SE 604 Conductivity Sensor

Robust 2-electrode sensor, for precise and reliable measurement of low and very low conductivities, particularly in ultrapure water

Robust, coaxially arranged electrodes made of stainless steel. Large measuring range from ultrapure water to 1000 µS/cm with only one sensor model (cell constant). Integrated temperature detector for exact temperature compensation. Easy to clean thanks to replaceable outer electrode. Reliable and easy checking of the measurement using PortaSim simulators.

Applications

Boiler feed water, feed water, boiler water, cooling water, water vapor cycle, pure water, condenser monitoring

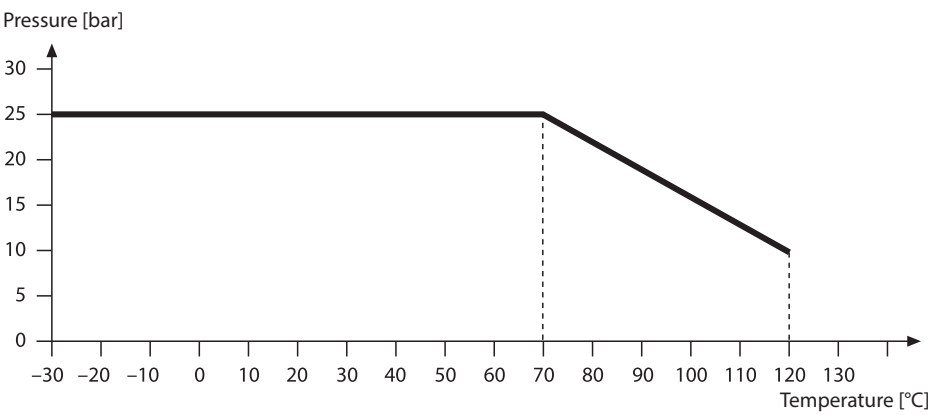
Facts

- Large measuring range from 1 nS/cm to 1,000 µS/cm
- Coaxially arranged electrodes
- Independent of installation conditions
- Integrated temperature detector
- High level of process safety due to durable materials and robust design
- Easy to clean thanks to detachable outer electrode
- Particularly suitable for monitoring ultrapure water in power plants
- Calibration Certificate
- Suitable PortaSim simulators

Specifications

Cell constant:	0.029/cm
Measuring range:	0.001 ... 1000 µS/cm
Material:	Cell and electrodes: 1.4571 stainless steel; insulator: PVDF; gaskets: FKM (Viton)
Temperature detector:	Pt 1000 Class A, T_{90} < 2 min
Temperature:	Medium: -30 … +120 °C; Environment: -25 … +80 °C
Pressure:	Max. 25 bar (-30 … +70 °C) Max. 10 bar (120 °C)
Process adaptation:	G 1" thread
Sensor cap:	7-pin

Pressure/Temperature Diagram

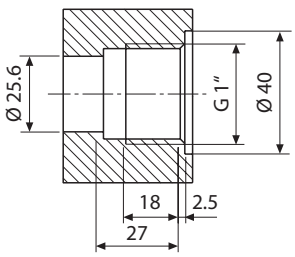


Product Range				Order No.
SE 604 conductivity sensor	G 1"			**SE 604**

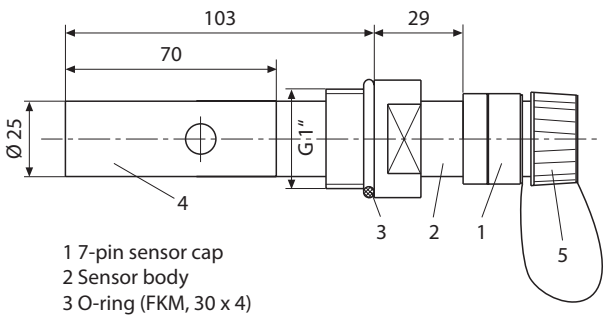
Accessories				Order No.
Measuring cable with plug	Sensor connection:	7-pin socket	1.5 m	**ZU 0743**
	Device connection:	ferrules	3 m	**ZU 0645**
	Temperature:	-20 … +80 °C	5 m	**ZU 0569**
			10 m	**ZU 0570**
			15 m	**ZU 0589**
			20 m	**ZU 0590**
			30 m	**ZU 0660**
6-hole flange				**ZU 0278**
Conductivity standard	KCl	300 ml	15 µS/cm ± 1 %	**ZU 0350**
	KCl	500 ml	147 µS/cm ± 1 %	**ZU 0702**
Calibration Certificate				**ZU 0320**
Conductivity simulator (cell constant 0.029/cm (Details from page 86)	PortaSim Cond A*)	0.055 µS/cm	25 °C	**ZU 0308**
	PortaSim Cond B*)	5 µS/cm	100 °C	**ZU 0309**

*) Conductivity simulator; checking the meter and cable by simulating the sensor.
High-precision comparison resistors, traced to NIST standard. Used for measurement to USP <645>.
Check by simply replacing the sensor by the simulator

Dimension drawing



Installation conditions



1 7-pin sensor cap
2 Sensor body
3 O-ring (FKM, 30 x 4)
4 Detachable outer electrode
5 Protective cap

All dimensions in mm