

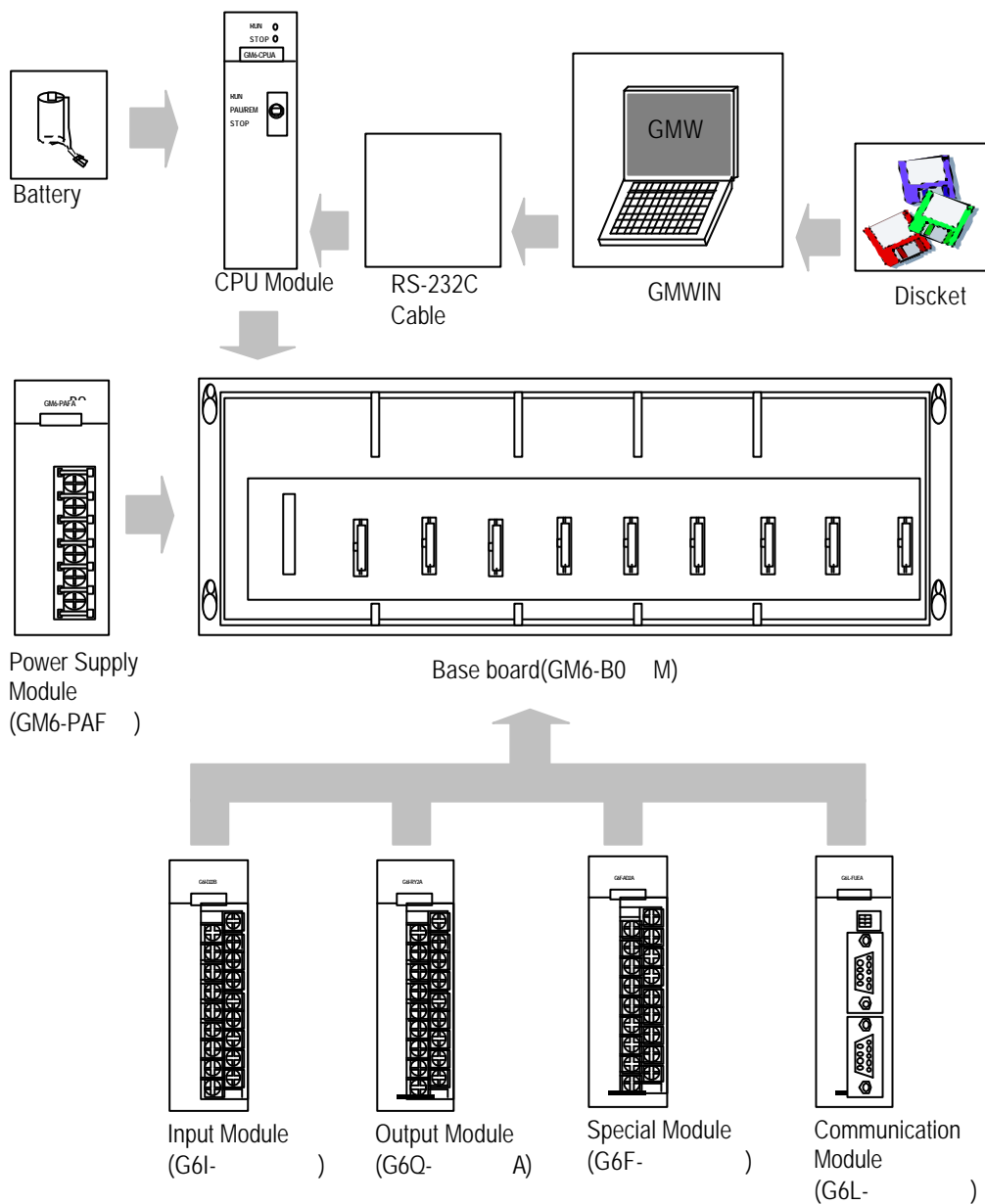
## Chapter 2. SYSTEM CONFIGURATION

The GLOFA-GM6 series has various modules 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

The following shows the overall configuration of the GLOFA-GM6 series.



## 2.2 Product List

The following table shows product list of GLOFA-GM6 series.

### 2.2.1 GM6 series Configuration

| Items                 | Models   | Description  | Remarks  |
|-----------------------|----------|--|--|
| CPU module            | GM6-CPUA | <ul style="list-style-type: none"> <li>Maximum I/O points: 256</li> <li>Special functions : RS-232 communication</li> </ul>              |  |
|                       | GM6-CPUB | <ul style="list-style-type: none"> <li>Maximum I/O points :</li> <li>Special functions : RS-422/485 communication, RTC, PID</li> </ul>   |  |
|                       | GM6-CPUC | <ul style="list-style-type: none"> <li>Maximum I/O points :</li> <li>Special functions : RS-232C communication, RTC, PID, HSC</li> </ul> |  |
| Digital input module  | G6I-D21A | • 8-point 12/24 VDC input module(current source & sink input)  |  |
|                       | G6I-D22A | • 16-point 12/24 VDC input module(current source & sink input)   |  |
|                       | G6I-D22B | • 16-point 12/24 VDC input module(current source input)  |  |
|                       | G6I-D24A | • 32-point 12/24 VDC input module(current source & sink input)   |  |
|                       | G6I-D24B | • 32-point 12/24 VDC input module(current source input)  |  |
|                       | G6I-A11A | • 8-point 110 VAC input module   |  |
|                       | G6I-A21A | • 8-point 220 VAC input module   |  |
| Digital output module | G6Q-RY1A | • 8-point relay output module(2A)  |  |
|                       | G6Q-RY2A | • 16-point relay output module(2A)   |  |
|                       | G6Q-TR2A | • 16-point transistor output module(0.5A, sink output)   |  |
|                       | G6Q-TR2B | • 16-point transistor output module(0.5A, source output)   |  |
|                       | G6Q-TR4A | • 32-point transistor output module(0.1A, sink output)   |  |
|                       | G6Q-TR4B | • 32-point transistor output module(0.1A, source output)   |  |
|                       | G6Q-SS1A | • 8-point triac output module(1A)  |  |
| Main base unit        | GM6-B04M | • Up to 4 I/O modules can be mounted.  |  |
|                       | GM6-B06M | • Up to 6 I/O modules can be mounted.  |  |
|                       | GM6-B08M | • Up to 8 I/O modules can be mounted.  |  |
| Power supply module   | GM6-PAFA | Free Voltage   | • 5 VDC : 2 A, 24 VDC : 0.3 A                      |
|                       | GM6-PAFB | (100 ~ 240VAC)   | • 5 VDC : 2 A<br>• +15 VDC : 0.5 A, -15VDC : 0.2 A |
|                       | GM6-PD3A | DC24V  |  |
|                       | GM6-PDFA | DC12/24V   | • 5 VDC : 2 A                                      |


| Items                 | Models                    | Description | Remarks   |  |
|-----------------------|---------------------------|-------------|---|--|
| Special modules       | A/D conversion module     | G6F-AD2A    | <ul style="list-style-type: none"> <li>• Voltage/current input : 4 channels</li> <li>• DC -10 to 10V / DC -20 to 20 mA</li> </ul>   |  |
|                       | D/A conversion module     | G6F-DA2V    | <ul style="list-style-type: none"> <li>• Voltage output : 4 channels</li> <li>• DC -10 to 10V</li> </ul>  |  |
|                       |                           | G6F-DA1A    | <ul style="list-style-type: none"> <li>• Current output : 4 channels</li> <li>• DC 4 to 20 mA</li> </ul>  |  |
|                       | High speed counter module | G6F-HSCA    | <ul style="list-style-type: none"> <li>• Counting range: 0 to 16,777,215(24 bit binary)</li> <li>• 50 kHz, 1 channel</li> </ul>   |  |
|                       | Positioning module        | G6F-POPA    | <ul style="list-style-type: none"> <li>• Pulse output, 2-axes control</li> </ul>  |  |
| Communication modules | Fnet I/F module           | G6L-FUEA    | <ul style="list-style-type: none"> <li>• For Fnet I/F</li> <li>• 1 Mbps base band</li> <li>• For twisted cable</li> </ul>   |  |
|                       | Fnet remote I/F module    | G6L-RBEA    | <ul style="list-style-type: none"> <li>• For Fnet remote I/F</li> <li>• 1 Mbps base band</li> <li>• For twisted cable</li> </ul>  |  |
|                       | Computer Link module      | G6L-CUEB    | <ul style="list-style-type: none"> <li>• RS-232C</li> </ul>   |  |
|                       |                           | G6L-CUEC    | <ul style="list-style-type: none"> <li>• RS422</li> </ul>   |  |
|                       | Dnet I/F module           | G6L-DUEA    | <ul style="list-style-type: none"> <li>• Dnet I/F master module</li> <li>• Complying with ODVA (Open Devicenet Vendor Association) 2.0 standard.</li> </ul>   |  |
|                       |                           | G6L-DSIA    | <ul style="list-style-type: none"> <li>• Dnet I/F slave input module</li> <li>• 12/24 VDC input (16 points)</li> <li>• Complying with ODVA (Open Devicenet Vendor Association) 2.0 standard.</li> </ul> |  |
|                       |                           | G6L-DSQA    | <ul style="list-style-type: none"> <li>• Dnet I/F slave output module</li> <li>• Relay output (16 points)</li> <li>• Complying with ODVA (Open Devicenet Vendor Association) 2.0 standard.</li> </ul>   |  |
| Others                | Dust Proof Module         | GM6-DMMA    | <ul style="list-style-type: none"> <li>• Protect empty slot for dust</li> </ul>   |  |

## 2.3 System Configuration Types

System configuration is classified into 3 types that Basic system, Computer link system executing data communications between the CPU module and a computer by use of a computer link module(G6L-CUEB/C) and Network systemcontrolling the PLC and remote I/O modules.

### 2.3.1 Basic System

The following describes basic system.

|  |  |  |                      |                      |                      |                      |                      |                      |                      |
|--|--|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Example of System configuration  | Slot number  | 0                                      | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                    |
|  | POWER  | 0.0.0<br>~<br>0.0.15                   | 0.1.0<br>~<br>0.1.15 | 0.2.0<br>~<br>0.2.15 | 0.3.0<br>~<br>0.3.15 | 0.4.0<br>~<br>0.4.15 | 0.5.0<br>~<br>0.5.15 | 0.6.0<br>~<br>0.6.15 | 0.7.0<br>~<br>0.7.15 |
| Base Board  |  |  |                      |                      |                      |                      |                      |                      |                      |
| (The above figure shows the configuration where 16-input/output modules are loaded.)           |  |  |                      |                      |                      |                      |                      |                      |                      |
| Maximum number of Input/Output modules   | 8 modules  |  |                      |                      |                      |                      |                      |                      |                      |
| Maximum number of Input/Output points  | <ul style="list-style-type: none"> <li>• 16-point module mounted: 128 points</li> <li>• 32-point module mounted: 256 points</li> </ul>   |  |                      |                      |                      |                      |                      |                      |                      |
| Configuration units  | CPU module   | GM6-CPUA, GM6-CPUB, GM6-CPUC           |                      |                      |                      |                      |                      |                      |                      |
|  | Power Supply module  | GM6-PAFA, GM6-PAFB, GM6-PD3A, GM6-PDFA |                      |                      |                      |                      |                      |                      |                      |
|  | Basic Base Unit  | GM6-B04/06/08M                         |                      |                      |                      |                      |                      |                      |                      |
|  | I/O module   | G6I-□□□□<br>G6Q-□□□□                   |                      |                      |                      |                      |                      |                      |                      |
|  | Special module   | G6F-□□□□                               |                      |                      |                      |                      |                      |                      |                      |
|  | Communication module   | G6L-□□□□                               |                      |                      |                      |                      |                      |                      |                      |
| I/O number allocation  | 64 points are allocated to each slot in a base board whatever it is empty or not. There's no limitation for the location and the number of special modules on base board. Special modules do not have fixed I/O numbers while a fixed I/O number is allocated to a digital I/O module. A dedicated function block controls a special module and memory is allocated automatically. |  |                      |                      |                      |                      |                      |                      |                      |
| Note for power supply module selection   | <ul style="list-style-type: none"> <li>• To use A/D, D/A conversion module, be sure to select GM6-PAFB power supply module that supplies ±15VDC instead of 24VDC. ±15VDC power is need for operation of internal analog circuit of A/D and D/A conversion modules.</li> </ul>  |  |                      |                      |                      |                      |                      |                      |                      |

### 2.3.2 Computer Link System

Computer Link System communicates data between the CPU module and peripheral devices like a computer or a printer by use of RS-232C and RS-422(or RS-485)interface of the computer link module.

The G6L-CUEB or G6L-CUEC are the computer link module for GM6 series. For details of computer link module, refer to related User's Manual.

### 2.3.3 Network System

The Network system adapted in the GLOFA series a Fnet system that satisfies the IEC/ISA field bus specifications. Fnet system as a network system is used for data communications between CPU modules and control of remote I/O modules so that distribution of control and concentration of supervision could be easy. For details, refer to Fnet system user's manual.