LISTEN.
THINK.
SOLVE.[SM]

MICROLOGIX

MICROLOGIX

ONE FAMILY OF SMALL LOGIC CONTROLLERS FOR
EVERY APPLICATION AND BUDGET

Rockwell Automation

MICROLOGIX

POWER. PERFORMANCE. PEACE OF MIND.
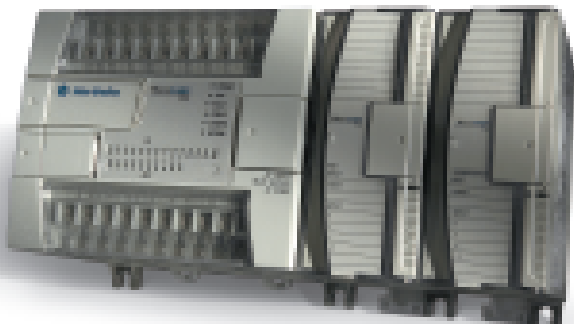
The MicroLogix Family of Controllers.

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.
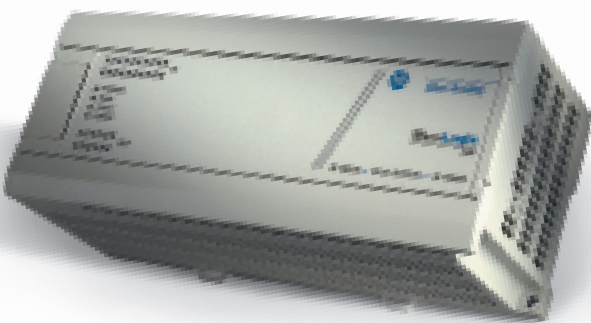
1000

1100

1200

1500

With four 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 newest MicroLogix 1100 controller 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 Master and 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 and 1500 provide:

  - Embedded Modbus RTU Master and RTU slave protocol

  - Full ASCII (read/write) capability

- The MicroLogix 1100 provides a built-in EtherNet/IP port for peer-to-peer messaging

- The MicroLogix 1200R and MicroLogix 1500 LRP offer an additional 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 1200 and MicroLogix 1100 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
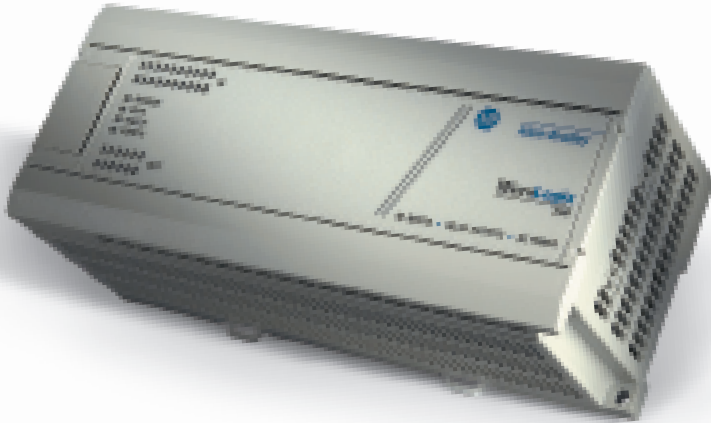
Are you looking for a compact and inexpensive micro controller? You'll find what you're looking for with the MicroLogix 1000 controllers. These small, economical programmable controllers offer several I/O configurations and are available in 17 different models. With footprints as small as 120mm x 80mm 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, C-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.
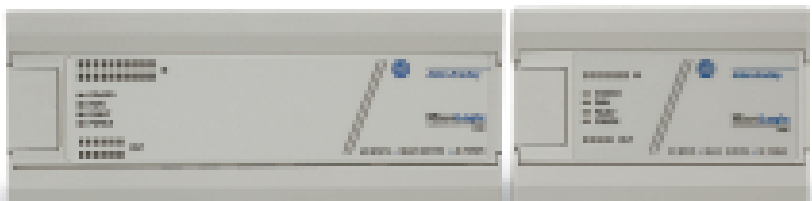
MICROLOGIX 1100

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 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 controller) may be added to the embedded I/O, providing application flexibility and support of up to 80 digital I/O.
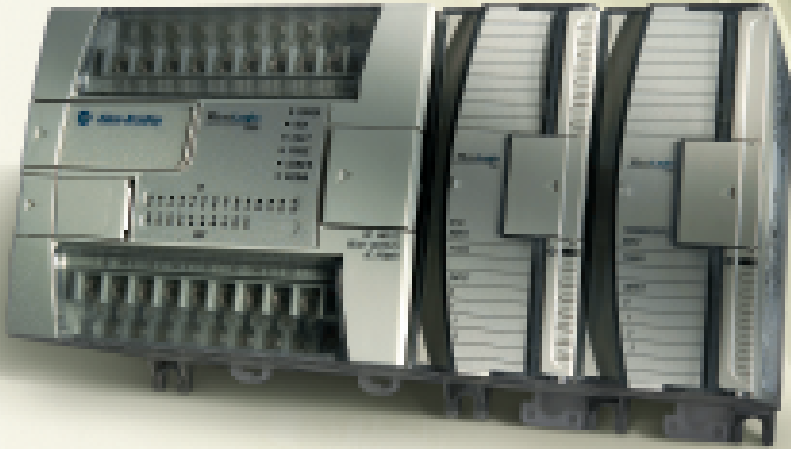
Applications

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.
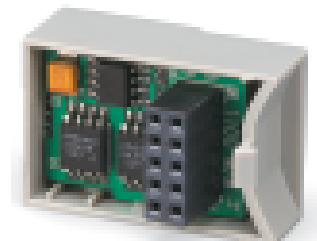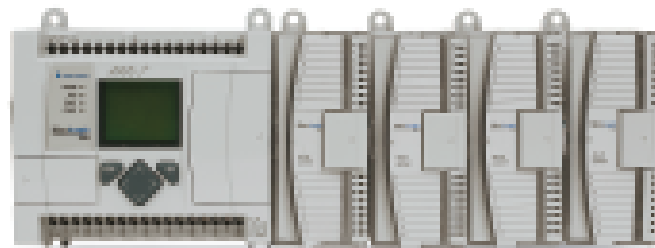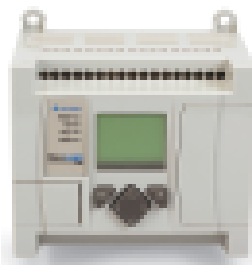
MICROLOGIX 1200

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.
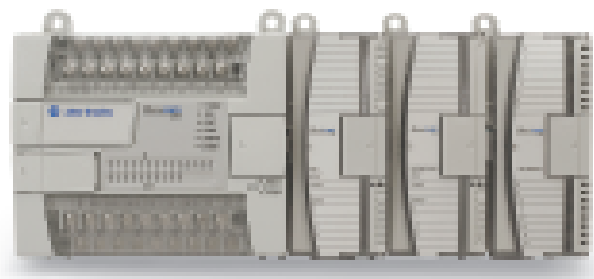
- Memory, real-time clock, or memory/real-time clock modules—Memory backup provides protection and transportability for programs and data. The real-time clock lets you easily solve time/date scheduling applications, and can be synchronized with an external source via a program instruction.

- 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 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 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 256 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.

1769 COMPACT I/O

Compact I/O has a unique modular, rackless design, which both contributes to system cost savings and reduces parts inventory. And its communication bus, typically found in the I/O rack, is instead integrated into each Compact I/O module.

- Get superior performance in vibration-sensitive applications with patented, slide-and-lock bus connector

- Save time with removable terminal blocks that allow for module replacement without rewiring

- Meet worldwide market needs with finger-safe terminals

1769 Compact I/O™ is a PLC-style I/O platform which is optimized for use with Allen-Bradley MicroLogix and CompactLogix™ controllers. It can also function as distributed I/O with a network adapter. With its industry-leading features and competitive price, Compact I/O makes the MicroLogix 1500 a platform tailor-made for the cost-conscious automation consumer.
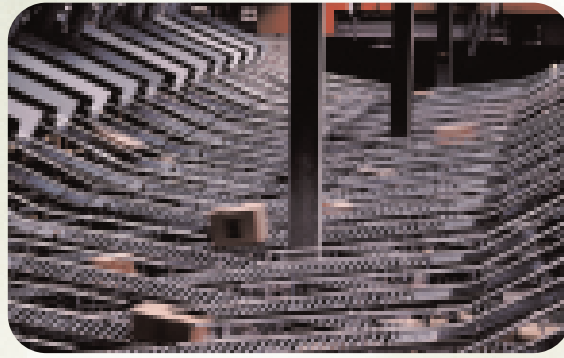
THERE'S A 1769 I/O MODULE FOR EVERY APPLICATION

DIGITAL INPUTS

1769-IA16	16-point 120V ac Input
1769-IA8I	8-point 120V ac Each Point Individually Isolated Input
1769-IM12	12-point 240V ac Input
1769-IG16	16-point 5V dc TTL Input
1769-IQ16	16-point 24V dc Sink/Source Input
1769-IQ16F	16-point 24V dc High-Speed Sink/Source Input
1769-IQ32	32-point 24V dc Sink/Source Input
1769-IQ32T	32-point 24V dc Single-Wide Sink/Source Input

DIGITAL OUTPUTS

1769-OA8	8-point 120/240V ac Output
1769-OA16	16-point 120/240V ac Output
1769-OB8	8-point 24V dc Source Output
1769-OB16	16-point 24V dc Sourcing Output
1769-OB16P	16-point 24V dc Sourcing Output with Electronic Protection
1769-OB32	32-point 24V dc Source Output
1769-OV16	16-point 24V dc Sinking Output
1769-OB32T	32-point Terminated 24V dc Sourcing Output
1769-OG16	16-point 5V dc TTL Output
1769-OV32T	24V dc Single-Wide 32-Point Digital Output
1769-OW8	8-point V ac/V dc Relay Output
1769-OW16	16-point 24V ac/V dc Relay Output
1769-OW8I	8-point V ac/V dc Individually Isolated Relay Output

COMBINATION DISCRETE

1769-IQ6XOW4	Combination Module, 6-point 24V dc Sink/Source Input, 4-Point V ac/V dc Relay Output

ANALOG

1769-IF4	4-Channel Analog Current/Voltage Input
1769-IF4I	4-Channel, Isolated Analog Input
1769-IF8	8-Channel Analog Input
1769-OF2	2-Channel Analog Current/Voltage Output
1769-IF4XOF2	Low Resolution (8 bit), Combination 4-Channel Input, 2-Channel Output
1769-IF4FXOF2F	High-Speed Combination 4-Channel Input, 2-Channel Output
1769-OF4CI	4-Channel Isolated Analog Current Output
1769-OF4VI	4-Channel Isolated Analog Voltage Input
1769-OF8C	8-Channel Current Analog Output
1769-OF8V	8-Channel Voltage Analog Output

SPECIALTY MODULES

|	
1769-SDN	DeviceNet Scanner Module
1769-ADN	DeviceNet Adapter/Slave Module
1769-IT6	6-Channel Thermocouple/mV Input
1769-IR6	6-Channel RTD/Resistance Input
1769-BOOLEAN	Combination 24V dc Sink Input/Source Output BOOLEAN Control
1769-ASCII	2-Channel Serial ASCII Module
1769-ARM	Address Reserve Module
1769-SM1	3-Channel Connection to PowerFlex 7-Class Drives (DPI-Based) and SCANport-Based Drives
1769-SM2	3-Channel Single Mode or Multi-Drive Mode Connection to PowerFlex 4-Class Drives (DSI-based) and Modbus RTU-Based Drives
1769-HSC	High-Speed Counter Module

NETWORK INTERFACE DEVICE
COMMUNICATE WITH CONFIDENCE

The MicroLogix family's list of impressive hardware, memory, and processing choices makes it easy to select an ideal solution for small to mid-sized applications. And when it comes to communication options, our network interface devices take you where you need to go.

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.
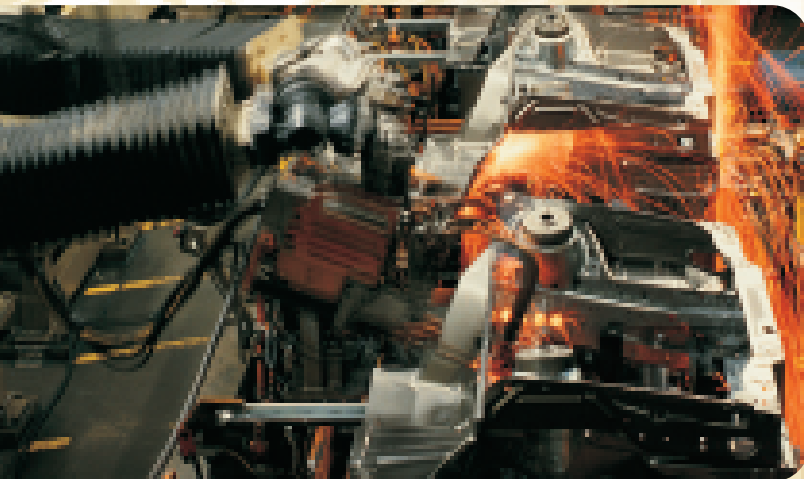
1761-NET-ENI AND 1761-NET-ENIW ETHERNET INTERFACE

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
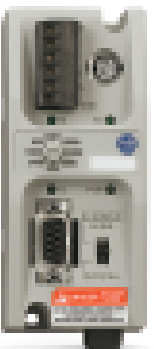
- Provides DH-485 network access from any DH-485 protocol compatible device that has a RS-232 port, including all MicroLogix controllers, SLC™ 5/03 and 5/04 processors, and Allen-Bradley PanelView™ HMI devices
- Provides isolation between all ports for a more stable network and protection for connected 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 SLC 5/03 or 5/04 processors 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
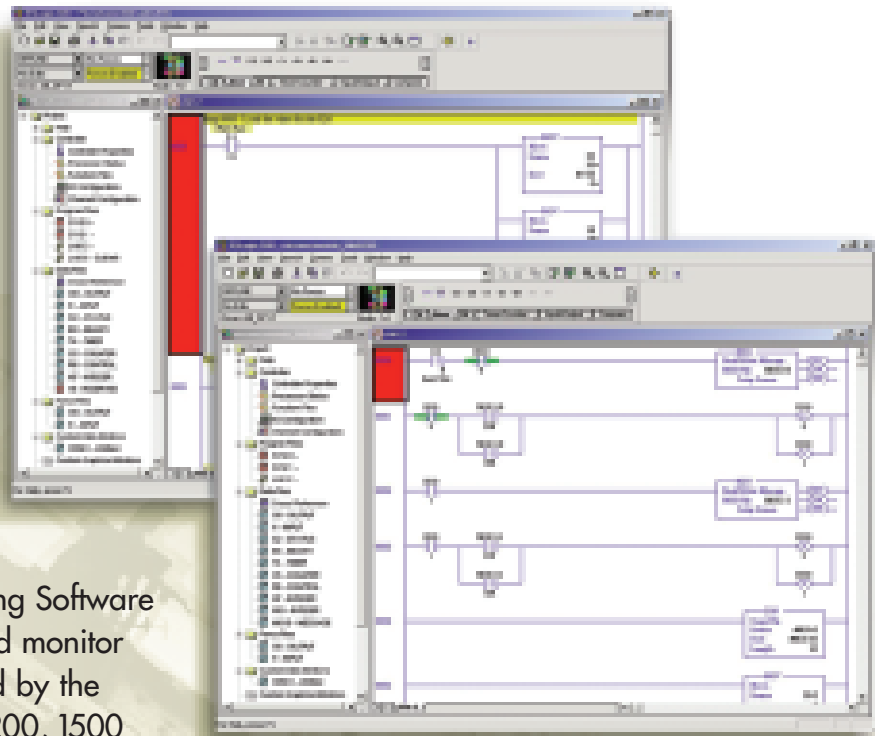
RSLogix™ 500 Programming Software lets you create, modify and monitor application programs used by the MicroLogix 1000, 1100, 1200, 1500 and SLC 500 Programmable Controller families. It is a powerful, easy-to-use tool that allows you to tailor your control program to your specific application needs.

RSLOGIX 500 PROGRAMMING SOFTWARE

- Offers 32-bit flexibility, reliability and increased productivity to the industrial controls programming world
- Operating in the Microsoft Windows environment, RSLogix 500 incorporates the latest technologies to help you maximize performance and save development time
- Superior diagnostics, reliable communications and industry-leading, intuitive user interface makes RSLogix 500 the programming solution for developers at any level of expertise
- Completely compatible with programs that have been previously created with any Rockwell Software MS-DOS®-based programming packages, which make program maintenance across platforms convenient and easy

FLEXIBLE, EASY-TO-USE EDITORS

- Flexible program editors let you create simple to highly complex application programs, and a Project Verifier builds a list of errors that you can use to navigate and make corrections at your convenience
- Context menus for common software tools are quickly accessible by clicking the right mouse button on addresses, symbols, instructions, rungs, or other application objects. This convenience provides you with all the necessary functionality to accomplish a task within a single menu
- Drag-and-drop editing lets you quickly copy or move instructions from rung to rung within a project, rungs from one subroutine or project to another, or data table elements from one data file to another

POINT-AND-CLICK I/O CONFIGURATION

- Convenient forms speed entry of configuration data, including an I/O auto configuration feature
- Easy-to-use I/O Configurator lets you click or drag-and-drop a module from an all-inclusive list to assign it a slot in your configuration
- Advanced configuration, required for specialty and analog modules, is easily accessible

POWERFUL DATABASE EDITOR

- Use the Symbol Picker list to easily address instructions in your ladder logic by clicking addresses or symbols to assign them to your ladder instructions
- Use the Symbol Group Editor to build and classify groups of symbols so that you can easily select portions of your recorded documentation to be used from project to project

DIAGNOSTICS AND TROUBLESHOOTING TOOLS

- Simultaneously examine the status of bits, timers, counters, inputs, and outputs all in one window with the Custom Data Monitor
- Easily review status bit settings specific to your application programming including Scan Time information, Math Register information, interrupt settings and more with the tabbed Status displays

HUMAN MACHINE INTERFACE
COMPONENT LEVEL VISUALIZATION

All PanelView terminals are engineered for scalability, reliability, and compatibililty.
- Easy to use, rugged and reliable.
- Save valuable panel space
- Designed for easy modification as your process expands or changes
- NEMA 4X (IP54, IP65) rated

The PanelView products featured here are only a partial offering of the entire PanelView Standard family of Human Machine Interface (HMI) products. For more information, visit www.ab.com/eoi/graphicterminals.
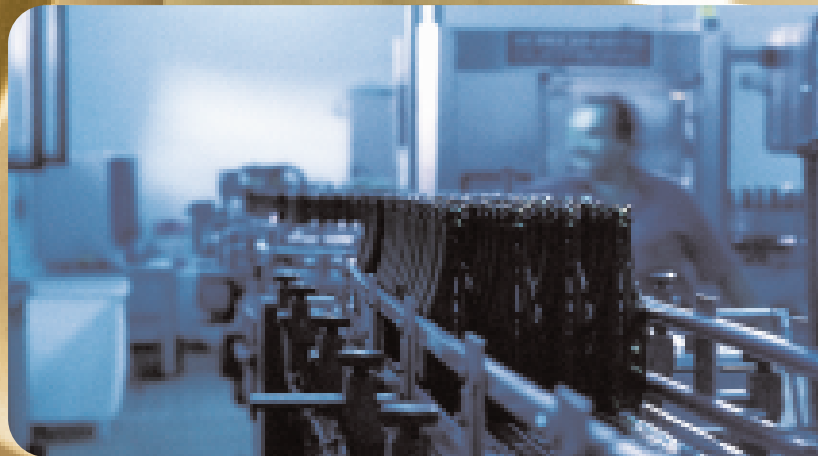
Electronic operator interface devices provide you with powerful plant floor control and data monitoring capabilities for improved productivity. And the Allen-Bradley PanelView™ Standard terminals are extraordinary performers in the real world of control system automation.

PANELVIEW 300 MICRO

The PanelView Micro operator interface terminal provides just the right amount of information at the right time. This component level HMI is the recommended device for use in your MicroLogix control systm. Just 5.2" x 4.4" and only 1.4" installed depth, this compact terminal is ideal for customers who need a space-saving and low-cost, yet feature rich solution.

PANELVIEW 300 KEYPAD

The PanelView 300 Keypad operator interface terminal is designed for low-end graphical or text-only applications, while still remaining faithful to the features found on PanelView Standard terminals. The LCD monochrome graphic display and feature-rich design allow for high-performance in applications that demand a compact, less expensive interface.

Both PanelView 300 Micro and PanelView 300 Keypad offer:
- 3" diagonal transflective LCD (LED back-lit) monochrome graphic display, ideal for high ambient light applications
- 100,000 hour LED backlight life
- 128x64 pixel resolution

PANELVIEW 550

The PanelView 550 Keypad, Keypad/Touch, and Touch-only pixel-graphic display terminals are cost-effective ways for end-users and OEMs to incorporate high-performance operator interface devices into applications or machines where panel space is limited. These terminals have a minimum installed depth and flat panel monochrome display designed to lower the cost of ownership without losing PanelView family functionality.
- 5.5" diagonal LCD monochrome display
- 256 x 128 pixel resolution

PANELVIEW 600

The PanelView 600 Keypad, Keypad/Touch, and Touch-only terminals are high-performance color terminals for applications where color graphic displays are required and panel space is limited.
- 6.0" diagonal TFT active matrix color display
- 320x324 pixel resolution
- 10 re-legendable function keys, numeric keypad, cursor control keys

Bulletin	1761	1763	1762	1764-LSP	1764-LRP
Type	MicroLogix 1000	MicroLogix 1100	MicroLogix 1200	MicroLogix 1500	
Memory					
User Program/ Data Space	1K	4K / 4K	4K / 2K	3.6K / 4K (max) configurable	10K / 4K (max) configurable
Data Logging / Recipe Storage	–	Data logging: up to 128kB * Recipe: up to 64kB	–	Recipe: User Program memory	48kB
EEPROM Back-up	✓	–	✓	–	–
Battery Back-up	–	✓	✓	✓	✓
Backup Memory Module	Only through hand-held programmer	✓	✓	✓	✓
I/O					
Up to 32	Embedded	Embedded w/Loc. Exp., up to 80	Embedded	Embedded w/Loc. Exp.	
Up to 128	–	–	Embedded w/Loc. Exp.	Embedded w/Loc. Exp.	
Up to 512	–	–	–	Embedded w/Loc. Exp.	
> 512	–	–	–	Local & Networked Expansion using 1769-SDN	
Additional Functionality					
Analog	Embedded	Embedded	Expansion	Expansion	
Trim Potentiometers	–	2 digital	2	2	2
PID	–	✓	✓	✓	✓
High-Speed Counter (24V DC inputs)	1 @ 6.6 kHz	1 @ 40 kHz	1 @ 20 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)	2 @ 20 kHz (DC FET version)	
Single Axis Servo Control	–	Through emb. PTO (FET)	Through emb. PTO (FET)	Through embedded PTO (FET)	
Data Access Tool	–	Embedded LCD	–	✓	✓
Floating Point Math	–	✓	✓	✓	✓
Programming Software					
Windows® – RSLogix 500 & RSLogix 500 Starter	✓	✓	✓	✓	✓
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) – 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)	–	–	–
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	w/ 1761-NET-ENI	Embedded and w/ 1761-NET-ENI	w/ 1761-NET-ENI	w/ 1761-NET-ENI	
DH-485	w/ 1761-NET-AIC	Directly from combo port or using 1761-NET-AIC	w/ 1761-NET-AIC	w/ 1761-NET-AIC	
DF1 Half-Duplex Master/Slave, Radio Modem	Slave only	✓	✓	✓	✓
Modbus RTU		Master/Slave	Master/Slave	Master/Slave	
ASCII	–	✓	✓	✓	✓
Operating Power					
120/240V AC / 24V 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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