

# Conductivity Sensors

## OLS 30

Two-electrode Sensor  
with cell constant  $k=10/\text{cm}$



The compact conductivity sensors have been designed especially for measurement in high conductivities.

The measuring range for sensors with a constant of  $k = 10/\text{cm}$  is from 0.1 mS/cm to 200 mS/cm.

#### Areas of application

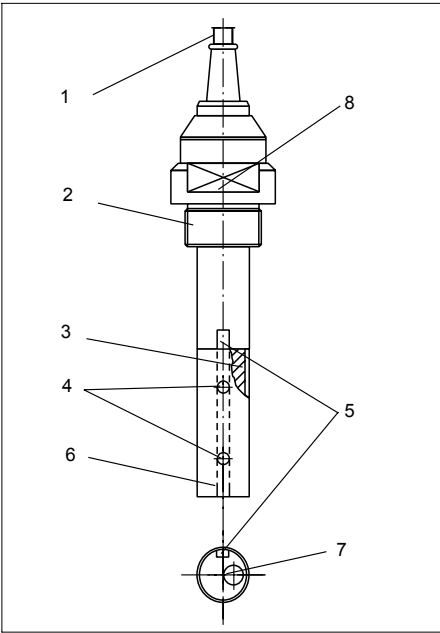
- Service water
- Waste water treatment
- Concentrate monitoring

#### Benefits at a glance

- Different designs guarantee optimal adaptation to the process conditions and method of installation
- Installation in pipes or flow chambers
- Different temperature sensors allow adaptation to a variety of measuring instruments.
- High chemical, thermal and mechanical stability
- Compact design

# Operating principle

- OLS 30
- 1 Connecting line, length 3 m, screened
  - 2 G 1 thread
  - 3 Outer screen sleeve of PTFE, removable for cleaning
  - 4 Electrodes, special graphite
  - 5 2 openings for media circulation
  - 6 Lateral measuring duct
  - 7 Pt 100 sensor built into front end for automatic temperature compensation



The salient features of these well-proven sensors are their high chemical, thermal and mechanical resistances. The measuring surfaces are made of special low-polarisation graphite. The measuring electrodes are mounted in a lateral measuring duct and are protected by a Te-flon sleeve. This prevents electrical leakage and ensures consistent and accurate measurement.

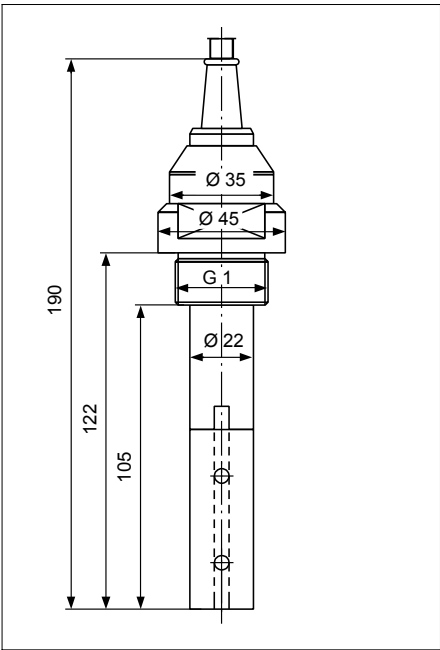
All sensors are equipped with a built-in Pt 100 temperature sensor for automatic temperature compensation. The special design features ensures optimal temperature adaptation. This includes exact concentration measurement over a wide range of temperatures.

The sensor shaft is made of polypropylene or PTFE and is usable at temperatures of up to 90 °C (PP) or 135 °C (PTFE) and under pressures of up to 16 bar (PP) or 6 bar (PTFE).

The sensors can be supplied with a G 1 internal thread.

These high-precision sensors are particularly suitable for industrial applications where elevated conductivities must be measured, e.g. for monitoring automatic tank and pipe systems in the food and beverage industries with the purpose of measuring and controlling the concentrations of the alkalis and acids used in these industries.

# Dimensions and electrical connections

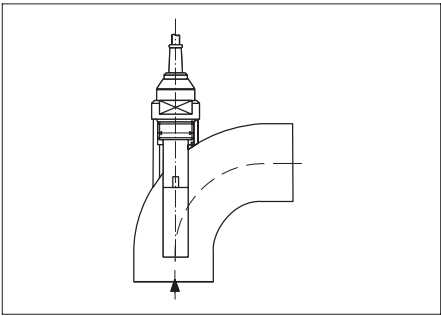


Dimensions OLS 30

	Connection with fixed cable
Electrode	white
	yellow (screen)
temperature sensor	brown
	green

# Installation notes

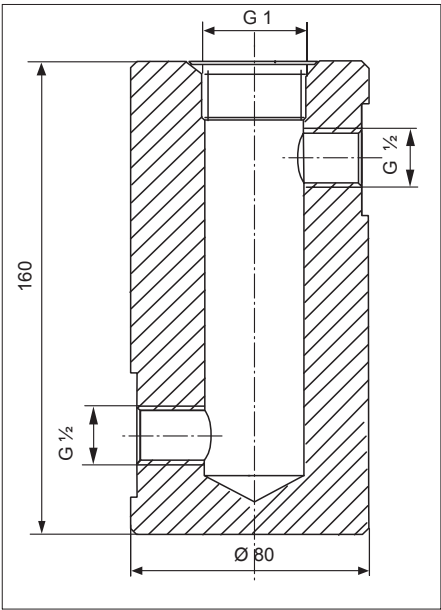
Installation OLS 30



To ensure correct readings, the sensor should always be installed as follows: It is absolutely essential that the flow is directed into the measuring duct, filling and venting the duct completely and thereby ensuring exact measurement. For this reason, the flow direction must be taken into account when installing the sensor, which must receive the flow from the front.

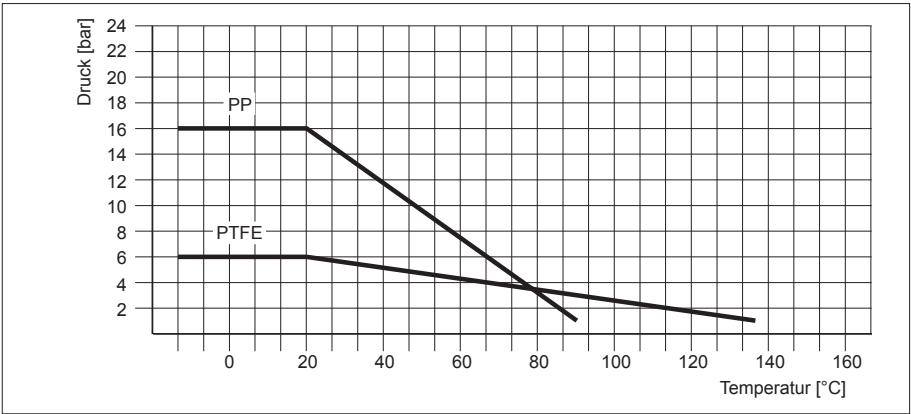
# Accessories

Flow chamber OLA 752



For installation of conductivity sensors with a G 1 thread. Inlet (bottom) and outlet (lateral) with G 1/2.

# Pressure/temperature diagram



Technical data

Material	Sensor shaft	PTFE / PP
	Electrodes	graphite / titanium(Temp. pin)
Conductivity measurement	Cell constant k	10/cm
	Measuring range	0.1 mS/cm to 200 mS/cm
	Temperature sensor	Pt 100
Process connection	Einschraubgewinde	G 1
Operating data	Max. temperature	125 °C (PTFE), 90 °C (PP)
	Max. pressure	6 bar (20 °C) PTFE, 16 bar (20 °C) PP
	Ingress protection	IP 65
Flow chamber OLA 752	Material	PP
	Permissible temperature	90 °C
	Permissible pressure	6 bar (20 °C)
	Connection	2 x G ½, G 1

Product structure

