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User's  
Manual

**Model ISC202SJ [Style: S1]  
2-wire Inductive Conductivity Transmitter**

IM 12D06A03-11E

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**vigilantplant®**

## ◆ Preface

Thank you for purchasing the ISC202SJ two-wire inductive conductivity measurement system available HART communication.

### 1. Contents of This Manual

This manual describes the method of installing.

Refer to the IM 12D06A03-01E for details of setting the operation conditions, and operating, inspecting and maintaining.

ISC202SJ 2-wire inductive conductivity transmitter meets TIIIS intrinsic safety standards which requires passing TIIIS tests.

To ensure that this measurement system can be operated safely and also exhibit its full performance, be sure to read this manual before use. Items to which attention must be paid when using this system are indicated in this manual under the headings Warning and Caution . Be sure to observe these items from the viewpoints of safety and prevention of damage to the units.

This manual does not describe the units in Table shown below which are the component units of the ISC202SJ two-wire inductive conductivity transmitter system. Each of these units comes with an instruction manual, so read the applicable manuals for details of the units concerned.

Manual Name	IM No.
ISC40□J, ISC40F□J Inductive Conductivity Detector, Holders, Adapters	IM 12D06B02-01E
PH201G distributor (Style B)	IM 19B01E04-02E
SDBT Distributor	IM 01B04T01-02E
SDBS Distributor	IM 01B04T02-02E
BARD Safety Barriers	IM 01B04S10-01E
Attachment rack instrument	IM 1B4F2-01E
ISC202 Inductive Conductivity Transmitter	IM 12D06A03-01E

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## WARNING

Do not modify the ISC202SJ transmitter.

Before replacing parts inside a transmitter case, move it to a non-hazardous area. Electrostatic Discharge

The ISC202SJ transmitter contains devices that can be damaged by electrostatic discharge. When servicing this equipment, please observe proper procedures to prevent such damage. Replacement components should be shipped in conductive packaging. Repair work should be done at grounded workstations using grounded soldering irons and wrist straps to avoid electrostatic discharge.

For the ISC202SJ, to prevent the risk of explosion due to electrostatic discharge in hazardous areas, do not rub the transparent plastic window of the ISC202SJ transmitter's cover with a dry cloth and the like. When cleaning the window, care must be taken to avoid electrostatic charges. Normal key operation does not generate electrostatic charges.



## ◆ For the safe use of this equipment

### (1) About This Manual

- This manual should be passed on to the end user.
- The contents of this manual are subject to change without prior notice.
- The contents of this manual shall not be reproduced or copied, in part or in whole, without permission.
- This manual explains the functions contained in this product, but does not warrant that they will suit the particular purpose of the user.
- Every effort has been made to ensure accuracy in the preparation of this manual. However, should any errors or omissions come to the attention of the user, please contact the nearest Yokogawa Electric representative or sales office.
- This manual does not cover the special specifications. This manual may be left unchanged on any change of specification, construction or parts when the change does not affect the functions or performance of the product.
- If the product is used in a manner not specified in this manual, the safety of this product may be impaired.

### (2) Safety and Modification Precautions

- Follow the safety precautions in this manual when using the product to ensure protection and safety of personnel, product and system containing the product.

### (3) The following safety symbols are used on the product as well as in this manual.



This symbol indicates that the operator must follow the instructions laid out in this manual in order to avoid the risk of personnel injury, electric shock, or fatalities. The manual describes what special care the operator must exercise to avoid such risk.



This symbol indicates that the operator must refer to the instructions in this manual in order to prevent the instrument (hardware) or software from being damaged, or a system failure from occurring.



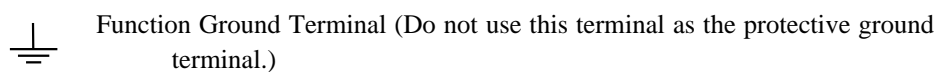
This symbol draws attention to information essential for understanding the operation and functions.



This symbol gives information that complements the current topic.



This symbol identifies a source to which to refer.



## ◆ After-sales Warranty

- Do not modify the product.
- During the warranty period, for repair under warranty carry or send the product to the local sales representative or service office. Yokogawa will replace or repair any damaged parts and return the product to you.
- Before returning a product for repair under warranty, provide us with the model name and serial number and a description of the problem. Any diagrams or data explaining the problem would also be appreciated.
- If we replace the product with a new one, we won't provide you with a repair report.
- Yokogawa warrants the product for the period stated in the pre-purchase quotation. Yokogawa shall conduct defined warranty service based on its standard. When the customer site is located outside of the service area, a fee for dispatching the maintenance engineer will be charged to the customer.
- In the following cases, customer will be charged repair fee regardless of warranty period.
  - Failure of components which are out of scope of warranty stated in instruction manual.
  - Failure caused by usage of software, hardware or auxiliary equipment, which Yokogawa Electric did not supply.
  - Failure due to improper or insufficient maintenance by user.
  - Failure due to modification, misuse or outside-of-specifications operation which Yokogawa does not authorize.
  - Failure due to power supply (voltage, frequency) being outside specifications or abnormal.
  - Failure caused by any usage out of scope of recommended usage.
  - Any damage from fire, earthquake, storms and floods, lightning, disturbances, riots, warfare, radiation and other natural changes.
- Yokogawa does not warrant conformance with the specific application at the user site. Yokogawa will not bear direct/indirect responsibility for damage due to a specific application.
- Yokogawa Electric will not bear responsibility when the user configures the product into systems or resells the product.
- Maintenance service and supplying repair parts will be covered for five years after the production ends. For repair for this product, please contact the nearest sales office described in this instruction manual.



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## Table of Contents

# 1. Introduction and General Description

The Yokogawa ISC202 is a 2-wire transmitter designed for industrial process monitoring, measurement and control applications. This user's manual contains the information needed to install, set up, operate and maintain the unit correctly. This manual also includes a basic troubleshooting guide to answer typical user questions.

Yokogawa can not be responsible for the performance of the ISC202 transmitter if these instructions are not followed.

## 1.1 Instrument check

Upon delivery, unpack the instrument carefully and inspect it to ensure that it was not damaged during shipment.

If damage is found, retain the original packing materials (including the outer box) and then immediately notify the carrier and the relevant Yokogawa sales office.

Make sure the model number on the textplate affixed to the side of the instrument agrees with your order.

An example of the ISC202SJ's textplate is shown below.

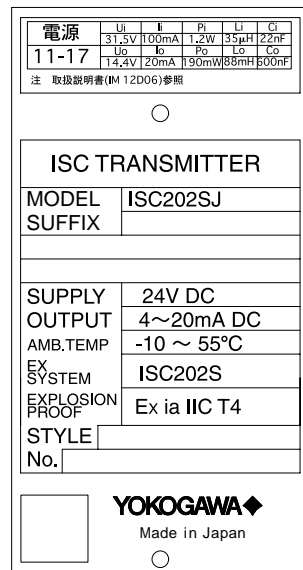


Figure 1.1 Textplate

### ! NOTE



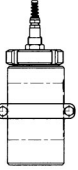

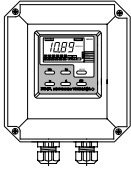
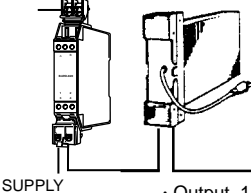
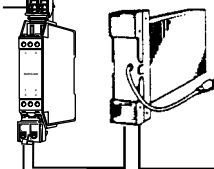
The textplate will also contain the serial number and any relevant certification marks. Be sure to apply correct power to the unit. Check that all the parts are present, including mounting hardware, as specified in the option codes at the end of the model number. For a description of the model codes, refer to Section 2 of this manual under General Specifications.



1. Introduction and General Description

# 1.2 System Configuration

Explosionproof system for TIIS certification

Inductive Conductivity Sensor	Holders	Inductive Conductivity Transmitter	Safety Barrier & Distributor
<ul style="list-style-type: none"> <li>TIIS certification type</li> </ul>  <p>ISC40SJ-TT</p> <p>(Note) The temperature of the sample solution in contact with detector should be the range of -10 to 105°C.</p>	<ul style="list-style-type: none"> <li>Immersion ISC40FDJ</li> <li>Flow-Through ISC40FFJ</li> <li>Direct Insertion ISC40FSJ</li> </ul>   	<ul style="list-style-type: none"> <li>Intrinsically safe type Inductive Conductivity Transmitter ISC202SJ</li> </ul> 	<ul style="list-style-type: none"> <li>Safety Barrier BARD-820</li> <li>Dedicated Distributor PH201G*B</li> </ul>  <p>SUPPLY</p> <ul style="list-style-type: none"> <li>Output 1 to 5 V DC</li> <li>Hold contact output</li> <li>Failure contact output</li> </ul> <ul style="list-style-type: none"> <li>Safety Barrier BARD-820</li> <li>General Purpose Distributor SDBT</li> </ul>  <p>SUPPLY</p> <ul style="list-style-type: none"> <li>Output 1 to 5 V DC</li> </ul> <p>(Note) For intrinsically safe approval, BARD-400, BARD-800 are not applicable.</p>

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## 2. General Specifications

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### 2.1 Specifications

Input specifications :

Compatible with the Yokogawa inductive conductivity ISC40 series with integrated temperature sensor: Pt1000 or 30k $\Omega$  NTC.

For the ISC202SJ, use with the ISC40SJ-TT sensor.

Input ranges

- Conductivity : 0 to 1999 mS/cm at 25 °C (77 °F) reference temperature.
- Cable length : max. 20 meters of sensor cable. Terminal box and extension cable can not be used with ISC202SJ. Influence of cable can be adjusted by doing an AIR CAL with the cable connected to a dry cell.

#### Functional specification

Accuracy (under reference conditions):

(Output span is 0 - 100  $\mu$ S/cm or more)

- Conductivity :

Linearity :  $\pm$  (0.4 %FS + 0.3  $\mu$ S/cm)

Repeatability :  $\pm$  (0.4 %FS + 0.3  $\mu$ S/cm)

- Temperature :  $\pm$  0.3 °C

Note: The following tolerance is added to above performance.

mA output tolerance:  $\pm$  0.02 mA of "4 - 20 mA"

- Step response :  $\leq$  8 seconds for 90 % (for 2 decade step).

#### Indicating range

Main display : 0 to 1999 mS/cm (1st compensation)

Message display : 0 to 1999 mS/cm (2nd compensation),

Temperature -20 to 140 °C (0 to 280 °F)

Concentration 0 to 100.0 %

Temperature compensation methods NaCl, T.C., Matrix

mA-Output (3.60 to 21.00 mA)

Cell constant [cm<sup>-1</sup>]

Reference Temperature (°C/°F)

Software Release No.

#### Transmission signal

Output signal : Isolated output of 4-20 mA DC. Burn up (21 mA) or Burn down (3.6 mA when HART or distributor comm. is non-used, 3.9 mA when HART or distributor comm. is used) or pulse of 21 mA to signal failure.

Hold : Outputs may be set to hold the last or a fixed value during maintenance.

#### Transmission range

Conductivity : Minimum span; 100  $\mu$ S/cm

Maximum span; 1999 mS/cm

Setting value at 4 mA output;  $\leq$  90 % of setting value at 20 mA output

#### Maximum load resistance

For the ISC202SJ, using with BARD-820, wiring resistance between ISC202SJ and BARD-820 should be 25 $\Omega$  or less.

## 2. General Specifications

### Environment and operational conditions

Ambient temp. : -10 to +55°C (10 to 130°F)  
Storage temp. : -30 to +70°C (-20 to 160°F)  
Relative humidity : 10 to 90% RH at 40°C ambient temperature, non condensing

### Temperature compensation

Sensor types : Pt1000 or 30kΩ NTC.  
Automatic : Between -20 to 140°C (0 to 280°F)  
Algorithm : selectable as mentioned below  
NaCl according to IEC 60746-3 tables.  
Two T.C. setting possible between 0.00 to 3.50 %/°C  
Matrix: user selectable/configurable. 8 selectable for concentrated solutions,  
1 free programmable.  
Reference temperature adjustable between -20 to 140°C (0 to 280°F)  
Sensor diagnostics : Abnormal temperature, abnormal conductivity values, e.g. dry cell,  
wiring problems.  
Calibration : Manual, calibration Input pre-measured data (cell constant).  
Weather resistant : IP65, NEMA 4X standards  
Mounting : Pipe, Wall or Panel.  
Dimensions : Refer to the appropriate external dimensions.  
Weight : approx. 1.6 kg  
Mounting brackets weight  
approx. 0.7 kg

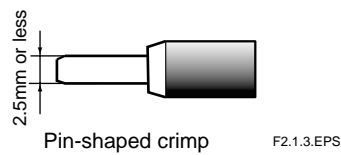
### Logbook

:Software record of important events and diagnostic data.

### Construction

Display: Custom liquid crystal display  
- Main display : 3 1/2 digits, 12.5 mm high, zero change included.  
- Message display : 6 alphanumeric characters, 7 mm high.  
- Special fields : Flags for status indication : FAIL and HOLD.  
- Measuring units : μS/cm or mS/cm  
- Key prompts : YES, NO, >, ^, ENT, Menu pointer  
- Keys : 6 keys operated through flexible window with tactile feedback.  
One hidden key behind the front cover.  
Power supply : Nominal 24 volt DC loop powered system.  
ISC202SJ : 16.3 to 31.5 volts  
Input Isolation: Maximum 1000 V DC  
Housing :  
- Material : Cast aluminium case with polyurethane baked finish, cover with  
flexible polycarbonate window.  
- Color :  
Case : Frosty-white (Equivalent to Munsell 2.5Y8.4/1.2)  
Cover : Deepsea Moss green (Equivalent to Munsell 0.6GY3.1/2.0)  
- Cable gland : DIN-PG13.5  
- Applicable cable diameter : 6 to 12 mm  
Automatic safeguard : Return to measuring mode after 10 minutes when no keystroke.  
Operation protection : 3 digital pass codes (programmable).  
Data protection : EEPROM for configuration.

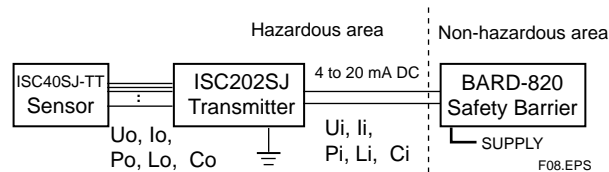
Cable and terminals: See below.



## ISC202SJ Intrinsically Safe Specification

### TIIS Intrinsic Safe Type ISC202SJ Transmitter

TIIS intrinsically safe type certification  
 Protection Concept and Adapter Groupe: Ex ia IIC T4  
 Intrinsic safe rating:  
 $U_i=31.5V$ ,  $I_i=100mA$ ,  $P_i=1.2W$ ,  $L_i=35\mu H$ ,  $C_i=22nF$   
 $U_o=14.4V$ ,  $I_o=20mA$ ,  $P_o=190mW$ ,  $L_o=88mH$ ,  $C_o=600nF$



Environment and operational conditions

The temperature of the sample solution in contact with  
 ISC40SJ-TT sensor should be the range of -10 to 105°C.

## 2.2 HART communications

- Input** : Two-wire system, 4-20 mA DC
- Power supply** : ISC202SJ: up to 31.5 volts  
 Note: The transmitter contains a switched power supply, drawing its energy from the 0-4 mA section of the signal. Consequently the 17 volt limit is applied at 4 mA. The characteristic of the unit is such that above about 7 mA on the output, the terminal voltage can drop to 14.5 volts without problem.
- Transmission** : Isolated output of 4 to 20 mA DC.
- Signal** : Maximum load 425Ω at 24 VDC  
 Burn to signal failure acc.  
 NAMUR Recommendation NE43 (18.01.1994)
- Operating range** : 3.9 to 21 mA
- Communication** : HART®, 1200 Baud, FSK modulated on 4 to 20 mA signal
- Configuration** : Local with 6 keys
- Software** : Firmware based on Yokogawa stack.
- Hardware** : Yokogawa HART Modem F9197UB
- Other Control systems** : Yokogawa PRM, Rosemount AMS, Siemens PDM
- Hand Terminal** : Rosemount HHT 375
- Output span** :  
 -Conductivity : min 100 μS/cm, max.1999 mS/cm. (max 90% zero suppression)
- Cable specification**: 0.5 mm diameter or 24 AWG over maximum length of 1500 m
- DD specification** : The ISC202 Device Description is available enabling communications with the Handheld communicator and compatible devices.

## 2. General Specifications

### 2.3 Model and suffix codes

#### 1. 2-wire Inductive Conductivity transmitter (Explosionproof type)

[Style: S1]

Model	Suffix Code	Option Code	Description
ISC202SJ	.....	.....	Intrinsically safe type inductive conductivity transmitter
Type	—1	.....	TIIS certification (*1)
Language	—J	.....	Japanese
	—E	.....	English
Option	Mounting Hardware	/U	Pipe, wall mounting bracket (Stainless steel)
		/PM	Panel Mounting bracket (Stainless steel)
	Hood	/H	Hood for sun protection (Carbon steel)
		/H2	Hood for sun protection (Stainless steel)
	Tag Plate	/SCT	Stainless steel tag plate
	Conduit Adapter	/AFTG	G1/2
/ANSI		1/2NPT	
/X1		Epoxy baked finish (*2)	

(\*1) "TIIS Certification" as a certified explosion approval from the Technology Institution of Industrial Safety.

(\*2) The housing is coated with epoxy resin.

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#### 2. Dedicated Distributor

Model	Suffix Code	Option Code	Description
PH201G	.....	.....	Distributor
Power Supply	-A1	.....	100V AC
	-A2	.....	220V AC
—	*B	.....	Style B
Option		/TB	Terminal for Power connection

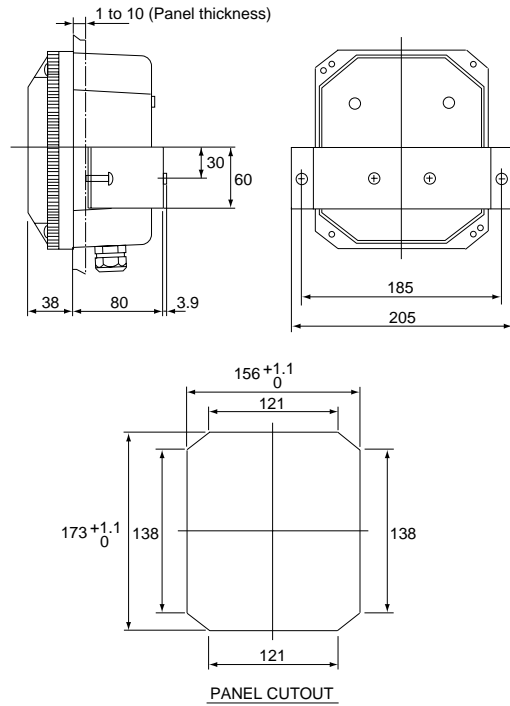
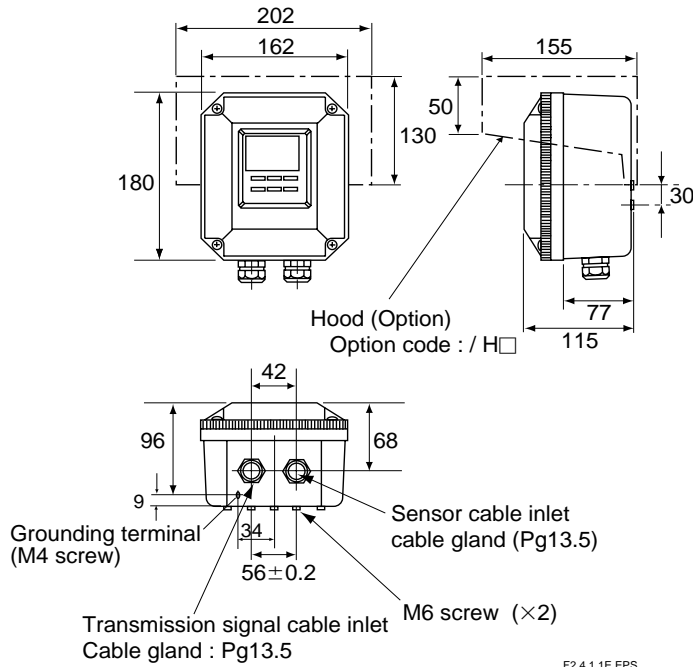
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## 2.4 External Dimensions

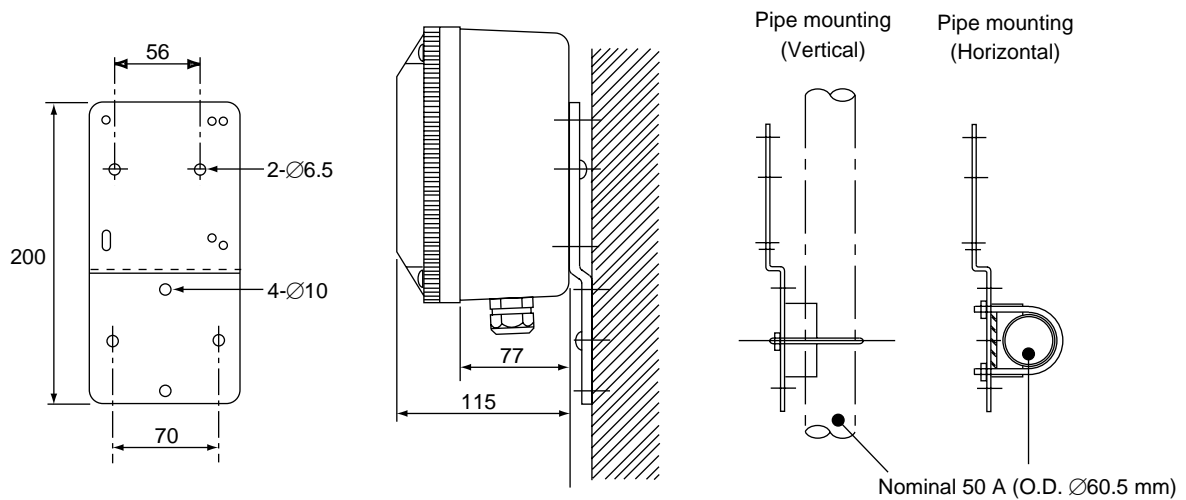
Unit: mm

Inductive Conductivity Transmitter

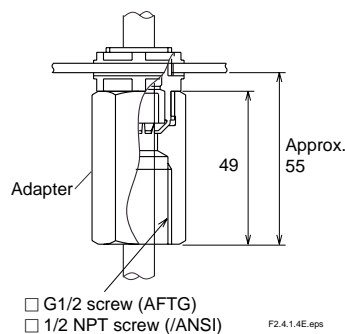
Panel Mounting Hardware (Option code : /PM)



Bracket for Pipe or Wall Mounting (Option code: /U)



Adapter for Conduit Work (Optional) (Option Code : /AFTG, /ANSI)



## 2. General Specifications

# 3. Installation and Wiring

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## 3.1 Installation and dimensions

### 3.1.1 Installation site

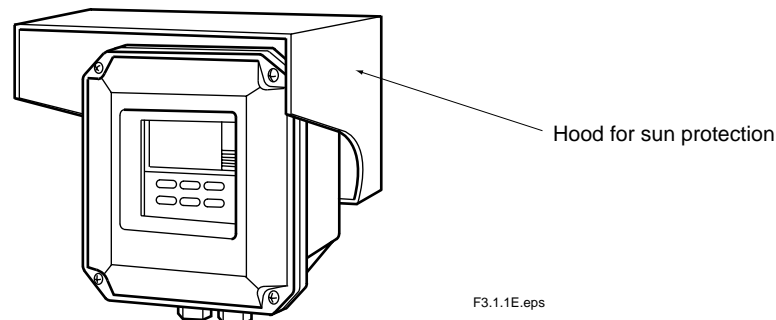
The ISC202SJ transmitter is weatherproof and can be installed inside or outside. It should, however, be installed as close as possible to the sensor to avoid long cable runs between the sensor and the converter. In any case, the cable length should not exceed 20 meters, terminal box and extension cable can not be used with ISC202SJ.

Select an installation site where:

- (1) Little or no corrosive gas in atmosphere
- (2) Mechanical vibrations and shocks are negligible
- (3) No relay/power switches are in the direct environment
- (4) Access is possible to the cable glands (see Figure 3.1)
- (5) The transmitter is not mounted in direct sunlight or severe weather conditions
- (6) Maintenance procedures are possible (avoiding corrosive environments)
- (7) The ISC202SJ transmitter should be within the ambient temperature range of -10 to +55°C.
- (8) The temperature of the sample solution in contact with ISC40SJ-TT sensor should be within the range of -10 to +105°C.

Optional hood is available to protect direct sunlight.

\* a hood is available as an option



**Figure 3.1 With optional hood to shield from direct sunlight**



### 3.1.2 Mounting methods

Refer to Figures 3.2 and 3.3. Note that the ISC202 transmitter has universal mounting capabilities:

- \* Panel mounting using two (2) self-tapping screws (Option code /PM)
- \* Surface mounting on a plate (using bolts from the back)
- \* Wall mounting on a bracket (for example, on a solid wall) (Option code /U)
- \* Pipe mounting using a bracket on a horizontal or vertical pipe (2-inch pipe) (Option code /U)

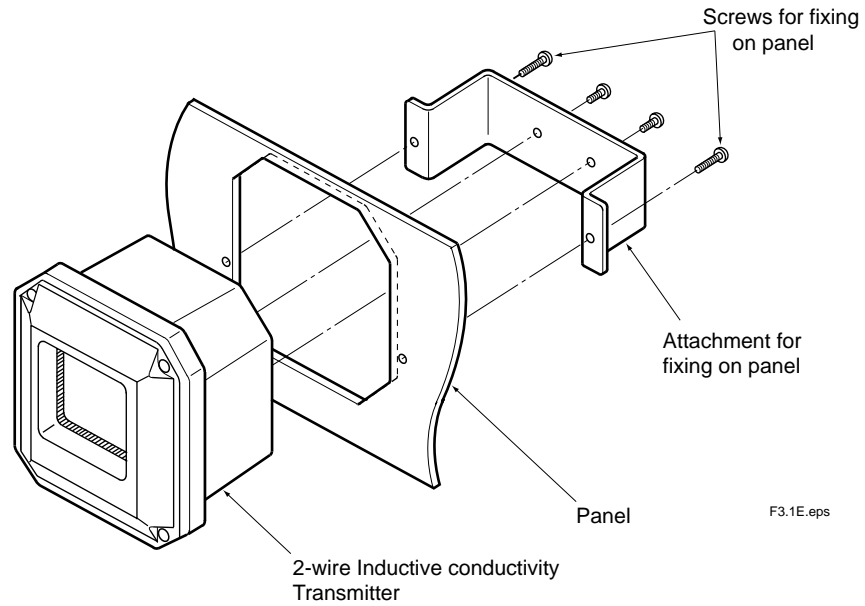


Figure 3.2 Panel mounting hardware and overview diagram

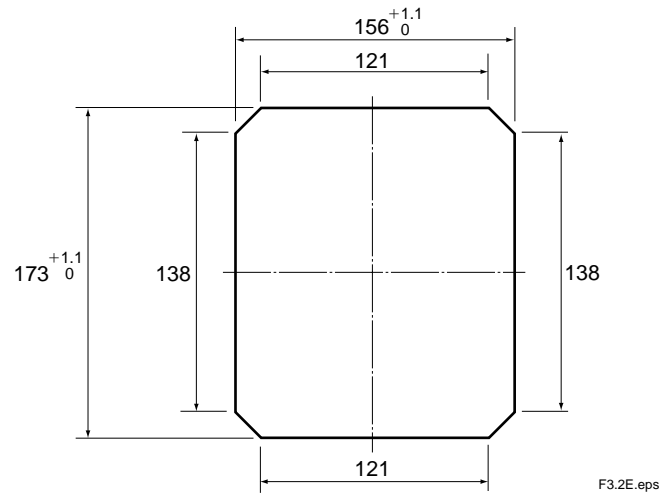
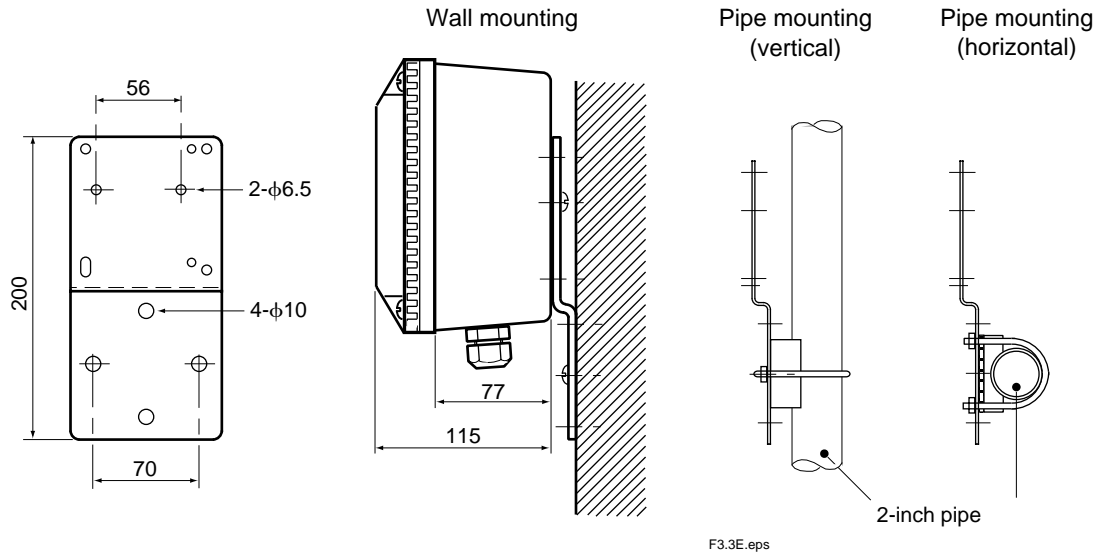
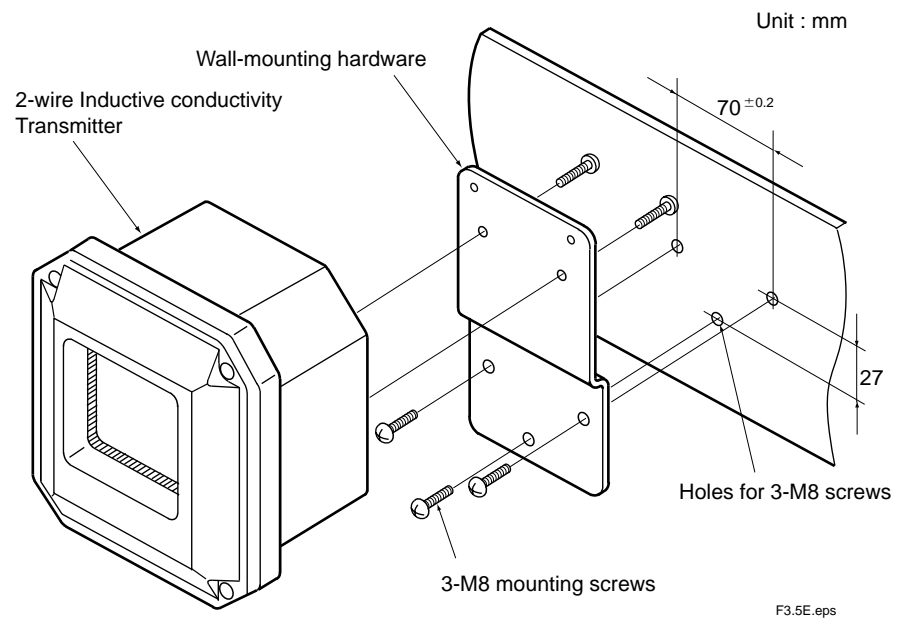


Figure 3.3 Panel cut-out dimensions



**Figure 3.4 Wall and pipe mounting diagram**



**Figure 3.5 Hardware and overview diagram for wall mounting**

## 3.2 Preparation

The power/output connections and the sensor connections should be made in accordance with Figure 3.6.

### To open the ISC202 for wiring:

1. Loosen the four frontplate screws and remove the cover.
2. The terminal strip is now visible.
3. Connect the power supply. Use the gland on the left for this cable.
4. Connect the sensor input, using the gland on the right . Switch on the power.  
Commission the instrument as required or use the default settings.
5. Replace the cover and secure frontplate with the four screws.
6. Connect the grounding terminals to protective earth.

### 3.2.1 Cables, terminals and glands

The ISC202 is equipped with terminals suitable for the connection of finished cables in the size range: 0.13 to 2.5 mm (26 to 14 AWG). The glands will form a tight seal on cables with an outside diameter in the range of 6 to 12 mm.

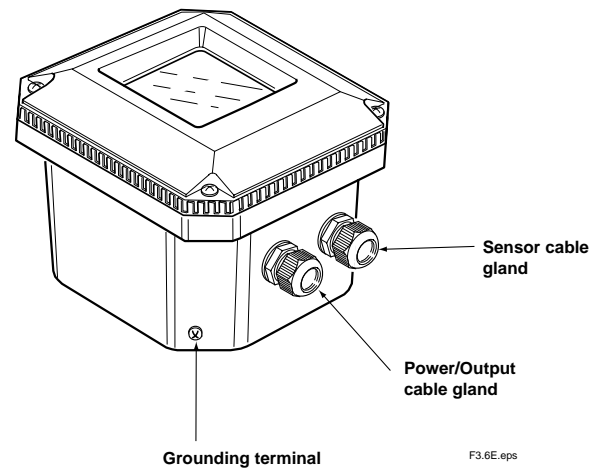


Figure 3.6 Glands to be used for cabling

Explosionproof system configuration example

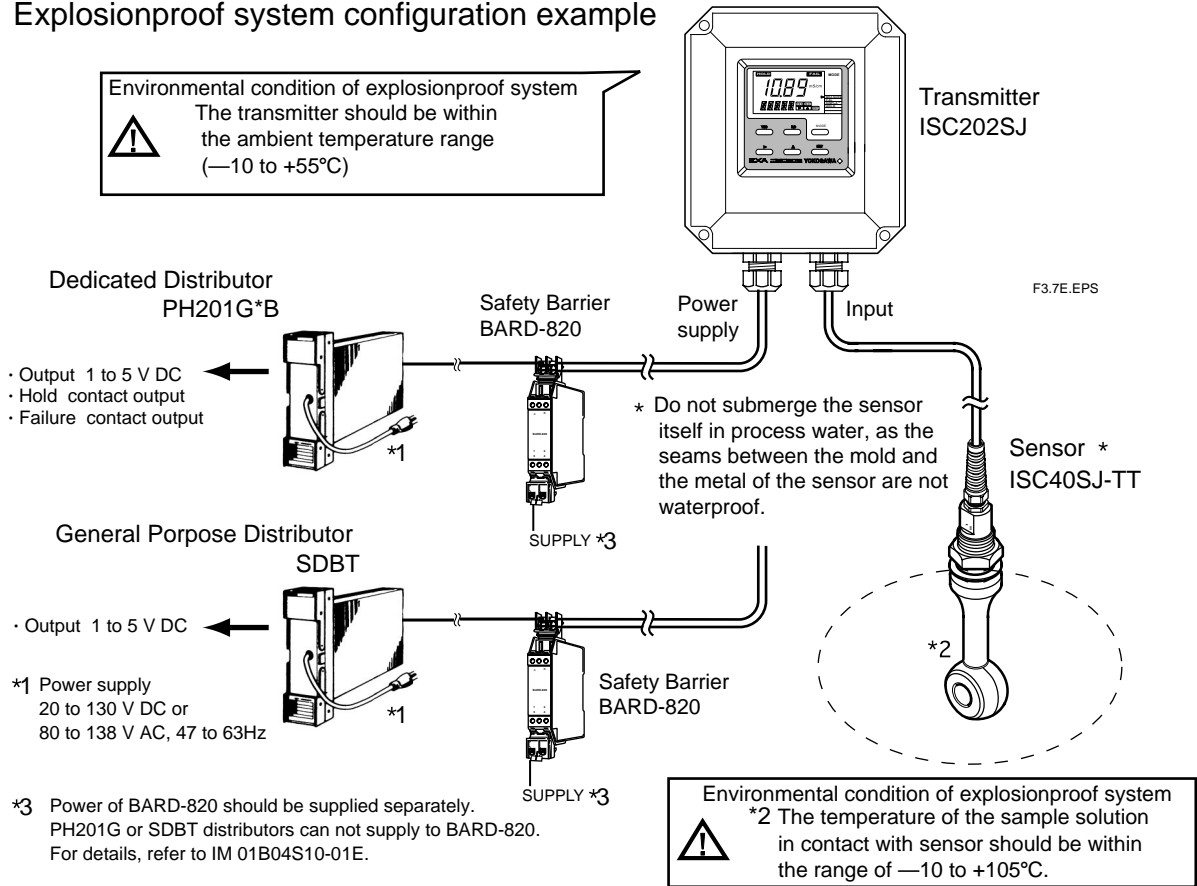
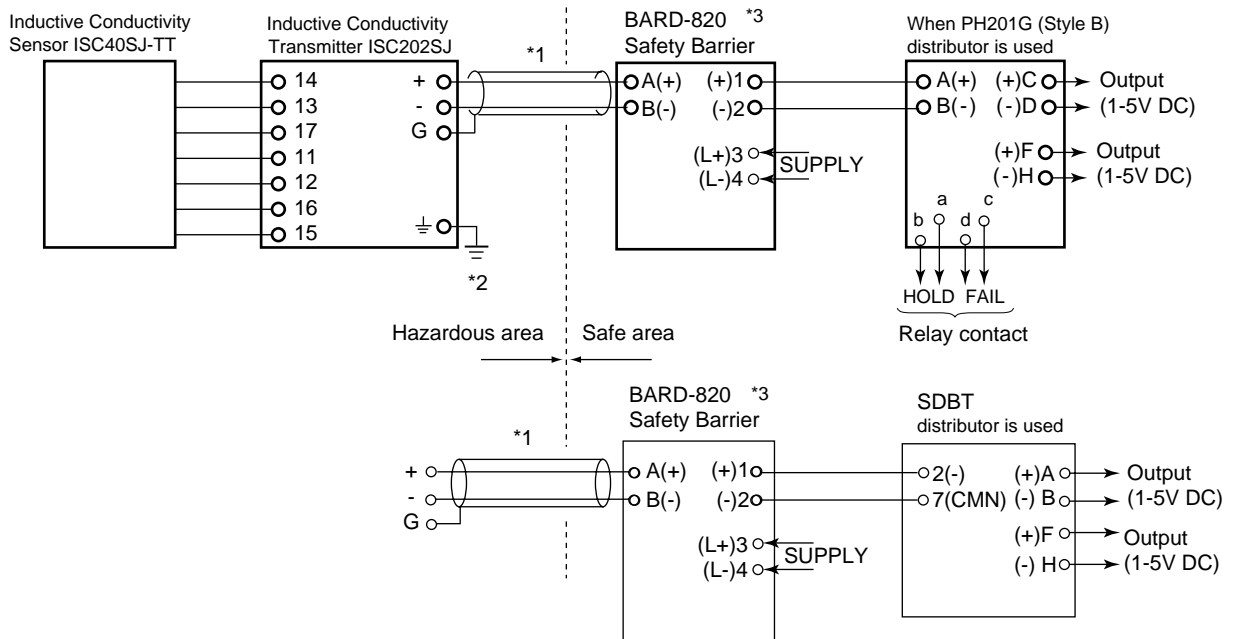


Figure 3.7 Example of system connection and caution for installation

### 3.3 System wiring



- \*1 Use two-wire cable with OD (Outside Diameter) of 6 to 12 mm.
- \*2 ISC202SJ must be grounded using external terminal (grounded resistance: 100 ohm or less) .  
BARD-820 should not be grounded to earth.
- \*3 BARD-820 is recommended. Power of BARD-820 should be supplied separately.  
( PH201G or SDBT distributors can not supply power to BARD-820.)

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**Figure 3.8 System wiring**

## 3.4 Power Supply Wiring

See, Figure 3.8 System wiring also.

### 3.4.1 General Cautions




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The ISC202 is designed for use with a 24 V DC power supply.  
Do not connect it to an AC supply, particularly not AC line voltage.  
ISC202SJ should be combined with BARD-820 safety barrier.

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First check that you have a 24 V DC power supply that meets specifications.




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BARD-820 supplies power to the transmitter, and also acquires the output signal from the transmitter. The power cable that connects the transmitter to the distributor should be a two-core shielded cable with wire cross section of at least 1.25 mm<sup>2</sup> and an outside diameter of 6 to 12 mm. The cable gland supplied with the instrument accepts these diameters.

Power of BARD-820 should be supplied separately, PH201G or SDBT distributor can not supply power to BARD-820.

Before use ISC202SJ, confirm the ISC202SJ supplied power voltage within the range of 16.3 to 31.5 V DC.

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#### Grounding

ISC202SJ should be grounded to the external grounding terminal on the transmitter case, and grounding resistance should be 100 ohm or less. See, Figure 3.6.

### 3.4.2 Power Connection

If you remove the cover as described in section 3.2, you can see the terminal board.

### 3.4.3 Switching the instrument on

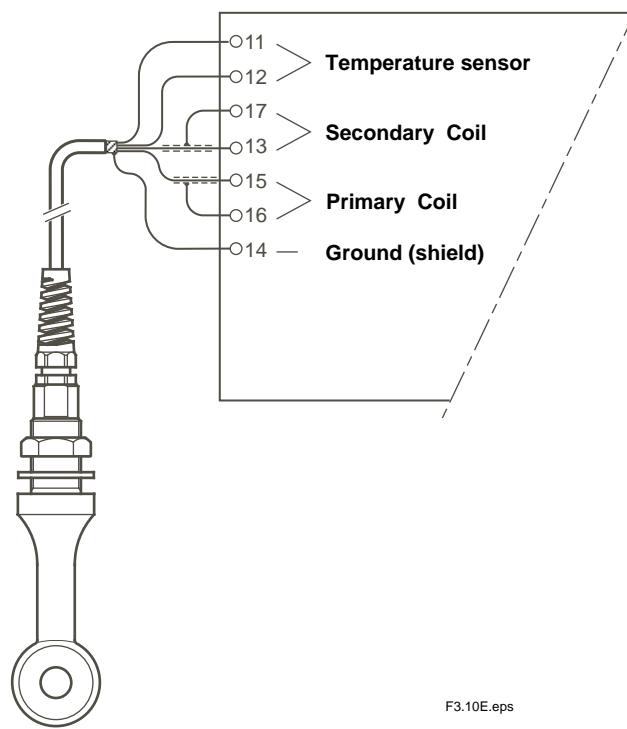
After all connections are made and checked, the power can be switched on from the distributor. Observe the correct activation of the instrument at the display. If for any reason the display does not indicate a value, consult the troubleshooting section.

## 3.5 Sensor Wiring

A sensor wiring diagram is shown in Figure 3.9. Terminal end of sensor cable is pin shaped terminals.

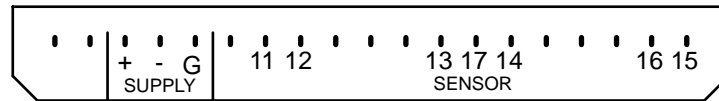
Make sure that the numbering of sensor cable terminals agrees with the numbering of transmitter terminals they are connected to.

### 3. Installation and wiring



F3.10E.eps

**Figure 3.9 Sensor Wiring**



F3.11E.eps

**Figure 3.10 ISC202 Transmitter Terminals**

# 4. Maintenance

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## 4.1 Periodic maintenance for the ISC202SJ transmitter

The EXA transmitter requires very little periodic maintenance. The housing is sealed to IP65, NEMA 4X standards, and remains closed in normal operation. Users are required only to make sure the front window is kept clean in order to permit a clear view of the display and allow proper operation of the pushbuttons. If the window becomes soiled, clean it using a soft damp cloth or soft tissue. To deal with more stubborn stains, a neutral detergent may be used.



### Note

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Never use harsh chemicals or solvents. In the event that the window becomes heavily stained or scratched, refer to the Customer Maintenance Parts List for replacement part numbers.

When you must open the front cover and/or glands, make sure that the seals are clean and correctly fitted when the unit is reassembled in order to maintain the housing's weatherproof integrity against water and water vapour. The measurement otherwise may be prone to problems caused by exposure of the circuitry to condensation.

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### WARNING

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For the ISC202SJ, to prevent the risk of explosion due to electrostatic discharge in hazardous areas, do not rub the transparent plastic window of the ISC202SJ transmitter's cover with a dry cloth and the like. When cleaning the window, care must be taken to avoid electrostatic charges. Normal key operation does not generate electrostatic charges.

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## 4.2 Periodic maintenance of the sensor

Maintenance advice listed here is intentionally general in nature. Sensor maintenance is highly application specific.

In general conductivity measurements do not need much periodic maintenance. If the ISC202 indicates an error during measurement calibration, some action may be needed.

### Cleaning methods

1. For normal applications hot water with domestic washing-up liquid added will be effective.
2. For lime, hydroxides, etc., a 5 to 10% solution of hydrochloric acid is recommended.
3. Organic fouling (oils, fats, etc.) can be easily removed with acetone. (\*1)
4. For algae bacteria or moulds, use a solution of domestic bleach (hypochlorite).



### WARNING

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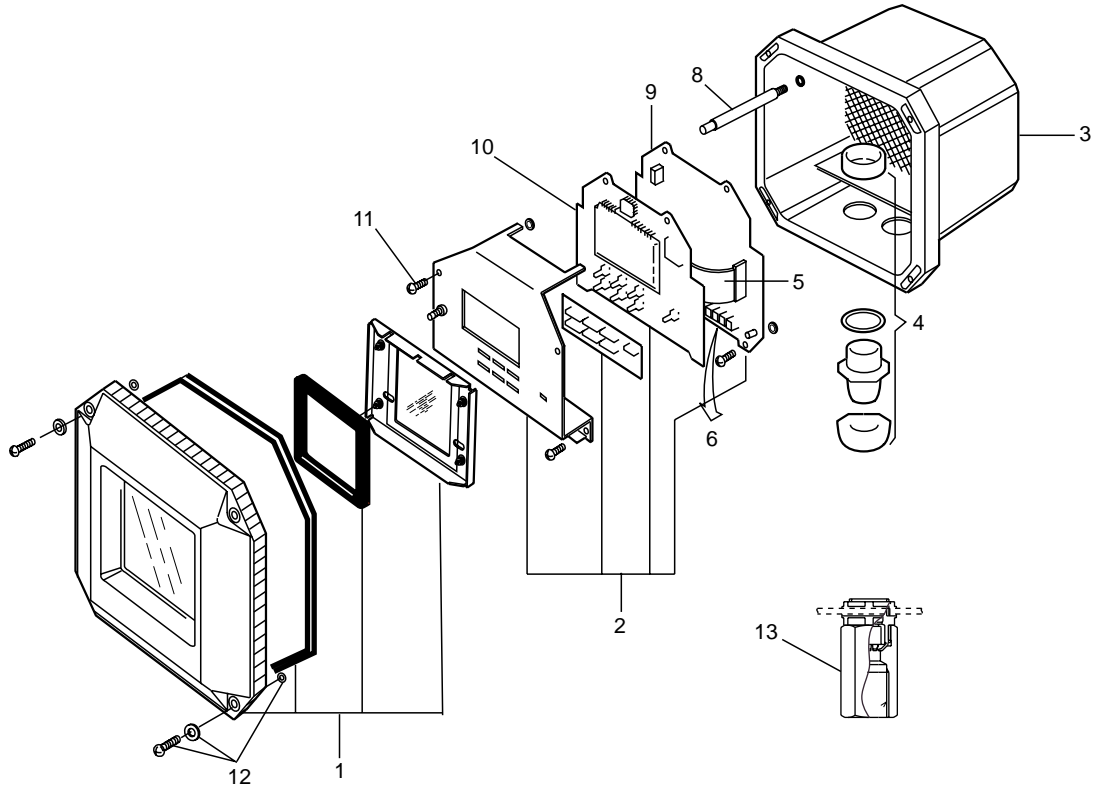
Never use hydrochloric acid and bleaching liquid simultaneously. The very poisonous chlorine gas will result.

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(\*1) When using a sensor made of PEEK, acetone cannot be used for cleaning.

# Customer Maintenance Parts List

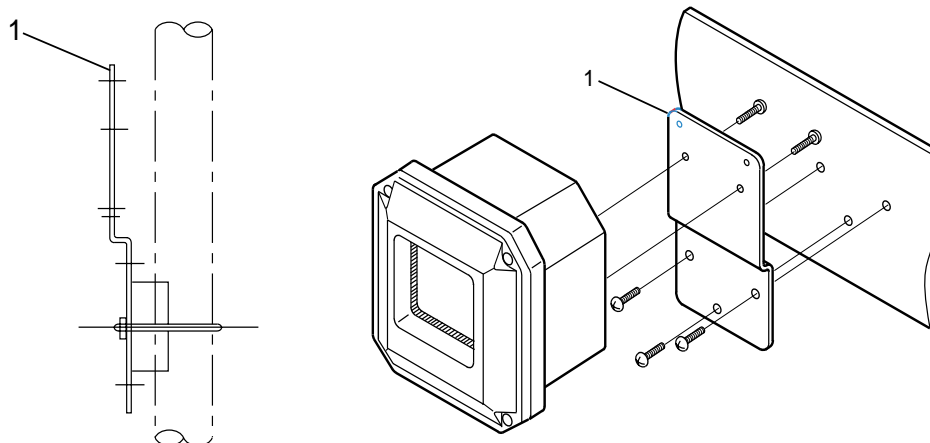
## Model ISC202SJ [Style: S1] Inductive Conductivity Transmitter



Item	Part No.	Qty	Description
1	—	—	Cover Assembly
	K9315CA	1	Polyurethane Coating
	K9315CN	1	Epoxy-polyester Coating
2	K9661FD	1	Internal Works Assembly with amplifier assembly
3	—	—	Housing Assembly
	K9661HA	1	Polyurethane Coating
	K9661HB	1	Epoxy-polyester Coating
4	L9811FV	2	Cable Gland Assembly
5	K9660BQ	1	Flat Cable
6	A1726JD	1	Pin Terminal Unit 3 terminals type
8	K9661HR	2	Stud
*9	K9661VB	1	Analogue Board Assembly
*10	K9661FV	1	Digital/Display Board
11	K9660YQ	1	Screw Assembly to fix amplifier
12	K9660YP	1	Stainless steel screw assembly to fix cover
13	—	—	Adapter Assembly
	K9414DH	1	For G1/2 screw when /AFTG specified (2 units)
	K9414DJ	1	For 1/2NPT screw when /ANSI specified (2 units)

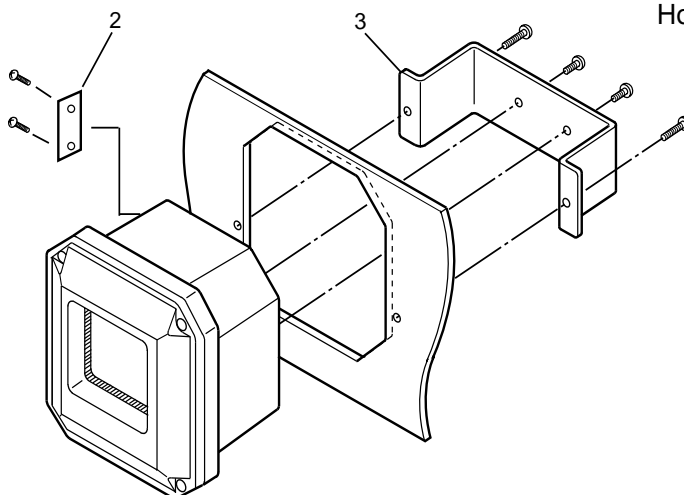
\* Do not exchange these parts. Call service personnel.

Pipe/Wall Mounting Hardware (Option Code : /U)



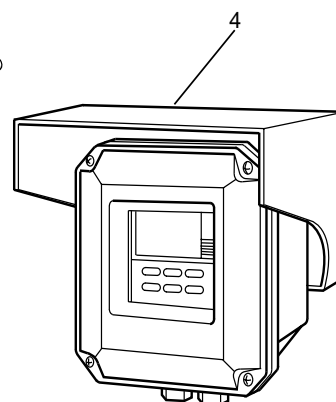
Panel Mounting Hardware

(Option Code : /SCT)



(Option Code : /PM)

Hood to sun protection (Option Code : /H /H2)



Item	Parts No.	Qty	Description
1	K9171SS	1	Universal Mount Set (/U)
2	K9311BT	1	Tag Plate (/SCT)
3	K9311KA	1	Fitting Assembly (/PM)
4	K9311KG	1	Hood Assembly (/H)
	K9660JA	1	Hood Assembly (/H2)

# Revision Record

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Manual Title : Model ISC202SJ [Style: S1] 2-wire Inductive Conductivity Transmitter

Manual Number : IM 12D06A03-11E

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<b>Edition</b>	<b>Date</b>	<b>Remark (s)</b>
1st	Jun. 2008	Newly published (separated from IM 12D06A03-01E)

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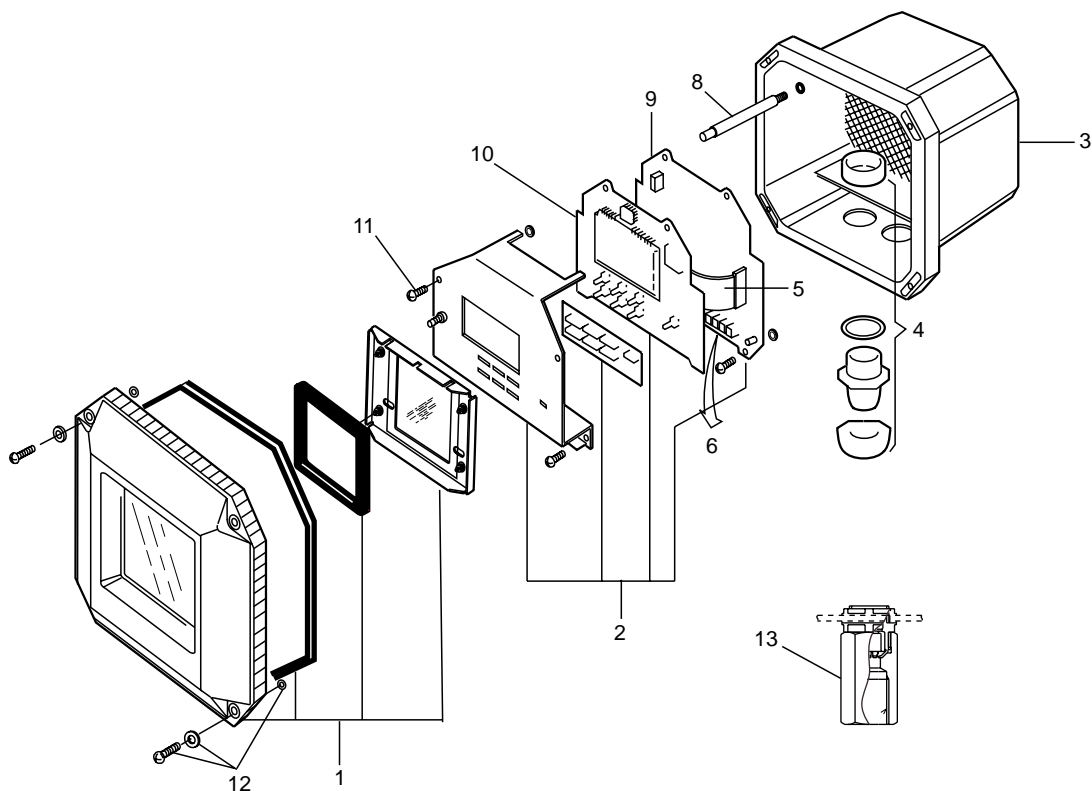
Thank you for selecting our Model ISC202SJ [Style: S1] 2-wire Inductive Conductivity Transmitter.  
The User's Manual IM 12D06A03-11E 1st edition supplied with this product has been revised as follows.  
Please make a note in your copy.

Addition/Correction

- CMPL 12D06A03-11E has been revised to 2nd edition, because some parts number deleted.

# Customer Maintenance Parts List

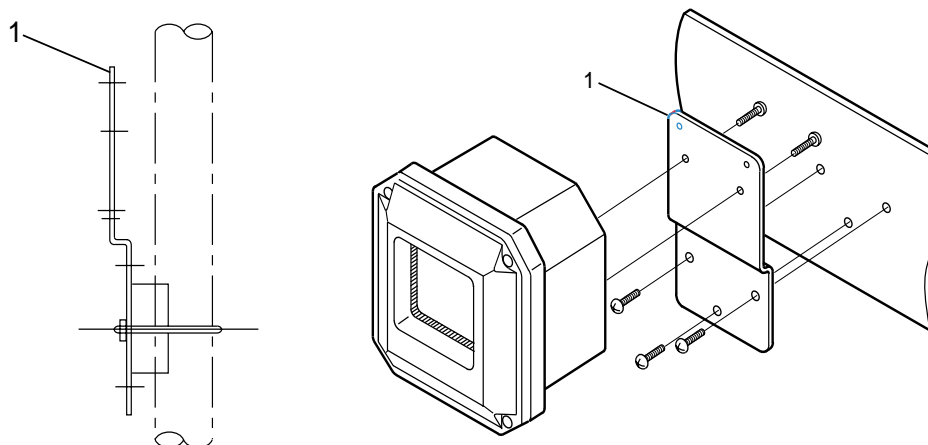
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3	—	—	Housing Assembly
	K9661HA	1	Polyurethane Coating
	K9661HB	1	Epoxy-polyester Coating
4	L9811FV	2	Cable Gland Assembly
5	K9660BQ	1	Flat Cable
6	A1726JD	1	Pin Terminal Unit 3 terminals type
8	K9661HR	2	Stud
9	—	1	Analogue Board Assembly
10	—	1	Digital/Display Board
11	K9660YQ	1	Screw Assembly to fix amplifier
12	K9660YP	1	Stainless steel screw assembly to fix cover
13	—	—	Adapter Assembly
	K9414DH	1	For G1/2 screw when /AFTG specified (2 units)
	K9414DJ	1	For 1/2NPT screw when /ANSI specified (2 units)

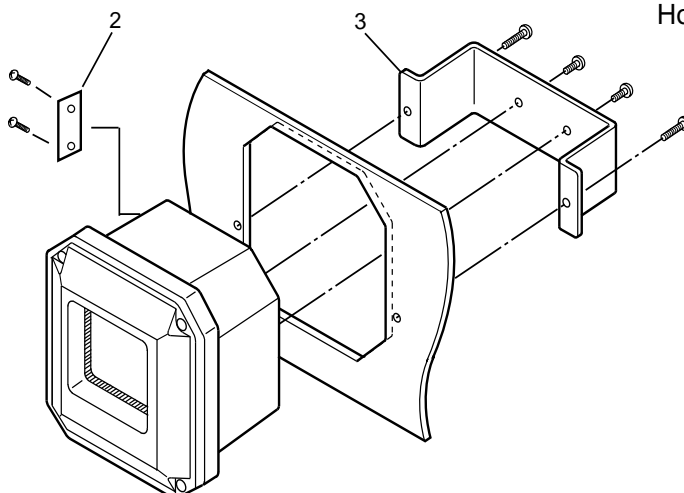
\* Do not exchange these parts. Call service personnel.

## Pipe/Wall Mounting Hardware (Option Code : /U)



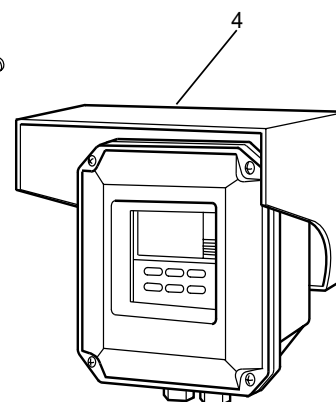
## Panel Mounting Hardware

(Option Code : /SCT)



(Option Code : /PM)

Hood to sun protection (Option Code : /H /H2)



Item	Parts No.	Qty	Description
1	K9171SS	1	Universal Mount Set (/U)
2	K9311BT	1	Tag Plate (/SCT)
3	K9311KA	1	Fitting Assembly (/PM)
4	K9311KG	1	Hood Assembly (/H)
	K9660JA	1	Hood Assembly (/H2)