

The PLC G2007 micro PLC family has 20 inputs and 16 outputs in the base unit. The G2007 has four option module slots which can be used to add I/O or provide additional communications options.



PLC G2007

## ● Features at a Glance

### Intruction sets

The PLC G2007 offers PID capability, floating point number handling, and an instruction set very similar to our D2-260 CPU, including the new IBox instructions available in DirectSOFT version 5. Many powerful new instructions are included. All G2007 PLCs have two built-in communications ports that can be used for programming, operator interface, networking, etc. One of the PLC G2007 ports is a multi-function port capable of RS-232, RS-422, or RS-485 communications.

### Power options

The PLC G2007 families have AC and DC power options. They are also offered with a variety of I/O options. You can explore the Quick Selection Guide on the next page to choose the right PLC for your application.

### High-speed inputs and outputs

Units with DC inputs have selectable highspeed input features on four input points (PLC G 2007). Units with DC outputs can use the first two outputs as a single bi-directional pulse output. Detailed specifications for each model appear later in this section.



The PLC G2007 micro PLCs are complete self-contained systems. The CPU, power supply, and I/O are all included inside the same housing. Option modules are available to expand the capability of each PLC family for more demanding applications. The standard features of these PLCs are extraordinary and compare favorably with larger and more expensive PLCs.

### Program capacity

Most boolean ladder instructions require a single word of program memory. Other instructions, such as timers, counters, etc., require two or more words. Data is stored in V-memory in 16-bit registers.

### Performance

The performance characteristics shown in the tables represent the amount of time required to read the inputs, solve the Relay Ladder Logic program and update the outputs.

### Instructions

A complete list of instructions is available at the end of this section.

### Communications

The PLC G2007 offer powerful communication features normally found only on more expensive PLCs.

### Special features

The DC input and DC output PLCs offer high-speed counting or pulse output. Option module slots allow for discrete I/O expansion, analog I/O, or additional communication options.

## PLC G2007 CPU Specifications

### System capacity

Total memory available (words) .....	14.8K
Ladder memory (words) .....	7680
V-memory (words) .....	7616
User V-memory .....	7488
Non-volatile user V-memory .....	128
Built-in battery backup (D2-BAT-1) .....	Yes
Total I/O .....	36
Inputs .....	20
Outputs .....	16
I/O expansion .....	Yes1

### Performance

Contact execution (Boolean) .....	0.6µs
Typical scan (1K Boolean)2 .....	1-2ms.

### Instructions and diagnostics

RLL ladder style .....	Yes
RLLPLUS/flowchart style (Stages) .....	Yes/1024
Run-time editing .....	Yes
Scan .....	Variable/fixed
Number of Instructions .....	229
Types of Instructions:	

Control relays .....	1024
Timers .....	256
Counters .....	128
Immediate I/O .....	Yes
Subroutines .....	Yes
For/next loops .....	Yes
Table functions .....	Yes
Timed interrupt .....	Yes
Integer math .....	Yes
Trigonometric functions .....	Yes
Floating-point math .....	Yes
PID .....	Yes
Drum sequencers .....	Yes
Bit of word .....	Yes
Number type conversion .....	Yes
ASCII in, out, print .....	Yes
LCD instruction .....	Yes
Real-time clock/calendar .....	Yes
Internal diagnostics .....	Yes
Password security .....	Yes
System and user error log .....	No

### Communications

Built-in ports: .....	One RS-232C
.....	One multi-function RS232C/RS422/RS485

### NOTE: RS485 is for MODBUS RTU only.

Protocols supported:	
K-sequence (proprietary protocol) .....	Yes
DirectNet master/slave .....	Yes
Modbus RTU master/slave .....	Yes
ASCII in/out .....	Yes
Baud rate	
Port 1 .....	9,600 baud (fixed)
Port 2 .....	selectable 300-38,400 baud
.....	(default 9,600)

### Specialty Features

Filtered inputs .....	Yes3
Interrupt input .....	Yes3
High speed counter .....	Yes, 7kHz3
Pulse output .....	Yes, 10kHz3
Pulse catch input .....	Yes3

- 1- These features are available with use of certain option module. Option module specifications are located later in this section.
- 2- Our 1K program includes contacts, coils, and scan overhead. If you compare our products to others, make sure you include their scan overhead.
- 3- Input features only available on units with DC inputs and output features only available on units with DC outputs.