Allen-Bradley 1746-OB16E

SLC 500 Protected DC Output Module

Allen-Bradley 1746-OB16E is the electronically protected, 16-point sourcing DC output module for an SLC 500 control system. It switches DC field loads from processor output commands and limits current on an overloaded channel while other channels continue following the processor.



Technical Specifications

Product Identity	
Manufacturer	Allen-Bradley
Catalog number	1746-OB16E
Product type	SLC 500 electronically protected sourcing DC output module
Functional Configuration	
Output points	16; 16 points per common
Protection behavior	Thermal current limiting with automatic reset; E-FUSE LED
Programming ID code	2920
Terminal connection	Removable terminal block
Performance & Power	
Field operating voltage	10–30V DC, sourcing
Continuous current per point	1.0A at 30°C; 0.50A at 60°C
Maximum continuous module current	8.0A at 0–60°C; also observe each-point limit
Backplane current	135mA at 5V DC; 0mA at 24V DC
Maximum resistive-load delay	1.0ms ON; 1.0ms OFF
Maximum off-state leakage	1mA
Minimum load current	1mA
Maximum on-state voltage drop	1.0V at 0.50A
Environment	
Operating temperature	0–60°C

Selected original manufacturer material follows on page 3.

Compatibility & Selection Guide

System and configuration compatibility. Configure the 1746-OB16E in the SLC 500 system using module ID code 2920. Series B and later provide fast turn-off behavior for inductive loads; verify the installed hardware series and existing output application before replacement. The electronic protection automatically resets after cooling and does not replace required circuit protection.

Wiring & Installation Reference

Signal and terminal selection

VDC / DC COM. External DC supply and return · Use 10–30V DC; do not reverse polarity or connect AC.

OUT 0–15. Sixteen sourcing output points · Observe per-point temperature derating and the 8A module total.

E-FUSE indicator. Overload/short-circuit indication · Auto-reset can restore commanded output after cooling.

Installation checks

Isolate power. Remove chassis power and safely isolate field loads before insertion, removal or wiring.

Seat and secure the module. Align the board with the SLC chassis guide and slide it in until the retaining tabs lock. The first chassis slot is reserved for the processor or 1747-ASB.

Wire and verify protection. Use the exact terminal diagram; maximum 2mm² (14AWG), two wires per terminal and 0.9N·m terminal torque. Secure cables, confirm ID2920 and check safe output behavior before restoring power.

Installation precautions. Electronic protection does not protect reverse polarity or AC wiring and does not replace code-required fuses/circuit breakers. Account for thermal auto-reset under an unresolved overload. A transient output pulse can occur when external DC power reaches the common terminals, even if the processor is unpowered. Assess loads for inadvertent operation. Use a suitable industrial enclosure and electrostatic-discharge protection. Never install, remove or wire modules with chassis power applied.

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

Manufacturer sources: SLC 500 Digital I/O Modules Installation Instructions / 1746-OB16E official Rockwell Automation product page.

1746-OB8, 1746-OBP8, 1746-OB16, 1746-OB16E, 1746-OBP16





