

Control and Measuring Instruments



innovation > technology > future



Kontrol **500-502** Single and twin-parameter control instruments

The Kontrol 500-series are advanced controllers designed for high-end applications. The units feature independent proportional PID-enabled control outputs, RS 485 serial port with MODBUS protocol, USB port on request, probe quality checking, a variety of outputs and full data logging capability. The user has full programming authority.

Parameters

- pH / ORP
- Conductivity
- Dissolved Oxygen
- Chlorine
- Chlorine Dioxide
- Hydrogen Peroxide
- Ozone
- Peracetic Acid
- Turbidity
- Suspended solids

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

Features

Graphic display and Keypad

128 by 64 pixel resolution monochrome display with graphic icons to show digital output status, Data logging, washing cycle, alarms. Simultaneous flashing values for the measurement (numeric + bargraph) and temperature readings. Analogue scrolling output values. Five control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Wall mounting ABS plastic material IP65 (144x144)
 Panel mounting IP54 (96x96)
 Universal Power Supply
 100÷240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Data logging

Internal Flash Memory with records interval from 1 to 99 min. (near to 16000 records)

Visualization key for stored data in tabular and graphic form.

Type: Circular (F.I.F.O.) or Filling.

RS485 Serial port

To set-up and to acquire/capture real time data or to download stored data on PC or laptop (Communication **Software Master** Controller **NET** required).

MODBUS RTU communication protocol

USB port

To download recorded data on removable memory Usb Pen Drive (upon request).

Measure Input

High measuring resolution with probe quality control.

Modular measuring system

Chlorine measure for sea water application.

Digital Input

Dedicated to disable all controller output functions.

Current outputs

4÷20mA Galvanic isolation

Two independent programmable Output Measures with PID routine regulation.

Relay Outputs

Four independent relays, two set points, one alarm remote output, on backwashing probe output.

On/OFF, Timed routine function setting.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	0 ÷ 20 /200 /2.000 /20.000 /200.000 µS
Inductive Conductivity	0 ÷ 10.000 /10.000 /100.000 /999.999 µS
Dissolved Oxygen	0 ÷ 20,0 ppm or mg/l - 0 ÷ 200% SAT
Chlorine and Chlo. Dioxide	0 ÷ 0,50/1,00 /2,00 /5,00 /10,0 /20,0 /200,0 ppm
Hydrogen Peroxide	0 ÷ 500 /1000 /2000 /10.000 /100.000 ppm
Ozone (O3)	0 ÷ 0,5 /2,00 /5,00 /10,00 ppm
Peracetic Acid	0 ÷ 500 /2000 /10.000 /20.000 ppm
Turbidity	0,00 ÷ 1,00 /10,0 /100 NTU/FTU
Suspended Solids Turbidity	0,0 ÷ 4,00 /40,0 /400 /4.000 NTU/FTU - 0 ÷ 30 gr/l
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

Product line Kontrol 500 Single parameter

Code	Model	Description
K500PR	Kontrol PR 500	for pH or ORP values
K500CD	Kontrol CD 500	for Conductivity values
K500ID	Kontrol ID 500	for Inductive Conductivity values
K500OX	Kontrol OX 500	for Dissolved Oxygen values
K500CL	Kontrol CL 500	for Chlorine values
K500T1	Kontrol TB 500	for Turbidity values
K500T2	Kontrol TS 500	for Suspended Solid Turbidity values

The unit's Software enables the following measures:
H₂O₂ - O₃ - ClO₂ - C₂H₄O₃

Product line Kontrol 502 Double parameters

K502PR	Kontrol PR-PR 502	for pH/ORP - pH/ORP values
K502PD	Kontrol PR-CD 502	for pH/ORP - Conductivity values
K502PO	Kontrol PR-OX 502	for pH/ORP - Dissolved Oxyge values
K502PC	Kontrol PR-CL 502	for pH/ORP - Chlorine values
K502CC	Kontrol CD-CL 502	for Conductivity - Chlorine values
K502TO	Kontrol TB-OX 502	for Turbidity - Dissolved Oxygen values
K502TX	Kontrol TS-OX 502	for Suspended Solids Turbidity - Dissolved Oxygen values
K502PI	Kontrol PR-ID 502	for pH/ORP - Inductive Conductivity values



Kontrol 200

Single-parameter control instrument

The Kontrol 200-series are advanced controllers designed for simpler high-end applications. The units feature an independent proportional control output, probe quality checking and a variety of outputs. The user has full programming authority.

Parameters

- pH / ORP
- Conductivity
- Dissolved Oxygen
- Chlorine
- Chlorine Dioxide
- Hydrogen Peroxide
- Ozone
- Peracetic Acid
- Turbidity

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

Features

Graphic display and Keypad

128 by 64 pixel resolution monochrome display with graphic icons to show digital output status, washing cycle, alarms.

Simultaneous flashing values for the measurement (numeric + bargraph) and temperature readings.

Four control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Wall mounting ABS plastic material IP65 (144x144)

Panel mounting IP54 (96x96)

Universal Power Supply
100>240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Measure Input

High measuring resolution with probe quality control.

A modular measuring system

Chlorine measure in sea water application.

Digital Input

Dedicated to disable all controller output functions

Current outputs

4÷20mA Galvanic isolation

One independent programmable Output Measures.

Relay Outputs

Four independent relays, two set points, one alarm remote output, on backwashing probe output.

On/OFF, Timed routine function setting.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	0 ÷ 20 / 200 / 2.000 / 20.000 / 200.000 µS
Inductive Conductivity	0 ÷ 10.000 / 10.000 / 100.000 / 999.999 µS
Dissolved Oxygen	0 ÷ 20,0 ppm or mg/l - 0 ÷ 200% SAT (*)
Chlorine and Chlo. Dioxide	0 ÷ 0,50 / 1,00 / 2,00 / 5,00 / 10,0 / 20,0 / 200,0 ppm
Hydrogen Peroxide	0 ÷ 500 / 1000 / 2000 / 10.000 / 100.000 ppm
Ozone (O3)	0 ÷ 0,5 / 2,00 / 5,00 / 10,00 ppm
Peracetic Acid	0 ÷ 500 / 2000 / 10.000 / 20.000 ppm
Turbidity	0,00 ÷ 40 NTU/FTU (**)
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

(*): Dissolved Oxygen probe Oxsens® only

(**): Turbidimetric probe 462/SWP only

Product line Kontrol 200 Single parameter

Code	Model	Description
K200PR	Kontrol PR 200	for pH or ORP values
K200CD	Kontrol CD 200	for Conductivity values
K200ID	Kontrol ID 200	for Inductive Conductivity values
K200OX	Kontrol OX 200	for Dissolved Oxygen values
K200CL	Kontrol CL 200	for Chlorine values
K200TB	Kontrol TB 200	for Turbidity values

By software it is available the following measures:
H₂O₂ - O₃ - ClO₂ - C₂H₄O₃



Kontrol 800

Multi-parameter control instrument

The Kontrol 800 is a dedicated multi-parameter controller for complex applications that require a number of chemical parameters to be checked at the same time. The unit features independent proportional control output measures, two programmable frequency outputs, RS 485 serial port with MODBUS protocol, three relais outputs, probe quality checking and Data logging capability.

Parameters

- pH / ORP
- Conductivity
- Chlorine
- Chlorine Dioxide

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

Features

Graphic display and Keypad

Simultaneous value of the measure, Temperature and Relay status.

4-line, 20-character Alphanumeric Display.

Seven control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Wall mounting ABS plastic material IP65.

Universal Power Supply
100÷240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Data logging

Internal Flash memory to load record measures values.

Type: Circular (F.I.F.O.) or Filling.

RS485 Serial port

For set-up and real-time data acquisition from remote or for stored data download on PC or laptop (Communication software **Sekonet** required).

MODBUS RTU communication protocol.

Measure Input

High measuring resolution with probe quality control.

Modular measuring system.

Chlorine measure in sea water application.

Digital Input

Double channel, Voltage Input and Reed level input to disable all function controller output.

Current outputs

4÷20mA Galvanic isolation

Two (2) programmable Output Measure.

Frequency Outputs

1÷120 Pulse/Minutes open collector Isolation channel.

Two (2) programmable Output Measure.

Relay Outputs

Three (3) independent relays,
Three (3) set point measure with power contact.

One Alarm remote dry contact
One Set point Measure dry contact.
On/OFF, Timed, Proportional routine function setting.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 200 mV
Conductivity	1 ÷ 200/10 ÷ 2000/100 ÷ 20.000 µS
Chlorine (Amperometric Cell)	0 ÷ 5,00 ppm (*)
Chlorine and Chlo. Dioxide (Potentiostatic Cell)	0 ÷ 0,50 / 1,00 / 2,00 / 5,00 / 10,0 / 20,0 / 200,0 ppm
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

(*): Amperometric Chlorine CU+PT sensors

Product line Kontrol 800 Single parameter

Code	Model	Description
K800L01	Kontrol CL 800	for Amperometric Chlorine values
K800L06	Kontrol CL _p 800	for Free and Total Potentiostatic Chlorine values

Product line Kontrol 800 Double parameters

K800L02	Kontrol PR 800	for pH/ORP - pH/ORP values
K800L03	Kontrol PC 800	for pH/Amperometric Chlorine values
K800L04	Kontrol PRC 800	for pH/ORP - Amperometric Chlorine values
K800L05	Kontrol PR+EC 800	for pH/ORP - Conductivity values
K800L07	Kontrol PC _p 800	for pH + Potentiostatic Chlorine values
K800L08	Kontrol PRC _p 800	for pH /ORP + Potentiostatic Chlorine values
K800L09	Kontrol PRC _p +C _A 800	for pH/ORP + Pot. and Amperometric Chlorine values



Photometer System



Photometer Entry level

Photometer **System** Multi parameter photometer instrument

The Seko Photometer System is a DPD reference point for Chlorine control. The combination of water sampling and reagents ensure maximum measurement precision. The unit itself is a compact miniature analysis laboratory dedicated to Chlorine measurement.

Parameters

- pH / ORP
- Free and Total Chlorine
- Combined Chlorine by software

Applications

- Waste Water
- Drinking Water
- Boiler
- Legionella disinfection
- Crate Wash
- Dioxide Station
- Irrigation
- Swimming Pool
- Sea water

Features

The unit has the following innovative features:

- New hydraulic device with water drain dedicated to chemical reagents used for chlorine measure. Therefore it allows to reduce the water amount used for chlorine measure. The water dedicated to pH and Redox probes it may be to restored in the compensating basin, while only the water with chemical DPD reagent will be discharged in special tank to observe the local law.
- Fast installation thanks to quick coupling for Inlet and Outlet water.
- Optical unit assure a High accuracy Chlorine measure with a 520 nm sensor and LED light device.

Moreover:

- The Peristaltic pump with 4 mechanical support assure chemical reagent saving.
- Reagent level controlled by level probes.
- The chemical powder to dilute before the use is a good solution safety to keep it ready in every place.

Graphic display and Keypad

LCD STN 340x128 backlit.

Visualisation of: measurements (simultaneous up to 4 values + trend line), digital outputs condition, storage condition, malfunctions.

Using keypad with 4 embossed keys.

Internal data logger

4 Mbit flash memory equal to 16000 records

Recording interval
00:00 to 99:99 min

Type: circular / fill

Display: table / graph
(1 for each parameter).

Analogue outputs

1 for each measured parameter
(excluding comb. chlorine)

Type: 0.00 / 4.00 to 20.00 mA
Galvanically isolated

Programming limit:
lower / upper / reverse

Maximum load: 500 Ohms - Alarm
output NAMUR compliant 2.4 mA (with
4÷20 mA range)

PID control function can be activated
on the pH output

Set point relay outputs

Two (2) for Primary measure + for pH
measurement (only mod. 4001-3)

Programming for Hysteresis, working
time and Daily hourly activation not
subject to the measured value:

- ON - OFF
- 00:00 to 05:00 ppm Cl 2
- 00:00 to 14.00 pH

Working time: 000 to 999 sec.

Relays 5A resistive
load up to 230 Vac

Alarm Relay Output

Two (2) for Primary measure
+ Two (2) for pH measurement
(only mod. 4001-3)

Programming for Hysteresis, working
time and Daily hourly activation not
subject to the measured value:

- ON - OFF
- 00:00 to 05:00 ppm Cl 2
- 00:00 to 14.00 pH

Working time: 000 to 999 sec.

Relays 3A resistive load up to 230Vac

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Chlorine (Photometric chamber)	0 ÷ 5,00 ppm (*)
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

(*): DPD Method

Product line Photometer Entry level Multi parameters

SPL3CL	Photometer	Free Chlorine, pH and Redox
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Product line Photometer System Single parameter

Code	Model	Description
SPT2CL	Photometer	Free Chlorine
SPT2CT	Photometer	Total Chlorine

Product line Photometer System Multi parameters

SPT3CL(*)	Photometer	Free Chlorine and pH
SPT4CL	Photometer	Free Chlorine, pH and Redox
SPT5CL	Photometer	Free, Total and Combined Chlorine, pH, Redox

(*): Sea water application on demand code **SPT3CLMW0001**



Kontrol 40-42

Single and multiple-parameter control instruments

The Kontrol 40 and 42 are single and multiple-parameter controllers respectively. These very user-friendly systems combine advanced performance and simple design. Single-parameter units are available in four different casings, ensuring perfect fit at the right price.

Parameters

- pH / ORP
- Conductivity
- Chlorine
- Chlorine Dioxide
- Flow Rate

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Sea water

Features

Graphic display and Keypad

Simultaneous value of the measure, Temperature and Relay status.
2-line, 16 character Alphanumeric Display.
Four control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Four (4) mechanical box:
Wall mounting PP (IP65)

Panel mounting:
96x96 IP65 Front panel
48x96 IP40
Din-Rail (6 modules) IP40

Universal Power Supply
100÷240 Vac 50/60 Hz and 24Vac/dc

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Measure Input

High measuring resolution with probe quality control.

Modular measuring system

Chlorine measure in sea water application

Digital Input

Voltage Input to disable all function controller output.

Current outputs

4÷20mA Galvanic isolation

One(1) programmable measurement output.

Relay Outputs

Two (2) independent function, two Set point Measure, dry contact.

Software-set alarm functions.

Routine function settings : ON/OFF, Timed or proportional

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	1 ÷ 200/10 ÷ 2000/100 ÷ 20000/200 ÷ 50000 µS
Chlorine (Amperometric Cell)	0 ÷ 5,00 ppm
Chlorine and Chlo. Dioxide (Potentiostatic Cell)	0 ÷ 0,50 / 1,00 / 2,00 / 5,00 / 10,0 / 20,0 / 200,0 ppm
Temperature	with PT100 0 ÷ 100°C (32 ÷ 212 °F)
Flow Rate	99 999,99 Liters/second (*)

(*) Setting by software following unit measures: l/s, l/h, m³/h, GPM.

Product line Kontrol 40 Single parameter

Code	Model	Description
SPR040	Kontrol 40	for pH/ORP values
SCD040	Kontrol 40	for Conductivity value
SCL040	Kontrol 40	for Potentiostatic Chlorine value
SFX040	Kontrol 40	for Flow Rate value

Product line Kontrol 42 Double parameters

K042PR	Kontrol 42	for pH/ORP and pH/ORP values
K042PD	Kontrol 42	for pH/ORP and Conductivity values
K042PC	Kontrol 42	for pH/ORP and Chlorine values
K042CF	Kontrol 42	for Chlorine and Flow Rate values
K042PF	Kontrol 42	for pH/ORP and Flow Rate values
K042DF	Kontrol 42	for Conductivity and Flow Rate values



Kontrol 20-22

Single or multi-parameter control instruments

The Kontrol 20 and 22 are simplified, bare-bones single and multiple-parameter controllers respectively. These trustworthy systems combine reliable high-end performance and simple design. Single-parameter units are available in four different casings, ensuring perfect fit at the right price.

Parameters

- pH / ORP
- Conductivity

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Reverse Osmosis
- Galvanic Process
- Irrigation
- Swimming Pool

Features

Graphic display and Keypad

2-line, 16 character Alphanumeric Display.

Four control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Four (4) mechanical box:

Wall mounting PP (IP65)

Panel mounting:

96x96 IP65 Front panel

48x96 IP40

Din-Rail (6 modules) IP40

Universal Power Supply

100÷240 Vac 50/60 Hz

Measure Input

High measuring resolution with probe quality control.

Digital Input

Voltage Input to disable all function controller output.

Current outputs 4÷20mA

One (1) programmable measure output.

Relay Outputs

Two (2) independent functions, Set Point Measure, dry contact.

Software to set alarm functions.

ON/OFF routine function settings.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	1 ÷ 200/10 ÷ 2000/100 ÷ 20000 µS
Temperature	with PT100 0 ÷ 100°C (32 ÷ 212 °F)

Product line Kontrol 20 Single parameter

Code	Model	Description
SPR020	Kontrol 20	for pH/Redox values
SCD020	Kontrol 20	for Conductivity value

Product line Kontrol 22 Double parameters

K022PR	Kontrol 22	for pH and Redox values
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pH/Redox Probes



SPH-1 / SRH-1

Field Application:

- General laboratory
- Drinking Water
- Swimming pools
- Water monitoring and control plan



Features:

- Low maintenance sealed unit
- Gel filled reference cell
- BNC connection with Boot plastic Cover
- Cable length 6 or 1,5 meter
- Pellon Diaphragm high accuracy



SPH-2

Field Application:

- Waste water
- Drinking Water
- Cooling Towers
- Irrigation

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S7 connection
- Pellon Diaphragm high accuracy



SPH-3 WW SRH-3 PT

Field Application:

- Waste water
- Drinking Water
- Cooling Towers
- Legionella disinfection
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body
- Diaphragm open hole



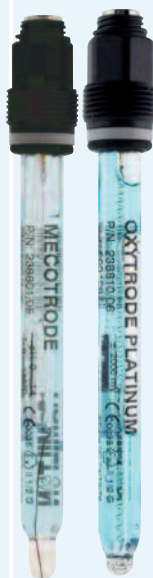
SPH-4 HP

Field Application:

- Waste water
- Drinking Water
- Reverse Osmosis
- Cleaning in place (CIP)
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body for High Temperature Enviromental
- Diaphragm 2 Sige pore



SPH-4 HT SRH-4 HT-PT

Field Application:

- Ammonia application
- Chromium plating
- Reverse Osmosis
- Bisulphite application
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body for High Pressure Enviromental
- Three ceramic diaphragm type



SPH-4 LC

Field Application:

- Highly acidic solutions
- Chromium plating
- Reverse Osmosis
- Bisulphite application
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell by External Refill
- S7 connection with PG 13,5 mm plastic nut
- Glass Body for low pressure Enviromental
- Highly acidic solutions
- One Sleeve diaphragm type

Measure range

Measurement range	Min. conductivity	Temperature range	Pressure range	Body material	Membrane material	Reference electrolyte	Diaphragm type	Electrical connection	Mechanical mounting
SPH-1 1.5M		Code 9900105001						pH	Probes
2÷12	50 µS/cm	0÷60°C	0÷4 bar	Epoxy	Glass	GEL	1 Ceramic	1,5m cable + BNC	Standard Ø 12
SPH-1 6M		Code 9900105002						pH	Probes
2÷12	50 µS/cm	0÷60°C	0÷6 bar	Epoxy	Glass	GEL	1 Standard	6m cable + BNC	Standard Ø 12
SPH-2		Code 9900105003						pH	Probes
2÷12	50 µS/cm	0÷60°C	0÷6 bar	Epoxy	Glass	GEL	1 Standard	S7	PG 13.5
SPH-3 WW		Code 9900105005						pH	Probes
2÷12	5 µS/cm	0÷80°C	0÷6 bar	Glass	Glass	GEL	1 Open hole	S8	PG 13.5
SPH-4 HP		Code 9900105006						pH	Probes
0÷14	5 µS/cm	0÷130°C	0÷6 bar	Glass	Glass	GEL	2 Single Pore	S8	PG 13.5
SPH-4 HT		Code 9900105007						pH	Probes
0÷14	5 µS/cm	0÷130°C at 6 bar	0÷16 bar at 25°C	Glass	Glass	GEL	3 Ceramic	S8	PG 13.5
SPH-4 LC		Code 9900105008						pH	Probes
0÷14	0.2 µS/cm	-10÷40°C	0,5 bar	Glass	Glass	GEL	1 Sleeve	S7	PG 13.5
SRH-1 -1.5M		Code 9900105031						Redox	Probes
±1000 mV	-	0÷60°C	0÷4 bar	Epoxy	Platinum wire	GEL	1 Ceramic	1,5m cable + BNC	Standard Ø 12
SRH-1 -6M		Code 9900105032						Redox	Probes
±1000 mV	-	0÷60°C	0÷6 bar	Epoxy	Platinum wire	GEL	1 Standard	6m cable + BNC	Standard Ø 12
SRH-3 PT		Code 9900105033						Redox	Probes
±2000 mV	-	0÷80°C	0÷6 bar	Glass	Platinum wire	GEL	1 Open hole	S8	PG 13.5
SRH-4 HT - PT		Code 9900105034						Redox	Probes
±2000 mV	-	0÷130°C at 6 bar	0÷16 bar at 25°C	Glass	Platinum wire	GEL	3 Ceramic	S8	PG 13.5
SRH-1 6M - AU		Code 9900105083						Redox	Probes
±2000 mV	-	0÷60°C	0÷6 bar	Epoxy	Gold	GEL	1 standard	6m cable + BNC	Standard Ø 12

pH/Redox Probes

* **S7 connection:** it is a electrical connection only

** **S8 connection:** S7 on the top electrical probe connection and PG 13.5 mm mechanical connection

Conductivity Probes

The **seko** range of conductivity probes is specially designed for use in industrial environments in conjunction with **seko** measurement instruments. The various available models make it possible to cover an extremely wide measurement range. There are versions with temperature sensors and special versions with graphite or platinum probes, PTFE cell bodies and IP67 connectors.

Measurement of conductivity is performed by suspending the two metallic electrodes of the probe in the solution to be measured. The passage of the current between the two electrodes indicates the electrical resistance of the liquid, and therefore its conductivity.

The measurement is influenced by the temperature. In saline solutions, measurement variations of 2% / °C can occur. This variation can even reach 7% / °C. Therefore, conductivity probes without temperature sensors should only be used if the solution being tested is maintained at a temperature between 15°C and 25 °C, restricting the potential for error to 10%.

Note All the models are guaranteed for a maximum pressure of 6 bars.



C-K10/5 /1

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Irrigation

Features:

- Constant Cell:
 - 0,1 cm⁻¹ or K=10
 - 0,2 cm⁻¹ or K=5
 - 1,0 cm⁻¹ or K=1
- Body material: PVC (60°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ½ Gas M Pvc

Without temperature sensor



C-K1 PT

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Reverse Osmosis
- CIP
- Irrigation
- Fish Farming
- Dairy

Features:

- Constant Cell: 1 cm⁻¹ or K=1
- Body material: Glass (130°C)
- Electrodes material: Platinum
- Mechanical Connection: Ø12 mm

Without temperature sensor



CT-K10

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)



CT-K5

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)



CT-K1

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)

Measure range

Measurement range	Constant [C-K]	Temperature range	Pressure range	Body material	Mounting Process	Cable
C-K10	Code 9900101012			Without temperature Sensor		
0,01÷500µS	C=0,1 cm-1 K=10cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K5	Code 9900101011			Without temperature Sensor		
0,1÷1000µS	C=0,2 cm-1 K=5cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K1	Code 9900101010			Without temperature Sensor		
1÷5000µS	C=1 cm-1 K=1cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K1-PT	Code 9900101013			Without temperature Sensor		
1÷20000µS	C=1 cm-1 K=1cm	120°C	6(*)	Glass - Platinum	Ø 12 mm	6 m
CT-K10	Code 9900101103			(PT100) With temperature Sensor		
0,01÷500µS	C=0,1 cm-1 K=10cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)
CT-K5	Code 9900101102			(PT100) With temperature Sensor		
0,5÷2000µS	C=0,2 cm-1 K=5cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)
CT-K1	Code 9900101101			(PT100) With temperature Sensor		
5÷5000µS	C=1 cm-1 K=1cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)

Conductivity Probes

(*) The maximum pressure of 6 bars is guaranteed at 25 °C. As the temperature increases, the pressure decreases linearly and at 50° or 80 °C, the maximum pressure is 1 bar.

(**) To be used in conjunction with CC series cables.

Conductivity Probes



CT-K1 G

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- CIP
- Irrigation
- Fish Farming

Features:

- Constant Cell: 1 cm⁻¹ or K=1
- Body material: PVC (60°C)
- Electrodes material: Graphite
- Mechanical Connection: Ø12 mm

With temperature sensor (PT100)



CT-K1-SS

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: 0,1 cm⁻¹ or K=10
- Body material: PVDF (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)



CT-K1-GR

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: 0,1 cm⁻¹ or K=10
- Body material: PVC (60°C)
- Electrodes material: Graphite
- Mechanical Connection: ½ Gas M PVC

With temperature sensor (PT100)

Measure range

Measurement range	Constant [C-K]	Temperature range	Pressure range	Body material	Mounting Process	Cable
CT-K1-G	Code 9900101124		(PT100) With temperature Sensor			
5÷20000µS	C=1 cm ⁻¹ K=1cm	60°C	6(*)	PVC Graphite	PG 13,5 mm	7 m
CT-K1-SS	Code 9900316009 (5m) 9900316010 (10m)		(PT100) With temperature Sensor			
1÷20000µS	C=1 cm ⁻¹ K=1cm	100°C	6(*)	PTFE	1" G.M.	5 m or 10 m
CT-K1-GR	Code 9900316028 (5m) 9900316029 (10m)		(PT100) With temperature Sensor			
1÷20000µS	C=1 cm ⁻¹ K=1cm	50°C	6(*)	PVC	1/2" G.M.	5 m or 10 m

(*) The maximum pressure of 6 bars is guaranteed at 25 °C.
As the temperature increases, the pressure decreases linearly
and at 50° or 80 °C, the maximum pressure is 1 bar.

Conductivity Probes

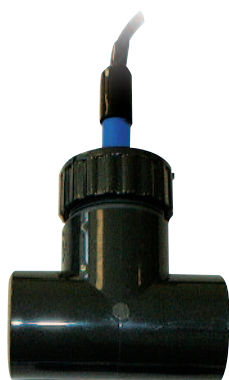
Inductive Probes

The S411/IND series of inductive sensors has been engineered and developed to produce an electrode that is very powerful but at the same time competitive. The result has been obtained by moulding the sensor made using polypropylene reinforced with fibreglass.

This sensor offers all the advantages of the inductive cond. measurement method, including the absence of passivation of the conventional conductivity electrodes. All the sensors in the S411/IND range are temperature-compensated, and are also designed for inline, submersion or tank installation.



S411/IND



S411/IND/E



S411/IND/T IN



S411/IND/T

Measure range

Inductive Probes

Inductive Probes	SENSOR S411/IND
Temperature	-5 to 60 °C (without freezing)
Contact materials	Glass-reinforced polypropylene
Temp. compensation	PT1000 wires
Cable	Standard 5 metre
Connection	½" BSP male
Protection rating	IP67
Materials	PVC with Viton gaskets
Operating temperature	-5 to 60 °C (without freezing)
Submersion length	600 or 1200 mm
Assembly	Standard bracket or optional flange
Operating pressure	From vacuum to 6.5 bar (100 psi)
Conductivity Range	1000 µS to 1 Simens
Resolution	100 µS to 1000 µS
Code 6100011441	

Inductive Probes

Dissolved Oxygen Probes



Dissolved Oxygen Probes

OXYSENS®

The OXYSENS® is an electrochemical oxygen sensor designed for applications in water, e.g. waste water treatment, swimming pools or fish farms. It is easy to maintain, because the membrane and the electrolyte don't need to be replaced. The response time of the OXYSENS® is fast, it is almost independent of flow and insensitive to soiling.



Dissolved Oxygen Probes

S423/C OPT

The S423/N/OPT sensor with an integrated temperature sensor is based on luminescent optical technology. Without calibration requirements and thanks to an ultra low power technology, the S423/N/OPT sensor meets the demands of field works and short or long term campaigns. Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations.

The S423/N/OPT sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration. Thanks to the Universal Modbus RS485 protocol, The S423/N/OPT sensor can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).

Flow Sensor



Flow Sensor

SFW

The paddlewheel flow sensor SFW is designed to be used with every kind of solid-free liquid. The sensor can measure flow from 0.15 m/s (0.5 ft/s) producing a frequency output signal highly repeatable.

A new electronic, with a push-pull output, is now available for a safe connection to any kind of PLC/instrument digital input.

A special family of fittings ensures installation into all pipe material in sizes from DN15 to DN600 (0.5" to 24").



Flow Sensor

SFWE

The SFWE insertion magmeters can measure flow rate in both metal and plastic pipes.

No moving parts allow the measurement of liquids with suspended solids as long as conductive and homogeneous.

The sensors can be assembled into the standard FLS fittings for installation from DN15 to DN600 (0.5" to 24").

They offer frequency output to use with FLS flow instrumentation and 4-20 mA output for long distance transmission and PLC connection.

Special versions for salt-water applications (high concentration of chlorides as sea water) and for high temperature conditions.

Measure range

Dissolved Oxygen Probes

Dissolved Oxygen Probes	OXYSENS [®]	S423/C OPT (35mm)
Measuring method	Measurement of the electrical current affected by the partial pressure of oxygen	Optical measure by luminescence
Measurement range	40ppb÷40ppm	0,00 to 20,00 mg/L / 0,00 to 20,00 ppm / 0-200% [Resolution 0,01]
Accuracy	< 0.5% [relative to current in air]	± 0,1mg/L / ±0,1 ppm / ±1%
Response time	98% Max. 60 s at 25 °C	90% of the value in less than 60 seconds
Required flow	≥ 0.03 m/s	No necessary move
Temperature sensor	NTC 22 kOhm	CTN
Storage temperature	-10÷60°C	-10÷60°C
Temperature range	0÷60°C	0÷50°C
Pressure range	0÷4 Bar	0÷5 Bar
Body material	Stainless steel 1.4435, silicone, EPDM	Stainless Steel INOX 316L
Membrane material	OPTIFLOW	No membrane
Reference electrolyte	Silver platinum combination	No electrolyte
Electrical connection	5 m cable	10 m cable
Mechanical mounting	PG 13.5	35mm
Measuring method	Measurement of the electrical current affected by the partial pressure of oxygen	Optical measure by luminescence
Signal interface	-	Modbus RS-485 (standard) and SDI-12 (option)
Polarization voltage	-670 ± 50 mV	5 to 12 volts
Application fields	Water applications: Waste water treatment, swimming pools, fish farms; composting facilities	Urban wastewater treatment, industrial effluent treatment, surface water monitoring, drinking water
	Code 9900316005	Code 9900105091 35mm

Measure range Flow Sensor

Flow Sensor	SFW					SFWE		
Working range	0.15 to 8m/s [0.5 to 25ft/s]					0.15 to 8m/s [0.5 to 25ft/s]		
Minimum reynolds	4500					-		
Linearity	±0.75% of full scale					±1% of reading +1.0 cm/s		
Repeatability	±0.5% of full scale					±0.5% of reading		
Maximum process Pressure/Temperature	PVC-Cbody:	PVDFbody:	Brass&SSbody:			16 bar - 25°C 8.6 bar - 70°C		
	10 bar - 25°C 1.5 bar - 80°C	10 bar - 25°C 1.5 bar - 100°C	25 bar - 120°C 25 bar - 100°C					
Materials	Sensor body:	O-rings:	Rotor:	Shaft:	Bearings:	Sensorbody:	O-rings:	Electrodes:
	CPVC or PVDF or 316L SS	EPDM or FPM	ECTFE (Halar)	Ceramic (Al ₂ O ₃)	Ceramic (Al ₂ O ₃)	316L SS PVDF	EPDM or FPM	316L SS
Outputs	Square wave, frequency: 45 Hz per m/s [13.7 Hz per ft/s] nominal 4÷20 mA with K330 output kit mounted					4÷20 mA - Isolated Square wave, frequency: 0-500Hz Open collector: flow direction		
Power supply	5 to 24 VDC ± 10% regulated					12 to 24 VDC ± 10% regulated (reverse polarity and short circuit protected)		
Application fields	Water and industrial waste water treatment, water distribution, processing and manufacturing industry, textile finishing, chemical production, cooling and Heating systems, swimming pools and Spas.					Water and waste water treatment, raw water intake, industrial water distribution, textile industry, swimming pools, Spas and aquariums, HVAC, processing and manufacturing industry.		
	Code 990031701X PVC SFW1 / SFW2 Code 990031704X Stainless Steel SFW1 / SFW2					Code 9900317040 Mag SFW1 Code 9900317041 Mag SFW2		

Potentiostatic Probes

CLPROBES

This range consists of potentiostatic amperometric probes to measure free or total chlorine for applications such as: water treatment, swimming pools, industrial applications and more.

The wide range of probes allows a better choice depending on the parameter to be tested, thus obtaining a more accurate measurement.

- The two-wire interface allows quick and easy installation.
- Calibration of the probe is guided by the **Kontrol CL500** instrument .

High pressure Probe sensors



Measure range

Models	F-CL 1	F-CL 2	F-CL 3	F-CL 4	F-CL 5	F-CL 6	F-CL 7	F-CL 8	F-CL 9	F-CL 10	F-CL 11
Measure range	0÷10 ppm			0÷200 ppm	0÷2 ppm	0÷1 ppm	0÷5 ppm	0÷1 ppm	0÷5 ppm	0÷0,5 ppm	0÷5 ppm
pH range	4÷8 pH	4÷12 pH	4÷11 pH	4÷8 pH		5÷9 pH				4÷8 pH	4÷8 pH
Response time	1 minutes - 90% of measure (100% of measure after 15 minutes)										
Flow rate	30 L/h					80 L/h				30 L/h	
Temperature	45 °C					50 °C		70 °C		45 °C	
Pressure	1 bar	0,5 bar				5 bar (*)		8 bar (*)		0,5 bar	1 bar
Sensor material	Silver chlorine with gold					Gold				Silver chlorine with gold	
Membrane	 M20	 M48	 M48 G	 M20	 M20	-				 M20	 M20
Electrolyte	 ECL1	 ECC1	 ECS1 Gel	 ECL1	 ECL1	EAS1 Gel				 ECL1	 ECL1
Electrical connection	Wire connection with screw										
Mechanical mounting	Ø 24mm										
Application fields	Inorganic Free Chlorine	Organic Free Chlorine	Inorganic Free Chlorine								
	Code 9900101140	Code 9900101141	Code 9900101142	Code 9900101146	Code 9900101148	Code 9900101149	Code 9900101150	Code 9900101152	Code 9900101153	Code 9900101159	Code 9900101173

(*) with Snap-Ring

F-CL 2 • F-CL 3 • T-CL 1 can be used in sea water application with special electrolites

and **Modular probe** holder

CL Probes Holder



PSS-PLEXI

Features

- In/Out: 8x12 mm (tube)
- Material Plexiglas without color
- Hydraulic - **By Pass**
- Pressure **5 bar**
- Temperature **60°C**

Code 9900103047	PSS-PLEXI [FLUX/PH]
Code 9900103048	PSS-PLEXI [FLUX/PH/RX]
Code 9900103049	PSS-PLEXI [FLUX/CL-A]
Code 9900103050	PSS-PLEXI [FLUX/PH/CL-A]
Code 9900103051	PSS-PLEXI [FLUX/PH/RX/CL-A]
Code 9900103052	PSS-PLEXI [FLUX/PH/CL-P]
Code 9900103053	PSS-PLEXI [FLUX/CL-P]
Code 9900103054	PSS-PLEXI [FLUX/PH/RX/CL-P]
Code 9900103055	PSS-PLEXI [FLUX/PH/RX/CL-A/CL-P]
Code 9900103056	PSS-PLEXI [FLUX/CL-P/CL-P]

F-CL12	F-CL13	T-CL 1	T-CL 2	D-CL	D-CL 2	D-CL 3	PAA 1	H ₂ O ₂ 1	H ₂ O ₂ 2	O ₃ 1	O ₃ 2	BR 1
0÷2 ppm		0÷10 ppm	0÷5 ppm	0÷10 ppm	0÷1 ppm		0÷2000 ppm	0÷200 ppm	0÷500 ppm	0÷2 ppm	0÷5 ppm	0.05÷10 ppm
4÷12 pH	4÷11 pH	4÷14 pH		1÷14 pH	5÷9 pH		2÷11 pH			1÷14 pH		6.5÷9.5 pH
1 minutes - 90% of measure (100% of measure after 15 minutes)												
30 L/h					80 L/h		30 L/h					
45 °C					50 °C	70 °C	45 °C					
0,5 bar				1 bar	5 bar (*)	8 bar (*)	1 bar	5 bar (*)		1 bar		0,5 bar
Silver chlorine with gold					Gold		Silver chlorine with gold					
 M48	 M48 G	 M48	 M48	 M20	—		 M7N		 M20	 M20	 M48	
 ECC1	 ECS1 Gel	 ECP1 Gel	 ECP1 Gel	 EDC41	EAS1 Gel		EPS7/W		EOZ1		EBR1 Gel	
Wire connection with screw												
Ø 24mm												
Organic Free Chlorine	Inorganic Free Chlorine	Total Chlorine		Chlorine Dioxide			Peracetic Acid	Hydrogen Peroxide		Ozone		Bromine
Code 9900101174	Code 9900101177	Code 9900101143	Code 9900101172	Code 9900101144	Code 9900101151	Code 9900101154	Code 9900101157	Code 9900101158	Code 9900101156	Code 9900101175	Code 9900101176	Code 9900101179

Potentiostatic Chlorine Probes

Turbidimetric Probes

and **Suspended Solid** probes

The principle of measurement is the deviation of light produced by suspended particles in the liquid. Thanks to the dual sensor is possible to make measurements of turbidity at low and very low concentrations with high accuracy and repeatability.

Avoiding contact with the measuring liquid, the optical LED technology make the system stable over time and minimize the need for re-calibration. The cell is installed directly in line, the maximum allowable pressure is 4 or 6 bar, pipe or bypass. The flow velocity does not affect the measurement.

Features and Benefits

Reliable concentration measurement using optical measuring process

Infrared light pulsing beams scattering method

Black rigid PVC sensor body

No mechanically moving parts

Measured value pre-processing in sensor resulting in low signal transmission sensitivity



Turbidimetric probes

Features:

- SS AISI 316 material
- Solid Measure with Led light with Resistors sensor
- Threaded Connection 2 1/2" M GAS
- Two cables included

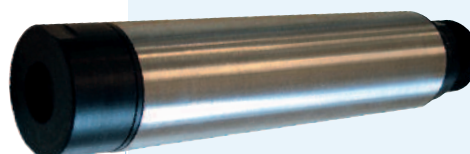
S462/SS

Field Application:

- Sewage Treatment
- Drinking Water
- Waste water
- Cleaning in place

Resistors sensor

Threaded Connection 1" GAS
Cables included



Turbidimetric probes

Features:

- SS AISI 316 material
- Turbidity Measure with Led light with Resistors sensor
- Threaded Connection 1" GAS
- Cables included

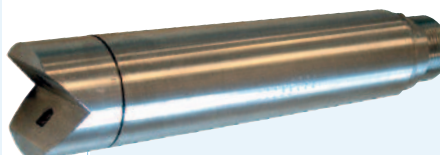
S461/T

Field Application:

- Sewage Treatment
- Sludge application
- Waste water
- Fish farming

Resistors sensor

Threaded Connection 1" GAS
Cables included



Suspended Solids probes

Features:

- SS AISI 316 material
- Solid Measure with Led light with Resistors sensor
- Threaded Connection 1" GAS
- Cables included

S461/S

Field Application:

- Sewage Treatment
- Sludge application
- Waste water

Resistors sensor

Threaded Connection 1" GAS
Cables included



Turbidimetric probes

Features:

- Black Plastic Body
- Turbidity Measure with Led light with

S462/PVC/SWP

Field Application:

- Waste water
- Drinking Water
- Swimming pool
- Sewage Treatment

Resistors sensor

Threaded Connection 2 1/2" F GAS
Two cables included

Measure range

Measurement range	Measurement method	Temperature range	Pressure range	Body material	Power supply	Electrical connection	Threaded connection	Applications field
S462/PVC Code 9900316021				Turbidimetric Probes				
0,00÷100 NTU/FTU	Scattering at 180° Light absorption	0÷45 °C	0÷6 bar	PVC black Transparent PVC door	12÷24 Vdc	2 cables 5m	2½"F	- Water treatment plants , downstream of filtration and decantation. Process section; - Aging facilities of wastewater reuse for agricultural or industrial purposes; - Food industry particularly in the production of beverages, wine, beer etc.; - Pool water.
S462/SS Code 9900316006				Turbidimetric Probes				
0,00÷100 NTU/FTU	Scattering at 180° Light absorption	0÷90 °C	0÷6 bar	Stainless Steel INOX 316 Tempered glass window	12÷24 Vdc	5m cable	2½"M	
S461/T Code 9900316022				Turbidimetric Probes				
0,00÷/4 /40 /400 /4000	Scattering at 90° Light absorption	0÷60 °C	0÷4 bar	Stainless Steel INOX 316 Special Optical Glass or Viton	12÷24 Vdc	10m cable	1"GAS	Wastewater, primary water, industrial water, recirculating water.
S462/SWP Code 9900316024				Turbidimetric Probes				
0,00÷40 NTU/FTU	Scattering at 180° Light absorption	0÷45 °C	0÷6 bar	PVC black Transparent PVC door	12÷24 Vdc	2 cables 5m	2½"F	Pool water

Turbidimetric Probes

Measure range

Measurement range	Measurement range	Temperature range	Pressure range	Body material	Power supply	Electrical connection	Threaded connection	Applications field
S461/S Code 9900316025				Suspended Solid Probes				
20 gr/l	Scattering at 90° Light absorption	0÷60 °C	0÷4 bar	Stainless Steel INOX 316 Special Optical Glass or Viton	12÷24 Vdc	10m cable	1"GAS	Wastewater, primary water, industrial water, recirculating water.

Suspended Solid Probes

Suspended Solid Probes

Suspended SolidProbe

The 7520 SAV and 7540 SRH sensors are used for optical solids content measurement in turbid water for up to 150g solid matter/l.

Applications

- Solids content measurement of suspended matter in sewage treatment plants: Primary sludge, digested sludge, thickened sludge, Inflow to centrifuge / press.
- Industrial quality control.

Features and Benefits

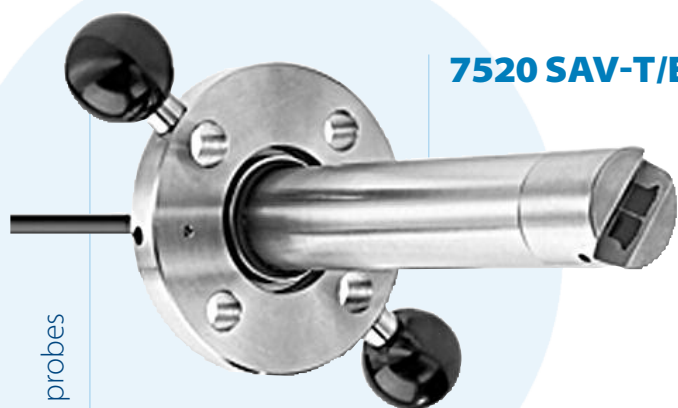
Reliable concentration measurement using optical measuring process.

Infrared light pulsing beams scattering method.

Black rigid PVC sensor body.

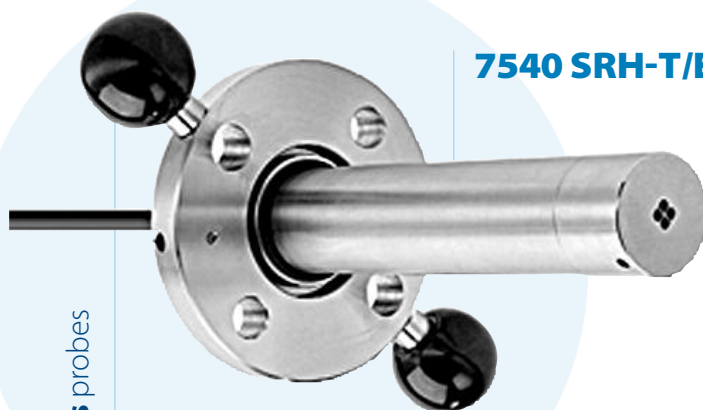
No mechanically moving parts.

Measured value pre-processing in sensor resulting in low signal transmission sensitivity.



7520 SAV-T/E

Suspended Solids probes



7540 SRH-T/E

Suspended Solids probes

Measure range

Suspended Solid Probes		7520 SAV-T/E	7540 SRH-T/E
Mechanical data	Dimension (LxØ) Immersion type	139 x 38 Ø mm	134 x 38 Ø mm
	Dimension (LxØ) Installation type	220 x 38 Ø mm	220 x 38 Ø mm
	Weight Immersion type	Approx. 1Kg	Approx. 1Kg
	Weight Installation type	Approx. 3Kg	Approx. 3Kg
Materials	Sensor Body	Stainless steel SS 316 Ti	Stainless steel SS 316 Ti
	Sight glass	Epoxy resin	Epoxy resin
	O-rings	Viton®	Viton®
Measurement range	Measuring principle	Light absorption method	Backscatter light method
	Optical components	Light source 2 LEDs detectors 2 photodiodes	Light source 2 LEDs detectors 2 photodiodes
	Measuring light	Infrared light at 880 nm absorption maximum	Infrared light at 880 nm absorption maximum
	Measuring range	0÷50g solid matter/l, dependent on sludge type	10÷150g solid matter/l, dependent on sludge type
	Accuracy	< 1% of measuring range end value	< 1% of measuring range end value
	Reference	Using four-beam pulsed light method	Using four-beam pulsed light method
	Cable lengths	T version 13m E version 1m + 10m extension cable	T version 13m E version 1m + 10m extension cable
	Calibration	With silica standard	With silica standard
Operating conditions	Op. temperature	0÷150°C	0÷150°C
	Op. pressure	max 6 bar	max 6 bar
	Protection	IP 68	IP 68
		On demand	On demand

Suspended Solid Probes

Cables, buffer solutions and probe accessories

Immersion probe holders

Probe Accessories

Sensors for measuring pH, Redox and Conductivity must be installed in the system using special probe holders that ensure the correct mechanical protection and degree of impermeability.

The pH and Redox measurement probes can be submerged in tanks, inserted in pipes or placed in sample draw down containers (Catch Pots).

The immersion models with adjustable flange can be used in conjunction with a counter-flange which allows quick and easy installation and removal. The P-IG range with a floating platform adapts to the varying liquid level of deep water tanks. The polypropylene versions PIR-2-PP-xxx can house two sensors, e.g. pH and Redox.

It is not recommended to use PH and/or Redox sensor in the same probe holder as a conductivity cell.



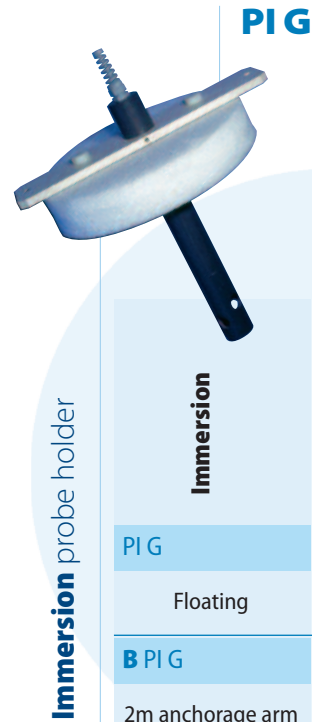
Immersion	No. of probes	Max Temperature	Material
PI PVC 400	Code 9900100111		
400 mm	1	40°C	PVC
PI PVC 800	Code 9900100112		
800 mm	1	40°C	PVC
PI PVC 1000	Code 9900100115		
1000 mm	1	40°C	PVC
PI PVC 1500	Code 9900100113		
1500 mm	1	40°C	PVC
PI PVC 2000	Code 9900100116		
2000 mm	1	40°C	PVC



Immersion	No. of probes	Max Temperature	Material
PIR PVC 200	Code 9900100101		
100÷250 mm	1	40°C	PVC
PIR PVC 400	Code 9900100102		
100÷450 mm	1	40°C	PVC
PIR PVC 800	Code 9900100103		
100÷850 mm	1	40°C	PVC
PIR PVC 1000	Code 9900100105		
100÷1050 mm	1	40°C	PVC
PIR PVC 1500	Code 9900100106		
100÷1550 mm	1	40°C	PVC



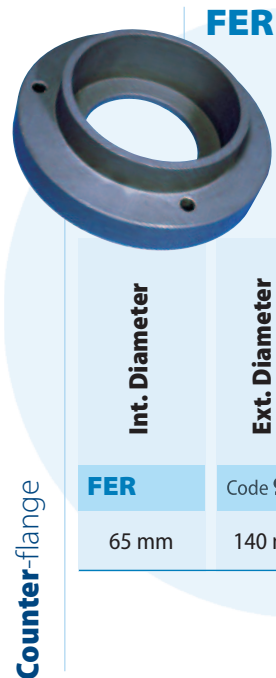
Immersion	No. of probes	Max Temperature	Material
PIR 2 PP 400	Code 9900100121		
100÷450 mm	2	80°C	PP
PIR 2 PP 800	Code 9900100122		
100÷850 mm	2	80°C	PP
PIR 2 PP 1000	Code 9900100124		
100÷1050 mm	2	80°C	PP



Immersion	No. of probes	Max Temperature	Material
PI G	Code 9900100131		
Floating	1	40°C	PVC
B PI G	Code 9900100132		
2m anchorage arm	-	40°C	PVC



Immersion	No. of probes	Max Temperature	Material
PICIR PP 400	Code 9900100141		
100÷450 mm	1	80°C	PP
PICIR PP 800	Code 9900100142		
100÷850 mm	1	80°C	PP
PICIR PP 1000	Code 9900100144		
100÷1050 mm	1	80°C	PP
PICIR PP 1500	Code 9900100145		
100÷1550 mm	1	80°C	PP



Int. Diameter	Ext. Diameter	Max Temperature	Connection	Material
FER	Code 9900100133			
65 mm	140 mm	40°C	4 holes Ø 6 mm	PP

Probe holders with 3/4" probe attachment without protection

These can house conductivity probes with threaded 3/4" G.
Attachment with output cable or IP67 connector.

Cables, buffer solutions and probe accessories

Accessories

Probe Accessories



Back wash probe holder

**PIA
PVC**

Immersion	No. of probes	Max Temperature	Max Pressure	1/h Min - Max
PIA PVC 400	Code 9900100151			
400 mm	1	40°C	2÷6	100÷600
PIA PVC 800	Code 9900100152			
800 mm	1	40°C	2÷6	100÷600

Immersion probe holders with spray cleaning

These special probe holders can be connected with a cleaning liquid injection unit. Regular cleaning of the probe ensures linearity and stability of the measurement over time, preventing the need for time-consuming manual intervention.



By-Pass probe holder

**PSS 7
Single**



PSS 7A



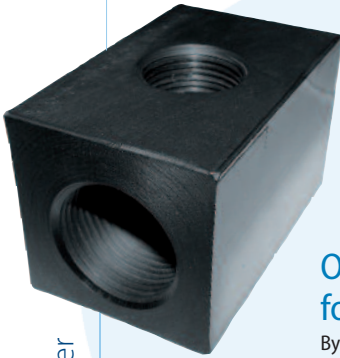
PSS 7

Connection to the process	No. o probes	Max Temperature	Max Pressure
PSS 7 Single	Code 9900103021		
By-pass	1	40°C	6 bar
PSS 7	Code 9900103008		
By-pass	3	40°C	6 bar
PSS 7A	Code 9900103010		
By-pass	3	40°C	6 bar

Tap probe holders

Tap probe holders are used for in-line measurements where part of the sample is re-directed from the main pipe to the probe holder. The water can be drawn off into the sampling circuit at a pressure of 6 bars.

PSS-EC



Outflow probe holder

Outflow probe holders for conductivity probes

Bypass probe holder for conductivity probe model CTK1, 5 and 10

Made of black PVC with 3/4" mechanical connection and 1" GAS IN/OUT hydraulics.

OUTFLOW SECTION (PSS-COND-T)

Code **0000126035**

PSS 3



Pressurized probe holder

SPP



SPP FIL



Connection to the process	Mechanical Connection	Max Temperature	Max Pressure	Material
PSS 3	Code 9900106670			
1/2" G.M.	PG 13,5 or Ø 12 mm	60°C	7 bar	PVC
SPP	Code 9900100134			
1" G.F.	PG 13,5	60°C	16 bar	PP + PVC
SPP FIL	Code 9900100135			
3/4" or 1" 1/4 G.M.	PG 13,5	80°C	16 bar	PP

Pressurized probe holders

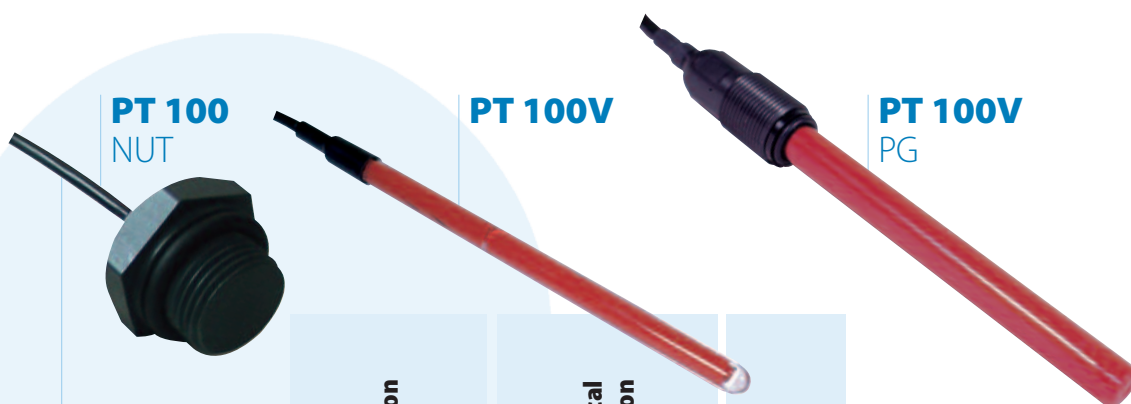
Pressurised probe holders are used to immerse the probe directly into the pipe where the sample to be measured passes. The probe must always be positioned vertically or slanting in the direction of the flow at a maximum of 45°. The probe holder connection line must be fitted between two isolation valves (input and output) in order to permit the prevention of the flow during maintenance of the probes.

Cables, buffer solutions and probe accessories

Accessories

Probe Accessories

Temperature sensor



Connection	Mechanical Connection	Material
PT 100 NUT	Code 9900101178	
1 m 2-wire cable	3/4" GAS M	PVC
PT 100 NUT	Code 9900101113	
1 m 2-wire cable	1/2" GAS M	PVC
PT 100V	Code 9900105061	
5 m 3-wire cable	Standard Ø 12	Pyrex
PT 100V PG	Code 9900105062	
6 m 3-wire cable	PG 13,5	Pyrex

Temperature probes

In order to correctly measure the pH in environments with variable temperatures, it is necessary to correct the response error of the probe resulting from temperature change. The measuring instrument must therefore be connected to a special temperature sensor.

Max Pressure 7 bar

Electrical surge suppressor



Electrical surge suppressor
Allows the elimination of Eddy currents
AISI 304 material - Ø 12 mm.

Code **9900101134**



Probe cables

Probe cables with S7 heads

(*) **HT** - High Quality Cable for higher protection from electrical interference.

Length	Type of Cable	Terminal block
CE 1/B	Code CE 9900108001 CEB 9900109001	
1 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 5/B	Code CE 9900108003 CEB 9900109003	
5 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 10/B	Code CE 9900108004 CEB 9900109004	
10 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 20/B	Code CE 9900108006 CEB 9900109006	
20 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 10 HT[®]/B	Code CE 9900110001 CEB 9900110101	
10 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC
CE 20 HT[®]/B	Code CE 9900110002 CEB 9900110102	
20 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC
CE 30 HT[®]/B	Code CE On demand CEB 9900110103	
30 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC



Probe cables

Cables for CTK Probe

with 4-pole connectors

Length	Version	No. poles
CC 5	Code 9900110111	
5 mt.	standard	4
CC 10	Code 9900110112	
10 mt.	standard	4
CC 15	Code 9900110113	
15 mt.	standard	4

Cables, buffer solutions and probe accessories

Accessories

Probe Accessories



PE 10/B

Probe cables

Extension Cables for
BNC-F Probe
BNC-M Probe

(*) **HT** - High Quality Cable
for higher protection from electrical
interference.

Length	Type of Cable	Terminal block
PE 10/B	Code PE 9900108007 PEB 9900109007	
10 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
PE 20/B	Code PE 9900108008 PEB 9900109008	
20 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
PE 20 HT[®]/B	Code PE 9900110004 PEB 9900110104	
20 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC
PE 30 HT[®]/B	Code PE 9900110005 PEB 9900110105	
30 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC



ST PH

ST MS

ST RX

Certified buffer
solutions

The precision and reliability of a pH,
Redox or Conductivity measure-
ment is determined by the buffer
solution used for calibrating the
probe. The special double-plug con-
tainer ensures that a new unpol-
luted buffer is always available.

Buffer solution

Solution	Value	Quantity
ST PH 4	Code 9900122007	
pH	4,00 pH 20 °C	250 ml
ST PH 7	Code 9900122008	
pH	7,00 pH 20 °C	250 ml
ST PH 9	Code 9900122009	
pH	9,22 pH 20 °C	250 ml
ST RX 465	Code 9900122010	
Redox	465 mV 25 °C	250 ml
ST MS 8	Code 9900122018	
Conductivity	84 µS/cm 25°C	500 ml
ST MS 14	Code 9900122019	
Conductivity	1423 µS/cm 25°C	500 ml
ST MS 128	Code 9900122020	
Conductivity	12880 µS/cm 25°C	500 ml

Signal amplifiers



ASV

Signal amplifiers

Battery-powered live ASV signal amplifier

In order to connect a pH or Redox measurement probe at a distance of over 15 meters, it is necessary to use the ASV signal amplifier to be connected between the probe cable and the extension cable of the measurement instrument.

Measurement	Function	Output	Power supply
ASV	Code TPM032PX0000		
pH / Redox	Amplifier	Voltage	Battery lasts 4 years

Dehumidifier and reduction flange for Turby Sensor



Reduction Flange

REDUCTION FLANGE

2"1/2 to 1/2" GAS F IN/OUT

Code **9900316011**



DEHUMIDIFIER

DEHUMIDIFIER

Power supply 230 Vac 50Hz
4x6 mm hydraulic connections

Code **9900316012**

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seko is a leading manufacturer of dosing pumps and dosing systems with more than 40 years experience. This long activity allowed **seko** to acquire a vast experience in diversified applications and to confirm its international success in many industrial fields through the supply of reliable solutions for the dosing, injection and transfer of liquids.



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