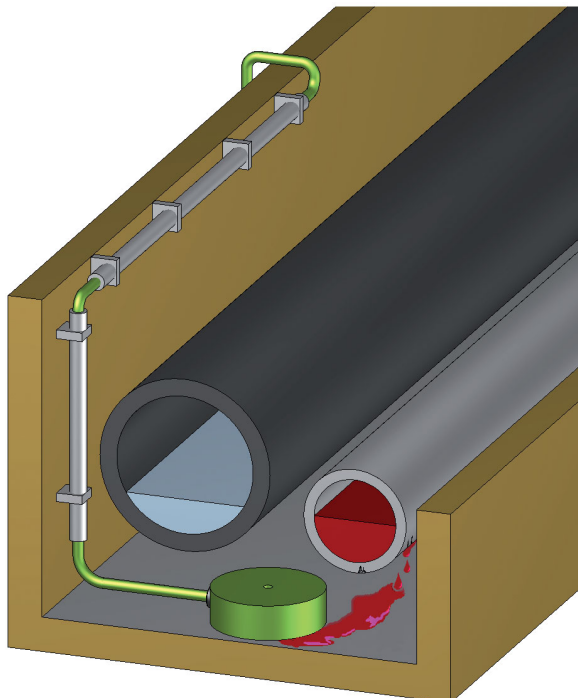


## Kapacitiva läckage detektorer för direkt anslutning till PLC



- För anslutning till:

**PLC eller DDC enhet,  
liten styrenhet,  
fältbuss nod eller  
nätverkskontakt**

- med galvanisk separation av  
sensorns kapacitiva elektronik  
och det överordnadesystemet

För att indikera en närvaro av en icke-ledande eller ledande vätskor.  
Kan användas för alla medier med låg viskositet t.ex. för indikering och larm för läckage av dieselolja.


Givaren bör endast användas i normalt torra miljöer.

Givaren kan installeras liggande direkt liggande på golvet eller på vägg och säkras med en skruv i mitten av givaren.

Varje givare av typen CPE-SPS4 är utrustad med två runda cirklar med ledande guldpläterade ytor. Så fort en vätska kommer i kontakt ytorna, ändras kapacitansen mellan elektroderna och givaren signalerar läckage/ vätska.

### Användningsområden:

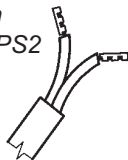
För att detektera alla icke-ledande organiska och oorganiska vätskor och alla ledande vätskor. Den minsta höjden på vätskan som skall detekteras är 3 mm.

Technical data	CPE-SPS2	CPE-SPS3	CPE-SPS4
Design	quiescent current / NC (break) contact		
Sensor electrodes	the gold-plated concentric rings (screening electrodes and earth electrodes) serve as capacitive sensor electrodes		
Housing	PP and cast resin		
<b>Electrical connection</b>	<b>two-wire connection</b> via connecting cable 2 x 0.75	<b>three-wire connection</b> via connecting cable 3 x 0.75	<b>four-wire connection</b> via connecting cable 4 x 0.5
Supply voltage	length 5 m, longer connecting cable on request; fitted with halogen-free connecting cable on request <b>only for connection to extra low voltage SELV or PELV!</b> DC 24 V ± 20 % via input resistance 2 kΩ ... 7.5 kΩ max. 0.5 W		
Power consumption	evaluation based on the magnitude of power consumption	max. 0.5 W PNP transistor output; to be wired via the input resistance of the follow-up circuit from 2 kΩ ... 7.5 kΩ; wire colour: black	max. 0.5 W potential-free reed contact with protective resistance 62 Ω, max. load AC/DC 30 V, 100 mA, 3 W; wire colours: black and black
Output		reed contact at output short-circuit proof for short periods via integrated protective resistance of 62 Ω; however, the reed contact is open if the supply voltage of the sensor is incorrectly connected	
Short circuit protection	present, I <sub>k</sub> < 30 mA	at transistor output, I <sub>k</sub> < 30 mA	
Switching status when both capacitive sensors elements are not activated	power consumption > 2 mA, generates High signal at input resistance of follow-up circuit	PNP transistor output carries rectified supply voltage = High signal	reed contact closed
Switching status when one or both capacitive sensor elements is/are activated	power consumption < 0.7 mA, generates Low signal at input resistance of follow-up circuit	PNP transistor output carries no voltage = Low signal	reed contact open
Switching status without supply voltage	Low signal	Low signal	reed contact open
Cable break monitoring of connecting cable	cable break monitoring due to the quiescent current <b>only for connection to extra low voltage SELV or PELV!</b> voltage resistance > 500 V between electrode circuit and supply circuit		
Galvanic separation		supply circuit and transistor output	supply circuit and output circuit
Max. no-load voltage at the electrodes	5 V <sub>eff</sub>  40 kHz (safety extra low voltage SELV)		
Max. short-circuit current at the electrodes	0.2 mA		
<b>Min. dielectricity constant of the liquid to be detected</b>	<b>2.0</b>		
Temperature range	- 20°C to + 60°C		

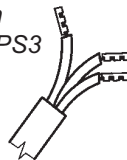
# Läckagedetektor för olja CPE-SPS4



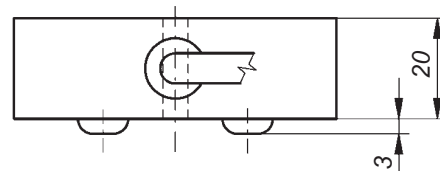
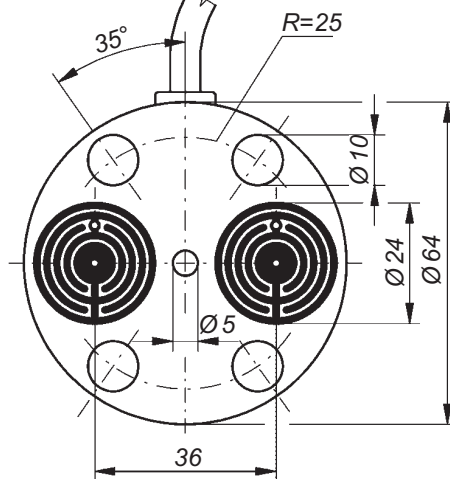
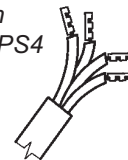
Version CPE-SPS2



Version CPE-SPS3



Version CPE-SPS4



The capacitive leakage detectors with 4-wire technology are primarily designed for the detection of leakage of non-conductive liquids but can also be used for the detection of conductive liquids.

Connection: **Only for connection to extra low voltage SELV or PELV!**

- 2 wires for the supply of direct or alternating voltage; fully functional with any polarity;
- 2 wires for the potential-free reed contact output.

The reed contact is open or closed depending on whether the detector is in activated or non-activated status, respectively.

The reed contact is an NO (make) contact, and its switching status is implemented in the follow-up circuit.

Supply voltage	Low signal	High signal
AC/DC 12 ... 30 V	Potential-free reed contact open	Potential-free reed contact closed

The compatibility of the detector on the one hand and the PLC, DDC unit, small controller, fieldbus connector or network connector on the other must be reviewed on case-to-case basis with regard to the extra low voltage SELV or PELV and the conformity of their signal parameters.

Series or parallel connection of these detectors is possible, also in combination with other potential-free contacts. In such cases, you must observe the relevant technical data and safety regulations.

### Application example:

#### Capacitive leakage detector, 4-wire version

#### Follow-up circuit

