# Mitsubishi FX3U Logic Module User Manual



Contents



## Mitsubishi FX3U Logic Module

## Product Information

The product is called PLC1.ir. It is a control device used in industrial automation systems. It is designed to interface with various other components and devices to control and monitor processes.

**HMI Factory Setting:**
The HMI (Human Machine Interface) of the PLC1.ir has a default setting. The default communication parameters are as follows:

- **Baud Rate:** 9600
- **Data Bits:** 7
- **Parity:** Even
- **Stop Bits:** 1

**Controller Specifications:**
The PLC1.ir controller has the following specifications:

- Number of Digital Inputs: 10 (Pulse Counter Inputs included)
- Number of Digital Outputs: 10
- Number of Analog Inputs: 3
- Number of Analog Outputs: 1

**Compatibility:**
The PLC1.ir is compatible with the DOP Series HMI Controllers and RS-422 (DOP-B Series) devices.

## Product Usage Instructions

**Connection Setup:**
To use the PLC1.ir, follow these steps to set up the connections:

1. Connect the PLC1.ir to the power supply using appropriate power cables.
2. Connect the PLC1.ir to the HMI Controller or RS-422 device using compatible communication cables.
3. Connect the required input and output devices to the PLC1.ir’s digital and analog ports.

**Programming and Configuration:**
To program and configure the PLC1.ir, please refer to the user manual specific to the software or programming language being used. The manual will provide detailed instructions on how to write and upload programs, configure inputs and outputs, and set up communication parameters.

**Operation:**
Once the PLC1.ir is connected and programmed, it can be operated by providing appropriate inputs through connected devices. The PLC1.ir will process these inputs and generate the desired outputs based on the programmed logic.

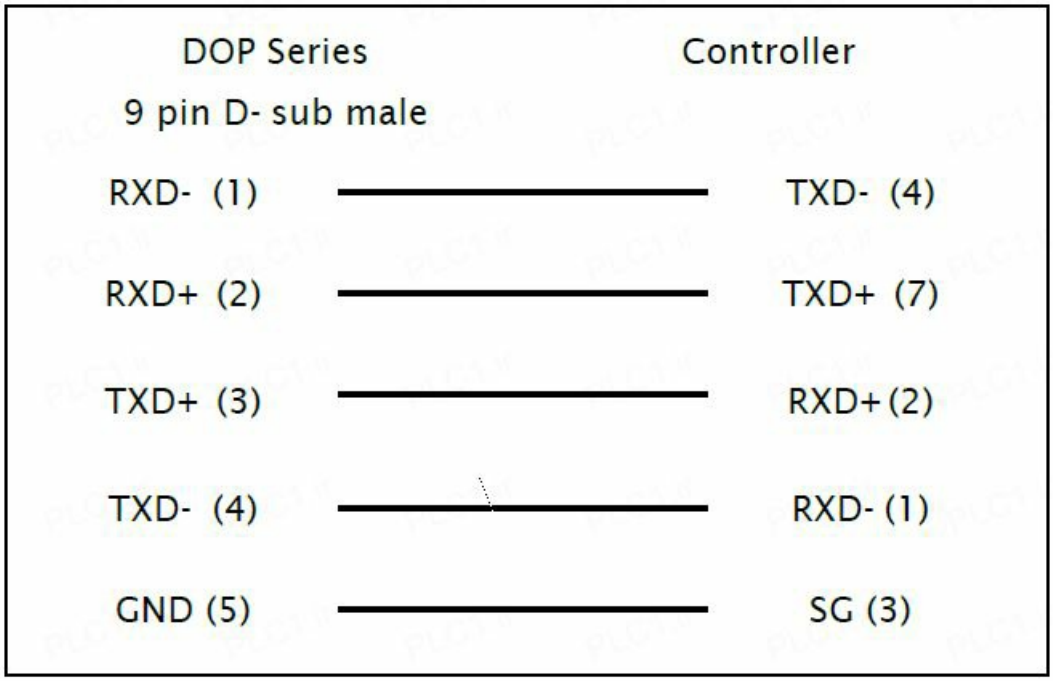
**Troubleshooting:**
If you encounter any issues or errors while using the PLC1.ir, please refer to the troubleshooting section of the user manual or contact our customer support for assistance.

**Mitsubishi FX3U**

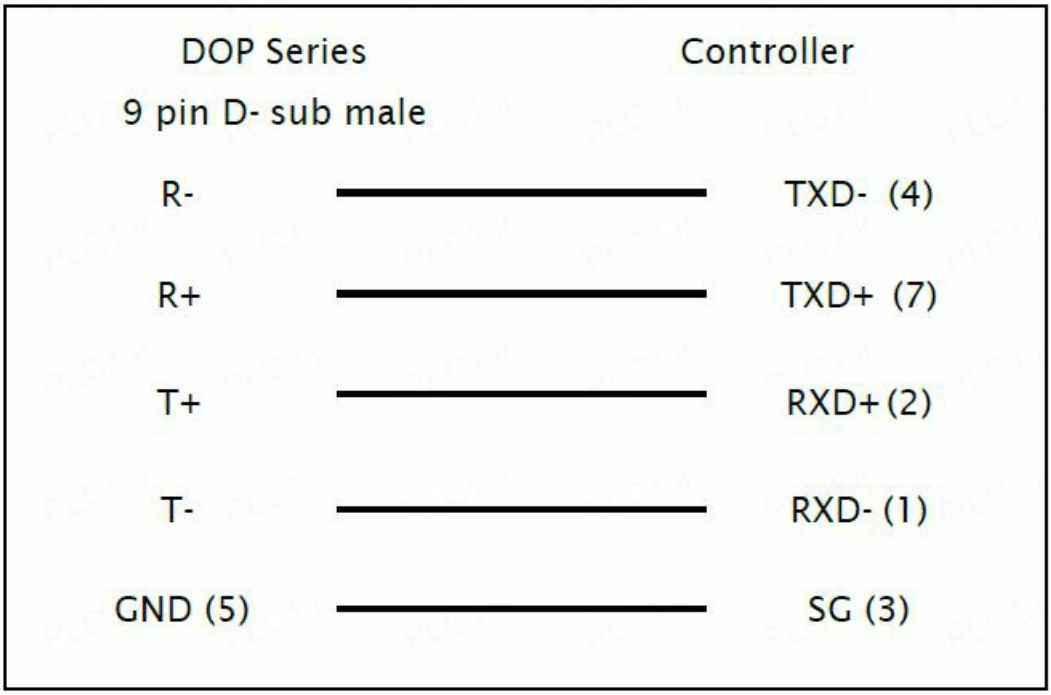
- **HMI Factory Setting:**
  - Baud rate: 9600, 7, Even, 1
  - Controller Station Number: 0 (no PLC station number in protocol, therefore, only 1(HMI) to 1(PLC) communication is allowed.)
  - Control Area / Status Area: D0 / D10

## Connection

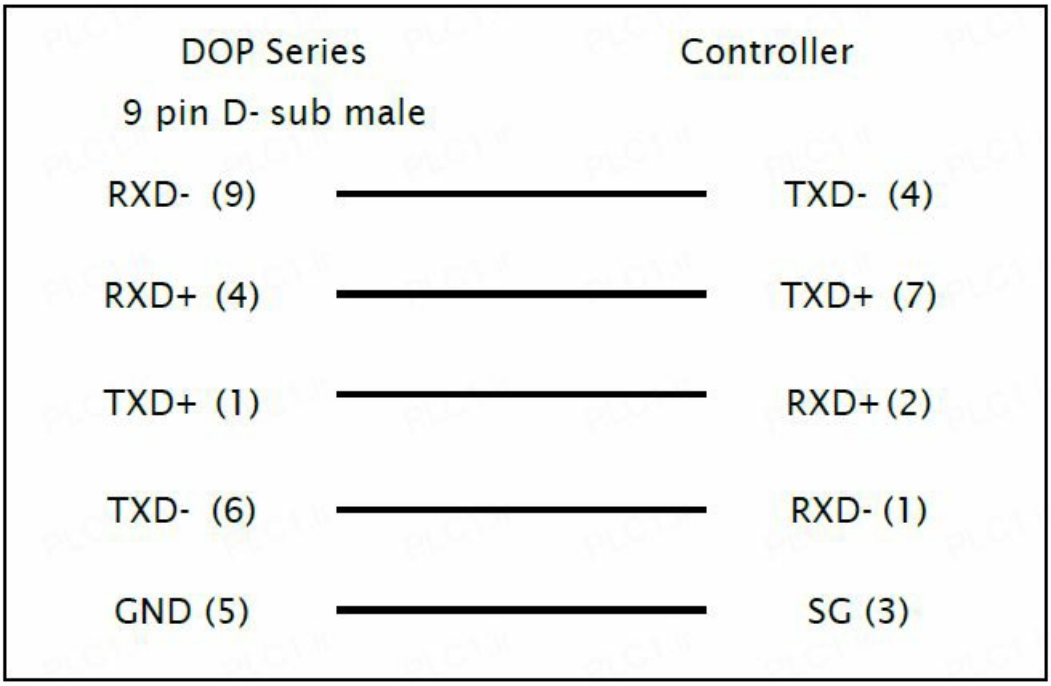
**RS-422 (DOP-A/AE Series)**



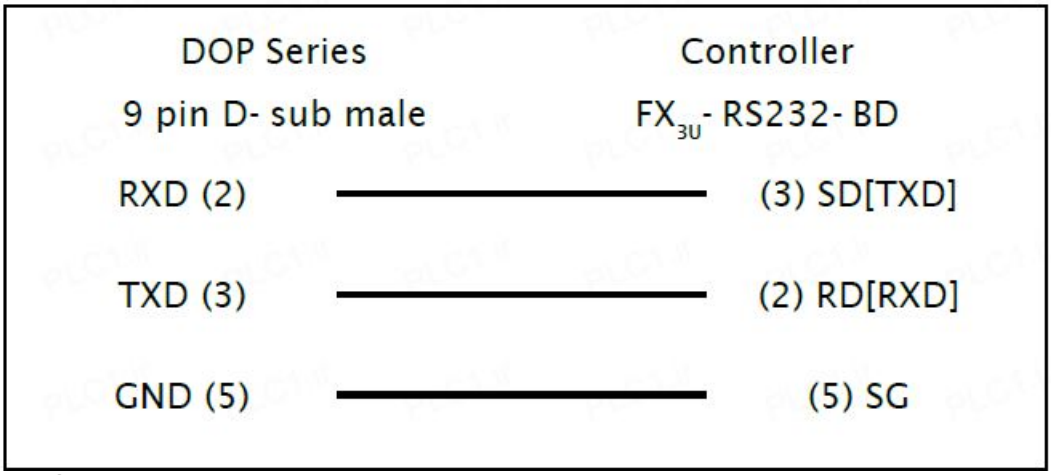

**RS-422 (DOP-AS35/AS38/AS57 Series)**



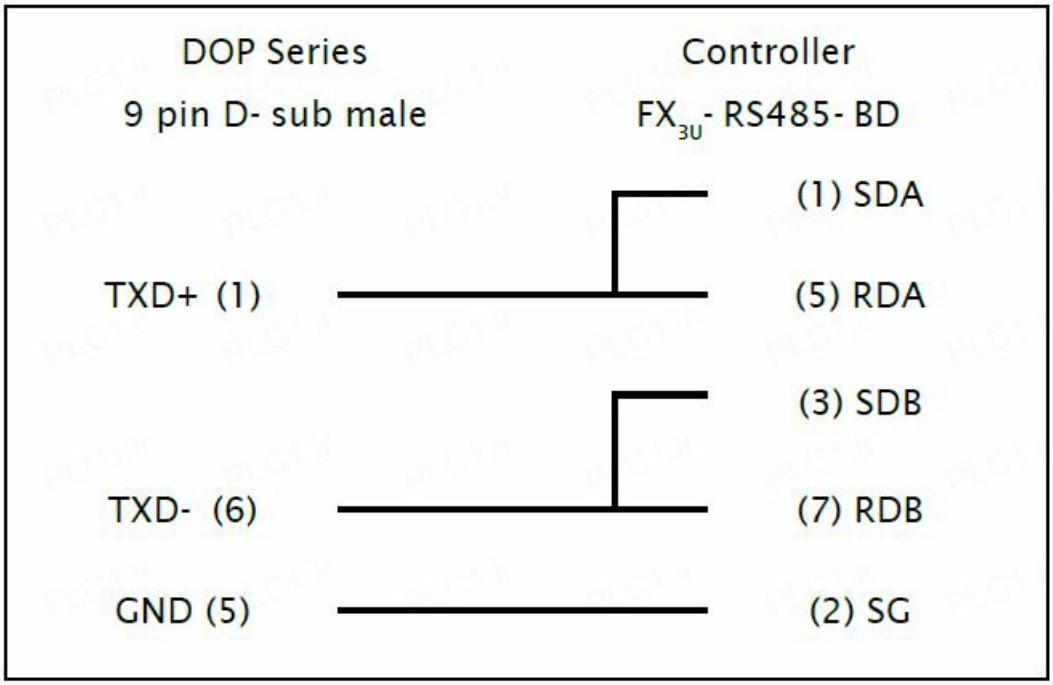

**RS-422 (DOP-B Series)**




**RS-232 (DOP-B Series)**




**RS-485 (DOP-B Series)**




## Definition of PLC Read/Write Address

### Registers

| Type | Format | Read/Write Range | Data Length | Note |
|---|---|---|---|---|
| | Word No. (n) | | | |
| Auxiliary Relay | **M**n | **M**0 – **M**7664 | Word | 1 |
| Special Auxiliary Relay | **M**n | **M**8000 – **M**8496 | Word | 1 |
| Status Relay | **S**n | **S**0 – **S**4080 | Word | 1 |
| Input Relay | **X**n | **X**0 – **X**360 | Word | Octal, 1 |
| Output Relay | **Y**n | **Y**0 – **Y**360 | Word | Octal, 1 |
| Timer PV | **T**n | **T**0 – **T**511 | Word | |
| 16 – bit Counter PV | **C**n | **C**0 – **C**199 | Word | |
| 32 – bit Counter PV | **C**n | **C**200 – **C**255 | Double Word | |
| Data Register | **D**n | **D**0 – **D**7999 | Word | |
| Special Data Register | **D**n | **D**8000 – **D**8511 | Word | |
| Extension Register | **R**n | **R**0 – **R**32767 | Word | |

### Contacts

| Type | Format<br>Bit No. (b) | Read/Write Range | Note |
|---|---|---|---|
| Auxiliary Relay | **M**b | **M**0 – **M**7679 | |
| Special Auxiliary Relay | **M**b | **M**8000 – **M**8511 | |
| Status Relay | **S**b | **S**0 – **S**4095 | |
| Input Relay | **X**b | **X**0 – **X**377 | Octal |
| Output Relay | **Y**b | **Y**0 – **Y**377 | Octal |
| Timer Flag | **T**b | **T**0 – **T**511 | |
| Counter Flag | **C**b | **C**0 – **C**255 | |

**NOTE**

1. The device address must be the multiple of 16.

**V1.03 Revision January, 2016**

## Documents / Resources

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|---|---|
|  | Mitsubishi FX3U Logic Module [pdf] User Manual<br>PLC1, DOP Series, FX3U Logic Module, FX3U, Logic Module, Module |