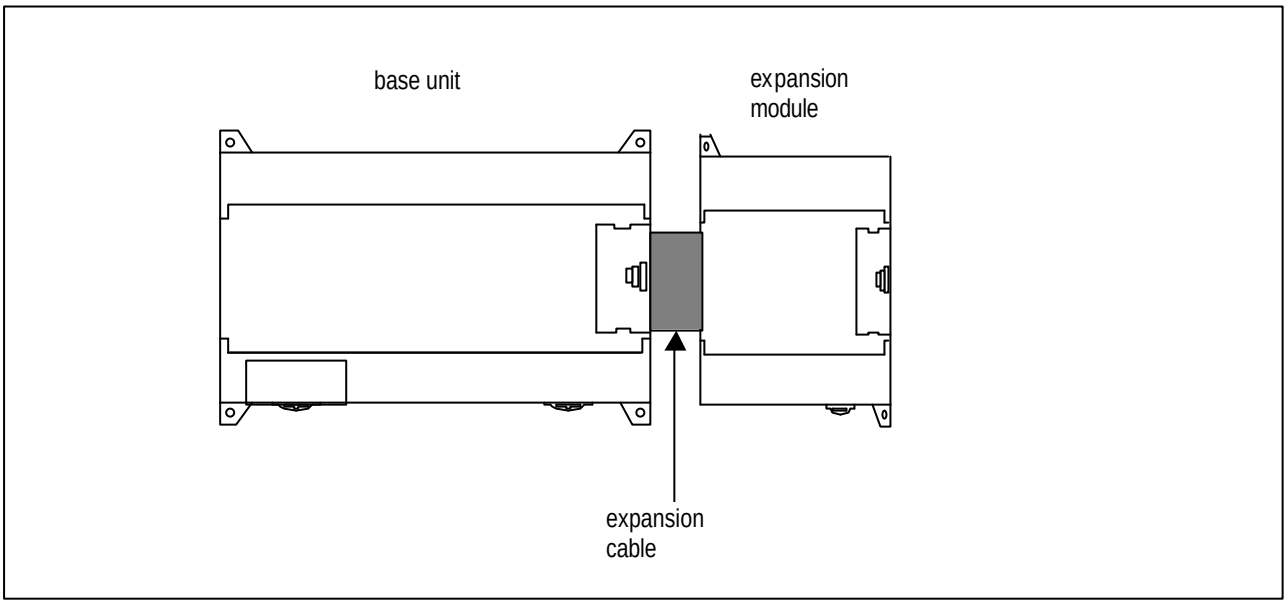
Chapter 2. System Configuration

The GLOFA-GM7 series has suitable to configuration of the basic, computer link and network systems. This chapter describes the configuration and features of each system.

2.1. Overall Configuration

2.1.1 Basic system



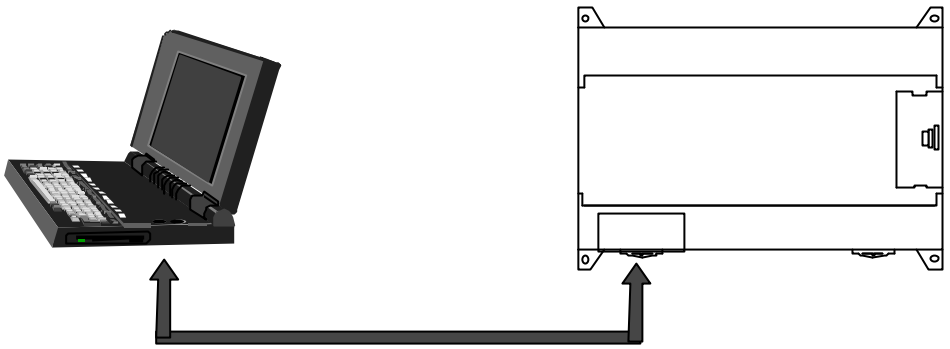
Total I/O points			• 10-80 points
Maximum numbers of expansion modules		Digital I/O module	• 2 modules
		A/D-D/A Composite module	• 2 modules
		Analog timer	• 3 modules
		Cnet I/F module	• 1 module [Not available for 10-point module]
			Total 3 modules
Items	Base unit		•G7M-DR10A, G7M-DR20A, GM7-DR30A, G7M-DR40A, GM7-DR60A G7M-DR10A/DC, G7M-DR20A/DC, G7M-DR30A/DC, G7M-DR40A/DC, G7M-DR60A/DC, G7M-DT10A, G7M-DT20A, G7M-DT30A, G7M-DT40A, G7M-DT60A
	Expansion module	Digital I/O module	• G7E-DR10A
		A/D-D/A Composite module	• G7F-ADHA
		Analog timer	• G7F-AT2A
		Cnet I/F modules	• G7L-CUEB, G7L-CUEC

2.1.2 Cnet I/F system

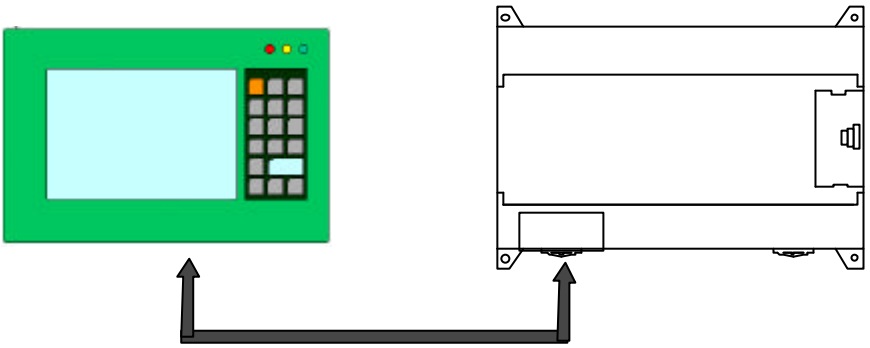
Cnet I/F System is used for communication between the base unit and external devices using RS-232C/RS-422 Interface. The GM7 has a built-in RS-232C port and has also G7L-CUEB for RS-232C, G7L-CUEC for RS-422. It is possible to construct communications systems on demand.

1) 1:1 Communications system

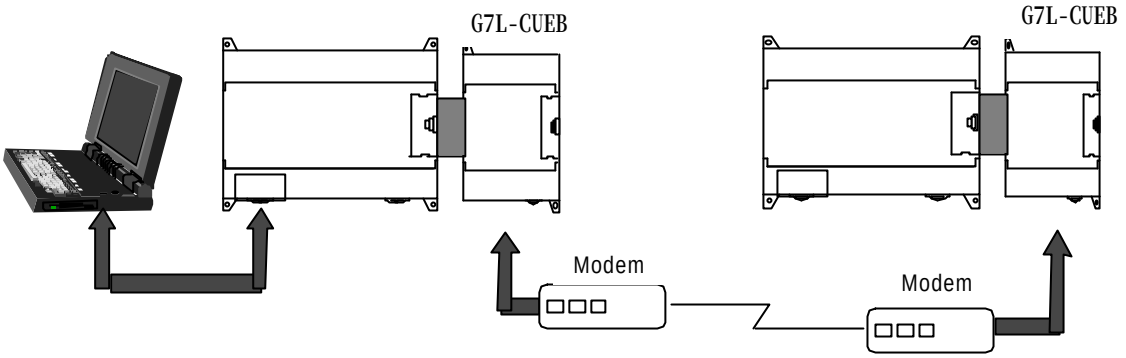
(1) 1:1 ratio of an external device (computer) to base unit using a built-in port

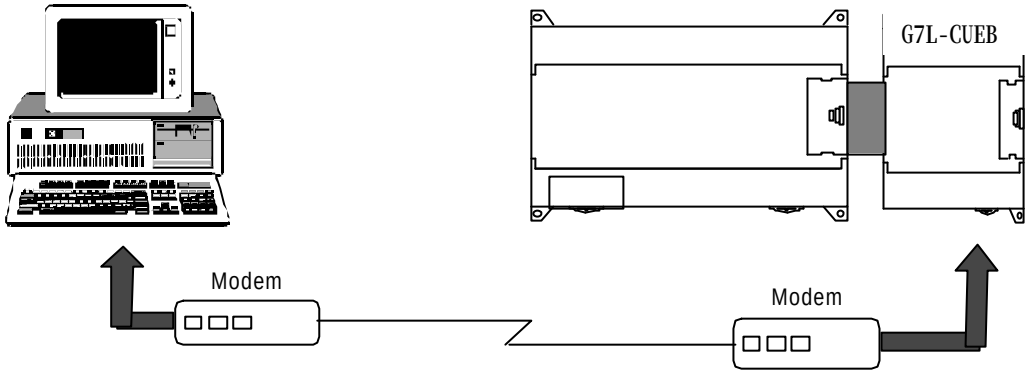


(2) 1:1 ratio of an external device (monitoring unit) to base unit using a built-in port



(3) RS-232C Communication over a long distance via modem by Cnet I/F modules

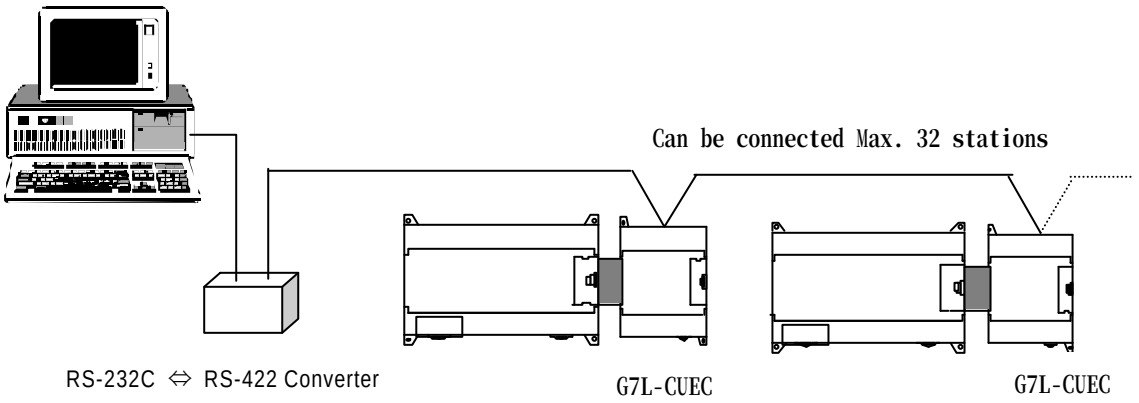




2) 1:n Communications system

This method can connect between one computer and multiple base units for up to 32 stations

(G7L-CUEA module is not required for 10-point base units)

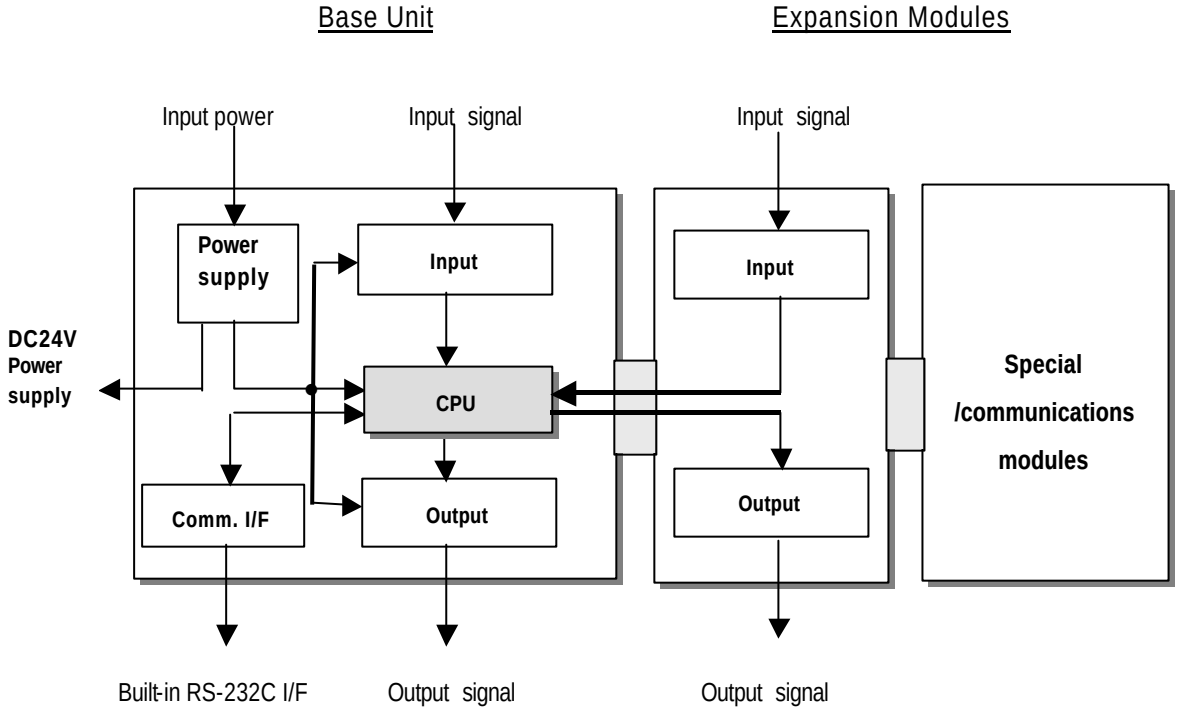


2.2 Product functional model

The following describes functional model of the GLOFA-GM7 series.

2.2.1 Product Function Block

Product function block for the GM7 series is as follows.



Sub-system	Description
CPU	• Signal processing function ・ Operating system function ・ Application program storage / memory function ・ Data storage / memory function ・ Application program execution function
Input	• The input signals and/or data obtained from the machine/process to appropriate signal levels for processing
Output	• The output signals and/or data obtained from the signal processing function to appropriate signal levels to drive actuators and/or displays
Power Supply	• Provides for conversion and isolation of the PLC system power from the power supply
Communications Interface	• Provides the data exchange with other systems, such as GMWIN, computers

2.2.2 GM7 Series System Equipment

Section	Items	Models	Description	Remark
Basic	Base Unit	G7M-DR10A G7M-DR10A/DC G7M-DT10A	• I/O Points - 6 DC inputs / 4 relay outputs (G7M-DR10A, G7M-DR10A/DC) - 6 DC inputs / 4 transistor outputs (G7M-DT10A) • Program capacity : 68k bytes • Built-in function -High-speed counter : Phase1 16 kHz, phase2 8 kHz 1channel -pulse output : 1 × 2 kHz -pulse catch : pulse width 0.2ms, 4 points -external contact point interrupt: 0.4ms, 8points -input filter: 0 ~ 15ms (all input) -PID control function -RS-232C communication	
		G7M-DR20A G7M-DR20A/DC G7M-DT20A	• I/O Points - 12 DC inputs / 8 relay outputs (G7M-DR20A, G7M-DR20A/DC) - 12 DC inputs / 8 transistor outputs (G7M-DT20A) • Program capacity : 68k bytes • Built-in function -High-speed counter : Phase1 16 kHz, phase2 8 kHz 1channel -pulse output : 1 × 2 kHz -pulse catch : pulse width 0.2ms, 4 points -external contact point interrupt: 0.4ms, 8points -input filter: 0 ~ 15ms (all input) -PID control function -RS-232C communication	
		G7M-DR30A G7M-DR30A/DC G7M-DT30A	• I/O Points - 18 DC inputs / 12 relay outputs (G7M-DR30A, G7M-DR30A/DC) - 18 DC inputs / 12 transistor outputs (G7M-DT30A) • Program capacity : 68k bytes • Built-in function -High-speed counter : Phase1 16 kHz, phase2 8 kHz 1channel -pulse output : 1 × 2 kHz -pulse catch : pulse width 0.2ms, 4 points -external contact point interrupt: 0.4ms, 8points -input filter: 0 ~ 15ms (all input) -PID control function -RS-232C communication	

Section	Items	Models	Description	Remark
		G7M-DR40A G7M-DR40A/DC G7M-DT40A	• I/O Points - 24 DC inputs / 16 relay outputs (G7M-DR40A, G7M-DR40A/DC) - 24 DC inputs / 16 transistor outputs (G7M-DT40A) • Program capacity : 68k bytes • Built-in function -High-speed counter : Phase1 16 kHz, phase2 8 kHz 1channel -pulse output : 1 × 2 kHz -pulse catch : pulse width 0.2ms, 4 points -external contact point interrupt: 0.4ms, 8points -input filter: 0 ~ 15ms (all input) -PID control function -RS-232C communication	
		G7M-DR60A G7M-DR60A/DC G7M-DT60A	• I/O Points - 36 DC inputs / 24 relay outputs (G7M-DR60A, G7M-DR60A/DC) - 36 DC inputs / 24 transistor outputs (G7M-DT60A) • Program capacity : 68k bytes • Built-in function -High-speed counter : Phase1 16 kHz, phase2 8 kHz 1channel -pulse output : 1 × 2 kHz -pulse catch : pulse width 0.2ms, 4 points -external contact point interrupt: 0.4ms, 8points -input filter: 0 ~ 15ms (all input) -PID control function -RS-232C communication	
Expansion module	Digital I/O module	G7E-DR10A	• I/O points -6 DC inputs / 4 relay outputs	
	A/D · D/A Composite module	G7F-ADHA	• A/D : 2 channel , D/A : 1 channel	
	Analog timer module	G7F-AT2A	• Points : 4points • Digital output range : 0~200	
	Cnet I/F module	G7L-CUEB	• RS-232C : 1 channel	Not available for 10-poiunt units
		G7L-CUEC	• RS-422 : 1 channel	