

Allen-Bradley 1746 1747 Series Service Manual

1763-L16BWA

1. Description

The Allen-Bradley/Rockwell Automation 1763-L16BWA controller is part of the MicroLogix 1100 series and it comes with inputs and outputs. All 10 of the digital inputs on the controller are rated for 24 Volts DC voltage and 4 of the inputs are high-speed digital inputs. The 1763-L16BWA controller also has 2 analog inputs rated at 0 to 10 Volts DC and 6 digital relay outputs that are all individually Technical specifications for 1763-L16BWA

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1763-L16BWA
Series	MicroLogix 1100
Product	Type Programmable Controller
Input	Power 120 to 240 Volts AC
Point	Count 16 Points
Digital	Inputs 24V dc sink/source (standard and high-speed)
Analog	Inputs (2) Voltage Input
Operating	Frequency 47 to 63 Herz
Analog	Voltage Range 0-10VDC
Input	Resolution 10-bit
Analog	Data Type 10-bit unsigned integer
Memory	Non-Volatile Battery Backed RAM
Analog	Resolution 10 Bit
Digital	Outputs (6) Relay
Communication	Port 1 RS-232 / 485; 1 Ethernet
UPC	10662074023032
Display	Type LCD
Dimensions	3.5 x 4.33 x 3.43 inches Description
The	1763-L16BWA MicroLogix 1100 Programmable Controller by Allen-Bradley is an industrial programmable controller with a total of fifteen (15) I/O points. It consists of Ten (10) 24VDC sinking or sourcing digital inputs, Two (2) Analog Inputs and Six (6) relay outputs. This controller requires an input power supply of 100-240VAC.

3. Product Information

The Allen-Bradley/Rockwell Automation 1763-L16BWA controller is part of the MicroLogix 1100 series and it comes with inputs and outputs. All 10 of the digital inputs on the controller are rated for 24 Volts DC voltage and 4 of the inputs are high-speed digital inputs. The 1763-L16BWA controller also has 2 analog inputs rated at 0 to 10 Volts DC and 6 digital relay outputs that are all individually Technical specifications for 1763-L16BWA

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Series MicroLogix 1100

Product Type Programmable Controller

Input Power 120 to 240 Volts AC

Point Count 16 Points

Digital Inputs 24V dc sink/source (standard and high-speed)

Analog Inputs (2) Voltage Input

Operating Frequency 47 to 63 Herz

Analog Voltage Range 0-10VDC

Input Resolution 10-bit

Analog Data Type 10-bit unsigned integer

Memory Non-Volatile Battery Backed RAM

Analog Resolution 10 Bit

Digital Outputs (6) Relay

Communication Port 1 RS-232 / 485; 1 Ethernet

UPC 10662074023032

Display Type LCD

Dimensions 3.5 x 4.33 x 3.43 inches Description

The 1763-L16BWA MicroLogix 1100 Programmable Controller by Allen-Bradley is an industrial programmable controller with a total of Eighteen (18) I/O points. It consists of Ten (10) 24VDC sinking or sourcing digital inputs, Two (2) Analog Inputs and Six (6) relay outputs. This controller requires an input power supply of 100-240VAC.

The input channel has an OFF-state voltage range between 0 and 5 Volts DC with a 1.5 mA maximum OFF state leakage current and a Nominal impedance of 3.1 k Ω . The Analog inputs are compatible for 0 to 10 VDC, with an input resolution of 10 bits. The 1763-L16BWA's analog input also has +/-0.5% full-scale non-linearity, +/-0.5% accuracy, 210 k Ω voltage impedance and a 10.5 Volt DC input voltage protection. The 1763-L16BWA's outputs are Six (6) isolated relay outputs with a 3A current per group and a maximum OFF/ON and ON/OFF response time of 10 milliseconds. The relay output has a relay contact with a rating of 1.2 MAKE current capacity, 1.0A continuous current, and 28VA make power output. Overall, the 1763-L16BWA has an inrush current of 25A for 8 milliseconds at 120 Volts AC and 10A for 4 milliseconds at 240 Volts AC with 52 VA overall power consumption. The module's ambient operational temperature ranges between -20 and 65 degrees Celsius (-4 and 149 degrees Fahrenheit) at 5 to 95% non-condensing relative humidity. It is built to withstand an operational shock of 30G and a vibration of 15G at 50 Hertz. It measures 3.5 x 4.09 x 3.43 inches and weighs approximately 2 pounds.

The Allen-Bradley 1763-L16BWA is a Programmable Logic Controller (PLC) that belongs to the MicroLogix 1100 product family. MicroLogix 1100 controllers are compact controllers ideal for use in small scale applications. It has an integrated Twelve (12) 24VDC discrete inputs Four (4) of which are High-Speed inputs, supporting sinking and wiring configuration. It is also provided with Two (2) 0-10VDC analog inputs with resolution of 10-bit and input coding of 10-bit signed integer. The outputs are made of Six (6) individually isolated relay outputs channels.

The Bradley 1763-L16BWA supports expansion modules to enhance the integrated features of the controller. This controller supports up to Four (4) expansion modules.

When wiring the analog channels of this module, recommended cable is Belden #8761. This cable is supplied with a drain wire and foil shield that must be connected to the grounding system. The analog channels support 2-wire, 3-wire and 4-Wire transmitters. This controller does not provide loop power for the analog voltage input.

The Relay output channels are designed for load Current of 10A with mechanical life of 10,000,000 cycles. It has a turn OFF and Turn ON time of 10 msec. It may be operated with a voltage range of 125VDC, 120-240VAC.

It is also used to configure expansion modules and setup operational and communication parameters.

Communication ports are RS232 / RS485 and Ethernet I/P ports. These communication ports may also be used to connect to Human Machine Interface (HMI) and Supervisory Control and Data Acquisition (SCADA).