

Allen-Bradley 1746 1747 Series Service Manual

1766-L32AWA

1. Description

The 1766-L32AWA is a MicroLogix 1400 Controller under the Bulletin 1766 product family. This compact controller features integrated Three (3) communication ports such as a combo RS232 / RS485 port, isolated RS232 port and an Ethernet communication port. It has embedded Input and Output channels which consists of Twenty (20) digital 120V AC inputs, and Twelve (12) Relay outputs. Technical specifications for 1766-L32AWA

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1766-L32AWA
Module	Type Controller
Product	Family: MicroLogix
Series	MicroLogix 1400
Product	Type: MicroLogix 1400 Controller
Inputs	(20) Digital 120V AC, (2) Analog
Part	Number: 1766- L32AWA
Outputs	(12) Relay
Number	of I/O: 32 points
Operating	Power 110 to 240 VAC
Number	of Discrete Inputs: Twenty (20) 120VAC
Channel	Count (20) I _P , (12) O _P
Analog	Input Signal Range: None
Memory	20 KB
Number	of Discrete Outputs: Twelve (12) Relay
Feature	Built-in RTC
Power	supply: 100/240V AC
Communication	Ethernet, RS-232, RS-485
Operating	Frequency: 47-63 Hz
Display	LED screen, built in
Power	Consumption: 100 VA
Power	supply inrush current 120V AC: 25 A for 8 ms 240V AC: 40A for 4 ms
UPC	10612598518095
Communication	port: 1 RS232 / RS485; 1 Ethernet; 1 RS232
UNSPSC	32151705
Supported	Protocols: Serial: DF1, ASCII, MODBUS RTU, DNP3, DH485 Ethernet: Ethernet I/P, DNP3, MODBUS TCP/IP
Shipping	weight 2 lbs
Dimensions:	90 x 180

3. Product Information

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Brand Allen-Bradley

Part Number/Catalog No. 1766-L32AWA

Module Type Controller

Product Family: MicroLogix

Series MicroLogix 1400

Product Type: MicroLogix 1400 Controller

Inputs (20) Digital 120V AC, (2) Analog

Part Number: 1766- L32AWA

Outputs (12) Relay

Number of I/O: 32 points

Operating Power 110 to 240 VAC

Number of Discrete Inputs: Twenty (20) 120VAC

Channel Count (20) IP, (12) OP

Analog Input Signal Range: None

Memory 20 KB

Number of Discrete Outputs: Twelve (12) Relay

Feature Built-in RTC

Power supply: 100/240V AC

Communication Ethernet, RS-232, RS-485

Operating Frequency: 47-63 Hz

Display LCD screen, built in

Power Consumption: 100 VA

Power supply inrush current 120V AC: 25 A for 8 ms 240V AC: 40A for 4 ms

UPC 10612598518095

Communication port: 1 RS232 / RS485; 1 Ethernet; 1 RS232

UNSPSC 32151705

Supported Protocols: Serial: DF1, ASCII, MODBUS RTU, DNP3, DH485 Ethernet: Ethernet I/P, DNP3, MODBUS TCP/IP

Shipping weight 2 lbs

Dimensions: 90 x 180 x 87 mm (3.5 x 7.087 x 3.43 in)

Mounting: Panel Mounting / DIN Rail Description

The Allen-Bradley 1766-L32AWA is a part of the MicroLogix 1400 Programmable Logic Controller series. The 1766-L32AWA controller requires 120-240V AC input power and has battery-backed RAM. It supports 32 digital I/O points with Twenty (20) digital 120V AC inputs and 12 Relay outputs. It can be expanded by connecting with up to seven 1762 expansion I/O modules.

The 1766-L32AWA measures 3.5 x 7.08 x 3.43 in. and weighs 2 lbs. For communication, it has an isolated RS-232/485 port, an Ethernet port, and a non-isolated RS-232 port. It also has an embedded real-time clock to provide a reference for applications that need time-based control. For installation, it has Panel or DIN-Rail mounting options with its open enclosure. It is suitable for use in a clean, dry industrial environment with circuits not exceeding Over Voltage Category II. The 1766-L32AWA controller has various superior features over its predecessors. The Ethernet port comes with a DNP3 protocol support and with a web server and an email capability. It has 2 Serial ports that support the DH485/DF1/Modbus RTU/DNP3/ASCII protocol. It has up to 6 embedded 100-kHz high-speed counters (only on controllers with DC inputs). It also has 20 KB memory for user programs and data.

The 1766-L32AWA is an Allen-Bradley hardware that belongs to the MicroLogix 1400 controller product family. This product family are compact Programmable Logic Controllers (PLC) designed for use in small application. This controller has expansion provision wherein up to Seven (7) 1762 Expansion modules may be added from the base hardware. It features an integrated 120/240VAC power supply, Three (3) communication port such as One (1) isolated RS232/RS485 combo port, One (1) non-isolated RS232 and One (1) Ethernet I/P port. It also has Twenty (20) 120VAC inputs and Twelve (12) Relay outputs. and I/O channels.

Channel 0 port, which is 8-pin mini DIN RS-232C/RS-485 connector and Channel 2 RS232 communication port supports DF1, DH485, MODBUS RTU, DNP3 and ASCII protocols. Channel 1 is an RJ45 compatible port support Ethernet I/P, DNP3 and MODBUS Ethernet protocol. These protocol sets provide a wide range of options and application in connecting this controller to Machine level Human Machine Interface (HMI), Supervisory level Supervisory Control and Data Acquisition (SCADA) systems, Enterprise level databases. This variety of communication port allows easy and seamless vertical and horizontal integration.

When installing this compact controller, supported and recommended orientation is Horizontal. It may be directly mounted to a properly grounded mounting plate within an enclosure or with the use of a DIN rail. This controller come with a debris strip to protect the electronic circuitry from dust, dirt and conductive metal dust. Remove this debris strip when panel installation works are completed.