Features and Specifications

The DL105 micro PLCs contain the CPU, power supply and I/O all in the same housing. If you examine the CPU

Review the specs

Make sure these features can satisfy the requirements of your application. Since these units are completely self-contained, you cannot expand the system or replace the CPU as you would in a modular system.

System capacity
System capacity is the ability to accommodate a variety of applications. For ladder memory, most Boolean instructions require one word. Some other instructions, such as timers, counters, etc., require two or more words. Our V-memory words are useful for data storage, etc.

Performance
The performance is simply the scan time, which is the amount of time required to read the inputs, solve the RLL program and update the outputs.

Instructions and diagnostics
Make sure the unit offers the instructions you need.

Communications
All DL105 units offer one RS-232 port, capable of 9600 baud.

Specialty features
With the DC input and/or DC output versions, we also offer several high-speed I/O features.

Specifications table, you'll see that we included many features found in our modular CPUs.

Programming
Handheld programmer..D2-HPP.................$456.00
DirectSOFT Programming for Windows
PC-DSOFT6..$427.00
PC-DS100..$0.00
PC-R60-U (upgrade)..............................$269.00

Note: Either high-speed input or pulse output can be used, but not in the same configuration.

DL105 CPU Specifications

System capacity
Total memory available (words)	2.4K
Ladder memory (words)	2,048
EEPROM	
V-memory (words)	384
User V	256
Non-volatile user V	128
Battery backup	No
Total I/O	18
Inputs	10
Outputs	8
I/O expansion	No

Performance
Contact execution (Boolean)	3.3 µs
Typical scan (1K Boolean)1	5–6 ms

Instructions and diagnostics
RLL ladder style	Yes
RLLPLUS/flowchart style (Stages)	Yes/256
Run-time editing	Yes
Supports Overrides	No
Variable/fixed scan	Variable
Instructions	91
Control relays	256
Timers	64
Counters	64
Immediate I/O	Yes
Subroutines	No
For/next loops	No
Timed interrupt	Yes
Integer math	Yes
Floating-point math	No
PID	No
Drum sequencers	Yes
Bit of word	No
ASCII print	No
Real-time clock/calendar	No
Internal diagnostics	Yes
Password security	Multi-level
System and user error log	No

Communications
Built-in ports	one, RS-232-C
K-sequence (proprietary protocol)	Yes
DirectNET™	No
MODBUS master/slave	No
ASCII out	No
Baud rate (fixed)	9600 baud

Specialty features
Filtered inputs	Yes2
Interrupt input	Yes2
High-speed counter	Yes, 5kHz2
Pulse output	Yes, 7kHz2
Pulse catch input	Yes2

1- Our 1K program includes contacts, coils, and scan overhead. If you compare our products to others, make sure you include their scan overhead.
2- Input features are only available on units with DC inputs. Output features are only available on units with DC outputs.

DL105 Hardware Features

CPU Status Indicators

RUN ....ON.........................CPU is in RUN mode
.............OFF..............CPU is in PROGRAM mode
PWR ......ON............................CPU power good
.............OFF.........................CPU power failure
CPU......ON......................CPU internal diagnostics
....has detected an error
............OFF.....................................CPU is OK

Mode Control

The DL105 units do not have mode switches like many of our modular CPUs. You can set the unit (using special V-memory locations) so that it will power up in RUN mode.

Communications Port

Protocol................................K-sequence slave
Devices..........................Can connect with HPP,
......................................DirectSOFT, DV-1000
....C-More Panels
Specs..............................6P6C RJ12 connector
....RS-232-C, 9,600 baud,
....Odd parity,
......................................Fixed station address (1),
....8 data bits (one start,
....one stop bit),
.............................Asynchronous, half-duplex, DTE

RJ12 Connector Port 1 Pinout

Pin...Signal	
1..	0V
2..	5V
3...	RS-232 Data in
4..	RS-232 Data out
5..	5V
6..	0V

Fixed EEPROM memory

The DL105 units offer built-in EEPROM memory.

NOTE: Terminals accept 16–24 AWG. For 16 AWG, use type TFFN or Type MTW. Other types of 16 AWG may be acceptable, but it really depends on the thickness of the wire insulation.

Output terminal block (removable)

Terminal cover

Output LEDs

6-pin female connector

Auxiliary 24VDC supply (AC powered units only)

Input terminal block (removable)

Input LEDs

CPU status LEDs