General Specifications

Model SC72
Personal Conductivity Meter

Compact, Easy-to-Use, and Waterproof, the SC72 is designed specifically to meet the needs of both the field and the laboratory. This portable conductivity meter includes advanced features such as Data Memory, Alarm, and Self-Diagnostic functions.

Combined with a wide variety of electrodes, the SC72 offers the flexibility to meet the requirements of nearly any conductivity application.

Features
- Waterproof (IP67), sealed case and connector cover to keep out moisture
- Autoranging allows 0 to 2000 mS/cm capability
- Large, easy-to-read display
- Automatic Temperature Compensation (NaCl curve or User-defined coefficient)
- Self-Diagnostics warn of fault conditions
- Auto power off extends battery life
- 300 Points of Data Memory (stores conductivity value, temperature, date, and time)
- Audio Alarm Function

Specifications

Measuring Ranges
Conductivity	: 0 to 2000 mS/cm (dependent on sensor selected)
Resistivity	: 0-40.0 MΩ.cm (high purity sensor only)
Temperature	: 0 to 80°C

Display : Digital LCD

Resolution
Conductivity	: 0.001 µS/cm (for 0 to 2 µS/cm range)
Resistivity	: 0.1 MΩ.cm
Temperature	: 0.1°C

Repeatability : ±2%

Process Temperature : 0 to 80°C

Ambient Temperature : 0 to 50°C

Power Supply : Two AA size Alkaline Batteries
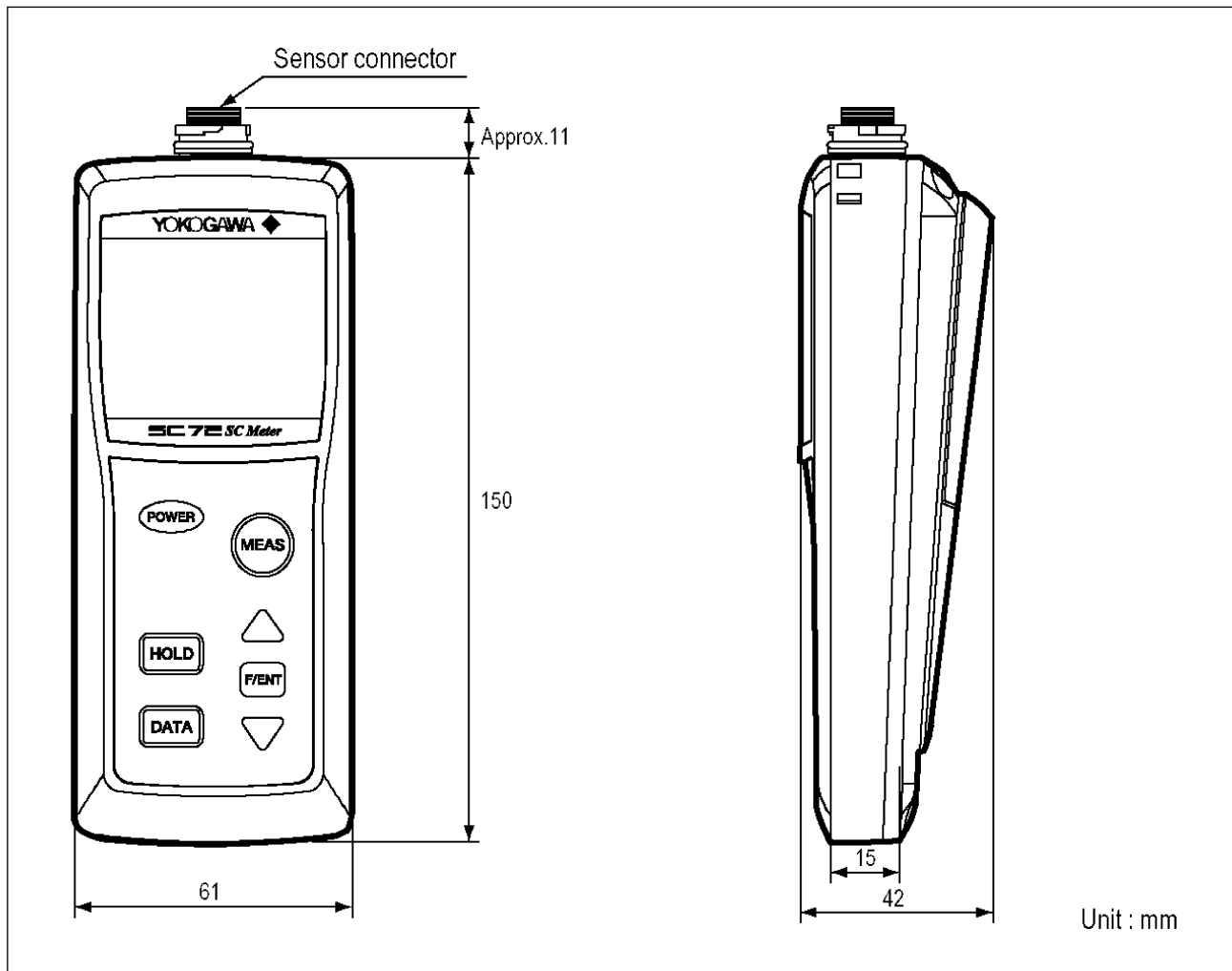
How to order the SC72

Model Code	Description
SC72-00-E-AA	Hand-Held Conductivity Meter Without Sensor

How to order seperate conductivity sensors

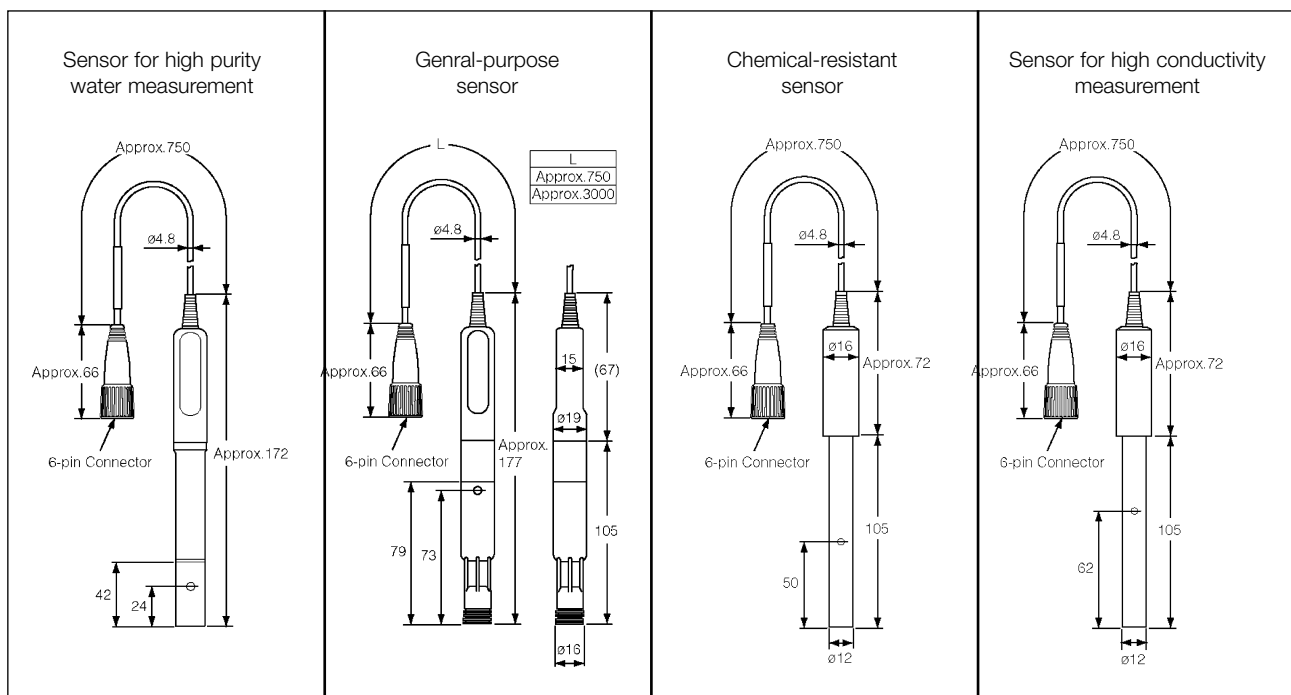| Part Number	Description
SC72SN-21-AA	General Purpose Sensor with 0.75m cable; Integral Temperature Sensor; 0-200mS/cm range
SC72SN-23-AA	General Purpose Sensor with 3.0m cable; Integral Temperature Sensor; 0-200mS/cm range
SC72SN-11-AA	Pure Water Sensor with 0.75m cable; Integral Temperature Sensor; 0-200µS/cm range
SC72SN-31-AA	Chemical Resistant Sensor with 0.75m cable; Integral Temperature Sensor; 0-200mS/cm range
SC72SN-41-AA	High Conductivity Sensor with 0.75m cable; Integral Temperature Sensor; 0-2000mS/cm range

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Dimensions

Sensor connector

Approx.11

150

61

15

42

Unit : mm

Sensors of the SC72

Sensor for high purity water measurement	Genral-purpose sensor	Chemical-resistant sensor	Sensor for high conductivity measurement

Sensor for high purity water measurement

Approx.750
ø4.8
Approx.66
6-pin Connector
Approx.172
42
24

Genral-purpose sensor

L

L
Approx.750
Approx.3000

ø4.8
Approx.66
6-pin Connector
Approx.177
15 (67)
ø19
105
79 73
ø16

Chemical-resistant sensor

Approx.750
ø4.8
ø16
Approx.66
Approx.72
6-pin Connector
105
50
ø12

Sensor for high conductivity measurement

Approx.750
ø4.8
ø16
Approx.66
Approx.72
6-pin Connector
105
62
ø12

Model and Suffix Codes

Personal Conductivity meter

Model	Suffix Code	Option Code	Description
SC72			Personal conductivity meter
Conductivity sensors	-00		Without sensor
	-11		With sensor for high purity water measurement (cable length: 75 cm)
	-21		With general-purpose sensor (cable length: 75 cm)
	-23		With general-purpose sensor (cable length: 3 m)
	-31		With chemical-resistant sensor (cable length: 75 cm)
	-41		With sensor for high conductivity measurement (cable length: 75 cm)
	-J		Japanese
	-E		English
		-AA	Always -AA

Conductivity sensor for personal conductivity meter

Model	Suffix Code	Option Code	Description
SC72SN			Conductivity sensor for personal conductivity meter
Sensor	-11		For SC72: for high purity water measurement (cable length:75 cm)
	-19		For SC82: for high purity water measurement (cable length:75 cm)
	-21		For SC72: general-purpose type (cable length:75 cm)
	-23		For SC72: general-purpose type (cable length:3 m)
	-29		For SC82: general-purpose type (cable length:75 cm)
	-31		For SC72: chemical-resistant type (cable length:75 cm)
	-39		For SC82: chemical-resistant type (cable length:75 cm)
	-41		For SC72: for high conductivity measurement (cable length:75 cm)
	-49		For SC82: for high conductivity measurement (cable length:75 cm)
		-AA	Always -AA

*Combination of conductivity sensor for SC82 with SC72 meter will not be IP67 waterproof.

Specifications of Personal Conductivity Meter

Measurement		Conductivity of solution
Unit		S/cm or S/m
Measurement range	Conductivity	0 to 2 µS/cm through 0 to 2 S/cm (depends on sensor to be used)
	Resistivity	x0 to 40.0 MΩ·cm (Only with sensor SC72SN-11-AA)
	Temperature	0 to 80°C
Resolution	Conductivity	0.05% of full scale *2
	Resistivity	0.1 MΩ·cm
	Temperature	0.1°C
Repeatability	Conductivity	±2% (±5% when general-purpose type sensor is used in the range of 0 to 2 mS/cm)
Display		Digital LCD
Indication		Conductivity or resistivity, solution temperature and temperature coefficient (simultaneously), various messages
Range switching		Automatic/manual
Temperature compensation		Temperature coefficient (0 to 9.99%/°C) or NaCl coefficient, reference temperature at 25°C
Ambient temperature		0 to 50°C
Construction		IP67 (JIS C0920)
Weight		Approx. 220 g (without sensor)
Power source		2 size AA dry cell batteries
Battery life		Approx. 200 hours*3, Auto Power Off function
Functions		Data memory (300 points), alarm clock

*1: Resistivity can be measured for reference. In that case repeatability is determined by conductivity.

*2: When measuring range is set to full scale.

*3: When alkaline dry cell batteries are used.

Standard Accessories for Personal Conductivity Meter

AA size dry cell batteries (2 pcs), User's Manual, Quick Manual, non-slip pads (2 pcs), hand strap, cotton swabs Instrument Card

Specifications of Sensor for Personal Conductivity Meter

Sensor	Model	Measurement range*1	Cell Constant	Wetted Material
For low conductivity measurement*2	SC72SN-11(0.75m)	0 to 2µS/cm, 0 to 20µS/cm, 0 to 200µS/cm, 0 to 40MΩ·cm	0.05cm-1	SUS316 (electrode element), fluoro rubber (O-ring), polypropylene resin (insulated area), PVC (cable)
General-purpose type	SC72SN-21(0.75m)	0 to 20µS/cm, 0 to 200µS/cm, 0 to 2mS/cm, 0 to 20mS/cm, 0 to 200mS/cm	5cm-1	Titanium (sensor), fluoro rubber (O-ring), PVC (cable), polyphenylene sulfite resin, polypropylene resin (insulated area, clear cover)
	SC72SN-23 (3m)			
Chemical-resistant type	SC72SN-31(0.75m)			Glass, platinum black (electrode element), PVC (cable)
For high conductivity measurement	SC72SN-41(0.75m)	0 to 2mS/cm, 0 to 20mS/cm, 0 to 200m/cm, 0 to 2S/cm	50cm-1	Glass, platinum black (electrode element), PVC (cable)

*1: Fixed range. For automatic range, range is automatically variable.
*2: Resistivity can be measured for reference. In that case repeatability is determined by conductivity.

Options (Available Seperately)

For pH and conductivity meters in common	Soft carrying case	B9269KJ
	Sensor stand	K9220XN
For conductivity meter	Standard solution (0.1 mol /l NaCl, 250 ml)	K9221ZA

Spare parts

O-ring and gasket set	K9654AY	Gaskets for battery box (2 pcs) and O-rings for connector (2 pcs)

Yokogawa has an extensive sales and distribution network.
Please refer to the European website (www.yokogawa.com/eu) to contact your nearest representative.

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