

DL205 WinPLC: Windows® CE-based CPU



PC control with a WinPLC

The WinPLC provides a Windows® CE operating system environment in our DL205 CPU hardware. The small size and low cost of DL205 products is desirable, but the operating systems of the D2-230, 240, 250-1 and 260 CPUs are proprietary (like most PLCs). The WinPLC provides a hybrid PC-PLC solution that brings the best of the PLC and PC control worlds together. A WinPLC system is the best solution if your applications requires:

- Complex math
- Heavy serial communications (can use the H2-SERIO module)
- Advanced data manipulation
- Advanced handling of string or array data
- Up to 64 PID loops

Here's how it works

The WinPLC module is plugged into the CPU slot of the DL205 base. It uses Windows CE, a real-time operating system combined with the advantages of open standard software such as OPC, ActiveX and other Microsoft communications tools. The WinPLC offers both deterministic control and open communications. It uses advanced software development tools for control, data management, communication and integration with business systems. The WinPLC supports the following DL205 modules only:

- All discrete and analog modules
- Temperature input modules
- H2-SERIO serial communications module

Specifications	H2-WPLC2-EN	H2-WPLC3-EN
Processor	Hitachi SH3 Series 7708 Processor	
Processor Speed	100 MHz	
Pre-loaded Software	Runtime engine compatible with Think & Do Studio or Think & Do Live!	
Memory	4MB FLASH EE ROM, 2MB RAM, 64kB battery-backed RAM10Mbps	8MB FLASH EE ROM, 8MB RAM, 64kB battery-backed RAM10Mbps
Indicators	Power, Link/Act, Run, Error	
Local I/O Points	256 (224 if using H2-ERM in module slot for Ethernet remote I/O)	
Ethernet Remote I/O points	256 (using H2-ERM master in local WinPLC base and H*-EBC or T1H-EBC remote slave)	
Port 0	RJ12, 6-pin modular, serial port, supports K-sequence, or any protocol from Windows CE	
Port 1	RJ45, 8-pin modular, Ethernet 10MBPS	
I/O Interface	Backplane to DL205 (Up to 9-Slot base), expandable with H2-ERM	
Power Consumption	680 mA at 5VDC	
Weight	6 oz.	
Operating Temperature	0-60°C	
Storage Temperature	-20-70°C	
Agency Listings	UL Listing	
Manufacturer	Host Automation Products, LLC.	

- H2-ERM module for Ethernet remote I/O (limited to one ERM and one EBC slave per system)
- H2-CTRIO Counter I/O module

DL205 specialty modules not listed above are not supported by the WinPLC.

Built-in Ethernet port

The WinPLC is programmed via a built-in 10 MB Ethernet port. WinPLCs can use OPC or DDE to link to an HMI or other application using this high-speed port; or, share tags with any controller running Think & Do software for coordinated control with a PC system. The built-in Ethernet port can also be used for peer-to-peer communications between multiple WinPLCs.

Built-in serial port

A built-in RS-232 serial port lets you connect a **C-more** or other operator interfaces to the WinPLC. You can also connect to devices such as barcode readers, weight scales or serial modems to the serial port. Unlike most RLL programming, the Think & Do programming method is designed for easy communication programming and string manipulation. Up to nine additional serial ports can be added to a WinPLC system by using the H2-SERIO serial communication module. For more information on the H2-SERIO module see "Additional Serial Ports for the WinPLC" later in this section.

Programming the WinPLC

Creating flowcharts (projects) for the WinPLC requires one of the following development packages running on a PC equipped with an Ethernet card: Think & Do Live! (PC-ENT-LIVE), the low-cost T&D Live! for WinPLC programming pack (PC-WPLC-LIVE), or Think & Do Studio (PC-ENT-SDD). Since each WinPLC includes its own run-time license, you can program as many WinPLCs as you need, at no additional cost. When you compile your project, the PC automatically downloads the flowcharts into the WinPLC. Then at runtime (or at power-up), the WinPLC will run the flowchart program.

CE-only version WinPLC

This version of the WinPLC is not preconfigured with any control software. It's for qualified OEMs or software developers who want to develop their control code in VB or C++. AUTOMATIONDIRECT does not sell this version of the WinPLC. If you are interested in the CE-only version, visit www.hosteng.com for details.

**See the Think & Do PC Control software section in this catalog for information on the PC-WPLC-START Starter Kit, and the PC-WPLC-LIVE Think & Do Live! WinPLC programming package.*