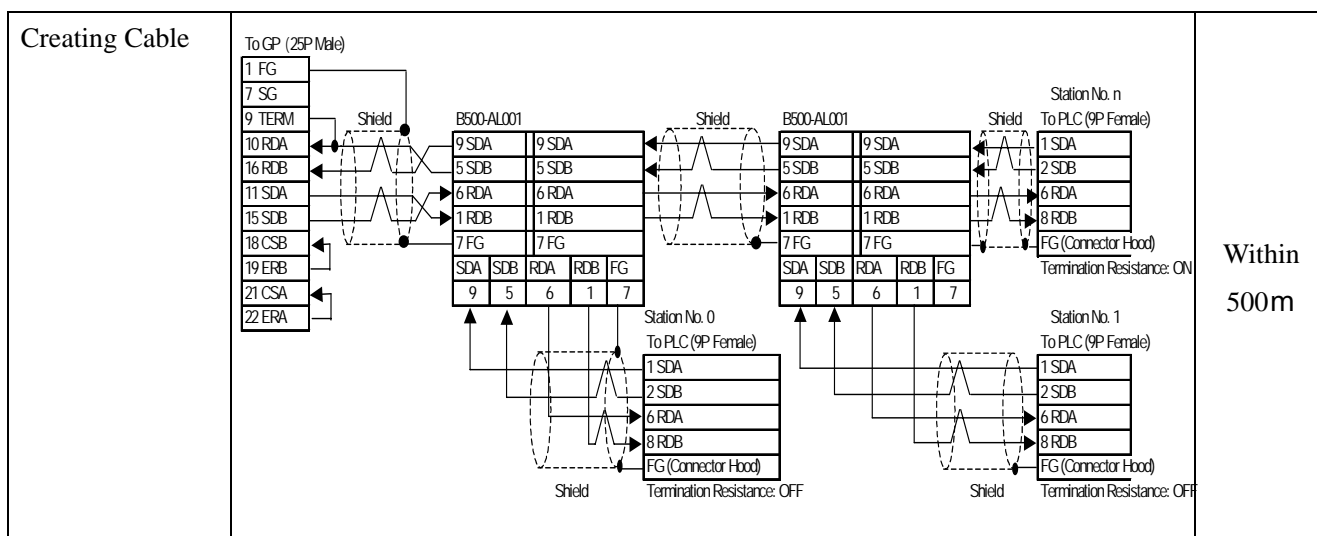**Pro-face®**

OMRON Corporation PLC

SYSMAC C Series (1 to n) Connection

Connection Method

1. 1 to n Connection / RS-422 Connection

[Link Adapter B500-AL001 by OMRON]

Type	Connection Method	Distance
Using GP230-IS11-O		Within 500
Using GP070-CN10-O		Within 500

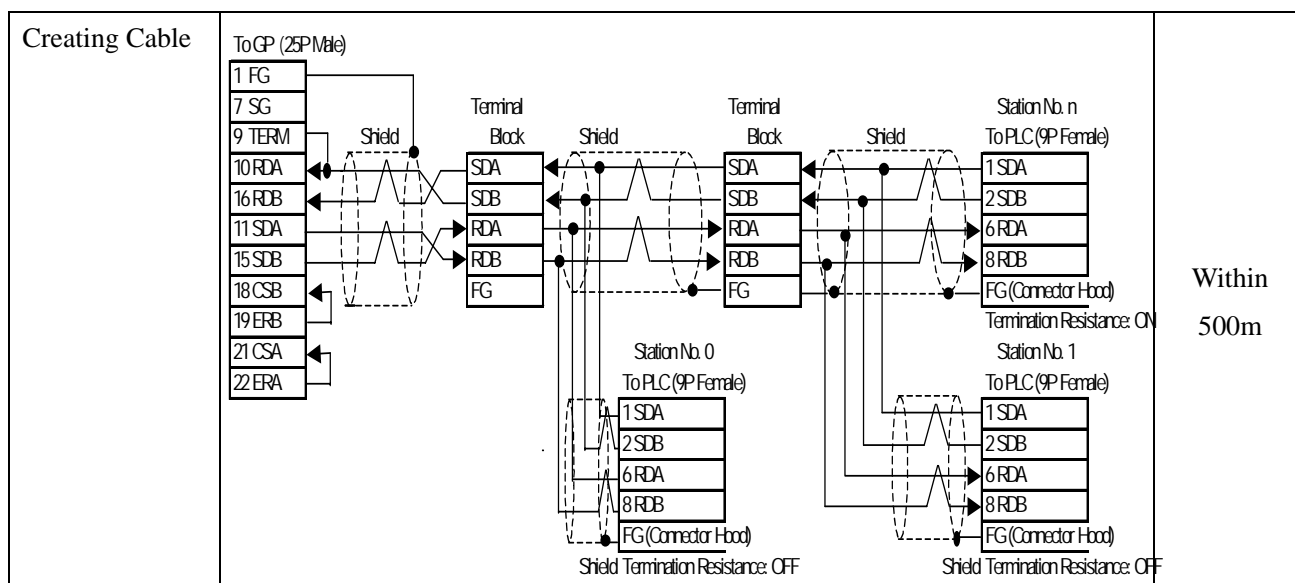| Creating Cable	

⚠️ **Important**

- **Within the GP70 Series, this applies only to the GP377 Series.**

- **Use the RS422A/485 port, which is Port 2 of CQM1H-SCB41.**

- **When "n" CQM1H-CPU51/ CQM1H-CPU61 units are connected to one GP unit for communication, the maximum number for "n" is 8.**

- **The RS422 communication port on the PLC is a D-sub. For 1 to n connections, use a link adaptor or terminal block by OMRON.**

- **Ground one end of the communication cable to either the RS-422A/485 connector hood on the serial communication board, or to the GP.**

- **The PLC has no SG connector, but its internal signal line is electrically insulated. Therefore, the SG connector on the GP/GLC requires no connection.**

- **Set the termination resistance switch, [TERM] on the terminating SYSMAC-CQMIH, to the "ON" position. If two units of PLCs are connected to the GP/GLS, the one having the longer distance for communication becomes the terminating station.**

- **Set the 2-wire/4-wire switch, [WIRE] on the PLC to the "4" position.**

- **The maximum cable length for RS-422/RS-485 communication is 500 meters. The total branch line length for T-Branching is 10 meters.**

- **To connect the PLC, use a link adaptor B500-AL001 by OMRON or a terminal block.**

Recommended Products

Connecter/Cover for GP	D-sub 25 pin Plug	XM2A-2501 <OMRON Co.>
	Cover for D-sub 25 pin	XM2S-2511 <OMRON Co.>
	Jack Screw	XM2Z-0071 <OMRON Co.>
Cable	H-9293A (CO-HC-ESV-3P*7/0.2) <Hirakawa Hewtech Corp.>	
Setscrew	Metric Coarse Screw Tread : M2.6 × 0.45	

2. 1 to n Connection / RS-422 C0nnection (4-Wire)

Type	Connection Method	Distance
Using GP230-IS11-O		Within 500
Using GP070-CN10-O		Within 500

Creating Cable

To GP (25P Male)

| 1 FG |
| 7 SG |
| 9 TERM |
| 10 RDA |
| 16 RDB |
| 11 SDA |
| 15 SDB |
| 18 CSB |
| 19 ERB |
| 21 CSA |
| 22 ERA |

Terminal Block: SDA, SDB, RDA, RDB, FG

Terminal Block: SDA, SDB, RDA, RDB, FG

Station No. n
To PLC (9P Female): 1 SDA, 2 SDB, 6 RDA, 8 RDB, FG (Connector Hood)
Termination Resistance: ON

Station No. 0
To PLC (9P Female): 1 SDA, 2 SDB, 6 RDA, 8 RDB, FG (Connector Hood)
Shield Termination Resistance: OFF

Station No. 1
To PLC (9P Female): 1 SDA, 2 SDB, 6 RDA, 8 RDB, FG (Connector Hood)
Shield Termination Resistance: OFF

Within 500m

Important

- ♦ **Within the GP70 Series, this applies only to the GP377 Series.**

- ♦ **Use the RS422A/485 port, which is Port 2 of CQM1H-SCB41.**

- ♦ **When "n" CQM1H-CPU51/ CQM1H-CPU61 units are connected to one GP unit for communication, the maximum number for "n" is 8.**

- ♦ **The RS422 communication port on the PLC is a D-sub. For 1 to n connections, use a kink adaptor or terminal block by OMRON.**

- ♦ **Ground one end of the communication cable to either the RS-422A/485 connector hood on the serial communication board, or to the GP.**

- ♦ **The PLC has no SG connector, but its internal signal line is electrically insulated. Therefore, the SG connector on the GP/GLC requires no connection.**

- ♦ **Set the termination resistance switch, [TERM] on the terminating SYSMAC-CQMIH, to the "ON" position. If two units of PLCs are connected to the GP/GLS, the one having the longer distance for communication becomes the terminating station.**

- ♦ **Set the 2-wire/4-wire switch, [WIRE] on the PLC to the "4" position.**

- ♦ **The maximum cable length for RS-422/RS-485 communication is 500 meters. The total branch line length for T-Branching is 10 meters.**

- ♦ **To connect the PLC, use a link adaptor B500-AL001 by OMRON or a terminal block.**

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