Allen-Bradley 1746-OW16

SLC 500 Relay Output Module

Allen-Bradley 1746-OW16 is a 16-point relay output module for the SLC 500 control platform. It switches field circuits through relay contacts, making it suitable when an existing SLC application requires AC/DC contact outputs rather than a sourcing or sinking transistor output.



Technical Specifications

Product Identity	
Manufacturer	Allen-Bradley
Catalog number	1746-OW16
Product type	SLC 500 AC/DC relay output module
Functional Configuration	
Output points	16; two groups of 8 points per common
Terminal connection	Removable terminal block
Performance & Power	
Field operating voltage	5–265V AC or 5–125V DC
Maximum resistive-load signal delay	10ms ON; 10ms OFF
Backplane current	170mA at 5V DC; 180mA at 24V DC
Maximum off-state leakage	0mA
Minimum load current	10mA at 5V DC
Module/common current limits	16A AC per module; 8A per common; each contact must also meet its voltage-dependent make/break and continuous rating
Environment	
Operating temperature	0–60°C
Operating humidity	5–95%, noncondensing

Selected original manufacturer material follows on page 3.

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Compatibility & Selection Guide

System and application compatibility. The 1746-OW16 belongs to the SLC 500 digital I/O family. Match the existing output grouping and the voltage, make/break and continuous-current requirements of each load. The sixteen-point count alone does not make a DC transistor module equivalent, and the 8A-per-common limit does not represent a per-contact rating.

Wiring & Installation Reference

Signal and terminal selection

VAC-VDC 1. Common for the first eight outputs · Match field-circuit voltage and common-group load.

VAC-VDC 2. Common for the second eight outputs · Preserve the separate eight-point grouping.

OUT 0–15. Relay contact outputs · Use each contact’s make, break and continuous ratings; group ratings are not point ratings.

Installation checks

Isolate chassis and field power. Disconnect chassis power and safely isolate the AC/DC field circuits before handling or wiring the module.

Install in the correct slot. Align with the SLC chassis card guides and slide in until the self-locking tabs engage. The first slot is reserved for the processor or 1747-ASB.

Verify common groups and wiring. Follow the 1746-OW16 terminal diagram. Maximum conductor size is 2mm² (14AWG), with no more than two wires per terminal and maximum terminal torque of 0.9N·m; secure wires and inspect before energizing.

Installation precautions. Never install, remove or wire modules with chassis power applied. Observe electrostatic-discharge and hazardous-location requirements. Use suitable suppression across external inductive loads to extend relay-contact life. Verify actual load make/break and continuous-current ratings as well as module/common limits. Some chemicals can degrade relay epoxy sealing. Inspect for deterioration and replace the module if degradation is found.

View terminal diagram (PDF) · PDF page 3 | View installation guide · PDF page 2

Manufacturer sources: SLC 500 Digital I/O Modules Installation Instructions / 1746-OW16 official Rockwell Automation product page.

Relay Contact Output Modules Wiring Diagrams

1746-OW4, 1746-OW8, 1746-OW16





