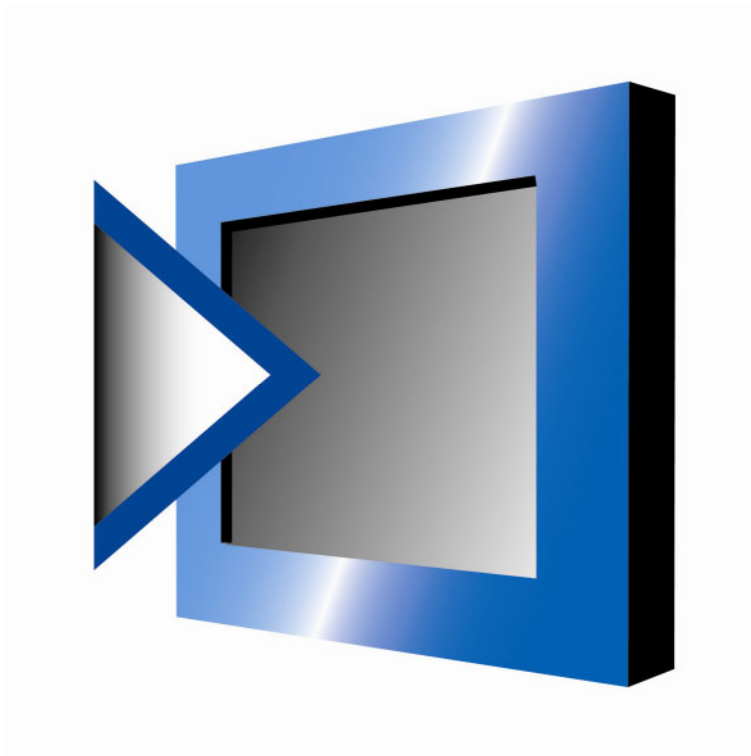

User Manual GALILEO

Communication Mitsubishi via System Port

Software



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Subject to modifications

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1. General

1.1 Aim and purpose of this document

This documentation describes the connection of a MICRO PANEL via the System Port (RS232) interface to a Mitsubishi Melsec PLC.

This communication option is an addition to the MPB communication of the same name that is documented in the «Card description MPB1-TP / MPB2-TP» (Document «M000871»).

 **Refer to the Operating Instructions of your MICRO PANEL for further information on connecting, commissioning and operating the MICRO PANELS.**

It is assumed that the following software is already installed and that you are familiar with its operation:

- GALILEO visualization software

Refer to the GALILEO documentation or the Online Help for more information on GALILEO and GRS.

 **The dialogs shown from GALILEO are from Version 6.1.5.**

1.2 List of documents

- [1] M000871
Card Description MPB1-TP / MPB2-TP

(this list of documents is not final)

2. Overview

The following Melsec controllers can be connected to a MICRO PANEL via the System Port:

- Mitsubishi – PG-FX (Melsec FX series)
Beta version implemented since GALILEO 6.1.4
- Mitsubishi – PG-AX (Melsec A series)
In preparation

3.

Mitsubishi – PG-FX (Melsec FX series)

PLC Type	Protocol	PLC Port	Parameter
FX series	Direct Access	PG Port	9600 baud, 7 data bits, 1 stop bit, even parity checksum on

Wiring list

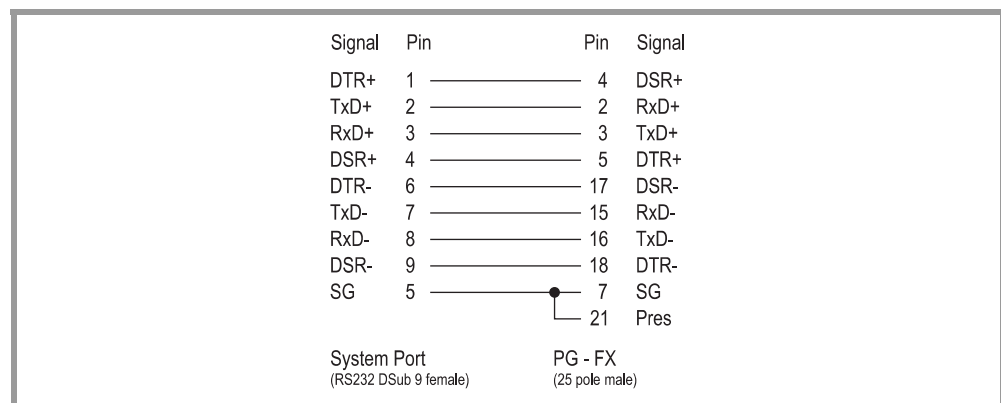


Fig. 1 RS232 – RS422 converter



The same connection is used as for the programming device. All parameters are preset. No other drivers or configurations in the PLC are required.

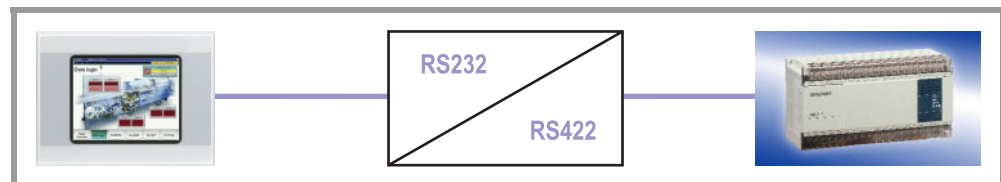


Fig. 2 MICRO PANEL connected with Mitsubishi – PG-FX

3.1

Addressing

Supported data areas are «M» markers and «D» data registers.

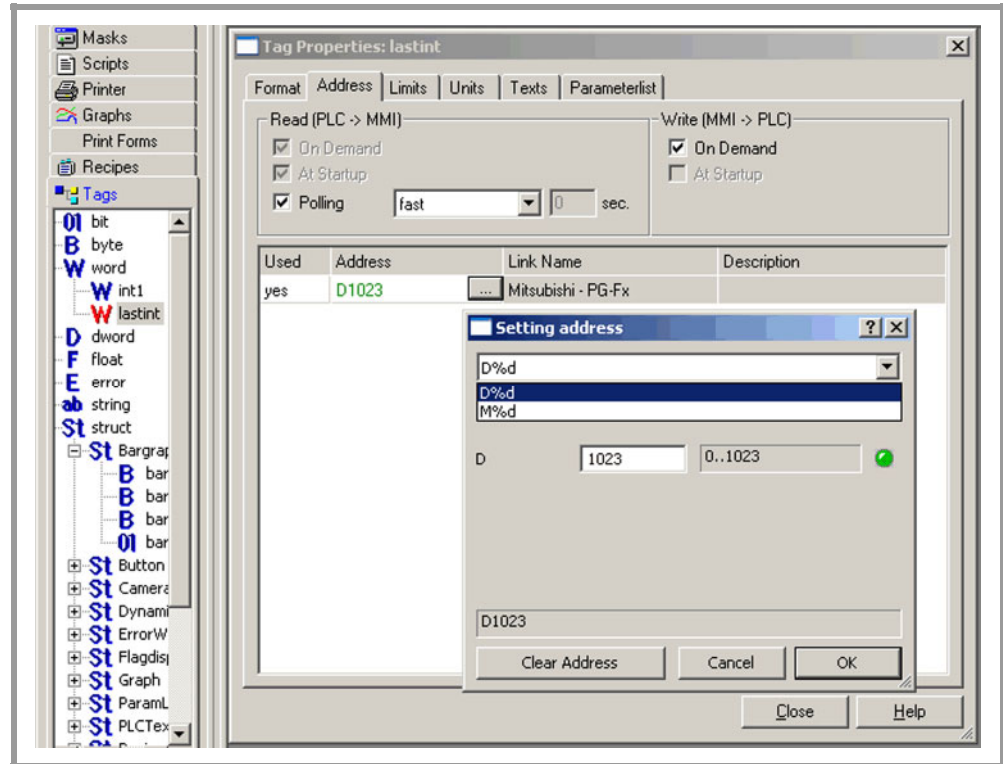


Fig. 3 Setting the address



The markers and data register areas have different sizes depending on the FX PLC. As the communication driver does not know the connected PLC type, it cannot check whether the address is located in the correct area.

Unforeseen errors can occur in the PLC if addresses are configured outside of the marker and data register area of the connected PLC!

3.2

Data block size

The smallest possible format is 2 bytes. Single bits cannot be transferred.

The maximum size of a data block is 64 bytes. The structure or array size set in GALILEO is therefore limited to this maximum value.

All supported data block sizes are shown on the «PLC Data» tab of the «Select PLC» dialog.

4. Implementation in GALILEO

4.1 Hardware requirements

This communication requires a MICRO PANEL with an RS232 System Port or GALILEO OPEN.

4.2 Select PLC

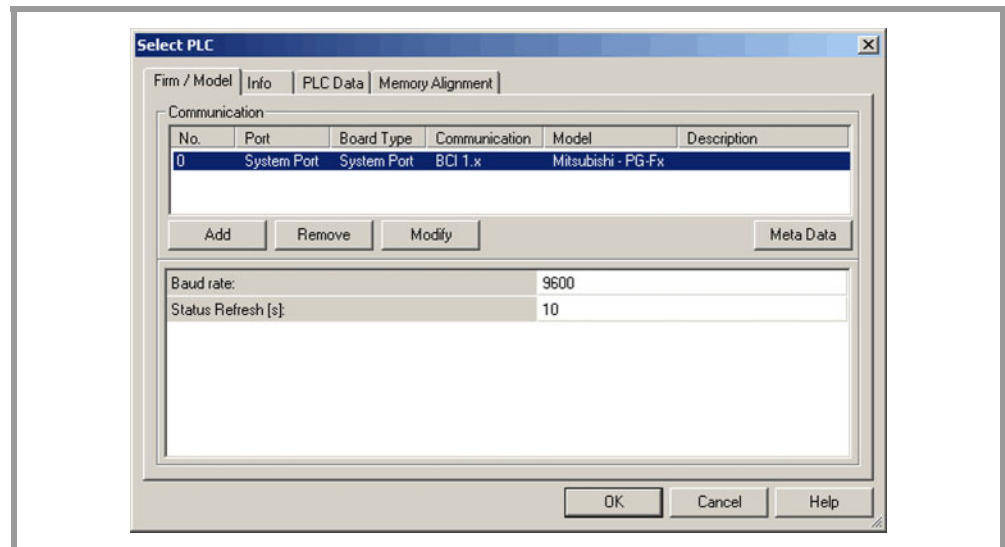


Fig. 4 Select PLC

- 1 In the «Select PLC» dialog choose «Mitsubishi – PG-Fx».
 - The dialog shown appears.
- 2 Set here the parameters for this communication:

Parameter	Setting
Baud rate	9600
Status Refresh [s]	See GALILEO Help

5. Communication Errors

5.1 Error messages

Different system error messages are generated in response to any communication errors that occur. These system error messages provide different information:

- The «Tag variable name» indicates the tag variable in which a problem was found.
- The «IP Address, Protocol» indicates the interface and protocol of the MICRO PANEL at which the problem was found.
- The «Additional error information» may indicate the possible cause of an error in plain text. This information can, however, also be generated from lower software layers. Its content cannot therefore always be interpreted without an in-depth knowledge of the system. The troubleshooting procedure is the same in all cases.

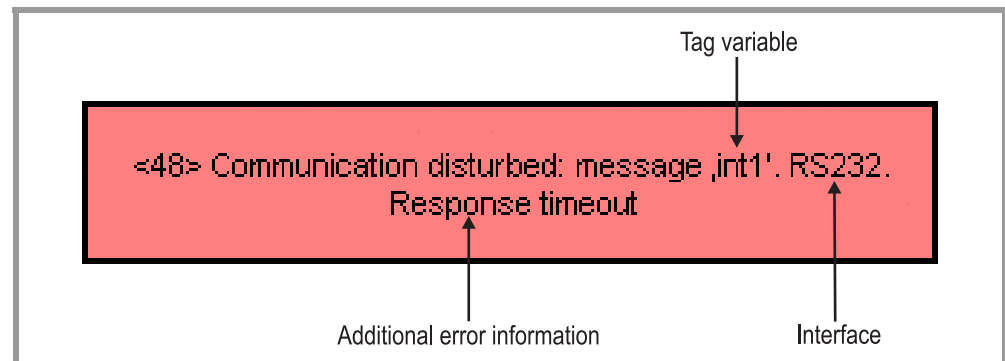


Fig. 5 Error message

5.2 Error rectification

- 1 Check the following points:
 - Cabling and the connections on the MICRO PANEL and the PLC.
 - Connection cable with programming device and software (Melsec / GX Developer).
 - Settings in relation to the connected PLC.
- 2 Rectify the error.

If the problem continues, contact our Customer Support at support@microinnovation.com.