YOKOGAWA has been supplying superior on-line analyzers for monitoring or controlling the conductivity of liquid or solutions. Now, YOKOGAWA provides the 4-Wire Converter (FLXA™402), the 2-Wire Liquid Analyzer (FLXA™202, FLXA™21).

YOKOGAWA also provides many kinds of detectors/sensors for accurately measuring liquid conductivity when using analyzers. The combination of YOKOGAWA's analyzers and detectors/sensors meets the demanding ultrapurewater requirements of the growing semiconductor and pharmaceutical markets in addition to traditional water quality measurements for standard power plant and chemical applications.

Refer to GS 12A01F01-01EN
Refer to GS 12A01A02-01E
Refer to GS 12A01A03-01EN
Models of Conductivity Detectors/Sensors

**SC4AJ**
- **-AD-09 Adapter**
  - Mounting Type
  - (Sensor length: 9 cm)
- **-AD-15 Adapter**
  - Mounting Type
  - (Sensor length: 15 cm)
- **-SA Welding Socket Type**
- **-SB 1 or 1.5 inch welding Clamp Type**
- **-SC 2 inch welding Clamp Type**

**SC8SG**
- **Screw-in Type**
- **Flange Type**
  - Flow-through Type
  - (Screw Jointed)
  - Chamber Material: SCS14
  - Flow-through Type
  - (Screw Jointed)
  - Chamber Material: PP
  - Flow-through Type
  - (Flange Jointed)

**SC210G**
- **Screw-in Type**
- **Flange Type**
  - Flow-through Type
  - (Screw Jointed)
  - Chamber Material: SCS14
  - Flow-through Type
  - (Flange Jointed)
  - Chamber Material: PP
  - Screw-in Type with Gate Valve

**RANGE OF MEASURING UPPER RANGE LIMIT OF EACH SENSORS**

- **SC4AJ**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC4AJ**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC210G-A, -V**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC210G-B, -W**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC8SG-R61**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC8SG-R42**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm
- **SC8SG-R31**
  - 0.5 µS/cm
  - 5 µS/cm
  - 200 µS/cm
  - 20 mS/cm
  - 1 S/cm

**Note**
The bar graph at the left shows the range of the upper range limit of each sensor.
For example, in the case of SC8SG-R61, the measuring range is from 0-1 mS/cm to 0-1 S/cm.
In measurement in high conductivity range, polluted solution may affect measured values of any sensors. C represents cell constant.
1. **SC4AJ:**
   - Cable with pin terminals (applicable to FLXA202, FLXA21, FLXA402)
   - Cable with M4 ring terminals (applicable to FLXA202, FLXA21)
   - Cable with M3 ring terminals (applicable to FLXA402)
   - Varioin connector (applicable to SA11)

   **Object of measurement:** Conductivity of solutions
   **Measuring principle:** Two-electrode system
   **Cell constant:** 0.02 cm⁻¹, 0.1 cm⁻¹
   **Measuring range:**
   - For a cell constant: 0.02 cm⁻¹: 0-0.5 µS/cm to 0-200 µS/cm
   - For a cell constant: 0.1 cm⁻¹: 0-5 µS/cm to 1 mS/cm
   **Temperature Range:** 0 to 110°C
   **Pressure Range:** 0 to 1 MPa
   **Sterilization for electrode:** 135°C (275°F), within 30 minutes in Steam Sterilization
   **Pressure:** For electrode, 0 to 1 MPa
   **Weight:** For holder, see Figure 1
   **Materials:** Stainless steel (316L SS) (for all Fitting-type) or Titanium (only for adapter mounting type-AD), Fluoro rubber (FKM) O-ring, EPDM O-ring (for -SA with Varioin), Polyvinylidene difluoride (for /PF or /RF) or Stainless steel (316L SS)
   **Mounting adapter: R3/4 PVDF adapter (/RF): approx. 0.04 kg, 3/4NPT PVDF adapter (/PF): approx. 0.04 kg, R3/4 PVDF adapter (/RF): approx. 0.04 kg, Welding clamp 1 inch (/SB1): approx. 0.3 kg, Welding clamp 1.5 inch (/SB2): approx. 0.3 kg, Welding clamp 2 inch (/SC1): approx. 0.4 kg
   **Sensors:** 3/4NPT stainless steel adapter (/PS): approx. 0.1 kg, 3/4NPT stainless steel adapter (/RS): approx. 0.1 kg, 3/4NPT PVDF adapter (/PF): approx. 0.04 kg, R3/4 PVDF adapter (/RF): approx. 0.04 kg, Welding clamp 1 inch (/SB1): approx. 0.3 kg, Welding clamp 1.5 inch (/SB2): approx. 0.3 kg, Welding clamp 2 inch (/SC1): approx. 0.4 kg

2. **SC8SG:**
   - Cable with pin terminals (applicable to FLXA202, FLXA21, FLXA402)
   - Cable with M4 ring terminals (applicable to FLXA202, FLXA21)
   - Cable with M3 ring terminals (applicable to FLXA402)
   - Varioin connector (applicable to SA11)

   **Object of measurement:** Conductivity of liquids
   **Measuring Principle:** 2-electrode system or 4-electrode system
   **Cell Constants:** 0.01 cm⁻¹, 0.1 cm⁻¹, 10 cm⁻¹ for two-electrode system, 0.1 cm⁻¹ for four-electrode system
   **Measuring Ranges:** 0-0.5 µS/cm to 0-100 µS/cm for a cell constant of 0.01 cm⁻¹, 0-10 µS/cm to 0-10 mS/cm for a cell constant of 0.1 cm⁻¹, 0-1 mS/cm to 0-1000 mS/cm for a cell constant of 10 cm⁻¹
   **Temperature Range:** 0 to 100°C (130°C maximum only for adapters with polypropylene chambers)
   **Pressure:** 1000 kPa max. (500 kPa maximum for detectors with polypropylene chambers)
   **Flow rate of Sample Solution:** 0 to 1000 mL/min. is recommended for flow-through detectors.

   **Notes:**
   - There are weight differences among SC4AJ sensors.
   - Do not submerge the sensor itself in process water, as the seams between the mold and the metal of the sensor are not waterproof.
   - No limitation applies to flow rate (flow velocity) as far as measurement is concerned. However, when using flow-through detectors, electrodes or the inner walls of a liquid chamber may be worn out drastically at higher flow speeds if a measured solution contains slurry. Air bubbles should not be mixed in the sample solutions to obtain correct measured values.
### Installation:
- **Screw-in type:** held by the process piping
- **Flange type:** held by the process piping
- **Flow-through type (polypropylene chamber):** mounted on a pipe (nominal diameter of 50 mm ±2 in.)
- **Flow-through type (SCS14 chamber):** held by the process piping

**Process Connection:** Screw-in, Flange, flow-through

**Construction of Wetted Part:**
- **Sensor-holding base:**
  - Stainless steel (316 SS) and Fluoro rubber when using screw-in type holder or the chamber made of stainless steel.
  - PP and Fluoro rubber when using the chamber made of PP.
- **Material:**
  - **Diameter:** 9.2 mm
  - **Construction:** JIS C0920 watertight (equal to NEMA 4)

### Cable
- Flow-through type (polypropylene chamber)
- Flow-through type (SCS14 chamber)
- Flow-through type (polypropylene chamber, flanged)
- Flow-through type (SCS14 chamber)
- Flow-through type (polypropylene chamber, flanged)

### Weight:
- **Screw-in type:** approx. 0.9 kg (-R31) (excluding the cable)
- **Flange type:** approx. 2.8 kg (-R31) (excluding the cable)
- **Flow-through type (SCS14 chamber):** approx. 3.1 kg (excluding the cable)
- **Flow-through type (SCS14 chamber, flanged):** approx. 4.5 kg (excluding the cable)
- **Flow-through type (polypropylene chamber):** approx. 2.7 kg (excluding the cable)
- **Flow-through type (polypropylene chamber, flanged):** approx. 3.2 kg (excluding the cable)
- **Cable:** approx. 0.3 kg for 5.5 m length
- **Cable:** approx. 0.5 kg for 10 m length
- **Cable:** approx. 0.9 kg for 20 m length

### SC210G

- **Flow rate of Sample Solution:**
  - No particular limitation applies, although a value of less than 20 L/min. is recommended for flow-through detectors.
  - Note: No limitation applies to flow rate (flow velocity) as far as measurement is concerned. However, when using flow-through detectors, electrodes or the inner walls of a liquid chamber may be worn out drastically at higher flow speeds if a measured solution contains slurry. Air bubbles should not be mixed in the sample solutions to obtain correct measured values.

### Compliance with the simple apparatus requirements

SC210G and SC4AJ meet the simple apparatus requirements defined in the following standards.

Note: TIIS certified types cannot be connected. Use the sensors under the conditions of use required by the standards.

**Applicable standards:**
- ANSI/ISA-60079-11 (2014)
- ANSI/ISA-60079-0 (2009)
- CAN/CSA-C22.2 NO. 60079-11:14
- CAN/CSA-C22.2 NO. 60079-0:11
- GB 3836.4-2010
Conditions of use:

(1) Use in combination with an internally isolated analyzer, or use with, an analyzer in combination with isolated barrier.
   The FLXA202/FLXA21 is internally isolated.

(2) Upper limit of the process temperature.
   The upper limit of process temperature is indicated below when the sensor is used in combination with a YOKOGAWA analyzer.
   For FLXA202/FLXA21, model and suffix code below is available.
   FLXA21-D-□-D-◊-C1-○-A-N-LA-N-NN
     □: can be any value.
     ◊: must be EA, CD, CH, or EG.
     ○: must be NN or C1.
     Any option code is available.
   FLXA202-D-□-D-◊-C1-○-A-N-LA-N-NN
     □: can be any value.
     ◊: must be CD, CH, or CG.
     ○: must be NN or C1.
     Any option code is available.

Upper limit of process temperature on the SC210G

<table>
<thead>
<tr>
<th>Analyzer used in combination</th>
<th>FLXA202/FLXA21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature Ta 40°C</td>
<td>30 30</td>
</tr>
<tr>
<td>Temperature class T6</td>
<td></td>
</tr>
<tr>
<td>T5 (*1)</td>
<td>95 35</td>
</tr>
<tr>
<td>T4</td>
<td>105 45</td>
</tr>
<tr>
<td>T3</td>
<td>105 65</td>
</tr>
<tr>
<td>T2</td>
<td>105 105</td>
</tr>
<tr>
<td>T1</td>
<td>105 105</td>
</tr>
</tbody>
</table>

*1: Care about upper limit 100°C of temperature class T5 should be taken.

Upper limit of process temperature on the SC4AJ

<table>
<thead>
<tr>
<th>Analyzer used in combination</th>
<th>FLXA202/FLXA21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature Ta 40°C</td>
<td>49 49</td>
</tr>
<tr>
<td>Temperature class T6</td>
<td></td>
</tr>
<tr>
<td>T5 (*1)</td>
<td>95 64</td>
</tr>
<tr>
<td>T4</td>
<td>110 99</td>
</tr>
<tr>
<td>T3</td>
<td>110 110</td>
</tr>
<tr>
<td>T2</td>
<td>110 110</td>
</tr>
<tr>
<td>T1</td>
<td>110 110</td>
</tr>
</tbody>
</table>

*1: Care about upper limit 100°C of temperature class T5 should be taken.

Other warnings are provided in the user’s manual.

■ Applicable analyzer with various detectors

<table>
<thead>
<tr>
<th>Detector</th>
<th>SC4AJ</th>
<th>SC8SG</th>
<th>SC210G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of terminals</td>
<td>Pin</td>
<td>Ring M4</td>
<td>Ring M3</td>
</tr>
<tr>
<td>Analyzer: FLXA402(*1)</td>
<td>Yes</td>
<td>N.A.</td>
<td>Yes</td>
</tr>
<tr>
<td>Analyzer: FLXA202, FLXA21</td>
<td>Yes</td>
<td>Yes</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

*1: FLXA402 when connected to a SA11 can be connected with sensors equipped with Variopin connector. (SC4A..-VS, SC42-V, SX42..V, SC4AJ..-VS, SC8SG..-VS)
## MODEL AND SUFFIX CODES

### 1. SC4AJ

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix Code</th>
<th>Option Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC4AJ</td>
<td></td>
<td></td>
<td>Conductivity sensor</td>
</tr>
<tr>
<td></td>
<td>-T</td>
<td></td>
<td>Titanium (Only for -AD)</td>
</tr>
<tr>
<td></td>
<td>-S</td>
<td></td>
<td>316L SS</td>
</tr>
<tr>
<td>Fitting type</td>
<td>-AD</td>
<td></td>
<td>Adapter mounting type</td>
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<tr>
<td></td>
<td>-SA</td>
<td></td>
<td>Welding socket type (*1)</td>
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<td></td>
<td>-SB</td>
<td></td>
<td>1 or 1.5 inch welding clamp type (*2)</td>
</tr>
<tr>
<td></td>
<td>-SC</td>
<td></td>
<td>2 inch welding clamp type (*2)</td>
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<tr>
<td>Sensor length</td>
<td>-09</td>
<td></td>
<td>9 cm (Code for -AD)</td>
</tr>
<tr>
<td></td>
<td>-15</td>
<td></td>
<td>15 cm (Code for -AD)</td>
</tr>
<tr>
<td></td>
<td>-NN</td>
<td></td>
<td>fixed length (Code for -SA, -SB, -SC)</td>
</tr>
<tr>
<td>Cell constant</td>
<td>-002</td>
<td></td>
<td>0.02 cm⁻¹</td>
</tr>
<tr>
<td></td>
<td>-010</td>
<td></td>
<td>0.1 cm⁻¹</td>
</tr>
<tr>
<td>Cable length</td>
<td>-03</td>
<td></td>
<td>3 m (pin terminals)</td>
</tr>
<tr>
<td></td>
<td>-05</td>
<td></td>
<td>5 m (pin terminals)</td>
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<tr>
<td></td>
<td>-10</td>
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<td>10 m (pin terminals)</td>
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<tr>
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<td>15 m (pin terminals)</td>
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<td>-20</td>
<td></td>
<td>20 m (pin terminals)</td>
</tr>
<tr>
<td></td>
<td>-X1</td>
<td></td>
<td>3 m (M4 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-X2</td>
<td></td>
<td>5 m (M4 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-X3</td>
<td></td>
<td>10 m (M4 ring terminals) (*4)</td>
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<tr>
<td></td>
<td>-X4</td>
<td></td>
<td>15 m (M4 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-X5</td>
<td></td>
<td>20 m (M4 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-Y1</td>
<td></td>
<td>3 m (M3 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-Y2</td>
<td></td>
<td>5 m (M3 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-Y3</td>
<td></td>
<td>10 m (M3 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-Y4</td>
<td></td>
<td>15 m (M3 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-Y5</td>
<td></td>
<td>20 m (M3 ring terminals) (*4)</td>
</tr>
<tr>
<td></td>
<td>-VS</td>
<td></td>
<td>Variopin connector (*6)</td>
</tr>
<tr>
<td>Option</td>
<td>For AD only</td>
<td>/PS</td>
<td>3/4NPT adapter 316 SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/PF</td>
<td>3/4NPT adapter PVDF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/RS</td>
<td>R3/4 adapter 316 SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/RF</td>
<td>R3/4 adapter PVDF</td>
</tr>
<tr>
<td></td>
<td>For SA only</td>
<td>/SA1</td>
<td>Straight welding socket 316L SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/SA2</td>
<td>Angled welding socket 15° 316L SS</td>
</tr>
<tr>
<td></td>
<td>For SB only</td>
<td>/SB1</td>
<td>Welding clamp 1 inch 316L SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/SB2</td>
<td>Welding clamp 1.5 inch 316L SS</td>
</tr>
<tr>
<td></td>
<td>For SC only</td>
<td>/SC1</td>
<td>Welding clamp 2 inch 316L SS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/DG1</td>
<td>Oil-prohibited use (*3)</td>
</tr>
</tbody>
</table>

*1: When you select Fitting type -SA, place an order on the SC4AJ with Option code /SA1 or /SA2.
*2: When you select Fitting type -SB, place an order on the SC4AJ with Option code /SB1 or /SB2 (including seal ring). When you select Fitting type -SC, place an order on the SC4AJ with Option code /SC1 (including seal ring).
*3: Washing treatment of wet part with alcohol.
*4: Used for connection to FLXA202, FLXA21.
*5: Used for connection to FLXA402, SC450G.
*6: Used for connection with SA11. Sensor length -09 is not selectable.

### Spare parts for SC4AJ

<table>
<thead>
<tr>
<th>Parts No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K9670MA</td>
<td>O-ring for -SA (excluding -VS)</td>
</tr>
<tr>
<td>K9675VY</td>
<td>O-ring set for -SA (for -VS)</td>
</tr>
<tr>
<td>K9670MK</td>
<td>Seal rings for /SB1 or /SB2</td>
</tr>
<tr>
<td>K9670MP</td>
<td>Seal rings for /SC1</td>
</tr>
<tr>
<td>K9670MT</td>
<td>3/4 NPT Stainless steel adapter for -AD</td>
</tr>
<tr>
<td>K9670MU</td>
<td>3/4 NPT PVDF Adapter for -AD</td>
</tr>
<tr>
<td>K9670MV</td>
<td>R3/4 Stainless steel adapter for -AD</td>
</tr>
<tr>
<td>K9670MW</td>
<td>R3/4 PVDF Adapter for -AD</td>
</tr>
<tr>
<td>K9670MD</td>
<td>Angled welding socket and mounting nut for -SA</td>
</tr>
<tr>
<td>K9670ME</td>
<td>Straight welding socket for -SA</td>
</tr>
<tr>
<td>K9670MB</td>
<td>Angled welding socket for -SA</td>
</tr>
<tr>
<td>K9670MC</td>
<td>Straight welding socket for -SA</td>
</tr>
<tr>
<td>K9670ML</td>
<td>Welding clamp 1 or 1.5 inch for -SB</td>
</tr>
<tr>
<td>K9670MQ</td>
<td>Welding clamp 2 inch for -SC</td>
</tr>
</tbody>
</table>
2. SC8SG

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix Code</th>
<th>Option Code</th>
<th>Description</th>
</tr>
</thead>
</table>

**Measuring range**
- R31: Low range; cell constant: 0.01 cm⁻¹
- R42: Medium range; cell constant: 0.1 cm⁻¹
- R61: High range; cell constant: 10 cm⁻¹

**Electrode configuration**
- T: 2-electrode system (for both 0.01 cm⁻¹, 0.1 cm⁻¹, 10 cm⁻¹ cell constants)
- F: 4-electrode system (for 10 cm⁻¹ cell constant only)

**Construction**
- Screw-in type: with welding socket (*2)
- Flange type: without welding socket (*2) (a welding socket [K9208BK] should be ordered separately)
- Flow-through type: R1-1/2 material: SCS14 with welding socket (*2)

**Cable length**
- P1: 5.5 m (special cable supplied with detector) (pin terminals)
- P2: 10 m (special cable supplied with detector) (pin terminals)
- P3: 20 m (special cable supplied with detector) (pin terminals)
- F1: 5.5 m (special cable supplied with detector) (fork terminal)
- F2: 10 m (special cable supplied with detector) (fork terminal)
- F3: 20 m (special cable supplied with detector) (fork terminal)
- X1: 5.5 m (special cable supplied with detector) (M4 ring terminal) (*4)
- X2: 10 m (special cable supplied with detector) (M4 ring terminal) (*4)
- X3: 20 m (special cable supplied with detector) (M4 ring terminal) (*4)
- Y1: 5.5 m (special cable supplied with detector) (M3 ring terminal) (*5)
- Y2: 10 m (special cable supplied with detector) (M3 ring terminal) (*5)
- Y3: 20 m (special cable supplied with detector) (M3 ring terminal) (*5)
- VS: 5.5 m (special cable supplied with detector) (M3 ring terminal) (*5)

**Style code**
- *A: Style A

**Option**
- /PS: Stainless Steel Mounting hardware (for PP chamber)
- /SS: Stainless Steel Mounting hardware (for SCS14 chamber)

---

*Spare Parts for SC8SG*

<table>
<thead>
<tr>
<th>Parts No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K9208BA</td>
<td>0.01 cm⁻¹ cell constant, two-electrode sensor</td>
</tr>
<tr>
<td>K9208BB</td>
<td>0.1 cm⁻¹ cell constant, two-electrode sensor</td>
</tr>
<tr>
<td>K9208BC</td>
<td>10 cm⁻¹ cell constant, two-electrode sensor</td>
</tr>
<tr>
<td>K9208BD</td>
<td>10 cm⁻¹ cell constant, four-electrode sensor</td>
</tr>
<tr>
<td>K9208BV</td>
<td>0.01 cm⁻¹ cell constant, two-electrode sensor, Variopin connector</td>
</tr>
<tr>
<td>K9208BY</td>
<td>0.1 cm⁻¹ cell constant, two-electrode sensor, Variopin connector</td>
</tr>
<tr>
<td>K9208BZ</td>
<td>10 cm⁻¹ cell constant, four-electrode sensor, Variopin connector</td>
</tr>
<tr>
<td>K9208BK</td>
<td>Welding socket for screw-in model</td>
</tr>
<tr>
<td>G9303EB</td>
<td>O-ring</td>
</tr>
</tbody>
</table>

---

*A1: Electrode configuration -F cannot be selected when -R31 or -R42 is selected.
When -R61 is selected, 2-electrode system -T is normally used, however, for process where detectors are susceptible to contamination, a 4-electrode system -F should be used.

*2: If a welding socket (K9208BK) needs to be ordered beforehand, either place a separate order or prepare one by referring to the external view later in this brochure.

*3: No chamber is equipped with a mounting hardware. Please place an order on the SC8SG with option code /PS or /SS when you select flow-through model. The PP chamber can have cracks or splits unless it is supported by a mounting hardware.

*4: Used for connection to FLXA202, FLXA21.

*5: Used for connection to FLXA402, SC450G.

*6: Used for connection with SA11. SC8SG-R61-T (Measuring range: -R61 with Electrode configuration -T) is not selectable.
### WU41

This cable can be purchased additionally. SC8SG is supplied with cables of selected length.

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix code</th>
<th>Option code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WU41</td>
<td></td>
<td></td>
<td>Dedicated Cable for SC8SG</td>
</tr>
</tbody>
</table>

| Cable end | -F          | Fork terminals |
|           | -P          | pin terminals  |
|           | -X          | M4 ring terminals (*1) |
|           | -Y          | M3 ring terminals (*2) |

| Cable length | -05        | 5.5 m  |
|              | -10        | 10 m   |
|              | -20        | 20 m   |

*1: Used for connection to FLXA202, FLXA21.

*2: Used for connection to FLXA402, SC450G

### 3. SC210G

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix code</th>
<th>Option Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC210G</td>
<td></td>
<td></td>
<td>Conductivity detector</td>
</tr>
</tbody>
</table>

| Measuring range | -A          | Low range; cell constant: 0.05 cm\(^{-1}\) |
|                 | -B          | Medium range; cell constant: 5 cm\(^{-1}\) |

| Construction     |             |               |
| Screw-in type    | -100        | R1-1/2 male   |
|                 | -103        | 1-1/2NPT male |
| Flange type      | -206        | JIS 10K 50 RF flange |
|                 | -207        | ANSI Class150 2 RF flange (with serration) |
| Flow-through type | -302        | Rc1/2 female, chamber material: SCS14 |
| (\*1)            | -312        | Rc1/2 female, chamber material: PP |
|                  | -303        | 1/2NPT female, chamber material: SCS14 |
|                  | -313        | 1/2NPT female, chamber material: PP |
|                  | -304        | JIS 10K 15 RF flange, chamber material: SCS14 |
|                  | -314        | JIS 10K 15 FF flange, chamber material: PP |
|                  | -305        | ANSI Class150 1/2 RF flange with serration, chamber material: SCS14 |
|                  | -315        | ANSI Class150 1/2 FF flange, chamber material: PP |
|                  | -306        | JPI Class150 1/2 RF flange, chamber material: SCS14 |
| With gate valve  | -402        | R1-1/4 male   |
|                  | -403        | 1-1/4NPT male |

| Sensor length    | -L015       | 150 mm (Standard) |
|                 | -L030       | 300 mm (\*2)     |
|                 | -L050       | 500 mm (\*2)     |
|                 | -L100       | 1000 mm (\*2)    |
|                 | -L150       | 1500 mm (\*2)    |
|                 | -L200       | 2000 mm (\*2)    |

| Cable length     | -03         | 3 m (M4 ring terminals) (\*3) |
|                 | -05         | 5 m (M4 ring terminals) (\*3) |
|                 | -10         | 10 m (M4 ring terminals) (\*3) |
|                 | -15         | 15 m (M4 ring terminals) (\*3) |
|                 | -20         | 20 m (M4 ring terminals) (\*3) |
|                 | -AA         | 3 m (pin terminals)       |
|                 | -BB         | 5 m (pin terminals)       |
|                 | -CC         | 10 m (pin terminals)      |
|                 | -DD         | 15 m (pin terminals)      |
|                 | -EE         | 20 m (pin terminals)      |
|                 | -Y1         | 3 m (M3 ring terminals) (\*4) |
|                 | -Y2         | 5 m (M3 ring terminals) (\*4) |
|                 | -Y3         | 10 m (M3 ring terminals) (\*4) |
|                 | -Y4         | 15 m (M3 ring terminals) (\*4) |
|                 | -Y5         | 20 m (M3 ring terminals) (\*4) |

| Style code       | -A          | Style A               |

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/SCT</td>
<td>Stainless steel tag plate</td>
<td></td>
</tr>
<tr>
<td>/ANSI</td>
<td>With ANSI connection adaptor (*5)</td>
<td></td>
</tr>
<tr>
<td>/PF</td>
<td>DAI-ELPerfrow (perfluoro-elastomer) specification (*6)</td>
<td></td>
</tr>
<tr>
<td>/PS</td>
<td>SUS mounting hardware (for PP construction)</td>
<td></td>
</tr>
<tr>
<td>/SS</td>
<td>SUS mounting hardware (for SCS14 construction)</td>
<td></td>
</tr>
<tr>
<td>/X1</td>
<td>Epoxy-coated (baked)</td>
<td></td>
</tr>
<tr>
<td>/DG1</td>
<td>Oil-prohibited use (Degrease cleaning treatment) (except for the type with gate valve)</td>
<td></td>
</tr>
<tr>
<td>/MCT</td>
<td>Material Certificate (*7) (except for gate valve)</td>
<td></td>
</tr>
</tbody>
</table>

*1: The model is not equipped with a mounting brackets, place an order on the SC210G with option code /PS or /SS when you select flow-through model. The PP chamber material can have cracks or splits unless it is not supported by a mounting hardware.

*2: Only for Screw-in type and Flange type
Spare Parts for SC210G

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrode Assembly (*1)</td>
<td>K9208EA, K9208EB, K9208EC, K9208ED, K9208EE, K9208EF, K9315NA, K9315NB, K9315NC, K9315ND, K9315NE, K9315NF</td>
<td>150 mm (C=0.05cm⁻¹), 500 mm (C=0.05cm⁻¹), 1000 mm (C=0.05cm⁻¹), 1500 mm (C=0.05cm⁻¹), 2000 mm (C=0.05cm⁻¹), 300 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 150 mm (C=0.05cm⁻¹), 300 mm (C=0.05cm⁻¹), 500 mm (C=0.05cm⁻¹), 1000 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 1500 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 2000 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 300 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 500 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 1000 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 1500 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 2000 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 150 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 300 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 500 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 1000 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 1500 mm (C=0.05cm⁻¹) with perfluoro-elastomer, 2000 mm (C=0.05cm⁻¹) with perfluoro-elastomer.</td>
</tr>
<tr>
<td>Electrode Assembly (*2)</td>
<td>K9208KA, K9315NN</td>
<td>(C=0.05cm⁻¹) with perfluoro-elastomer</td>
</tr>
<tr>
<td>Electrode Assembly (*1)</td>
<td>K9208JH, K9208JB, K9208JC, K9208JD, K9208JE, K9208JJ, K9315NH, K9315NJ, K9315NK, K9315NL, K9315NM</td>
<td>150 mm (C=5cm⁻¹), 300 mm (C=5cm⁻¹), 500 mm (C=5cm⁻¹), 1000 mm (C=5cm⁻¹), 1500 mm (C=5cm⁻¹), 2000 mm (C=5cm⁻¹), 150 mm (C=5cm⁻¹) with perfluoro-elastomer, 300 mm (C=5cm⁻¹) with perfluoro-elastomer, 500 mm (C=5cm⁻¹) with perfluoro-elastomer, 1000 mm (C=5cm⁻¹) with perfluoro-elastomer, 1500 mm (C=5cm⁻¹) with perfluoro-elastomer, 2000 mm (C=5cm⁻¹) with perfluoro-elastomer, 150 mm (C=5cm⁻¹) with perfluoro-elastomer, 300 mm (C=5cm⁻¹) with perfluoro-elastomer, 500 mm (C=5cm⁻¹) with perfluoro-elastomer, 1000 mm (C=5cm⁻¹) with perfluoro-elastomer, 1500 mm (C=5cm⁻¹) with perfluoro-elastomer, 2000 mm (C=5cm⁻¹) with perfluoro-elastomer.</td>
</tr>
<tr>
<td>Electrode Assembly (*2)</td>
<td>K9208MA, K9315NP</td>
<td>(C=5cm⁻¹) with perfluoro-elastomer</td>
</tr>
<tr>
<td>Cable</td>
<td>K9315QA, K9315QB, K9315QC, K9315QD, K9315QG, K9315QR, K9315QS, K9315QT, K9315QU, K9315QV, K9315QJ, K9315QK, K9315QL, K9315QM, K9315QQ</td>
<td>3 m (M4 ring terminals, SC210G...-03), 5 m (M4 ring terminals, SC210G...-05), 10 m (M4 ring terminals, SC210G...-10), 15 m (M4 ring terminals, SC210G...-15), 20 m (M4 ring terminals, SC210G...-20), 3 m (pin terminals), 5 m (pin terminals), 10 m (pin terminals), 15 m (pin terminals), 20 m (pin terminals), 3 m (M3 ring terminals), 5 m (M3 ring terminals), 10 m (M3 ring terminals), 15 m (M3 ring terminals), 20 m (M3 ring terminals).</td>
</tr>
<tr>
<td>O-ring</td>
<td>K9050AT, K9050MR, K9319RN</td>
<td>Fluoro-rubber (FKM) O-ring (for screw-in type, flange type and flow-through type), Fluoro-rubber (FKM) O-ring (for gate valve type), Perfluoro-elastomer O-ring (for all types).</td>
</tr>
</tbody>
</table>

*1: For the electrode assembly for oil-prohibited use (/DG1) and/or with material certificate (/MCT), please contact Yokogawa.  
*2: For the electrode assembly with material certificate (/MCT), please contact Yokogawa.
### DIMENSIONS

1. **SC4AJ**
   
   **<Adapter mounting type>**
   
   **SC4AJ-□-AD-09**
   
   Sensor length: 09 (9 cm)

   ![Diagram of SC4AJ-□-AD-09](image1)

   **SC4AJ-□-AD-15**
   
   Sensor length: 15 (15 cm)

   ![Diagram of SC4AJ-□-AD-15](image2)

   - **Option:** Adapter mounting type (-AD) /PS (Stainless Steel) /PF (PVDF) /RS (Stainless Steel) /RF (PVDF)

   ![Diagram of Adapter mounting type](image3)

   Unit: mm
<Welding socket type>
SC4AJ-□-SA-NN

- Option: Welding socket type (-SA)
  
  Straight welding socket: /SA1
  Angled welding socket: /SA2

Unit: mm
<Welding clamp type>
SC4AJ-□-SB-NN

- Option: Welding clamp type (-SB)

Welding clamp 1 inch: /SB1
Welding clamp 1.5 inch: /SB2

Unit: mm
Sensor SC4AJ-□-SC-NN

- Option: Welding clamp type (-SC)

Welding clamp 2 inch: /SC1

Unit: mm

- Cable length (3m, 5m, 10m, 15m, 20m)
- Pin type
- Ring type

Variopin connector

Unit: mm

ø64 ø25 ø19.1

80 167.3

ø64 ø19.1

80 Approx. 170

Approx. 350

ø50.8 

12.7
2. SC8SG

<Screw-in type> Only the difference between SC8SG-R□□-100 and SC8SG-R□□-101 is whether or not having a welding socket. SC8SG-R□□-100 has a welding socket but SC8SG-R□□-101 does not.
SC8SG-R31-T-102 (Low range)
Electrode with 0.01 cm⁻¹ Cell constant
Two-electrode system

Unit: mm
Pin terminals
Locknuts (M48x2)
Variopin connector
Outlet for measured solution
Approx. 78
95
45
ø30
192
R1-1/2
Locknuts
(M48x2)
Outlet for measured solution
Approx. 78
192
Ring terminals

SC8SG-R42-T-102 (Medium range)
Electrode with 0.1 cm⁻¹ Cell constant
Two-electrode system

Unit: mm
Pin terminals
Locknuts (M48x2)
Variopin connector
Outlet for measured solution
Approx. 78
138
42
ø30
192
R1-1/2
Locknuts
(M48x2)
Outlet for measured solution
Approx. 78
192
Ring terminals

SC8SG-R61-T-102 (High range)
Electrode with 10 cm⁻¹ Cell constant
Two-electrode system

Unit: mm
Pin terminals
Locknuts (M48x2)
Variopin connector
Outlet for measured solution
Approx. 78
125
221
ø30
192
R1-1/2
Locknuts
(M48x2)
Outlet for measured solution
Approx. 78
192
Ring terminals

SC8SG-R61-F-102 (High range)
Electrode with 10 cm⁻¹ Cell constant
Four-electrode system

Unit: mm
Pin terminals
Locknuts (M48x2)
Variopin connector
Outlet for measured solution
Approx. 78
222
26
ø29
133
192
R1-1/2
Locknuts
(M48x2)
Outlet for measured solution
Approx. 78
192
Ring terminals

Electrode with 0.01 cm⁻¹ Cell constant
Two-electrode system

Variopin connector
Outlet for measured solution
Approx. 78
192
Ring terminals

Variopin connector
Outlet for measured solution
Approx. 78
192
Ring terminals

Variopin connector
Outlet for measured solution
Approx. 78
192
Ring terminals

Two-electrode system

Four-electrode system

Electrode with 0.1 cm⁻¹ Cell constant
Two-electrode system

Electrode with 10 cm⁻¹ Cell constant
Two-electrode system

Electrode with 10 cm⁻¹ Cell constant
Four-electrode system
<Flange type>

**SC8SG-R□□-20□**

![Variopin connector](image)

<table>
<thead>
<tr>
<th>Model and Code</th>
<th>Flange rating</th>
<th>øC</th>
<th>øD</th>
<th>t</th>
<th>øh</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC8SG - R□□ - □ - 206 - □□ ^A</td>
<td>JIS 10K 50 RF</td>
<td>120</td>
<td>155</td>
<td>16</td>
<td>19</td>
<td>127</td>
<td>74</td>
<td>157</td>
</tr>
<tr>
<td>SC8SG - R□□ - □ - 207 - □□ ^A</td>
<td>ANSI Class150 2 RF</td>
<td>120.7</td>
<td>152.4</td>
<td>19.1</td>
<td>19.1</td>
<td>124</td>
<td>71</td>
<td>154</td>
</tr>
<tr>
<td>SC8SG - R□□ - □ - 208 - □□ ^A</td>
<td>JPI Class150 2 RF</td>
<td>120.5</td>
<td>152</td>
<td>19.5</td>
<td>20</td>
<td>123.5</td>
<td>70.5</td>
<td>153.5</td>
</tr>
</tbody>
</table>

Note: ANSI flange with serrations

*Note: ANSI flange with serrations*
<Flow-through type>

**SC8SG-RDD-D-302, SC8SG-RDD-D-303,**
Screw connection (Chamber Material: SCS14)

- Variopin connector
- Locknuts
- Outlet Rc1/2 or 1/2NPT(F)
- Inlet Rc1/2 or 1/2NPT(F)
- Pin terminals
- Fork terminals
- Ring terminals

**SC8SG-RDD-D-304, SC8SG-RDD-D-305,**
Flange connection (Chamber Material: SCS14)

- Variopin connector
- Locknuts
- 4-th holes ØG
- ØC
- ØD
- Pin terminals
- Fork terminals
- Ring terminals

**Flange rating**

<table>
<thead>
<tr>
<th></th>
<th>øC</th>
<th>øD</th>
<th>øG</th>
<th>øh</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>JIS 10K 15 RF</td>
<td>70</td>
<td>95</td>
<td>52</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>ANSI Class150 1/2 RF (with serration)</td>
<td>60.5</td>
<td>88.9</td>
<td>34.9</td>
<td>15.7</td>
<td>11.2</td>
</tr>
</tbody>
</table>

**Option: Mounting hardware (-SS)**

- SCS14 Chamber
- Approx. 102
- 50A pipe

Unit: mm
SC8SG-R□□-312, SC8SG-R□□-313,
Screw connection (Chamber Material: PP) + Option (Mounting hardware (IPS))

Variopin connector

Approx. 78

Unit: mm

Pin terminals

Fork terminals

Ring terminals

JIS 50A pipe

SC8SG-R□□-314, SC8SG-R□□-315,
Flange connection (Chamber Material: PP) + Option (Mounting hardware (IPS))

Variopin connector

Approx. 78

Unit: mm

Pin terminals

Fork terminals

Ring terminals

JIS 50A pipe

Flange rating øC øD
JIS 10K 15 FF 70 95
ANSI Class150 1/2 FF 60.5 88.9
- WU41 for SC8SG

![Diagram of WU41 for SC8SG](image)

- SC210G
  - SC210G Detector - converter connection cable (accessory)

![Diagram of SC210G](image)

3. Option: With ANSI connection adaptor (/ANSI)

![Diagram of ANSI connection adapter](image)
**<Screw-in type>**

SC210G-□-100, SC210G-□-103

Clearance for maintenance access

Unit : mm

**<Mounting screw>**

<table>
<thead>
<tr>
<th>Model and Code</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC210G-□-100</td>
<td>R 1-1/2</td>
</tr>
<tr>
<td>SC210G-□-103</td>
<td>1-1/2 NPT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model and Code</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC210G-□-10□</td>
<td>L015</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L030</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L050</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L100</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L150</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L200</td>
</tr>
</tbody>
</table>

150 300 500 1000 1500 2000

**<Sensor length>**

<table>
<thead>
<tr>
<th>Model and code</th>
<th>H</th>
</tr>
</thead>
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<td>L015</td>
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<td>L030</td>
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<tr>
<td>SC210G-□-10□</td>
<td>L050</td>
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<td>SC210G-□-10□</td>
<td>L150</td>
</tr>
<tr>
<td>SC210G-□-10□</td>
<td>L200</td>
</tr>
</tbody>
</table>

162 312 512 1012 1512 2012

---

**<Flange Type>**

SC210G-□-206, SC210G-□-207, SC210G-□-208

Clearance for maintenance access

Unit: mm

Note: ANSI flange with serrations.

<table>
<thead>
<tr>
<th>Model and code</th>
<th>Flange rating</th>
<th>øC</th>
<th>øD</th>
<th>t</th>
<th>øh</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC210G-□-206-□</td>
<td>JIS 10K 50 RF</td>
<td>120</td>
<td>155</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>SC210G-□-207-□</td>
<td>ANSI Class150 2 RF</td>
<td>120.7</td>
<td>152.4</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td>SC210G-□-208-□</td>
<td>JPI Class150 2 RF</td>
<td>120.6</td>
<td>152</td>
<td>19.5</td>
<td>20</td>
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</table>

<table>
<thead>
<tr>
<th>Model and code</th>
<th>Flange rating</th>
<th>øC</th>
<th>øD</th>
<th>t</th>
<th>øh</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC210G-□-20□</td>
<td>JIS 10K 50 RF</td>
<td>162</td>
<td>203</td>
<td>31.2</td>
<td>31.2</td>
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<tr>
<td>SC210G-□-20□</td>
<td>ANSI Class150 2 RF</td>
<td>162.7</td>
<td>205.2</td>
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<tr>
<td>SC210G-□-20□</td>
<td>JPI Class150 2 RF</td>
<td>162.6</td>
<td>205</td>
<td>31.2</td>
<td>31.2</td>
</tr>
</tbody>
</table>

Note: ANSI flange with serrations.

---
<Flow-through type>

SC210G-□-302, SC210G-□-303 *1
Screw connection (Chamber Material: SCS14)

SC210G-□-304, SC210G-□-305
SC210G-□-306 *1
Flange connection (Chamber Material: SCS14)

SC210G-□-312, SC210G-□-313
Screw connection (Chamber Material: PP)

SC210G-□-314, SC210G-□-315
Flange connection (Chamber Material: PP)

*1: Refer to p17 for Dimension and Fitting of Option (Mounting hardware (/SS)).
<With gate valve>
SC210G-D-402, SC210G-D-403

**SC210G-A (Low range)**

- Clearance for maintenance access
- Unit: mm

![Diagram of SC210G-A](image1)

- Gage diameter: Approx. 264 mm
- Cable inlet: G1/2
- Mounting screw: R1-1/4 or 1-1/4NPT
- Approx. 210 mm
- Approx. 82 mm
- Approx. 123 mm
- Approx. 91 mm
- Approx. 26 mm

**SC210G-B (Medium range)**

- Clearance for maintenance access
- Unit: mm

![Diagram of SC210G-B](image2)

- Gage diameter: Approx. 410 mm
- Cable inlet: G1/2
- Mounting screw: R1-1/4 or 1-1/4NPT
- Approx. 225 mm
- Approx. 82 mm
- Approx. 123 mm
- Approx. 91 mm
- Approx. 26 mm
- Approx. 30 mm

---

**WIRING DIAGRAM**

**SC4AJ Conductivity Sensor**
(two-electrode system)
Applicable Analyzer:
FLXA402, SC450G, FLXA202, FLXA21

**SC8SG Conductivity Detector**
(two-electrode system, four-electrode system)
Applicable Analyzer:
FLXA402, SC450G, FLXA202, FLXA21

**SC210G Conductivity Detector**
(two-electrode system)
Applicable Analyzer:
FLXA402, SC450G, FLXA202, FLXA21
### Table of Corrosion-Resistant Materials

**Note:** This table shows corrosion resistances against each specified chemical only. If two or more kinds of chemical are mixed in a sample, the properties may be different from those shown in this table.

- ☑ Very suitable
- ○ Suitable
- △ Slightly unsuitable
- × Unresistant

#### Inorganic acids

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Hypohlorous acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Sulfuric acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### Alkali

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia water</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Caustic potash</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Caustic soda</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Potassium carbonate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### Chlorides

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc chloride</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Aluminum chloride</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Ammonium chloride</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Calcium chloride</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### Sulfates

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium sulfate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Potassium sulfate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### Nitrites

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium nitrate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Sodium nitrate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

#### Others

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Temperature</th>
<th>Concentration</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Alcohol</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Acetic acid</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Phenol</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
<tr>
<td>Aromatic solvent</td>
<td>100%</td>
<td>20%</td>
<td>Poor</td>
</tr>
</tbody>
</table>

**Example of Description**

- | % | ℃ |
- | 5 | 30 |
- | 10 | 60 |
- | 1 | b |

(Nota) b: Shows temperatures up to the boiling point. PVDF: Polyvinylidene difluoride

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**CAUTION**

Select the material of wetted parts with careful consideration of process characteristics. Inappropriate selection may cause leakage of process fluids, which greatly affects facilities. Considerable care must be taken particularly in the case of strongly corrosive process fluid such as hydrochloric acid, sulfuric acid, hydrogen sulfide, and sodium hypochlorite. If you have any questions about the wetted part construction of the product, be sure to contact Yokogawa.
Thank you for inquiry about YOKOGAWA Conductivity Detector/Sensor. Please check (✓) the appropriate box (□) and write down the relevant information in the underlined blanks.

1. General Items

Name of your company: ____________________________

Person in charge: ____________________________

Belongs to: ____________________________ (Phone No.: )

Name of plant: ____________________________

Measuring point: ____________________________

Purpose of use: □ Indication □ Record □ Alarm □ Control

Power supply: ____________________________ V AC, ____________________________ Hz

2. Measuring Conditions

(1) Liquid temperature: ______ to ______, Normal [˚C]

(2) Liquid pressure: ______ to ______, Normal [kPa]

(3) Flow rate: ______ to ______, Normal [L/min.]

(4) Flow speed: ______ to ______, Normal [m/s]

(5) Slurry or fouling components: □ No □ Yes

(6) Name of measuring liquid: ____________________________

(7) Component of measuring liquid: ____________________________

(8) Others: ____________________________

3. Installing Location

(1) Ambient temperature: ____________________________

(2) Installing location: □ Outdoors □ Indoors ____________________________

(3) Others: ____________________________

4. Specification Requirements

(1) Measuring Range: ____________________________

(2) Transmission output: □ 4 to 20 mA DC □ 0 to 20 mA DC

(3) Detector/Sensor: SC4AJ □ 2-electrode system (0.02 cm⁻¹) □ 2-electrode system (0.1 cm⁻¹)

SC8SG □ 2-electrode system (0.01 cm⁻¹) □ 2-electrode system (0.1 cm⁻¹)

SC210G □ 2-electrode system (0.05 cm⁻¹) □ 2-electrode system (5 cm⁻¹)

(4) Mounting type: SC4AJ □ Adapter mounting □ Welding socket □ Welding clamp

SC8SG □ Screw-in □ Flange □ Flow-through

SC210G □ Screw-in □ Flange □ Flow-through

□ Screw-in with gate valve

(5) Cable length: SC4AJ □ 3 m □ 5 m □ 10 m □ 15 m □ 20 m

□ none (SA11)

SC8SG □ 5.5 m □ 10 m □ 20 m □ none (SA11)

SC210G □ 3 m □ 5 m □ 10 m □ 15 m □ 20 m

(6) Others: ____________________________