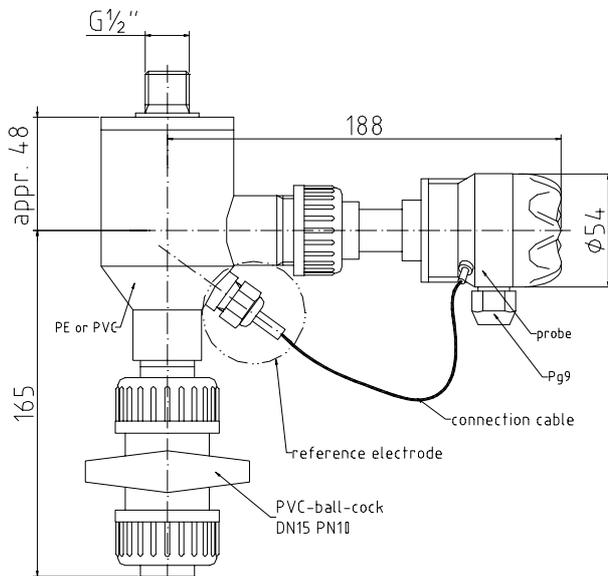


# Operating Instruction

Leakage Sensor **MAXIMAT® LW CN-SDR**  
WHG §19 approval: DIBt-No.: Z-65.40-316



**MAXIMAT LW CN-SDR. with mounting part \*) AG25. E**  
\*) (also available with cement fitting or fitting for welded spigot joint ET25. E)

## Safety Precautions

- Assembly, commissioning and servicing may only be performed by specialist personnel! Applicable European and national regulations for erection of electric systems must be complied with.
- Connect the device only to the power supply voltage indicated in the technical data and on the nameplate.
- Do not open up the casing!
- In case of assembly or maintenance work, the device must be disconnected from all currents!
- Operate the device only under the conditions defined in the operating instructions!

## Technical data

length (sealing to sensor)	90 mm
process connection	thread G1"
ambient temperature	-20°C ... +60°C
connection head	IP65 with PG9 cable gland
process temperature	PVC-version: -5 ... +60°C PE-version: -5 ... +60°C
sensor u. reference electrode	material: GK (glass-carbon)

Note:  
handle with care !  
**FRAGILE !**

## Technical data

### Leakage sensor MAXIMAT LW CN-SDR

#### Power supply

24 V DC  $\pm$  10 %

use power supply unit with current limiting or  
250 mA fuse

#### Power consumption

approx.. 3W

#### Ambient temperature

-20 ... +60°C

#### Output

- Current output for meas. Transducer MAXIMAT SHR C..
- binary output: +DO / -DO max. 30 mA / 24V
- current output: +AO / - AO 0 ... 20 mA

## CE labels

In accordance with Low Voltage Guidelines (72/23/EEC), EEC Guidelines (89/336/EEC) and

- EN 50 082-2:1995
- EN 55 011 (Class A):1998

## WHG §19 approval

- DIBt-No.: Z-65.40-316

## Servicing

When used properly, the device needs no servicing.

Clean mounting part AG/EG25 and sensor electrode after a leakage alarm.



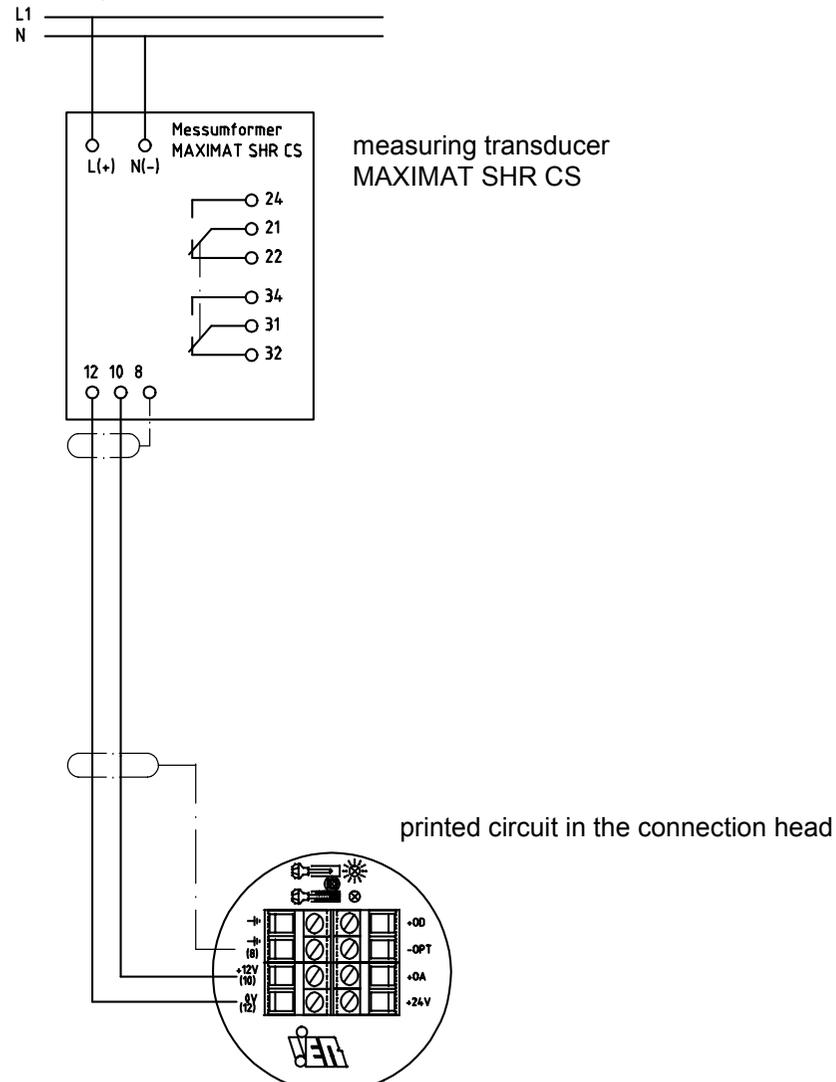
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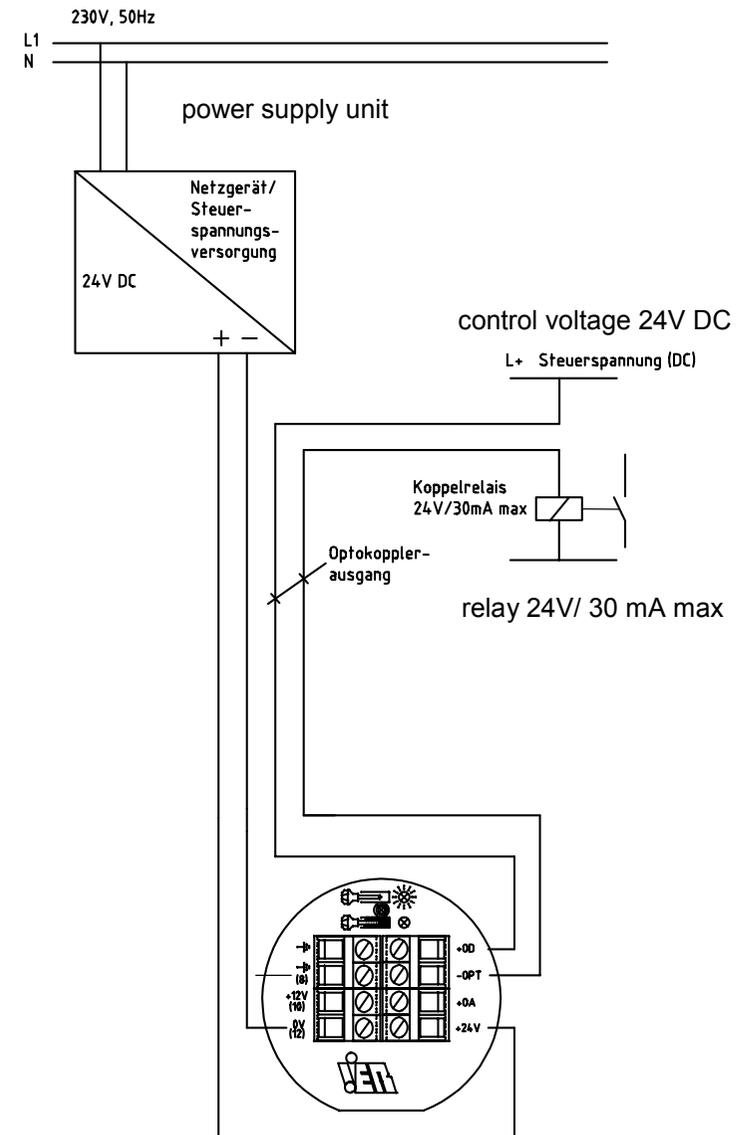
# operating instructions: Leakage sensor MAXIMAT LW CN-SDR

## electrical connection: MAXIMAT LW CN-SDR

### operation with MAXIMAT SHR CS



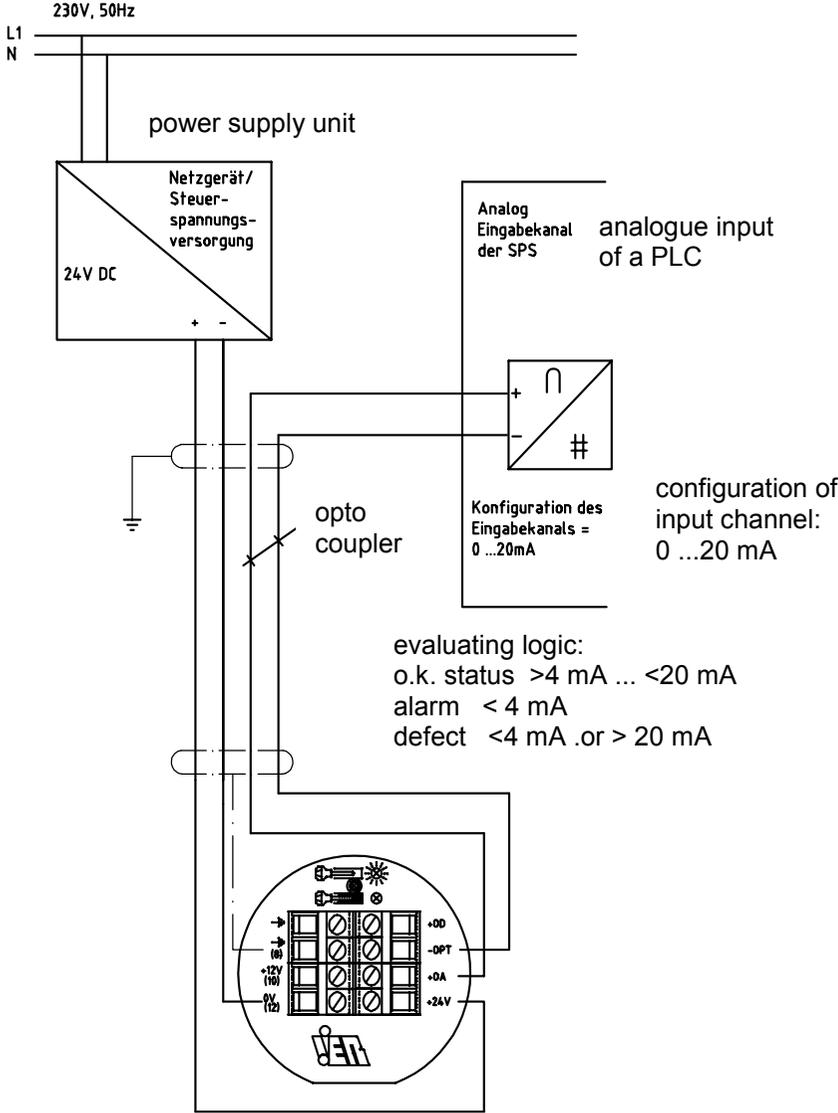
### operation with coupling relay



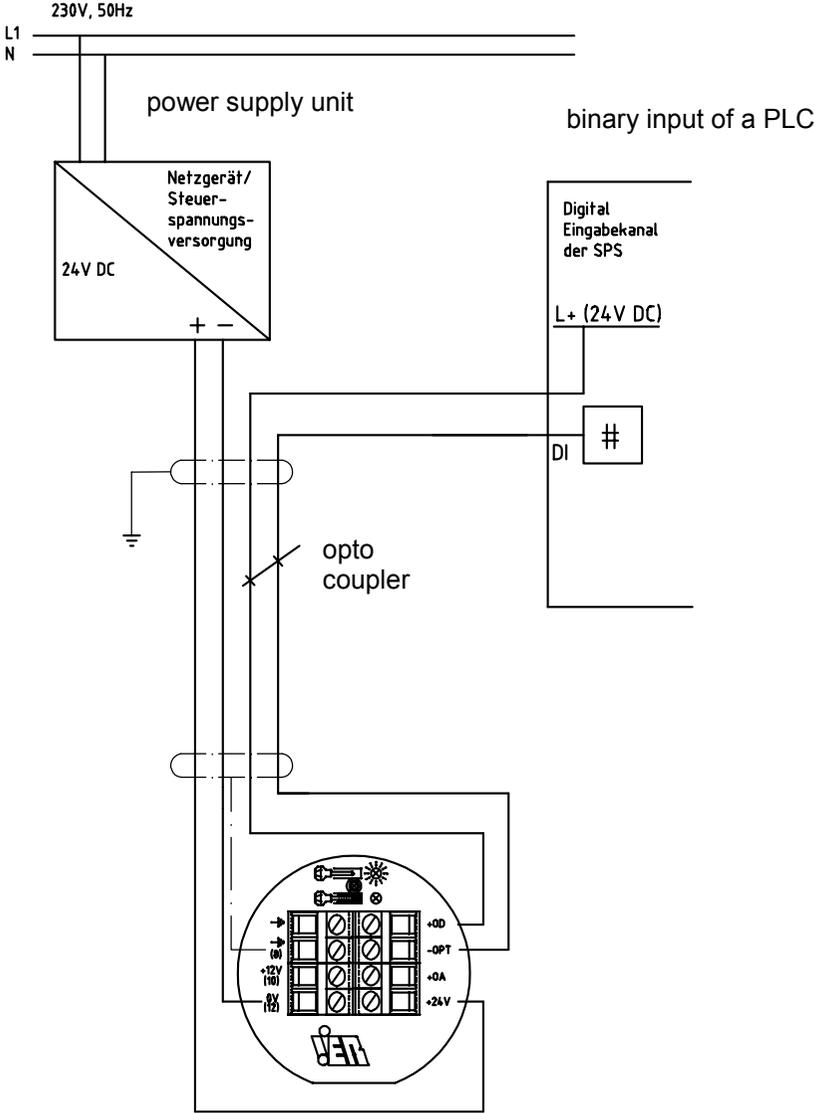
**operating instructions: Leakage sensor MAXIMAT LW CN-SDR**

**electrical connection: MAXIMAT LW CN-SDR**

operation with analogue input of a PLC



operation with binary input of a PLC



# Test Instructions

## MAXIMAT .... Overfill Inhibitors and Leakage Probes, and CAPSYTRON Limit Value Switches



Overfill inhibitor

**MAXIMAT C...**  
**MAXIMAT SUN...**  
**MAXIMAT LW CN-SDR**  
**CAPSYTRON SFL...**  
**CAPSYTRON CN L...**

Leakage probe

Safety probe

Fill-level limit value switch

### Measuring Method

The measuring sensors function in accordance with the capacitive proximity switch principle. The measuring method is based upon making a differentiation between the electrical capacitance of a conductive and a non-conductive medium with reference to earth, in this case between an electrically conductive liquid and the non-conductive atmosphere above the liquid's fill-level.

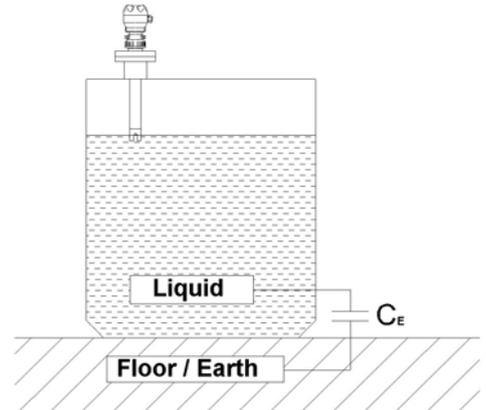
### Range of Applications

The measuring sensors are suitable for liquids with a **reactive impedance of less than 5 kΩ per cm**, or a **coupling capacitance to earth of greater than 50 pF**. Stored liquids may not tend to precipitate insulating or conductive sediments.

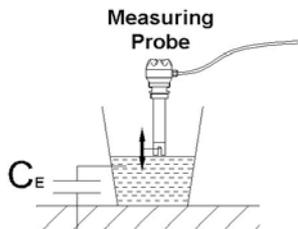
### Periodic Testing per WHG §19

The measuring probes must be tested for correct functioning at reasonable intervals, and in any case no less than once a year. It is the sole responsibility of the user to select the utilised test type, as well as a testing interval within the prescribed timeframe. Observe the instructions included in the pamphlet "General Building Supervisory Approval", a copy of which is provided with every measuring probe which requires approval!

### Function Test: Before Installation and Initial Start-Up, and During Inspection



### Method 1



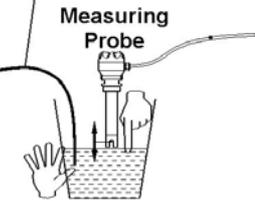
**Bucket is on the floor.**

- Fill a bucket (plastic or metal) with original liquid or water (at least 5 litres) and set it onto the floor.
- Immerse and remove the measuring probe several times.
- Examine the switching status of the measuring circuit (refer to the respective operating instructions to this end).

### Method 2

**Earth Connection**  
For example:  
– Protective conductor  
– Foundation earth electrode  
– Metal water pipe  
– Metal guard rail  
– Metal buttress  
etc.

Cable / Wire for Earthing the Liquid



**Bucket is not on the floor.**

- Fill a bucket (plastic or metal) with original liquid or water (at least 5 litres).
- Earth the liquid in the bucket with a cable/wire.  
**or**  
Grasp the bucket with your hand from the outside.  
**or**  
Immerse a finger into the liquid.
- At the same time, immerse and remove the measuring probe several times.
- Examine the switching status of the measuring circuit (refer to the respective operating instructions to this end).

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