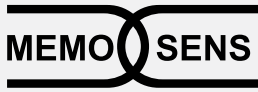


Sensors for Conductivity Measurement



SE 604 Conductivity Sensor

Robust 2-electrode sensor, for precise and reliable measurement of low and very low conductivities, particularly in ultrapure water. Available with digital Memosens technology.

Robust, coaxially arranged electrodes made of stainless steel. Large measuring range from ultrapure water to 1000 $\mu\text{S}/\text{cm}$ 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

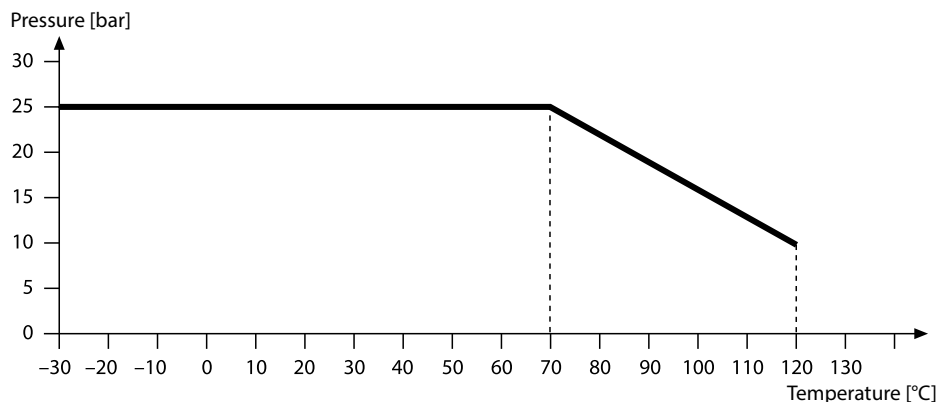
Facts

- Large measuring range from 1 nS/cm to 1,000 $\mu\text{S}/\text{cm}$
- 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 ... 1,000 $\mu\text{S}/\text{cm}$
Material:	Cell and electrodes: 1.4571 stainless steel; insulator: PVDF; gaskets: FKM (Viton)
Temperature detector:	NTC 30 kohms, Pt 1000 Class A, $T_{90} < 2 \text{ min}$
Temperature:	Medium: -22 ... 248 °F (-30 ... 120 °C); Environment: -13 ... 176 °F (-25 ... 80 °C)
Pressure:	Max. 362 psi (25 bar) -22 ... 158 °F (-30 ... 70 °C) Max. 145 psi (10 bar) 248 °F (120 °C)
Process adaptation:	G 1" thread
Sensor cap:	Memosens or 7-pin

Pressure/Temperature Diagram



Product Range			Order No.	
SE 604 conductivity sensor	Vario Pin	G 1"	SE 604	
SE 604 conductivity sensor	Memosens	G 1"	SE 604-MS	
SE 604 X conductivity sensor	Memosens	G 1"	SE 604X-MS	
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			
Memosens cable	3 m	CA/MS-003NAA		
	5 m	CA/MS-005NAA		
	10 m	CA/MS-010NAA		
	20 m ^{*)}	CA/MS-020NAA		
Memosens cable, Ex	3 m	CA/MS-003XAA		
	5 m	CA/MS-005XAA		
	10 m	CA/MS-010XAA		
	20 m ^{*)}	CA/MS-020XAA		
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

Dimensional Drawing

