1. MOUNTING

1.1 Mounting Cautions

(1) This instrument is intended to be used under the following environmental conditions:
- Operating temperature: -10°C to 50°C
- Relative humidity: 5% to 95% (non-condensing)

2. WIRING

2.1 Wiring Cautions

- Prevent metal fragments or lead wire scraps from falling inside instrument case to avoid electric shock, fire or malfunction.
- Do not connect wires to unused terminals as this will interfere with proper operation of the instrument.
- Turn off the power supply before cleaning the instrument.
- Do not use a visible solvent such as paint thinner to clean the instrument. Deformation or discoloration will occur. Use a soft, dry cloth to remove stains from the instrument.
- To avoid damage to instrument display, do not rub with an abrasive material or push front panel with a hard object.

2.2 Terminal Configuration

- As controller communication terminal No. 1, 4 and 5 are internally connected to terminal No. 3, 6 and 7, any terminals can be used.
- As ground and power supply terminal No. 8, 9 and 12 are internally connected to terminal No. 10, 11 and 14, any terminals can be used.
- Terminal No. 2 and 13 is not used.

1.3 DIN Rail Mounting

1. Mounting procedures

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

2. Removal procedures

- Pull down a mounting bracket with a blade screwdriver (A). Lift the module from bottom, and take it off (B).

1.2 Dimensions

- Dimensions (Unit: mm)

1.4 Panel Mounting

- Pull down the mounting bracket (A) until it locks. Pull the hooks of the mounting bracket and then insert it in the rear of the terminal board at top of the module until locked. Notice: Mounting holes do not disappear.
- Mount each module directly on the panel with screws which are inserted in the mounting holes of the top and bottom mounting brackets.
- Recommended tightening torque: 0.36 N.m (2 kgf-cm)

1.5 COM-JC (For FB100/400/900) Communication Data List

- COM-JC [For FB100/400/900] Communication Data List (IMR01Y16-E) ... 1
- COM-JC [For FB100/400/900] Communication Data List (IMR11Y6-E) ... 1
### 2.3 Connection to PLC

#### Method to connect

The PLC (master station) and COM-JC make multi-drop connection in CC-Link dedicated cable (Ver. 1.10).

#### Connection diagram

Always connect a termination resistor between the DA and DB terminals of the module to be located at the far end.

Termination resistor: 115 Ω ± 5 % 1/2 W

#### 2.4 Connection to the Controllers

Conduct wiring between the COM-JC 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.)

#### Connection diagram

- Always connect a termination resistor between the DA and DB terminals of the module to be located at the far end.
- The cable and terminal resistor for external connection must be provided by the customer.

#### Terminal numbers and signal details

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Signal name</th>
<th>Symbol</th>
<th>Cable color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DA</td>
<td>DA</td>
<td>Blue</td>
</tr>
<tr>
<td>2</td>
<td>DB</td>
<td>DB</td>
<td>White</td>
</tr>
<tr>
<td>3</td>
<td>Data ground</td>
<td>DG</td>
<td>Yellow</td>
</tr>
<tr>
<td>4</td>
<td>SLD</td>
<td>SLD</td>
<td>Grounding wire (Shield)</td>
</tr>
<tr>
<td>5</td>
<td>Frame ground</td>
<td>FG</td>
<td></td>
</tr>
</tbody>
</table>

- **CC-Link connection terminals**
  - 1: DA
  - 2: DB
  - 3: DG
  - 4: SLD
  - 5: FG

- **Terminal screws**
  - Screws size: M3
  - Recommended tightening torque: 0.4 N·m (4 kgf·cm)

- **Grounding**
  - Ground both ends of the shield wire on the twisted pair cable via the SLD or FG terminal of each module. In addition, the SLD terminal is internally connected with the FG terminal.

- **Mounting bracket**
  - Use with the 4-mm or 5-mm hole of the controller (Mitsubishi Electric WPLED/WELED series). Two mounting brackets are required for upper and lower sides (one required for upper and lower separately). The panel and the terminal resistor transfer switch in the inside of terminal base.

### 2.5 System Configuration Example

#### PLC (Mitsubishi Electric WPLED/WELED series)

- **Connection to CC-Link**
  - Communication terminals of controller
    - Communication terminals (communication 1 side)
      - Communication terminals (communication 1 side)

#### Terminal base

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T/R (A)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>T/R (B)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>S/L</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>S/L</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>S/L</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>S/L</td>
<td></td>
</tr>
</tbody>
</table>

- **CC-Link connection terminals**
  - COM-JC: Terminals for PLC (Master connection)

#### Indication lamps

- **FAIL** (Red)
  - When instrument abnormally: Turns on
  - CC-Link setting error: Turns on
  - Operation error: Flashes slowly
  - During controller communication initialization: Flashes rapidly

- **RUN** (Green)
  - When normally: Turns on
  - During controller communication initialization: Flashes rapidly
  - During CC-Link data send: Turns on
  - During CC-Link data receive: Turns on

#### CC-Link communication setting

- **Communication terminals**
  - Setting the number of occupied station/extension cyclic for CC-Link
  - Setting the number of occupied station/extension cyclic for CC-Link
  - Setting the communication speed for CC-Link
  - Setting the number of occupied station/extension cyclic for CC-Link

#### Others

- **DC power supply**
  - Power supply (24 V DC)

- **Controller communication**
  - Communication speed: 24 V DC
  - Power supply voltage range: 21.6 V DC to 26.4 V DC
  - Power consumption: 120 mA max. (at 24 V DC)
  - Voltage: 12 A or less
  - Temperature range: -50 to 10°C
  - Humidity: 95%RH (Non condensing)
  - Weight: Approx. 220 g

- **Standard**
  - UL: UL 61010-1
  - CE marking: LVD: EN61010-1
  - RCM: EN61326-1
  - Installation environment conditions:
    - Indoor use
    - Altitude of up to 2000 m

- **T/R (A)**
  - 1: 0: RUN
  - 2: 0: STOP

- **T/R (B)**
  - 1: STOP
  - 2: RUN

- **FG**
  - Turn on when instrument abnormally
  - Turn on when instrument abnormally
  - Flashes slowly during CC-Link data send
  - Flashes slowly during CC-Link data receive

### 3. PARTS DESCRIPTION

#### Terminal base

- **CC-Link connection terminals**
  - COM-JC: Terminals for PLC (Master connection)

#### Indication lamps

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  - Setting the number of occupied station/extension cyclic for CC-Link
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  - CE marking: LVD: EN61010-1
  - RCM: EN61326-1

### 4. SPECIFICATIONS

- **CC-Link communication**
  - Protocol: CC-Link Ver. 2.00/Ver. 1.10
  - Communication speed: 156 kbps, 625 kbps, 2.5 Mbps, 5 Mbps, 10 Mbps
  - Station number: 1 to 64 (1 station occupied 1 time, 4 stations occupied 2 times)
  - Connection cable: CC-Link dedicated cable (Ver. 1.10)

- **Number of occupied station/extended cyclic and CC-Link version**
  - CC-Link Ver. 1.10: 1 station occupied 1 time, 4 stations occupied 2 times
  - CC-Link Ver. 2.00: 4 stations occupied 2 times

### 5. MODEL CODE

<table>
<thead>
<tr>
<th>COM-JC</th>
<th>01</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td></td>
</tr>
</tbody>
</table>

- **(1)**
  - Corresponding to the RKC temperature controller
    - 01: FB100/400/900

- **(2)**
  - RUN/STOP logic selection
    - 0: RUN
    - 1: STOP
    - 2: STOP
    - 1: RUN

- **HEADQUARTERS**
  - HEADQUARTERS: 16-6, KUGAHARA 5-CHOME, OHTA-KU TOKYO 146-8515 JAPAN
  - PHONE: 03-3751-9799 (+81 3 3751 9799)
  - E-mail: info@rkcinst.co.jp
  - FAX: 03-3751-8585 (+81 3 3751 8585)
  - Website: http://www.rkcinst.com/