





Sensors

CEA

pH Sensors with Application-Specific Properties

pH sensors from Knick have been developed and optimized in close cooperation with users for a wide range of applications. Special glasses, a large variety of junctions (open, PTFE, ceramic, platinum), special reference systems, analog or, of course, digital with Memosens – Knick has the right sensor for every application.

Alpha glass	Medium impedance, universal glass, fluoride resistant
Sigma glass	Low impedance for low-temperature applications
Omega glass	High impedance for high-temperature applications, very low alkali error, CIP/SIP capable

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Model	Measured value	Memosen:	VarioPin	DIN coax	Temperature Rel. pressure	Electrolyte Junction	Measuring electrode	Special features / Applications
SE 515	Ηq	•			-5 80 °C 0 4 bar	Viscous gel Ground glass	Sigma glass	Water, water treatment, surface water, drinking water
SE 554	рН	•	•		0 130 °C 0 10 bar	Solid polymer Hole	Alpha glass	Industrial applications, dyes, precipitation reactions, polluted media
	pH/ORP	•					Alpha glass platinum	Simultaneous pH/ORP measurement
SE 564	ORP	•		•	0 130 °C 0 10 bar	Solid polymer Hole	Platinum	Industrial applications, dyes, precipitation reactions, polluted media

Model	Measured value	Memosens	VarioPin	DIN coax	Temperature Rel. pressure	Electrolyte Junction	Measuring electrode	Special features / Applications	
SE 555	рН	•	• • •		0 135 °C -1 6 bar	Viscous gel with internal pressure Ceramic	Omega glass	Fermentation, food and beverages, aggressive media, poisonous media, extreme pH values	
	pH/ORP	•					Omega glass platinum	Simultaneous pH/ORP measurement	
SE 565	ORP	•			0 135 °C -1 6 bar	Viscous gel with internal pressure Ceramic	Platinum	Fermentation, food and beverages, aggressive media, extreme pH values, electroplating	
SE 557	рН	•	•		-20 100 °C I -1 6 bar	Liquid, refillable	Alpha glass	All applications from ultrapure water to highly aggressive and	
a province of the second secon	;	•	•		0 135 °C -1 6 bar	. 135 °C Omega glass		blocking media	
SE 558	рН	•	•		-5 100 °C -1 3 bar	Viscous gel, KCI reservoir Ceramic 3x	Alpha glass	Boiler feedwater, condensate, ultrapure water, WFI (water for injection), cooling water, low-conductivity media	
SE 559	рН	•			-5 100 °C 0 6 bar	Solid polymer Ground glass	Alpha glass	Wastewater, industrial water treatment	
SE 560	рН	•			-20 100 °C -1 3 bar	Liquid, refillable Platinum	Alpha glass	Low-temperature applications, cooling brine, electroplating, low-conductivity media	
	2		•		-20 80 °C -1 0.5 bar				
SE 571	рН	•			-5 130 °C 0 16 bar	Viscous gel, KCI reservoir, silver ion trap PTFE ring	Alpha glass	Applications with high pressures, high temperatures, heavily polluted media	
SE 546	рН	•			-15 135 °C 0 10 bar	Viscous gel, polymer Ceramic, double- chamber	ISFET	Glass-free sensor, hygienic and sterile applications, food industry, cosmetics	



Sensors



Conductivity Sensors for the Complete Range of Aqueous Solutions

The conductivity of aqueous solutions covers a range of more than eight decades, starting with 0.055 μ S/cm for ultrapure water and going as far as over 1,000 mS/cm for fully dissociated acids or bases. These very different requirements are fulfilled by the special Knick sensors: Depending on the application, they come as two- or four-electrode sensors or toroidal sensors. All sensors are equipped with a temperature detector for automatic temperature compensation.

Model	Principle	Memosens	VarioPin	M12 digital	Plug-in connection Fixed cable	Measuring range	Temperature Pressure	Materials	Process adaptation	Special features / Applications
SE 604	2 electrodes, coaxial			•	•	0.001 1000 μS/cm	-30 120 °C Max. 25 bar	1.4571	G 1"	Boiler feed water, feed water, cooling water,
	•	•				0.001 500 μS/cm	-20 120 °C Max. 25 bar			pure water, condenser monitoring
SE 605H	2 electrodes, coaxial	•				0.001 600 μS/cm	-20 135 °C Max. 25 bar	1.4435	Ingold socket (25 mm), clamp	Ultrapure water, WFI (water for injection), pharmaceutical and food industry, biotechnology
SE 610	2 electrodes, coaxial				•	0.1 1000 μS/cm	10 90 °C Max. 6 bar	1.4571	G 1/2"	Drinking water, industrial water, surface water, ion exchangers and reverse osmosis plants, rinse water, seawater desalination plants
SE 620	2 electrodes, coaxial		•			0.001 50 μS/cm	0 135 °C Max. 16 bar	1.4435	Clamp	Pure and ultrapure water, WFI (water for injection), food, ion exchangers, reverse osmosis plants; also chip manufacturing

Model	Principle	Memosens	Memosens VarioPin M12 digital Plug-in connection Fixed cable		Measuring range	Temperature Pressure	Materials	Process adaptation	Special features / Applications
SE 615	2 electrodes	•			0.01 20 mS/cm	-5 80 °C Max. 4 bar	Polysulfone, graphite	Pg 13.5	Water and wastewater treatment
SE 630	2 electrodes	•		•	0.005 50 mS/cm 0.01 20 mS/cm	-20 135 °C Max. 16 bar	PES / graphite	G 1"	Water, polluted wastewater, process solutions with medium conductivities, also corrosive media
SE 600	4 electrodes			•	0.0005 600 mS/cm	Max. 210 °C Max. 25 bar	AISI 316 L, PTFE	1" weld-in socket	Special chemical processes; condenser monitoring, also for heavily polluted (e.g., fibrous) media, pulp production
SE 603	4 electrodes			•	0.005 600 mS/cm	Max. 120 °C Max. 12 bar	PTFE, platinum	Special flange	Pure water up to high conductivities; highly corrosive processes, bleaching liquors, oxidizing and heavily polluted media, condenser leakage monitoring
SE 655	Inductive			•	0.002 2000 mS/cm	-20 125 °C Max. 20 bar	PEEK	G 3/4"	Concentration measurement of acids and bases, fouling media, salt spring, heavily polluted wastewaters, cooling water blowdown
SE 656	Inductive			•	0.002 2000 mS/cm	-20 125 °C Max. 16 bar	PFA	G 3/4"	Measurement of highly concentrated acids and bases, hydrofluoric acid, nitric acid, concentrated sulfuric acid, oleum, strongly oxidizing media
SE 660	Inductive			•	0.02 2000 mS/cm	0 60 °C Max. 10 bar	PP	Coupling nut G 1 1/2"	Fresh water and wastewater treatment, monitoring of salts and alkaline solutions, general concentration monitoring, tanneries, washers, automotive engineering, rinsing processes
SE 670	Inductive		•		0.02 2000 mS/cm	0 60 °C Max. 10 bar	PP	Coupling nut, dairy pipe, adaptation to flow-through cells	Fresh water and wastewater treatment, monitoring of salts and alkaline solutions, general concentration monitoring, tanneries, caustic treatment, washers, rinsing processes
SE 680	Inductive				0.002 2000 mS/cm	-10 125 °C Max. 10 bar	PEEK	Varivent, clamp, dairy pipe, adaptation to flow-through cells	Electroplating, CIP monitoring in the beverage industry, breweries, bottling plants, pharmaceutics, monitoring concentrations of salt solutions, alkalis and acids, chemistry



Sensors

Oxygen Sensors with Low Maintenance

Robust design, durable materials and modular structure:

Oxygen sensors from Knick are characterized by a high level of process safety. The membrane of the amperometric sensors is steel-mesh-reinforced and PTFEcoated and can be replaced quickly and easily, as can the electrode system with its complete inner body. The product portfolio includes sensors for trace measurements and low-maintenance digital optical oxygen sensors.

Model	Principle	Memosens	VarioPin	M12 digital	Measuring range (resolution)	Temperature Rel. pressure	Materials	Special features / Applications
SE 706	Amperometric	•	•		0 50 mg/l (6 µg/l)	0 80 °C -0.8 5 bar	1.4404	Biotechnology, pharmaceutical industry, fermentation, various fields of analytical chemistry
SE 707	Amperometric	•	•		0 50 mg/l (1 μg/l)	0 80 °C -0.8 5 bar	1.4404	Beverage filling (e.g., milk, beer) measurement in boiler feed water
SE 715	Amperometric	•			0 20 mg/l (20 μg/l)	-5 45 °C Max. 3 bar	Polysulfone Stainless steel	Water, wastewater, aeration, ventilation control, fish farming, aquariums
SE 740	Optical, luminescence quenching			•	0 25 mg/l (4 μg/l)	-10 85 °C -1 12 bar	1.4435	Food, pharmaceutics, fermentation and process, condensate containing dissolved H ₂

Knick > SE 715/1 -MS





Memosens

Interference-free coupling

The Memosens inductive sensor connector system transfers both energy and data without contact between electrochemical sensors and analyzers.

Pre-calibrated sensors

By using pre-calibrated sensors, Memosens ensures maximum availability and lower maintenance requirements at the point of measurement.

Intelligent diagnostics

Memosens allows saving and analyzing process-related data directly in the sensor (e.g., operating time, wear and tear, CIP/SIP counter).

Memosens. The benefits at a glance:

- Plug & Measure Sensor replacement in seconds with pre-calibrated sensors
- Simple and safe plugging with bayonet coupling
- Contactless, digital data transfer
- All key data available in the sensor
- Longer sensor service life
- Error-free measurements, even in the toughest conditions
- Just one cable system for all sensors
- Measured values not influenced by excessively long cables





www.knick.de/memosens

Interface Technology Indicators Process Analytics Portables Laboratory Sensors Fittings

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