

Allen-Bradley 1746 1747 Series Service Manual

1746-OB32

1. Description

The Allen-Bradley 1746-OB32 is a SLC 500 Digital DC Output Module. This Output Module has Thirty-Two (32) 24VDC 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-OB32

2. Specifications

Specification	Value
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 5-50 Volts DC
Current/Output	0.5-0.25 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
Applications	High Current
Step	Response 60 milliseconds in, 2.5 milliseconds out
Backplane	Current (5 Volts)190 mA
UPC	10662468092903
Signal	Delay, ON 0.1 ms
UNSPSC	32151705
Signal	Delay, OFF 1.0 ms
Electronic	Protection No Description
The	1746-OB32 is a 32 Channel Digital Output Module by Allen-Bradley. It is a high density low current DC output module, non-polarized, can be fitted in any available slot of 1746 Chassis except slot 0. The voltage output it provides is 24V DC. The 1746-OB32 has 32 outputs with 16 points per common and it has a sourcing operational voltage ranging between 5 and 50V DC. The 1746-OB32 module draws 0.19A of backplan

3. Product Information

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Backplane Current (5 Volts) 190 mA

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Signal Delay, ON 0.1 ms

UNSPSC 32151705

Signal Delay, OFF 1.0 ms

Electronic Protection No Description

The 1746-OB32 is a 32 Channel Digital Output Module by Allen-Bradley. It is a high density low current DC output module, compatible to be fitted in any available slot of 1746 Chassis except slot 0. The voltage output it provides is 24V DC. The 1746-OB32 has 32 outputs with 16 points per common and it has a sourcing operational voltage ranging between 5 and 50V DC. The 1746-OB32 module draws 0.19A of backplane current at 5V DC and it provides an output circuit isolation tested at 1500V AC for 1 minute. It has a maximum signal delay time of 0.1ms in ON and 1ms in OFF mode and the maximum circuit current leakage in the OFF state is 1mA. The 1746-OB32 has 0.25A at 0-60 Deg. Celsius nominal current on each output point and the minimum current load of 1mA for every output channel. The module has an average 8A nominal current and a 2A current per common. The maximum voltage loss in the circuit in the ON state is 1.2V at 0.5A and it has a surge of 1.0A for 1ms repeatable every 2s across each output point, a power dissipation of 0.172W per point, and a total module heat dissipation of 6.45W. The 1746-OB32 operating temperature range is between 9 and 60 deg. Celsius (32 and 140 deg. Fahrenheit) at 5-95% non-condensing humidity and it can withstand an operating shock and vibration of 30G and 2.5G respectively at 10-200Hz. It has a C-UL and UL Listed Industrial Control Equipment for Class I, Division 2, Groups A, B, C, D Hazardous Locations certification, and is rated at the NEMA standard ICS 2-230 Noise immunity.

The 1746-OB32 is a Thirty-Two (32) channel Discrete Input module that is manufactured by Allen-Bradley for the SLC 500 controller platform.

This module is primarily intended for energizing or actuating discrete devices such as Pilot Lamps, Buzzers, Horn, Siren and actuating devices such as solenoid, motors and other devices. The output voltage of this module is 24VDC which may be wired directly to the mentioned devices provided they are within the operating voltage range of 5-30VDC. If, output devices are not compatible with the DC output, specifically if it operates with an AC voltage, this module may still be used by implementing interposing function. With interposing, a relay with a 24VDC coil is the load connected to this module. The Normally Open (N.O) or Normally Closed (N.C.) contacts are connected to the AC voltage. In old wired systems where electrical noises are present, interposing may also be used as external module isolation. This protects the module from external damage or unwanted behavior due to poor grounding and wiring of old systems due to undocumented repairs and modification.

This module ships with a Removable Terminal Block (RTB), Octal Door label, a 32 LED light dedicated for each channel and a color-coded module bar where the part number is displayed. AN Allen-Bradley made 1746-N3 or 1492 wiring systems. These connector or wiring systems are compatible for this module to ensure proper termination and adequate wire size in used This also prevents improper wiring as it is pre-assembled and ensures that the module door is capable of covering the terminal wirings. Other wires may also be used however, large wire sizes will over occupy the front panel which will make it difficult to perform troubleshooting even, close the module door.