

HVAC-R / BAS Wholesale

*The Distributors Guide to Control Components
for HVAC-R and Building Automation Systems
(BAS)*



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About c3controls

Since 1976, c3controls (c3controls.com) has partnered with wholesale distributors, OEMs, and electrical equipment builders to deliver a comprehensive portfolio of industrial control products for even the most demanding applications. By maintaining strict control over the development and manufacturing of every product, c3 provides extraordinary value through unmatched quality, competitive pricing, same-day shipping, and a lifetime product warranty. Our vertically integrated approach ensures faster response times, consistent supply, and the flexibility needed to serve customers, fostering a level of innovation that leads the industry.



Glossary of Terms

Access Control:

Systems that regulate entry to buildings or specific areas within buildings, ensuring security through keycards, biometric scanners, or PIN pads.

Actuator:

A device that converts electrical signals into mechanical movement, used to control valves, dampers, or other physical devices in automation systems.

Air Handling Unit (AHU):

A central unit that conditions the outside air by cleaning, heating or cooling, and then distributing the air within a building.

BACnet:

A communication protocol for building automation and control networks, enabling interoperability between different systems such as HVAC, lighting, and access control.

Building Automation System (BAS) / Building Management System (BMS):

An integrated network for monitoring and controlling a building's HVAC, lighting, security, and energy systems to optimize efficiency and comfort.

Chiller:

A machine that removes heat from a liquid coolant via vapor-compression or absorption refrigeration.

Control Circuit Transformer (CCT):

A specialized isolation transformer designed to step down high-voltage electricity to a lower, safer voltage suitable for powering control systems and electrical equipment.

Control Panel:

An assembly housing electrical or electronic components for controlling various systems. Examples include motor overload panels, circuit breaker panels, and relay panels.

Direct Digital Control (DDC):

A system of microprocessor-based controllers used in building automation to monitor and control equipment like HVAC systems.

Heat Pump:

A machine that pumps heat both outside and inside providing a combined heating and cooling system within a building.

Heating, Ventilation, and Air Conditioning (HVAC):

A core system in building automation for managing indoor temperature, humidity, and air quality, ensuring comfort and efficiency.

Internet of Things (IoT):

A network of interconnected devices that collect and exchange data, enhancing automation, monitoring, and control in smart buildings.

Lighting Controls:

Automated systems that control lighting schedules, dimming, and occupancy sensing to improve energy efficiency and occupant convenience.

ModBus:

A communication protocol used to transmit data between devices in industrial and building automation systems.

Motor Controls:

Systems used to regulate motors in applications like heating and cooling, hydronics, ventilation, variable air volume (VAV), and indoor air quality (IAQ).

NEMA:

The National Electrical Manufacturers Association. NEMA ratings indicate an enclosure's protection level. For example, Type 1 enclosures are for general indoor use, Type 3R for outdoor use (rain/sleet resistant), and Type 4/4X for indoor/outdoor use with water-tight and corrosion-resistant properties.

Power Supplies:

Devices providing electrical power for building automation components like thermostats, sensors, actuators, dampers, louvers, and controllers.

Sensor:

A device that detects and measures conditions like temperature, humidity, occupancy, or light levels, providing data for building automation systems to act upon.

Smart Building:

A building that integrates IoT and automation technologies to optimize energy efficiency, security, and occupant comfort.

System Integration:

The process of connecting different building systems, such as HVAC, lighting, and access control, to operate cohesively under a centralized platform.

VFD Bypass Panel:

A specialized panel used in motor control systems, allowing motors to bypass variable frequency drives (VFDs) for maintenance or emergency operation.

Market & Program Overview

The HVAC-R and BAS markets are in one of their most dynamic periods in recent memory. Tariffs, shifting weather patterns, changes in homebuilding, evolving consumer confidence, and even supply nuances like refrigerant cylinder availability have all created a “noisy” year for the industry. While these macro-level factors are beyond anyone’s direct control, they’re reshaping the competitive landscape — and creating unique openings for distributors who adapt quickly.

One trend many distributors are navigating is the so-called “inventory diet” — tightening stock levels to maintain cash flow and optimize operations. Far from being a setback, this is an opportunity to curate smarter inventories focused on high-demand, fast-moving, and value-driven products that keep customers coming back. Those who embrace this shift can position themselves as nimble, customer-first partners — a clear advantage over competitors still holding bloated, slow-moving stock.

Demand for HVAC-R/BAS controls, replacement parts, and retrofit solutions remains steady, especially as building owners look for energy efficiency upgrades and IoT-enabled “smart building” enhancements. With aging infrastructure in many commercial and industrial facilities, there’s a consistent need for maintenance, repair, and modernization — areas where distributors play a pivotal role.

This is where c3controls can help distributors step ahead. Our combination of 17+ million product configurations, same-day shipping, limited lifetime warranty, and up to 40% advantage pricing enables you to react faster to changing market needs without overextending your inventory. In an environment full of change, partnering with c3controls means you can focus on being proactive, profitable, and a step ahead of the competition.

Program Benefits

- Unmatched Product Range:**
With 17+ million possible configurations, distributors can source exactly what their customers need from one supplier — covering everything from contactors and circuit breakers to enclosed control solutions and so much more.
- Same-Day Shipping:**
We ship orders the same day they are received, helping distributors reduce local inventory requirements and get products into customers’ hands quickly.
- Limited Lifetime Warranty:**
Every c3controls product comes with a limited lifetime warranty, reflecting our confidence in quality and giving both distributors and end customers peace of mind about long-term reliability.
- Advantage Pricing:**
Our direct-to-market business model yields savings of up to 40% on comparable products — a margin advantage distributors can leverage to win more business or improve profitability.
- Quality Assurance:**
All products meet or exceed global standards (UL, IEC, etc.), and our ISO-certified processes ensure consistent performance.
- Marketing Expertise:**
Distributors can also tap into our sister company, [c3digitus](#), a digital marketing agency specializing in industrial B2B, for added support in driving visibility and leads.

Meet Our Program Leaders

At c3controls, we understand that distributors and wholesalers are the lifeblood of the HVAC-R and Building Automation Systems (BAS) industries.

Our HVAC-R Distributor Program is designed to help you compete smarter, operate leaner, and grow faster — with a partner who’s fully invested in your success. We believe partnership means listening, adapting, solving, and growing together. That’s why at c3controls, **“We Listen. We Adapt. We Solve. We Partner. We Are You.”**



Geoff Taylor

President & CEO

Geoff Taylor is an established leader in the industrial control industry. As President & CEO, he has led c3controls through transformative global growth and expansion while improving operational excellence, quality, and ensuring customer satisfaction is second to none. Creating an exceptional culture to deliver extraordinary value while improving the lives and communities c3 serves is the cornerstone of his work and life.



Ted Wodoslawsky

Vice President & Chief Operating Officer, c3digitus

Ted brings a wealth of experience in the wholesale distribution and controls industries, having previously served as the Distribution Programs Manager and Product Manager for Rockwell Automation. He also held leadership roles as the Director of Marketing for ABB Low Voltage Products and the VP of Marketing for ABB Robotics. Ted’s deep understanding of the industry makes him a key voice in the field and an advocate for the value of independent distributors.



Rick O’Neal

Vice President, Sales

Rick O’Neal has over 30 years of experience in the electrical industry. His deep expertise was forged through key leadership roles at major industry players. Rick began his career with Westinghouse Electric (now Eaton) and went on to hold Vice President positions at companies like Technology Research Corporation, Coleman Cable and Southwire Company, highlighting his significant background in the wholesale distribution segment of the industry.



Guillermo Romero

Director of Sales - c3electrical

Guillermo has over two decades of experience in the electronics manufacturing and industrial controls sectors. Throughout his extensive career at TRC (a subsidiary of Southwire Co.), he held various leadership roles in business development, product management, and sales operations. Currently, Guillermo leads the c3Electrical business segment at c3controls, where he has been instrumental in cultivating strong relationships with distributors and OEMs.

HVAC-R/BAS Products

Pilot Devices



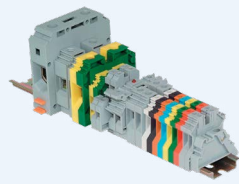
- Modular range of 30mm, 22mm, 16mm, and 13mm
- Maintained and momentary operations
- Type 1, 2, 3, 3R, 4/4X, 12, and 13
- Color-coded, snap-on contact blocks
- Full voltage, multi-voltage, resistor, and dual input light units in a wide range of voltages up to 600VAC/VDC

Miniature Circuit Breakers



- UL 489 & UL 1077
- 1, 2 and 3 Pole combinations
- 10kA SCCR @ 480Y/277VAC
- Current ratings up to 63 Amps
- B, C and D curve ratings

IEC Terminal Blocks



- Screw Clamp, Spring Clamp, and Miniature
- 5mm - 25mm widths
- 25 - 230 Amps
- Feed Through, Ground, Multi-Conductor, Double & Triple Level, Fuse Holder, Power Distribution, and more
- DIN Rail mounting; snap-on, snap-off assembly

Combination Motor Starters



- Enclosure constructions in Polycarbonate or Carbon Steel
- Pre-wired assemblies include: MPCB, contactor, UL489 circuit breaker, a variety of 22mm IEC pilot devices, and external operating handle
- 50kA SCCR @ 480V in high fault applications
- Overload relay can be set to the exact FLA of the motor

Non-Combination Motor Starters



- Polycarbonate enclosure rated Type 4X and IP65
- Pre-wired assemblies include: MPCB or overload relay, contactor, external operating handle, and multiple pilot device configurations
- 50kA SCCR @ 480V in high fault applications
- Factory assemblies provide the convenience of a single catalog number and shorter BOM

Enclosed Motor Protection Circuit Breakers



- Multi-Function: Manual Motor Controller, Motor Disconnect, Group Motor Installations
- Thermal & Magnetic Trip Elements with ratings from 0.1A - 32A
- ABS Plastic enclosure rated IP55
- Padlockable handle, up to three padlocks
- Self-protected, eliminating the need for up-stream fuses and circuit breakers

General Purpose Relays



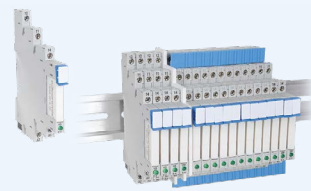
- Octal Base with pin terminals and Square Base with blade-style terminals
- Various pole combinations and coil voltages
- Color-coded push buttons for distinguishing AC and DC
- Built-in retainer clips in relay sockets
- Marking plates on relays and sockets

Electronic Timing Relays



- Compact design, sizes in 17.5mm, 22.5mm, and 45mm wide
- Single, dual and multi-functions
- Timing ranges from 0.01 seconds to 9,999 hours
- DIN Rail, Panel, Socket, and enclosure door mountings
- Voltage inputs 20-240 VAC and 12-240 VDC

Terminal Block Relays



- Rated load: 6A, 250VAC/30VDC
- Single-Pole, Double-Throw contacts
- Screw termination
- Most common AC/DC coil voltages: 12V, 24V, 110-125V, 220-240V

Enclosed Power Supplies



- 24VAC power with on/off control, power indication and equipment overcurrent protection
- Transformer steps down the input voltage to 24VAC at the output
- 100VA Ungrounded Class 2 rating per output circuit
- Optional voltage separation compartments and convenient receptacle outlets
- Durable, Type 1 metallic enclosure

Enclosed Disconnects



- Certified for use in Manual Motor Controller applications suitable as Motor Disconnects
- Configurations in 3- and 4-pole with switch ratings from 16A - 63A, motor loads up to 25HP at 480V (30kW at 400V)
- Variety of operating handle styles and colors rated for Type 1, 2, 3, 3R, 4/4X, 12, 13, and IP65
- ABS plastic, polycarbonate, and carbon steel enclosures with Type 1, 4X, 12, 13 and IP65 ratings

Control Stations (+ E-Stops and Alarm Silence Stations)



- Standard pre-configured assemblies of 30mm and 22mm pilot devices (customizable configurations available)
- Enclosure constructions in Polycarbonate, Polyester, and Die Cast Aluminum
- Operator options in both non-illuminated and illuminated
- Each assembly comes with laminated, laser engraved legend plates
- Fully assembled and ready to use out of the box

Industrial Power Supplies



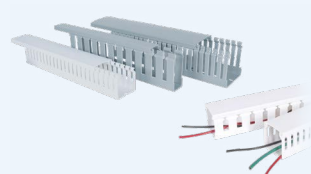
- Designed to deliver the power with up to 93% efficiency
- Adjustable voltage options in 12, 24, and 48V
- Output power range from 60W to 480W
- DC OK relay contacts are standard on 240W and 480W
- Compact design - 43mm wide, up to 60mm

Control Circuit Transformers



- Ratings from 20 to 300VA
- Operating voltages from 120V to 480V on primary side, and 24V on secondary side
- Over-current protection options; inherent or non-inherent, or manual resettable circuit breaker
- Integrated grounding system and space-saving footprint
- Versatile for Class 2, Class 3, and general purpose applications

Wire / Cable Duct



- 13 Selectable dimensions from 25mm wide up to 80mm, and up to 2m in length
- Narrow and Wide Slot
- Rigid "U" shaped duct with non-slip cover in gray or white
- Optional adhesive backing

VFD Bypass Panels



- Can be installed as either a temporary replacement to a VFD or as a system backup
- Each assembly includes: fused disconnect switch, contactors, control transformer, a variety of 22mm IEC pilot devices, and power and control terminal blocks
- Optimized width to save wall space

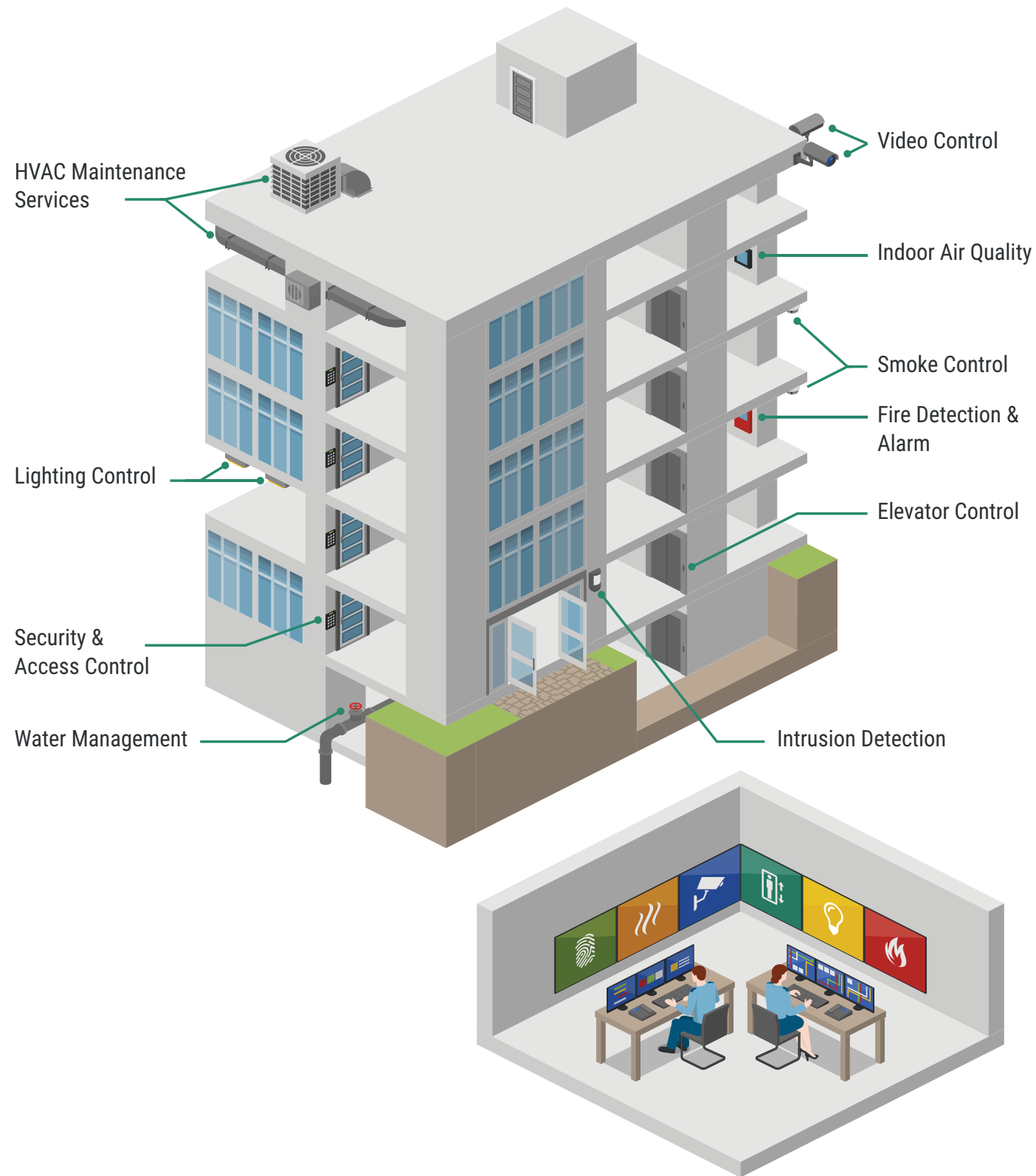
Electrical Panels



- Our UL508A certified panel shop excels in specialty panels such as:
- Motor Overload Panels (MOV)
 - Circuit Breaker Panels
 - Relay Panels
 - & more!

HVAC-R/BAS Isometric

No matter what type of components you supply to your customers, we can help!



c3controls Product Portfolio

Our 17 million+ product configurations deliver durability and reliability—even in the most punishing environments—meeting and exceeding global standards for quality and safety.

<p>DS DISCONNECT SWITCHES NON-FUSED & ENCLOSED</p>	<p>1100 1110 MINIATURE CIRCUIT BREAKERS</p>	<p>300 310 CONTACTORS & CONTROL RELAYS</p>	<p>320 OVERLOAD RELAYS</p>
<p>620 DIRECT-ON-LINE STARTERS CONTACTOR + OVERLOAD RELAY</p>	<p>E620 ENCLOSED DIRECT-ON-LINE STARTERS CONTACTOR + OVERLOAD RELAY</p>	<p>330 E330 MOTOR PROTECTION CIRCUIT BREAKERS OPEN & ENCLOSED</p>	<p>630 DIRECT-ON-LINE STARTERS MOTOR PROTECTION CIRCUIT BREAKER + CONTACTOR</p>
<p>E630 ENCLOSED DIRECT-ON-LINE STARTERS MOTOR PROTECTION CIRCUIT BREAKER + CONTACTOR</p>	<p>3030 30MM PILOT DEVICES FOR INDUSTRIAL & HAZARDOUS LOCATION</p>	<p>2222 22MM PILOT DEVICES IEC & NEMA</p>	<p>WTL WORLD TOWER LIGHTS</p>
<p>CS CAM SWITCHES</p>	<p>16 16MM PILOT LIGHTS</p>	<p>13 13MM PILOT LIGHTS</p>	<p>EC CONTROL STATION ENCLOSURES</p>
<p>ECP 300 ENCLOSED UL508A COMBINATION MOTOR STARTERS</p>	<p>EPS ENCLOSED POWER SUPPLIES</p>	<p>ECP BP VFD BYPASS PANELS</p>	<p>IPS INDUSTRIAL POWER SUPPLIES</p>
<p>CCT CONTROL CIRCUIT TRANSFORMERS</p>	<p>CPT CONTROL POWER TRANSFORMERS</p>	<p>TB TERMINAL BLOCKS</p>	<p>TBR TERMINAL BLOCK RELAYS</p>
<p>ETR ELECTRONIC TIMING RELAYS</p>	<p>200 210 GENERAL PURPOSE RELAYS</p>	<p>WD WIRING DUCT</p>	<p>DIN DIN RAIL</p>

Industry White Papers

Product professionals AND subject experts!

Check out c3controls' extensive library of white papers:



Commercial HVAC Industry New Trends in Technology

New Trends in HVAC Industry You Need To Know

HVAC has evolved and grown over the past 120 years and there are numerous facets of developing technology still emerging. In this paper, we touch on how Smart Systems, Smart Sensors, and Internet of Things (IoT) are changing many aspects of how the industry will conduct business today. Click to learn about some of these advancements.

[READ WHITEPAPER](#)



Systems Integration Industry New Trends in Technology

What is Systems Integration? Exploring New Trends in Industry

Explore the cutting-edge trends shaping the systems integration industry. Discover new technologies enhancing efficiency and performance.

[READ WHITEPAPER](#)



INDUSTRIAL CONTROL BASICS: Part 3 - Starters

Industrial Motor Control Starters & Magnetic Motor Starter

Explore the fundamentals of industrial control with c3controls. Learn about the basics of motor starters, including their function, types, and applications.

[READ WHITEPAPER](#)



Preparing For A2L Refrigerants: What You Need To Know

Preparing For A2L Refrigerants

Prepare for the future of refrigeration with our comprehensive guide to A2L refrigerants. Learn about their eco-friendly composition and safe applications in HVAC-R. Read to learn more!

[READ WHITEPAPER](#)




Optimizing Control System Reliability With Redundant Power Supplies

Optimizing Control System Reliability With Redundant Power Supplies

Learn how redundant power supplies can prevent disruptions and ensure smooth operations in industrial automation. c3controls shares some practical tips to enhance system reliability and minimize downtime.

[READ WHITEPAPER](#)



PANEL ESSENTIALS 3: UL508A Control Panel Design Considerations

Panel Essentials Series 3: UL508A Control Panel Design Considerations

Learn about the UL 508A standard for control panel design, including its requirements and recommendations.

[READ WHITEPAPER](#)

Why choose c3controls



Integrated Manufacturing

Vertical integration is the cornerstone of c3controls as it places innovation, development, design, manufacturing, testing, and shipping all within our control. With Everything Under Control, we can ensure the highest quality and customer satisfaction.



Innovation

Product innovation is in our DNA. We approach our products as solutions. Unlike our competition, our business model allows us to provide customers with premium controls without the premium price.



Same-Day Shipping

Reduce inventory. Improve cash-flow. Save money. Our customers enjoy peace of mind knowing they'll get what they need, when they need it. Our promise, guaranteed!



Limited Lifetime Warranty

With total control over engineering and manufacturing, we are able to guarantee the highest quality products on the market—products free of defects in material, workmanship, and design.



Advantage Pricing

Total control means lower overhead and direct sales. For our customers, this translates to savings of up to 40+% on c3controls premium products.



Customer First

Commitment to the success of our customers is a core value and the driving force behind all we do. We promise concierge style service that makes doing business easy, personalized, and responsive.

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c3controls[®]
Everything under control.