

# MicroLogix 1400



Small Programmable Logic Controller

## Features and Benefits

- Expand your application capabilities with up to 7 expansion I/O modules for a maximum of 256 discrete I/O
- Up to 6 embedded 100 kHz highspeed counters (on controllers with dc inputs)
- 2 Serial ports with DF1/ DH485/ Modbus RTU/DNP3/ASCII protocol support
- Ethernet port provides you with EtherNet/IP, DNP3 over IP and Modbus TCP/IP protocol support as well as web server and email capabilities
- 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



## Product Description

The Allen-Bradley® MicroLogix™ 1400 from Rockwell Automation complements the existing MicroLogix family of small programmable logic controllers. MicroLogix 1400 combines the features you demand from MicroLogix 1100, such as EtherNet/IP, online editing, and a built-in LCD, plus provides you with enhanced features, such as: higher I/O count, faster High Speed Counter/PTO and enhanced network capabilities

Take advantage of the built-in LCD with back lighting to set the Ethernet network configuration, display floating point values on a user configurable display, display OEM logos at startup and read or write any binary, integer and long file elements in the data table.

Three embedded communication ports provide you with excellent communications capabilities. MicroLogix 1400 offers an isolated RS232C/RS485 combination port; a non-isolated RS232C port; and an RJ-45 port for 10/100 Mbps EtherNet/IP peer-to-peer messaging, DNP3 over IP and Modbus TCP/IP protocol.

Similar to the rest of the MicroLogix family, MicroLogix 1400 is programmed with RSLogix 500 programming software (Version 8.1 and above) as well as RSLogix Micro programming software.

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## Product Specifications

| MicroLogix                     | 1766-L32BWA                                                                                                         | 1766-L32AWA | 1766-L32BXB                               | 1766-L32BWAA                             | 1766-L32AWAA | 1766-L32BXBA                              |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------|------------------------------------------|--------------|-------------------------------------------|
| Input Power                    | 120/240 V AC                                                                                                        |             | 24V DC                                    | 120/240 V AC                             |              | 24V DC                                    |
| Memory                         | non-volatile battery backed RAM                                                                                     |             |                                           |                                          |              |                                           |
| User Program / User Data Space | 10K / 10K configurable                                                                                              |             |                                           |                                          |              |                                           |
| Data Logging / Recipe Storage  | 128 K (without Recipe) / up to 64 K (after subtracting Data Logging)                                                |             |                                           |                                          |              |                                           |
| Battery Back-up                | Yes                                                                                                                 |             |                                           |                                          |              |                                           |
| Back-up Memory Module          | Yes                                                                                                                 |             |                                           |                                          |              |                                           |
| Digital Inputs                 | (12) Fast 24VDC<br>(8) Normal 24VDC                                                                                 | (20) 120VAC | (12) Fast 24VDC<br>(8) Normal 24VDC       | (12) Fast 24VDC<br>(8) Normal 24VDC      | (20) 120VAC  | (12) Fast 24VDC<br>(8) Normal 24VDC       |
| Digital Outputs                | (12) Relay                                                                                                          | (12) Relay  | (6) Relay<br>(3) Fast DC<br>(3) Normal DC | (12) Relay                               | (12) Relay   | (6) Relay<br>(3) Fast DC<br>(3) Normal DC |
| Analog Inputs / Outputs        | None                                                                                                                |             |                                           | (4) Voltage Inputs / (2) Voltage Outputs |              |                                           |
| Serial Ports                   | (1) RS232C/RS485*, (1) RS232C**                                                                                     |             |                                           |                                          |              |                                           |
| Serial Protocols               | DF1 Full Duplex, DF1 Half Duplex Master/Slave, DF1 Radio Modem, DH-485, Modbus RTU Master/Slave, ASCII, DNP 3 Slave |             |                                           |                                          |              |                                           |
| Ethernet Ports                 | (1) 10/100 EtherNet/IP port                                                                                         |             |                                           |                                          |              |                                           |
| Ethernet Protocols             | EtherNet/IP messaging, DNP 3 over IP and Modbus TCP/IP                                                              |             |                                           |                                          |              |                                           |
| Trim Potentiometers            | 2 Digital                                                                                                           |             |                                           |                                          |              |                                           |
| High-Speed Inputs              | Up to 6 channels @ 100 kHz                                                                                          | N/A         | Up to 6 channels @ 100 kHz                | Up to 6 channels @ 100 kHz               | N/A          | Up to 6 channels @ 100 kHz                |
| Real Time Clock                | Yes, embedded                                                                                                       |             |                                           |                                          |              |                                           |
| PID                            | Yes (limited by loop and stack memory)                                                                              |             |                                           |                                          |              |                                           |
| PWM / PTO                      | N/A                                                                                                                 |             | 3 channel PTO (100kHz)\PWM (40kHz)        | N/A                                      |              | 3 channel PTO (100kHz)\PWM (40kHz)        |
| Embedded LCD                   | Yes                                                                                                                 |             |                                           |                                          |              |                                           |
| Floating Point Math            | Yes                                                                                                                 |             |                                           |                                          |              |                                           |
| Online Editing                 | Yes                                                                                                                 |             |                                           |                                          |              |                                           |
| Operating Temperature          | -20°C...+60°C                                                                                                       |             |                                           |                                          |              |                                           |
| Storage Temperature            | -40°C (or -30°C)...+85°C                                                                                            |             |                                           |                                          |              |                                           |

\* Isolated, RS232/RS485 combo port. Same as MicroLogix 1100 Comm 0

\*\* Non-isolated RS232, standard D-sub connector.



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