connection must have electrical contact with the tank. If not, a separate grounding cable must be installed.

If the tank is non-conductive an additional ground electrode must be installed. This should have electrical connection to the LSK process connection.

Make sure that the rod can not touch the tank wall even with the highest movement of the media.

When installed <100 mm from the tank wall the rod must be parallel with the tank wall. For larger distances non-parallelity can be allowed.

After carefully insertion of the sensor into the welding part tighten the union with a torque of:

LSKx2x: 10...20 Nm.

LSKx5x: 20...30 Nm.

### After Installation and Configuration

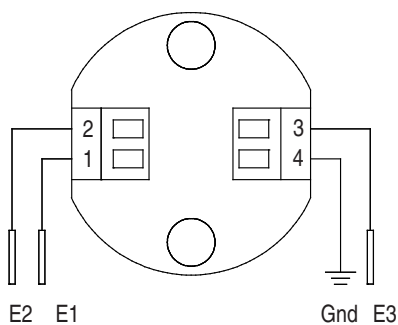
Check the leak tightness of the sleeve.

Check the tightness of glands or M12 plugs.

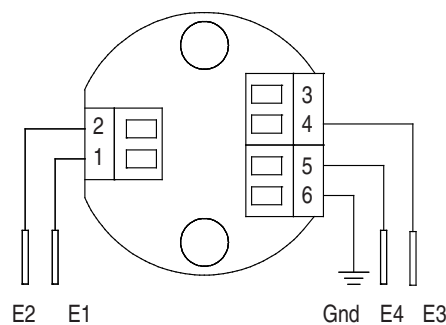
Check the tightness of the cover.

Check that the rod is not touching the tank wall.

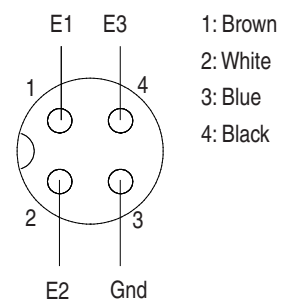
## Electrical Installation



2 or 3 rods

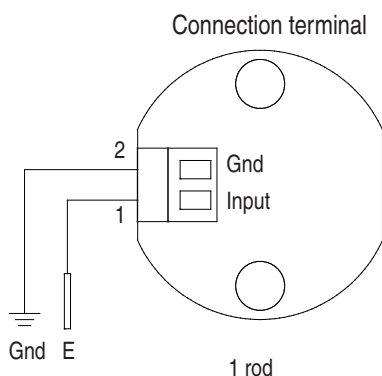


4 rods

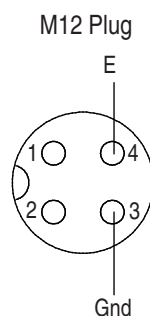


M12 plug

- 1: Brown
- 2: White
- 3: Blue
- 4: Black



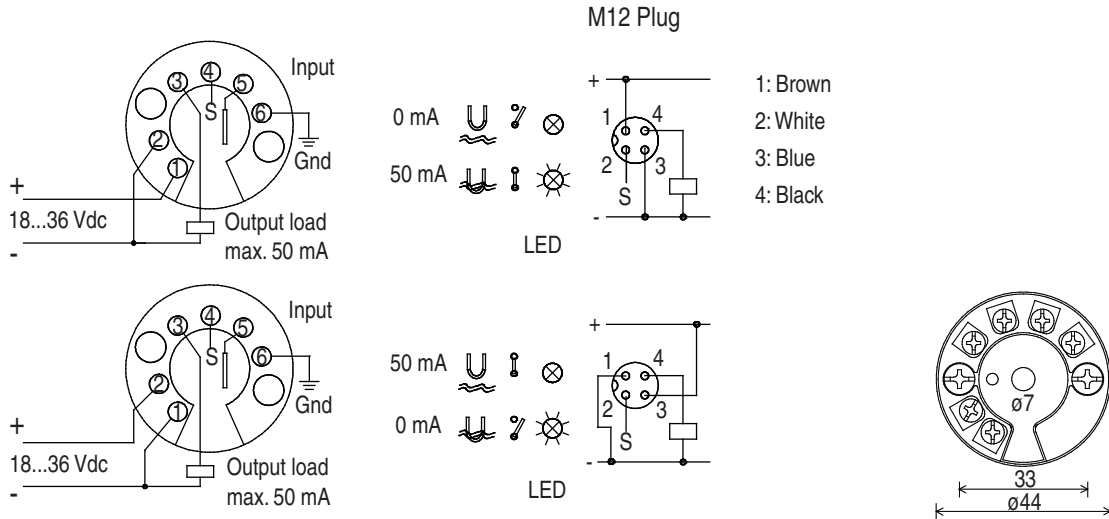
1 rod



### WARNING:

Do not connect the LSK to a high DC potential, which could damage the sensor. The most suitable evaluation module is a type with a sensing frequency > 200 Hz and input voltage < 5Vrms.

## Electrical Installation - LKP100 Amplifier for In-head Mounting



Sensibility	Connection	Typical application
20 KOhm	Terminal S connected to + (plus)	Water
2 KOhm	Terminal S not connected	Beer, juice, yoghurt
200 Ohm	Terminal S connected to - (minus)	Acid, Alkalis

Note: Terminal S is for local or remote setting of the sensibility.

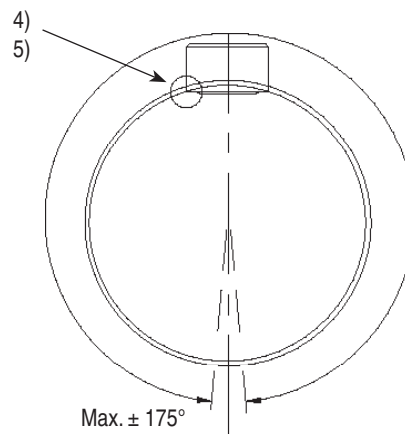
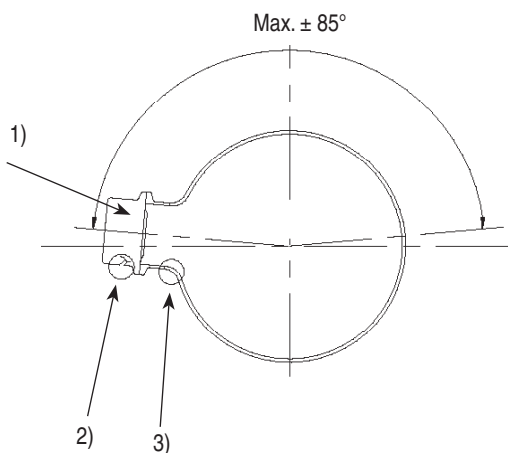
## Electrical Installation - DNGA 230100

Refer to Installation manual 5511-507.



**DNGA230100**

## Mounting of 3A Approved Products



### Installation of 3A approved products:

- 1) Use only a 3A approved counter part.
- 2) The inspection hole should be visible and drained.
- 3) Mount the instrument in a self drained position.
- 4) Level the inner surface of the pipe with the counter part.
- 5) Weldings should be grinded to  $Ra = 0.8$

Refer to the data sheet "Accessories" for O-rings, gaskets and other accessories.

The LSK32x, LSK42x, LSK52x, LSK 35x and LSK 45x are approved by 3A providing it is mounted in a 3A approved counter part and installed according to the guidelines given in the installation manual. The 3A approved products fulfill the FDA demands and follow the EHEDG guidelines regarding design, materials and finishing. Refer to the 3A marked counter parts in the data sheet "Accessories".