FX3G-232-BD
INSTALLATION MANUAL

1. Outline
FX3G-232-BD is an expansion board equipped with a 9-pin D-sub for RS-232C communication. The FX3G-232-BD exchanges data with RS-232C device. For wiring, specifications, settings, and program examples, refer to the manual referred.

1.1 Incorporated Items

- Product: RS-232C communication expansion board FX3S-232-BD
- Included items: M3-8 tapping screws for installation: 2 pcs.
- Installation Manual (This manual)

1.2 Communication Function

- Connection type: Data transfer between PLC and computer (specified as the master station) via dedicated protocol.
- Non-protocol communication: Serial communication between PLC and RS-232C device via non-protocol.
- Programming communication: Programming communication or monitor via RS-232C equipment.
- Remote maintenance: Program transfer or monitoring enabled via modem and phone line connected to port of the FX3G-232-BD.

1.3 External Dimensions and Part Names

- Pin connection: RS-232C device (9-pin D-sub, male) [1]
- Hole for connection fixing screw (4-40 UNC) [2]
- Receptacle LED: Lighting while sending data [3]
- Mounting holes (2-4-40UNC) [4]
- Connector cover [5]
- LED (RD): LED Lighting while receiving data [6]
- Main unit connector [7]
- Memory cassette/Display module connector [8]

The communication port of the FX3S-232-BD is a 9-pin D-sub male type. The table below shows the pin arrangement.

<table>
<thead>
<tr>
<th>PinNo.</th>
<th>Signal</th>
<th>Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (CO)</td>
<td>DCD</td>
<td>Carrier detection</td>
<td>Turns ON when carrier for data transfer is selected.</td>
</tr>
<tr>
<td>3 (TD)</td>
<td>TXD</td>
<td>Send data output</td>
<td>Sends data (FX3G-232-BD → RS-232C equipment).</td>
</tr>
<tr>
<td>4 (EN)</td>
<td>DTR</td>
<td>Send request</td>
<td>Turns ON when RS-232C communication becomes ready for data transfer.</td>
</tr>
<tr>
<td>5 (SG)</td>
<td>GND</td>
<td>Signal ground</td>
<td>Signal ground</td>
</tr>
<tr>
<td>6 (DR)</td>
<td>DSR</td>
<td>Send enabled</td>
<td>Turns ON when send request is given to RS-232C equipment</td>
</tr>
</tbody>
</table>

2. Installation

- INSTALLATION PRECAUTIONS
  - Make sure to cut off all phases of the power supply externally before attempting installation or wiring work. Failure to do so may cause electric shock or damage to the product.

- USE WITH THE PROPER EQUIPMENT
  - Use the product within the general environment specifications described in PLC main unit manual. cables, etc., become hot, if cleaning, fire, smoke, malfunctions, deterioration or damage may occur.
  - Use screwdrivers carefully when performing installation work, thus avoiding accident or product damage.

For the installation, refer to the following manual.

- → FX3S Series User’s Manual - Data Communication Edition

3. Specifications

- STARTUP AND MAINTENANCE PRECAUTIONS
  - Do not disassemble or modify the PLC. Doing so may cause fire, emission failures, or malfunctions.
  - * For repair, contact your local Mitsubishi Electric representative.

- STORAGE AND TRANSPORTATION PRECAUTIONS
  - Do not transport the product in excessive dust, oily smoke, conductive impacts, or expose it to high temperature, condensation, or rain and wind.
  - If the product is used in such conditions, electric shock, fire, or destruction may occur.
  - Do not touch the conductive parts of the product directly. When doing so, electric shock or destruction may occur.
  - Connect expansion board securely to designated connectors. Loose connections may cause malfunctions.

- Transportation: Program transfer or monitoring enabled via modem and phone line connected to port of the FX3G-232-BD.

3.1 Applicable PLC

- FX3S Series PLC
- FX3UC Series PLC
- FX3G Series PLC
- FX3G-40M

- Communication format: Inconformance to RS-232C

- Maximum transmission distance: 15 m (49 ft) maximum

4. EXPLANATION OF contenu

- B: Side B
- SD: Side D

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  - (2) Loss in opportunity, lost profits incurred to the use of failure of Mitsubishi products.
  - (3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products.

- Replacement by the user, maintenance of on-site equipment, start-up work and other tasks.

For safe use

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a system where crop failures or losses could occur if the product fails, install appropriate backup or fail-safe functions in the system.