

Allen-Bradley 1746-IB16 Manual

Brand	Allen-Bradley
Product Series	1746 1747
Product Type	Digital DC Sinking Input

Description

The Allen-Bradley 1746-IB16 is an SLC500 module that features Sixteen (16) Discrete sinking input channels. It has One (1) group of input channels and operates at nominal signal voltage of 24VDC with operating voltage range of 10-30VDC. It is compatible for use with any SLC500 chassis. Technical specifications for 1746-IB16

Manufacturer Rockwell Automation

Module Type Digital DC Sinking Input

Series SLC 500

Part Number/Catalog No. 1746-IB16

Brand Allen-Bradley

No. of Inputs 16; Sinking input

Input Voltage 24 Volts DC

Input Voltage range 10-30VDC

Input Current, nominal 8mA @24VDC

Signal Delay, ON transition 8 ms

Backplane Current 0.050 A

Thermal Dissipation per channel .20 Watts

OFF State voltage, max 5.0V DC

OFF state current, max 1 mA

Voltage Range 10-30 Volts DC Sink

Inputs 16

Backplane Current (5 Volts DC) 85 milliamps

Signal delay 8 milliseconds

Off State Current 1 milliamps

Applications General Purpose DC Inputs

I/O Connection 1746-HT and 1746-HCA

Step Response 100 milliseconds in, 2.5 milliseconds out

UPC 10662468067048

UNSPSC 32151705Description

The Allen-Bradley 1746-IB16 is a medium density DC input module that is used to interface with signal devices that delivers a signal voltage range of 10-30VDC towards each of the input channel of the module. This module features Sixteen (16) input channels, rated for nominal input voltage of 24VDC, grouped into One (1) input group, having a single common terminal. This input module is mounted to any available I/O slot of the 1746-Chassis and draws backplane current of 0.05 A @ 5VDC.

The 1746-IB16 supports sinking wiring configuration only. It can be used to interface with electrical components such as switches including limit, proximity, pushbutton devices as well as auxiliary contacts of relays, contactors and other electronic devices. Each of the input channels of the 1746-IB16 exhibits a common signal delay duration of 8 ms for both On and OFF transitions, with maximum OFF-state voltage of 5VDC and maximum OFF-state current of 1 mA while the module's nominal input current is 8 mA @ 24VDC.

The number of installation instances of the 1746-IB16 varies according to the SLC500 CPU installed. Specifically, depending on the number of I/O supported by the CPU memory. This module may also be installed locally, along the rack where the SLC 500 CPU is

installed or in a Distribute I/O chassis, along a 1746 Communication adapter such as Remote I/O (RIO) and Ethernet adapter modules. This module comes with status LED indicators that provided indications to the actuation of each of the input channels for simplified monitoring and troubleshooting. It also has a Removable Terminal Block that enables ease of termination and module replacement.

The 1746-IB16 has a maximum signal delay time of 8ms for both ON and OFF transitions while the module's maximum drop voltage of 5V DC in the OFF state. It has a maximum leakage current of 1mA and has a nominal input current of 8mA at 24V DC across the entire module.

The 1746-IB16 has a net heat dissipation of 0.22W on each input point and a total heat dissipation on the entire module is 3.6W. Its operating temperature ranges between 0 and 60 °C (32 and 140 °F) in a surrounding with 5-95% relative humidity, and when not in use, should be stored at a temperature range between -40 and 85 °C (-40 and 185 °F). The 1746-IB16 has a tested operational shock rating of 30G and is designed to withstand an operational vibration of 2.5G at 57-200 Hz operational frequency. It has a NEMA standard ICS 2-230 rated noise immunity and is UL-A196, CSA, and C-UL Class I, Division 2 Hazardous Environment-rated. It offers Electro-optical isolation tested at 1500V, between input terminals and control logic, and is UL, CSA, and CE-certified.

Technical Specifications

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