### 1. OUTLINE

The COM-MY is a MECHATROLINK gateway for RKC SRZ. It allows temperatures to be measured safely by connecting function modules (Z-TIO-A/B, Z-DIO-A, Z-CT-A module) to SRZ. COM-MY describes the COM-MY and function module of SRZ is called an SRZ unit.

#### 1.1 Power Supply

- **Input voltage:** 100 to 240VAC (±10%)
- **Power consumption:** 1.5W
- **Weight:** 1Kg
- **Dimensions:** 100 x 50 x 200mm

#### 1.2 Warning and specifications

- **WARNING:** To prevent electric shock or instrument failure, always turn off the power before mounting or removing the instrument.

#### 1.3 Mounting Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>5 to 50°C</td>
</tr>
<tr>
<td>Ambient humidity</td>
<td>5 to 95% RH</td>
</tr>
</tbody>
</table>

#### 1.4 Communications

- **Communication type:** RS-422A, RS-485
- **Communication speed:** up to 1Mbit/s

#### 1.5 Pin assignment

- **Pin assignment:** Refer to the hardware manual.

### 2. PARTS DESCRIPTION

#### 2.1 Mainframe

- **Power supply:** 100 to 240VAC
- **Power consumption:** 1.5W
- **Weight:** 1Kg
- **Dimensions:** 100 x 50 x 200mm

#### 2.2 Communication port (modal connector) and communication connector

- **Communication port:** COM-PORT1, COM-PORT2
- **Communication connector:** MECHATROLINK setting switch

#### 2.3 Terminal Configuration

- **Terminals:** 1, 2, 3, 4, 5, power supply terminals
- **Pin assignment:** Refer to the hardware manual.

### 3. MOUNTING

#### 3.1 Dimensions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space required between each instrument vertically</td>
<td>76.9mm</td>
</tr>
<tr>
<td>Space required between each instrument horizontally</td>
<td>50mm or more</td>
</tr>
<tr>
<td>Depth of communication cables</td>
<td>50mm or more</td>
</tr>
</tbody>
</table>

### 4. Wiring

#### 4.1 Wiring Cautions

- **To avoid noise induction, keep communication signal wire away from power line, base lines and wires of other equipment.
- **To prevent interference, do not mount within the same panel with high-voltage connections such as power supply terminals.
- **To prevent instrument failure, protect the power line and the input/output lines from high currents with a protection device such as fuse, circuit breaker, etc.
- **To prevent metallic fatigue, do not make any screws from falling inside the instrument; cause to avoid electric shock, fire or malfunction.
- **To avoid damage to instrument display, do not rub with an abrasive material or push forward with a hard object.

#### 4.2 Terminal Configuration

- **Power supply terminals:** 1, 2 (with 5.8 x 5.8 square washer)
- **Function module power supply terminals:** 3, 4, 5
- **Ground terminals:** COM-MY and function modules

**Warning:** To prevent electric shock or instrument failure, always turn off the power before mounting or removing the instrument.
4.3 Connection to MECHATROLINK

**Connection example**

Use MECHATROLINK connector to connect the master station and the COM-MY. Install MECHATROLINK terminator (termination resistors) to both ends of a trunk line in MECHATROLINK. The MECHATROLINK cable and MECHATROLINK terminator must be provided by the customer.

- **Connection to COM-MY**
  - Connect the RS-232C/RS-422A converter between the host computer and the COM-MY.
  - Up to 16 SRZ units can be connected to a host computer communication port.

**Pin No.**

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Symbol</th>
<th>Pin No.</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RS-422A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>RX</td>
<td>1</td>
<td>RX</td>
</tr>
<tr>
<td>2</td>
<td>TX</td>
<td>2</td>
<td>TX</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>4</td>
<td>GND</td>
</tr>
<tr>
<td><strong>RS-422</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-sub 9-pin</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pin No.**

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Symbol</th>
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<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RX</td>
<td>1</td>
<td>RX</td>
</tr>
<tr>
<td>2</td>
<td>TX</td>
<td>2</td>
<td>TX</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>4</td>
<td>GND</td>
</tr>
</tbody>
</table>

- **Communication connector**
  - COM (COM. PORT1)
  - COM (COM. PORT2)

**Shielded twisted pair wire**

- Shielded twisted pair wire may be used as an extension wire for the trunk line.
- Connect shielded twisted pair wire to COM-MY and COM-K.

**5. SPECIFICATIONS**

- **MECHATROLINK communication**
  - Protocol: RS-232C/RS-422A

**Host communication**

- Interface: Based on RS-422A, EIA standard

**Power supply voltage range**

<table>
<thead>
<tr>
<th>Class</th>
<th>Voltage range</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>13.5 V to 26.4 V DC</td>
</tr>
<tr>
<td>100</td>
<td>12 V to 24 V DC</td>
</tr>
<tr>
<td>110</td>
<td>100 V AC or 120 V AC</td>
</tr>
</tbody>
</table>

**Cable**

- | Cable type | Cable length |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RS-232 cable (YASKAWA Controls Co., Ltd. product)</td>
<td>50 cm</td>
</tr>
<tr>
<td>RS-485 cable (YASKAWA Controls Co., Ltd. product)</td>
<td>50 cm</td>
</tr>
</tbody>
</table>

**Safety standard**

- UL: UL61010-1
- cETL: EN61010-1
- FAX: 03-3751-8585 (+81 3 3751 8585) NOV. 2007

6. MODEL CABLE

- **COM-MY-C**
  - 4 pins
  - For the COM-K, see the COM-K Instruction Manual (IMR01Z01-E).

- **COM-MY-R**
  - 5 pins
  - For the COM-K, see the COM-K Instruction Manual (IMR01Z01-E).

**Modular cable**

- For COM-K, see the COM-K Instruction Manual (IMR01Z01-E).

**Connector for host computer or Operation panel**

- RS-422A-RS-405

- **Connector for COM-MY**
  - COM. PORT1
  - COM. PORT2

**Connector for COM-MY**

- COM. PORT1
- COM. PORT2

**Connector for COM-MY**

- COM. PORT1
- COM. PORT2

**Connector for COM-MY**

- COM. PORT1
- COM. PORT2