

ControlLogix Remote I/O Communication Module

Catalog Number 1756-RIO



The 1756-RIO Module-Getting Started

Introduction

This document is a user's guide for the 1756-RIO module. The module lets Rockwell Automation ControlLogix controllers communicate with remote I/O over the backplane or over a remote network. This chapter describes the ControlLogix 1756-RIO module and how it links a ControlLogix controller to the Universal Remote I/O network.

This chapter also describes the module's physical features, software requirements, software and add-on profile installation instructions, and RSLogix 5000 project setup.

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The 1756-RIO module:

- supports native RIO 16-bit words for data, control, and status bits.
- acts as a scanner on a Remote I/O network.
- acts as an adapter that exchanges data on a Remote I/O network.
- supports discrete data and block transfer data in either mode.
- supports up to 10 produced/consumed data connections (along the backplane between the ControlLogix controller and the 1756-RIO module) with 248 words of integer input and 248 words of integer output for each connection.
- uses produced/consumed connections using a 1756-RIO add-on profile in RSLogix 5000 programming software.
- supports requested packet intervals (RPIS) from 2...750 ms. All connections use one set RPI.
- maps all discrete and block transfer data into produced/consumed connections.
- monitors existing I/O in adapter mode (Monitor mode). It can report all existing inputs and outputs, discrete and block transfer module data to the ControlLogix controller.

The following modules are supported by the 1756-RIO module.

Supported Modules

I/O Family	Cat. No.
1746 SLC	<ul style="list-style-type: none">• 1746-N14• 1746-N18• 1746-N04V• 1746-NT4
1771 PLC-5	<ul style="list-style-type: none">• 1771-DE• 1771-IFE-16CH (in single-ended 16 Channel configuration)• 1771-IFE-8CH (in differential 8 Channel configuration)• 1771-IL-Alarms• 1771-IL• 1771-IR• 1771-IXE• 1771-NIV-Alarms• 1771-NIV• 1771-NOC-noBTR• 1771-NOC• 1771-NOV-noBTR• 1771-NOV• 1771-NR• 1771-OFE-diag• 1771-OFE
1794 FLEX	<ul style="list-style-type: none">• 1794-IE4XOE2• 1794-IE8• 1794-0E4

See [Appendix C](#) for additional information.

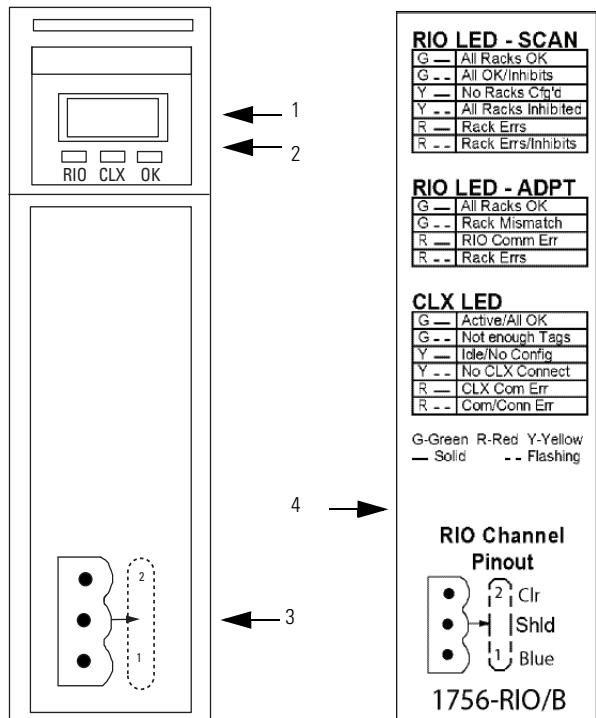
1756-RIO Module Components

The 1756-RIO module components include a 4-character display, status indicators, an RTB connection, and an inside-door label.

1756-RIO/B Module

Note that the 3-pin connector has been changed.

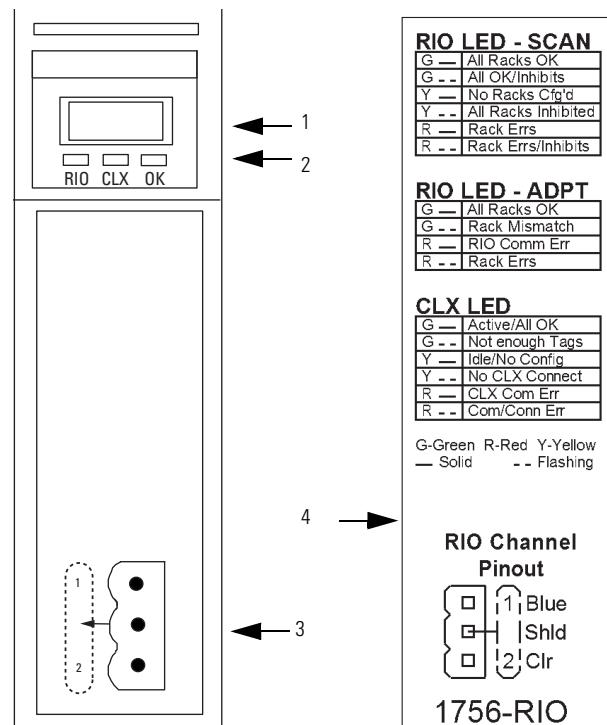
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43161

1756-RIO/A Module

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43161A

Item	Description
1	4-character scrolling display
2	Three status indicators <ul style="list-style-type: none">• RIO indicates the status of the network• CLX indicates the status of the connection to the controller• OK indicates the module's own internal state
3	3-pin connector (blue hose) that connects to the remote devices This is also known as the removable terminal block (RTB).
4	Inside-door label with error codes