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Device/PLC Connection Manuals



About the Device/PLC Connection Manuals

Prior to reading these manuals and setting up your device, be sure to read the "Important: Prior to reading the Device/PLC Connection manual" information. Also, be sure to download the "Preface for Trademark Rights, List of Units Supported, How to Read Manuals and Documentation Conventions" PDF file. Furthermore, be sure to keep all manual-related data in a safe, easy-to-find location.

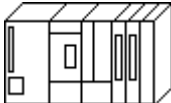


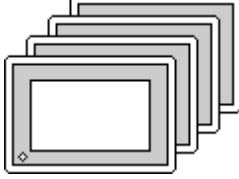
5.9 Yaskawa Electric

5.9.1 System Structure

The following describes the system structure for connecting the GP to Yaskawa Electric PLCs.

Reference The Cable Diagrams mentioned in the following tables are listed in the section titled "5.9.2 Cable Diagrams".

■ Memocon-sc Series/GL 120, 130 (using Link I/F)

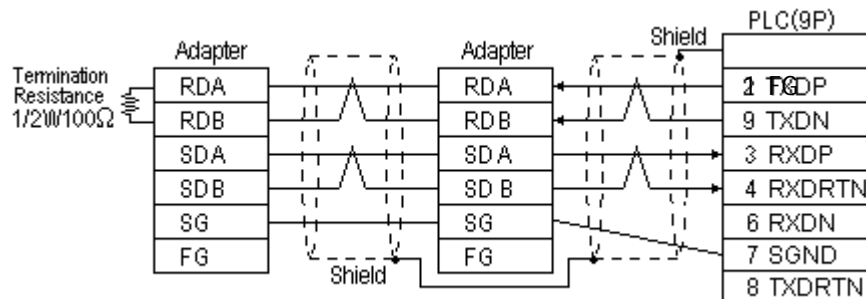
CPU	Link I/F	Cable Diagram	GP
	Link Unit 		
GL120 GL130	JAMSC-120NOM27100	RS-422 (Cable Diagram 1)	GP Series

5.9.2 Cable Diagrams

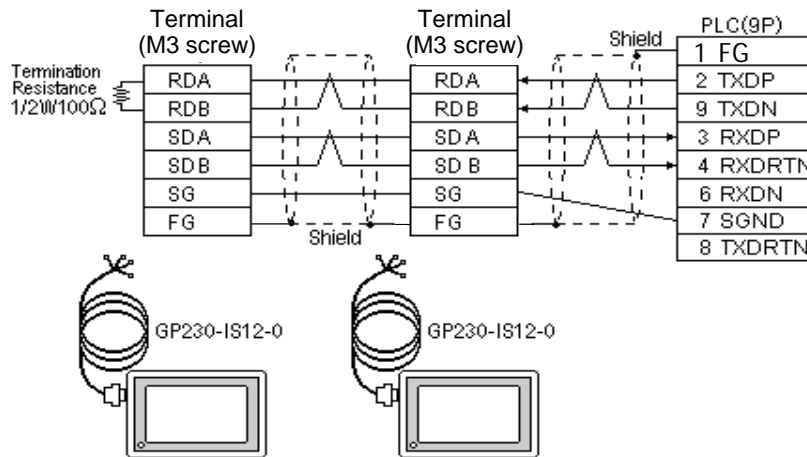
The cable diagrams illustrated below and the cable diagrams recommended by Yaskawa Electric may differ, however, using these cables for your PLC operations will not cause any problems.

Cable Diagram 1

- When using Digital's RS-422 connector terminal adapter, GP070-CN10-O.



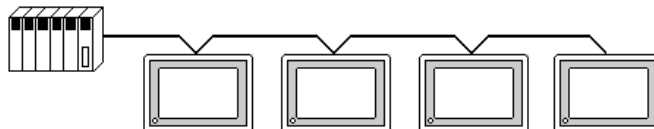
- When using Digital's Multi-link Cable, GP230-IS12-0



Ground your PLC's FG terminal according to your country's applicable standard. For details, refer to the corresponding PLC manual.

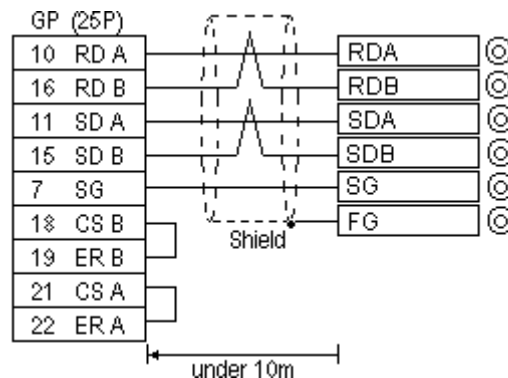


- Pull out a small amount of the Transfer Cable's shield, make a wire out of it and connect it to the PLC's FG terminal.
- The GP230-IS12-0 Cable FG terminal is not connected to the GP's FG.
- Attach a Termination Resistor to both ends of the cable.
- For the RS-422 connection, refer to Yaskawa Electric's PLC manual for the cable length.
- As a general rule, connect the PLC to one end of the circuit.



When making your own cable, Hitachi's CO-SPEV-SB (A) 3P*0.5 cable is recommended.


The cable connection lines are as illustrated below. The cables between the GP and the terminals should be less than 10m.









5.9.3 Supported Devices

The following describes the range of devices supported by the GP.

■ Memocon-sc series (GL120 and GL130)

 Setup System Area or Communication Information's Storing Address here.

Device	Bit Address	Word Address	Particulars
Coil (output/internal)	000001 ~ 008192	---	*1
Input Relay	100001 ~ 101024	---	*1*2
Link Coil 1	D10001 ~ D11024	---	*1
Link Coil 2	D20001 ~ D21024	---	*1
MC Relay 1	X10001 ~ X10256	---	*1*2
MC Relay 2	X20001 ~ X20256	---	*1*2
MC Coil 1	Y10001 ~ Y10256	---	*1
MC Coil 2	Y20001 ~ Y20256	---	*1
MC Code Relay 1	M10001 ~ M10096	---	*1*2
MC Code Relay 2	M20001 ~ M20096	---	*1*2
MC Control Relay 1	P10001 ~ P10256	---	*1*2
MC Control Relay 2	P20001 ~ P20256	---	*1*2
MC Control Coil 1	Q10001 ~ Q10256	---	*1
MC Control Coil 2	Q20001 ~ Q20256	---	*1
Input Register	---	300001 ~ 300512	 *2
Output Register	---	300001 ~ 300512	
Holding Register	---	400001 ~ 409999	
Link Register 1	---	R10001 ~ R11024	
Link Register 2	---	R20001 ~ R21024	
Constant Register	---	700001 ~ 704096	

H/L

* 1 1-word (16-bit) data day be specified.

* 2 Data cannot be written here.

5.9.4 Environment Setup

The following lists Digital's recommended PLC and GP communication settings.

■ Memocon-sc series (GL 120 and GL 130)

GP Setup		PC Link Unit Setup	
Baud Rate	19200 bps	Baud Rate	19200 bps
Data Length	8 bits	---	
Stop Bit	1 bit	Stop Bit	1 bit
Parity Bit	Even	Parity Bit ON/OFF EVEN/ODD	ON Even
Data Flow Control	ER Control	---	
Communication Format	4-wire type	Communication Format	RS-422
Unit No.	1	Slave address number	1
---		Transmission bit	RTU mode (fixed)