Modular Control Systems (ModSys)

Honeywell's Modular Control System (ModSys) portfolio delivers **precise**, **scalable automation** for operations of any size—from **single-loop control** to **full-scale DCS systems**.

Product Portfolio
- ControlEdge PLC
- ControlEdge HC900
- ControlEdge RTU
- Experion DCS & SCADA

Key Highlights
- Scalable from PLCs to DCS
- Best-in-class loop and batch control
- Lower installation costs, higher product quality
- Seamless integration across industrial applications

See the brochures attached for full product information.

TABLE OF CONTENTS

Scroll Down for More

NEW GENERATION
CONTROLLER

Honeywell's PLC is part of the ControlEdge™ family, a next-generation family of controllers providing unprecedented connectivity through all levels of process and business operations. The result is optimized operations and maintenance efficiencies that liberate personnel from manual processes. ControlEdge PLC is one of the first controllers in the market to achieve Cybersecurity ISA Level 2 certification.

ControlEdge PLC dramatically reduces configuration, integration, and support costs while decreasing risk with the best cybersecurity on the market. Honeywell is the first to provide a complete ecosystem including PLC, SCADA, and DCS together. Combined with Experion®, ControlEdge PLC minimizes downtime through unified support, and lowers total cost of ownership through extended system lifecycle and the best investment protection on the market. Experion and ControlEdge PLC leverage a common HMI platform, provide faster field device commissioning, and improve device diagnostics.

Built-in OPC UA, EtherNet/IP, DNP3, Modbus, Profinet, MQTT protocol, and cybersecurity provide smooth integration to a range of instruments, equipment and software from multiple vendors. The first PLC to offer HART-enabled Universal I/O with optional redundancy configuration, provides remote configuration, late design change flexibility, and simulation for improved project implementation and training.

HOW IS CONTROLEDGE PLC DIFFERENT?

Experion Integration

Honeywell can serve as your single vendor for all automation needs, including the DCS, PLC, Varaiable Frequency Drive, SCADA, Field Device Manager for asset management, and a Panel PC - all with seamless integration, configuration, and support.

Coordination is easier with fewer teams and direct access to system knowledge, and auto-configuration of PLC data points in Experion Server means easy updates and faster project deployment. A single point of responsibility reduces both risk and cost with fewer coordination errors, less engineering, faster installation, less training and reduced hardware.

Field Device Manager (FDM) provides fast and accurate commissioning of field devices and simplified diagnostics, resulting in fewer site trips. Combining FDM with the HART IP open standard offers design flexibility and protection

of existing site investments. HART command function blocks in the PLC support improved plant operation and device diagnostics, along with reduced commissioning and installation cost.

Operator effectiveness is increased with a common HMI across system applications. An integrated solution provides pre-built diagnostics, an integrated alarm summary, and history, trending and reporting on a single Experion infrastructure with native peer-to-peer integration to Experion Controllers. Results are fewer operator and engineering stations, less hardware and wiring, reduced IT licensing and training, fewer errors, and increased efficiency and availability. You benefit from reduced cost over the lifecycle with smaller footprint and easier maintenance. The Experion PPC (Panel PC), provides a touch user interface and consistent HMI for an operator either in the field or in the control room. Consistent interface alarms, trends, diagnostics and history results in better response and plant uptime.

Experion Integration

- Standardization of solution
- Leaner control room
- Reduced lifecycle maintenance

Universal I/O – Lean Project Execution

- Single and redundant configuration option
- HART enabled
- Spares reduction
- Less infrastructure
- Accommodate late design changes
- Improve project schedule, cost, and risk
- Remote configuration

OPC UA, EtherNet/IP, Profinet, MQTT, Modbus, and DNP3 (with Multimaster)

- Open communications protocol
- Smooth device integration
- Easy configuration

Fully Integrated Cybersecurity

- Security built-in to PLC and Experion
- ISASecure EDSA Level 2 certification
- Preserve safety and availability with managed services

Lifecycle Investment Protection

- Equipment integration
- Upgrades
- Migrations

I/O Module Variety

- Regular and Compact IO options
- Design & Installation flexibility
- Lower system cost

Integrated Honeywell VFDs

- Energy efficient variable frequency motor drives (VFD) for industrial application
- Plug n play integration with ControlEdge PLC
- Packaged solution of SCADA, PLC and VFD from Honeywell

HONEYWELL IIoT READY

Lean Project Execution and Universal I/O

Honeywell's lean project execution solution provides several enhancements to the PLC.

ControlEdge PLC offers a variety of I/O choices for flexibility and reduced system cost. HART-enabled Universal I/O means no additional costly hardware to support HART. The first PLC to offer Universal I/O provides remote configuration and design change flexibility for improved project implementation and reduced cost and risk. Engineers can quickly accommodate late configuration changes remotely with a simple software configuration change. The Universal IO supports redundancy needed for critical applications in standard and extreme operating environments. With ease-of-use, advanced diagnostics, and flexible configuration, the redundant UIO support fault tolerant capabilities and highest availability.

ControlEdge PLC offers simulation software to support engineering, training, and testing without requiring hardware.

Built-in Protocols

Built on a proven and capable platform,

ControlEdge PLC provides a system that enables users to better leverage data across their assets. Use of the OPC UA, Profinet, therNet/IP, DNP3, MQTT and Modbus protocols offers smooth integration to a broad range of instruments. Embedded OPC UA enables interoperable multi-level and multi-platform open communication for flexible and scalable design, facilitating standardization with less hardware. OPC UA and MQTT enables more direct access to cloud based applications for visualization and analytics reducing additional gateway cost and allowing easier maintenance. MQTT gives the advantage of connections with remote locations where a resource constraint exist or the network bandwidth is limited. MQTT provides the flexibility of connecting PLC to OEM cloud reducing design cost, increasing uptime with predictive analysis, and reduce service cycle time.

Built-in EtherNet/IP and Profinet enable integration with a wide range of industrial equipments such as I/O modules, drives, devices, and controllers supporting these protocols. In addition, Modbus RTU, Modbus ASCII, and User Defined Protocols

are also natively supported. Engineers get a wide range of design choices, be it for topology, vendor, specifications or connection media, to deliver a solution to fit application requirements. Standard data models for accessing the process and device information significantly improve information available for controls and diagnostics.

ControlEdge PLC provides full support of DNP3 protocol for remote applications. With the event buffer feature, DNP3 protocol stores data in a flash or SD card when the communication with SCADA is lost, and the events are received in the SCADA server when the communication is restored. The ControlEdge PLC DNP3 multi-master capability allows simultaneous data collection from multiple SCADA masters.

ControlEdge PLC supports a library of custom function blocks for MDIS communication.

MDIS combined with ControlEdge PLC and Experion Server UA Client architecture provides a tightly integrated Experion solution for Subsea application, reducing engineering costs.

Built-in Cybersecurity

Our embedded cybersecurity supports compliance, reduced risk, and improved availability. ControlEdge is the first PLC to be certified ISASecure EDSA Level 2. Features include secure boot to prevent uploading of unauthorized software, a built-in firewall to reduce exposure to denial-of-service attacks and message flooding, and a certified secure development lifecycle to ensure security is built-in from the start. PLC communication is protected using IPSec to prevent man-in-the-middle attacks and unauthorized access. ControlEdge PLC supports encryption, easy configuration, and certificate-based authentication.

In addition, Honeywell offers world-class Industrial Cybersecurity Solutions and Managed Services that help protect the availability, safety and reliability of industrial control systems and site operations.

Integrated Honeywell Variable Frequency Drives

Honeywell's energy efficient variable frequency motor drives (VFD) meet automation requirements across a variety of industrial segments and process applications, ranging from small pumps to large compressors and fans.

ControlEdge PLC offers a plug-and-play integration with Honeywell VFD featuring a built-in library, diagnostics, and alarm/events in the ControlEdge builder software, providing seamless access to drive data for PLC/SCADA engineering and significantly reducing integration time and efforts.

Customer benefit by getting a packaged solution of SCADA, PLC and VFDs for their applications.

Why Choose Honeywell?

Choosing Honeywell provides distinct support advantages as well as access to our broad portfolio. Honeywell helps customers cost-effectively manage their control and safety infrastructure in the face of constantly evolving technology with extended lifecycle support, flexible and easy migration paths, and virtualized upgrade capabilities.

Lifecycle Investment Protection

Honeywell has continually guarded customer investments by providing easy upgrade paths to the latest control system technology. Honeywell continues to evolve and innovate to bring significant advances in automation technology, while also providing a smooth migration path to today's technology when the time is right for you. We have a wealth of experience in migrating legacy control and safety systems, no matter who the manufacturer is. We support easy migrations from legacy PLCs to ControlEdge PLC through our application migration tool, IO wiring kits, and connectivity options to legacy networks.

Service and Support

From installation and startup through system maturity and future expansion, quality remote and on-site support ensures the maximum return of investment in your automation system.

The TotalCare Service program offers carefully designed service packages in addition to our standard support commitment under the Scalable Control Solutions portfolio. The program provides TotalCare Lite and Enhanced service package options that work on an annual subscription basis. It covers system updates, upgrades, corrective

and preventive maintenance, support requests, and more.

Factory-trained and experienced Remote Service engineers provide technical support and prompt answers to questions regarding procedures, documentation, operation, service, training, and system enhancements. Remote Service also includes a review of operational procedures, software analysis, and diagnostic evaluations when required.

HONEYWELL'S SOLUTION REDUCES COST AND UNPLANNED DOWNTIME

Reducing time for commissioning and minimizing troubleshooting allows early startup. In addition, there is reduced unplanned downtime associated with the ability to remotely diagnose equipment.

For more information

To learn more about Honeywell's ControlEdge Family of Controllers, visit process.honeywell.com/PLC or contact your Honeywell account manager.

Honeywell Process Solutions

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THE
FUTURE
IS
WHAT
WE
MAKE IT

Honeywell

CONTROLEDGE™
HC900

A Solution for Process Control and Safety Related Applications

Process Measurement and Control

Honeywell

A SOLID AND SECURE INVESTMENT FOR THE FUTURE

High performance—enhances quality

Easy to use and engineer—improves productivity

Low total cost of ownership—maximizes profitability

The Honeywell ControlEdge™ HC900 Process and Safety System has a modular, scalable design that meets the control and safety requirements of a wide range of applications ranging from process PLCs to DCS.

A single flexible system for process control and safety with faster start-up time, common engineering tools, reduced training, simplified maintenance and lowest cost of ownership.

WIDE-RANGING APPLICATIONS

The ControlEdge HC900 Process and Safety System reduces hardware, software, training and support requirements, and is ideal for diverse industries such as:

- Chemicals, including specialty and fine chemicals, plastics and rubber
- Pharmaceuticals and cosmetics
- Power (excluding nuclear)
- Cement and glass
- Pulp and paper
- Mining and metals
- Water and waste water
- Food and beverage
- Oil & Gas, Refining
- Metro Rail
- HVAC
- Data Centers

APPLICATIONS IN WHICH CONTROLEDGE HC900 IS PROVING INVALUABLE INCLUDE THE FOLLOWING:

Safety:

- Burner Management Systems (e.g. furnaces, boilers, pre-heaters, kilns, ovens, reactors,calciners, dryers, thermal oxidizers, melters, incinerators, process heaters, vaporizers)
- Combustion control
- Pipeline control
- Spill prevention
- Terminal automation
- Emergency shutdown
- Pressure and flow applications
- Heat Treatment

Critical control:

- Electronics and semiconductors
- Cement
- Glass
- Textiles

EASY TO USE AND ENGINEER— IMPROVES PRODUCTIVITY

The modular, scalable ControlEdge HC900 Controller is available in three rack sizes, with upto 12 racks per CPU, and three CPU performance levels to handle a wide range of automation requirements. ControlEdge HC900 supports up to 4,608 I/O points.

EXPERION HS

Experion HS is a powerful software platform that incorporates innovative applications for human machine interface (HMI) applications and supervisory control and data acquisition (SCADA). Built upon the proven technologies of the Experion platform, Experion HS is an integrated and affordable solution for smaller unit operations. Experion HS enables seamless integration, configuration and data exchange with the ControlEdge HC900 system.

When paired with Experion HS, ControlEdge HC900 can meet FDA 21 CFR part 11 requirements for pharmaceuticals, food and beverage industry that need a proven and reliable solution capable of advanced controller security and protection methods, change management and automated electronic record keeping.

ControlEdge HC900 also has pharma specific function blocks which significantly simplify your engineering efforts.

CONTROLEDGE HC900 ALLOWS YOU TO PERFORM EASY ENGINEERING

- HC Designer Configuration Software available in English and Chinese Mandarin
- Process-specific function blocks reduce configuration time and your operational costs
- Powerful Accutune III auto-tuning algorithms enable control loops to be quickly and easily tuned
- Simple intuitive tools, advanced monitoring and debugging tools which are easy to use and engineer
- Product enhancements made easy with web-based downloads at zero annual maintenance fee

- Easily integrated by Honeywell trained local channel partners with global product support
- Universal analog inputs reduce inventory cost
- SIL Universal IO (UIO) with 1ms SOE, Line Monitoring, Voting & Validation, Redundancy allows easy adaptation to late engineering changes
- HART-IP support for improved device diagnostics and easy maintenance
- Modular and scalable (4608 IO's and upto 12 racks per CPU)
- Version control, logic replication and library creation which simplify change management and engineering efforts

INTEGRATED SOLUTION WITH OTHER HONEYWELL PRODUCTS

CONTROLEDGE HC900 OPC SERVER FROM MATRIKONOPC

The ControlEdge HC900 OPC Server from MatrikonOPC provides secure and reliable real-time data access between all Controller series and any OPC-enabled applications such as Historians, HMIs, SCADA etc. It enables third party connectivity – which is key to successful phased migration and integration. It enables easy and cost-efficient management of openly connected systems – crucial in today's highly competitive industrial environment. And by using standardized MatrikonOPC components you can build stronger, more secure architectures.

Furthermore, the ControlEdge HC900 OPC Server is OPC certified. OPC certification is the process of ensuring that applications meet the standards specified by the OPC Foundation. OPC certification requires extensive testing to ensure true interoperability. OPC certification means multi-vendor system interoperability is guaranteed.

INTEGRATED 900 CONTROL STATION WITH GLOBAL DATABASE

The 900 Control Station operator interface provides a large assortment of standard preformatted displays for controller monitoring and servicing. Their use shortens design time, reduces engineering costs, and facilitates standardization of operator interaction with the process—all while enhancing the ability to customize easy-to-understand graphic displays that look like the process the operator is monitoring.

Station Designer software is a robust yet user-friendly PC tool that integrates with the HC900 Controller's Designer software to streamline the task of configuring a custom operator interface. It is an intuitive development environment that offers more than 4,000 pre-built process graphic symbols (for pumps, valves, tanks, buttons, switches), widgets, animation, hide object, if-then-else scripting, and more.
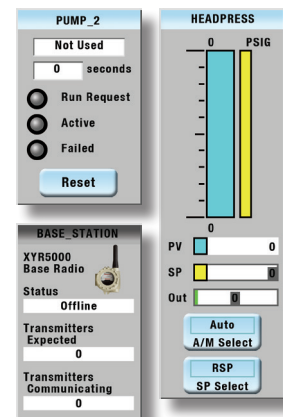
HIGH PERFORMANCE—
ENHANCES QUALITY

ControlEdge HC900's diverse connectivity and communications options adapt to existing process-line infrastructure, satisfy specific control requirements, and accommodate specialty applications.

CONTROLEDGE HC900 PROVIDES TIGHTER CONTROL

- The standard fuzzy logic of the HC900 prevents process overshoot, provides accurate control, increases throughput and efficiency and minimizes energy costs

ACCURATE DIAGNOSTICS

- Advanced diagnostics at module and channel level add reliability to system

FLEXIBLE CONNECTIVITY TO SUIT YOUR PROCESS ENVIRONMENT

- Open Ethernet connectivity
- Serial Modbus connectivity
- Peer-to-peer communications
- Wireless connectivity
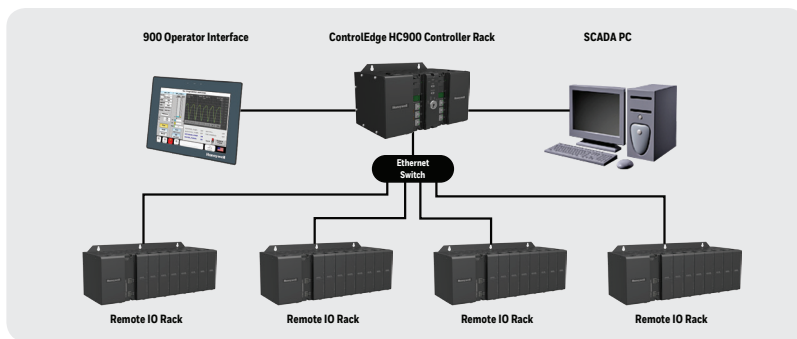- E-mailed alarm/event reporting

FAULT TOLERANT AND RELIABLE

- Keeps your system running continuously with redundancy

LOW TOTAL COST OF OWNERSHIP— MAXIMIZES PROFITABILITY

The ControlEdge HC900 process and safety system integrates easily and smoothly with the Honeywell Experion HS (SCADA) solution, and with 900 Control Station HMI.

900 Operator Interface   **ControlEdge HC900 Controller Rack**   **SCADA PC**

Ethernet Switch

Remote IO Rack   **Remote IO Rack**   **Remote IO Rack**   **Remote IO Rack**

SAME I/O MODULES FOR PROCESS AND SAFETY

- Reduced inventory costs
- Quick replacement of modules maximizes plant uptime

LOWEST PRODUCT LIFECYCLE COST

- No annual upgrade fee (HC Designer)
- World-wide product support

COMMON SOFTWARE TOOLS FOR PROCESS AND SAFETY

- Reduced training costs
- Reduces engineering time and cost

CONTROLLER

Function Blocks: C70, C75CPU - up to 15000, C50CPU- 2000, C30CPU-400.

Controller C75 CPU supports redundancy (in common and separate rack). Redundant CPU racks can be placed atleast 1km apart.

Analog Inputs: Up to 1152 universal analog inputs, 2304 high level.

Accuracy: 0.1% of span (field calibration to ± 0.05% of span).

Analog Outputs: Up to 480 with internal power, 2304 with external power 0 to 20 mA maximum,12 bits, 0.1% accuracy.

Universal IO (SIL): Up to 2304 per system. User configurable DI with SOE, DO 24VDC, AI /AO 4-20mA with Line Monitoring, HART and IO redundancy support.

Digital Inputs/Outputs: Up to 4608, contact DI, 24Vdc DI/DO, 120Vac DI/DO, 240Vac DI/DO.

Total I/O: Up to 4608.

I/O Racks per System: One controller and up to 11 remote I/O racks.

Control Loops: PID, on/off, cascade, ratio, %C, three-position step.

Control Output Types: Current, time-proportioning, position-proportioning, three-position steps.

Setpoint Programmers: 50 segments each, 16 event outputs, multiple stored profiles.

Setpoint Scheduler: 50 segments, 8 ramp/soak outputs, eight auxiliary outputs, 16 events, multiple schedules.

Comm: Ethernet 10/100/base T, Modbus/TCP protocol, up to 10 Ethernet hosts on C50, C70, C75 up to 32 peer-to-peer controllers, Serial Modbus RTU, RS485 or, slave or master operation (up to 32 slaves).

Operating Temp: Rated 32°F to 140°F (0° to 60°C).

Humidity: Rated 10% RH to 90% RH, non-condensing.

CONTROL STATION OPERATOR INTERFACE

Display: 10.4 in and 15 in Industrial TFT LCD color display.

Touch Screen: Resistive analog.

Distance from Controller: Ethernet—328ft (100m), RS485—2000ft (600m).

Power Supply: 24Vdc, 1.4A.

Operating Temperature: -10 to 50 °C (14 to 122°F).

Humidity: Rated 0 to 85% max. RH non-condensing.

Panel Rating: NEMA 4X/IP66 front panel.

Memory: 512 MB of non-volatile Flash memory, with optional SD card (standard capacity).

Comm. Ports: Ethernet 10/100 base-T. Three or four isolated serial communication ports, (2xRS-232 and 1 or 2 x RS-422/485) - model dependent.

USB Ports: 1 or 2 USB Host ports with Universal Serial Bus Specification Rev 2.0. Support data transfers at (high speed, full speed). Hardware over current protected (0.5 A max per port).

900 Station Designer Software

Configuration: 900 control station 900 Control Station CR interface - offline.

Operating Environment: Windows Vista, Windows 7 (32 & 64-bit), Windows 8, Windows 10.

PC: Pentium class processor and RAM as required by the chosen operating system plus 50MB for software installation. 800 by 600 pixels minimum, 256 or more colors. RS-232 or USB port.

Multilingual: English, French, Italian, German, Spanish.

Cable: USB Host, Ethernet 10/100 base.

Setpoint Programmer Pre-plot Display

Concurrent Batch Reports

NEMA Type 4X operator interface screen withstands harsh operating environments.

Function block widgets accelerate configuration development.

Recipe selection makes product/process changeovers simple and accurate.

Multi-level log-on security feature prevents unauthorized access.

Alarm/event logging with e-mail notification.

Embedded web server feature allows access to your application from anywhere.

Multiple interfaces on each controller enable process management from up to three locations.

HC900 DESIGNER SOFTWARE

Configuration: HC900 Controller—offline with run-mode editing.

Operating System: Windows 7 (32 & 64-bit), Windows 8, Windows 10

CPU: 1.5 GHz (2.5 GHz preferred)

RAM: > 1GB

DrivePorts: USB (2.0 & 3.0)/ Ethernet

Cable: RS485—three-wire, Ethernet 10/100 base T.

Modem Support: Monitor, upload, download configuration.

Language: English and Chinese Mandarin.

For more information

To learn more about Honeywell's ControlEdge HC900, visit www.honeywellprocess.com or contact your Honeywell account manager.

ControlEdge™ is a trademark and Experion® is a registered trademark of Honeywell International Inc. All other trademarks are the property of their respective owners.
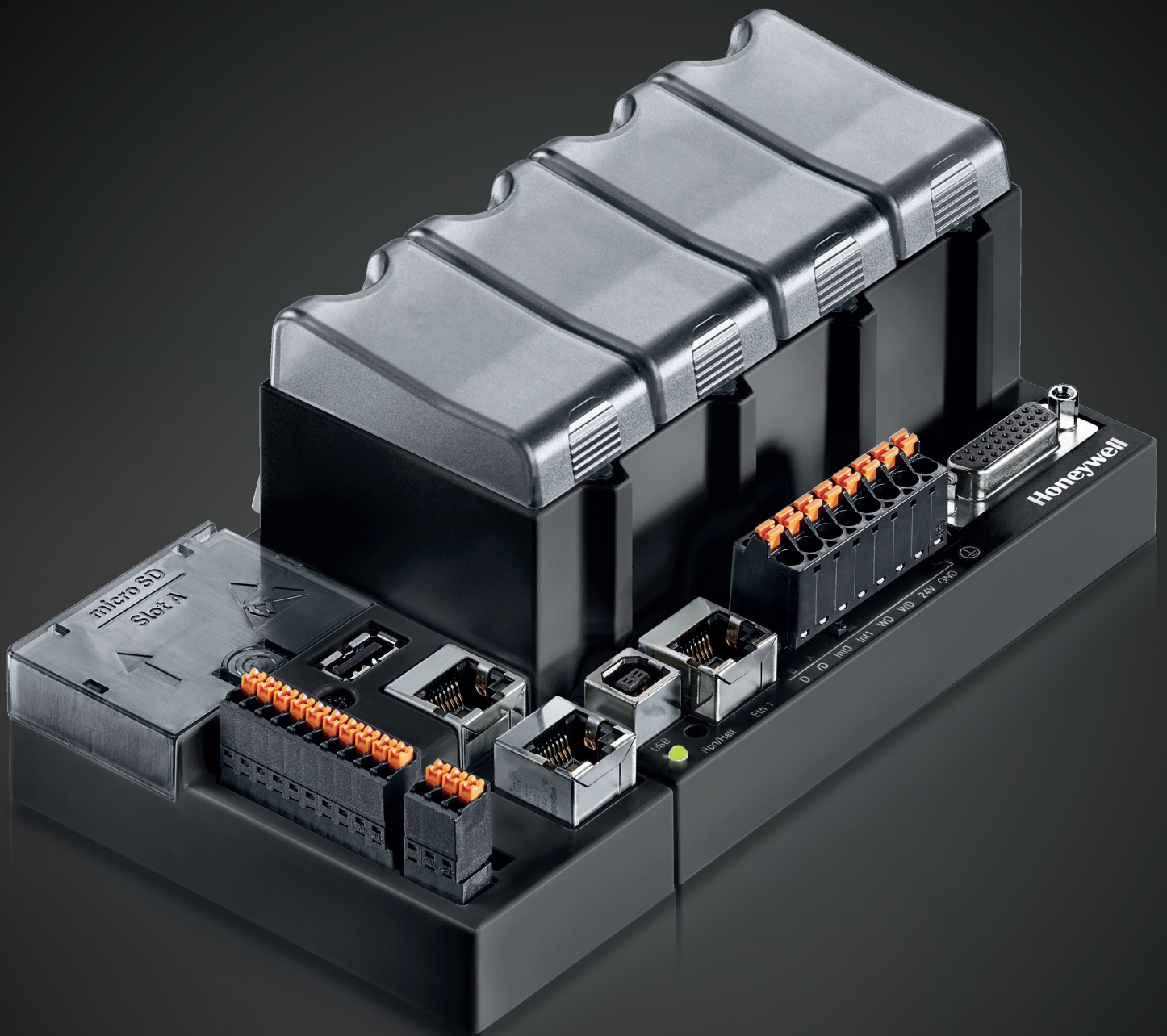
THE FUTURE IS WHAT WE MAKE IT

Honeywell

CONTROLEDGE
PCD

Compact, Cyber Secure Control System

DESIGNED FOR
CRITICAL APPLICATIONS

The Honeywell ControlEdge™ PCD provides redundancy, cybersecurity and high-level language programming, and is compatible with PCD3 I/O. Its operating system, which includes all application and communication programmes, is signed and encrypted, allowing operators to prevent unauthorised access to the process-control system. The ControlEdge PCD is programmable according to the IEC 61131-3 industrial standard for application development and supports all languages outlined therein.
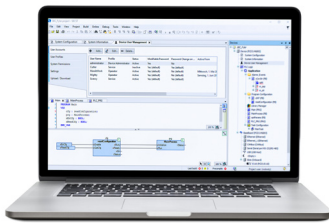
POWERFUL AND EFFICIENT ENGINEERING

High-level language programming in accordance with IEC 61131-3 provides greater flexibility. It allows the access to a large community of developers, whose published solutions can be reused with greater ease.
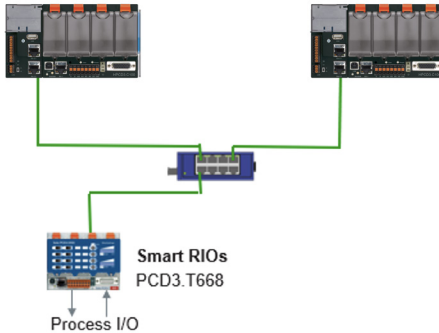
REDUNDANCY

High system reliability and process availability enabled by redundant PLC controller and communication network. Redundant CPU configuration available in separate chassis avoiding any single point failure scenario, keeping the operation running continuously.

PLC FOR CYBER SECURE APPLICATIONS

Based on industrial automation standard ANSI ISA 62443, its built-in security features ensure a secure connection to the Internet and Cloud, all while encrypting the transfer and storage of data. Furthermore, it relies on modern role-based user management.
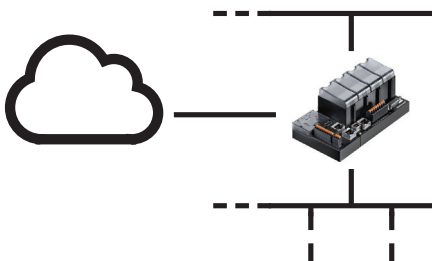
MULTI-PROTOCOL SUPPORT IN ONE PLC CONTROLLER

Easy and seamless system integration of up to 14 communication interfaces. Users have full freedom to combine various protocols via IP and serial ports – such as OPC-UA, Modbus, and Profinet. Users can also integrate custom specific protocols by the application program.
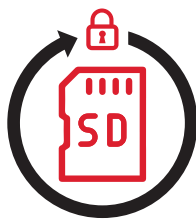
ENCRYPTION KEEPS YOUR DATA SAFE

Supports Micro SD cards up to 32GB, providing large storage for user data such as trend logs, alarm and event history, as well as any other information generated during operation. The encrypted file system protects the data against unauthorised access.

COMPATIBLE WITH PCD3 I/O SYSTEM

Full compatibility to PCD3 I/O system provides a robust and reliable operation. PCD3 I/O modules come in cassette form with more than 35 I/O modules available with different functionalities supported in local and remote I/O configuration via Ethernet network..

GENERAL TECHNICAL DATA

1 GByte RAM and 2 GByte Flash for operating system and user program
1 × Socket for user data micro-SD card, max. 32 GByte
2 × Ethernet
1 × RS-485
1 × Socket for PCD7.F1xxS communication modules
1 × CAN galvanic separated
1 × USB Device port for programming and service
1 × USB host
2 × Interrupt inputs
1 × Watch dog relay
Extendable up to 1023 I/O

The combination of modern PLC high-level language programming and state-of-the-art cybersecurity makes the ControlEdge PCD into a universal controller for critical applications and infrastructures.

For more information

To learn more about ControlEdge PCD, visit our website
www.honeywellprocess.com/ControlEdgePCD or
contact your Honeywell account manager.

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process.honeywell.com

THE
FUTURE
IS
WHAT
WE
MAKE IT

—

Honeywell

MasterLogic:
Compact and Modular PLC
# for High-Speed Applications

A Robust, Powerful Solution for Industrial Operations

With the need to ensure efficient and reliable plant performance, manufacturers must find a control solution that's ideally suited to their application requirements. Honeywell's MasterLogic Programmable Logic Controller (PLC) helps meet today's operational challenges, enabling greater efficiency and throughput while reducing automation lifecycle costs.

Honeywell's MasterLogic PLC is designed to bring power and robustness to very high-speed logic, interlock and sequencing applications. MasterLogic can be deployed in a stand-alone mode without requiring any human-machine interface (HMI) and is easily integrated with Honeywell's Experion® Process Knowledge System (PKS) architecture, including the Experion HS and Experion LX solutions.
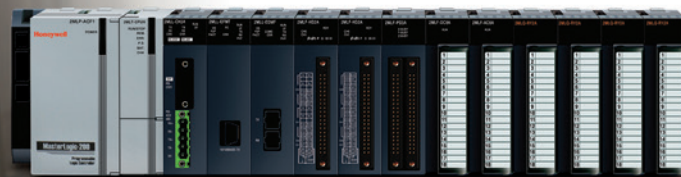
Advanced Technology—Available at a Competitive Cost.

MasterLogic's advanced technology enables higher speed processing and better control in applications of all types, particularly smaller unit operations. This compact and modular PLC offers all of the redundancy architecture options needed for most industrial operations—and at a competitive cost. A versatile family of I/O modules and networking options offers flexibility in how MasterLogic fits into an entire automation scheme.

Available through Honeywell's expansive global organization, the Masterlogic ML200 PLC features:

- Powerful and versatile processors for high-speed applications (provides 42 ns/step, 7 MB program memory, 4 MB system memory, 2 MB data memory and 16 MB built-in flash memory for program and data backup)
- Full redundancy for CPU, power and network
- Compact pocket-size modules to optimize space
- IEC61131-3 standard programming with LD/SFC/ST/IL language options
- Vast library of standard function blocks and support for creating new or user-defined function blocks
- Over 50 types of I/O modules
- Open network protocols with field devices (DeviceNet, Profibus-DP, HART, Modbus) and user-defined frame option
- Open communication with external systems through 10/100Mbps fast Ethernet and serial RS232C/RS422
- Peer-to-peer communications between PLCs with either dedicated 100 Mbps Ethernet or fiber-optic
- Hot swapping, online editing, user-defined interrupt programs
- Integration with Experion PKS, Experion HS, or Experion LX architecture & SCADA systems
- Self-diagnostics including network diagnostics, system logs, auto-scan and system monitoring
- Program simulator to test programs offline without PLC/CPU
- Sequence-of-event module with 1ms time stamp

Greater Versatility, Easier Engineering

The MasterLogic PLC is modular, scalable and rack-based. It can be installed in either a stand-alone or distributed configuration with peer-to-peer connections, and CPUs, power supplies and rack sizes are available in various models to best fit a particular application.

As an additional controller tightly integrated to the process control system, MasterLogic can help increase operational efficiency by allowing plants to control multiple processes with just one common operator interface. In addition, this seamless integration can reduce engineering configuration time by approximately 25 to 35% over segregated alternatives.

Key elements of the MasterLogic PLC solution include:

Reliable High-speed Processor
The MasterLogic PLC executes program instructions at a high speed of 42 ns/step, which is unique to Honeywell. Even complex instructions are processed at this fast speed. A dedicated I/O bus controller supplements the main processor in I/O refresh to achieve high-speed scanning.

Easy and Flexible Programming
Instead of restricting the user to a solitary ladder programming language, the MasterLogic PLC is configured using the IEC 61131-3 set of languages so it's instantly familiar to the new generation of control engineers. MasterLogic empowers system designers with the flexibility to mix and match different programming languages in a single CPU with modular programs, each intended for a specific process control application.

Seamless System Interface
The MasterLogic solution is tightly integrated with the Experion control system architecture. The PLC directly resides on the Fault Tolerant Ethernet (FTE) or Ethernet network of Experion PKS and the Ethernet network of Experion HS and Experion LS, eliminating the need for intermediate gateway equipment.

Compact Size
The MasterLogic module size is as small as 27x98x90 mm (pocket size). This contributes to valuable cost and floor space efficiency. Transportation is also made much easier.

Integrated Engineering Environment
MasterLogic includes an integrated PLC engineering environment with an all-in-one window to ladder programming, configuration/setup of CPUs or other special/communication modules, debugging, monitoring, troubleshooting, documentation and maintenance.

Fully Redundant Architecture
For critical applications, eliminating all single points of failure in the system architecture ensures high availability. MasterLogic provides full redundancy features, including CPU redundancy for seamless switchover to a standby CPU when the master fails, power supply redundancy for both CPU and I/O racks, and network redundancy with a ring topology providing dual communication paths to I/O racks.

Peer-to-Peer Communication
Peer-to-peer communication between PLCs is an important requirement in large interrelated control applications. A high-speed Ethernet module at 100 Mbps or optional fiber optic module ensures fast and reliable integration between MasterLogic controllers. Installation involves just a few simple configuration steps.

Open Network Compatibility
MasterLogic is compatible with the leading open network standards, allowing connection of equipment such as smart actuators, sensors, intelligent drives and transducers. The controller's plug & play features make these devices easily interoperable. On a physical level, Fast Ethernet, fiber optic and RS232C/422/485 communication links are directly supported.

Choose a Supplier Meeting All Your Needs

Honeywell has been recognized as an automation industry leader for more than 30 years. Our technology is installed in some of the largest refineries, plants and mills in the world. Honeywell automation systems are easy to install and use, and are the most reliable and scalable systems available.

Honeywell understands that knowledgeable support and implementation services–delivered when and where they're needed–are critical to the success of any automation project. That's why we established our Industrial Solution Provider (ISP) program for system integrators. These professionals are dedicated to bringing value-added solutions to customers with the lowest total cost of ownership.

The combination of Honeywell's modular systems approach and industrial solution provider network can help you achieve your operational objectives–no matter the size of your project, or where it's located.

Versatile and Modular Field Products

Scan this QR Code to see how Honeywell's portfolio of field measurement and control products enable you to manage your plant assets and optimize your entire enterprise with solutions that are easy to configure, operate and maintain.

For More Information
To learn more about Honeywell's MasterLogic,
visit www.honeywellprocess.com or
contact your Honeywell account manager.

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