Allen-Bradley 1769-OB16

Allen-Bradley 1769-OB16 Compact I/O Output Module User Manual

Model: 1769-OB16 Series B

1. Introduction

This manual provides essential information for the installation, operation, and maintenance of the Allen-Bradley 1769-OB16 Compact I/O Output Module. It is intended for qualified personnel responsible for the integration and servicing of industrial control systems.

The 1769-OB16 is a 16-point DC output module designed for use with Allen-Bradley CompactLogix and MicroLogix 1500 controllers. It provides reliable digital output control for various industrial applications.

2. Safety Information

WARNING: To prevent electric shock or damage to equipment, disconnect power before installing or removing modules.

Observe all local and national electrical codes. Installation and maintenance should only be performed by qualified personnel.

3. Product Overview

The Allen-Bradley 1769-OB16 is a Compact I/O 16-point DC output module. It features 16 sourcing outputs and is designed for robust industrial environments.

Figure 3.1: Front view of the 1769-OB16 module, showing the output terminals and status indicators.

Figure 3.2: Side view of the 1769-OB16 module, illustrating its compact design.

Figure 3.3: Internal view of the 1769-OB16 module, showing the circuit board and connectors.

Figure 3.4: Bottom view of the 1769-OB16 module, highlighting the mounting clips.

Figure 3.5: Product label for the 1769-OB16 module, detailing electrical ratings and certifications. Key information includes: CAT 1769-OB16, SER B, BUS CURRENT DRAW 5VDC 0.2A, 24VDC 0A, MAX CONT AMPS/PT 1.0A @ 30°C, 0.5A @ 60°C, MAX CONT AMPS/COM 8A @ 30°C, 4A @ 60°C, SURGE = 2A MAX. FOR 10ms EVERY 2 SEC. The code 217M7RH8OD is also visible. More information on Rockwell Automation website.

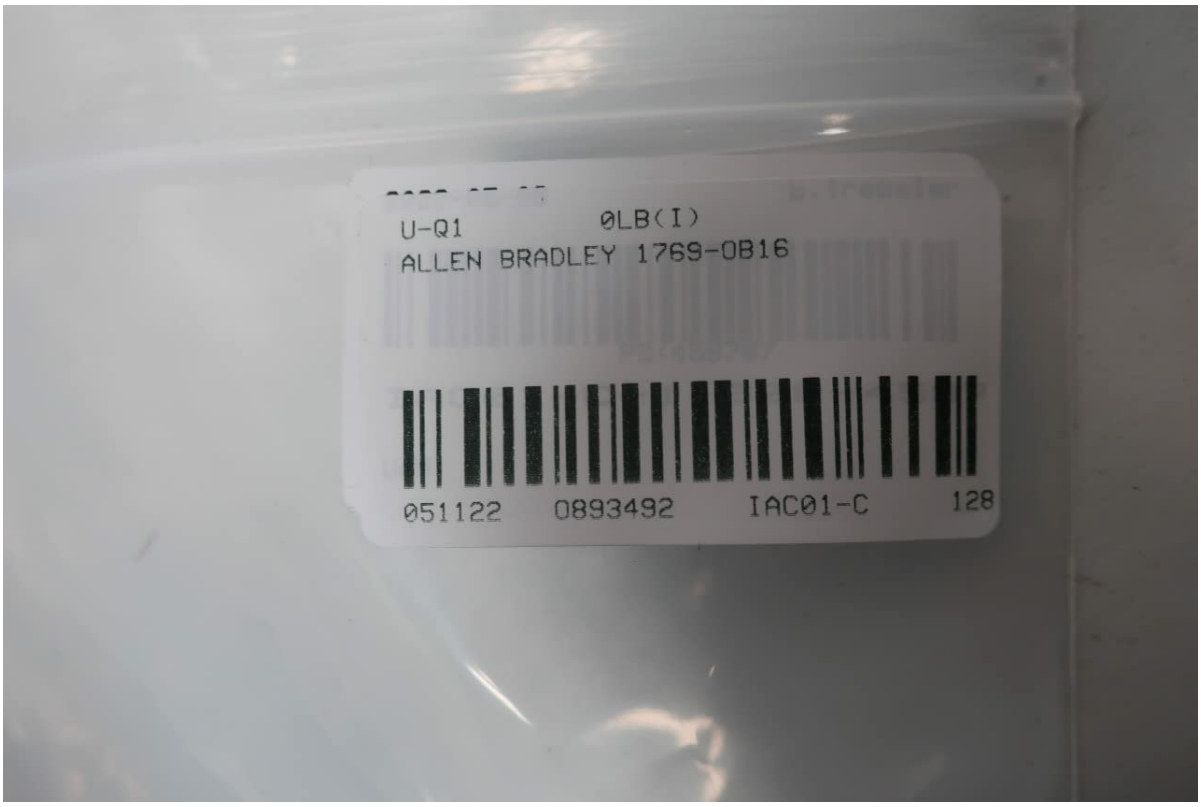


Figure 3.6: Packaging label for the Allen-Bradley 1769-OB16 module, showing part number and barcode. The barcode number is 0893492.

4. Setup and Installation

4.1 Mounting the Module

1. Ensure all power to the CompactLogix or MicroLogix 1500 system is disconnected.
2. Align the module with the adjacent module or controller on the DIN rail.
3. Slide the module into place until it clicks securely into the bus connector.
4. Secure the module to the DIN rail using the integrated locking tabs.

4.2 Wiring the Outputs

The 1769-OB16 module provides 16 sourcing DC outputs. Refer to the terminal block diagram on the module for correct wiring connections.

- Connect the 24V DC source to the appropriate power terminals.
- Connect the load devices to the output terminals (0-15) and the common return.
- Ensure all connections are secure and properly insulated.

Note: *For detailed wiring diagrams, consult the CompactLogix or MicroLogix 1500 system user manual.*

5. Operating Instructions

5.1 Power Up

After installation and wiring are complete, apply power to the CompactLogix or MicroLogix 1500 system. The module's status indicators will illuminate to show operational status.

5.2 Programming Outputs

The 1769-OB16 module outputs are controlled via the programming software (e.g., RSLogix 5000 or RSLogix 500) associated with your controller. Each output point corresponds to a specific address in the controller's I/O map.

- Refer to your controller's programming manual for details on configuring I/O modules.
- Assign output addresses to control specific devices.
- Monitor output status through the programming software or the module's LED indicators.

6. Maintenance

The 1769-OB16 module is designed for minimal maintenance. Regular inspections are recommended to ensure optimal performance.

6.1 Routine Checks

- Visually inspect the module for any signs of damage, discoloration, or loose connections.
- Ensure proper ventilation around the module to prevent overheating.
- Verify that all wiring connections are secure.

6.2 Cleaning

If cleaning is necessary, disconnect power to the module and use a soft, dry, lint-free cloth. Do not use solvents or abrasive cleaners.

7. Troubleshooting

This section provides basic troubleshooting steps for common issues.

Problem	Possible Cause	Solution
Module not powering on	No power to the system; incorrect module seating; faulty power supply.	Verify system power; re-seat the module; check power supply.
Output not activating	Incorrect wiring; faulty load device; programming error; module fault.	Check wiring connections; test load device; verify PLC program logic; check module diagnostics.
Module fault indicator active	Internal module error; overcurrent/short circuit on an output.	Consult controller diagnostics for fault codes; inspect output wiring for shorts; replace module if necessary.

8. Specifications

Parameter	Value
Model Number	1769-OB16
Series	B
Output Type	DC Sourcing
Number of Outputs	16
Operating Voltage Range	20.4-26.4V DC
Max Continuous Current per Point	1.0A @ 30°C, 0.5A @ 60°C
Max Continuous Current per Common	8A @ 30°C, 4A @ 60°C
Bus Current Draw (5V DC)	0.2A
Bus Current Draw (24V DC)	0A
Dimensions (H x W x D)	5.25 x 3.5 x 2.25 inches (approximate)
Weight	1.5 Pounds (approximate)
Operating Temperature	0°C to +60°C
Certifications	CE, EAC, cULus Listed (IND. CONT. EQ. FOR HAZ. LOC. TEMP CODE T3C CLASS I DIV 2 GP A,B,C,D)

9. Warranty and Support

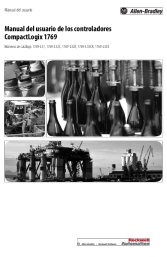
For warranty information and technical support, please refer to the official Allen-Bradley or Rockwell Automation website, or contact your authorized distributor.

Rockwell Automation Contact Information:

- **Website:** www.rockwellautomation.com
- **Support:** Refer to the "Support" section on their website for regional contact details and knowledge base.

When contacting support, please have your module's model number (1769-OB16) and serial number (if applicable) ready.

Related Documents - 1769-OB16

	Rockwell Automation Allen-Bradley Compact I/O Expansion Power Supplies Installation Guide Installation guide and technical specifications for Rockwell Automation's Allen-Bradley Compact I/O Expansion Power Supplies (1769 series). Covers assembly, wiring, power, safety, and mounting for industrial automation systems.
	Allen-Bradley 1762-OB16 Solid State 24V DC Source Output Module Installation Instructions Detailed installation instructions for the Allen-Bradley 1762-OB16 Solid State 24V DC Source Output Module. Covers product description, mounting procedures, field wiring, I/O memory mapping, specifications, hazardous location approvals, and Rockwell Automation support.
	Manual del Usuario de los Controladores CompactLogix 1769 Guía completa para la instalación, configuración, programación y operación de los controladores CompactLogix 1769 de Allen-Bradley. Incluye detalles sobre comunicación, E/S, y desarrollo de aplicaciones.
	MicroLogix 1200 Isolated Relay Output Module Installation Instructions Installation instructions and specifications for the Allen-Bradley MicroLogix 1200 Isolated Relay Output Module (Catalog Number 1762-OX6I), covering mounting, wiring, and hazardous location considerations.

	[Logix 5000 Controllers Structured Text Programming Manual] This manual guides users on programming Rockwell Automation's Logix 5000 controllers using the Structured Text programming language within the Studio 5000 environment. It covers syntax, expressions, instructions, and constructs essential for developing control system logic.
	[Compact 5000 I/O Digital 16-point Relay Output Module Installation Instructions] This document provides installation instructions for the Compact 5000 I/O Digital 16-point Relay Output Module (Catalog Number 5069-OW16). It covers system requirements, component installation, wiring diagrams, and safety considerations for this industrial automation module.