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Automation Direct Pty Ltd
has transferred its business to
a new company called
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to better reflect our long term-
commitment to our customers.

We remain a wholly owned
Australian company.
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by using a good product at a
great price, taking advantage
of good service, and receiving
the fastest delivery possible,
they can rely on us.



Asia Pacific Region

1800-633-040

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Our brand is our promise to you -

Our commitment is that our products remain "great value for money, and that we will deliver quality, reliable and innovative products with fast shipping."

You are never more than a quick phone call away from the best tech support in the business!

It's no accident that our technical support team routinely demonstrates the best attitude and manners in the industry! Some of our competitors require your credit card details before they assist or you are required to sign up to support packages.

The bottom line with Direct Automation is that you get great service by design and without cost.

Are you tired of calling a local distributor to discover their "product expert" is not in? How about waiting hours for technical service to return a message? Are you tired of technical support staff with poor attitudes that border on arrogant?

Why not try our service? Isn't it great to get better service and a better price?



For almost 20 years, we've been helping customers turn a profit by keeping costs down and quality up!!

Since our beginning in 1994, as AussieDirect, our number one objective has been to deliver quality products at practical prices.

We try extra hard, especially during these uncertain economic times when many companies are faced with tighter operating budgets.

Our customers recognize that by using a good product at a great price, taking advantage of #1 rated service, and receiving the fastest delivery possible, they can rely on us to help with their bottom line.

It's pretty simple, now that we are **Direct Automation Pty Ltd**

Give people what you promise and they will come back for more.



What's inside:

PRODUCT	PAGE
PLCs Do-more	2
Do-more Designer Software.....	6
Terminator Field I/O	10
Productivity Pro.....	12
Productivity Pro Software.....	13
Click PLCs	14
Direct Logic PLCs.....	15
C-more Operator Panels	16
C-more Micro Operator Panels	17
ViewMarq Displays.....	18
Pneumatic Controls.....	20
Sensors	22
Safety Products.....	24
Motor Controls.....	25
Ultrasonic Level Sensors	26
Ziplink Wiring System	27
Ethernet Switches/Terminal Blocks	28
SOLO Temperature Controllers.....	BCVR

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Direct Automation Pty Ltd - Serving Australia and the Asia Pacific Region



FREE Software and Manuals

www.directautomation.com.au

Don't worry about the technical information for your products - it's all available online in PDF form - including hardware manuals, product installation inserts and quick-start guides, as well as our complete

catalogue. You don't have to remember to order it, file it or try to find it - it's there when you need it.

Programming software for a complex product can be costly, so we try to help you out by offering FREE fully enabled software for a number of our most popular products, including the Productivity3000 PAC, CLICK PLC and C-more Micro HMI. No license or upgrade fees to deal with and our support is free too!

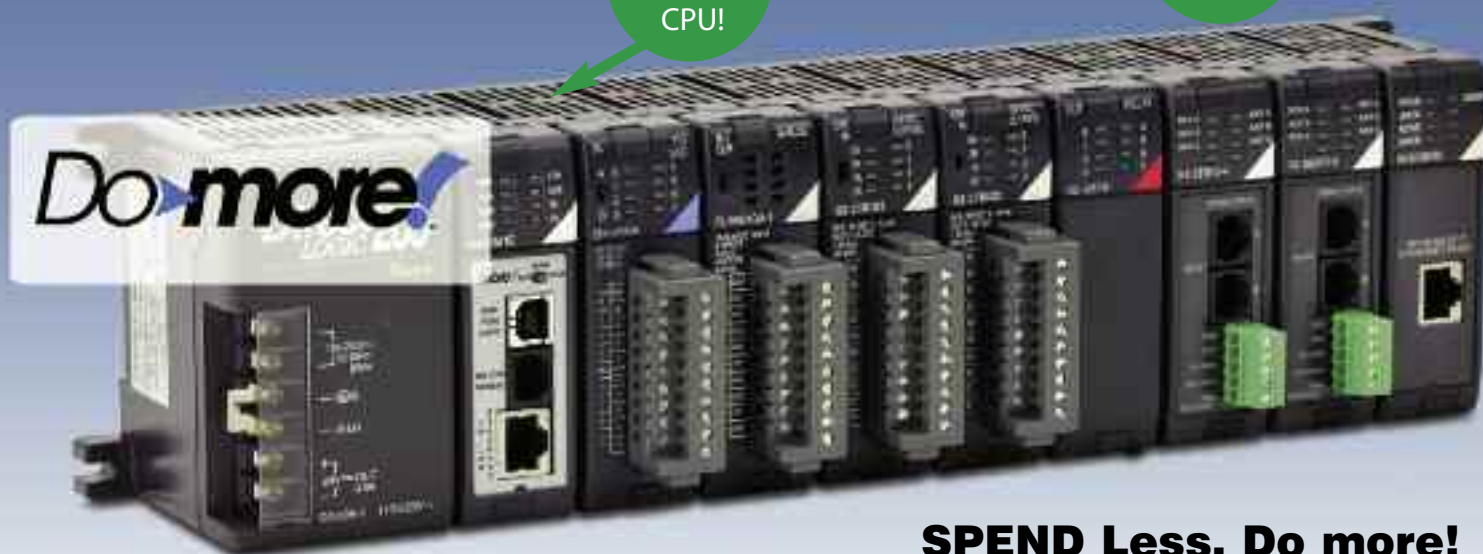
DIRECTAUTOMATION

FREE support sites that help you before, during, and after your purchase

www.directautomation.com.au

Technical Support is loaded with FAQs, demo programs, FREE manuals (PDF downloads), CAD drawing downloads, Customer Forum, Example programs, Application Stories, Software & Firmware upgrades, product training video's and more.

*All prices are subject to change, orders are accepted at the pricing ruling at the time of acceptance of orders and do not include GST.



SPEND Less, Do more!

The Do-more H2 series micromodular CPUs are "superchargers" for the time-tested DL205 hardware. We started with a blank slate and included many features our customers have been asking for. It's super-fast, has lots of memory, embedded Ethernet - we know, we're pretty excited ourselves!

There are two CPU options:

- H2-DM1 **\$495.00** (1) USB port, (1) full-duplex serial port
- H2-DM1E **\$595.00** (1) USB port, (1) full-duplex serial port, (1) Ethernet port
- Over 1M bytes total memory (includes program, data and documentation)
- Program/monitor/debug over any embedded communication port.
- Supports up to 256 I/O locally and thousands more with optional Ethernet remote expansion racks.
- Supports inexpensive serial port expansion options for connection to bar code readers, ASCII devices, printers, etc.
- Four base sizes with built-in power supply support 12/24 VDC, 110/220 VAC and 125VDC (six and nine-slot only) power sources.
- Over 50 option modules are available, from discrete and analog to high-speed counter and Ethernet modules.

Note: Do-more CPUs are programmed with the new Do-more Designer software. DirectSOFT, and ladder programs developed with DirectSOFT, are not compatible with these CPUs.

Get started fast with a Do-more Starter Kit - you get a prewired, 3-slot base with your choice of Do-more CPU, 8-point input simulator module, 8-point relay output module, Do-more Designer software on CD, a hard copy of the user manual, a USB programming cable, and a coupon for free online training. With the H2-DM1 CPU, the kit is \$695.00; with the H2-DM1E, the kit is \$795.00.



H2-DM1

H2-DM1E



100% FREE Software!

The Do-more Designer software represents a clean break from the past (DirectSOFT). We listened to our customers to create a powerful, easy-to-use programming environment with all the features you expect from modern PLC programming software.

Discrete input/output modules

DC Input Modules

D2-08ND3	\$89.00	8 pt. 12-24V sink/source
D2-16ND3-2	\$145.00	16 pt. 24V sink/source
D2-32ND3-2	\$195.00	32 pt. 5-15V sink/source
D2-32ND3	\$195.00	32 pt. 24V sink/source

AC input modules

D2-08NA-1	\$120.00	8 pt. 110VAC
D2-08NA-2	\$155.00	8 pt. 220VAC
D2-16NA	\$199.00	16 pt. 110VAC



Use Do-more CPUs with these time tested, industry-proven modules

DC output modules

D2-04TD1	\$99.00	4 pt. 12-24V sink, 4A/pt
D2-08TD1	\$95.00	8 pt. 12-24V sink
D2-08TD2	\$95.00	8 pt. 12-24V source
D2-16TD1-2	\$160.00	16 pt. 12-24V sink
D2-16TD2-2	\$160.00	16 pt. 12-24V source
F2-16TD1P	\$175.00	16 pt. 12-24 VDC sink
F2-16TD2P	\$175.00	16 pt. 12-24 VDC source
D2-32TD1	\$195.00	32 pt. 12-24V sink
D2-32TD2	\$195.00	32 pt. 12-24V source



16-point module with removable terminal block

AC output modules

D2-08TA	\$170.00	8 pt. 18-220VAC
F2-08TA	\$165.00	8 pt. 20-125VAC, high current
D2-12TA	\$199.00	12 pt. 18-110VAC

Relay output modules

D2-04TRS	\$99.00	4 pt. 4A/pt. 8A/module
D2-08TR	\$110.00	8 pt. 1A/pt. 4A/module
F2-08TR	\$110.00	8 pt. form A, 10A/common
F2-08TRS	\$135.00	8 pt. (5 form A, 3 form C, 7A/pt)
D2-12TR	\$175.00	12 pt. form A, 1.5A/pt



Combination

D2-08CDR	\$99.00	4 pt. DC in, 4 pt. relay out
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Analog and Temperature modules

Wide range of low cost analog and thermocouple modules

Analog input modules

F2-04AD-1	\$250.00	4-ch. 4-20mA
F2-04AD-2	\$295.00	4-ch. 0-5V, 0-10V, -5 to +5V, -10 to +10V
F2-08AD-1	\$320.00	8-ch. 4-20mA
F2-08AD-2	\$340.00	8-ch. 0-5V, 0-10V, -5 to +5V, -10 to +10V

Analog output modules

F2-02DA-1	\$199.00	2 ch. 4-20mA
F2-02DA-2	\$210.00	2 ch. 0-5V, 0-10V, -5 to +5V, -10 to +10V
F2-02DA-1L	\$199.00	2 ch. 4-20mA (12VDC supply)
F2-02DA-2L	\$210.00	2 ch. 0-5V, 0-10V, -5 to +5V, -10 to +10V (uses 12VDC supply)
F2-02DAS-1	\$290.00	2 ch. 4-20mA, 16-bit isolated
F2-02DAS-2	\$320.00	2 ch. 0-5V, 0-10V 16-bit isolated
F2-08DA-1	\$375.00	8 ch. 4-20mA, sink/source selectable
F2-08DA-2	\$340.00	8 ch. 0-5V, 0-10V

Combination analog

F2-4AD2DA	\$360.00	4-ch. in/2-ch. out 4-20mA
F2-8AD4DA-1	\$450.00	8-ch. in/4-ch. out 4-20mA
F2-8AD4DA-2	\$450.00	8-ch. in/4-ch. out 0-5V, 0-10V

Temperature

F2-04RTD	\$395.00	4-ch. RTD input 0.1C resolution
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F2-04THM **\$395.00** 4-ch. 16-bit thermocouple

Specialty modules

Input Simulator

F2-08SIM **\$80.00** 8 pt Input Simulator

Ethernet

H2-ECOM100 **\$459.00** Master/Slave Ethernet 10/100 Mbps

Serial

H2-SERIO **\$265.00** Three RS-232 ports

H2-SERIO-4 **\$265.00** Two RS-232 ports & one RS-422/485 port



High Speed Counting & Motion Control

H2-CTRIO **\$460.00** Four 100 kHz inputs, and two 25 kHz pulse train outputs

H2-CTRIO2 **\$520.00** Four 250 kHz inputs, or two 20-250 kHz pulse train outputs

Ethernet Remote I/O

H2-ERM100 **\$320.00** Remote I/O 10/100 Base-T (Master)

H2-EBC100 **\$449.00** Ethernet Base Controller (Slave)

Ethernet Remote I/O - Ethernet Remote Master module, for Ethernet remote I/O on a 10/100Base-T network at 10/100 Megabaud. Must be installed in a local base with a D2-240, D2-250(-1), D2-260, Do-more H2 series or H2-WPLCx-xx CPU module in the CPU slot. Ethernet cable (purchased separately) connects to H2/H4/T1H-EBC(100) modules directly or via Ethernet hub(s).

Four base sizes

3-slot base

D2-03B-1 110/220 VAC	\$195.00
D2-03BDC1-1 12/24 VDC	\$230.00

6-slot base

D2-06B-1 110/220 VAC	\$260.00
D2-06BDC1-1 12/24 VDC	\$295.00
D2-06BDC2-1 125 VDC	\$295.00

4-slot base

D2-04B-1 110/220 VAC	\$210.00
D2-04BDC1-1 12/24 VDC	\$260.00

9-slot base

D2-09B-1 110/220 VAC	\$325.00
D2-09BDC1-1 12/24 VDC	\$395.00
D2-09BDC2-1 125 VDC	\$395.00



Compatible products include:

- C-more and C-more Micro HMI products
- Kepware OPC Servers
- O-Ring and Sixnet Ethernet switches
- ZIPLink connector modules - relay, fuse and LED options
- Connectivity to SureServo® and SureStep® motion products
- Variable frequency drives and AC motors
- DNP3 Gateway Module

11 Ways You can Do more with this PLC!

The Do-more H2 series micromodular CPUs leverage the existing line of DL205 I/O modules and base units to create an incredibly powerful PLC at a fraction of the cost of comparable PLCs and PACs.

1 Cost-effective hardware

The Do-more H2 CPUs take advantage of the industry-proven DL205 series hardware with over 50 compatible I/O modules and 4 base sizes. With our everyday list prices that are among the lowest in the industry, it's inexpensive to buy AND it's inexpensive to maintain down the road.

2 All documentation on board

Do-more stores all your project documentation on the CPU, easily retrieved by any PC with the FREE Do-more Designer software installed. You can also store your own PDF, HTML or other format files with the disk-based version of the project to aid future improvement or troubleshooting efforts.

3 This communications powerhouse includes built-in USB, serial, and (optional) Ethernet...

H2 series CPUs have built-in serial and USB ports; one version includes an Ethernet port. If you need more, Do-more can do that. Add Ethernet ports for \$459.00 each, or serial ports - three for \$265.00. We've filled a rack with 25 serial ports and Do-More doesn't flinch. It supports custom protocols and lets you name all your devices for easy recognition throughout your program. Connect bar code readers, scales, servo drives, etc.

4 Practical counting/pulse

At \$520.00, the new high-speed counter module (H2-CTRIO2) has four independently configurable timer/counter channels (up to 250 kHz) and two pulse output generators (up to 250 kHz). All configuration and profile setup is now built in to the Do-more Designer software, so it's a snap to integrate with your other application logic. The original H2-CTRIO is also supported.

5 Expansion I/O

Do-more supports Ethernet remote I/O. Add up to 16 remote drops to each H2-ERM master installed in your local rack.

6 High-Performance Processor

The Do-more CPU is lightning fast (executing a 1k Boolean program in just 0.2ms) – about 20x faster than the DL205 processors.



DIRECTAUTOMATION



7 **FREE!** programming software

The Do-more Designer software represents a clean break from the past (DirectSOFT)*. We listened to our customers to create a powerful, easy-to-use programming environment with all the features you expect from modern PLC programming software:

- Flexible program management supports a mix of stage and ladder logic for a best-of-both-worlds approach that simplifies your code and makes troubleshooting easier.
- Support for up to 2,000 PID loops with auto-tuning AND instruction-specific monitoring windows for PID, RAMP/COAST, and High/Low ALARM instructions
- Spreadsheet style Math instruction supports formulas, variables, nesting
- "Axis Mode" for motion
- Enhanced security
- Strong data typing
- and much more...

* This required that we drop support for the old handheld programmer (good riddance!) AND there isn't a conversion utility for legacy DirectSOFT ladder programs (sorry!**)

** There was no way around it - and we thought you would like to know this fact up-front.



Built-in Simulation Tool

The Do-more Designer software includes a hyper-accurate simulator, a "virtual PLC" on your PC. It's actually the very same code that executes inside the Do-more CPU!

- **Connect and download to it just like a physical PLC.**
- **Simulates discrete and analog I/O with access to timers, counters, control bits, etc.**
- **Use the simulator with "Trend View" for outstanding visibility into your PID process.**
- **Allows you to test and debug your logic without a PLC present!**

8 Smarter architecture

Do-more offers about nine times the data memory and four times the program memory of the DL205 processors, and you can allocate all that data memory the way you want it - no rigid, predefined blocks of wasted space!

9 Powerful control over program execution

Define execution order for your tasks and programs. Then give each a fixed timeslice, with smart "yield points" for logical pause locations. You have complete control over the order and timing of your PLC code.

10 Enhanced troubleshooting tools

Suspend tasks or programs and disable stages. Monitor program status bits. Trend data in multiple views. Turn on the Do-more Logger and log error messages right to the Network Message Viewer application on your PC. Do-more has all the troubleshooting tools you need to get your code up and running quickly and efficiently.

11 Practical high-density modules and ZipLink connections

DL205 I/O modules offer a wide range of points per module including 4, 8, 12, 16 and 32-point modules. To help you wire them fast and inexpensively, **ZIPLink** quick connection cables and terminal blocks help you connect I/O modules to terminal blocks in seconds. These easily pay for themselves by reducing wiring costs. We also offer relay, fused and LED **ZIPLink** modules.

Relay AC Input DC Output Ethernet Remote I/O



Many I/O modules have matching ZIPLink connection cables/blocks. Connect even 32-point modules in seconds!

And much more:

- Decimal Addressing
- Stage Programming
- True Bumpless Run-time editing



Do-more Designer: FREE Software that actually does more!

Download the free software today and check out all these great features!

The Do-more Designer Software is a free download at www.do-more.com
To test your program, use the built-in simulator or connect to a Do-more PLC with your choice of a serial, USB or Ethernet connection.



Built-in simulator

The built-in simulator creates a virtual PLC so you can test your logic without a PLC present.

Windows application uses the same code as the CPU firmware - for the most accurate simulation.

Simulates discrete and analog I/O with access to timers, counters, control bits, etc.

Simulate PID - Use the Simulator coupled with the Trend View for outstanding visibility into your PID processes.

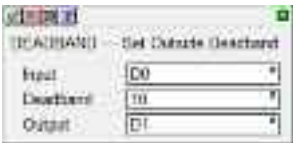


Local I/O is automatically configured

Connect to your PLC, and visit the I/O Configuration window for full Auto-Discovery of your modules in the local base.



Use the pop-up instruction "Palette" to quickly select an instruction and insert it into your ladder!



Optimized instruction set

The Do-More instruction set was developed by listening to our customers' needs and requests, with flexibility and ease-of-use as our goals. **Download the free software today** and take a look at these powerful and easy-to-use instructions.

Powerful, intuitive math

The spreadsheet style MATH instruction allows mixing of data types* and it accepts formulas and variables. The MATH instruction also allows nesting with parentheses to 8 levels, plus:

- Ten 'Real' Functions, including Natural Log, Log, e, PI, Square Root, and conversions.
- All the standard Trig Functions

- Eight Statistical Functions, including Average, Min & Max, RANDINT and RANDREAL (to generate random values), Standard Deviation functions and more.

- Thirteen conditional functions, including six CountIf, six SumIf, and If/Else expressions with a full complement of binary operators.

If that's not enough, how about Absolute Value, Time, Memory, and Indirect addressing? You even get access to system-level bits such as \$IndexError, \$OutOfRange, \$Overflow, etc.

** Note about data types: integer and real types are really all you need but Do-more does include a few BCD and octal conversion instructions for legacy data types.*



High-speed I/O and motion control: simplified

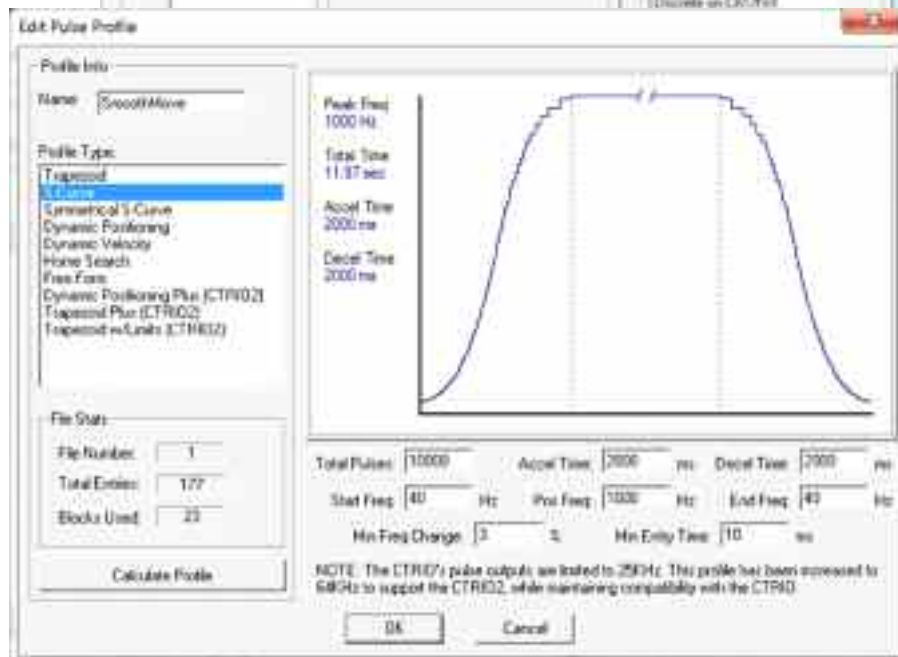
All configuration parameters and profiles are stored in the CPU module – if a High Speed Module needs to be replaced, just drop it in and reboot. (There is no separate CTRIO Workbench application.)

Dedicated instructions greatly simplify and improve functionality of the H2-CTRIO and H2-CTRIO2 modules.

Native support for the new H2-CTRIO2 take ease of use and power a step further, with fill-in-the-blank motion profiles and high-speed counter configuration.

Use the 'Axis Mode' instructions for dynamic positioning, jogging, and trapezoidal moves.

Assign a logical name to each axis, and use that name throughout your code!



Communications are easy to define, troubleshoot

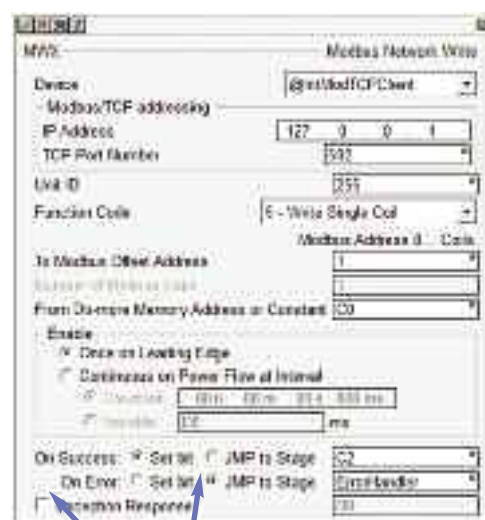
The Do-more PLC offers connectivity right out of the box, and beyond. Whether you need serial communications to control devices, or high-speed Ethernet to connect to plant networks, you can do it easily and inexpensively with Do-more.

The **PEERLINK** instruction makes it very easy to share data over Ethernet between Do-more CPUs, with transparent data sharing in a designated memory area.

Do-more supports the H2-SERIO and H2-SERIO-4 modules for easy, cost-effective addition of serial ports.

Do-more offers more security in communications - Modbus and DirectLOGIC transactions reference reserved "Guest Memory" (Modbus and DL memory) so there is no direct access to your I/O image registers from other devices.

Do-more lets you **name your devices** and reference those meaningful names throughout your program code

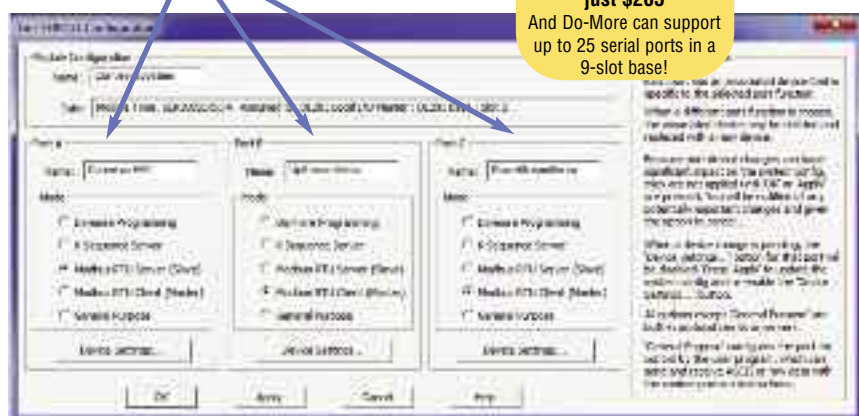


All communication instructions can either:

- Set a flag, OR
- Jump to Stage

"on success" or "on error". This can really simplify your code!

© DIRECTAUTOMATION



Add 3 serial ports for just \$265

And Do-More can support up to 25 serial ports in a 9-slot base!

The software story just gets better and better!

Insightful monitoring and troubleshooting tools

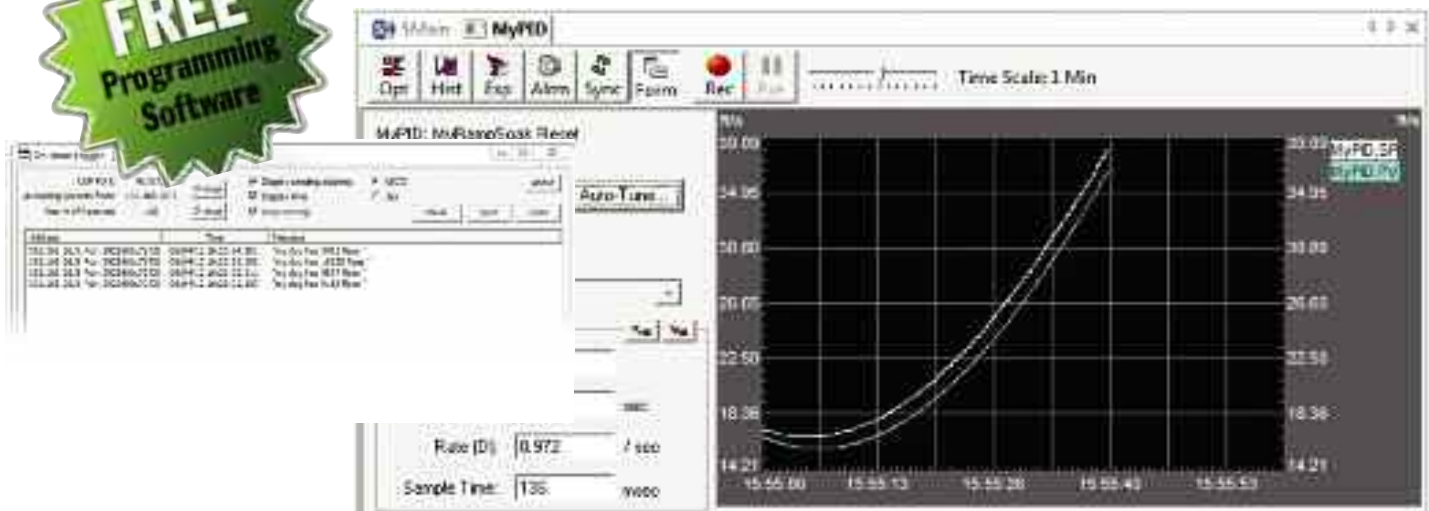
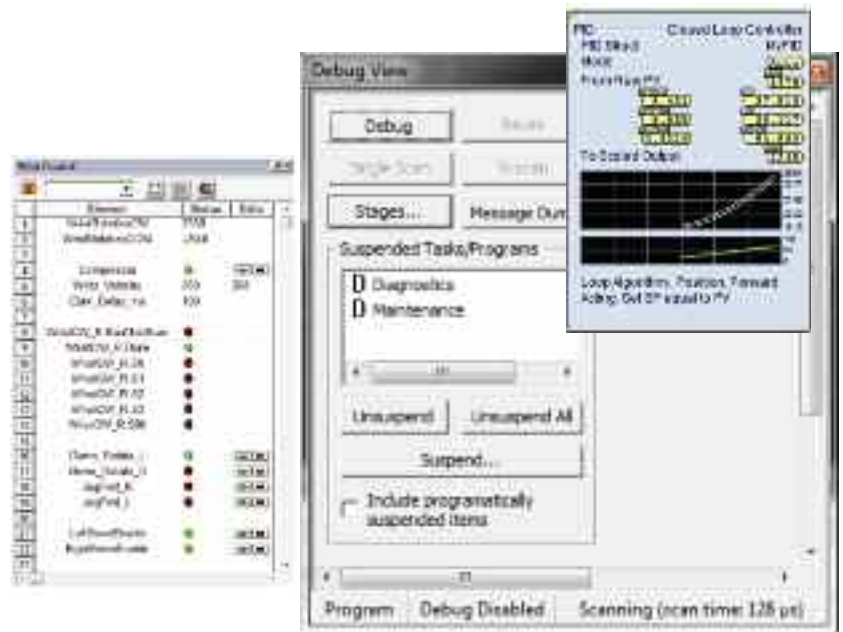
View Trend Data in its own view and within specific ladder instructions like PID, RAMP-SOAK, and High/Low Alarm.

Tasks and Programs can be suspended to isolate code; stages can be enabled or disabled.

The PID Monitoring window allows precise tuning of your PID loops.

Use the Data View to monitor program elements and Program Status Bits for behind-the-scenes visibility into PLC internal operations.

Turn on the Do-more Logger and receive custom error messages via the network message viewer (your Do-more Designer utility that runs on your PC).

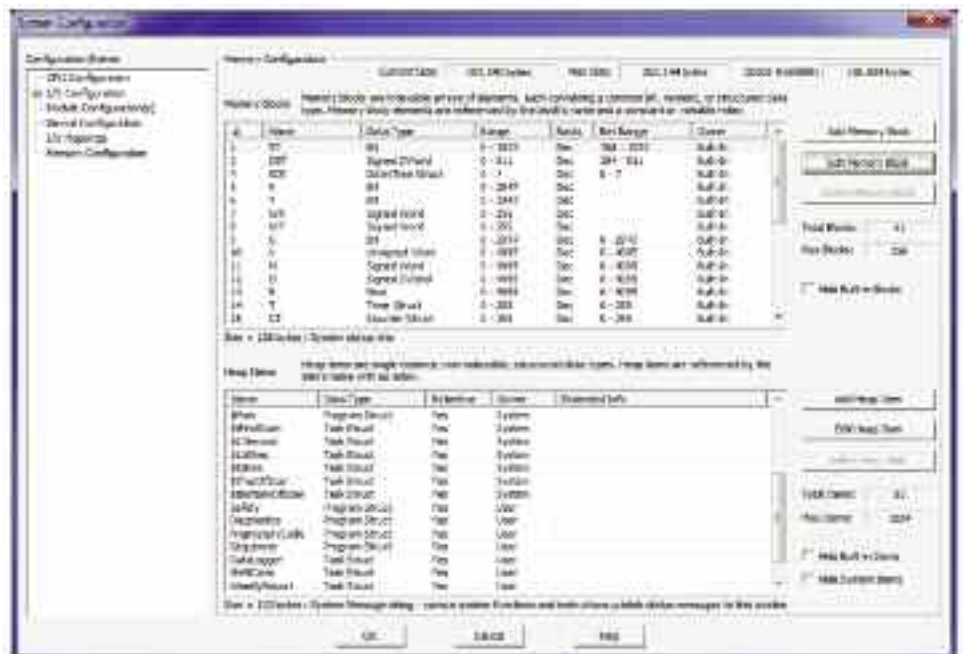


Flexible memory management capabilities

Strong data typing keeps your data organized and protected. Data structures automatically put the important details at your fingertips.

Do-more can be as flexible as you need. You can allocate all that data memory the way you want it up to specific maximums (no more rigid, predefined blocks of wasted space!).

You can even define your custom memory addresses and assign a data type of your choice to improve the readability of your program.



Organize your code with outstanding program management tools

Do-more supports a mix of stage and ladder for a best-of-both-worlds approach that simplifies your code and makes troubleshooting easier.

Code can be broken up into Tasks and Programs:

- Tasks run when called; once, continuously, or at a user defined interval
- Programs run based on events

Tasks and Programs can be suspended to isolate code; stages can be enabled or disabled.

Get flexible, powerful control over your program code execution:

- Assign tasks or programs a fixed timeslice
- Define "yield points" for logical pauses
- Define priorities and order of execution

Project management

All project files are stored onboard the CPU - no more searching for the old laptop with the most recent copy of the program before you can fix your machine!

You can also store your own files with the disk-based version of the project to aid future improvement or troubleshooting efforts. Store PDF, HTML or virtually any file format (up to 10Mb) that you want to keep with the project for reference, or information to assist your coworkers or customers whenever they open the project.

The Project Browser makes it easy to select the code block you want to view or edit. System tasks are predefined for many common actions. Jump directly to any part of your code with just a few clicks.

The Do-more Designer software even supports "restore points", which are basically previous versions of your program that you saved at known good operation. It's nice to know that you can easily "roll back" your project if your development goes awry.

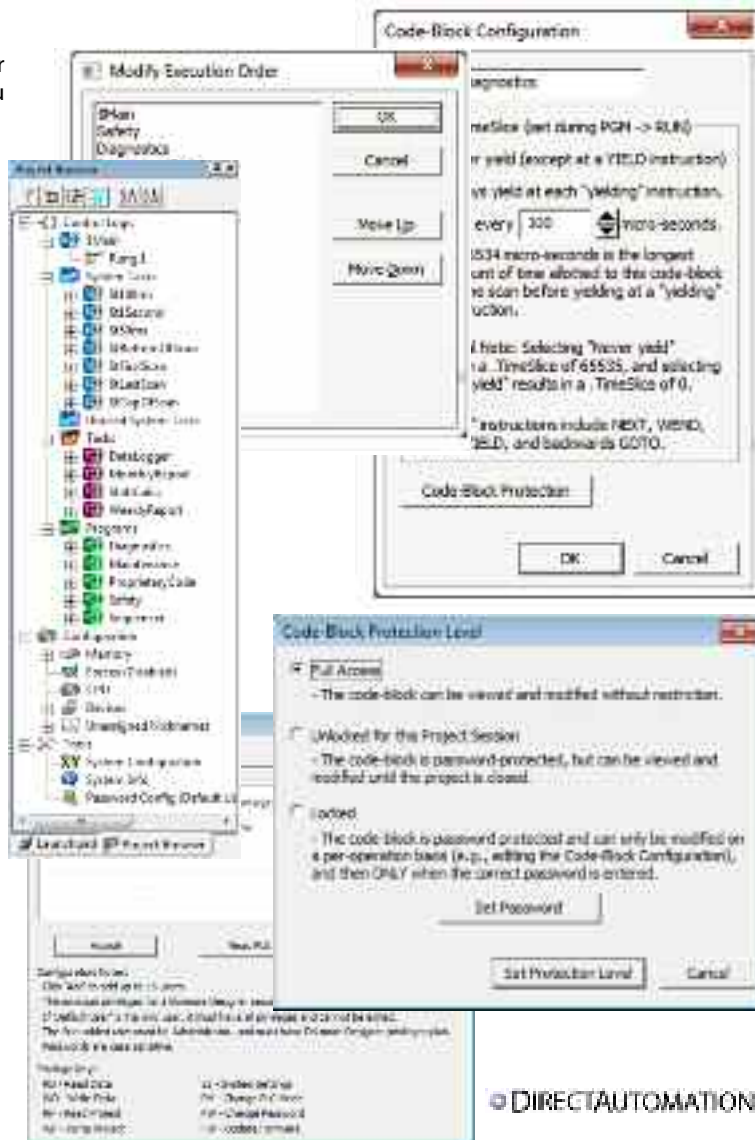
'Bumpless' Run-time Edits

Do-more Designer can download a new version of your code into the Do-more CPU and seamlessly switch to it **at the beginning of the next scan**. There is no need for any pause (however brief) that can wreak havoc on the operation of your machine or process.

Security for your code and your organization

Do-More Designer offers versatile password protection. Define multiple users, assigning combinations of privileges from the available options. Use code block password protection to allow customers to see enough of the program to allow basic troubleshooting, while keeping your proprietary code blocks hidden and secure.

External devices are relegated to "guest memory" areas; your program code controls all access to actual I/O points. There are separate reserved areas for Modbus and DL memory (DL memory is used for remote I/O racks).



Kickstart your experience with the Do-More Starter Kit!

Get started fast!

Choose the Do-more starter kit to get going fast. You get a prewired, 3-slot base with your choice of Do-more CPU, an 8-point input simulator module, and an 8-point relay output module.

Also included are a copy of the Do-more Designer software on CD, a hard copy of the user manual, a USB programming cable, and a coupon for free online training

Includes everything!

This is everything you need to evaluate the product and see for yourself what a powerful and easy-to-use controller Do-more can be!



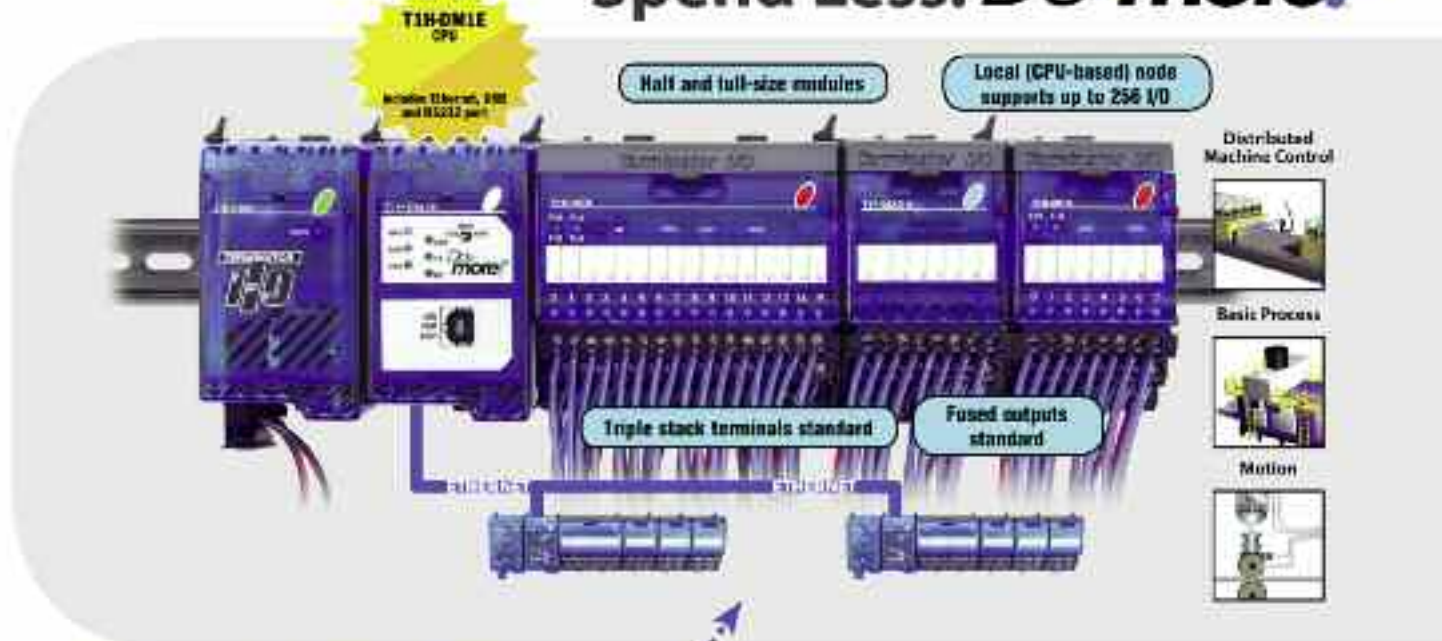
With USB and
Serial Port **Only \$695**

With On-board
Ethernet included **Only \$795**

Terminator Field I/O

Need control everywhere?

Spend Less. **Do more**



Do-more® in small spaces

For control applications that are space-constrained or need distributed I/O, why not consider the new Do-more T1H series PLC? We took our popular Terminator field I/O system and added the Do-more T1H CPUs as a new brain - an incredibly powerful controller in a compact, flexible form factor.

Create your programs and documentation with the **FREE Do-more Designer software**. Download it online - with the built-in simulator, you can try out your logic right away.



FREE
Programming
Software

The T1H-DM1E CPU's built-in Ethernet port can be configured as an Ethernet I/O master.

The Ethernet I/O feature allows expansion beyond the local base to slave I/O using the onboard high-speed Ethernet link.

The onboard Ethernet port can support up to 16 slave devices. The slave I/O modules supported are:

- H2-EBC100
- T1H-EBC100 (Terminator I/O)
- GS-EDRV100 (GS Drives)

The Terminator distributed I/O system combines the features of terminal blocks and I/O modules into one convenient package.

- Reduces panel space by as much as 30% over conventional PLC system with terminal blocks
- Distribute I/O nodes close to field devices for faster and more efficient wiring and troubleshooting
- I/O modules fit into individual I/O terminal bases for quick replacement without disturbing field wiring
- Easy troubleshooting at the device termination, with status and blown fuse indicators

The new T1H series CPUs give the Terminator field I/O system all the super powers of the Do-more PLC family, including expansive program memory and I/O capacity, fast processing and an intuitive instruction set.

- Onboard communication ports include USB, serial, plus Ethernet (on T1H-DM1E)
- Up to 256 I/O in local node (with CPU), and thousands more with optional Ethernet I/O
- Coupon for 30 days free online video training included with every CPU

The Ethernet I/O network uses Category 5 UTP cables for cable runs up to 100 meters (328 ft.) with extended distances achieved through Ethernet switches.

It is highly recommended that a dedicated network be used with the Ethernet I/O feature. Ethernet I/O networks and ECOM/office networks should be isolated from one another to prevent network delays.

Terminator Field I/O

☒ **FREE Phone Tech Support**



- Network interface modules supporting Ethernet, Profibus, DeviceNet, MODBUS and Koyo remote I/O; some adapters include an on-board RS232 serial port.
- Discrete and analog I/O modules with modular terminal bases.
- Configuration flexibility by plugging together a network interface module with up to 16 I/O modules; no more confusing I/O bases.
- AC or DC power supplies; for high power systems, combine multiple supplies in a single I/O set.
- Horizontal or vertical DIN rail mounting.

Terminator I/O is the most practical distributed I/O system you can buy.

Add low-cost field I/O to your programmable logic controller (PLC) or PC-based industrial control system

Terminator I/O combines the I/O points with their field terminations into a modular package to save panel space and money. With Terminator I/O, you can use distributed I/O nodes close to field devices for faster and more efficient wiring and troubleshooting. No I/O bases - just add the modules you need, and land the field wiring directly on the terminations.

Terminator I/O was custom-designed for AutomationDirect by Koyo (the same people who designed the original GE Series One PLC), a trusted name in control technology since 1983.

High Speed Counter Module

Counting & timing up to 100 kHz:

T1H-CTRIO \$495.00

Four 100 kHz inputs, and two 20-25 kHz pulse train outputs

Outputs Supported:

- Pulse train - used for servo/step-per motor control. Configurable for CW/CCW or step and direction.
- Discrete outputs - assigned to Counter/Timer input functions
- Raw output - outputs controlled directly from the CPU interface program

Inputs Supported:

- Counter
- Quad Counter
- Pulse Catch
- Edge Timer
- Dual Edge Timer



Field
I/O

Network interface modules for you favourite fieldbus

Terminator I/O is the most practical distributed field I/O system you can buy.

Terminator I/O provides you with an industrial I/O system with remote I/O, distributed I/O and digital I/O module capabilities. It combines the I/O points with their field terminations into a modular package to save panel space and money.

With Terminator I/O, you can use distributed I/O nodes close to field devices for faster and more efficient wiring and troubleshooting.

- Profibus
- DeviceNet
- Ethernet
- MODBUS RTU
- Koyo Remote I/O
- Cu Net

Universal I/O

High-speed operations

The T1H-CTRIO module is capable of a wide variety of high-speed input and output operations. Many of these operations take place on board the module, and are independent of the scan time of your PLC. With flexible 4-channel input and separate output channel design, these modules can satisfy high-speed counting, timing, and pulse catch operations, along with high-speed discrete output or several profile choices of pulse output operations. Not all combinations of input functions and output functions are possible within the resources of the module, but these examples are typical of the applications for these modules.



Productivity3000 programmable controller



- High-performance CPU w/ 50Mb memory (P3-550), or lower-cost model w/ 25Mb (P3-530)
- High-speed motion control
- Modular rack-based footprint with 36 discrete and analog I/O option modules
- Built-in communications capabilities, including local and remote I/O ports and networking
- Integrated GS drive communications over Ethernet
- LCD on CPU and Remote Slave for diagnostics
- LCD on ALL analog modules
- Hot-swappable I/O
- No module placement restrictions
- No power budget limitations
- Optional I/O terminal blocks or easy ZIPLink plug-and-play wiring

High-performance CPU \$599, with 7 communication ports

The 50Mb of memory and fast scan time (266MHz processor) is just for starters - this CPU does the work of at least four or five pieces of hardware compared to other controllers. With its seven built-in communication ports, it does the usual CPU stuff like storing and running the program, plus -

- Plug-and-play USB programming (uses standard A-B cable)
- Tag database and program documentation storage in CPU (Program pre-loaded on PC not necessary)
- USB local I/O expansion (no local I/O expansion master module needed)
- Ethernet remote I/O expansion (no Ethernet remote master module needed)
- High-speed Ethernet port for HMI and peer-to-peer or business system networking (no Ethernet communications module needed)
- Two serial ports for peripheral device interface or controller networking (no serial port module or ASCII module needed)
- USB data logging right from the CPU

Basic CPU only \$419, with 5 communication ports

The P3-530 CPU has a few less features than the P3-550, but it's a top performer in its own class and a great value!

- 25Mb memory, 266MHz processor

What used to take hours now takes minutes

The Productivity3000 programmable controller's flexible design and integration tools make it easy to get your system configured in no time:

More Productive - Advanced Diagnostics

Run-time editing, hot-swappable I/O and onboard program documentation are tools that help you commission and troubleshoot your system more quickly and conveniently.

Use the built-in LCD display on the CPU and Remote Slave modules for system diagnostics, configuration and troubleshooting.

The patent-pending LCD interface built into each analog module allows you to view field signal levels without the hassle of an external meter.

Motion Control



Modules

P3-HSI

2 Channel High Speed Input/Counter w/2 General Purpose Inputs & 4 General Purpose Outputs

P3-HSO

2 Channel High Speed Pulse Output w/6 General Purpose Inputs & 4 General Purpose Outputs

Affordable Wiring Solutions

ZIPLink cables and wiring modules, which eliminate the need for hand wiring of I/O modules to terminal blocks. In fact, many of the Productivity3000 I/O modules do not include the terminal board for direct connection of I/O. In particular, the high-density (32-point and 64-point) modules require the use of the ZIPLink cables





Increase your Productivity with FREE full-featured software

The Productivity3000 is a brand-new controller, and we want everyone to see just how feature-packed it is and how productive it can make you.

That's why we're offering the software for FREE (downloadable online) right now - check out the tools, instruction set and programming/debug environment that will let you configure and program a system in less time than you can imagine.



Hardware auto-discovery

One click is all it takes to detect and auto-configure the hardware connected to the system, including local and remote bases and I/O. GS drives on the internal Ethernet network are also discovered during any configuration update. This can save you literally hours and hours of setup time.

Or, configure the system offline by dragging and dropping bases and modules.



Advanced instructions are timesavers

There are so many time-saving instructions, and they all have one thing in common - their "fill-in-the-blank" approach makes it easy to configure even the more complex tasks that used to require a whole bunch of program code. Scaling, calculator-style math, statistics, send email, it goes on and on ...



Tag name database is friendly and flexible

Data memory ranges in the Productivity3000 are not fixed by data type, which is more efficient because you have the freedom to define the data types you need instead of having wasted memory for ones you do not.

Also, a tag name database means no more confusing and ambiguous memory and I/O references - add descriptive names as you program or enter all the tags before you even write one line of code. The data is stored in true database format so you can search, filter and sort; import a .csv file or use the one created every time you save the project for importing into other databases.

All project files in CPU means it's not all Greek to you

With the ample memory in the CPU, there's plenty of room for the program, tag name database and all the program documentation. This means the helpful descriptions and comments are available to anybody with a PC and ProductivitySuite software. This can be pretty important when it's 1 a.m., the machine is down and you're the one that has to look at the program and figure out what's wrong.

Task management boosts program speed & efficiency

The Task Manager helps organize program code and execute it for maximum speed and efficiency. Create functional tasks, name them and schedule their execution frequency - every scan, every second, or when called. A "First Scan only" task lets you initialize values and conditions. Store specialized tasks that help debug and troubleshoot in the Disabled Tasks section.

Import tags into C-more database

C-more HMI software has a direct import feature for the Productivity3000 tag database. No duplicating work - bring in all the tag names from the controller program right into C-more's database with just a few keystrokes.



Check out the new "PACData" app (free download on Apple App Store) that gives

you the capability to remotely monitor specified program tags in the Productivity3000 from your phone or tablet (iOS only at this time).

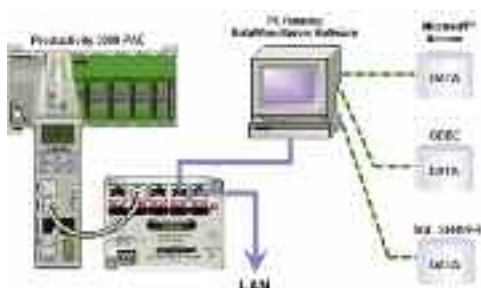
You also gain access to error and event history as well as login capabilities of the CPU's built-in Web server where you can view any of your data log files. On any screen, zoom into specific values and save a screen capture if needed.



Easy DAQ or SCADA with flexible I/O and practical software

If you need data collection or monitoring from the factory floor, lab, or field - get your data the way you need it.

One program instruction in the controller connects and passes data to all the common database formats - Microsoft Access,



ODBC, and SQL Server. The controller can retrieve, add, delete and update data records in the remote database. Low-cost server software (DataWorx P3K for PC sold separately, starting at \$990) makes the data readily available to your upstream application.




For even simpler data logging, the CPU can write data to a removable mass storage device (USB) on an event or time basis.

And for basic mobile monitoring, there's the new PACData app.

Choose one approach, or all - it's that flexible.

The **#1** Value in
automation

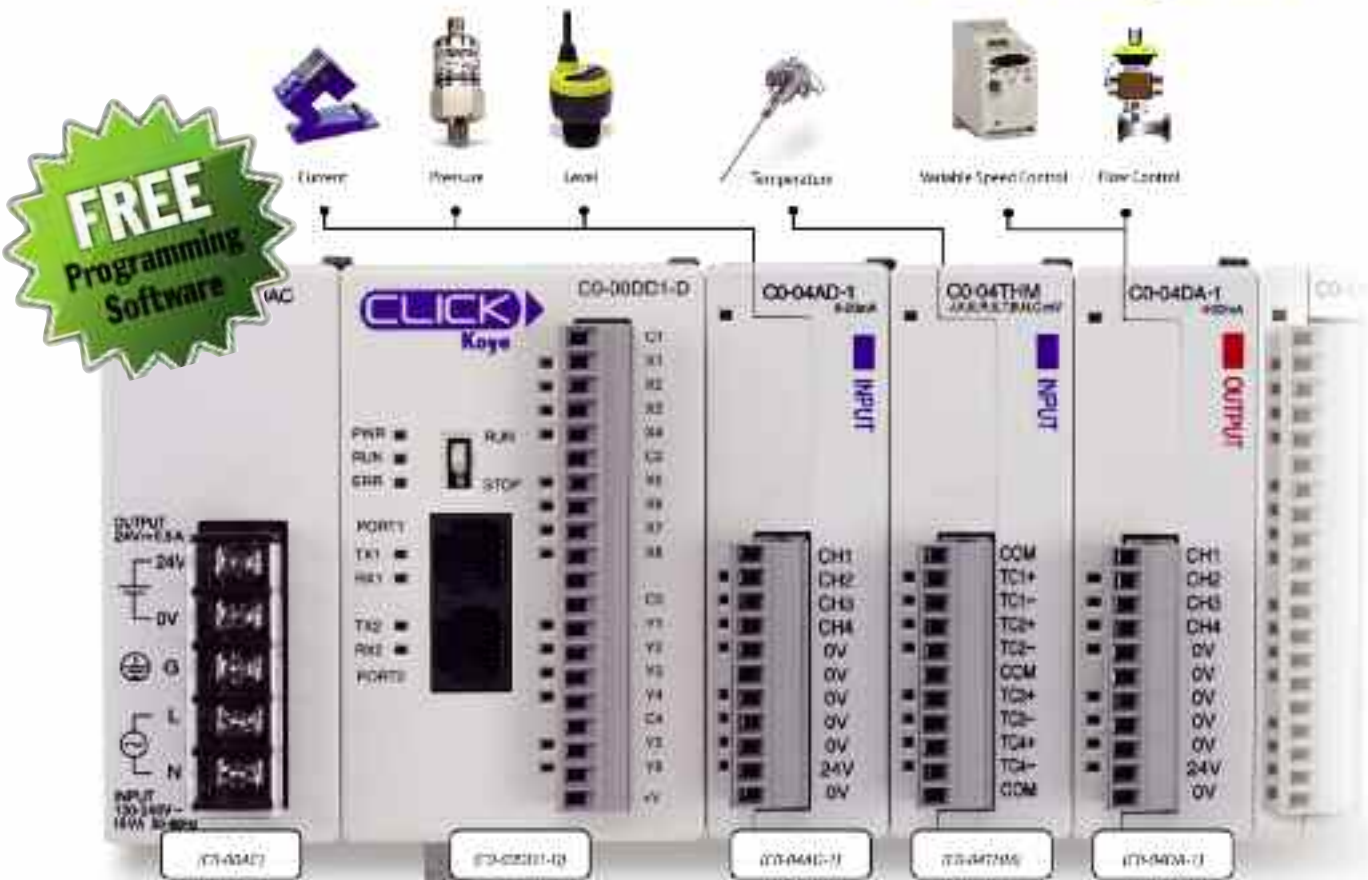
 **FREE Software**

 **DIRECTAUTOMATION**

CLICK starts at \$99

Now simply CLICK for analog

The best little PLC got better



Along with a wide range of discrete modules, these I/O choices make CLICK a great fit for many applications.

Connect to lots of process devices with analog I/O modules for the CLICK PLC

The CLICK PLC now has more ways to help you with simple control applications. Monitor pressure, level, current, even thermocouples and RTDs directly. Perform simple variable control* with analog outputs connected to devices such as drives. These high-resolution modules offer fast setup (no DIP switches) with software scaling to make your life (and program) easier. Choose from:

- 4-channel, current or voltage in (12-bit)
- 4-channel, thermocouple or RTD in (16-bit)
- 4-channel, current or voltage out (12-bit)
- Combo 4-channel in / 2-channel out, current or voltage

* no PID

Mighty as a stand-alone unit, or expand to 142 total I/O

With CLICK PLCs, you get a lot of application control in a small package. You can replace even just a few relays cost-effectively, but do a whole lot more with the easy-to-understand instruction set.

- Three CPU styles - Basic (14 discrete I/O, 2 analog ports), Standard (14 discrete I/O, 3 analog ports, plus electrical and optional battery backup), and Analog (Standard features with 8 discrete and 4 analog I/O modules)
- FREE programming software (download)
- Removable terminal blocks for easy wiring
- Stackable discrete and analog I/O within modules (DIP-out or panel mountable)
- Program AND documentation stored in CPU
- Decimal memory addressing
- 24 way-to-use instructions
- 6,000 steps of program memory
- Optional battery backup (Standard and Analog CPUs only)
- Real-time clock/calendar (Standard and Analog CPUs only)



CLICK
Koyo

The CLICK PLC and C-more Micro HMI were made for each other - literally!

Both are made by Koyo
They have the same DNA!

CLICK programming software is based on the popular C-more Micro programming interface - and both are free downloads.

Both are an excellent value. CLICK starts at \$99, Micro at \$265

Use a single cable for communications and power for Micro. Use the same programming cable

✓ **FREE Software** (100 max. word limit)

✓ **FREE Phone Tech Support**

© DIRECTAUTOMATION **Online**



DirectLOGIC PLCs Industry Tough for Decades

DL05: Compact with 14 I/O, plus an expansion slot

The DL05 series is a fixed I/O PLC with eight inputs and six outputs plus one option card slot, and features you won't find in most bricks — six I/O combinations of AC, DC and relay I/O, and advanced programming functions such as PID.

- Eight inputs and six outputs
- 2 K program memory
- 4 K data memory
- Two built-in communication ports
- Over 250 instructions, including four PID loops
- Removable terminal block
- 12/24 VDC powered versions
- Discrete and analog I/O modules
- Thermocouple and RTD modules
- Ethernet and serial communications modules
- High-speed input/pulse output module
- Memory cartridge/real-time clock module
- DeviceNet™ / Profibus slave modules
- Basic Co-processor module



DL06: Mighty micro PLC with 36 I/O and four expansion slots

The DL06 series combines its fixed I/O of 20 inputs and 16 outputs plus four option card slots for expansion all in the same package. With the DL06, you can use the same PLC panel layout for all applications from 36 to 100 I/O.

- 20 inputs and 16 outputs
- 2.5 K program memory
- 2.3 K data memory
- Two built-in communication ports - one RS232 and one RS232/422/485 port
- Over 275 instructions, including eight PID loops and ASCII
- Removable terminal blocks
- Built-in 300 mA 24 VDC auxiliary power supply
- 12/24 VDC powered versions
- Built-in real-time clock/calendar
- Discrete and analog I/O modules
- Thermocouple and RTD modules
- Ethernet and serial communications modules
- High-speed input/pulse output module
- DeviceNet™ and Profibus slave modules
- Basic Co-processor module
- Optional plug-in LCD display



DL205: A micro-modular PLC with a wide range of I/O and communications modules

If your application requires the flexibility of a modular system, a DL205 PLC is a low cost, yet extremely versatile solution.

- Four CPUs, up to 30.4K memory and 16,384 I/O
- Four base sizes available
- 16 built-in PID loops using D2-260 CPU
- AC/DC input/output modules
- Up to 10A relay outputs
- 12-bit and 15-bit analog I/O modules
- Thermocouple and RTD input modules
- Ethernet and serial communications modules
- Ethernet and serial remote I/O
- High-speed counter/pulse output module
- Counter input/pulse output module
- Basic Co-processor module
- Ethernet, DeviceNet™ and Profibus slave controller modules
- Triple port serial module for WinPLCs and EBCs



More DirectLOGIC families:

The DL405: Workhorse PLC

The DL305: A legend in the industry since 1983

The DL105: The original brick PLC



The **#1** Value in
automation

C-more® around your plant!



8" color panels
NOW starting at

\$795.00

(EA9-T08CL)

15" color panels
NOW starting at

\$2995.00

(EA9-T15CL)



All-new hardware at lower prices!

New C-more EA9 series touch panels in 8" to 15" screen sizes are a practical way to give plant personnel easy access to controls and data.

- Faster 800MHz processor
- Increased project memory, up to 82MB
- 3 serial ports for more connectivity
- Clear TFT 65k color LED displays

Our C-more remote HMI application, for iPad®, iPhone® or iPad touch®, is available on the App Store for \$4.99. It provides remote access and control to a C-more panel for mobile users who have a mobile cellular connection.



Check out the powerful yet easy-to-use configuration software by downloading a demo version at:

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Common Sense Wins!

You spoke, we listened. Our product design team went back to the drawing board to bring you a better HMI touch panel at a lower price.

The freshly redesigned C-more operator interface touch panels offer a wide array of hardware upgrades that make them a better value than ever!

NEW EA9 series touch panels

- **Free software upgrade for existing C-more customers** - Import your existing program into new software to take advantage of faster CPU, more memory
- **Same panel cutout as the existing EA7 series panels**
- **Better Performance** - Faster 800MHz CPU
- **Expand your information viewing options** - 12 and 15 inch models have HDMI out
- **More serial port configurations**
- **Better data logging capabilities** - One or two SD card slots*
- **More memory for bigger projects** - 20MB to 82MB memory*
- **More USB ports (A & B type)** - Hook up flash drives, keyboard, mouse or programming cable
- **Rugged industrial reliability** - NEMA 4/4X IP65
- **OEM label slot** - put in your logo
- **2-year warranty**

*Optional, not all displayed on all models. All color screen panels have built-in memory, port options and SD slots



NEW EA9 series touch panels

1. Built-in SD Card ports*
2. RS-232, RS-422/485 port
3. Audio Line in*
4. Audio Line out*
5. 10/100 Base-T Ethernet Auto MDI/MDI-X*
6. USB Port-A
7. HDMI Video out*
8. USB Port-B
9. 3-pin RS485 communication port
10. RJ12 RS232 communication port

*Optional, not all displayed on all models. All color screen panels have built-in memory, port options and SD slots

Remote access and control built-in

No additional hardware required! The C-more Remote Access feature resides in all panels with Ethernet support, and requires no option modules. Access real-time data or initiate an action on a control system from anywhere, any time.

Drivers for:

- All AutomationDirect programmable controllers
- Allen-Bradley - ControlLogix®, CompactLogix®, MicroLogix® Ethernet, SLC Series, FlexLogix, SLC® S05 Ethernet*
- Modbus RTU and TCP/IP Ethernet
- GE SNIP
- Omron Host Link Adapter (C200VC500), FINS Serial and Ethernet
- Selected Mitsubishi FX Series, Q Series
- Siemens S7-200 PLC and S7-200/300 Ethernet (ISO over TCP/IP)

More C-more Prices

EA9-T8CL C-more EA9 series touch screen interface panel, 8-inch color TFT (8.4 inch viewable screen), 64k colors, 800 x 600 pixel SVGA screen resolution, 800 MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 5.0 or later. **\$1,590**

EA9-T10CL C-more EA9 series touch screen interface panel, 10-inch color TFT (10.4 inch viewable screen), 64k colors, 800 x 600 pixel SVGA screen resolution, 800 MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 5.0 or later. **\$1,990**

EA9-T12CL C-more EA9 series touch screen interface panel, 12-inch color TFT (12.1 inch viewable screen), 64k colors, 800 x 600 pixel SVGA screen resolution, 800 MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports (2) SD memory cards. Includes HDMI video out. Compatible with EA9-PGMSW programming software version 5.0 or later. **\$2,800**



C-more Micro

A sweet little HMI!

4-inch model
\$575.00
MSRP



plus FREE Windows-based configuration software*

Our popular C-more Micro HMIs pack a lot of communication into a small package. Use the color touch panels to create a vibrant and intuitive operator interface, or go lower-cost with monochrome models. Five programmable function keys give you lots of flexibility, plus 3- and 6-inch units accept optional keypad bezels (shown on units below).

FREE programming software supports many built-in objects, such as buttons, bar graphs and data entry keypads. Or import your own custom graphics, and save to libraries for use in multiple projects. Alarm control, recipes and a built-in project simulator are time-saving tools for more complex applications.

A full lineup of affordable HMI plus FREE configuration software

Feature	3-inch STN Monochrome Models	6-inch STN Monochrome Models	6-inch TFT Color Models	4-inch TFT Color Models
Display Resolution & Type	128 x 64, touch or non-touch	320 x 240, touch	320 x 240, touch	320 x 240, touch
Ports	1 serial (RJ12) and Optional DSUB15	2 serial (RJ12 and DSUB15)	1 USB (Port 1: USB Type B) 1 Serial (Port 2: RS485)	1 USB (Port 1: USB Type B) 1 Serial (Port 2: RS485)
User Project Memory	768KB	1.750KB	3.0MB	3.0MB
Portrait Mode	NO	YES	YES	YES
Colors	Monochrome; backlight can be configured per screen and/or per alarm as: red, green, amber, blue, or yellow (standard); or red, white or three shades of pink (high-contrast)	Monochrome; backlight can be configured per screen and/or per alarm as: red, green, amber, blue, or yellow (standard); or red, white or three shades of pink (high-contrast)	32,768 colors	32,768 colors

Popular protocols/devices supported

- Allen AutomationDirect programmable controllers
- Allen Bradley® DF1 and DF400
- GE-SMPX
- Mitsubishi MELSEC®
- Go online for complete list
- Modbus® RTU
- Omron Host Link and FINS serial
- Siemens FPI

6-inch TFT model
MSRP
\$720.00



3-inch monochrome model
MSRP
\$265.00



New! ... 8-inch and 10-inch TFT touch-screen panels

C-more Micro-graphic touch screen interface panel, 8-inch and 10-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly; for indoor use only).

EA3-T8CL C-more Micro-Graphic touch screen interface panel, 8-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly for indoor use only). **\$1,080**

EA3-T10CL C-more Micro-Graphic touch screen interface panel, 10-inch, color TFT, 800 x 600 pixel, 32k colors, LED backlight, seven user-defined function keys with LED indicators. Includes (2) serial ports and (1) USB Type B programming port. Display supports Portrait and Landscape modes. NEMA 4/4X, IP65 (when mounted correctly for indoor use only). **\$1,290**

Online www.directautomation.com.au

- ☒ FREE Software
- ☒ FREE Phone Tech Support

Get your message across with Viewmarq® industrial displays



NEW!
Starting at:
\$599.00
MD4-01123



Ethernet Cable

\$1450.00
(MD4-04721)
(2 characters 4 line)

VIEWMARQ®
LED MESSAGE DISPLAY



KEPSeverEX - Solving Your Communications Challenges



Communications for Automation

KEPSeverEX is a flexible and scalable solution for connecting, managing, monitoring, and controlling diverse automation devices and software applications.

Communications is managed through a robust platform that supports an array of open standards such as OPC, propriety communication protocols, API's, and various automation systems' interfaces. KEPSeverEX enables improved operations and decision making throughout all levels of an organization.

KEPSeverEX v5 is the most advanced communication technology and OPC Server on the market and will remain the foundation for future Kepware development. Kepware is providing new vertical driver suites including Building Automation, Oil and Gas, and Water and Waste Water to name a few.



Industrial LED message displays keep your plant personnel in the know

The new Viewmarq LED message boards can display preformatted and realtime factory floor data messages sent by a PLC, PC, or other master device. The text message displays can be controlled by:

- ASCII strings through the RS232 or RS485 port
- Modbus RTU messages through the RS232 or RS485 port
- Modbus TCP messages through the Ethernet port

The Viewmarq line offers:

- One-, two-, and four-line displays
- Viewing distances up to 400 feet and 140 degree viewing angle
- (1) RS232, (1) RS485 and (1) Ethernet port standard on all models
- Scrolling, blinking capability
- NEMA 4 / NEMA 12 extruded aluminum housing suitable for harsh environments
- Ceiling mount brackets included

FREE
Programming
Software

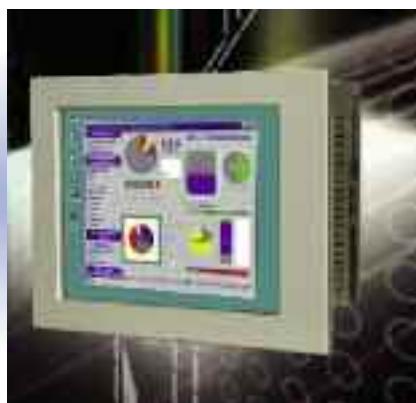


Well mounted brackets for easy mounting

Six models to choose from:

PRICES	
	1 line \$599.00
	2 line \$925.00
	4 line \$1450.00
	1 line \$945.00
	2 line \$1350.00
	4 line \$2490.00

Use the **FREE Viewmarq configuration software** (online download) to configure the display; create, preview and send messages from a PC; or create ASCII strings that can be transferred to PLC instructions to control the Viewmarq.



Direct Automation's range of industrial panel PCs are a rugged breed suitable for harsh industrial environments and come preloaded with Windows 7 and come in 15 inch TFT, 17 inch TFT or 19 inch TFT Display sizes

- Resistive touch screen
- Can boot from USB port
- Rugged housing, designed for industrial use. IP65 compliant front panel.
- Operating systems Windows 7
- Includes most interfacing options



DIRECTAUTOMATION

Low-cost valves, cylinders and other pneumatic solutions

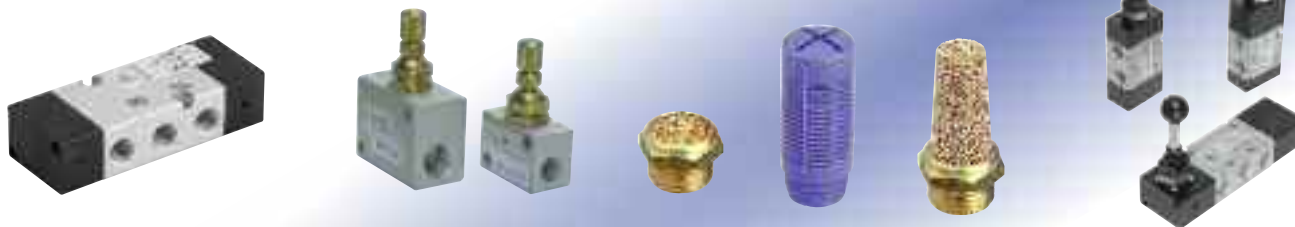


Direct Automation has been providing advanced automation control solutions for over 15 years, customers include manufacturers of machines and industrial equipment, OEMs, distributors, panel-builders, installers and system integrators

Pneumatic Directional Control Valves and accessories

Pneumatic directional control solenoid, pilot and manual valves are available in a wide variety of configurations to meet a broad range of pneumatic control applications.

- LDW Series 3-Port, 2-Position, Body Ported / M5 & 1/8 Solenoid Air Valves
- AZ Series 3-Port, 2-Position, Body Ported 1/8, 1/4 & 1/2G Solenoid Air Valves
- LDW Series 5-Port, 2-Position, Body Ported / Manifold Solenoid Valves
- AZ Series 5-Port, 3-Position, Body Ported / Manifold Solenoid Valves
- BVS, BVM Series 3-port, 2-position, Modular Solenoid Valves / Manifolds
- Air Pilot Valves
- Manual Air Valves
- Solenoid Valve Exhaust Silencers and Accessories
- Solenoid Valve Cables & Air Valve Connectors



Speed Code N696
Model No 08.156.4
Safety Valve

Two-Hand Safety Valve

(part no 08.156.4)

This valve is used to pilot high-flow directional control valves connected to machines which have a high risk of injuries to the hands.

The machine operator must simultaneously operate, in a safe area, two three-way manual valves for correct operation.

The safety valve will ignore a single depression of one of the manual valves. To repeat the cycle both pilot signals must be exhausted and the manual valves simultaneously actuated again.

The two-hand safety valve is sold with CE-certification (compliant to Machinery Directives EEC 89/392, 91/368, 93/44, 96/68 and to Norm EN 574, level 1).



Two-way Solenoid Valves

These valves are used with air, water and liquids for on/off control valves, they are either direct lift or pilot assisted depending on the size available from 1/8 to 2"G ports.



Pneumatic Air Preparation (FRL - Filters, Regulators, Lubricators)

Lidding pneumatic air filters, regulators and lubricators are available in a wide variety of port sizes to meet a broad range of pneumatic air supply filtration, regulation and lubrication applications. Modular design allows stand-alone applications and also enables easy field assembly for combining Lidding pneumatic filters, regulators and lubricators

- LAF Series Filters
- LAR Series Regulators
- LAL Series Lubricators
- LAC Series Combination Filter Lubricator and Regulators
- LAW Series Filter/Regulators Combination
- Pneumatic Air Preparation (FRL) Accessories

Quality with Direct Automation's Pneumatic components



Fittings and Flow Control

Fittings include:

- Bulkhead unions
- Union straight
- Union reducers
- Union Tee
- Union elbow
- Union Y
- Union cross
- Union triple branch
- Quick-disconnect straight and swivel hose couplings
- Brass adapter fittings

Flow Control includes:

- Manual hand valve
- Check
- Meter-in flow control
- Stop
- Meter-out flow control
- Inline flow control



Modular Solenoid Control Valves with Manifolds and Pre-Wired Connections

Direct Automation's NITRA™ pneumatic BVS series modular solenoid valves are body ported 3-port (3-way) poppet valves available in 2-position, normally open or normally closed configurations.

Models are available with removable flying leads or with 8 mm Micro DIN connectors. Units are DIN rail mountable when used with the BVM series solenoid valve manifolds.

The NITRA™ pneumatic BVM series modular solenoid valve manifolds simplify the mounting and wiring of BVS series solenoid valves.

The manifolds are available in 4- and 8-station models with push-to-connect inlet and outlet connections and a 9-pin D-sub connector for quick and easy tubing and wiring. Backed by a 2-year warranty,

BVS series solenoid valves are priced at **\$46.00** and the BVM series manifolds start at **\$88.00**.

Pneumatic Controls by Direct Automation

Pneumatic Air Cylinders and Position Switches

MA-Series non-repairable stainless steel round body cylinders

These cylinders are an ideal choice for a host of applications in a broad range of industries. Dimensionally interchangeable with leading cylinder manufacturers, the MA-Series is perfect for replacement applications as well as new designs. There's no maintenance required with these non-repairable cylinders, just millions of trouble-free cycles. High quality is assured with made to ISO 6432 Standards.

The **CPS series of position switches** offers a robust, yet cost-effective interface between magnetic piston cylinders and electrical control systems.

LSF-Series heavy duty air cylinders ISO for abusive conditions

These heavy duty cylinders combine ISO interchangeability and high quality components to offer excellent performance and long service life, even in the most severe conditions. Bore sizes range from 40mm to 100mm and stroke lengths from 25mm to 500mm. High quality is assured with made to High quality is assured with made to ISO 15552:2004 Standards.



© DIRECTAUTOMATION



Sensors



Inductive Proximity Sensors

Inductive sensors detect metallic objects. IP69K sensors are rated for harsh duty (food grade) applications: new metal face and rectangular proximity sensors offer more options.

- 3mm / 4mm / 5mm round
- 8mm round
- 12mm round
- 18mm round
- 30mm round
- Rectangular
- Quick-disconnect cables and accessories



Capacitive Proximity Sensors

Capacitive sensors detect a wide range of non-metallic materials.

- M12 (12mm) diameter DC powered
- M18 (18mm) diameter DC powered
- M30 (30mm) diameter DC, AC/DC powered
- Rectangular DC powered
- Accessories



Magnetic Proximity Sensors

With 316L stainless steel housings, these IP69K proximity sensors are rated for food and beverage or other harsh duty applications.

- 12mm round
- 18mm round



Photoelectric Sensors

Photoelectric sensors allow non-contact detection of objects using red or infrared guided light. Diffuse, retro-reflective, through-beam and background suppression models are available.

- High performance AC/DC
- Light screens
- DC rectangular
- AC rectangular
- 5mm round stainless steel
- 8mm, 12mm, 18mm round metal
- 18mm round IP69K rated
- 18mm round and cube non-metal
- 18mm AC powered



We have cables for all your sensor needs

- Pico (M8) quick-disconnect
- Micro (M12) quick-disconnect
- Micro (M12) harsh duty / food & beverage rated Q/D
- Micro (M12) shielded Q/D
- Micro AC (1/2 in.) harsh duty / food & beverage rated Q/D
- Field wireable connectors and T-taps
- M8on (M12) receptacles



Limit Switches

Our limit switches feature the most popular actuator styles (plungers, short and adjustable levers with rollers, and steel and plastic rods) and a wide variety of cable entry options. Series include:

- Compact
- Heavy duty IEC
- Double insulated (PBT)
- Miniature double insulated (PBT)
- Additional lever arms / spare parts, accessories

ACUAMP

ACUAMP



Current Sensors (AC and DC)

The AcuAMP family of high performance AC and DC current sensors offers outstanding features, flexibility and durability at incredible prices.

- AC single-phase current transducers, standard or true RMS
- DC current transducers
- AC current switches, single and multi-range
- AC current switches with time delay
- DC current switches
- AC current indicator

Ground Fault Sensors

AcuAMP ground fault sensors help protect people, products, and processes from damage that can be caused by ground fault conditions.

- Wide range of options
- Jumper-selectable setpoints of 5, 10, 30 mA
- Relay outputs with Auto or Manual reset
- Use on single- and three-phase systems
- Use up to 14 AWG copper wires
- Protect personnel, equipment and meet regulatory requirements

Fiber Optic Sensors

Fiber optic sensors offer supreme noise protection and small sizes for tough applications.

- 18mm round and 6mm
- DIN-rail mount amplifiers
- Cuttable fiber sensors
- Cables and accessories

Ultrasonic Sensors

Ultrasonic sensors are ideal for applications in which the sensed object is made of clear, transparent or varying surface color materials.

- 18mm round
- 30mm round
- Analog output models available
- 100mm to 2500mm sensing ranges available
- Miniature rectangular sizes for limited mounting spaces



Koyo®

Incremental and Absolute Encoders

Use these optical encoders for your motion control applications, or with our PLC high-speed counter modules and our variable frequency drives (VFDs) with encoder feedback.



- Light duty 4mm and 6mm solid shaft
- Light duty 8mm hollow shaft
- Light duty solid shaft SAE-dimension
- Medium duty solid shaft and hollow shaft

- Medium duty solid shaft SAE-dimension
- Heavy duty standard shaft
- Absolute medium duty standard shaft
- Accessories (couplings, mounting brackets, cables & connectors)

Heavy-duty TRD-GK

Medium Duty TRD-NH

Medium Duty TRD-N

Medium Duty TRD-2S (w/MS connector)

Light-duty TRD-MX

Machine Safety Products



A superb line of machine safety devices ...

Don't let price stand in the way of making a machine or process as safe as possible. You need to be in compliance with national and international standards, but don't overpay to get reliability and high performance for maximum machine safety.

Automation Direct now offers a superb line of machine safety devices with prices that let you do even more to protect what's important. Choose from our certified offering of brand name machine safety components to meet your protection needs, including safety switches, and safety relays.

A safety switch is typically an electromechanical switch used to detect unsafe conditions and isolate power from the hazard. Safety relays are coils and contacts that are designed to be positively driven and assure a reliable opening and closing for safety applications.

JUST A FEW PRICES ON SAFETY DEVICES	
Product Description	Price-Per-Module
Safety light curtain with 30mm resolution - 24VDC, sensor and receiver pair, holds wide range 10.25 to 12 meter operating distance, 27mm detection height, safety category 4	\$416 YIB-1055-0250-001 (2-wire) \$458 YIB-3044-0250-0012 (4-wire)
Safety limit switch, pull reset action, plunger actuator, 30mm plastic body, 1/2 NPT	\$22 A22F1001
Safety relay module, single channel, for 0-400V AC, 2 NO, 2 NC contacts	\$143 G0500410-00-00

www.directautomation.com.au

It could cost you a lot more in the long run. But you don't need to overpay to get reliable, high-performance safety devices that conform to all the latest standards. Our prices on safety relays, switches and light curtains mean you can do even more to protect what's important.

Safety Light Curtains



Safety Relay Modules



Safety Switches



Magnetic Safety Switches



Protective Safety Eye wear



Hand Protection



Motor Control Solutions

Fuji Electric offer a complete line of IEC motor controls.

The DUO line (SC-E contactors and TK-E overloads) is fully integrated so multiple motor control solutions are possible with a minimum number of components. The SC-E contactors work with either the conventional adjustable overloads or the BM3 series MMS to create starters for a variety of applications. The conventional starters in the DUO line can accommodate motors up to 75 kilowatts at 415 VAC.

The larger contactors feature the SUPERMAGNET™ coil for greater reliability and positive pick-up and drop-out.

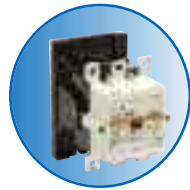
The Odyssey Series of contactors and overloads also feature the SUPERMAGNET™ coil and come in sizes up to 225 kilowatts. The Odyssey Series contactors are available in four sizes with overloads to match any motor to 225 kilowatts.

Both the DUO and Odyssey line are available in 24 VAC, 24 VDC, and 240 VAC coil versions.



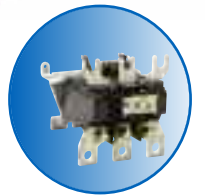
Contactor Features

- .75 to 75 Kw
- 45 mm, 54 mm, 67 mm, 88 mm, 100 mm and 115 mm frame widths
- 60 to 300 hp
- 154 mm (180 - 221A models), 169 mm (285 - 361A models) frame widths
- AC and DC coils with a wide range of voltages
- Finger protection terminals
- Fuji SUPERMAGNET™ technology employed on the larger contactors for greater reliability
- IEC-947, UL, CSA, CE



Overload Features

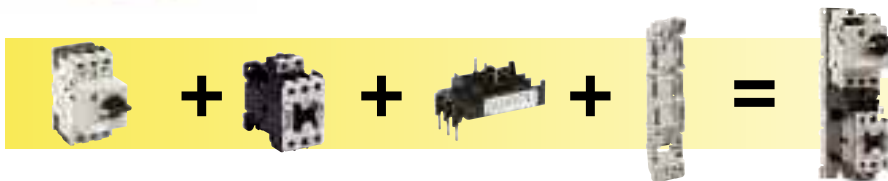
- Overload, open phase protection
- Isolated NO and NC contacts
- Ambient temperature compensation
- Trip indicator
- Finger protection terminals
- IEC-947, UL, CSA, CE



SC-E02-220VAC (Speed Code F502)
Fuji IEC 9A contactor, non-reversing, 3-pole, 43 mm frame width, 220-240 VAC coil (purchase auxiliary contacts separately)

Price \$24.00

4 Kw Contactor



A combination starter can be constructed and wired in less time and at a lower cost while minimizing enclosure space requirements.



WEG Electric Miniature Contactors (3-Pole and 4-Pole)

More Horsepower in a Smaller (45mm) Frame

CWC series mini contactors are a complete solution for controlling motors and switching other loads. The CWC's compact dimensions for its IEC current rating, up to 22A, AC-3 utilization category, allows it to take up less space inside electrical enclosures while offering up to 15 hp @460V. WEG RW series overload relays are available for direct mounting. WEG CWC series miniature contactors start at

- 7, 9, 12, 16, 22 Amp 3-pole models
- 7, 9, 16 Amp 4-pole models
- Matching direct mount overload relays

- Available auxiliary contact blocks, surge suppressors, Start-Delta electronic timing relays, wiring lugs, and mechanical interlock and latch blocks tab placement

RW Series Overload Relays for CWC Miniature Contactors

WEG RW series overload class 10 thermal overload relays are designed for use with, and as perfect complement to, the CWC miniature contactors.

RW series relays are available in compact frame sizes from 0.28 A to 32A. Mounting an RW series overload relay directly to a WEG CWC miniature contactor creates an across-the-line starter capable of controlling motors from fractional to 15 hp @ 460V. WEG RW series overload relays start at



EchoPod® & EchoSonic® II Ultrasonic Liquid Level Sensors



The EchoPod and EchoSonic II are innovative ultrasonic liquid level sensor families that replace float, conductance and pressure sensors that fail due to contact with dirty, sticky and scaling media in small, medium and large capacity tanks. Applied in chemical, water and wastewater applications, these general purpose sensors are available with single and multi-function capabilities including continuous level measurement, switching and control.

For input to a PLC or other controller, measurement outputs include current, voltage and frequency. Models with four relays can be configured for level alarms and/or stand-alone level control such as automatic fill or empty functions using the embedded level controller. PC configuration is simple with WebCal™ software.



DIRECTAUTOMATION

EchoPod & EchoSonic II Ultrasonic Liquid Level Sensors General Specifications										
Model	DL34-00	DL24-00	DL14-00	DS14-00	DX10-00	DL10-00	LU27-00	LU23-00	LU28-00	LU29-00
Price	\$770	\$595	\$490	\$470	\$395	\$395	\$695	\$850	\$990	\$1150
Type	Ultrasonic									
Class	General Purpose (non-hazardous)									
Range	8 in to 18.0 ft (20 cm to 5.5m)	4 in to 9.8 ft (10 cm to 3m)	2 in to 4.1 ft (5 cm to 1.25m)				4 in to 9.8 ft (10 cm to 3m)	8 in to 18.0 ft (20 cm to 5.5m)	8 in to 26.2 ft (20 cm to 8m)	8 in to 32.8 ft (20 cm to 10m)
Output Types	4-20 mA and (4) SPST relays			(4) SPST relays	0-5V, 0-10V, 976-2000 Hz	4-20 mA				
Install	Top Wall									
Mounting	2" NPT	1" NPT						2" NPT		
Relays	(4) SPST				No Relay					
Configuration	WebCal Software (free download) and LI99-1001 Fob USB Adapter (purchased separately)									
Ambient Temperature	-31° to 140°F (-35° to 60°C)									
Process Temperature	20° to 140°F (-7° to 60°C)						-4° to 140°F (-20° to 60°C)			
Pressure	30 PSI (2 bar) max.									
Material	PVDF transducer / NEMA Type 6P polycarbonate enclosure IP67									
Weight (lbs)	1.8	0.9	0.5	0.5	0.5	0.5	1.4	1.8	1.8	1.8

WebCal Software

WebCal PC software is a utility program that allows users to easily configure their EchoSonic II and EchoPod level transmitters, switches, and controllers. Download your free copy of WebCal at www.DirectAutomation.com, and connect your sensor through our Fob USB adapter (LI99-1001). Develop your configuration using pre-programmed function menus as the tank graphic and set point fields automatically change to match your configuration. Then, input your level set point values and click the Write to Unit button. Your configuration will be downloaded into the sensor and verified in less than a second. Last, click the Wiring Diagram button to open a wiring schematic of your configuration in PDF format. Print the document, disconnect the sensor and wire it per the schematic. It's that simple.

Configuration files can be named, saved, emailed, printed, opened and used again under revision control. The advanced feature page enables you to change the measurement signal, output filtering and invert relay states from NO to NC. As new software or firmware becomes available, they can be downloaded and updated through WebCal. Take control of your level process with WebCal software, and experience the future of level automation today.

WebCal Ultrasonic Level Sensor Software and USB Adapter					
Part No.	Item Photo	Description	Quantity	Weight (lbs)	Price
LI99-1001		Flowline Fob USB adapter, required for use with WebCal software to configure Flowline EchoPod and EchoSonic II ultrasonic level sensors.	1	0.1	\$65
WebCal		Configuration software CD for Flowline EchoPod and EchoSonic II ultrasonic level sensors (also available as a free download from the Direct Automation Web site). Requires an LI99-1001 Fob USB adapter (purchased separately).	1	0.1	\$15



ZIPLink five-second PLC wiring system



The **ZIPLink** system eliminates the normally tedious process of wiring I/O to terminal blocks. Simply plug one end of a ZIPLink cable into a controller I/O module and the other end into a ZIPLink connector module. It's that easy! ZIPLinks use half the space, at a fraction of the total cost of terminal blocks.

ZIPLinks are available in a variety of styles to suit your needs. Some are designed exclusively for DirectLogic, CLICK and Productivity3000 controllers, while others may be used with various other brands. ZIPLinks are available for our most popular discrete and analog input and output modules. DirectLOGIC, CLICK, Productivity3000 controllers:

Whether you want the ability to quickly wire simple point-to-point connections, or the ability to fuse, switch, or isolate your outputs, or the convenience of LED device status indication for monitoring your inputs, we have a ZIPLink module that is right for you.

Other controller brands: Use ZIPLink "pig-tail" cables and connector modules to wire to most brands of PLCs or controllers. These cables are supplied with a "plug and play" connector on one end, and an unwired, color-coded wire bundle on the other end for user connection to the PLC or controller terminal block.

D-subminiature connectors: For PLCs, controllers, operator interfaces, or other devices utilizing D-subminiature connectors, we have standard ZIPLink cables and connector modules in 9, 15, and 25-pin male/female configurations for fast, convenient wiring.



Specialty ZIPLink connector modules:

Got an RJ12 connector that you need to wire to? Use our RJ12 connector module. Need just a couple of additional relays in your PLC system? Try our relay modules. Having system problems due to transient noise generated from switching inductive loads? Try our transorb diode modules to clear up those problems fast.

Use ZIPLinks for easy wiring of DirectLOGIC PLC I/O modules. Feed-through modules provide low-cost and compact field wiring screw terminations. AC and DC-powered relay modules provide electrical isolation between the PLC and output devices, and can switch high-current loads. Fuse modules provide easily-replaceable fuse protection for PLC output devices. AC and DC LED/sensor modules provide simple termination for 2 or 3-wire sensors or other devices, and offer visual indication of device input status for quick troubleshooting. D-subminiature and communications adapters are also available.

24V DC-Powered Relay Modules

Our DC-powered relay module provides isolation, switches high current (10A) loads, is offered in 16 points, and includes diode protection to prevent voltage spikes at the relay coil from damaging connected PLC I/O modules.

Relays are included with the module. Module mounts on 35 mm DIN rail part #DN-R35S1.



CHECK OUT OUR PRICES

ZIPLinks

DirectAutomation Price/Part Number

ZIPLink .5m cable used to connect CLICK PLC I/O modules with 11 terminals	\$25 ZL-C0-CBL11	
ZIPLink .5m cable used to connect DL05/06 I/O modules with 8 terminals	\$25 ZL-D0-CBL8	
ZIPLink 1 m cable used to connect DL205 I/O modules with 10 terminals	\$35 ZL-D2-CBL101	
ZIPLink 1 m cable used to connect DL405 I/O modules with 20 terminals	\$52 ZL-D4-CBL201	
ZIPLink .5m cable used to connect 8/16 Pt Productivity 3000 PAC I/O modules	\$45 ZL-P3-CBL20	
ZIPLink 20-pole feedthrough connector module	\$25 ZL-RTB20	

3oneData Ethernet Switches for Industrial Applications



The IES205 series of industrial Ethernet switches

are entry-level industrial 5-port Ethernet switches that provide an economical solution for your industrial Ethernet connection, support IEEE802.3/802.3u/802.3x. Dustproof and full close structure and the IP30 case with LED indicators make the plug-and-play IES205 switches easy to use and reliable. These switches have been designed for harsh industrial environments with rugged high-strength metal case. Operating temperature ranges from -40 to 75 Deg°C

IES205 Supports 5 ports 10/100Base-T(X), Full/Half duplex mode, and auto MDI/MDI-X connection.



IES205 5 ports 10/100Base-T(X), DC12-36V Operating temperature ranges from -40 to 75°C Price\$79.00

SmartPAK!

only \$69.00 ea for a pack of 10

IES608 Industrial Ethernet Switch(8TP Web Managed)

IES608 series are a type of plug-and-play industrial managed redundant Ethernet switch, which supports 8 X 10/100Base-T(x). The 7 and 8 ports are used to establish SW-Ring for the purpose accomplishing redundancy for Ethernet ring network (self-recovery time <20ms) to enhance the reliability of the network.

Furthermore, IES608 series can also support numerous intelligent network management functions, including QoS, VLAN, Port Trunking, velocity configuration and alarm enabling functions. To satisfy applications in different industrial environments, IES608 series can also provide wide temperature type in accommodation with limit temperature (-40 ~ 75°C).



IES608 8 ports 10/100Base-T(X), DC12-36V Operating temperature ranges from -40 to 75°C Price\$399.00

SmartPAK!

only \$349.00 ea for a pack of 5

Terminal Blocks and Wiring Solutions

Terminal Blocks



DINnectors DIN-rail mount terminal blocks are available in both screw-type and screwless spring-clamp styles at prices you'll love. DINnectors can terminate solid or stranded wires ranging from 18 to 3/0 AWG, and offer fusing, grounding or disconnecting capability within the terminal block itself.

Most DINnectors are modular in design, so you can mix as many combinations of types, wire sizes and quantities as can fit on the universal DIN rail.

Standard Screw DIN Rail Terminal Blocks

- Thermocouple, plug-in and supplementary protector DINnectors
- Single-level, multilevel, ground and fuse blocks also available
- Terminal block accessories include end brackets, end covers, separators, top covers, jumpers, marking tags, mounting rail

Screwless DIN Rail Terminal Blocks

- Faster installation than standard screws with easy clamp-system connection
- Vibration-proof connection
- NEW plug-in models
- Meets UL, CSA and IEC standards



Terminal block, gray,
12 AWG, 20A, 600V,
Box Qty 100

DN-T12-A \$73

Process Control

SOLO



SOLO® Process and Temperature Controllers

SOLO temperature controllers are powerful control tools, but offer very simple operation. **Starting at just \$159**, they are ideal for stand-alone operation or in coordination with PLCs.

- Choose from any of four standard DIN sizes, each with a dual 4-digit, 7-segment display for Process Variable and Setpoint
- 24VDC or 100-240V AC powered models
- Dual output control ideal for heating/cooling loops
- Built-in Autotuning (AT) function with PID control for fast and easy startups
- Universal inputs on all models, including T/C, RTD, mA, mV and DC voltage
- Flexible control modes to fit your process, including PID, Ramp/Soak, On/Off and Manual
- FREE! Configuration and monitoring software (SL-SOFT, downloadable from our Web site)

Process control setup made easy

All units support RS-485 serial communications (up to 38.4K bps), which allows you to use the free configuration software [SL-SOFT] to configure and monitor multiple SOLO controllers using Modbus RTU or Modbus ASCII protocols. For even simpler setup, the controller can be configured manually with the user-friendly keypad on each unit.

FREE configuration and monitoring software

That's right, FREE! Configuration and monitoring software (SL-SOFT, downloadable from our Web site) allows you to configure each controller with ease and gives you data analysis capabilities for up to 10 units simultaneously.

Universal inputs

SOLO controllers support 13 types of temperature inputs and 5 types of analog inputs – all standard on each unit.

With the industry's best installation documentation, just follow a few simple steps and your process will be up and running in no time.

Collect and act on data

Using RS-485 communications, the SL-SOFT utility provides the ability to monitor and log historical data, using the built-in trending graph, from up to ten devices and save it to a .txt file. The RS-485 port can also provide connection to any HMI, PC or PLC supporting industry-standard Modbus RTU or Modbus ASCII protocol. This allows you to collect, monitor and have your application react to data being read from the SOLO controllers

PLC Connection

Use a PLC to collect data from the controllers and then have your program trigger events based on the values

HMI Connection

Use an operator interface to collect data and monitor your process.

PC Connection

Use a PC to configure and monitor your SOLO controllers with SL-SOFT. Use the trending graph to monitor and log historical data.



The **#1** Value in
automation

Where can you put SOLO to work?

Process and temperature controllers are powerful process control tools, but they offer very simple operation. SOLO controllers can be used in a variety of applications, either as a stand-alone monitor or controller, or in conjunction with a PLC or other intelligent device.

For example, SOLO can perform simple monitoring (figure at bottom) and alert an operator to abnormal conditions via alarm LEDs on the unit or via a discrete relay alarm output. Data can also be collected and stored by an HMI such as C-more. For stand-alone control loops, SOLO can use a single output (such as furnace control shown below); the dual-output feature makes heating/cooling control straightforward (example at left).

WHY PAY MORE

How is your company handling the economic challenge?

DirectAutomation is fighting back with low everyday prices and an accelerated effort to launch new cost effective products.

**Practical Prices on
Thousands of Products**

**It's time to try
DirectAUTOMATION**

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Email: sales@directautomation.com.au
Fax: 61-7-55252053

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