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.
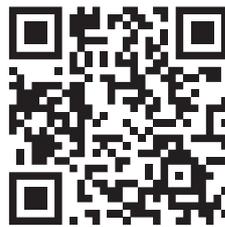
Choose a Supplier Meeting All Your Needs

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.

Experion® is a registered trademark of Honeywell International Inc.

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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