

# MicroLogix™



One Family of Micro Controllers for  
Every Application and Budget



LISTEN.  
THINK.  
SOLVE.™

 Allen-Bradley • Rockwell Software

**Rockwell**  
**Automation**

# MicroLogix

**Power. Performance. Peace of Mind**

## The MicroLogix Family of Controllers

Today's marketplace is more competitive than ever. Thriving in such an environment means using the best tools and technologies the world has to offer.

All over the globe, companies requiring compact controllers look to the Allen-Bradley® MicroLogix™ family of controllers from Rockwell Automation.

With five controller versions to choose from, you'll find a wide variety of features to suit most applications.

## Communicate with Ease

No matter what your communication requirements are, we've got you covered. From our MicroLogix 1100 and 1400 controllers with embedded EtherNet/IP to a wide range of network interface devices, finding the right controller to fit your communication need is easy.

All MicroLogix controllers provide:

- At least one built-in enhanced RS-232C port supporting DF1 Full-Duplex, DF1 Half-Duplex Slave, and DH-485 protocols
- Communication with personal computers, operator interfaces, other PLCs and more through DeviceNet and Ethernet, as well as through open point-to-point and SCADA protocols

In addition, the MicroLogix 1100, 1200, 1400 and 1500 provide:

- Embedded Modbus RTU Master and Slave protocols
- DF1 Half-Duplex Master and DF1 Radio Modem protocols
- Full ASCII (read/write) capability
- The MicroLogix 1100 and 1400 provides a built-in EtherNet/IP port for peer-to-peer messaging
- The MicroLogix 1200R, MicroLogix 1400 and MicroLogix 1500 LRP offer an additional serial port



## Expand your I/O horizons

With a wide range of I/O capabilities – from embedded to modular – MicroLogix controllers combine high-speed embedded I/O with the flexibility and expandability of expansion I/O for just the right amount of points for any application. And with the MicroLogix 1100, 1200 and 1400 controllers, take advantage of the convenience of using the same 1762 expansion I/O modules.

## Relax. You're with Rockwell Automation

Don't forget, these controllers bear the Allen-Bradley name – a trusted brand name in industrial automation for over a century. With Rockwell Automation you're guaranteed:

- Strict quality standards
- Latest technological advances
- Global capability, local supply
- Unmatched customer service
- Peace of mind

## Get world-class service and support

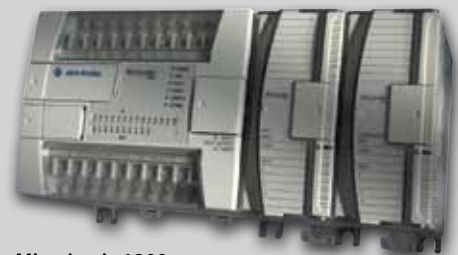
Customer satisfaction is built into every product that Rockwell Automation offers. In addition to worldwide sales and field personnel, thousands of in-house automation experts ensure customer support. You're not locked into one supplier either. Our referencing program seamlessly integrates several third-part products and technologies that complement our own. This enables you to tap the resources of an even larger selection of global products and services.



MicroLogix 1000



MicroLogix 1100



MicroLogix 1200



MicroLogix 1400



MicroLogix 1500

# MicroLogix 1000

## Small on Cost. Big on Capacity

Are you looking for a compact and inexpensive micro controller? You'll find what you're looking for with the MicroLogix 1000 controllers. These small, economical programmable controllers offer several I/O configurations and are available in 17 different models. With footprints as small as 120mm x 80mm x 40mm (4.72" x 3.15" x 1.57"), the MicroLogix 1000 controllers are ideal for tight spaces that require up to 32 points of I/O.

You'll get a high-speed controller with advanced networking capabilities and a full suite of control solutions.



## Benefits

The MicroLogix 1000 micro-PLC can handle a wide variety of big-time applications at 32 I/O or below, while using only a fraction of the space of a full-size controller – at a fraction of the price. Here are a few reasons why you can choose them with confidence:

- Preconfigured 1K programming and data memory to ease configuration (bit, integer, timers, counters, etc)
- Fast processing allows for typical throughput time of 1.5 ms for a 500-instruction program
- Built-in EEPROM memory retains all of your ladder logic and data if the controller loses power, eliminating the need for battery back-up or separate memory module
- Multiple input commons allow you to use the controller for either sinking or sourcing input devices and multiple output commons provide isolation in multi-voltage output applications
- RS-232 communication channel allows for simple connectivity to a personal computer for program upload, download and monitoring using multiple protocols, including DF1 Full-Duplex
- RTU slave protocol support using DF1 Half-Duplex Slave allows up to 254 nodes to communicate with a single master using radio modems, leased-line modems or satellite uplinks
- Peer-to-peer messaging capability allows you to network up to 32 controllers on DH-485 (using a 1761-NET-AIC module)
- Advanced communications networks, including DeviceNet and EtherNet/IP through the 1761-NET-DNI and 1761-NET-ENI communication modules
- Controllers that have 24V dc inputs include a built-in high-speed counter (6.6 kHz)
- Adjustable DC input filters allow you to customize the input response time and noise rejection to meet your application needs
- Regulatory agency certifications for world-wide market (CE, G-Tick, UL, c-UL, including Class 1 Division 2 Hazardous Location)

## Flexible I/O technology

Broad input and output specifications provide a flexible control solution.

- Input options: AC, DC and analog (current or voltage)
- Output options: relay, TRIAC, MOSFET and analog (current or voltage)
- Both AC and DC powered controllers are available

Use your MicroLogix 1000 control system to provide factory floor networking and reduce production problems. You'll find the MicroLogix 1000 is ideal for a number of applications: from water/wastewater and SCADA, to packaging and material handling.

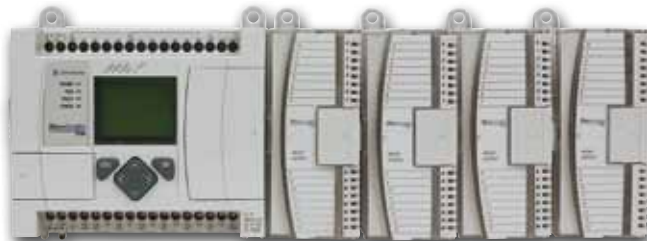




# MicroLogix 1100

Communicate. Control. Visualize.

With online editing and a built-in 10/100 Mbps EtherNet/IP port for peer-to-peer messaging, the MicroLogix 1100 controller adds greater connectivity and application coverage to the MicroLogix family. The next generation controller's built-in LCD screen displays controller status, I/O status, and simple operator messages; enables bit and integer manipulation; and offers digital trim pot functionality.



## Key Features and Benefits

- Built-in 10/100 Mbps EtherNet/IP port for peer-to-peer messaging – offers users high speed connectivity between controllers, with the ability to access, monitor and program from anywhere an Ethernet connection is available
- Online editing functionality – modifications can be made to a program while it is running, making fine tuning of an operating control system possible, including PID loops. Not only does this reduce development time, but it aids in troubleshooting
- Embedded Web server – allows a user to custom configure data from the controller to be displayed as a web page
- Isolated RS-232/RS-485 combo port – provides a host of different point-to-point and network protocols
- Embedded LCD screen – allows user to monitor data within the controller, optionally modify that data, and interact with the control program. Displays status of embedded digital I/O and controller functions, and acts as a pair of digital trim pots to allow a user to tweak and tune a program

## Additional Features

- One 40kHz embedded high-speed counter (on controllers with DC inputs)
- Two 40kHz high-speed PTO/PWM (on controllers with DC outputs)
- Two embedded analog inputs (0-10 V. DC, 10 bit resolution)
- A simple operator interface for messages and bit/integer input
- 4K words user program memory and 4K words user data memory
- Up to 128K bytes for data logging and 64K bytes for recipe

## I/O Capabilities

For small applications, the embedded I/O in this controller may represent all of the control required. There are 10 digital inputs, 6 digital outputs, and 2 analog inputs on every controller, with the ability to add digital, analog, RTD, and thermocouple modules to customize the controller for your application. On the versions of the controller with DC inputs, there is a high speed counter, and on the DC output version, two PTO/PWM (pulse train outputs and pulse width modulated) outputs, enabling the controller to support simple motion capabilities.

The MicroLogix 1100 also supports expansion I/O. Up to four of the 1762 I/O modules (also used by the MicroLogix 1200 and 1400 controller) may be added to the embedded I/O, providing application flexibility and support of up to 144 digital I/O.

## Applications

The MicroLogix 1100 is ideal for a wide variety of applications. It is particularly well suited to meet the needs of SCADA RTU, packaging, and material handling applications. With even more memory for data logging and recipe than the MicroLogix 1500, the MicroLogix 1100 is great for remote monitoring and for applications that are memory intensive, but require limited I/O.

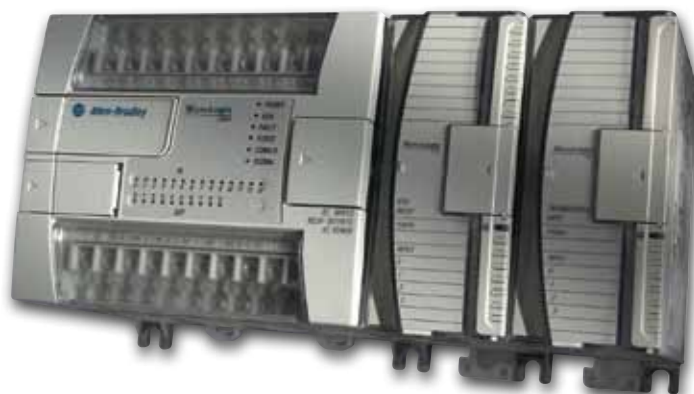
# MicroLogix 1200

## Increased Functionality and Options.

The MicroLogix 1200 is filled with features and options designed to handle an extensive range of applications.

Available in 24- and 40-point versions, the I/O count can be expanded using rackless I/O modules. This results in larger control systems, greater application flexibility and expandability at a lower cost and reduced parts inventory.

A field-upgradeable flash operating system ensures you will always be up-to-date with the latest features, without having to replace hardware. The controller can be easily updated with the latest firmware via a web site download.





## Key Features and Benefits

- Four latching or pulse-catch inputs – Latching inputs let the controller capture and hold very brief (microsecond) signals for input processing.
- 20 kHz high-speed counter – The built-in independent high-speed counter uses 32-bit integers for extended range, features 8 modes of operation, and supports direct control of outputs independent of program scan.
- Programmable Limit Switch Function – This function allows you to configure the high-speed counter to operate as a programmable limit switch or rotary cam switch.
- Trim potentiometers – Two built-in 3/4-turn analog trim potentiometers with a digital output (range from 0 to 250) allow quick and easy adjustments of timers, counters, setpoints, and more.
- Program data security – Data file download protection allows a program to be reloaded into the controller without overwriting protected data.
- Floating Point Data Files – You can create data files that can contain up to 256 IEEE-754 floating point values.
- Memory, real-time clock, or memory/real-time clock modules – Memory backup provides protection and transportability for programs and data. The real-time clock lets you easily solve time/date scheduling applications, and can be synchronized with an external source via a program instruction.
- Four interrupt inputs – Interrupt inputs let the controller scan a specific program file (subroutine) when an input condition is detected from a sensor or field device.

## With the 1200R controller you gain even more control capabilities.

- A Programming / Human Machine Interface (HMI) port in addition to the Channel 0 port: offers an inexpensive means of providing an extra port that can be used for programming using a personal computer or connecting an operator interface device to your controller
- Increased application flexibility
- Reduced system cost: enables users to directly connect a local HMI, allowing the other port to be used for networking, modem connection, programming and other devices
- Requires no configuration: DF1 Full Duplex port that has the same parameters as Channel 0 when in the “Default Comms” configuration
- Respond Only: Messaging is not available; it communicates by responding to communications initiated from the device attached to it.

## Keep your I/O options open

If the embedded I/O in the MicroLogix 1200 controllers isn't enough for you, use up to six digital and analog expansion modules. The 1762 expansion I/O modules are the same for the MicroLogix 1100 and 1400 controllers and the rackless design eliminates added system cost and inventory issues.

With the MicroLogix 1200,  
you'll be ready to tackle  
applications in industries such  
as pharmaceutical, printing,  
food and beverage, packaging  
and material handling with  
confidence

# MicroLogix 1400

## Enhanced Features to Meet Your Needs.

MicroLogix 1400 from Rockwell Automation complements the existing MicroLogix family of small programmable logic controllers, by combining the features you demand from MicroLogix 1100, such as Ethernet/IP, online editing, and a built-in LCD, plus enhanced features, such as increased I/O, faster High Speed Counter/PTO and communication capabilities. Utilize the built-in LCD with back lighting to set the Ethernet network configuration, display floating point values on user configurable display, display OEM logos and view and/or modify any binary or integer file element. Program with RSLogix 500 programming software (Version 8.10 and above) as well as new RSLogix Micro programming software.



## Key Features and Benefits

- Ethernet port provides you with peer-to-peer messaging, Web server and e-mail capability
- Online editing allows you to make modifications to the ladder logic while the program is running
- Built-in LCD with backlight allows you to view controller and I/O status, and provides a simple interface for messages, bit / integer monitoring and manipulation
- Expand your application capabilities through support of up to 7 expansion I/O modules (1762 I/O) with 256 discrete I/O
- Up to 6 embedded 100 kHz high-speed counters (on controllers with dc inputs)
- 2 Serial ports with DF1/DH485/Modbus RTU/DNP3/ASCII protocol support
- Ethernet port with EtherNet/IP, Modbus and DNP3 protocol support.

## Additional Features

- 10K words user program memory and 10K words user data memory
- Up to 128K bytes for data logging and 64K bytes for recipe
- Program with RSLogix 500 or RSLogix Micro



## I/O Capabilities

If the embedded I/O in the MicroLogix 1400 isn't enough for your use, add up to seven of the 1762 I/O modules (also used by the MicroLogix 1100 and 1200 controllers) digital and analog expansion modules.

## Applications

- General Industrial Machinery (Material Handling, Packaging, Assembly, etc)
- HVAC / Building Automation
- SCADA (Oil and Gas, Water/Wastewater, and Electrical Power)
- Food and Beverage
- Pharmaceutical
- Commercial Machinery (Vending, Industrial Washers and Dryers, etc)





# MicroLogix 1500

## More Powerful. More Expandable

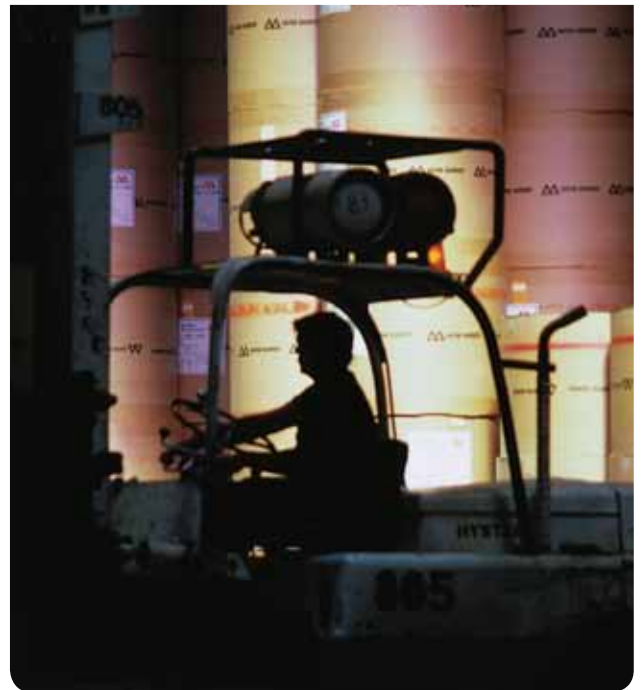
In a perfect world you would always know what's behind the next door. In the world of automation, the MicroLogix 1500 controller can help you open up new possibilities and get you to where you want to go with ease. As the most powerful member of the MicroLogix family you'll get unmatched performance, power and flexibility. In fact, it can handle many applications that traditionally called for larger, more expensive controllers. With its removable processor, base units with embedded I/O and power supply – and expansion through 1769 Compact I/O™ – the MicroLogix 1500 packs all of the best features of a modular system into a low-cost, small footprint.

Get a better view into your control application with the Data Access Tool (DAT) plug-in device. You'll be able to monitor and easily change data without the need for a computer or the added expense of an HMI device.

If you need advanced communication, the 1769-SDN DeviceNet scanner allows a MicroLogix 1500 controller to become a DeviceNet master, slave, or peer device. It combines standard DeviceNet master functionality with enhanced performance features.

## Features

- Three base options, including a choice of electrical configurations featuring:
  - 120V AC or 24V DC inputs
  - Relay and high-speed MOSFET outputs
  - 120-240V AC or 24V DC power
- Supports up to 14K of onboard non-volatile user memory, for complex application programs
- Typical scan time is less than 1 millisecond per 1K of user program
- Expandable to over 512 points of I/O
- Innovative, rackless, tongue-and-groove design reduces system cost and inventory
- Two 20 kHz high-speed counters, each with eight modes of operation, and two high-speed outputs that can be configured as either 20 kHz Pulse Train Outputs (PTO) or Pulse Width Modulated (PWM) Outputs
- Broad application coverage through embedded I/O and up to 16 Compact I/O modules
- Terminal blocks are finger-safe, removable NEMA-style blocks
- Features a field-upgradable flash operating system



# 1762 and 1769 I/O

## Expand Your Control, Not Your Budget

1762 I/O for MicroLogix 1100, 1200 and 1400 has a modular, rackless design. Elimination of the I/O rack from the system enhances cost savings and reduces replacement parts inventory. The package design allows modules to be either DIN rail or panel mounted. The DIN latches and screw mounting holes are an integral part of the package design.

### Features

- Rackless design, eliminating added system costs and inventory
- Small footprint, shrinking panel space
- Integral high-performance I/O bus
- Software keying to prevent incorrect positioning within the system
- Feature-rich I/O functionality addresses a wide range of applications
- AC/DC relay, 24V DC, and 120V AC voltages





1769 Compact™ I/O is an I/O platform that offers industry-leading price and performance. With a wide range of modules, they complement and extend the MicroLogix 1500 controller's capabilities by maximizing flexibility of the I/O count and type. Compact I/O provides an excellent platform for future enhancements, so you can easily choose the level of control as their application needs grow. It utilizes the latest design technology for superior performance, excellent functionality and ease of use, including:

## Features

- Innovative rackless design, which reduces system cost and inventory
- Modular, high-density I/O termination to reduce panel space requirements
- Integrated high-performance serial I/O bus
- Feature-rich I/O functionality to address a wide range of applications
- Front removal/insertion, which reduces time for initial system assembly and product replacement
- Broad application coverage through 24V DC sink/source and 120/240V AC I/O, relay, and analog I/O



# Network Interface Devices

## Communicate With Confidence

With the 1761-NET-ENI EtherNet/IP Interface, the 1761-NET-DNI DeviceNet Interface, and the 1761-NET-AIC Advanced Interface Converter (AIC+), you can connect MicroLogix controllers to Ethernet, DeviceNet, or DH-485 multi-drop networks. Just like the MicroLogix processors, all of these network interface devices can be DIN-rail or panel mounted, and all are industrially hardened to meet virtually any installation requirement.

### 1761-NET-ENI and 1761-NET-ENIW Ethernet Interface



Both the ENI and the ENIW provide EtherNet/IP compatibility, allowing exchange of information with other Allen-Bradley Ethernet controllers in a peer-to-peer relationship, eliminating the need for a master type device

#### Benefits of ENI or ENIW

- 100 Base-T Port with embedded LEDs allows connection to your network through any standard RJ45 Ethernet cable, and embedded LEDs provide easy to see link and transmit / receive status.
- RS-232 port provides isolation and will autobaud on power up to detect the communications port setting of the attached controller.
- Ability to force Ethernet to 10 Mbps or 100 Mbps and half-duplex or full-duplex (default is Auto Negotiate)

#### Benefits of ENIW Only

- Fixed-format pages are easily customized using the new ENIW utility. No HTML programming skills are needed.
- Home page provides for user defined links to URLs, and most pages offer user defined page names.
- Four data view pages allow display of user text and integer/ floating point data, and allow data to be written to the attached controller. Data writes may be password protected (one password per page). Data view pages provide for a user selectable update interval and update timer (indication of communications).
- Event page provides a log of events composed of up to 50 string elements.

### 1761-NET-DNI DeviceNet Interface



- Peer-to-peer messaging between Allen-Bradley controllers and other devices using the DF1 Full-Duplex protocol (real-time communications – no polling required)
- Programming and on-line monitoring over the DeviceNet network
- Through a DNI connected to a modem, you can dial in to any other DNI-controller combination on DeviceNet

#### Benefits

- Utilizes producer/consumer technology that significantly reduces the amount of traffic on the network, which improves efficiency and data throughput. This results in information getting across the network more quickly to a single controller – or to any combination of devices looking for the information.

- Offers up to 64 words of data (32 inputs, 32 outputs, configurable)
- The DNI will keep its mapped I/O data up-to-date by polling the controller connected to it. The controller may also send updated data to the DNI. The DNI then handles all of the network communications.
- Allows peer-to-peer messaging between devices that use the DF1 Full-Duplex protocol
- Allows you to take advantage of the latest advances in communications

### 1761-NET-AIC Advanced Interface Converter



- Provides DH-485 network access from any DH-485 protocol compatible device that has a RS-232 port, including all MicroLogix controllers, SLCTM processors, and Allen-Bradley PanelView™ HMI devices
- Provides isolation between all ports for a more stable network and protection for connected devices
- Auto baud rate capability for ease of system set-up

#### Benefits

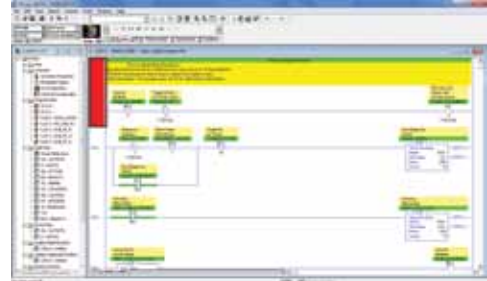
- Provides a simple, cost-effective solution for connecting RS-232 devices to a DH-485 network
- Offers two isolated RS-232 connections – one 9-pin D-shell and one 8-pin mini DIN – to protect connected devices that may be on different power sources, and an RS-485 6-pin Phoenix connection for multi-drop connections
- Allows linking of controllers using DF1 Half-Duplex "master/ slave" protocol
- Accepts power via the 8-pin mini DIN from a MicroLogix controller or an external power connection

# Programming Software

## Powerful, Flexible Programming

Rockwell Automation continually strives to bring you the best application development products to help maximize performance, save project development time, and reduce the total cost of ownership of your system.

RSLogix 500 and the newly developed RSLogix Micro programming software are two products that allow you to create, modify and monitor application programs for the Allen-Bradley MicroLogix family of controllers. Designed with features to help save time and increase productivity, these programming products allow you to gain the most value from our controllers, drives and operator interface product lines.



### RSLogix 500/RSLogix Micro

RSLogix programming packages help make program maintenance across hardware platforms convenient and system integration easier. Specifically, RSLogix 500 and RSLogix Micro packages offer:

#### Increased Productivity

- Create application programs without worrying about syntax errors
- Navigate and correct errors at your convenience
- Share common code via library support
- Quickly copy or move instructions within a project or from one project to another

#### Increased Time Savings

- Speed Logix creation and modification via drag and drop ladder logic editing
  - Includes application examples to accelerate development for common control challenges

#### Increased Diagnostics & Troubleshooting Capabilities

- Edit while controller is operating for quick testing and troubleshooting
- Detect inserted, deleted, moved or modified differences from original program
- Locate problem areas quickly and replace addresses and text easily
- Examine the status of interdependent data simultaneously in one window
- Access I/O configurations through easy point and clicks

#### Increased Investment value

- Import or export projects easily from any Rockwell Software MS-DOS programming product
- Readily re-use code developed for MicroLogix
- Customize RSLogix and integrate with Microsoft office and other applications

RSLogix 500 programming software is ideal for both MicroLogix and SLC controllers. RSLogix Micro is a new cost-effective software package for MicroLogix programming. Both software programs are feature rich and designed to streamline your overall development and deployment processes.



# Operator Interface

## Component Level Visualization

When you need an essential component, with added value, but with a reduced cost, look to the Allen-Bradley PanelView™ Component family of operator interfaces from Rockwell Automation. Leverage the new features of PanelView Component, such as built-in programming software and integrated mounting clamps, to help improve productivity and maintenance, while enjoying the convenience and efficiencies of single-source buying. Preferred integration with Allen-Bradley MicroLogix™ family of programmable logic controllers offers you an ideal control and visualization solution for a wide variety of applications. When you need a product that is easier to install, learn and operate, PanelView Component offers you a full line of displays, from 2" to 10", with the fundamental features you need, in a compact, easy to understand package.



### C200

- 4 Function keys or combination of numeric/function keys
- 2" monochrome, graphic display
- Serial communication



### C300

- Touch screen or combination of numeric/function keys
- 3" monochrome, graphic display
- Serial communication



### C400

- 4 Function keys and touch screen
- 4.3" TFT color display
- Serial and Ethernet communication
- Class 1 Division 2 certified



### C600

- Touch screen
- 6" monochrome or TFT color display
- Serial and Ethernet communication



### C1000

- Touch screen
- 10" TFT color display
- Serial and Ethernet communication

Bulletin	1761	1763	1762	1766	1764-LSP, 1764-LRP	
Type	MicroLogix 1000	MicroLogix 1100	MicroLogix 1200	MicroLogix 1400	MicroLogix 1500	
Memory						
User Program/ Data Space	1K	4K / 4K configurable	4K / 2K configurable	10K / 10K configurable	3.6K / 4K configurable	10K / 4K configurable
Data Logging/ Recipe Storage	—	Data logging: up to 128kB *Recipe: up to 64kB	—	Data logging: up to 128kB *Recipe: up to 64kB	Recipe: User Program memory	48 kB
EEPROM Back-up	√	—	√	—	—	
Battery Back-up	—	√	—	√	√	
Backup Memory Module	Only through hand-held programmer	√	√	√	√	
Discrete I/O						
Embedded	Up to 32	16	Up to 40	Up to 32	Up to 28	
Maximum with local expansion	—	Up to 144	Up to 136	Up to 256	Up to 540	
Distributed I/O	—	—	—	—	Using 1769 SDN	
Additional Functionality						
Analog	5 Embedded	2 Embedded, up to 32 expansion	Up to 24 Expansion	6 Embedded, up to 56 expansion	Up to 256 Expansion	
Trim Potentiometers	—	2 digital	2	2 digital	2	
PID	—	√	√	√	√	
High-Speed Counter (24V DC inputs)	1 @ 6.6 kHz	1 @ 40 kHz	1 @ 20 kHz	up to 6 @ 100 kHz	2 @ 20 kHz	
Real Time Clock	—	√	√	√	√	
Simple Motion: Pulse Width Modulated/ Pulse Train Outp.	—	2 @ 40 kHz (DC FET version)	1 @ 20 kHz (DC FET version)	3 @ 40kHz PWM / 100kHz PTO (DC FET version)	2 @ 20 kHz (DC FET version)	
Single Axis Servo Control	—	Through emb. PTO (FET)	Through emb. PTO (FET)	Through emb. PTO (FET)	Through embedded PTO (FET)	
Data Access Tool	—	Embedded LCD	—	Embedded LCD	√	
Floating Point Math	—	√	√	√	√	
Programming Software						
RSLogix 500 & RSLogix Micro	√	√	√	√	√	
Communications						
Online Editing	—	√	—	√	—	
RS-232 Ports	(1) 8-pin Mini DIN	(1) 8-pin Mini DIN (combo with RS-485 port)	(1) 8-pin Mini DIN (1) 8-pin Mini DIN (R)	(1) 9-pin D-shell (non-isolated) (1) 8-pin Mini DIN (isolated - combo with RS485 port)	(1) 8-pin Mini DIN	(1) 8-pin Mini DIN (1) isolated 9-pin D-shell
RS-485 Ports	—	(1) 8-pin Mini DIN (combo with RS-232 port)	—	(1) 8-pin Mini DIN (isolated - combo with RS232 port)	—	
DeviceNet Peer to Peer/Slave	w/ 1761-NET-DNI	w/ 1761-NET-DNI	w/ 1761-NET-DNI	w/ 1761-NET-DNI	w/ 1761-NET-DNI	
DeviceNet Scanner	—	—	—	—	w/ 1769-SDN	
EtherNet/IP	w/ 1761-NET-ENI	Embedded and w/ 1761-NET-ENI	w/ 1761-NET-ENI	Embedded and w/ 1761-NET-ENI	w/ 1761-NET-ENI	
DH-485	w/ 1761-NET-AIC	Directly from combo port using 1763-NC01	w/ 1761-NET-AIC	Directly from combo port using 1763-NC01	w/ 1761-NET-AIC	
DF1 Half-Duplex Master/Slave, Radio Modem	Slave only	√	√	√	√	
Modbus RTU	—	Master/Slave	Master/Slave	Master / Slave	Master/Slave	
Modbus TCP/IP	—	—	—	√	—	
ASCII	—	√	√	√	√	
DNP3	—	—	—	Slave only (on Serial and Ethernet)	—	
Operating Power						
120/240V AC / 24V DC	√	√	√	√	√	√
12V DC	—	√	—	—	—	—
Certifications	cULus Listed, CE, Class I Div. 2					

\*Recipe memory size is subtracted from the available data logging memory size

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**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

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