5. Specifications

5.1 General specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power capacity</td>
<td>24VDC 0.4A/10ms</td>
</tr>
<tr>
<td>Isolation method</td>
<td>Photocoupler</td>
</tr>
<tr>
<td>Input method</td>
<td>Photocoupler</td>
</tr>
<tr>
<td>Input impedance</td>
<td>50kΩ</td>
</tr>
<tr>
<td>Input points</td>
<td>5-20</td>
</tr>
<tr>
<td>Max. simultaneous ON</td>
<td>40/20</td>
</tr>
<tr>
<td>Rated input current</td>
<td>20mA</td>
</tr>
<tr>
<td>Noise width</td>
<td>1μs or more</td>
</tr>
<tr>
<td>Noise frequency</td>
<td>50 to 60Hz</td>
</tr>
<tr>
<td>Emission</td>
<td>Class A</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>5MΩ or more</td>
</tr>
<tr>
<td>Leakage current</td>
<td>0.1mA or less/30VDC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>0.4W (100% ON)</td>
</tr>
</tbody>
</table>
| Temperature range | Operating: -10° to 55°C (0.1°C or less)
               | Storage: -20° to 85°C (0.3°C or less) |
| Relative humidity | 5% to 95% RH |
| Water and dust resistance | IP20 |

5.2 I/O specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>5-20V (max) 5ms</td>
</tr>
<tr>
<td>Output</td>
<td>24VDC 20mA</td>
</tr>
<tr>
<td>Input points</td>
<td>5-20</td>
</tr>
<tr>
<td>Max. simultaneous ON</td>
<td>40/20</td>
</tr>
<tr>
<td>Rated input current</td>
<td>20mA</td>
</tr>
<tr>
<td>Noise width</td>
<td>1μs or more</td>
</tr>
<tr>
<td>Noise frequency</td>
<td>50 to 60Hz</td>
</tr>
</tbody>
</table>

5.3 Output specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>24VDC 20mA</td>
</tr>
<tr>
<td>Input points</td>
<td>5-20</td>
</tr>
<tr>
<td>Max. simultaneous ON</td>
<td>40/20</td>
</tr>
<tr>
<td>Rated input current</td>
<td>20mA</td>
</tr>
<tr>
<td>Noise width</td>
<td>1μs or more</td>
</tr>
<tr>
<td>Noise frequency</td>
<td>50 to 60Hz</td>
</tr>
</tbody>
</table>

5.4 Performance specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24VDC ±15%</td>
</tr>
<tr>
<td>Input current</td>
<td>0.1mA or less/30VDC</td>
</tr>
<tr>
<td>Isolation resistance</td>
<td>5MΩ or more</td>
</tr>
<tr>
<td>Leakage current</td>
<td>0.1mA or less/30VDC</td>
</tr>
</tbody>
</table>

5.5 Circuit diagram

[Diagram of the circuit diagram]

5.6 Outside Dimensions

[Dimensions chart]

5.7 Outline of Product

This product is a circuit board-type I/O module that is compatible with CC-Link/LT. It can be used for I/O modules of the main product, and it can be used as a basic part of the module. It is designed to be used in environments with high dust and water resistance. It can be used in environments where high reliability is required.

5.8 Name and Setting of Each Part

- **DIP switch**: This switch is used to select the input/output function.
- **LED**: This LED indicates the status of the input/output signals.
- **Connector**: This connector is used for connecting to the main product and other I/O modules.
- **Terminals**: These terminals are used for connecting input/output signals.

5.9 Handling of the Cable

For handling the cable, refer to the instructions provided with the main product. This module cannot be used directly on the panel. It must be mounted in a remote I/O module or on a panel via a shielded cable. The cable should be connected to the module with a crimp connector or a similar device. The cable should be secured with a cable tie or similar device to prevent movement.

5.10 Installation Precautions

- **Ambient atmosphere**
  - Ensure that the module is installed in a cool, dry, and dust-free environment.
- **Intermittent vibration**
  - Install the module securely to prevent movement caused by vibration.
- **Temperature range**
  - The module is designed to operate within a temperature range of -10°C to 55°C.
- **Power consumption**
  - The module consumes approximately 0.4W when operating.
- **Isolation resistance**
  - The module has an isolation resistance of 5MΩ or more.

5.11 Design Precautions

- **Ambient temperature**
  - The module should be installed in an environment where the temperature does not exceed 55°C.
- **Humidity**
  - The module can operate in an environment with humidity ranging from 5% to 95% RH.
- **Vibration**
  - The module can withstand vibration levels of up to 9.8m/s².
- **Electrostatic discharge**
  - The module is protected against electrostatic discharge of up to 8kV.

5.12 Transportation and Maintenance Precautions

- **Transportation**
  - The module should be transported in a dry, dust-free environment.
- **Maintenance**
  - Regular maintenance is recommended to ensure the module's reliability.
- **Precautions**
  - Do not disassemble or modify the module without authorization.

5.13 Troubleshooting Precautions

- **Power supply**
  - Ensure that the power supply is within the specified range (24VDC ±15%).
- **Input signals**
  - Check the input signals are within the specified range (5-20V).
- **Output signals**
  - Check the output signals are within the specified range (24VDC ±15%).

5.14 Other Precautions

- **Cleaning**
  - Regular cleaning is recommended to prevent dust accumulation.
- **Storage**
  - Store the module in a dry, dust-free environment when not in use.
- **Repair**
  - Do not attempt to repair the module; contact the manufacturer for repairs.

5.15 Warnings

- **Danger**
  - Do not use the module in environments where high dust and water resistance is not required.
- **Warning**
  - Do not operate the module outside the specified temperature and humidity ranges.
- **Caution**
  - Do not operate the module outside the specified voltage range.

5.16 Notice

- **Discontinuation**
  - This model is scheduled for discontinuation.
- **Replacement**
  - A replacement model will be provided.
- **Support**
  - Contact the manufacturer for technical support.

5.17 Technical Support

For further information or technical support, please contact the manufacturer.

5.18 Legal Information

- **Legal Notice**
  - This product is licensed under various international patents.
- **Patent Information**
  - Contact the manufacturer for patent information.
- **Disclaimer**
  - The manufacturer disclaims all liability for damages resulting from the use of this product.

6. Conclusion

This module is designed to meet the needs of users requiring a high level of reliability and dust/water resistance. It is suitable for use in environments where high reliability is required. Users are encouraged to consult the manufacturer for further details and support.

Mitsubishi Electric Corporation

[Manufacturer's contact information]
1. Outline of Product
This product is a cable type composite I/O module connected to CC-Link/LT. This product has one input point (24 V DC) and one output point (transistor output).

2. Name and Setting of Each Part

![DIAGRAM]

3. Handling of the cable for I/O
The cable length from the module to a sensor shall be within 100 m (328 ft). Measure the cable outside the module, and confirm that the driving voltage for the used sensor is assured.

4. Wiring

4.1 External wiring
The input and output terminals of the CLXY2-DT1DSS operate while the power for the module is OFF. When connecting a sensor to the input terminal, use a sensor of the NPN input type or the device can be isolated by the input circuit of the module.

4.2 Connection to sensor
- When using a transistor type sensor: When using a transistor type sensor, connect a 470 Ω resistor between the input terminals, and connect the input to 24 V DC. Connect the ground wire of the sensor to the ground wire of the module. Do not connect the sensor to 24 V DC. The input coil of the sensor is reset by the OFF voltage. A sensor ON/OFF switch, etc. can be operated from the OFF state.

5. Specifications

5.1 General specifications

5.2 Input specifications

5.3 Output specifications

5.4 Performance specifications

6. Outside Dimensions

![DIAGRAM]
1. Outline of Product
This product is a cable-type composite I/O module connected to CC-Link/LT. This product has one input point (24 V DC) and one output point (transistor output).

2. Name and Setting of Each Part

3. Cautions on Handling
3.1 Handling of the cable for I/O
The cable length from the module to a sensor shall be within 20m (65 ft). Measure the cable outside the module, and confirm that the driving voltage for the used sensor is assured.

3.2 Handling of cable
Do not bend the cable within 30 mm (1.19") from the module.

4. Wiring
4.1 External wiring
The input and output terminals of the CLIYX2-DT1DSS operate while the power is supplied.

Wiring to the station No. using “STATION NO. 1”, “STATION NO. 2”, or “STATION NO. 3” for the station No. with the input terminal, use the wiring pattern shown in the table.

The output wiring is fixed to the sink output.

5. Specifications
5.1 General specifications

5.2 Input specifications

5.3 Output specifications

6. Outside Dimensions

Specifications

Dimensions

CC-Link/LT

User’s Manual

CC-Link/LT

Specifications

Dimensions

CC-Link/LT

User’s Manual

CC-Link/LT

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