

# DL05 Expands To Support Analog

Top six reasons to choose a DL05 micro PLC for analog control

## What is it?

The DL05's analog capabilities are a great fit for a variety of applications at a fraction of the competition's price. Install one of our analog option modules and wire directly to the most common analog devices, such as pressure and level transmitters, proportional valves, AC drives and panel meters.

## What's it got?

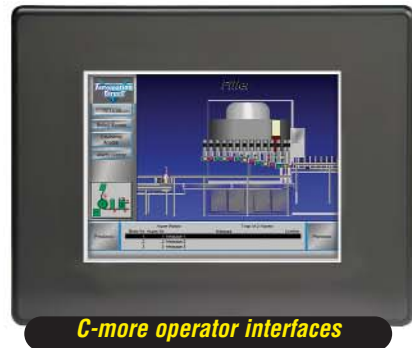
- Four PID loops with auto-tune
- A large selection of analog option modules
- Signal ranges of 4-20 mA or 0-20 mA, and 0-5 V or 0-10 V input and output ranges available
- 12 or 16-bit resolution modules
- Thermocouple and RTD temperature inputs
- Removable terminal blocks available on all modules

## What type of analog control can I perform with it?

- Build a micro process controller using the PID loops combined with one of the new analog option modules. Add a local operator interface to set and view parameters.
- Monitor and control the level of a remote tank, well, or pumping station by combining a DL05 with our industrial telephone modem.
- Create a Modbus RUT network of several DL05 PLCs, each with an analog option module, for a low cost distributed control system. Even incorporate a PC HMI on the same network for a complete SCADA system.

### 1 Really low prices

Combine a \$39.00 4-channel analog input module with our \$99.00 DL05 PLC for low-cost analog monitoring. Use the built-in PID loops and build a micro process control system at an unbeatable price. The DL05 matches or beats the competition in features, then finishes them off with two-for-one pricing. And if you want to do a little analog control, use a combo 2-channel in/2-channel out analog module (\$149.00) with our \$99.00 PLC.



### 2 Practical built-in connectivity

With two RS-232 serial communication ports included, this little PLC is no silent black box. Connect an operator interface on Port 1, then connect Port 2 to a PC-HMI or other serial device for data acquisition or operator control at the same time. Supports industry standard Modbus RTU protocol (both master and slave on Port 2 up to 38.4K baud).

PC-DS100 - Free programming software includes all of the full package features like graphical PID loop trending.



### 4 Industrial DIN-rail mount premium telephone modem (MDM-TEL \$399.00)

### 4 RTU system when combined with our industrial modem

Combine a DL05 AC- or DC-powered unit with our industrial telephone modem and avoid the high cost of an advanced Remote Telemetry System (RTU) that probably has a PLC as its brain anyway. With its configurable Port 2 timing settings, the DL05 easily accommodates our industrial telephone modem for almost any remote dial-up application, such as pump stations, level control and monitoring, even golf course irrigation. This combination can really save you money on service calls, data acquisition, up-and-down-time trending and more.

### 3

The DL05 complements its great analog capabilities with four PID loops included at no additional charge. It also features:

- Automatic loop scheduling
- Fill-in charts for alarms and ramp/soak profiles
- **DirectSOFT** programming software includes the loop tune screen with trending
- Auto-tune feature to allow the CPU to determine the near-optimum loop settings (based upon the time constant of your process at the time auto-tune procedure is performed)

### 5 Analog option modules

These little analog modules are the smallest and lowest priced in the industry. We have **thirteen models to choose from**, with flexible features including 4-20 mA or 0-20 mA, and 0-5V or 0-10V input and output ranges along with modules accepting temperature input.



### 6 Low-cost process control system

The small size and flexible features of the DL05 make it a great low-cost process controller. Connect a temperature sensor to an analog input through an option module. Then, allow the DL05 discrete outputs to control process loads like heater elements and/or mixers using "time-proportioning" and the built-in PID.

**CHECK OUT OUR PRICES**

PLCs	DirectLOGIC DL05	Allen-Bradley MicroLogix 1000	GE Fanuc VersaMax Micro
Removable Terminal Block	Yes	No	Yes
Number of Inputs	8	6	8
Number of Outputs	6	4	6
Total Program/Data Memory	6K	1K	6K
Communication Ports	2	1	1
Master/Slave Protocols	Yes	Slave only	Slave only
Real Time Clock/Memory Options	Yes	No	No
PID	Yes	No	Yes
Auxiliary DC Power Supply	No	Yes	Yes
<b>Price with AC power supply</b>			
DC Inputs/Relay Outputs	<b>\$99.00</b> (DO-05DR)	<b>\$189.00</b> (1761-L10BWA)	<b>\$243.00</b> (IC200UDR001)
DC Inputs/DC Outputs	<b>\$99.00</b> (DO-05DD)	No	No
AC Inputs/Relay Outputs	<b>\$119.00</b> (DO-05AR)	No	<b>\$285.00</b> (IC200UAR014)
AC Inputs/AC Outputs	<b>\$129.00</b> (DO-05AA)	No	<b>\$280.00</b> (IC200UAA003)

All prices are U.S. published prices. AutomationDirect prices are from October 2007 Price List. Allen-Bradley prices are from http://shop.rockwellautomation.com 7/20/07. Allen-Bradley MicroLogix 1000 Installation Instructions Manual 176151. Allen-Bradley MicroLogix 1000 User Manual 176163. GE Fanuc prices are from http://www.plccenter.com 7/20/07. GE Fanuc Series VersaMax Nano & Micro Controller Solutions GFA-196 50M 2/00.

**CHECK OUT OUR PRICES**

Analog Expansion I/O	AutomationDirect DL06	Allen-Bradley MicroLogix 1200	GE Fanuc VersaMax Micro
<b>Analog Input Base System (DC Inputs/Relay Outputs) +</b>	\$229 +\$79	\$721 +\$319	
<b>4-channel Analog Input Module</b>	<b>\$308</b> (DO-06DR + FO-04AD-1)	<b>\$1,040</b> (1762-L40BWA + 1762-IF4)	
<b>Analog Input/Output Combination with base system (DC Inputs/Relay Outputs) +</b>	N/A	N/A	<b>\$610</b> (only integrated on 20-pt. I/O model) (DO-06DR)
<b>2-channel In/1-channel Out</b>			
<b>2-channel In/2-channel Out</b>	\$229 +\$149	\$721 +\$319	
	<b>\$378</b> (DO-06DR + FO-2AD2DA-2)	<b>\$1,040</b> (1762-L40BWA + 1762-IF20F2)	
<b>4-channel In/ 2-channel Out</b>	\$229 +\$185		
	<b>\$414</b> (DO-06DR + FO-4AD2DA-1)		

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## NEW! High-Resolution

Our new 16-bit high-resolution modules are available in 4-channel or 8-channel out, and 8-channel in with either current voltage or voltage signal types.

Automation Direct

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pushbuttons/Lights

Process

Relays/Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index