

Allen-Bradley 1746-OB32E Manual

Brand	Allen-Bradley
Product Series	1746 1747
Product Type	Digital DC Output Module

Description

The Allen-Bradley 1746-OB32E is a SLC 500 Digital DC Output Module. This Output Module has Thirty-Two (32) 24VDC, Electronically Protected output channels. It has Two (2) input groups with each group having Sixteen (16) points. It may be installed in a SLC 500 fixed or modular style hardware. Technical specifications for 1746-OB32E

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 1746-OB32

Series SLC 500

Module Type Digital DC Output Module

Outputs 32

Voltage Range 10-30 Volts DC

Current/Outputs 0.5 or 0.25 amps

No. of Outputs Thirty-Two (32)

Current/Module 8 amps

Point Per common Sixteen (16)

Backplane Current (5 Volts) 190 milliamps

Nominal output 24VDC

Current per Output 0.5-0.25 amps

Applications High Current

Backplane Current (5 Volts) 190 mA

Step Response 60 milliseconds in, 2.5 milliseconds out

Signal Delay, ON 0.1 ms

Signal Delay, OFF 1.0 ms

Electronic Protection Yes Description

The Allen-Bradley 1746-OB32E SLC 500 Digital I/O Module comes with Thirty-Two (32) outputs. The 1746-OB32E has a voltage category of 24V DC and the operating voltage range is 10-30V DC. The continuous current of this module is 4A and the backplane current consumption at 5V DC for this module is 190 mA. The backplane current consumption at 24V DC is 0 mA. The 1746-OB32E module provides electronic protection from overload conditions and short circuits. This module is equipped with color-coded removable terminal blocks. The operating temperature of the 1746-OB32E module is -13-140 deg. Fahrenheit, the nonoperating temperature of this module is from -40-185 deg. Fahrenheit, and the relative humidity is 5-95% noncondensing. The operating vibration of the 1746-OB32E is 2g at 10-500 Hz, the operating shock of this module is 30g, and the operating vibration is 2.5g at 57-2000 Hz. The terminal on this module has a self-lifting lift plate that receives two 14 AWG (2 mm²) cables. The 1746-OB32E module also provides LED indicators on the front that show the status of the input point. The status indicator lights up when the correct signal to the input terminal is applied or when the processor outputs are energized. Route the input power to the 1746-OB32E with a separate path from the cable to the I/O device.

This module function similar to the 1746-OB32 however, the integral electronic protection provides protection to short circuit and overload current conditions. The built-in protection works in accordance with the thermal cut-out. When the mentioned conditions are detected, the affected channel will automatically limit the current output within milliseconds after the set thermal cut-out has been reached. Other channels not detecting the fault conditions will function as they are built with individual detection capability. Reverse

Polarity and improper signal source wiring error protection is not included with this module. The electronic protection is not equivalent to an external electronic fuse. For this reason, proper external protection may still be and recommended for installation with this module.

This electronically protected module auto-resets when overload is detected. This must be taken into consideration as this will impact the module's safe operation state and module's operation after fault recovery. When the thermal cut-out triggered by the overload is cleared, the output module will implement the previous command. If the command is ON, the module will turn ON the connected load after error recovery. This may be unsafe or ideal in different application. For this reason, this error recovery condition must be considered.

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