

 **AUTOMATIONDIRECT**.com

2016 Spring Company and Product Summary

CONTROL YOUR UNIVERSE

**with automation products
at out-of-this-world prices**

FREE Software

Download and install as
often as you need.

FREE Tech Support

Voted Best in Service 15 years straight.
Give us a call and see for yourself.

Do more

PLC CPU
starting at
\$299

Productivity²⁰⁰⁰.....

PLC CPU
5 comm ports
\$255

Basic PLC
starting at
\$69


Ethernet PLC
starting at
\$129

Check out our newest PLCs starting on page 16


The common sense way to buy industrial controls®


www.AutomationDirect.com


Quality Products  www.automationdirect.com

Great Prices  www.automationdirect.com/pricelist

Helpful Online Resources  www.automationdirect.com/videos

Solid Company  www.automationdirect.com/info

#1 Voted Service  www.automationdirect.com/service

Satisfied Customers  www.automationdirect.com/reviews

AutomationDirect.com has been a leader in providing affordable, quality industrial control products to the U.S. and Canada for more than two decades.

As a privately-held efficiently run company, we take pride in serving our customers the way they want to be served - honestly and fairly. We do everything we can to accomplish this day in and day out.

- Honest up front pricing (no gimmicks)
- Quick delivery - order today, it ships today
- FREE tech support - independently rated tops in service for the past 15 years
- FREE shipping on orders over \$49



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Our logistics team is at work early before business hours each day making sure stock is ready to head out the door.

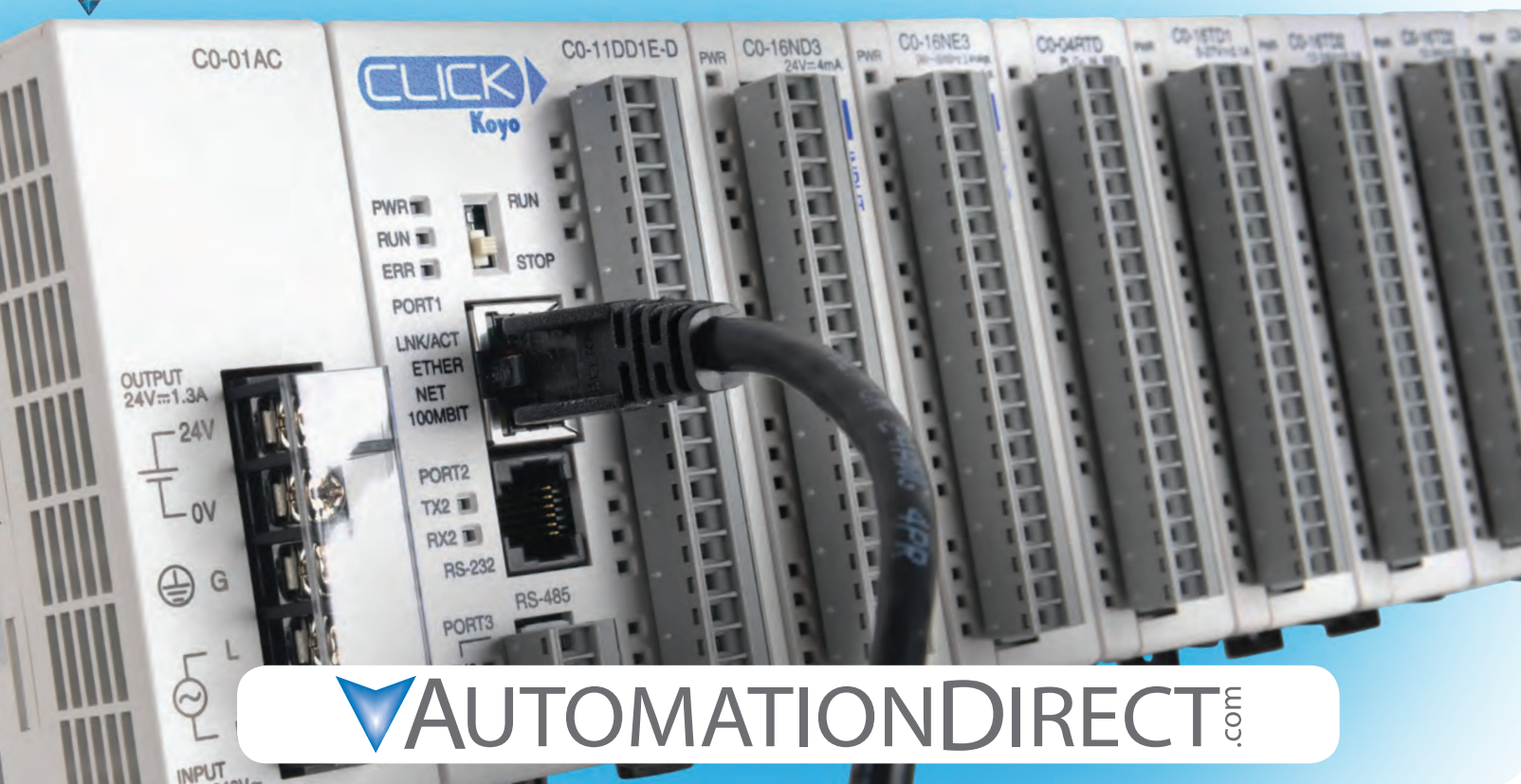
Just one more way we try to deliver as fast as possible to our customers.



Look for this symbol which indicates FREE software download available.



All manuals are available online in PDF format for download



AUTOMATIONDIRECT.com

New Products www.automationdirect.com/whatsnew

New products since Fall 2015



1. CLICK® Ethernet PLC Units
2. Roxburgh Drive-Rated Power Line EMI / RF Filters
3. NITRA G-Series ISO 15552 Air Cylinders
4. Socomec Fusible and Non-Fusible Disconnect Switches
5. Magnetic-Inductive Flow Meters (Magmeters)
6. Full-Color 6-inch C-more Micro HMI Touch Panel
7. Fuji 22mm Pushbuttons and other Pilot Devices
8. SureMotion Drive Couplings and Bore Reducers
9. More RUKO Cutting and Grinding Tools
10. Wera Combination Ratcheting Wrenches and Sets
11. Edison Modular Knifeblade Fuse Blocks and Power Distribution Blocks
12. More Productivity2000 PLC Discrete and Analog I/O Modules
13. HydroMode™ Potable Water Pressure Regulators
14. More NITRA® CMV Series Compact Modular Valves
15. NITRA® High Precision Pneumatic Regulators
16. RHINO® Encapsulated DC to DC Converters
17. More NEMA 4 and 4X Hubbell-Wiegmann Enclosures
18. Fiber Optic Sensors
19. UL Recognized Z+F insulated wire ferrules and more wire end connectors
20. ProSense SS Pressure Xmters M12

Plus:

Contrinex Safety Light Curtains now available in sets
Twisted-Pair Instrumentation Cable with individual and overall shields now available in 16 AWG



Solid Company www.automationdirect.com/info

AutomationDirect.com:

A non-traditional industrial controls company using the best ideas from the consumer world to serve the automation market.

Our campus is located about 45 minutes north of Atlanta, GA, USA.
We're all here - our sales and technical support teams, purchasing, accounting, and of course our huge warehouses and speedy logistics team.

You need quality products at great prices.
Since 1994 our prices have been typically **50% less than traditional suppliers.**

Product	AutomationDirect Price/Part Number	VS.	Competitor Price/Part Number
Proximity sensor, 18 mm, 3-wire PNP DC shielded, with quick disconnect	\$14.00 PBK-AP-1H		\$88.50 A-B 872C-D5NP18-D4
AC Drive, 5 hp, 460V	\$410.00 GS2-45P0		\$1,074.00 A-B Z2B-D010N104
NEMA 12 Enclosure, steel, wallmount (20" x 16" x 8")	\$240.00 N12201608		\$460.79 Hoffman A-201608LP

Since our industry-changing catalog first hit mailboxes in 1994, we've been offering a better value on industrial controls by running our business efficiently and passing the savings on to our customers.

In 1999, we made it easier to research and purchase by becoming the first automation supplier with a 24/7 online store. Our commitment to you is to offer the best products at the best value we can deliver so you have a better choice.

www.AutomationDirect.com/price

You don't want to wait for your order.
Same-day shipping, it's even FREE if your order is over \$49.*

AutomationDirect has always maintained a huge inventory, allowing us to ship 97.5% of orders complete the same day. We were among the first to offer 2-day free shipping, available for almost any order over just \$49.

Order any way you want: online, by phone, e-mail or fax by 6 p.m. ET and it will ship that day.

Order over \$49, and get free 2-day (transit) shipping within the U.S. and Puerto Rico. (Certain restrictions apply; Canadian orders may take longer based on destination)

You want to be confident you're buying quality products.

We guarantee your satisfaction.

We want you to be pleased with every order. That's why we offer a 30-day money-back guarantee on almost every stock product we sell, including our software. (See Terms and Conditions online for exclusions.)

If you're not satisfied for any reason, simply return your purchase within 30 days of the ship date.

*See the latest Terms and Conditions on our Web store for complete details



You insist on better service and you want it FREE.

Our technical support has been voted #1 for 15 years in a row. And it won't cost you a cent!

Many independent industry magazine reader surveys have placed us at the top of their lists for service.

In Control Design magazine alone, we've been voted tops in service for multiple product categories fifteen years in a row. The awards are nice and we appreciate them, but a satisfied customer who comes back time and time again is our best reward. We start every business day with that in mind.



www.AutomationDirect.com/service

You want complete product information to make the right purchase decision.

How about FREE documentation, hundreds of FREE videos, FREE software, and FREE CAD drawings?

Whether you're deciding on purchasing our products or learning our products after you buy, why should you have to pay for the manuals? That doesn't make sense.

Download the manuals - no purchase necessary.

We have **hundreds of videos online** for you to get up to speed quickly and learn about our products. When shopping online, if a product you're looking at has video, it will be available right there for you to view.

And for almost-FREE online videos that dive deeper into our product lines, go to www.interconnectingautomation.com for intuitive and in-depth training libraries.

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 Do-More PLCs, Productivity series controllers, CLICK PLCs and C-more Micro HMI. No license or upgrade fees to deal with, and support is free too!

In addition to software and documentation online, we have free **CAD drawings** for the majority of our product lines.

www.AutomationDirect.com/support

Over 20 years of affordable innovations have made us . . . the #1 Value in Automation!

AUTOMATIONDIRECT.com

1994**1st**

Direct Seller of PLCs
"You can't sell PLCs from a catalog, nobody does that!"

We've never been big supporters of the word "can't". In order to help you buy affordable PLCs we had to turn the industry upside down and offer a better, more direct way. Even though they said it couldn't be done, we knew that a more direct sales model would allow us to offer you better prices and service.

Pretty simple.

Shorter path between product and purchaser means less markup along the way.

1994**1st**

Windows-based programming package for small PLCs
"Where's the DOS prompt?"

To help make PLC users' programming task easier, we developed software that was easier to use.

1999**1st**

Direct ONLINE Seller of PLCs & Industrial Controls
"You can't sell PLCs from a Web site, nobody does that!"

We saw ecommerce as a way to reach more customers and provide a better experience when buying industrial controls. So instead of focusing solely on what was already working (our printed catalog), we launched a fully functional Web store to take advantage of the power of the Internet.

1999
Hundreds of parts

1994
200 pages

2016
Now three volumes and almost 4,000 pages

2016
Tens of thousands of parts and adding more almost weekly

1994

DirectLOGIC (DL) PLC line is introduced.
A good I/O range with low prices versus the traditional suppliers make these an instant hit in the industry. Our company turns a profit in the fourth month of operations, making us a viable alternative in the industrial controls market.

**2001**

AutomationDirect is Voted #1 in Service
Caught the industry by surprise but not our customers. They've known since day one, we've got their back. **Our support is always FREE!**
And we've gotten top honors every year since for 15 years

1st
Brick PLC under \$200

1996
DL105 with 14 built-in I/O is the first brick PLC under \$200

**2010****2-Day Delivery is introduced**

"You can't stock enough inventory to have it ship same day as it's ordered?!"

Yep, we do.

And **shipping is FREE** on most items if your order is over \$49

2007
Our online i-catalog launches

2015
Almost 4,000 pages complete with specs & pricing available 24/7

2007
Our online video library launches

YouTube
2015
Hundreds of FREE helpful tutorials, demos, and more

2008

CLICK series, our most versatile and expandable brick PLC, starts at \$69!

**2002**

DL06 PLC supports up to 100 I/O in its small footprint.



1st
\$99 PLC

1999
\$99 DL05 brick PLC with expansion slot at a ground-breaking price.

**2009**

Productivity3000 series is launched, featuring a high-performance CPU and advanced control capabilities.

**2015**

Productivity2000 PLC, our newest, feature-packed PLC with enhanced capabilities and a slim, affordable design!

**2015****CLICK Ethernet PLC****2013**

The Do-more T1H series CPU adds control capability to the dependable Terminator field I/O line.

**2012**

The Do-more series CPU adds speed and greater functionality to the time-tested DL 205 line.



We opened our doors in 1994 and from day one our focus has been providing you with quality products, great prices and outstanding service.

From the beginning you have given us great feedback and ideas on what industrial controls to sell and even how you want them sold . . . 2-day delivery, FREE shipping. . . these innovations, along with many others, were made possible because when you spoke, we listened - THANK YOU!

For over 20 years you have allowed us to serve you, a job we take very seriously, and we want to sincerely thank you for giving us that opportunity. It has been quite a journey so far but we believe we're just getting started.

Affordable Innovation? What the heck is that?

Sometimes a better way of doing something isn't just one added product feature or a short term price discount. It's a combination of several product enhancements, better long term prices and service enhancements that are out of the norm for an industry.

the #1 value in automation

* See our Web site for details and restrictions. © Copyright 2015 AutomationDirect, Cumming, GA USA. All rights reserved.

VOTED
Best in
SERVICE
15 YEARS
2001-2015

AUTOMATIONDIRECT.com

This ".com" is powered by ".awesomepeople"

Check us out for our prices,
keep coming back for our service.

For over twenty years our sole focus has been customer service. That takes many forms: great prices, fast delivery, and quality products. But regardless of our product selection and other tangibles like pricing, the intangible value of customer service is something that cannot be faked, replaced by machinery or glossed over with a free lunch from a visiting sales rep.

Our team members here at AutomationDirect.com approach every day with this one goal in mind - serve the customer. It's a simple philosophy that many companies forget or make too complex and then fail at it. If the answer to any decision is "Yes, this is good for our customers", then we do it.

It's that simple.

"Should we have real upfront pricing online and realtime stock availability?"

Yes, this is good for our customers."

"Should we have FREE tech support before, during, and after any sale instead of charging yearly fees for tech support?"

Yes, this is good for our customers."

"Should we offer FREE software on many products instead of charging licensing fees?"

Yes, this is good for our customers."

"Should we have all our documentation online for FREE so people can access anytime, even before they choose to purchase?"

Yes, this is good for our customers."

"Should we offer more selection by consistently introducing more new quality products with great prices monthly, sometimes weekly?"

Yes, this is good for our customers."

"Should we offer FREE shipping for orders over \$49?"

Yes, this is good for our customers."

"Should we be fiscally responsible and run an efficient business so customers can rely on us decade after decade after decade?"

Yes, this is good for our customers."

All these are discussions we've had internally and all have had certain aspects of "can we do that?," "that will be hard to accomplish," "no one else is doing that, how can we?." But if you bring it back to the simple answer, "Yes, this is good for our customers", then the perceived obstacles really don't matter.

Our company has evolved dramatically since 1994 and it's this type of decision making by all our team members over the years that keeps our customers coming back and new customers checking us out daily.

If you're a current customer, we sincerely thank you for your business. We wouldn't be here if it wasn't for you and promise to do our best for you every day. If you're new and checking us out for the first time, we hope you give us an opportunity to serve you.



Shop online at www.AutomationDirect.com

USE links on this green bar for account and purchase related tasks
[Login/Register](#) [Check Account](#) [Ordering Help](#) [Chat](#) ... plus more

USE this blue bar for dropdown menus that link to our online resources

Technical Support	Downloads	Manuals/Docs	Product Info
<ul style="list-style-type: none">Online Tech ForumProduct FAQsExample ProgramsSoftware/Firmware DownloadsCAD Drawings... plus more	<ul style="list-style-type: none">FirmwareSoftwareUpgradesTools and Utilities... plus more	<ul style="list-style-type: none">Product ManualsCAD DrawingsCompliance DocsAutomation TermsCountry of Origin Docs... plus more	<ul style="list-style-type: none">News and FeaturesOnline CatalogRequest Printed CatalogDownload PricelistProduct Application StoriesSign up for our e-news... plus more

You say -

"I love Automations Direct's product line and helpful information when researching new products to use in our manufacturing business. They show not just the part you need but the necessary accessories that help us in designing machines and in pricing them too. Thank you for all your helpful information available online."

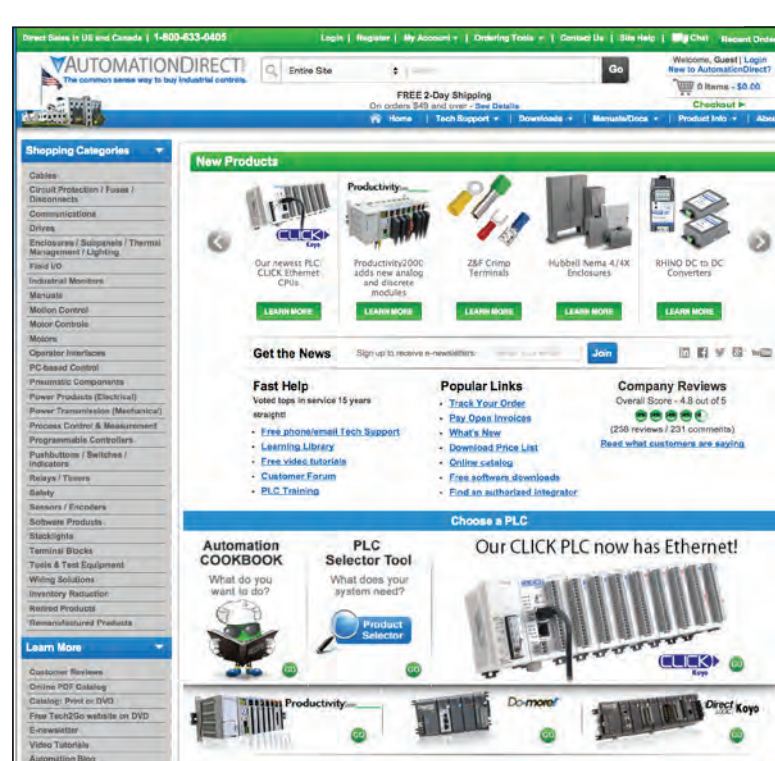
Shawn in MORGAN, UT

"I like the website and user friendly ordering. No problems in over 4 years with any shipping or material."

Richard in WHEELER, TX

"I can honestly say that I have never had a bad experience placing orders online or contacting customer service if I need to."

Stephanie in CEDAR SPRINGS, MI



It's easy to find what you need

When you're ready to browse or choose parts in the store, use one of six different ways to shop based on your needs.

- Quick Form - fastest if you already have a list of parts, key in part numbers and quantities
- Category drill down - choose parts from product categories on left side of any site screen
- Search - use the Search box to find parts or information you need; use List or Picture organization. Parametric search results can help you find product by specifications required.
- Bill of Materials (create, save, retrieve) - for frequent similar purchases
- Favorites List - save part numbers in list to reorder
- PLC Selector Tool - If it's controllers you need, our PLC selector can get you on the right path to the right PLC.

Get a quote in seconds

Just log in, add parts to your shopping cart, choose "Get a Quote" from the cart screen, and a printable quote is generated. We maintain your quotes for you. Prices are guaranteed for 30 days. You can easily re-quote when they expire.

Getting the right stuff

For each product you take to the checkout, we list "Recommended" items that are normally necessary to properly operate your selected product. This helps you order all the parts you need the first time.

Secure server

We use the latest encryption technology to ensure that your order will be secure, whether it's by P.O. or credit card.

Order using your form of payment

We accept approved purchase orders, major credit cards (MasterCard, Amex, Discover, VISA), and just recently added, PayPal. To establish a credit account with AutomationDirect, you can print our credit application from the Web site and fax it back to us to get the process started. We also offer payment by I-checks. See Terms and Conditions section for complete details:

<http://www.automationdirect.com/static/specs/adpolicy.pdf>

Automatic e-mail confirmation

If you order online, you will receive e-mails confirming acceptance and shipment of your order (including tracking number). Please make sure we have your current e-mail address by logging in and selecting "Registration."

Order tracking

Using the Processed Orders and Tracking report in your personal home page, you can track your order. (Order tracking is available the evening after your order is processed.)

Need Web site help?

Unlike some other e-commerce companies, be assured that you can contact us if you need help using our Web site. Call 1-800-633-0405, or email us at store@automationdirect.com with questions. Also, a library of "Help videos" and helpful links are under the "Site Help" tab of our site.

Take the entire catalog with you

Our entire set of printed catalogs are also online in searchable PDF format and you can download it to view it anywhere you want.

www.AutomationDirect.com/PDFcatalog

Product pages have tons of information

See the live version of the web page below for yourself: www.automationdirect.com/example

Every picture tells a story

In the past few years we've really increased the number of photos shown for many part numbers. When you're on a specific page for an item look for the "Media Gallery" icon.



Videos available too!

A lot of products on our site have video in addition to extra photos. There are how-to, demonstrations, product overviews, and much more. Click on the "Media Gallery" icon to see if there are videos available for the product you are viewing or simply go to:

www.AutomationDirect.com/videos

to see all our current videos.



See what others are saying

Customer reviews are a great "user community" tool to assist with product research and purchasing decisions.

We have thousands of reviews on detailed item level pages. Guests can read reviews and registered logged-in users can add information for products they are familiar with.

Application Stories

If we have a related application story this tab will appear

Accurate pricing

Yep, we show you the price all the time, no gimmicks. First in the industry to do it, starting with our print catalog back in 1994.

Real-time stock check

Product information

- Shipping weight
- Country of origin
- Warranty information

Product Description

Documentation

- Download product specs
- Download CAD drawings
- Extra related documentation

Agency info

- Agency approvals and listings

What's in the box

See what you will get when you order this part number.

Required or recommended items

We want to make sure you have everything you need so a list of recommended items appears for you to review.

You say -

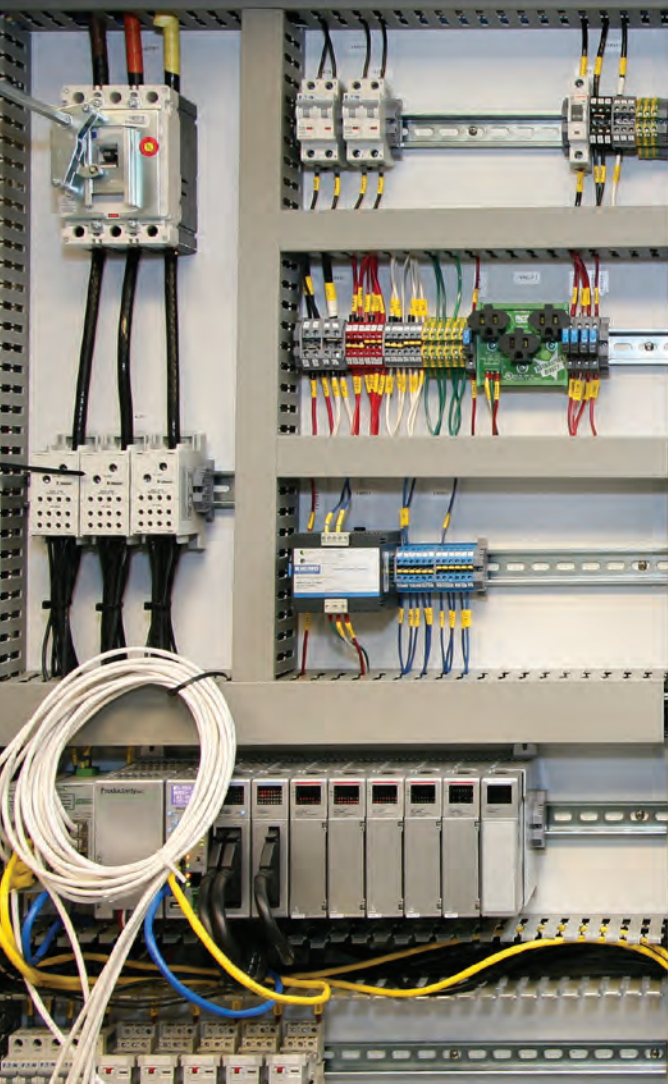
"I place all my orders online and have had nothing but good results. Keep up the great work!"

Camden, AR



Great Prices www.automationdirect.com/pricelist

If it's in your cabinet, it's online at www.AutomationDirect.com



AC Drives	AutomationDirect GS2 or GS3 Series Price/Part Number	Allen-Bradley Powerflex Series Price/Part Number
2 hp 230V	\$251.00 GS2-22P0	\$501.00 22A-B8P0N104
5 hp	\$363.00 GS2-25P0	\$693.00 22A-B017N104
5 hp 460V	\$410.00 GS2-45P0	\$893.00 22A-D8P7N104
10 hp	\$734.00 GS3-4010 (Durapulse)	\$1,750.00 22B-D017N104

All prices are U.S. published prices. AutomationDirect prices as of March 2016. Allen-Bradley prices taken from www.wernerlelectric.com 5/25/2015. Prices subject to change without notice.

Enclosures	AutomationDirect Hubbell/Wiegmann Price/Part Number	Hoffman Price/Part Number
NEMA 1 wall mount 24 x 24 x 08"	\$177.00 N1C242408LP	\$348.10 A-24N24BLP
NEMA 12 wall mount 20 x 16 x 08"	\$240.00 N12201608	\$460.79 A-201608LP
NEMA 12 free-standing mount 60 x 60 x 12"	\$1,550.00 N12606012	\$2,457.79 A-606012LP
NEMA 4 wall mount 20 x 20 x 06"	\$310.00 N4202006	\$583.81 A-20H20ALP
NEMA 4X wall mount 20 x 20 x 06"	\$731.00 SSN4202006	\$1,345.32 A-20H2006SSLP
NEMA 4/12 wall mount 36 x 24 x 08"	\$307.00 N412362408C	\$584.68 C-SD36248

*All prices are U.S. published prices. AutomationDirect prices as of March 2016. Hoffman prices are taken from www.newark.com 5/22/2015. Prices may vary by dealer. Many other part numbers are available from all vendors.

PMDC Motors, 56C	AutomationDirect IronHorse Price/Part Number	Baldor Price/Part Number	Dayton Price/Part Number
0.33 hp, 90V	\$134.00 MTPM-P33-1L18	\$733.00 CDP3320	\$519.50 2M509
1 hp, 180V	\$217.00 MTPM-001-1M18	\$1,211.00 CDP3455	\$836.50 42378
2 hp, 180V	\$372.00 MTPM-002-1M18	\$2,662.00 CDP3585	\$1,612.00 42380 (not 56C)

All prices are U.S. published prices. AutomationDirect prices as of March 2016. Baldor prices taken from www.baldor.com 5/25/2015. Dayton prices taken from www.dayton.com 5/27/2015. Prices and specifications may vary by dealer and configuration. Prices subject to change without notice.

CLICK

Product Description

PLC CPU with 8 DC inputs / 6 DC outputs (sinking), two communication ports

AutomationDirect
CLICK
Price/Part Number

\$69.00
C0-00DD1-D

PLC CPU with 8 DC inputs / 8 DC outputs (sinking), 1 Ethernet 10/100 Mbps comm port, 1 RS-232 comm port, battery backup, real-time clock

\$129.00
C0-10DD1E-D

PLC CPU with 4 DC inputs / 4 DC outputs (sinking), 2 analog inputs / 2 analog outputs, three communication ports, real-time clock

\$129.00
C0-02DD1-D

Auxiliary power supply (0.5A), 100-240 VAC input, 24 VDC 0.5A output

\$29.00
C0-00AC

AC input module, eight 100-120 VAC points

\$40.00
C0-08NA

AutomationDirect prices as of March 2016. Prices subject to change without notice.

UL 489 Miniature Circuit Breakers

Single pole, 480Y/277
VAC, 25A, Mini Circuit
Breaker

AutomationDirect
EATON
Price/Part Number

\$18.00
FAZ-C25-1-NA-SP

VS.

ABB

Price/Part Number

\$35.98
S201UP-K25

Triple pole, 480Y/277
VAC, 3A, Mini Circuit
Breaker

\$54.50
FAZ-C3-3-NA

\$156.70
S203UP-K3

Prices may vary by dealer. Many other part numbers are available from all vendors. All prices are U.S. published prices. AutomationDirect prices as of 1/28/16. ABB prices from www.midwestequipment.com 1/28/2016.

Servo Systems

Digital Servo Drive

AutomationDirect
Price/Part Number

\$488.00
SVA-2040

VS.

Allen-Bradley

Price/Part Number

\$1,340.00
2088-DSD-005

100W Servo Motor
with connectorized Leads

\$325.00
SVL-201

\$558.00
TLY-130T-HK62AA

Breakout Board Kit for
CN1 Control Interface

\$94.00
ASD-9M-50A

\$263.00
2090-USBK-D4401

10' Motor
Feedback Cable

\$49.50
SVC-FEL010

\$90.00
2090-CF8M6DF-CBA03

10' Motor
Power Cable

\$29.50
SVC-PFL010

\$101.00
2090-CF8M6DF-16A03

Configuration Software

FREE
SV-PRO*

\$82.00
2088-UWCPRG

*SureServo Pro software is FREE when downloaded and is also available for \$9.00 on a CD

Complete 1-axis 100W System

\$986.00

\$2,434.00

All prices are U.S. list prices. AutomationDirect prices as of March 2016. The Allen-Bradley 100W system consists of part numbers shown in table above with prices from www.wernerlelectric.com, www.newark.com 5/25/2015.

AutomationDirect: Shopping the world to bring you the most practical products in the industry, in-stock, ready to ship and at the right prices.

"They seem to have culled down all the products in the world to a useful set that are properly priced, yet no junk. And they can offer their own support for most of them, not shuffle me off to the manufacturer. Many people have started using them based on my recommendation, and they thank me."

- Chris in Kettering, Ohio

"Your company is exactly what I was looking for. Detailed specs are a must when working with automation products, and I have not needed to ask any questions as all the information is already on the site."

Lightning fast shipping has been great, and when I make future orders I will not think twice about availability; again right there on the site. Keep up the great work! You are truly making it a pleasurable experience to shop online."

- Dan in Akron, OH

"As an automation integrator, AutomationDirect is usually my first stop when starting a new design or developing a proposal. Their Web site has all of the specifications and information needed when trying to come up with solutions for easy and difficult design challenges."

Another great advantage to my business is the ability to get pricing, check availability and place orders after normal business hours (this is the time I can work without interruption). Keep up the great work!"

- Jay in Collegeville, PA

So why are our prices so low?

AutomationDirect offers tens of thousands of high-quality industrial automation products, both name brand and private-labeled. We get great prices from our suppliers because of our volume purchases, so that means we can offer very attractive prices on everything from programmable controllers to terminal blocks.

Our production cost for each catalog set is typically \$25, compared to a personal sales call that might cost \$350. Once customers review the catalog in print or online, they can make purchases through our highly efficient phone-in sales department or through our Web store. Once the order is placed, we ship it out of our automated warehouse. It's a simple system! Compare this to your average local distributor, typically with low levels of stock, a bunch of salespeople, company cars and expense accounts, and you start to get the picture. Our process makes it easy to pass the savings on to you.

We're adding products all the time

We're adding products quickly, choosing the best-in-class for features, price and quality. Our name-brand products come from companies such as Fuji Electric, Cutler-Hammer, and Hubbell/Wiegmann. These are multi-billion dollar companies that build world-class quality products often sold through other automation companies as well.

We also offer private-labeled products for even more savings. The manufacturers of these products are often building products for other leading automation companies and large consumer companies. We co-engineer many of these products with the manufacturer to ensure our customers are getting the features they ask for. And to assure availability, we maintain inventory at levels that consistently allow us to ship over 97.5% of our orders complete, the same day the order is received.



Our product specialists are constantly on the lookout, here in the U.S. and around the globe, for quality manufactured products we can bring to our customers.



#1 Voted Service  www.automationdirect.com/service

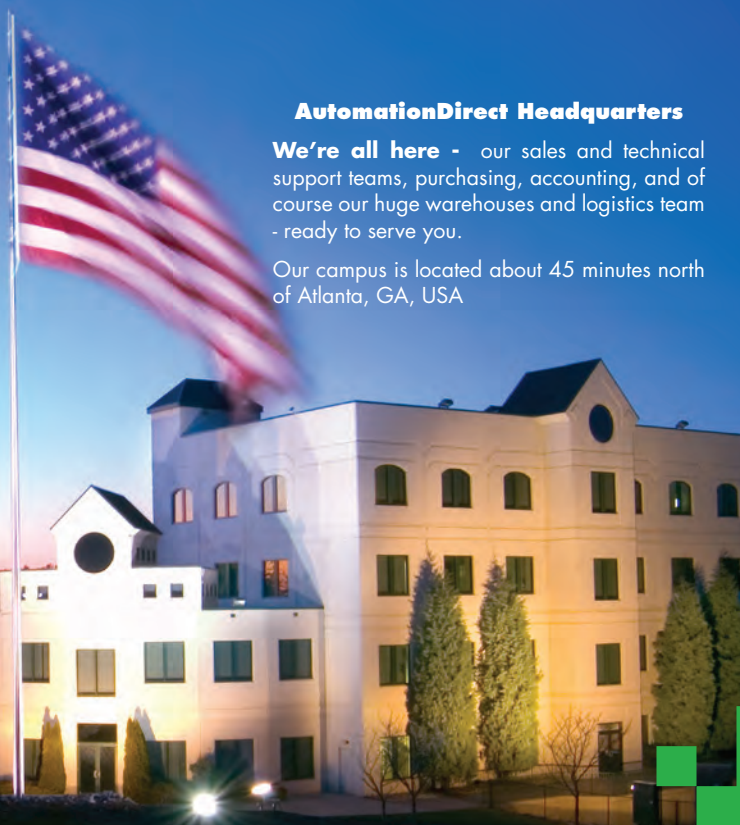
Not just a web site, we're actually here and ready to help. Call us and you'll get a person who is competent, courteous and kind.

"... Over 95% of new customers responding to surveys say that our phone manners were above average compared to their other vendors, and 94% said our sales team was above average in answering questions related to their order ..."

AutomationDirect Headquarters

We're all here - our sales and technical support teams, purchasing, accounting, and of course our huge warehouses and logistics team - ready to serve you.

Our campus is located about 45 minutes north of Atlanta, GA, USA



1-800-633-0405

Call our Sales Team
between 9 a.m. and 6 p.m. ET,
Monday through Friday.

We receive hundreds of customer comments, like these, every month:

"You guys are great. 100% total satisfaction. I've never had a negative experience in working with a representative by phone whether in Sales or Support."

"Can't beat the support. Can't beat the simple online ordering. Can't beat the interchangeability. And one thing I've found out that impresses me most of all...Can't beat the pricing. We are adding a new line within a year and I doubt it's a secret what I'm going to use for the controls."

"By far, AutomationDirect is the easiest company I have ever dealt with. The staff is very friendly and helpful."

"I have spoken to your customer service more than once, and they have always been helpful and friendly. It seems it is getting increasingly hard to get customer service at all from a lot of other companies."



Ranked Best in Service - Technical Support for 15 years Straight ... and It's **FREE!**

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



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? Or paying for phone support service and then having to be on hold waiting for it?

It's no accident that our Tech Team routinely demonstrates the best attitude and manners in the industry!

We send our customers surveys to score our attitude, accuracy and timeliness then take these scores and use them as part of the Tech team's report card. The bottom line is that you get great service by design.

Over 85% of customers who have used our service and responded to surveys say it's better than what they have been getting from other automation suppliers. 91% say we are above average to excellent in accuracy, 90% say we are above average to excellent in thoroughness, 91% say we are above average in response time, and 96% rate us above average in courtesy. Isn't it great to get better service AND a better price?

**VOTED
Best in
SERVICE
15 YEARS**
2001 - 2015

OEMs voted our name 15 years in a row!

The Reader's Choice survey hosted by Control Design magazine aims to identify the best products and service in the industry. Results from 2001-2015 indicate we consistently provide top-notch support to our customers. This is in addition to several other industry awards from independent publications.

Thanks to all who voted, we'll continue to put customer satisfaction as our #1 priority.

The bottom line is - when you call, we can help

With top service scores in numerous product categories over the last 15 years (cumulative list below), we've proven that we have the knowledge to help you make your control system installation a success.

- PLCs
- PLC programming software
- Operator Interface Terminals
- Stepper motors
- Relays
- HMI software
- Terminal Blocks
- I/O systems
- Encoders
- Servo motors
- Presence sensing
- Power supplies
- Electric motors
- Motor starters
- Stack light towers

Want to discuss using our products with like-minded customers?

<http://forum.AutomationDirect.com>

Is our Customer Forum, where tens of thousands of active customers come to ask questions and share their knowledge with peers

Want to watch some videos to learn more about our products?

<http://www.AutomationDirect.com/videos>
www.youtube.com/automationdirect

Is where we have hundreds of helpful videos posted, from new product overviews to detailed tutorials on topics such as PID and motion control

Great people and automation go hand-in-hand to make it easier for you to get what you want, when you want it.

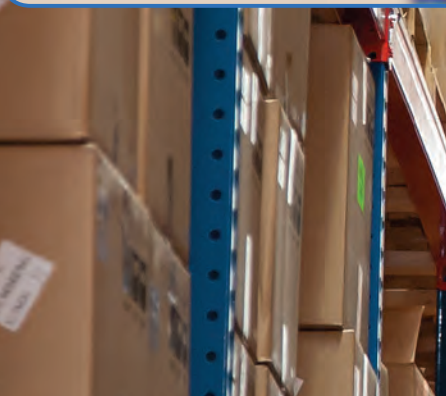


Here's an example of why we've won Design News' Golden Mouse Trap award for:

"Best delivery times for Motion Control/Automation category"

5:15 pm ET:
You order parts you need
5:23 pm ET:
Your order is picked from our warehouse almost immediately
5:32 pm ET:
Order is packed and waiting on delivery carrier - next day delivery is available if you need it.
You still have time to place another order!

As late as 6 pm ET, you can order the parts you need.



Get it fast AND with FREE shipping on orders over \$49.

Free standard 2-day (transit)* shipping is available for orders over \$49, within the U.S. and Puerto Rico. We use our choice of carrier and a combination of ground and air services that allow us to reach any U.S. destination within 2 days transit time (or less). (Canadian orders use the same method, but may take longer based on destination.)

Orders placed by 6 p.m. EST will ship the same day (with approved company credit or credit card; LTL items require 5 p.m. order cutoff).

Note that the 2-day transit time does not apply for LTL shipping of heavy items or drop-shipped items. (We can ship heavy items to Alaska, Hawaii and Puerto Rico, but they will always incur a shipping charge.

To determine if an item must ship LTL, check the part's shipping notes on our store Web site.)

For orders under \$49, a flat \$6 shipping charge is applied. Or, you may request that your order ship via the 2-day (transit) method; shipping charges will be added to invoice. For complete details on shipping methods and charges, see Terms and Conditions online on our Web site for the most up-to-date information.

*** We do not guarantee delivery times of the carriers.**
AutomationDirect is not responsible for carrier delays due to weather, mechanical failures or other issues.

**** Transit times for most in-stock items shipped from Cumming, GA**



**** Transit times for most in-stock items shipped from Cumming, GA**

We've never been traditional and neither have our prices.

Regardless of your project or system needs, AutomationDirect has a PLC to match your specs and your budget. So whether you're building a simple process or a complex machine, you can count on us for affordable innovations you can rely on.

NEW

CLICKs with
Ethernet portCLICK
Koyo

CLICK PLC BASIC PLC STARTING AT: \$69

FREE Programming Software and Tech Support for Life!

It's amazing how we fit so much functionality into such a small package, with such a low price! Starting at \$69, the CLICK micro-brick PLC is a simple, cost-effective solution for your application.

- Stand-alone PLC units with discrete or discrete/analog I/O
- Expandable up to 142 I/O points
- **NEW!** Click Ethernet PLC units with built-in 10/100 Mbps Ethernet port starting at \$129
- FREE, easy-to-use programming software
- 2 year warranty

See more at: www.automationdirect.com/clickplcs

Do-more PLC CPU STARTING AT: \$299

FREE Programming Software and Tech Support for Life!

What could be better than combining our time-tested DirectLOGIC PLC or Terminator I/O hardware with a next-generation controller, offering a ton of memory, speed, and communication? How about doing it for an unbelievably affordable price.

- High-performance processor with over 1M bytes of memory (H2 models)
- USB programming, serial, and Ethernet ports
- Expandable up to 65536 analog, discrete and specialty I/O
- FREE, powerful programming software with simulator!
- 1 year warranty

See more at: www.automationdirect.com/Do-more-PLCs

Real-time data on temperature
and analog modules



Just pay once ... because once is enough!

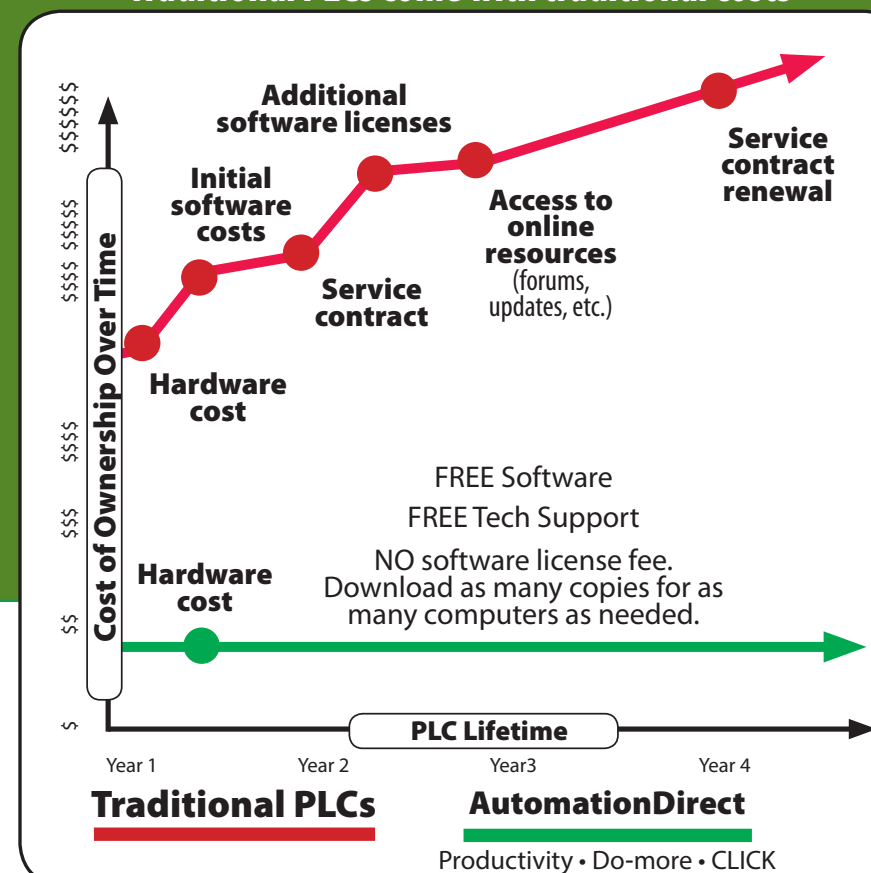
With traditional suppliers the "upfront" price is not always the price you pay. The costs associated with service contracts, software licenses, access to online resources, etc. can make your PLC purchase a long and painful one.

Our programmable controllers include many standard features that you would pay thousands for elsewhere, but what they don't include is the additional cost of ownership.

See for yourself, check out our PLCs at www.AutomationDirect.com/plcs

We're not a traditional PLC company... but we just might have what you need.

Traditional PLCs come with traditional costs



Productivity²⁰⁰⁰.....

And our newest programmable controller line ...

Productivity2000 PLC CPU w/5 comm ports: \$255

FREE Programming Software and Tech Support for Life!

The Productivity2000 PLC is our newest PLC and is designed to offer you the best value and lowest cost of ownership in its class. Compared to the competition, the Productivity2000 PLC has the features you want at a price they can't touch.

- 50MB of user memory with built-in data logging capability
- OLED real-time data and diagnostic displays
- 5 built-in communication ports including USB programming, serial, and Ethernet ports
- Communication protocols include EtherNet/IP and Modbus TCP
- FREE, tag name based programming software
- Mobile device access and remote visibility
- 2 year warranty

See more at: www.automationdirect.com/Productivity2000



2016
ENGINEERS'
CHOICE
AWARDS

FINALISTS

Productivity[®]2000 - small size ... BIG features

Shown at actual size: power supply, CPU and seven I/O modules in only 10-1/2"



AutomationDirect's Product Development team, in partnership with FACTS Engineering, one of our trusted PLC hardware suppliers for over 20 years, took advantage of years of combined experience in the North American controls market and engineered the Productivity2000's features to give you the best price/performance ratio we've offered to date.

EtherNet/IP[™]



Hardware that is built to last

Engineered here in the USA, the Productivity2000's rugged design and quality-tested build is ready for field duty. We stand behind its performance with a 2-year warranty. Not only can the P2000 handle adverse conditions, but the 50MB of user memory also ensures that it has enough processing power to accommodate any future expansions you may need. A small investment today can grow with your application needs tomorrow.

And don't let the small size fool you, the Productivity2000 is a robust controller that includes many impressive features in its compact design. From tag name programming, to auto-discovered hardware including VFDs, to web capability and mobile device access. There is really no way to discuss them all, so head on over to our website, www.Productivity2000.com to get the full story.

**CPU ONLY
\$255**



Convenient built-in data logging

Up to 32GB of information can be stored and accessed locally via micro SD or remotely accessed with the built-in web server.

Date	Time	Tank1 Temp
4/13/15	12:35:49.538	79.400002
4/13/15	12:35:50.467	79.400002
4/13/15	12:35:51.468	78.900002
4/13/15	12:35:52.468	78.800003
4/13/15	12:35:53.468	78.900002
4/13/15	12:35:54.468	79.5
4/13/15	12:35:55.468	79.400002

Get the RIGHT information ... RIGHT now!

Wiring diagrams, spec sheets and assembly instructions are available simply by scanning drop-down QR code tab on all I/O modules.



See for yourself!
Scan the QR code below.



Get more than you paid for ...
www.Productivity2000.com

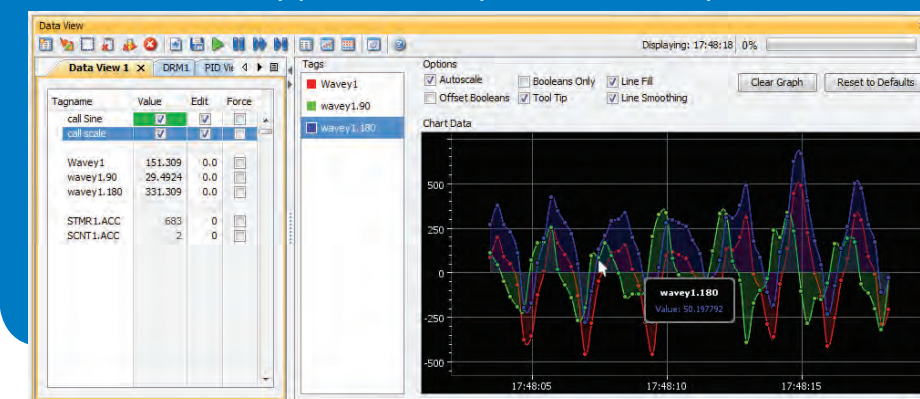
**EtherNet/IP[™]
Modbus[®]**

More modules just added!

- 12-24 VDC / 24VAC power supply
- Additional 8-pt and 16-pt, 12-24 VDC input modules (wider voltage ranges)
- 32-point, 24VDC input module
- Additional lower cost analog modules

FREE fully functional programming software

Our Productivity Suite software was developed and is supported at our Atlanta, GA headquarters. Designed to work easily and efficiently, it has been industry-proven reliable by our customers for years.



Online www.automationdirect.com/productivity3000

- ✓ **FREE software**
- ✓ **FREE online video training**
- ✓ **FREE phone Tech Support**

Increase your Productivity with FREE full-featured software

Watch software tutorials and other videos at:
<http://n2adc.com/p3vids>

- Auto setup and discovery of hardware
- Tag name database programming
- Task management
- Advanced "fill-in-the-blank" instructions
- Seamless corporate database connectivity
- Graphical HTML-based Help File
- Project file and user documentation stored in CPU
- Run time editing
- USB data logging on the CPU
- Tag database export to C-more HMI

EtherNet/IP™



P3-550
CPU \$599

P3-530
CPU \$419

Productivity3000 programmable controller 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:

Fill I/O bases and connect with USB or Ethernet cables

Modules can go in any I/O slot, there's no power budget to worry about, and local USB and remote Ethernet I/O groups are connected with industry-standard communications cabling.

Auto-discover the hardware

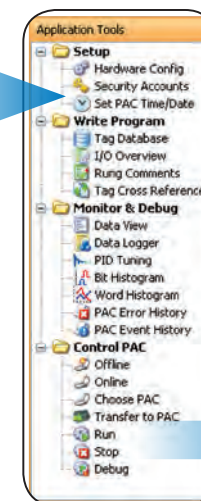
One click is all it takes to detect and auto-configure the hardware connected to the system. This can save you literally hours of setup time.

Integrating drives is just as easy

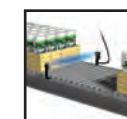
Drive-intensive applications are a snap - connect up to 32 of AutomationDirect's GS series AC drives on the Ethernet remote I/O network (using GS-EDRV100 option cards). Units are auto-discovered when configuration update is requested - it's that easy.

- 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 (requires GS-EDRV100)

- LCD on CPU and Remote Slave for diagnostics (P3-550 only)
- 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



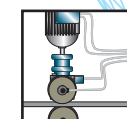
Advanced Discrete



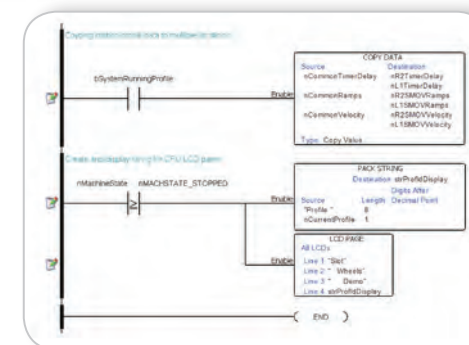
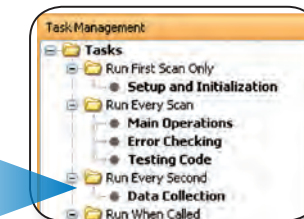
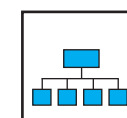
Basic Process



Motion



Distributed I/O



The Productivity3000 programmable controller series' FREE Productivity Suite programming software gives you advanced tools to make your job easier:

Task Manager helps you organize program code

Create functional tasks, name them and schedule their frequency - every scan, every second, whenever called, even disable when needed.

Program comments and device tag names all in one file

All program code and documentation is stored on board the CPU. So no matter which computer you use to connect to the controller, you can see all the documentation.

No maintenance contracts or upgrade charges.

When new features are added to the software or firmware, just download the latest updates from our Web site - for free!

MES



DAQ



SCADA



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 \$295) 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 PACData app for iOS devices.

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

We make it easier to communicate

Other
Controllers

Drives

Universal
I/O

EtherNet/IP™



With EtherNet/IP™ as a native protocol, we make it easy to connect the powerful, cost-effective Productivity3000 controller to your existing systems.

Configurable as a Scanner, Adapter, or both simultaneously, the Productivity3000 CPU supports Explicit or Implicit "I/O" messaging. Connect to EtherNet/IP enabled devices such as ControlLogix and CompactLogix controllers or Flex drives using the fill-in-the-blank style configuration and Message instructions.

Whether you are configuring a new application or looking to expand an existing one, we can get you in control and connected for less.



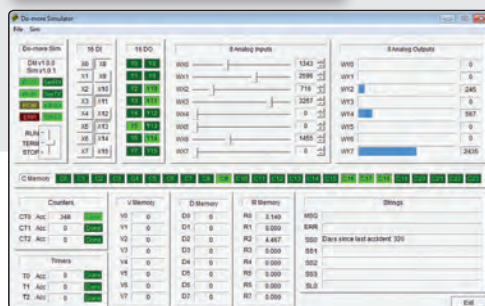
Online www.automationdirect.com/do-moreplcs

2013
ENGINEERS'
CHOICE
AWARDS
WINNER

Machine and
Embedded Control:
PLCs category

Each Do-more CPU comes with a coupon for a 30-day free trial of online video training. So visit www.do-moreplcs.com for the details, watch overview videos, and download the free Do-more Designer programming software to take it for a spin.

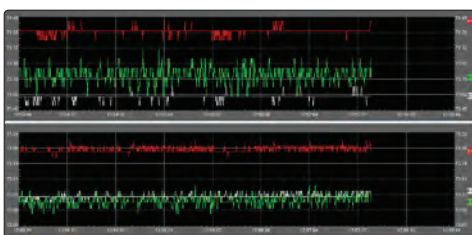
EtherNet/IP™

H2-DM1E
CPU \$399

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.

<http://support.automationdirect.com/products/domore.html>



- ✓ **FREE software**
- ✓ **FREE online video training**
- ✓ **FREE phone Tech Support**

Do-more H2 series programmable controllers

Whether replacing or starting from scratch on a control system, you should consider the Do-more PLC. We took the best ideas for practical product design and created an incredibly powerful controller at an incredible bargain.

- 1MB memory for program, documentation, and user-partitioned data types
- Onboard communication ports include USB, serial, plus Ethernet with Modbus TCP and EtherNet/IP support (DM1E model)
- Up to 256 I/O in one base, and lots more with optional Ethernet-connected I/O
- Supports over 50 discrete, analog, motion, and additional serial and Ethernet communications modules
- Four base sizes with built-in power supply support 12/24 VDC, 110/220 VAC and 125VDC (six and nine-slot only) power sources

FREE Do-more software is one powerful package - check out just a few of its advanced features:

Built-in simulator

The built-in simulator creates a virtual PLC so you can test your logic without the hardware present. The Windows application runs on your PC and uses the same code as the CPU firmware for the most accurate simulation. Test part of your logic or whole programs quickly and conveniently.

- 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.

Insightful monitoring and troubleshooting tools

Use these tools for real-time tuning and testing:

- Debug View window can suspend each task and program separately.
- PID View window allows precise tuning of your PID loops.
- Data View window monitors your chosen program elements - discrete or analog I/O, and system parameters.
- View Trend Data in its own view as well as within specific ladder instructions like PID, RAMPSOAK, and High/Low Alarm.

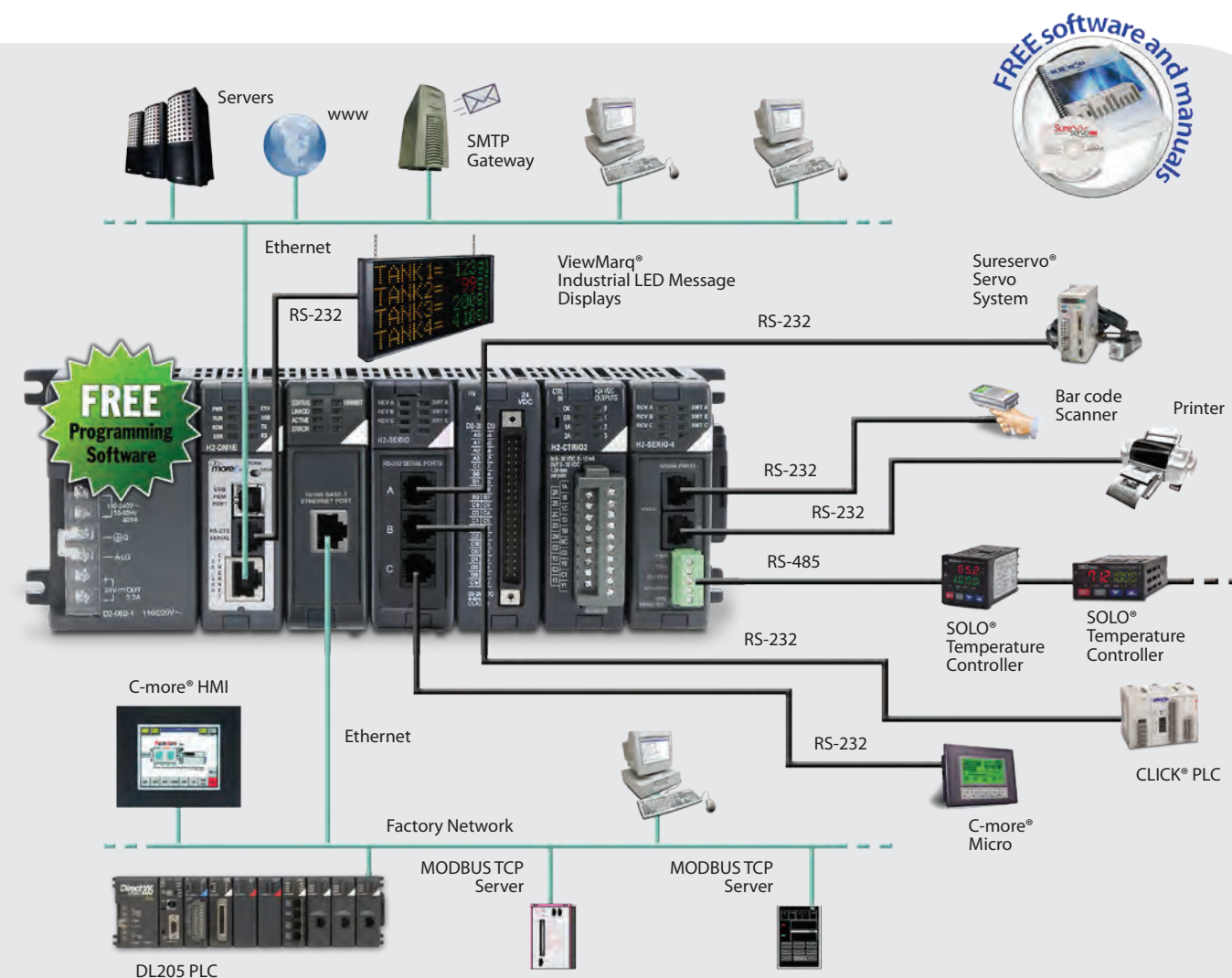


Tons of communication options

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.



Watch the Quick Start
Video here:
<http://bit.ly/OdXm4Y>



Choose a Do-more PLC starter kit to get started fast.

You get a prewired, 3-slot base with your choice of Do-more CPU module (with or without an Ethernet port), an 8-point input simulator module, and an 8-point relay output module.

Also included are a copy of the Do-more Designer programming software on CD, a hard copy of the Do-more PLC user manual and a USB programming cable.

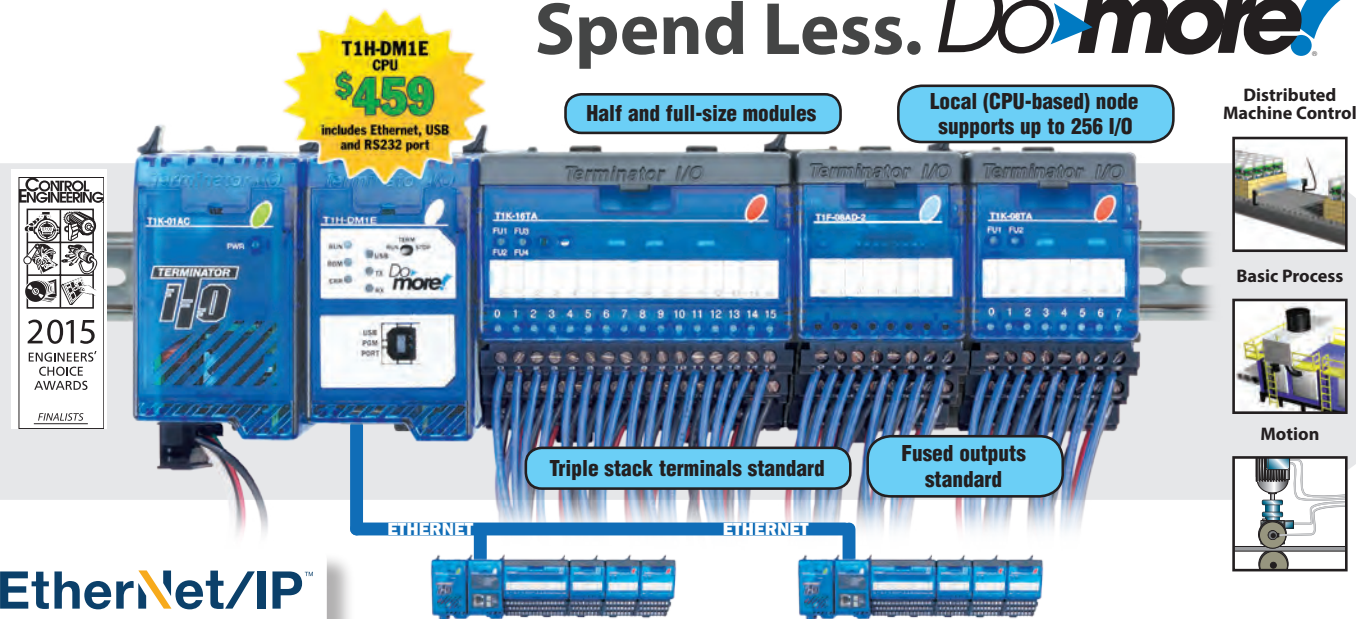
Free online video training! Coupon comes with every CPU.



Online www.automationdirect.com/do-moreplcs

- ✓ **FREE software**
- ✓ **FREE phone Tech Support**

Need control everywhere? Spend Less. *Do more.*



EtherNet/IP™

Do-more T1H series programmable controllers

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.

The 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

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.

<http://support.automationdirect.com/products/domore.html>

Need field I/O?



Terminator I/O

Terminator Field 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.

Protos X™ I/O

The Protos X "Xpansion" I/O System using Modbus RTU (RS-485) or Modbus TCP (Ethernet) communications protocols allows a user to install remote field I/O devices without having to invest in another controller. The unique slim design and low cost of the Protos X I/O makes it the most practical distributed I/O available today. The ultra-slim form factor makes it easy to install on or near machine or application components, saving time and excess field wiring and speeding up troubleshooting.

Research, price, and buy at: www.automationdirect.com/fieldIO

www.automationdirect.com/click-plc Online


CLICK PLCs

The mighty micro with a pico price!



Now with
ETHERNET
starting at
\$129



Get Ethernet with just a simple CLICK!

The CLICK micro brick PLC was already an incredible value but now we've added even more. The new CLICK Ethernet PLC units come with a 10/100 Mbps multipurpose Ethernet port for faster networking and control. Use the built-in Ethernet port to program your system, network your CLICK, or communicate with Ethernet-enabled devices like PLCs, HMIs, and VFDs. The new CLICK PLCs will easily integrate into existing networks and provide a simple, cost effective solution for your application.

Check out what \$129 will get you:

- (1) 10/100 Mbps Ethernet port, (1) RS-232 serial port (an additional RS-485 serial port is available on CLICK Ethernet Standard PLC units starting at \$149)
- Modbus RTU, ASCII, and Modbus TCP communication protocols
- 8 discrete input points and 6 discrete output points built in, capable of expanding to a total of 142 discrete or 48 analog I/O points
- FREE programming software with a simple but practical instruction set
- Removable terminal blocks for easy wiring
- 2 year warranty

Other CLICK PLCs:

- Three PLC unit styles - Basic (14 discrete I/O, 2 comm ports), Standard (14 discrete I/O, 3 comm ports, plus clock/calendar/optional battery backup), and Analog (Standard features with 8 discrete and 4 analog I/O onboard)



Get more than you paid for . . .
www.CLICKplcs.com



PLCs



HMIs



VFDs

Online www.automationdirect.com/directlogic-plc

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 129 instructions, including four PID loops
- Removable terminal block
- 110/240 VAC or 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: 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
- 7.5 K program memory
- 7.3 K data memory
- Two built-in communication ports - one RS232 and one RS232/422/485 port
- Over 229 instructions, including eight PID loops and ASCII
- Removable terminal blocks
- Built-in 300 mA 24 VDC auxiliary power supply
- 12/24 VDC or 110/240 VAC 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 16-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



- ✓ **FREE Software** (100 max. word limit)
- ✓ **FREE Phone Tech Support**

www.automationdirect.com/software Online


- ✓ **FREE Phone Tech Support**

Software Control Solutions



Starting at:
\$225 .00
 PV-500-DEV
 (Development only package)

HMI/SCADA Software for PC-based visualization

Point of View is powerful software for developing HMI, SCADA, and OEE/Dashboard projects for your control system that can be deployed anywhere. Create graphical screens that are easily understood, plus show data, alarms, trends, and more.

You get all this capability for a very practical price, no matter how small or large the system.

Three software packages are available in 500, 1000, and 5000 tag count versions:

- Complete Package - Development + Runtime
- Development Package - Development Only
- Runtime Package - Runtime Only

500 tag count = 1 active communication driver supported

1000 tag count = 3 simultaneous active communication drivers supported

5000 tag count = 10 simultaneous active communication drivers supported



Management

Enterprise integration

Easily tie into ERP and "back-office" systems using built-in relational database connectivity.



Engineers

Save time

View your process from your desk or Web-enabled mobile phone using a standard browser (Internet/intranet including XML support). Based on HTML5, it can be used on most current tablets and phones.



Operators

Point of View SCADA/HMI software contains a Modbus driver and 18 communications drivers for most industrial controllers from AutomationDirect and other major controls companies.

Point of View software supports Productivity Series, D-more PLC, DirectLogic and CLICK.

Point of View software is available for Online Order Only. The POV configuration tool (available at the Item Level when ordering) is used to ensure selection of all the needed components.

Data Logging and Web-based Data Collection and Monitoring Software

PC Control with Think & Do

Think & Do Version 8 software products bring you all the tools you need to easily handle complex applications. With intuitive flowcharting, powerful graphics tools, higher math functions and data types, serial and Ethernet communications and interfaces to specialty control modules, Think & Do software is right for applications that PLCs just can't handle alone. Think & Do Version 8: Advanced PC-based control with enhanced HMI development software and an SQL interface for more complex applications.



KEPDirect OPC Server Software



The KEPDirect OPC Server software provides a way to connect, using OPC technology, your favorite Windows client software to AutomationDirect communication-enabled devices such as programmable controllers, remote I/O and variable frequency drives (VFDs).

DataWorx PLC Data Logging Software

AutomationDirect has teamed up with BizWareDirect to offer DataWorx data collection software for AutomationDirect PLCs and WinPLCs. Before DataWorx, it was necessary to purchase an OPC DDE server, and write code or buy a Human Machine Interface (HMI) package to collect data from our PLCs/WinPLCs. The DataWorx data logger software package easily connects Ethernet-enabled controllers to standalone PCs or network servers for simple data logging.

DataNet OPC Web-based Data Monitoring Software

DataNet OPC easily connects your PLC or other OPC enabled device to a live Web page. The data is then available for viewing, logging and printing reports. The data is displayed in an easy to read table format with color coded text (for alarming) and with absolutely no HTML programming required.

DataLynx - Remote Data Collection Software

DataLynx is an inexpensive data logging and storage package for remotely located PLCs or other devices that support Modbus RTU and a modem connection. DataLynx can collect data from remote locations or relay data from multiple locations back to a single location to be stored. The software offers easy setup with no programming or SCADA system required.

Online www.automationdirect.com/c-more

Now you can expect more from your HMI!



C-more EA9
Touch Panels
start at
\$499!
EA9-T12CL 12"
model shown
priced at \$1790

C-more EA9
Software
\$99
EA9-PGMSW

C-more®

C-more Remote HMI App

For only \$4.99 you can have remote access and control on the go! Available now in your Apple® or Android™ app store.

* EA9-PGMSW for use with EA9 series panels only; cannot be used with EA7 series panels.

☒ **FREE Phone Tech Support**

The C-more EA9 HMI software (just \$99) delivers more functionality, usability and value to our popular C-more touch panels. Dozen of new features and upgrades give you MORE for LESS!

MORE LOGIC



- New tag combinations allow simple logic with multiple events
- Combine up to four different tags to trigger actions based on logical results

MORE MATH



- New math functions let you create custom formulas with constants or tag values
- The Math Keypad provides both simple and complex operations including log, sine, and square root

MORE ACCESSIBILITY



- The new Object Layer List Window shows all the objects on the active screen and lets you lock/unlock, hide/unhide objects or quickly select them for editing
- The Object Layer List allows access to individual objects in a group; additional lists for hidden, locked or overlapping objects
- Recipe database supports 99 recipe sheets, each with 1000 recipes of 256 possible tags or values; operator can now modify and save while the process is active
- New menu options, customizable toolbars and updated graphics for improved ease of use

MORE ALARMING OPTIONS



- Enhanced Alarm List offers more options for alarm customization
- New alarm filters allow for dedicated alarm summaries

MORE DRIVERS



- C-more panels have drivers for most major brands of PLCs. See the entire list at www.automationdirect.com/c-more-drivers

LESS COST



- With software at \$99 and hardware starting at just \$499, C-more gives you one of the best costs of ownership, considering initial price, features, ease of use, reliability and free award-winning technical support


www.automationdirect.com/c-more-micro Online

☒ **FREE Software**
☒ **FREE Phone Tech Support**

Micro panels . . . Mega value!



C-more Micro Panels

C-more Micro panels are one of the most popular and reliable, value-packed operator interfaces in the industrial market today. No matter the budget or system size, we have a C-more Micro operator panel for the job, from the practical, space-saving 3-inch models to the robust, budget-saving 10 inch. And all of our panels come with FREE programming software that includes a project simulator and many other timesaving features. You'll always get the biggest bang for your buck with C-more Micro.

- Micro touch panel and non-touch panel versions available
- The 3-inch cost-conscious panels display standard or high contrast STN monochrome graphics with five selectable background colors
- 32K color TFT displays are available in 4-inch, 6-inch, 8-inch and 10-inch models
- Several options, including plug-and-play keypad bezels, are available for select models
- Free programming software with simulator
- Full 2-year product warranty

NEW 6-inch TFT model features:

- 5.7-inch touch screen display
- 320 x 240 dot display with up to 40 lines by 80 characters of text and graphics in landscape mode
- Five programmable function keys can change with every screen and can be programmed to increment/decrement values, trigger recipes, etc.
- 32K colors for customizing objects, screen backgrounds and displaying bitmap graphics
- 6MB memory
- Built-in USB type B programming port
- Built-in 15-pin serial communications port
- Built-in RJ12 serial communications port
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- UL, cUL & CE agency approvals

All C-more Micro panels support:

- All AutomationDirect programmable controllers
- Modbus® RTU
- Allen-Bradley® DF1 half/full duplex, PLC-5® DF1 and DH485
- Siemens PPI
- GE SNPX
- Omron Host Link and FINS serial
- Mitsubishi MELSEC®

See our [webstore for the complete list](http://www.automationdirect.com/Cmore-micro)

Research, price, buy at:
www.automationdirect.com/Cmore-micro

Online www.automationdirect.com/viewmarq

New, lower prices on LED message displays!



Unit shown:
\$916.00
(MD4-0412T)
12 characters/4 line

Now starting at:
\$435.00
(MD4-0112T)
12 characters/1 line

Six models to choose from:

23.3 inches 12 characters wide	1 line	NEW PRICES \$435
OVEN1 - 232F OVEN2 - 198F	2 line	\$613
POWERED BY 100-240V AC OR 24VDC	4 line	\$916

44.89 inches 24 characters wide	1 line	\$599
1234567890!@#\$%^&*()_+=~ ABCDEFGHIJKLMNOPQRSTUVWXYZ	2 line	\$929
Line 1: TARG 3500 Line 2: PLAN 3200 Line 3: ACTL 2300	4 line	\$1,551

VIEWMARQ
LED MESSAGE DISPLAY

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.

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



Wall mount brackets for easy mounting

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
- NEMA 4 / NEMA 12 extruded aluminum housings suitable for harsh environments
- Chain and wall/ceiling mount brackets included



Connect to PLCs or other compatible master devices



- ✓ **FREE Software**
- ✓ **FREE Phone Tech Support**

- ✓ **FREE Phone Tech Support**

www.automationdirect.com/ethernet-switches Online


Stride® Ethernet Switches for Industrial Applications



ETHERNET NETWORK
Stride

Our STRIDE family of industrial grade Ethernet switches and media converter is specifically built for industrial environments. Talk to your control system devices such as PLCs and HMIs reliably at high speed. Install Stride switches and your Ethernet control network will maintain more consistent cycle times even under heavy I/O and data exchange. Unmanaged switches are a cost-effective solution for simple networks. Our managed switches offer fast Ethernet and Gigabit options, as well as fiber SFP transceiver modules for select units. Managed switches offer security, redundancy and enhanced traffic filtering.

Ethernet Switches

5-port unmanaged Ethernet switch with (5) 10/100BaseT RJ45 Ethernet ports	\$99.00 SE-SW5U
8-port unmanaged Ethernet switch with (8) 10/100BaseT RJ45 Ethernet ports	\$174.00 SE-SW8U
5-port managed Ethernet switch with (5) 10/100BaseT RJ45 Ethernet ports	\$445.00 SE-SW5M
16-port managed Ethernet switch with (16) 10/100BaseT RJ45 Ethernet ports	\$1,150.00 SE-SW16M

All prices are U.S. published prices. AutomationDirect prices as of March 2016. Prices and specifications may vary by dealer and configuration. Prices subject to change without notice.

AutomationDirect
STRIDE
Price/Part Number

Advanced Industrial Hardware

- Unmanaged switches offer up to 9 ports in plastic or metal housings
- Managed switches in metal cases support up to 16 ports
- All RJ45 ports are auto-detecting, auto-crossover and auto-polarity
- Redundant power inputs with surge and spike protection
- SC (push-pull type) fiber optic connector models, in addition to ST (slotted bayonet) style versions
- SFP transceiver modules with LC fiber connectors available

Real-time Performance

- Store and forward wire speed switching - no delays
- Full-duplex operation with flow control (no collisions!)
- Auto crossover (MDI/MDIX) and auto polarity

True Industrial Design

- Ethernet Isolation -1500 VRMS 1 minute
- Wide operating temperature ranges
- UL (CUL) listed and CE certified
- Hazardous locations rated for Class 1, Div. 2

Also Available



Online www.automationdirect.com/drives



Save on energy costs with AC drives

High-quality AC drives pay for themselves in a hurry

Variable speed drives can improve your bottom line by reducing your motors' energy consumption. An investment of as little as \$99.00 can start paying off immediately.

Our family of AC drives gives you a choice of control modes so you pay for and install only the level of complexity you really need.

GS1 AC drives (0.25 to 2 hp) offer simple Volts/Hertz control for general purpose applications. Built-in I/O, Modbus communications capability and programmable preset speeds increase its flexibility. GS1 drives are great for simple conveyor, pump or fan controls.

GS2 AC drives (0.5 to 10 hp) feature built-in PID control, dynamic braking and Modbus communications. GS2 drives are used extensively in material handling, HVAC and shop tool applications.

DuraPULSE AC drives (1 to 100 hp) add sensorless vector control, a removable keypad that stores up to four different application programs, and built-in discrete and analog I/O.

Communicate via built-in Modbus or an optional Ethernet connection. DuraPULSE drives, with integral PID control, can perform loop adjustments independently of a supervising controller.

✓ **FREE Software**

✓ **FREE Phone Tech Support**



Also Available

LR Series
Line Reactors

High-Speed
Class J Fuses

Replacement
Fans



IronHorse GSD Series DC drives start at \$60.00

- Input voltages of 12/24/36/48 VDC, 12/24 VAC, 120/240 VAC
- Output voltages of 12/24/90/180 VDC
- Output current up to 20A!
- Available in open frame and NEMA 4/12 or 4X enclosed versions

GSD1 Series DC Drives: High-performance Pulse-Width-Modulated (PWM) controllers for 12 to 48 volt battery/solar-powered equipment - up to 1 hp

GSD3 Series DC Drives: Compact, economical variable speed SCR controllers for small DC and universal motor applications - up to 2/3 hp

GSD4 Series DC Drives: Cost efficient, reliable SCR control for permanent magnet, shunt wound, and universal motors - up to 2 hp

GSD5 Series DC Drives: General purpose line of SCR drives rated to 2 hp

GSD6 Series DC Drives: Most fully-featured IronHorse analog DC SCR drive with standard features offered as options by other DC drives - up to 3 hp

GSD7 Series DC Drives: Instant reversing, quick stopping and rapid cycling SCR drive utilizing unique zero-speed detect and dynamic braking circuits - up to 2 hp.



✓ **FREE Phone Tech Support**

www.automationdirect.com/motors Online



AC and DC Motors



IronHorse® General Purpose and Inverter Duty AC Motors

IronHorse rolled steel and cast iron motors are manufactured by a leading motor supplier with over 20 years of experience delivering high-quality industrial electric motors to the demanding U.S. market.

- IronHorse General Purpose AC Motors - Rolled Steel
- IronHorse General Purpose AC Motors - Stainless Steel (Washdown Motors)
- IronHorse Farm Duty, 1-Phase Motors (T-Frame TEFC Motors)
- Premium Efficiency Cast Iron 3-Phase AC Motors (T-Frame & TC-Frame)
- In stock and ready to ship
- FREE shipping on electric motor orders over \$49*
- 1-year and 2-year warranties
- Available from 1/3 HP to 300 HP
- IronHorse AC motor prices start at \$79.00



Inverter-Duty/Vector-Duty Marathon AC Electric Motors

AutomationDirect offers a wide variety of AC inverter-duty / vector-duty motors from Marathon Electric Manufacturing Corporation® at great prices. These AC motors are available in horsepower ranges from 0.25 HP to 100 HP. These high-quality industrial motors, unless otherwise stated, are rated for continuous operation in a 40°C ambient and for altitudes up to 3,300 feet (1,000 meters) above sea level.

- All Marathon Electric motors come with a 3-year warranty supported by authorized Marathon Electric service centers.
- Marathon AC motors are available from 0.25 HP to 100 HP
- FREE shipping on electric motor orders over \$49*
- Marathon AC motor prices start at: \$152.50

NOTE: Our typical 30 day money-back return policy does NOT apply to Marathon AC motors.

*shipped standard ground or LTL (see Shipping Options for complete details and restrictions)

IronHorse General Purpose DC Motors (up to 2HP)

IronHorse DC motors are designed for use on unfiltered SCR (Thyristor) type and PWM (pulse width modulated) type DC adjustable speed drives, and on across-the-line DC controls. The IronHorse line of DC motors features:

- Replacement brush sets
- Simple two-lead connection
- Class F insulation
- Small-frame motors (1/4 HP and under), available models: 12VDC, 24VDC, 90VDC can be used with 110VAC powered DC drives, and 180VDC can be used with 230VAC powered DC drives
- Motors 1/3 HP and above: 56C / 90 VDC Armature (0.33 - 1.5 HP) 56C / 180 VDC Armature (0.33 - 2 HP) Input power of 115 or 230 volts rectified AC can be used with an appropriate SCR drive
- IronHorse DC motor prices start at \$70.00



IronHorse DC Gearmotors (up to 0.25 hp)

IronHorse industrial grade DC gearmotors offer excellent torque output ratings.

- 386:1 to 11:1 gear ratios
- Available in 12, 24, and 90 VDC
- 1/19 to 1/5 HP
- Models available with parallel or right-angle gear shafts
- Replacement brush sets
- Simple two-lead connection
- Class F insulation

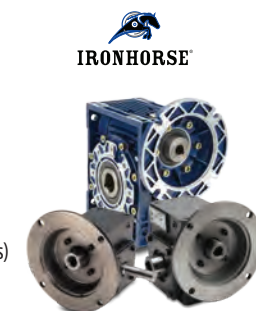
Worm Gearboxes and Motor Bases for AC and DC Motors

IronHorse Worm Gearboxes

- Aluminum gearboxes with 56C, 145TC, 182/4TC input faces
- Cast Iron gearboxes
- Right angle gearboxes with right-hand output shafts
- Dual shaft gearboxes (both right and left output shafts)
- Hollow shaft worm gearboxes (all the way through both sides)

STABLE™ Motor Bases

- Mounting slide bases for use with 56 to 449T NEMA motors
- STABLE motor base prices start at \$9.75





Motor Controls

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 \$11.00.

- 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, mechanical interlocks, latch blocks, and wiring kits

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 \$14.00.

Fuji Electric Motor Contactors and Overload Relays

AutomationDirect offers a complete line of Fuji Electric 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 Manual Motor Starter (MMS) to create starters for a variety of applications. The conventional starters in the DUO line can accommodate motors up to 100 horsepower at 480 VAC. The larger contactors feature the SUPERMAGNET™ coil for greater reliability and positive pick-up and drop-out. Fuji contactors start at just \$15.00.

- Controls from 1/2 to 100 hp
- 45mm to 115mm frames
- IEC-947, UL, CSA, CE approvals

The Odyssey Series of contactors and overloads also features the SUPERMAGNET™ coil and are available in four sizes with overloads to match any motor to 300 horsepower.

- Controls from 60 to 300 hp
- 154mm and 169mm frames

Both the DUO and Odyssey lines are available in 24VAC, 24VDC, 120VAC, and 240VAC coil versions. Certain models are available with 575V coils. Contactors are rated up to 690VAC, 3-phase.

Fuji Manual Motor Starters

The DUO series of manual motor starters are circuit breakers for motors that provide optimal protection by integrating the functions of a molded case circuit breaker and thermal overload relay into a compact unit.

Motor Controls Contactors/Starters	AutomationDirect Fuji	Allen-Bradley	ABB
9 Amp Contactor	\$15.00 SC-E02-110VAC	\$109.00 * 100-C09D10	\$37.22 * A9-30-10-84
40 Amp Contactor	\$52.50 SC-E2-110VAC	\$243.00 100-C37D00	\$135.43 * A40-30-10-84
10 Amp Motor Starter	\$52.50 BM3RH-B-010		\$166.70 MS325-125

* This product includes 1 N.O. Aux contact

All prices are U.S. published prices. AutomationDirect prices as of March 2016. Allen-Bradley prices taken from www.rockwellautomation.com 5/25/2015. ABB prices taken from www.abb.com 5/25/2015. Prices and specifications may vary by dealer and configuration. Prices subject to change without notice.



EATON

We also carry
EATON Freedom
series contactors
and starters

GH15 Series IEC Contactors / Motor Starters / Overload Relays

The GH15 Series of IEC contactors and bimetallic overload relays are manufactured by Europe's leading maritime contactor company. Motor contactors for ocean-going vessels are built to the most rigid specifications. This same design technology carries over to this line of industrial electric motor controls.

Use these contactors wherever you need a heavy-duty switching device with up to three poles. Add up to eight auxiliary contact blocks for interlocks and feedback. Or, use the optional mechanical interlock to create an inexpensive reversing contactor.

Individual components allow you to use the contactor alone or to assemble a motor starter using accompanying thermal overload relays. Combine a manual motor starter/protector for all-in-one protection.

GH15 contactors are available in 45mm, 60mm, 79mm, 110mm and 145mm sizes, and start at \$44.50.



STELLAR® Series Solid State AC Motor Soft Starters

SR55 series energy-optimizing full-featured 3-phase soft starters feature:

- 17-477A @ 200-480VAC
- 24VDC, 110VAC, or 230VAC selectable control voltage
- Touchscreen with easy-to-navigate menu structure and quick automatic application set up
- Internally bypassed during run
- Fully programmable, full three-phase motor control
- Built-in SCR failure protection, full motor overload protection
- Full data logging (fault records, motor current, operational status, etc.)
- Easily and separately adjustable motor start and stop times
- iERS (intelligent Energy Recovery System) saves energy on lightly-loaded motors
- Integrated Modbus RTU, or optional Modbus TCP or EtherNet/IP communication
- Programmable analog I/O, digital inputs, and relay outputs for remote control

SR44 series energy-optimizing legacy full-featured 3-phase soft starters feature:

- 23-370A @ 230 - 460VAC
- Advanced energy saving Optimizing Mode improves motor efficiency and power factor; prolongs motor life
- Applications Menu programs your starter with one entry
- Can be connected 'in-the-delta'
- Full digital control with keypad, I/O, or optional serial communication
- Thyristors in all three motor phases

SR33 series basic 3-phase soft starters:

- 22-482A @ 208-230/460 VAC
- Fits in similar footprint to Star/Delta starter
- 3-potentiometer setup makes installation easy

SR22 series compact 3-phase soft starters:

- 5-40A @ 208-460V
- Easy potentiometer setup
- Includes six error conditions/fault indications: AC Supply, Control Supply, OverHeat, Bypass Failure, Shear Pin, and OverCurrent alarms

BRYANT®



Bryant Manual Motor Controllers/ Motor Disconnects

Bryant has designed a compact motor controller that will also meet the rigorous demands of a motor disconnect. Bryant's motor controllers are listed as "Suitable as Motor Disconnect" under UL Standard 508 - Industrial Control Equipment - qualifying them to perform both operations in one compact package. By utilizing Bryant's compact motor controllers and motor disconnects, you benefit through the convenience of one device fulfilling two needs. AutomationDirect offers three versions of manual motor controllers (MMCs) and industrial motor disconnects, starting at \$23.50:

- Toggle switch AC motor controllers
- Enclosed toggle switch AC motor controllers
- Enclosed NEMA 4X rotary switch AC motor controllers

ProSense Motor Monitoring Relays

Motor monitoring relays provide protection against premature equipment failure caused by voltage faults on 3-phase systems. AutomationDirect offers alternating relays for load usage optimization.

Online www.automationdirect.com/motion

Motion

Sure servo



SureServo® AC Servo Systems start under \$1,000

The SureServo family of brushless servo systems is fully digital and offers a rich set of features at dynamite prices. Beginners to experienced users can take advantage of this easy-to-use family for as little as \$986.00 (100W system, including motor cables and breakout board). All components are sold separately.

- Eight standard servo systems from 100W to 3kW
- Use with AutomationDirect PLCs, or any other host controller
- Drives feature on-board indexer and adaptive, auto and manual tuning modes
- Configure with integral keypad or easy set-up and sizing software (free download, or purchase CD)
- Built-in communications port with Modbus RTU
- 2-year warranty



Servo Systems	AutomationDirect Price/Part Number	VS.	Allen-Bradley Price/Part Number
Digital Servo Drive	\$488.00 SVA-2040		\$1,340.00 2096-USD-005
100W Servo Motor with connectorized Leads	\$325.00 SVL-201		\$558.00 TLY-A130T-HKG2AA
Breakout Board Kit for CN1 Control Interface	\$94.00 ASD-BM-50A		\$263.00 2090-USBK-D4401
10' Motor Feedback Cable	\$49.50 SVC-EPL-010		\$90.00 2090-CFBM60F-CBA403
10' Motor Power Cable	\$29.50 SVC-PPL-010		\$101.00 2090-CPB60F-16AA03
Configuration Software	FREE SV-PRO*		\$82.00 2098-UWCPRG
*SureServo Pro software is FREE when downloaded and is also available for \$9.00 on a CD			
Complete 1-axis 100W System			
	\$986.00		\$2,434.00

Surestep

SureStep® Stepper Systems

SureStep open-loop stepping systems that provide simple and accurate control of position and speed. Starting with the \$89.00 drive, you can get a low-cost motion control solution with up to 1200 oz-in of torque. The SureStep stepping series includes:

- Two DIP-switch configurable microstepper drives, starting at \$89
- Two software configurable advanced microstepper drives
- Two braking accessories
- Four step motor power supplies
- Twenty stepper motors (NEMA 17, 23, 34 frame sizes), available in single and dual-shaft models
- Two stepper motor extension cables
- STP-PRO SureStep Pro software, available as a free download, or purchase on CD



SureGear® Precision Gearboxes for Servomotors

The PGA series of inline planetary gearboxes has a thread-in mounting style, along with a level of precision and torque capacity that is best in its class. The PGB series of right-angle planetary gear reducers offers similar technical specifications to the PGA series inline gear reducers, and provides the customer with an excellent solution when space and clearance requirements are limited.

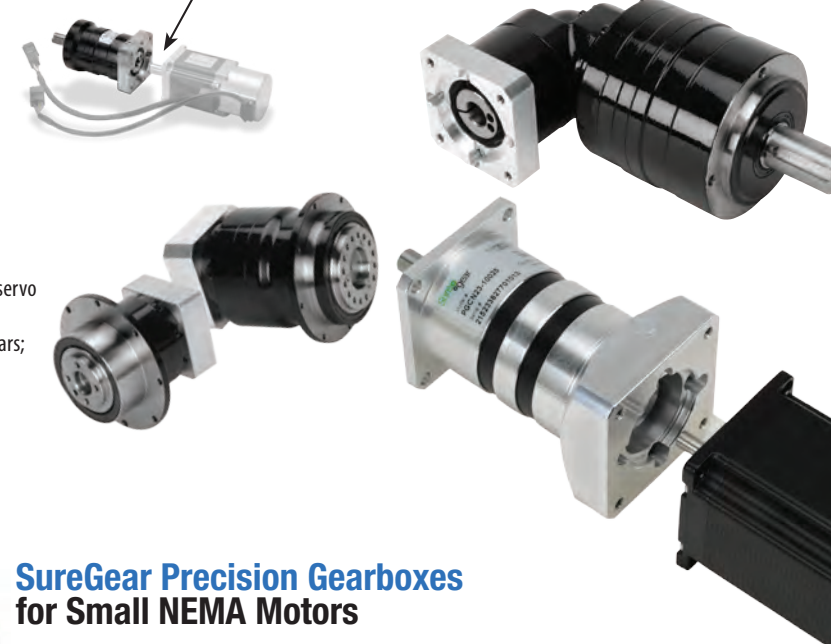
PGD series gearboxes with compact design and hub-style output are ideal for equipment that requires high-speed, high-precision indexing movement.

- Industry-standard mounting dimensions
- Thread-in mounting style
- Best-in-class backlash
- Four gear ratios available (5:1, 10:1, 15:1, 25:1) additional gear ratios for PGD models (35:1 and 50:1)
- Mounting hardware is included for attaching to SureServo motors
- Helical-cut planetary gears for quiet operation and reduced vibration
- Uncaged needle roller bearings for high rigidity and torque
- Adapter bushing connection for simple and effective attachment to most servo motors
- High-viscosity, anti-separation grease does not migrate away from the gears; no leakage through the seal
- Maintenance free: no need to replace the grease for the life of the unit
- At nominal speed, service life is 20,000 hours
- Can be positioned in any orientation
- 5-year warranty



Suregear

Mates easily to SureServo motors



SureGear Precision Gearboxes for Small NEMA Motors

The SureGear PGCN series is a great gearbox value for stepper and other motion control applications requiring a NEMA size input/output interface. It offers the best quality available for the price point. Features include:

- Wide range of ratios (5, 10, 25, 50, and 100:1)
- Low backlash of 30 arc-min or less
- 20,000 hour service life
- Maintenance free; requires no additional lubrication
- NEMA sizes 17, 23, and 34
- Includes hardware for mounting to SureStep stepper motors
- Optional shaft bushings available for mounting to other motors
- 1-year warranty

2-Phase Microstepping Drives

20-foot extension cable with locking connector

NEMA 17, 23 and 34 mounting flanges

NEMA Stepper Motors

Stepper Motor Power Supplies

32 VDC, 48 VDC, and 70 VDC unregulated step motor power supplies

Square frame style produces high torque and achieves best torque to volume ratio

Screw terminal AC Input and DC output connections

120 or 240 VAC, 50/60 Hz power input (switch selectable)

Input and Output Fuses

Power ON LEDs

SureMotion Synchronous Belt Drive Components

Timing Belts - XL & L sizes

- Neoprene with fiberglass reinforcement

Timing Pulleys - XL & L sizes

- Aluminum, steel, cast iron or ductile iron

Bushings - Taper-Lock® & QD® styles

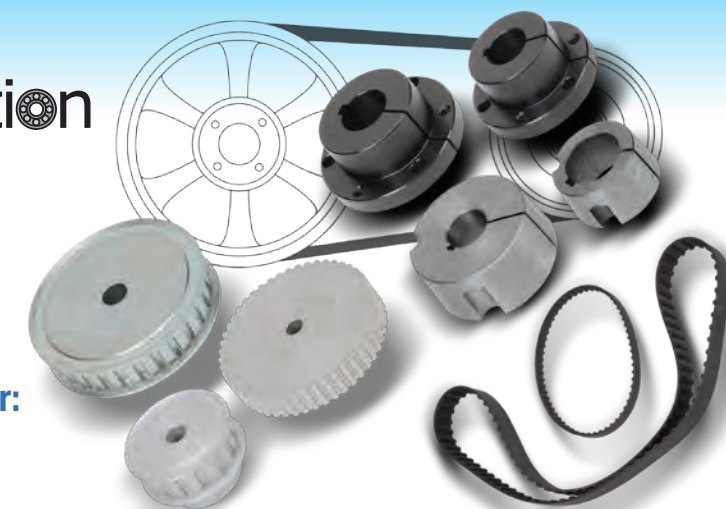
- Steel; standard bore sizes from 0.50 to 1.375-inch

All have 1-year warranty

For easy configuration use our online selector:

www.automationdirect.com/selectors/beltandpulley

Suremotion



Also available:

- SureMotion drive coupling components starting at \$10.50



Online www.automationdirect.com/sensors

FREE Phone Tech Support



Sensors starting at just \$12



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
- Lifetime warranty
- Quick-disconnect cables and accessories



Capacitive Proximity Sensors

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

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



Ultrasonic Proximity 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
- 40mm to 6 meter sensing ranges available
- Miniature rectangular and short-body round sizes for limited mounting spaces
- Lifetime warranty

ACU AMP



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

ACU AMP



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

ACU AMP



Voltage Transducers (AC and DC)

AC Voltage Transducers

High-performance true RMS transducers

- Applicable on circuits of 120V, 208V, 240V, 277V, and 480 VAC
- Provides a fully isolated, 4-20 mA output proportional to rated voltage

DC Voltage Transducers

High-performance transducers for sensing voltage in DC powered installations.

- Applicable on circuits up to 50VDC
- Provides a fully isolated, 4-20 mA output proportional to rated nominal voltage in DC circuits



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



Laser Distance Sensors

Wenglor OPT series short and long range laser distance measuring sensors are ideal for applications requiring accurate distance information up to 100 meters.

These laser sensors return a measured value independent of the object's material, color, or brightness. Class 1 and Class 2 lasers are available.



Fiber Optic Sensors

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

- 18mm round amplifiers
- Cuttable fiber sensors
- Cables and accessories



DIN rail fiber amplifiers, OPT, DFT, DFP series with compact, metal housing, for use with glass or cuttable plastic fibers.

- Power: 10-30 VDC
- Embedded cable or M8, M12 Q/D
- NPN or PNP output, LO/DO selectable
- IO-Link compatible models available



Harsh Duty Rectangular Photoelectric Sensors

27 harsh duty, washdown models are available, with IP69K 316L stainless steel housings.

- Background suppression: 2 to 200 mm
- Diffuse: 5 to 500 mm
- Polarized retroreflective: up to 5m
- Through-beam: up to 10m
- 3-wire NPN or PNP

Laser Photoelectric Sensors

Precision laser detection of objects up to 50 meters away. IEC IP67 rated with NPN or PNP complementary N.O./N.C. outputs.

- Diffuse DC FAL4 series
- Polarized retroreflective FALN series
- Through-beam FALH & FALD series
- Cables and accessories



We have cables for all your sensor needs

- Harsh duty (M8) Q/D cables
- 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-couplers
- Micro (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

Koyo



Incremental and Absolute Encoders

Use these optical encoders for your motion control applications, or with our PLC high-speed counter modules for accurate position monitoring and control.

- "Hi-PPR" Encoders up to 5,000 PPR
- -Medium duty 8mm solid shaft
- -Medium duty 8mm hollow shaft
- 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)

www.automationdirect.com/relays

Relays

Electromechanical



Electromechanical Square/Cube Relays

QL Series: General purpose relays designed for a wide range of applications. Units plug into DIN-rail mountable relay sockets, with a 10A contact rating. Ideal for electric control panels requiring stable and reliable relays.

QM Series: General purpose relays with a 5A DPDT or 3A 4PDT contact rating, designed for use in applications from power to sequence controls in various factory machines and control panels.

Plug-in Octal Cube Relays 750R Series



750R series cube relays with a 16A contact rating, standard octal base, offer high-current capability with a compact design. Available in 12 VAC, 24 VAC, 120 VAC, 240 VAC and 12 VDC, 24 VDC coil voltages.

Cube Relays 78 Series



78 series cube relays, with a 15A contact rating, are ideal for applications demanding high power control in various factory machines and control panels. Available in 12 VAC, 24 VAC, 120 VAC, 240 VAC, 12 VDC, and 24 VDC coil voltages.

Open-Style Power Relays AD Series



AD-PR40 series power relays are an open construction design with high power contacts capable of switching up to 40A. SPDT, DPST and DPDT models are available.

Plug-in Hazardous Location Octal and Square/Cube Relays H782/H750 Series



H782/H750 series hermetically sealed, cube style relays are designed for applications requiring hermetically sealed units for hazardous factory locations. (Class I, Div. 2 Groups A, B, C, D).

Slim/Card Relay RS Series



RS series relays are compact, space-saving, relay terminal modules containing four or six relays with one N.O. contact each.

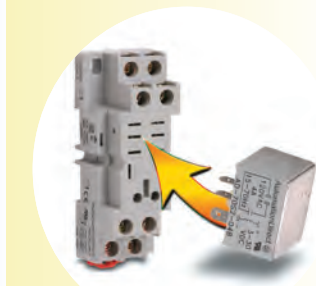
These relay-and-terminal modules are ideal for interfacing electronic control devices with output devices.

Panel Mount Hockey Puck Relays AD-SSR6 Series



AD-SSR6 series Class 6 solid state relays are energy-efficient, with high load ratings up to 75 amps in a finger-safe "Hockey Puck" housing.

Socket Mount Relays AD-70S2 Series



These solid state relays, with DC input/AC output and 4A contact ratings, plug into a DIN-rail mountable relay socket or can be wired with the quick-connect terminals.

DIN Rail Mount Relays AD-HSSR8 HAZLOC Series



Class 8 AD-HSSR8 HAZLOC series in a slim, space-saving housing (in 8A, 10A, 15A models) with the approval for hazardous locations (Class 1, Div. 2, Groups A, B, C, D).

DIN Rail Mount Relays AD-SSR Series



AD-SSR Series - Solid state relays are energy efficient current switching devices in a slim, space-saving housing. These relays carry 10 or 65 Amp loads, and are DIN-rail or panel-mountable.

☒ **FREE Phone Tech Support**

Still a popular control component

Our general purpose industrial relays are a low-cost way of adding control and isolation relays to any application.

Electromechanical relays are available in cube, open and card styles for a diverse range of installation requirements. Cube relays are available with standard linear or octal base connection patterns. Solid state relays available include hazardous location, socket-mount, DIN-rail mount and panel-mount styles. All relays feature LED indicators for easy troubleshooting.

Relays start at just \$4.50!


☒ **FREE Phone Tech Support**


Timers

Timer Relays / Counters / Tachometers

AutomationDirect offers solid state timers and digital timer relays from two leaders in the industry: FUJI Electric and Koyo. All timer relays meet UL and CE conformity. Koyo has been selling timer relays for over 30 years.

AutomationDirect CTT series multi-function counter/timer/tach units are easily configured for operation as digital counters, digital timers, combination timer-counters, or digital tachometers. You get all these functions for \$74.00.

www.automationdirect.com/timers


Online www.automationdirect.com/process-controllers

SOLO®

Process Control and Measurement

SOLO® Temperature Controllers / Process Controllers

AutomationDirect's SOLO single-loop temperature controllers offer dual output control ideal for heating/cooling loops, with prices starting at just \$90.00.

- Simple pushbutton operation and a dual 4-digit 7-segment display for Process Variable and Setpoint
- 1/32 DIN, 1/16 DIN, 1/8 DIN, or 1/4 DIN sizes available
- Four types of control modes: PID with autotune, ON/OFF, Ramp / Soak and Manual
- Output types include relay, voltage pulse, current, and linear voltage (depending upon controller model)
- Universal inputs on all models, including thermocouple, RTD, and analog current or voltage
- Built-in RS-485 interface using Modbus slave (ASCII or RTU) communication protocol
- FREE configuration / monitoring software (SL-SOFT, downloadable from our Web site)

- ✓ **FREE Software**
- ✓ **FREE Phone Tech Support**

FLOWLINE™



Liquid Level Sensors and Controllers

Flowline® Ultrasonic Level Sensors (Non-Contact)

Innovative ultrasonic liquid level sensor families that replace float, conductance and pressure sensors that fail due to contact with dirty, sticky and scaling liquids in small, medium and large capacity tanks.

- Pushbutton or PC software configured models are available
- Ultrasonic liquid level sensors start at \$260.00 (DX10-00)

Flowline® Level Sensors (Contact)

Intrinsically safe Ultrasonic level switches, Vibration, Capacitance, Bouyancy level switches

- Flowline level sensors (contact) start at \$102.00 (LV10-1301)

Flowline Level Controllers

Switch-Pro™ general purpose level controllers are available in three discrete sensor input configurations for alarms, pump and valve control. The LC52 DataPoint™ general purpose controller for analog sensor inputs.

- Flowline level controllers start at \$181.00 (LC40-1001)

proSense®



ProSense Temperature Sensors and Temperature Transmitters

- Temperature switches
- Thermocouple probes and sensors
- RTD temperature probes and sensors
- Temperature transmitters with integral sensors, thermocouple or RTD input
- Programmable temperature transmitters with thermocouple or RTD input, DIN-rail or head mounted
- TTD-20 series temperature transmitters with M12 quick-disconnect for fast mounting
- Thermowells and fittings
- Thermocouple wire and RTD extension wire

ProSense Pressure Sensors / Pressure Switches / Pressure Transmitters

ProSense pressure switches and sensors monitor system pressure in hydraulic, pneumatic and vacuum systems, starting at \$69.00.

- PSD series electronic pressure switches feature a gas-tight measuring cell that reliably detects gas and liquid pressure
- MPS series mechanical pressure switches are designed for the toughest applications with an all stainless welded diaphragm or stainless piston and Buna-N O-ring
- PTD series compact pressure and vacuum transmitters with ceramic sensing element and analog output, up to 5,000 psi or -14.5 psi vacuum
- QPS series digital pressure switches /transmitters with LCD display are for use in air, non-corrosive/non-flammable gas applications
- SPT25 series pressure transmitters with stainless steel sensing element, and integral cable or DIN connector
- DPTA series differential pressure and vacuum transmitters with 4-20mA output

ProSense Dial Pressure Gauges and Dial Thermometers

ProSense mechanical dial pressure gauges display pressure readings in pneumatic, hydraulic, HVAC, plumbing, industrial and commercial applications. These high quality gauges use Bourdon tube sensing elements and do not require any external power sources to operate other than the media being sensed. Pricing starts at \$6.50.

General purpose 3-inch and 5-inch dial 304 stainless steel thermometers have bi-metallic sensing elements for reliable readings and are back mount (3" dial) or adjustable angle (5" dial) with 1/2" NPT connection.

HydroMode™ Potable Water Pressure Regulators

HydroMode FR series food grade regulators are compact units that provide economical, high-performance pressure regulation of drinkable water.

- The highly sensitive diaphragm-operated design delivers accurate downstream pressure and the molded rubber supply valve provides precise regulation while helping to prevent leakage
- Materials in contact with water are approved by National Sanitation Foundation (NSF) or the Food and Drug Administration (FDA) for use in potable water systems.

proSense®



ProSense® Float Level Switches

Provide a low-cost general purpose solution for single point monitoring of liquid level in a variety of applications.

- ProSense float level switches start at \$10.50 (FLS-VM-100)

ProSense Submersible Level Sensors

- ProSense SLT series submersible level sensors provide continuous liquid level measurement.
- SLT1 Series transmitters with 1-inch diameter housing
- SLT2 Series transmitter with 2.75-inch diameter diaphragm and protective cage
- Submersible level sensors start at \$299.00 (SLT1-005-L30)

Proximity Level Sensors

- Capacitive proximity level sensors
- Ultrasonic proximity level sensors
- Proximity level sensors start at \$59.00 (CR1-00-2A)

ProSense Flow Sensors and Transmitters

ProSense FSD Series flow switches monitor liquid media and provide reliable flow detection for various flow applications. Two flowrate models are available; 0.26 to 6.6 GPM setpoint range and 1.32 to 26.4 GPM setpoint range. FSD Series starts at \$125.00.

ProSense FSA Series flow transmitters monitor liquid media and provide an analog output proportional to flow rate for various flow applications. FSA Series starts at \$140.00.

ProSense FMM Series (-1001 and -1002) Magmeters are designed to reliably detect the flow rate of conductive media up to 158.5 - 160 gallons per minute. FMM Series starts at \$460.

Signal Conditioners / Signal Isolators

DC Voltage or Current Input

Signal Conditioners

- 4-20 mA loop-powered, isolated
- DC selectable
- Bipolar to unipolar
- Unipolar to bipolar
- Potentiometer

High Speed Optical Isolators (Encoder Input)

- Encoder signal conditioner and signal isolator with open collector outputs
- Encoder signal conditioner and signal isolator with differential line driver outputs

Universal Signal Conditioners

These units provide isolation and accept milliamps, volts, RTD, thermocouple or potentiometer inputs. Versions with single input and analog output, with or without 2 additional relay outputs, are available. A detachable programming/display module is compatible with both models.

Thermocouple and RTD Temperature Transmitters

- Thermocouple or RTD input models
- DIN-rail or head-mount styles
- Non-programmable models
- offer easy pushbutton setup
- Programmable models are configured with free software (SL-SOFT, downloaded from Web site)



Online www.automationdirect.com/pneumatic✓ **FREE Phone Tech Support**

Pneumatic Components

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

Starting at \$12.00

NITRA pneumatic air filters, pneumatic pressure regulators, air lubricators, air relief valves and soft-start valves are available in a wide variety of port sizes to meet a broad range of pneumatic air supply filtration, air regulation and compressed air lubrication applications. The modular design allows stand-alone applications and also enables easy field assembly for combining NITRA filters, regulators, lubricators, and relief valves (using modular assembly brackets which must be purchased separately).

Precision regulators are also available in a variety of pressure ranges with numerous flow options up to 200 SCFM and with a sensitivity as low as 1/8" water (0.0045 psi).

NITRA® Pneumatic Valves

Starting at \$18.50

A huge selection of pneumatic air valves is available to support a wide range of pneumatic control air valve applications - general purpose solenoid valves; modular/manifold solenoid valves; process/pipeline solenoid valves; air pilot valves; manual toggle, push-pull, rotary and foot-operated valves.

NITRA® Pneumatic Air Cylinders

Starting at \$11.00

A wide range of air cylinders are available to complete a pneumatic control system - the stainless steel, non-repairable A-series; the stainless steel, compact round body C-series; the hard anodized aluminum, heavy duty D-series; the dual rod guided E-series; the all stainless steel F-series, and the ISO 15552 G-series.

- A-Series - Round body air cylinders
- C-Series - Compact air cylinders
- D-Series - NFPA tie rod air cylinders
- E-Series - Dual rod guided air cylinders
- F-Series - All stainless steel air cylinders
- G-Series - ISO 15552 air cylinders

NITRA® Pneumatic Air Cylinder Switches/ Cylinder Position Sensors

Starting at \$19.00

The NITRA CPS series of cylinder position switches offers a robust, yet cost-effective, interface between pneumatic or hydraulic actuators and electrical control systems. Using state-of-the-art magnetic sensing technology, these switches are designed for use with cylinders that have a magnet incorporated in the cylinder piston. They can be used to provide cylinder position indication, cycle count, or to confirm operation. NITRA cylinder position switches are available in nine styles with accessories to fit many different styles of cylinders or actuators.

ProSense® Digital Pressure Switches/ Pressure Transmitters

Priced at \$69.00 each

Designed for air and non-corrosive/non-flammable gas applications, these small (1.2" by 1.2" by 1.7" deep) digital pressure switches/pressure transmitters have a 3-color LCD display and provide two digital outputs and one analog output. Two vacuum to pressure ranges (-14.5 to 14.5 psi and -14.5 to 145 psi) are available. Mounting options include optional panel mount or mounting bracket kits.



NITRA® Flexible Pneumatic Tubing & Hose

Starting at \$10.50 (100 ft. package)

- Straight polyurethane tubing
- Straight nylon 12 tubing
- Straight PTFE tubing
- Straight bonded polyurethane tubing
- Coiled polyurethane tubing
- Pneumatic air hoses
- Hose kits - 100ft of tubing and 10 fittings
- Couplings, fittings and accessories

NITRA® Pneumatic Fittings & Air Couplings

- Push-to-connect NPT pneumatic fittings (thermoplastic)
- Push-to-connect R-thread pneumatic fittings (thermoplastic)
- Push-to-connect G-thread pneumatic fittings (thermoplastic)
- Push-to-connect union pneumatic fittings (thermoplastic)
- Push-to-connect stainless steel pneumatic fittings
- Threaded fittings - machined from quality brass bar stock or forgings
- Quick-disconnect air couplings
- Swivel air fittings

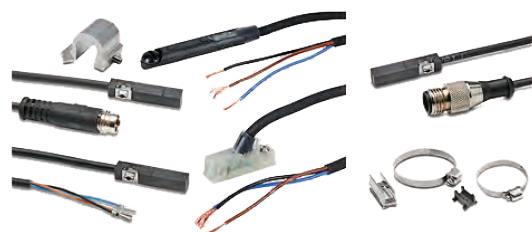
NITRA® Special Purpose Push-to-Connect Pneumatic Fittings

Starting at \$8.25 (package of 2)

- Flow control valves
- Quick exhaust valves
- Shutoff hand valves
- Pressure regulators / gauges / indicators
- Check valves / stop valves

NITRA® Pneumatic Accessories

- Replacement pneumatic filters and mounting hardware for air prep devices (FRL)
- Solenoid valve manifolds and mounting hardware
- Solenoid valve exhaust silencers
- Solenoid valve cables and connectors
- A-, C- and D-series pneumatic cylinder hardware
- Cutters and sealant tape for use with flexible tubing and hose
- Pneumatic blow guns



Online www.automationdirect.com/pushbuttons

✓ FREE Phone Tech Support

Pushbuttons / Switches / Indicator Lights / Signal Devices

Our industrial control products are usually about 50% less than the list price of our competitors. Our dependable pushbuttons, momentary switches, emergency stop buttons, and LED indicator lights are no different. After all, we can't sell you a \$69.00 CLICK micro PLC and then expect you to pay almost that much for a momentary pushbutton switch, selector switch or LED indicator light.

Hazardous Location Control Stations

Killark control stations are designed to contain and extinguish explosions. The cast aluminum housing and bolts can withstand explosion pressures. The contact surface between top and bottom is wide to allow for combustion gases to cool down, pass through, and release pressure without igniting any explosive environment. Available in factory Sealed (FXCS series) and Unsealed (XCS series) hazardous location control station versions.

Starting at \$88.75 (XCS-0B1).

Emergency Stop Control Stations

IDEM E-Stop control stations are designed to provide emergency stop protection for exposed conveyors, machinery, etc. Both ES and ESL series E-stop switches are available with button protection guard and padlock holes for maintenance lock off.

Starting at \$29.00 (ES-P-230001).

22mm Metal Pushbuttons, Switches, Indicators

We have teamed up with European partners to offer you the best value in high-quality 22mm metal operator switches and pushbuttons. From the attractive chrome plating on the operator to the gold-plated self-cleaning silver contacts, nothing has been sacrificed to offer you the highest quality pilot devices at great prices.

GCX series 22mm metal pushbuttons start at \$6.50 (GCX1100).

22mm Plastic Pushbuttons, Switches, Indicators

The GCX series is a rugged yet economical line of plastic pilot devices for your operator control panel designs. These industrial pilot devices are made with fiberglass reinforced thermoplastic and can be used as a direct replacement for GCX 22mm metal pilot devices.

GCX series 22mm non-metal pushbuttons start at \$4.75 (GCX3100).

Fuji Electric 22mm Pushbuttons (AR22 Series)

Fuji's selection of 22mm pushbuttons include non-illuminated as well as illuminated models with flush round heads, extended round heads, and mushroom style heads. Other 22mm pilot devices including emergency stop pushbuttons, selector switches, pilot lights, joystick selector switches, and buzzers.

From \$9.00 (AR22FOR-10BZA).

Fuji Electric 30mm Pushbuttons (AR30 Series)

Fuji AR30 series 30mm metal non-illuminated mushroom-style pushbuttons feature large 65mm diameter plastic operators available in red, green, yellow and black.

From \$20.50 (AR30BOR-10G).



Eaton Cutler-Hammer 22mm Non-metal

The Eaton Corp. / Cutler-Hammer line of IEC 22mm non-metal pushbuttons, selector switches and lights offers a wide array of functional, smartly-styled illuminated and non-illuminated pushbuttons, selector switches, LED indicator lights and more.

The E22 series starts at \$17.00 (E22PB1A).

Eaton Cutler-Hammer 30mm Metal

HT800 series pilot devices satisfy NEMA requirements while maintaining the value you've come to expect from AutomationDirect. Devices include pushbuttons, pilot lights and selector switches.

HT800 series pilot devices start at \$16.00 (HT8AAG).

Single and Double Foot Switches

Use the APS series for foot switch operated machines such as shearing machines, spinning machines, spinning lathes, machine tools, wrapping machines, riveting machines, riveting presses, etc. AutomationDirect stocks foot switches in free movement, locked-in neutral, and maintained-low position operational formats. Models with plastic or metal foot guards are available.

Foot switches start at \$39.50 (APS1211-V0).



Audible Alarm Signal Devices / Alarm Buzzers

22.5mm panel-mount audible alarm buzzers offer a selection of decibel levels and tone adjustments for industrial control panels. Models available include: 107, 109 and 110 series buzzers with continuous and pulse-tones from 80 to 100 decibels @ 1m.

Audible signal devices start at \$29.00 (10700075).

Visual Signal Devices / Beacon Lights

A wide range of visual signaling devices from WERMA are available for either panel installation or surface mount applications. Modern designs and the latest in LED technology provide exceptionally clear and bright signaling. 29mm, 57/58mm, 75mm and 98/100mm diameter incandescent, LED and Xenon signal light beacons are available.

Visual signal devices (beacon lights) start at \$15.00 (20010000).

Visual-audible signal devices / Annunciators

22.5mm panel-mount electrical audible alarm buzzers with LED indicators are suitable for industrial control panel applications.

- WERMA 150 series LED indicator / buzzers - 80dB @ 1m, continuous tone, LED continuous indicator
- WERMA 450 series LED indicator / buzzers - 80dB @ 1m, continuous tone, LED continuous alarm indicator light and press to silence

Visual-audible signal devices start at \$28.50 (20610000).

Stacklights

- WERMA modular stacklights / Stack light tower systems
- WERMA pre-assembled stacklight units

Modular stacklight elements start at 20.50 (64110000).

Pre-assembled stacklights start at \$135.00 (64924004).



Fuji Electric

Online www.automationdirect.com/power

FREE Phone Tech Support



Power Products



HPS Hammond Power Solutions Inc.

Control and Encapsulated Transformers

Hammond HPS Imperial control transformers are specifically designed for high inrush applications requiring reliable output voltage stability. Get years of reliable service from quality industrial control transformers at practical prices, starting at \$40.00.

- MQMJ series - 480vx240v / 240vx120v AC
- MGJ series - 380vx277vx208v / 240vx120v AC
- PG series - 240vx120v / 24x12 VAC
- MLI series - 480vx240v / 120x25 VAC

Hammond HPS Fortress™ encapsulated transformers feature an innovative design ideal for commercial applications where quality, ease of installation and low cost are key. Units are NEMA 3R commercial wall-mounted style in sizes from 100VA to 25kVA. Pricing starts at \$84.50.

- C1F***LE series (480x240 to 240x120 VAC)
- C1F***WE series (277/240/208/120 VAC to 240x120 VAC)
- C1F***XE series (220...190 x 440...380 VAC to 240 x 120 VAC)

RHINO
AUTOMATIONDIRECT

DC to DC Converters

DIN Rail Mount

- PSP series - wide DC input range with 5V, 12V and 24V DC adjustable output ranges
- FA-DCDC-1 - 12-24 VDC input, isolated +/-10VDC, +/-5VDC multiple outputs

Encapsulated

- PSE series - ultra-wide DC input range with 5.1, 12, 24 and 48 VDC output options

Quality Power Supplies at Great Prices

The RHINO PSP, PSM, PS, PSC, PSB and PSE series power supplies are all warrantied for 3 years. Starting at \$17.95.

RHINO PS Series

- Low-profile, metal case for hazardous locations
- 12 VDC and 24 VDC

RHINO PSB Series

- Low cost, DIN-rail mount
- Single or three-phase input
- 12 VDC, 24 VDC and 48 VDC

RHINO PSC Series

- Low-profile, plastic case
- NEC Class 2 compliant
- 5 VDC, 12 VDC and 24 VDC

RHINO PSE Series

- Encapsulated
- Single/dual output
- 5, 12, 15, 24 VDC

RHINO PSM Series

- Slim-line, metal case
- 12 VDC and 24 VDC

RHINO PSP Series

- Slim-line, plastic case
- 5 VDC, 12 VDC and 24 VDC

RHINO PSS Series

- Low cost, panel mount
- 5 VDC, 12 VDC and 24 VDC

SureStep® STP Series

- Stepper power supplies
- 32 VDC, 48 VDC, 70 VDC

FA Series

- Open frame
- 24 VDC



Jefferson Electric



Buck-Boost Transformers (NEMA Rated)

Jefferson Electric buck-boost transformers are designed to maximize the performance and life of electrical equipment and are typically used to power loads with specific voltage requirements that differ from the available line voltage. Models are available in sizes from 50VA to 2kVA, starting at \$53.00. Buck-boost transformers can be connected in two configurations:

- Auto-transformer - provides a means of raising (boosting) or lowering (bucking) a supply line voltage by a small amount (usually no more than 20 percent)
- Isolation transformer - used to isolate and step down supply power to low voltage circuits at the nameplate rating listed
- Ratings:
240 x 120 VAC to 24 x 12 VAC
240 x 120 VAC to 32 x 16 VAC

EATON



AEGIS Powerline Filters

- Compact design
- Meets latest UL safety standards for SPD (surge protective device) and EMI filtering protection
- Contains no replaceable parts or items that require periodic maintenance
- 10-year warranty
- UL1449 3rd Ed - Type 2 SPD

Roxburgh Power Line EMI/RF Filters

- High/very high performance filters
- Drive-rated: 1 and 3-phase
- General purpose: 1-phase
- Power entry modules w/Filter: 1-phase
- Toroid ferrite cores

FREE Phone Tech Support

www.automationdirect.com/circuit-protection Online


Circuit Protection

UL 489 MCCBs

starting at \$182.00



- Rated current up to 800A, max 600V
- Standard and high-interrupting capacity types

UL 248 Current Limiting Fuses

starting at \$7.75 (1-pack)



- Class T, RK5, RK1 and Class J current limiting short circuit protection up to 600A

UL 489 Miniature Circuit Breakers, up to 40A

starting at \$18.00



- DIN-rail mounted
- Up to 40 amps
- 1, 2, or 3-pole available
- 10kAIC @ 277/480VAC

UL 98 and UL 508 Disconnect Switches

starting at \$18.50



- Non-fusible and fusible rotary disconnect switches
- Make/break loads up to 600 amps

Bryant Manual Motor Controllers

starting at \$23.50



- Lockout / Tagout capability
- 30, 40 and 60A up to 600 VAC
- 2-pole and 3-pole switches
- Quick make, slow break design
- UL Listed as "Suitable as Motor Disconnect" under UL 508

UL 508 Load Switches

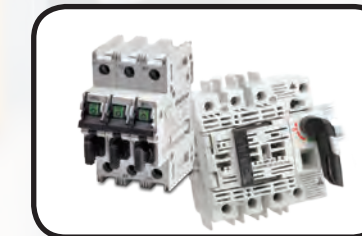
starting at \$26.00



- 35mm DIN rail mountable or direct mountable
- Loads from 16 to 125 amps
- IP20 degree of protection

UL 98, UL 489 and UL 508 Compact Fusible Disconnect Switches

starting at \$19.50



- Up to 30A, utilizing Class CC, Class J or Midget fuses
- 1, 2 and 3-pole models
- Open fuse indication on select models
- Lockout/Tagout capability

UL 1077 Supplementary Protectors

starting at \$9.00



- DIN rail mountable
- Optional busbar system and a full line of auxiliary switches, alarm switches and padlock lockout accessories
- B trip curve 1 to 63 amps
- C trip curve 0.5 to 63 amps
- D trip curve 0.5 to 40 amps

UL 248 General Fuses

starting at \$2.00 (5-pack)



- Class CC, general purpose class M (Midget) and small dimension glass and ceramic fuses
- Ideal supplementary protection up to 30 amps for branch circuits and end of line equipment

Fuse Holders and Fuse Blocks

starting at \$8.00



- Midget & Class CC (30A)
- Modular Class J (100-600A)
- Class T (30-600A)
- Class RK1 & RK5 (30-600A)
- Modular Class RK1 & RK5 (100-600A)
- Modular Class J (30 - 60A)
- Modular Class J with power distribution (100-400A)
- Class J (30-600A)



Online www.automationdirect.com/enclosures

NEMA rated... value priced!



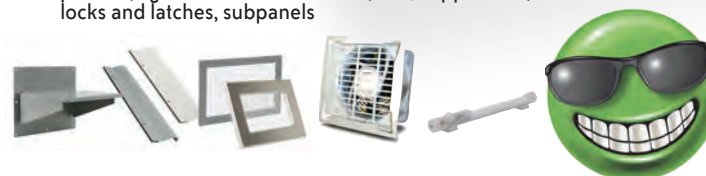
Hubbell/Wiegmann Enclosures

Not all enclosures are created equal, that's why AutomationDirect has teamed up with one of the largest enclosure manufacturers in North America, Hubbell/ Wiegmann, to offer you quality built, highly reliable NEMA enclosures at great prices. Choose from over 1,600 Hubbell/Wiegmann enclosures across NEMA 1, 3S, 3R, 4, 4X, 6P, 12, 4/12, and 13 ratings, all at prices well below more traditional suppliers.

Enclosures	AutomationDirect Hubbell/Wiegmann Price/Part Number	US	Hoffman Price/Part Number
NEMA 1 wall mount 24 x 24 x 08"	\$177.00 N1C242408LP		\$348.10 A-24N24BLP
NEMA 12 wall mount 20 x 16 x 08"	\$240.00 N12201608		\$460.79 A-201608LP
NEMA 12 free-standing mount 60 x 60 x 12"	\$1,550.00 N12606012		\$2,457.79 A-606012LP
NEMA 4 wall mount 20 x 20 x 06"	\$310.00 N4202006		\$583.81 A-20H20ALP
NEMA 4X wall mount 20 x 20 x 06"	\$731.00 SSN4202006		\$1,345.32 A-20H2006SSLP
NEMA 4/12 wall mount 36 x 24 x 08"	\$307.00 N412362408C		\$584.68 C-SD36248

*All prices are U.S. published prices. AutomationDirect prices as of March 2016. Hoffman prices are taken from www.newark.com 5/22/2015. Prices may vary by dealer. Many other part numbers are available from all vendors.

- **General Purpose Metal Enclosures**
NEMA 1, NEMA 4, NEMA 4/12, NEMA 4X, NEMA 12, and NEMA 13 enclosures for dependable protection.
Starting at \$8.75
- **General Purpose Non-Metal Enclosures**
NEMA 3R or 4X rated for harsh outdoor environments.
Starting at \$30.00
- **Disconnect Enclosures**
NEMA 4, 4X and 4/12 wall mount enclosures, and NEMA 12 wall mount, floor mount and free standing versions specifically designed to house disconnects.
Starting at \$341.00
- **Consoles and Consolelets**
NEMA 12 operator consoles and consolelets designed to prevent the ingress of dust, water, and oil.
Starting at \$102.00
- **Pushbutton Enclosures**
NEMA 12 pushbutton enclosures for all standard 30.5mm and standard miniature 22.5mm pushbuttons, switches and pilot lights.
Starting at \$41.50
- **Accessories**
Internal mounting, drip shield kits, window kits, folding shelves, doors and covers, hole seals, document pockets, lights kits and accessories, feet/support kits, locks and latches, subpanels



Enclosure Thermal Management and Climate Control

Enclosure Air Conditioners - for NEMA / UL 12, 4, 4X Type Enclosures

AutomationDirect's Stratus® enclosure air conditioners are closed loop cooling systems that keep the ambient air outside an enclosure, cabinet or control panel separate from the internal air. All of the Stratus cabinet air conditioners provide CFC-free control panel air conditioning.

Enclosure A/C units currently offered range from 1,000 BTUs to 8,000 BTUs.

- For NEMA 12, 4, 4X type electrical enclosures
- Rated voltages: 120 VAC, 230 VAC and 480 VAC
- Digital temperature controller
- Active condensate evaporation system
- High unit efficiency
- Tough industrial construction
- Compressor protection system



Enclosure air conditioners start at \$1,266.00.

Enclosure Heat Exchangers - for NEMA / UL Type 4 & 4X Enclosures

Air to air heat exchangers - closed loop systems, low operating cost, low maintenance.

- For use with NEMA Type 4 and 4X enclosures
- 120VAC or 24VDC powered models
- Easy mount on only one side of enclosure
- Energy efficient; uses no more power than a filtered fan system
- Filter-free; no diminished cooling capacity
- UL/cUL listed: UL File: SA34086



Enclosure heat exchangers start at \$1,028.00.

Enclosure Fans, Exhaust Grilles and Vents

Fans and exhaust grilles provide a high quality, economical technology for fan cooling and pressurizing of industrial enclosures.

- All models are 115V with an expected service life of 30,000 hours
- High-performance enclosure cooling fan motors and finger guards
- Polycarbonate fire retardant plastic grilles, UL94-V0
- Durable, reusable filter mat included
- Patented "Click and Fit" system allows for rapid filter fan and exhaust grille filter installation without screws



Exhaust grilles start at \$42.00.

Enclosure cooling fans start at \$68.00.

StegoJet Compact Fans

STEGO StegoJet compact fans provide spot cooling for "hot spots" and high heat load components inside an enclosure.

- Rotating joints and hinges allow for air output in almost any direction
- DIN rail or panel mounting models available
- Both models are 100-240VAC, 50/60 Hz



StegoJet fans are \$78.00.

Enclosure Vortex Coolers

Compressed air cooling is used where conventional enclosure cooling by cabinet air conditioners or heat exchangers is not possible.

- Suitable for harsh environments
- Small physical size
- Creates cool air without refrigerants (no CFCs, HCFCs)
- Exceptionally reliable - no moving parts and virtually no maintenance



Vortex coolers start at \$270.00.

Enclosure Heaters

AutomationDirect enclosure heaters controlled with thermostats, hygrometers and hygrometers protect against condensation. They heat the air inside enclosures, preventing water vapor from condensing on components while providing the greatest possible air circulation and low energy consumption.

- Compact design
- Built-in overheat protection
- Panel or 35mm DIN rail mount
- High heating performance
- CE, UL Recognized, RoHS compliant
- Maintenance-free, explosion-proof options available



Enclosure heaters start at \$9.50 (016240-03).

Setpoint Thermostats and Humidistats (Hygrostats)

Enclosure climate controls include fixed and adjustable setpoint thermostats, humidistats (hygrostats) and hygrometers (dual humidistat / thermostat).

- Compact design
- Fixed set point or wide adjustment ranges
- Color coded modules and temperature dials
- Models with N.C. / N.O. contacts in one unit
- Models with separate adjustable temperatures
- 35mm DIN rail mounting
- CE, UL Recognized, RoHS compliant



Enclosure climate controls start at \$12.00 (011600-01).

Online www.automationdirect.com/wiring✓ **FREE Phone Tech Support**

Wiring



Electrical Hook-Up Wire/ Copper Building Wire

AutomationDirect offers three insulation types of copper electrical wire for industrial applications:

- MTW - Machine tool wire - 10 to 18 AWG
 - Spiral striped MTW wire: 18, 16 & 14 AWG - white with 3 blue spiral stripes
 - 18, 16 & 14 AWG - white with 3 orange spiral stripes
 - 18, 16 & 14 AWG - green with 3 yellow spiral stripes
- TFFN - Fixture wire - 16 and 18 AWG
- THHN - General purpose building wire - 4 to 14 AWG

Bulk Multi-Conductor Cable

Flexible Portable Cord - power cables for indoor and outdoor

- Type SJE00W Cable - 300 VAC, 18 to 10 AWG
- Type SEO0W Cable - 600 VAC, 18 to 10 AWG
- Type W Cable - 2000 VAC, 8 AWG

Bulk Data Cable - low capacitance industrial data cable

- RS-485 Data Cable - 24 AWG
- RS-422/ RS-232 Data Cable - 24 AWG

Flexible Control Cable - multiple ratings and approvals

- 18 AWG to 10 AWG, 3 to 41 conductors (including a ground wire)

Instrumentation Cable

- 18 AWG and 16 AWG, individual and overall shielded
- 1, 2, 4 or 8 twisted pairs

Electrical Plugs, Connectors, Receptacles & More

- Straight Blade Devices - electrical plugs, wiring connectors, electrical receptacles
- Locking Devices - lock twist plugs, locking connectors, locking receptacles
- Lockouts/ Tagouts - PLUGBOX™ devices
- Watertight - electrical plugs and wiring connectors, industrial grade receptacles, weatherproof portable outlet boxes
- Accessories - angle adapters, protective weather boots, stainless steel receptacle cover plates

BRYANT®

Cord Grip Strain Reliefs, Support Grips and Pull Grips

- Deluxe strain relief cord grips - indoor and outdoor applications, stainless steel mesh grip
- Dust-tight strain reliefs - galvanized steel mesh grip for indoor applications
- Cable support grips - indoor and outdoor applications
- Bus drop support grips - indoor use
- Light duty low tension pulling grips

ZIPport Heavy Duty Multi-Wire Connectors



Multi-wire connectors make it possible to easily connect signal, power, and data connections.

- Available in 3A to 32B Sizes
- Heavy-duty metal for all size housings, metal or thermoplastic for size 3A housings
- Single and double locking systems
- Screw or crimp termination inserts
- Ideal for use with multi-conductor cable

ZIPport Panel Interface Connectors (PICs)

ZIPport® panel interface connectors (PICs) allow convenient access to power and programmable devices without opening enclosure doors, starting at \$47.50. Categories include:

- No outlet / communication ports
- Single outlet / communication ports
- Duplex outlet / communication ports
- GFCI duplex outlet / communication ports

Electrical Connectors & Fittings

Liquid-Tight Conduit Connectors

- Straight and right angle (90°) liquid-tight connectors for electrical conduit
- Liquid-tight metallic connectors are made to fit flexible metallic liquid-tight conduit and Type B flexible non-metallic liquid-tight conduit
- Used to positively bond the conduit to a box or enclosure
- Suitable for use in Class I, Div 2; Class II, Div 1 & 2; and Class III, Div 1 & 2 hazardous locations

Flexible, Liquid-Tight Electrical Tubing & Connectors

- Leak-proof (IP65), electrical tubing for electrical wire protection
- Flexible - can be used in extremely tight quarters
- Protects wiring from moisture, corrosion, light and vibration
- Straight and right-angle connectors for I-Flex™ liquid-tight tubing

Wire Duct & Accessories

Rigid and flexible wiring duct, spiral wrap wire and cable protectors, and wire sleeving (expandable braided sleeving) are available.

- Rigid wire duct
- DINOSAUR, self-adhesive, flexible wire duct
- Spare wire duct cover
- Flexible spiral wire wrap
- Braided sleeving
- Accessories (separators, retainers, ID tags, rivets, inserts)

Also Available

- Micro (M12) receptacles
- Cable ties, tie mounts, cable tie guns
- Connectors, T-couplers, T-splitters
- Receptacles and bulkhead connectors for M12 cables
- Wire crimp terminals



Online www.automationdirect.com/terminal-blocks



Wire connection products in stock, priced right and ready to ship.

Konnect-It® DIN-Rail Terminal Blocks

Most control panels use some type of terminal strip or terminal block connector to connect the control wiring (PLCs, relays, contactors, etc.) to the field wiring.

The Konnect-It series offers cost-effective terminal blocks and related components that are modular in design and fit on a 35mm or 15mm DIN rail. These terminal blocks employ a terminal connection system that meets the demands of the industrial environment and are suitable for factory wiring as well as field-wiring connections.

Konnect-It blocks can terminate solid or stranded wires ranging from 26 to 1/0 AWG, and offer fusing, grounding or disconnecting capability within the electrical terminal block itself.

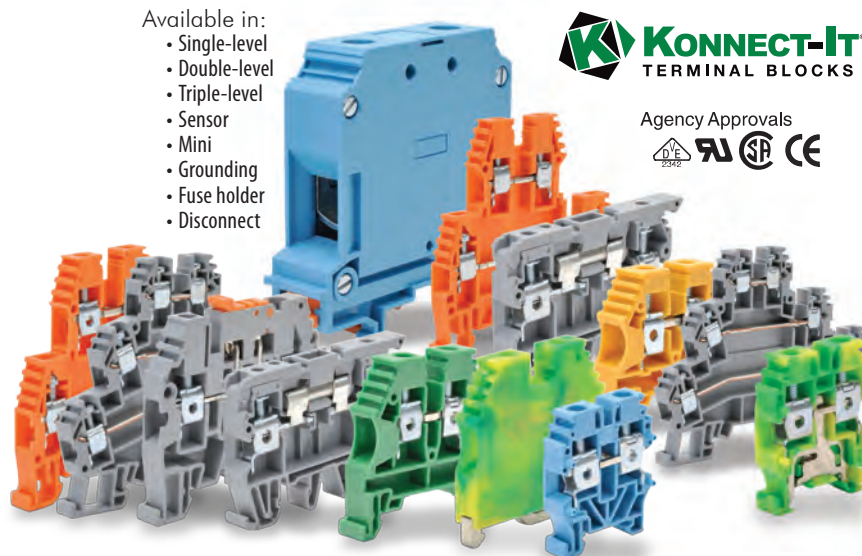
- 100kA Short Circuit Capacity Rating (SCCR)
- Multiple international colors available

Available in:

- Single-level
- Double-level
- Triple-level
- Sensor
- Mini
- Grounding
- Fuse holder
- Disconnect



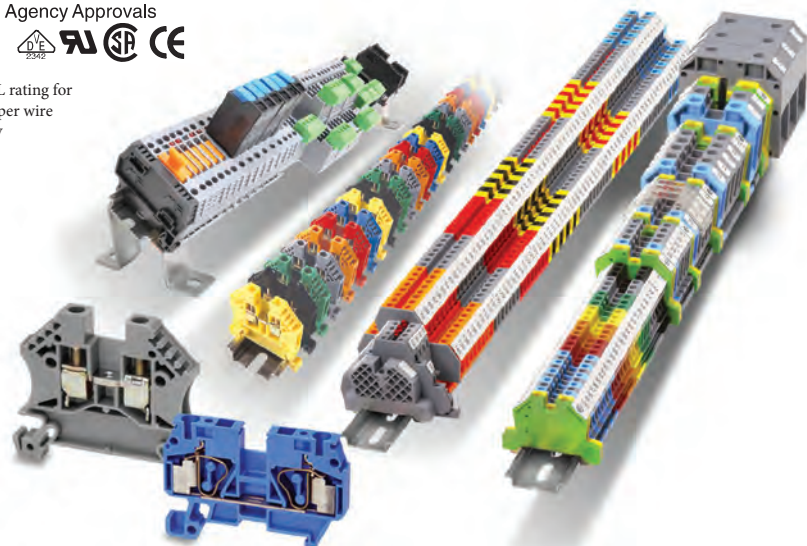
Agency Approvals



Agency Approvals



* UL rating for copper wire only



DINnectors Full-featured Terminal Blocks

DINnectors provide a means of connecting and identifying two or more wires within the demands of an industrial environment.

DINnectors can terminate solid or stranded wires ranging from 24 to 3/0 AWG (18 to 3/0 for CSA), 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.

Our range of DINnectors terminal blocks is internationally approved by various national and international standards organizations such as UL, CSA, VDE, SEV, RINA and IEC.



Standard Screw DIN Rail Terminal Blocks (DINnectors)

The screw-type terminal block series includes single, double and triple-level terminal blocks, some in up to seven colors. Fuse and ground terminal blocks are also available.

Thermocouple, plug-in and supplementary protector terminal blocks support specialty applications.

Terminal block accessories include end brackets, end covers, separators, top covers, jumpers, marking tags, mounting rail, angled rail support brackets.



Screwless DIN Rail Terminal Blocks (DINnectors)

The screwless terminal block series includes single, double-level, common-point, disconnect, ground and plug-in terminal blocks.

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



Power Distribution Blocks

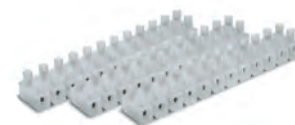
Edison short-circuit current rated (SCCR) power distribution blocks are a convenient way to manage your power distribution needs, from splitting primary power circuits into a variety of branch circuits to providing a fixed junction tap-off point.

- Finger-safe style, UL 1953 listed
- Open styles, UL 1953 listed or UL 1059 recognized
- Ampere ratings up to 760 Amps
- 600 VAC/DC
- 200kA short Circuit Current Rating (SCCR) with proper fusing



Direct mount terminal blocks

Direct-mount terminal blocks are a low-cost alternative to modular blocks, easily cut to length.



DIN Rails, Clips and Brackets

Steel and aluminium DIN rail, raised DIN rail, support brackets and mounting clips for terminal blocks and other devices.



ZIPport Multi-Port Junction Blocks

ZIPport multi-port interconnection junction blocks provide a simple and effective way to organize machine wiring, especially useful to consolidate wiring from various types of sensors.



- 4-Port M12 socket
- 6-Port M12 socket
- 8-Port M12 socket
- Accessories

Ferrules and Crimping Terminals

High-quality insulated ferrules and crimping terminals in a number of styles provide safe and reliable wiring connections.



ZIPLink Pre-Wired Connection Cables and Modules



Cut your PLC wiring time from hours down to minutes with ZIPLink modules and cables!

The ZIPLink system eliminates the normally tedious process of wiring PLC I/O to terminal blocks.

- Simply plug one end of a ZIPLink cable into a Productivity2000, Productivity3000, Do-more, CLICK I/O or DirectLOGIC module and the other end into a ZIPLink connector module. It's that easy!
- ZIPLink connector modules include feed-through, relay and fuse options
- ZIPLinks are also available for AutomationDirect GS/DuraPulse AC drives and SureServo drives



Online www.automationdirect.com/tools

☑ FREE Phone Tech Support



Premium Tools at an AutomationDirect Price!

Get Wera top quality and save up to 40% with AutomationDirect's everyday low prices!

Wera is one of the world's leading manufacturers of screwdriving tools. They are known for their attention to quality, ease of use, and a safety-friendly design. They know you want to get the job done without having to fight your own tools for a good grip or tight hold.



AutomationDirect is selling Wera tools in North America, bringing quality tools that are already used daily around the world to you at incredible prices.



Standard Screwdrivers
starting at \$3.00



Insulated Screwdrivers
starting at \$5.00



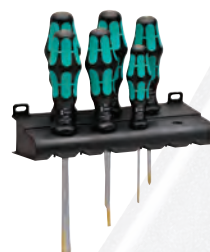
Ratchet and Socket Set
starting at \$110.00



Ratchets
starting at \$66.00



Nutdriver Sets
starting at \$35.00



Screwdriver Sets
starting at \$27.00



Socket Sets
starting at \$15.00



Miniature Screwdrivers
starting at \$3.25



Bit Drivers and
Screwdriver Bits
starting at \$11.50



Chisel Screwdrivers
starting at \$9.75



Torque Tools
starting at \$84.00



Ratcheting
Combination Wrench Sets
starting at \$93.00



Hex Keys
starting at \$15.50



Koloss Ratchet Set
starting at \$109.00



Quality RUKO Cutting Tools for Less

These high-quality tools cut quickly and cleanly for a wide variety of applications, including electrical, sanitary engineering, heating technologies, automotive and many more.



Multi-Purpose Hole
Saws and Accessories
starting at \$5.00



Step Drill Bits
starting at \$16.25



Machine Taps
starting at \$7.00



Rotary Burrs
starting at \$13.00



Thread Repair Tools
starting at \$82.00



Pneumatic Grinder
starting at \$61.00



Combination Drill Bit/
Machine Taps
starting at \$7.75



Jobber Length Drill Bits
starting at \$4.50



Countersinks
starting at \$11.50



Hand Taps
starting at \$3.50



Metal Hole Punches
starting at \$22.50



Deburring Tools
starting at \$8.25



KNIPEX Pliers

The world's leading pliers brand, KNIPEX focuses on quality, performance, and setting the pace for product innovations. We offer the following KNIPEX pliers:



Combination Pliers

Combination pliers, or combi pliers, combine the basic functions of gripping and cutting in one tool. The cutting edges are suitable for cutting wire, nails, and smaller cables. The serrated gripping jaws hold flat parts and small tools tightly. The burner hole is suitable for gripping and turning items.



Wire Stripping Pliers and Tools

These tools are suitable for stripping insulation from a variety of wires. Anti-slip ergonomic handles provide for user comfort and safety.



Gripping Pliers

These pliers are designed for finer gripping and manipulating. Rubberized handles ensure a comfortable grip.



Cutting Pliers

KNIPEX cutting pliers are designed for exceptional cutting capacity and to provide better handling. These pliers are available for a variety of applications, including electronics and for cutting plastics and bolts.



Water Pump Pliers

These pliers are designed to provide an infinite variable adjustment of gripping capacity. They are suitable for gripping large and small items, regardless of whether they are round, square, or hexagonal.



Shears, Crimpers and Circlip Pliers

We offer shears for cutting copper and aluminum, tools for crimping insulated and non-insulated terminals, as well as pliers for fitting circlips into bores and shafts.

Online www.automationdirect.com/safety☑ **FREE Phone Tech Support**

Machine Safety Devices



Safety Switches

Interlock safety switches and safety limit switches are developed and manufactured according to IEC and EN European standards for Type 4 machine safety/ OSHA machine guarding.

- IDEM non-contact coded magnetic safety switches
- IDEM non-contact magnetic safety switches
- IDEM solenoid locking, tongue interlock safety switches
- Tongue interlock safety switches
- Hinge Interlock safety switches
- Cable-pull safety switches
- Safety limit switches
- Safety limit switch accessories

Machine safety switches start at \$13.00 (AP2R11X11).

Standard and Solenoid Trapped Key Gate Sets

Dold Trapped Key System Gate Sets provide a full trapped key safety system, in one to five gate sets. They are available in either standard (SX) or solenoid-locking (ZRH) versions. All keys and their corresponding receivers and modules are identical within a set, but unique to any other set. Also available are tongue key actuators (purchased separately from the gate sets), and optional items such as door actuators, captive safety key sets, key modules for key exchange box setup, and mounting plates.

Interlock safety switch body, coded trap key modules, coded keys, and tongue (key) gate actuator modules are all 316L stainless steel.

- Easy installation through comprehensive accessories
- Mechanical safeguarding
- One- to five-gate sets available
- Solenoid and standard versions available

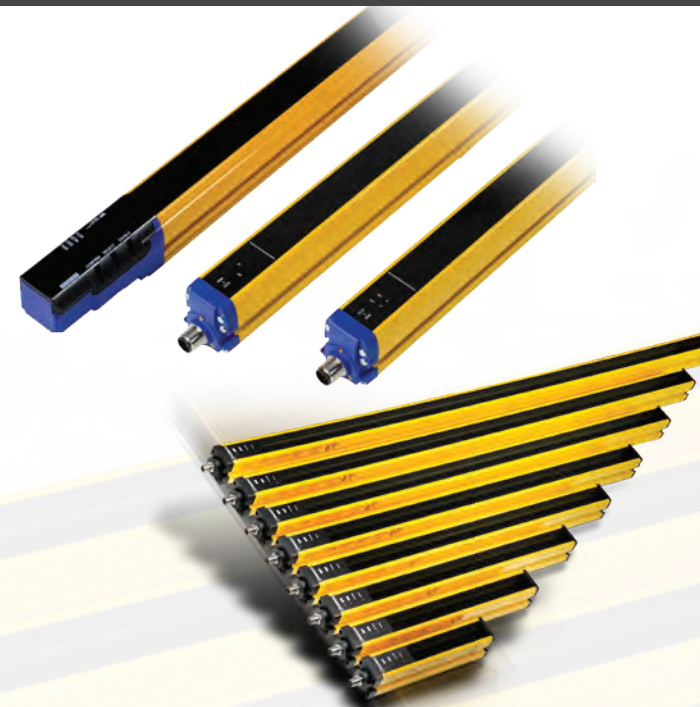
Trapped key gate sets start at \$1,019.00 (SX-1GATE-SET).

Warning: Machine safety products sold by AutomationDirect are Safety components only.

The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products used solely or in conjunction with other AutomationDirect or other vendors products will assure safety for any application.

Any person using or applying any safety products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.



Safety Light Curtains

AutomationDirect offers safety light curtains for finger protection, hand protection and body protection (access control). These safety curtains are used for human protection and product/machine safety where risks cannot be eliminated by machine design and the process might require open and frequent access.

Datalogic Light Curtains

- Basic and advanced configurations
- Finger protection (14mm resolution) and hand protection (30mm resolution)

Datalogic light curtains start at \$471.00 (SG4-14-015-00-E, price includes both sender and receiver).

Contrinex Light Curtains

- Now available as a set, or order sender and receiver separately
- YBB-14 series - safety light curtain with 14mm resolution - Finger safe protection
- YBB-30 series - safety light curtain with 30mm resolution - Hand Safe protection
- YCA series - safety light curtain with 300 or 400mm beam gap - Body Safe protection

Contrinex light curtain prices start at \$277.00 (YBB-30S4-0250-G012).

Safety Relay Modules

Safety relays are coils and contacts that are designed to be positively driven and assure a reliable opening and closing for machine safety applications. Dold Safety Relay Modules are developed and manufactured according to IEC and EN European standards and are RoHS, CE and UL Listed. These safety relay modules consist of safety relays that are controlled by a built-in monitoring function. All the products house the same safety relay, but have different monitoring and interfacing specific for an application.

- E-stop / safety gate relays
- E-stop / safety gate time delay relays
- Two-hand safety control relays
- Light curtain and safety mat controllers
- Speed safety relays (speed monitoring and motor standstill)
- Multifunction safety relays
- Safety extension relays

Safety relay module prices start at \$88.00 (LG5924-48-61-230).

IDEM Non-Contact Magnetic Locking RFID Switches

The MGL Series of safety switches combines magnetic locking and radio-frequency identification (RFID) sensing technology to provide non-contact operation and anti-tamper coding. In addition, an electromagnet is used to lock machine guards. Prices start at \$273.00.

- Heavy duty or medium duty holding force models available
- Master coded or uniquely coded actuation
- RFID provides a high degree of anti-tamper, virtually impossible to override
- Flexible actuator for a high degree of misalignment tolerance
- Able to connect to most popular safety relays to achieve up to PLe and Cat.4 for ISO3849-1
- IP69K rating for food processing applications (stainless steel)



Personal Safety



Protective Safety Eyewear (Safety Glasses)

AutomationDirect's safety glasses from Crossfire Safety Eyewear combine required eye protection and comfortable fit in a lightweight stylish non-industrial look.

- Safety glasses
- Reading safety glasses
- Over-the-glasses (OTG) safety glasses

Protective safety eyewear prices start as low as \$2.75 (SG-754).

SHIMPO Stroboscopes and Tachometers

DT-311A and DT-315A Stroboscopes

The DT-311A (AC powered) and DT-315A (battery powered) heavy-duty stroboscopes provide the illusion of "stopped motion" by adjusting the strobe's flash rate, causing the equipment to appear to be standing still or in slow motion. They measure rotational (RPM) or reciprocating (strokes per minute) speeds with the same precision as an electronic digital tachometer.

- Aluminum construction provides exceptional durability
- Highly polished and focused reflector eliminates "blind" viewing areas
- External trigger allows unit to be automatically synchronized with equipment*
- Continuous duty cycle eliminates need to shut down for cooling
- Phase shift allows visual analysis of rotating/reciprocating objects
- High accuracy ($\pm 0.01\%$ of reading) is ideal for QC inspection and process control
- DT-315A Rechargeable Stroboscope is \$678.00

* Requires additional cables and / or accessories not available from AutomationDirect.



DT-311A

DT-315A

DT-725 Stroboscope

The DT-725 portable, lightweight stroboscope with rechargeable battery is exceptionally reliable and can withstand the same harsh conditions as more expensive units.

- Same features as the DT-300 Series Stroboscopes, but is lighter in weight
- Bright LED display aids viewing in poorly lit areas
- Constructed of strengthened high-impact plastic
- Internal, fast-charging rechargeable battery supply
- DT-725 Rechargeable Stroboscope is \$476.00



DT-100A Series Contact Tachometers

The DT-100A Series Handheld Tachometers with microprocessor technology offer superior accuracy and capabilities for measuring and recording rotational speed, linear speed and linear travel. DT-100A battery-operated tachometers feature rugged, high quality components. DT-100A Series Contact Tachometers are \$236.00.

DT-200LR Series Combination Laser Tachometers

The DT-200LR Series Combination Contact/Non-Contact Laser Handheld Tachometers enable precise non-contact RPM measurement up to 20 feet away. The Series DT-200LR digital tachometers incorporate laser technology and feature a field-upgradeable contact adapter for linear rate measure, conveniently allowing both non-contact and contact measurements. DT-200LR Series Combination Laser Tachometers are \$267.00.

PT-110 Non-Contact Laser Tachometer

The Shimpco Model PT-110 Non-Contact Laser Tachometer is a simple-to-use, ergonomic, rugged test instrument that operates with optical laser technology. This velocity analyzing and measuring device is ideal for rotational machine inspection and process speed analysis. The PT-110 Non-Contact Laser Tachometer is \$115.00.



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Best in
SERVICE
15 YEARS

2001 - 2015

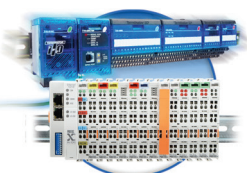
AUTOMATIONDIRECT.com

TENS OF THOUSANDS OF HIGH-QUALITY INDUSTRIAL AUTOMATION PRODUCTS

The #1 Value in Automation



Programmable
Controllers



Universal Field I/O



Software



Operator Interface



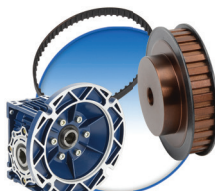
AC Drives



Motors and
Motor Controls



Motion Control



Power Transmission



Pneumatics



Process



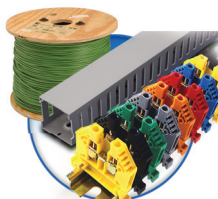
Relays & Timers



Sensors



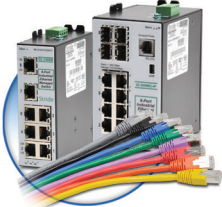
Pushbuttons,
Switches and Lights



Terminal Blocks & Wiring



Safety



Communications



Power Products



Enclosures



Circuit Protection



Tools and Test Equipment

A quality product line, with FREE #1 rated technical support and quick shipping!
Call 1-800-633-0405 or visit us at: www.AutomationDirect.com