1. MOUNTING

1.1 Mouting Conditions

(1) This instrument is intended to be used under the following environmental conditions:
- Maximum ambient temperature: -30 to 50 °C
- Maximum ambient humidity: 5 to 95 %RH
- Installation environment conditions: Indoor use
- Altitude up to 2000 m
- Rapid changes in ambient temperature which may cause condensation.
- Excessive dust, salt or iron particles.
- Excessive induction noise, static electricity, magnetic fields or noise.
- Direct air flow from an air conditioner.
- Exposure to direct sunlight.
- Excessive heat accumulation.

(2) Mount this instrument in the panel considering the following conditions:
- Ensure a space of at least 50 mm on top and bottom of the instrument for maintenance and environmental reasons.
- Do not mount this instrument directly above equipment that generates large heat amounts, equipment that could interfere with this instrument, or a refrigerator, etc.
- Use a separate heat rejection device when the high-temperature processing equipment is used.
- Do not mount this instrument directly above equipment that generates large heat amounts.
- Do not mount this instrument on a metal surface or in a location where a metal surface is exposed.

1.2 Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Unit (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>100</td>
</tr>
<tr>
<td>Height</td>
<td>88</td>
</tr>
<tr>
<td>Depth</td>
<td>88</td>
</tr>
</tbody>
</table>

1.3 DIN rail Mounting

1.3.1 Mounting procedures

1. Pull down the mounting bracket at the bottom of the instrument (A). Attach the hooks on the top of the instrument to the DIN rail and push the lower section into place on the DIN rail (B).
2. Slide the mounting bracket up to secure the instrument to the DIN rail (C).

1.4 Panel Mounting

1. Mounting procedures

1. Pull down the mounting bracket (A) until locked and that a mounting hole appears.
2. Prepare one mounting bracket per instrument (B) sold separately (KSRX-55) and mount each module directly on the panel with screws which are inserted in the mounting holes of the top and bottom mounting brackets.

1.5 Removal procedures

1. Pull down a mounting bracket with a slotted screwdriver (A). Lift the instrument from bottom, and take it off from bottom.

2. WIRING

2.1 Wiring Cautions

- To avoid noise induction, keep communication signal wires away from instrument power lines, load lines and power lines of other electrical equipment.
- If there is electrical noise in the vicinity of the instrument that could affect operation, use a noise filter.
- Shorten the distance between the twisted power supply wires to achieve the most effective noise reduction.
- Always install the noise filter on a grounded panel. Minimize the wiring distance between the noise filter output and the instrument power supply terminals to achieve the most effective noise reduction.
- Do not connect fuses or switches to the noise filter output wiring as this will reduce the effectiveness of the noise filter.
- Power supply wiring must be twisted and have a low voltage drop.
- For an instrument with 24 V power supply, power supply from a SELV circuit.
- A suitable power supply should be considered in end-use equipment. The power supply must be in compliance with a limited-energy circuits (maximum available current of 8 A).
- Use the solderless terminal appropriate to the screw size (M3).

2.2 Terminal Configuration
2.6 Multiple COM-JE connections

COM. PORT2 and COM. PORT3 are connectors for multi-drop connection of the COM-JE. For COM-JE extension, connect COM. PORT3 to COM. PORT2 of the COM-JE for extension.

Connection cable W-BF-02 (RKC product) can use to connect the COM-JE for extension.

* Shields of the cable are connected to SG (No. 6 pin) of the COM-JE connector.

2.7 Wiring to the Controllers

Conduct wiring between the COM-JE and controller (FB100/400/900) as shown in the following. (When conducting wiring to the FB100/400/900, always conduct wiring to the Communication 1 terminal.)

- Terminal block (communication 1 side)

3 Signal ground SG

6 Send data T (A)

5 Unused

2 Send data SD (TXD)

4 Receive data RD (RXD)

1 Unused

The 6-pin type modular connector should be used for the connection to the COM-JE. Recommended manufacturer and model: Hirose Electric, TMNP-66P

2.4 Wiring to PLC

- RS-232C
  - MITSUBISHI MELSEC series

2.5 Wiring to Host Computer

- RS-422A

(1) Communication interface (COM. PORT1) *

(2) PLC communication converter

2.8 System Configuration Example

- Host computer

PLC communication converter

Controller communication (RS-485: Modbus)

- COM. PORT1

For PLC communication

Up to four COM-JE units

* For above figure, the host computer connected to COM. PORT1 can communicate only COM-JE of address 0.

3. SPECIFICATIONS

- PLC communication

Interface: Base on RS-422A, EIA standard

Protocol: MITSUBISHI MELSEC series special protocol

- CPU main unit of SYSMAC CS1 series and CJ1 series serial communication board

Controller communication (RS-485: Modbus)

General specifications

Power supply voltage: 24 V DC

Power supply voltage range: 21.6 to 26.4 V DC

CPU consumption: 70 mA max.

Allowable ambient temperature: -10 to 50 °C

Allowable ambient humidity: 5 to 95 %RH (Absolute humidity: MAX. W.C 29.3 g/m³ dry air at 101.3 kPa)

Installation environment: conduction (conduction). No installation environment condensation: ambient

Weight: Approx. 117 g

4. MODEL CODE

COM-JE - O 01

(1) Communication interface (COM. PORT1)*

1. RS-232C

2. RS-422A

* COM. PORT2/COM. PORT3 is RS-422A, controller communication terminal is RS-485 (Fixed).

(2) Corresponding to the RKC controller

01: FB100/400/900/900

RKC Instrument Co., Ltd.
HEADQUARTERS: 16-6, KUGAHARA 5-CHOME, OHTA-KU TOKYO 146-8515 JAPAN

For more information, contact your RKC Sales Office or Distributor.

Phone: +81-3-3491-1000 FAX: +81-3-3491-1001 E-mail: sales@rkc-instr.com

Website: http://www.rkc-instr.com

Copyright © 2010 RKC Instrument Co., Ltd.