YOKOGAWA ◆

Co-innovating tomorrow ™

OpreX™ Analyzers

PH91 / PH92 / SC92

Portable pH Meter, pH/ORP Meter, Conductivity Meter

Durable Design, Effortless Use
Portable liquid meter for Professional

Handy pH/ORP or Conductivity/Resistivity Meter

Portable pH Meter
PH91

Portable pH/ORP Meter
PH92

Portable Conductivity Meter
SC92

Both handy meter and sensors have IP67 protection

Build-in sensor holders add convenience for on-the-go use

Large backlit display

Stability check function supports your accurate measurement

Excellent fit in your hand and back stand for table use

Easy operation (Direct calibration switch etc.)

Plastic sensor body avoids accidental cracking*

*: Chemical-resistant conductivity sensors and high conductivity measurement sensors feature Glass body

Manufacturing

Lab analyses

Wastewater testing

- pH measurement in research applications
- pH measurement at water treatment plant
- Conductivity measurement of drinking water and pure water
- ORP measurement at wastewater treatment plant

YOKOGAWA's technology enables stable and accurate measurements.

PH91 Portable pH meter

Model	Suffix code	Option code	Description
PH91	··········	··········	Portable pH meter
Connecting sensors	-00	··········	Without sensor
	-11	··········	With KCl replenish-free type combination pH sensor (cable length: 0.75 m)
	-13	··········	With KCl replenish-free type combination pH sensor (cable length: 2.75 m)
	-21	··········	With KCl refillable type combination pH sensor (cable length: 0.75 m)
	-23	··········	With KCl refillable type combination pH sensor (cable length: 2.75 m)
Country *1	-J	··········	Japan (with Japanese manual and batteries, without standard markings)
	-E	··········	Except Japan (with English manual and standard markings, without batteries)

*1: Always specify "-J" for orders to Japan ("-E" is not acceptable).
Always select "-E" for orders destined for outside Japan ("-J" is not acceptable).

PH92 Portable pH/ORP meter

Model	Suffix code	Option code	Description
PH92	··········	··········	Portable pH/ORP meter
Connecting sensors	-00	··········	Without sensor
	-11	··········	With KCl replenish-free type combination pH sensor (cable length: 0.75 m)
	-13	··········	With KCl replenish-free type combination pH sensor (cable length: 2.75 m)
	-21	··········	With KCl refillable type combination pH sensor (cable length: 0.75 m)
	-23	··········	With KCl refillable type combination pH sensor (cable length: 2.75 m)
	-41	··········	With KCl refillable type ORP sensor (cable length: 0.75 m)
	-43	··········	With KCl refillable type ORP sensor (cable length: 2.75 m)
	-51	··········	With KCl refillable type combination pH sensor (cable length: 0.75 m) + KCl refillable type ORP sensor (cable length: 0.75 m)
Country *1	-J	··········	Japan (with Japanese manual and batteries, without standard markings)
	-E	··········	Except Japan (with English manual and standard markings, without batteries)

*1: Always specify "-J" for orders to Japan ("-E" is not acceptable).
Always select "-E" for orders destined for outside Japan ("-J" is not acceptable).

PH92SN pH sensor for portable pH/ORP meter

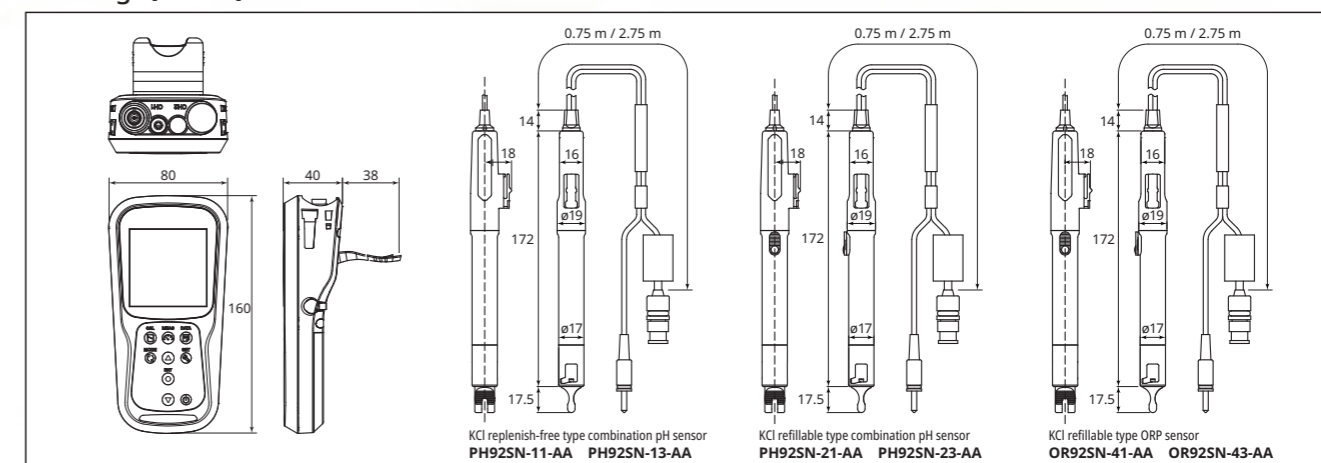| Model	Suffix code	Option code	Description
PH92SN	··········	··········	pH sensor for portable pH/ORP meter
Type	-11	··········	KCl replenish-free type combination pH sensor (cable length: 0.75 m)
	-13	··········	KCl replenish-free type combination pH sensor (cable length: 2.75 m)
	-21	··········	KCl refillable type combination pH sensor (cable length: 0.75 m)
	-23	··········	KCl refillable type combination pH sensor (cable length: 2.75 m)
—	-AA	··········	Always -AA

OR92SN ORP sensor for portable pH/ORP meter

Model	Suffix code	Option code	Description
PH92SN	··········	··········	ORP sensor for portable pH/ORP meter
Type	-41	··········	KCl refillable type ORP sensor (cable length: 0.75 m)
	-43	··········	KCl refillable type ORP sensor (cable length: 2.75 m)
—	-AA	··········	Always -AA

Specifications of Portable pH/ORP Meters

		PH91	PH92	
Measurement		Hydrogen ion concentration (pH)	Hydrogen ion concentration (pH) or oxidation-reduction potential (ORP) of solution	
Measuring range	pH	0.00 to 14.00 pH	pH	0.00 to 14.00 pH
			ORP	-2000 to 2000 mV
	Temperature	0 to 80 ℃ (with sensors) (0 to 50 ℃ when a KCl replenish-free type sensor and its sensor cable are immersed in water)	Temperature	0 to 80 ℃ (with sensors) (0 to 50 ℃ when a KCl replenish-free type sensor and its sensor cable are immersed in water)
Display limit	pH	-2.00 to 16.00 pH	pH	-2.00 to 16.00 pH
			ORP	-2000 to 2000 mV (1 decimal place in -999 to 999 mV)
	Temperature	-10.0 to 120.0 ℃	Temperature	-10.0 to 120.0 ℃
Repeatability (Simulated input without sensor)	pH	±0.01pH±1 digit	pH	±0.01pH±1 digit
			ORP	±0.3 % of Reading (-999.9 to 999.9 mV; ±0.3 mV)
Temperature accuracy		Simulated input for main unit only; ±0.5 ℃±1 digit Combined with sensors; ±1.0 ℃ (0 to 70 ℃), ±1.3 ℃ (above 70 ℃)		
Display		Digital LCD with backlight		
Temperature compensation		automatic, manual		
Calibration		pH: Automatic (NIST, USA: 5 points maximum, DIN: 6 points maximum) ORP: Manual (1 point) Temperature: Manual (1 point)		
Functions		Display pH and solution temperature (simultaneously), Electrode sensitivity level indicator, Stability check function, Data Memory (500 points)	Display pH or ORP (mV) and solution temperature (simultaneously), Electrode sensitivity level indicator, Stability check function, Data Memory (500 points)	
Construction		IP67		
Compatible standards		CE, RCM, KC (applying)		
Connectable sensor		PH92SN	PH92SN, OR92SN	
Wetted Material	pH Sensor	KCl replenish-free type combination pH sensor; Polypropylene resin (sensor body, protective cover), Glass (glass electrode, temperature sensor protection tube), Ceramics (liquid junction), Silicon rubber (sensor seal) KCl refillable type combination pH sensor; Polypropylene resin (sensor body, protective cover), Glass (glass electrode, temperature sensor protection tube), Ceramics (liquid junction), Silicon rubber (sensor seal), PVC (cable), rigid polyethylene (grip), ethylene propylene rubber (grip and cable connection), Nylon 6 (cable bushings)		
	ORP Sensor		KC refillable type ORP sensor; Polypropylene resin (sensor body, protective cover), Glass (glass electrode, temperature sensor protection tube), Ceramics (liquid junction), Silicon rubber (sensor seal), Platinum (electrode)	
Solution conductivity		50 µS/cm or more		
Ambient temperature		0 to 45 ℃		
Dimensions		Approximately H160 × W80 × D40 mm (not including connector part)		
Weight		Approximately 230 g (without batteries, sensor)		
Power source		2 x AA batteries (LR6), Auto power off function (time configurable: 1 to 30 minutes)		
Battery life		Approximately 500 hours		

Drawings [unit: mm]

KCl replenish-free type combination pH sensor
PH92SN-11-AA   PH92SN-13-AA

KCl refillable type combination pH sensor
PH92SN-21-AA   PH92SN-23-AA

KCl refillable type ORP sensor
OR92SN-41-AA   OR92SN-43-AA

SC92 Portable conductivity meter

Model	Suffix code	Option code	Description
SC92	· · · · · · · · · ·	· · · · · · · · · ·	Portable conductivity meter
Connecting sensors	-00	· · · · · · · · · ·	Without sensor
	-11	· · · · · · · · · ·	With sensor for high purity water measurement (cable length: 0.75m)
	-21	· · · · · · · · · ·	With general-purpose type sensor (cable length: 0.75m)
	-23	· · · · · · · · · ·	With general-purpose type sensor (cable length: 2.75 m)
	-31	· · · · · · · · · ·	With chemical-resistant type sensor (cable length: 0.75m)
	-41	· · · · · · · · · ·	With sensor for high-conductivity measurement (cable length: 0.75m)
Country *1	-J	· · · · · · · · · ·	Japan (with Japanese manual and batteries, without standard markings)
	-E	· · · · · · · · · ·	Except Japan (with English manual and standard markings, without batteries)

*1: Always specify "-J" for orders to Japan ("-E" is not acceptable).
   Always select "-E" for orders destined for outside Japan ("-J" is not acceptable).

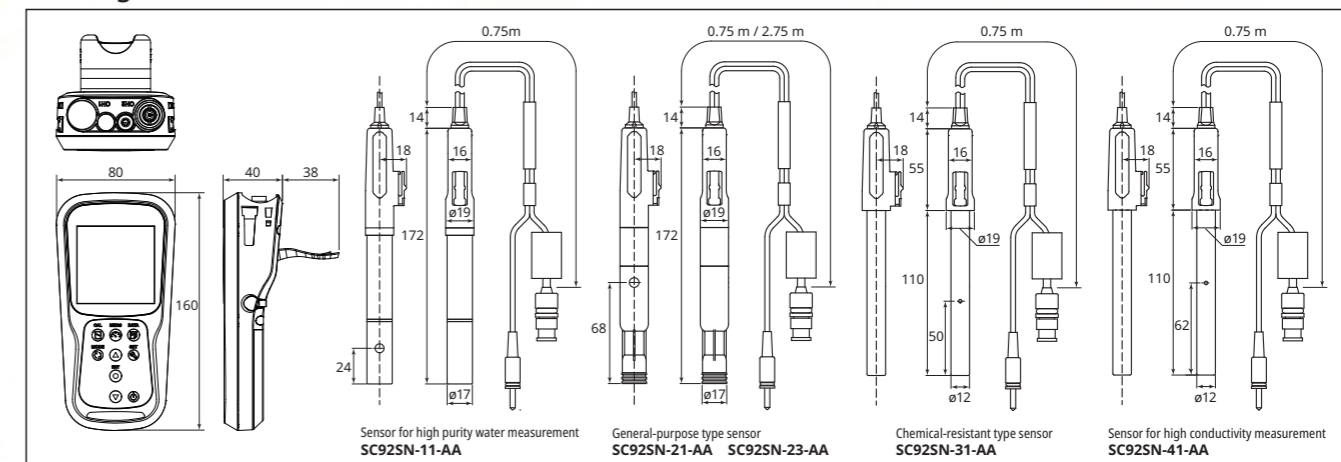## SC92SN Conductivity sensor for portable conductivity meter

Model	Suffix code	Option code	Description
SC92SN	· · · · · · · · · ·	· · · · · · · · · ·	Conductivity sensor for portable conductivity meter
Type	-11	· · · · · · · · · ·	Sensor for high purity water measurement (cable length: 0.75m)
	-21	· · · · · · · · · ·	General-purpose type sensor (cable length: 0.75m)
	-23	· · · · · · · · · ·	General-purpose type sensor (cable length: 2.75 m)
	-31	· · · · · · · · · ·	Chemical-resistant type sensor (cable length: 0.75m)
	-41	· · · · · · · · · ·	Sensor for high conductivity measurement (cable length: 0.75m)
—	-AA	· · · · · · · · · ·	Always -AA

Specifications of Portable Conductivity Meter

	SC92
Measurement	Conductivity or resistivity in aqueous solution
Measuring range — Conductivity (min. to max. range)	With a general-purpose type sensor: 0–20.00 µS/cm to 0–200.0 mS/cm With a sensor for high purity water measurement: 0–2.00 µS/cm to 0–200.0 µS/cm With a chemical-resistant type sensor: 0–20.00 µS/cm to 0–200.0 mS/cm With a sensor for high conductivity measurement: 0–200.0 µS/cm to 0–2.000 S/cm
Measuring range — Resistivity	0.001 MΩ·cm to 40.0 MΩ·cm (with a sensor for high purity water measurement)
Measuring range — Temperature	0 to 80 ℃ (sensor combination dependent) (0 to 50 ℃ when the entire sensor is submerged in water)
Number of display digits — Conductivity	4 digit maximum (automatic range turnover)
Number of display digits — Resistivity	3 digit maximum
Temperature indication range	-10.0 to 120.0 ℃
Repeatability (Combined with sensors) — Conductivity	±2% of full scale.(±5% of full scale of the 0–200 mS/cm range for general purpose type sensor)
Temperature accuracy	Simulated input for main unit only; ±0.5 ℃±1 digit Combined with sensors; ±1.0 ℃ (0 to 70 ℃), ±1.3 ℃ (above 70 ℃)
Display	Digital LCD with backlight
Temperature compensation	0.00 to 10.00 % /°C (reference temperature conversion: 15 to 30 ℃)
Calibration	Conductivity/Resistivity: Automatic (2 points maximum), Manual (5 point maximum) Temperature: Manual (1 point)
Functions	Display Conductivity or Resistivity and solution temperature (simultaneously), Electrode sensitivity level indicator, Stability check function, Data Memory (500 points)
Construction	IP67
Compatible standards	CE, RCM, KC (applying)
Connectable sensor	SC92SN
Wetted Material — General-purpose type sensor	Titanium (sensor electrode), Polypropylene resin (sensor body and cover), Fluorine rubber (O-ring), PVC (cable), Polyphenylene sulfide resin (neck), Silicone rubber (sensor seal), Polypropylene resin (sensor body, cover), Fluorine rubber (O-ring), PVC (cable), Polyphenylene sulfide resin (neck), Silicone rubber (sensor seal), Rigid polyethylene (grip), Polyethylene (grip), Nylon 6 (cord bushing), Epoxy resin (sensor internal filler)
Wetted Material — Sensor for high purity water measurement	SUS316 (electrode element), polypropylene resin (insulator body), fluorine rubber (O-ring), PVC (cable), silicone rubber (sensor sealing section), hard silicone rubber (sensor sealing), rigid polyethylene (grip), nylon 6 (code bushing), epoxy resin (epoxy), polypropylene resin (sensor body), Epoxy resin (sensor internal filler)
Wetted Material — Chemical-resistant type sensor/Sensor for high conductivity measurement	High corrosion resistant/high concentration sensors; glass (sensor body), platinum black (electrode element), PVC (cable), Silicone rubber (sensor sealing section), rigid polyethylene (grip), Nylon 6 (cord bushing), Epoxy resin (sensor internal filler)
Ambient temperature	0 to 45 ℃
Dimensions	Approximately H160 × W80 × D40 mm (not including connector part)
Weight	Approximately 230 g (without batteries, sensor)
Power source	2 x AA batteries (LR6), Auto power off function (time configurable: 1 to 30 minutes)
Battery life	Approximately 500 hours

Drawings [unit: mm]

Sensor for high purity water measurement **SC92SN-11-AA**

General-purpose type sensor **SC92SN-21-AA   SC92SN-23-AA**

Chemical-resistant type sensor **SC92SN-31-AA**

Sensor for high conductivity measurement **SC92SN-41-AA**

YOKOGAWA sensing technology contributes to our planet's sustainable future

OpreX™ Through the comprehensive OpreX portfolio of products, services, and solutions, Yokogawa enables operational excellence across the enterprise.

Trademarks
The names of corporations, organizations, products and logos herein are either registered trademarks or trademarks of Yokogawa Electric Corporation and their respective holders.

Represented by:

YOKOGAWA ◆ Co-innovating tomorrow™