

# Link a ControlLogix controller to a Universal Remote I/O network

ControlLogix Remote I/O Module – 1756-RIO

Rockwell Automation® has launched the ControlLogix™ Remote I/O Module (1756-RIO) for use by existing Allen-Bradley® PLC-5® and/or PLC-3® controller customers who want to migrate to the ControlLogix platform but still use their current Remote I/O network. The 1756-RIO module lets ControlLogix controllers communicate with PLC-3, PLC-5, SLC™, 1747 and 1771 platforms over a Remote I/O network.

The 1756-RIO module is an ideal solution for “phased” migrations. Its design provides similar network performance as compared to that of the existing control system, and it lets you easily network the ControlLogix platform with PLC-5, PLC-3, SLC and 1771 I/O racks over an existing Remote I/O network. Because you can configure the module as either a scanner or an adapter, you now have the flexibility to plan migrations to begin with the master rack or with the remote I/O racks.



## Use the Module as an RIO Scanner or Adapter

- Use it in scanner mode to scan for remote I/O module data
- Use it in adapter mode in either of the following ways:
  - Set it to behave as one or more racks of I/O so that a scanner such as a PLC-5, PLC-3 or SLC controller can exchange discrete data or block transfers.
  - Set it to act as a monitor so that it can monitor racks on a remote network. The module listens to the remote I/O and provides all of the inputs and outputs from the existing module to the ControlLogix controller so that you can then run your converted logic against those inputs, generate temporary outputs and compare the existing outputs with outputs generated by the new logic. Doing so lets you troubleshoot a system prior to completing the migration to the ControlLogix platform.

The module requires RSLogix™ 5000 software version 17 or later and the associated controller firmware, along with RSLinx® software version 2.54 or later. The Add-On Profile for the 1756-RIO is included on the CD provided with the module.

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## Capabilities

The 1756-RIO module:

- acts as a scanner on a remote I/O network
- acts as an adapter that exchanges data on a remote I/O network
- supports native RIO 16-bit words for data, control and status bits
- supports discrete data and block transfers in either mode
- supports as many as 10 produced/consumed data connections (along the backplane between the ControlLogix controller and the 1756-RIO module) with 248 words of input and 248 words of output for each connection
- uses produced/consumed connections using a 1756-RIO Add-On Profile in RSLogix 5000 software
- supports Requested Packet Intervals (RPis) from two to 750 ms.
- maps all discrete and block transfer data into the produced/consumed connections

## Specifications

Catalog Number	1756-RIO
Module location	1756 ControlLogix chassis
Power dissipation, max	4 W
Backplane current, max	675mA @ +5.1V DC 5 mA @ 24V DC
Isolation voltage	30V (continuous), Basic insulation type
Enclosure type rating	None (open-style)
Operating temperature	0° to 60° C (32° to 140° F)
Baud rate	57.6K, 115K or 230K
RIO channel	One per module
Screw terminal torque	0.5...0.6 N · m (7 lb · in.)
Wire size	0.519 mm <sup>2</sup> (20 AWG)
Wire type	Belden 9463 Twinaxial



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