Installation Instructions

Original Instructions

Allen-Bradley
by **ROCKWELL AUTOMATION**

1756 EtherNet/IP Communication Module

Catalog Number 1756-EN2T, 1756-EN2TK, 1756-EN2TP, 1756-EN2TPK, 1756-EN2TPXT, 1756-EN2TR, 1756-EN2TRK, 1756-EN2TRXT, 1756-EN2TXT, 1756-EN3TR, 1756-EN3TRK, 1756-EN4TR, 1756-EN4TRK, 1756-EN4TRXT

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated UK and European Hazardous Location Approval	4
Updated Special Conditions for Safe Use	4
Updated IEC Hazardous Location Approval	4

Rockwell Automation

3. Determine module slot location.
4. Install the module.
   a. Align the circuit board with top and bottom guides in the chassis.
   b. Slide the module into the chassis.

   Make sure that the module backplane connector properly connects to the chassis backplane. The module is properly installed when it is flush with the power supply or other installed modules.
5. Connect the module to an EtherNet/IP network via an RJ45 connection.

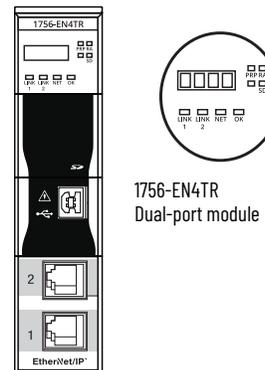| Connector Number	Color	1585J 8-pin Cables with Support for 10/100/1000 Mbps	1585J 8-pin Cables with Support for 10/100 Mbps	1585J 4-pin Cables with Support for 10/100 Mbps
1	White/Orange	BI_DA+	TxData +	
2	Orange	BI_DA-	TxData -	
3	White/Green	BI_DB+	Recv Data +	
4	Blue	BI_DC+	Unused	N/A
5	White/Blue	BI_DC-	Unused	N/A
6	Green	BI_DB-	Recv Data -	
7	White/Brown	BI_DD+	Unused	N/A
8	Brown	BI_DD-	Unused	N/A

6. Attach the cable with the RJ45 connector to the Ethernet port on the module as shown.

Single-port module

Dual-port module
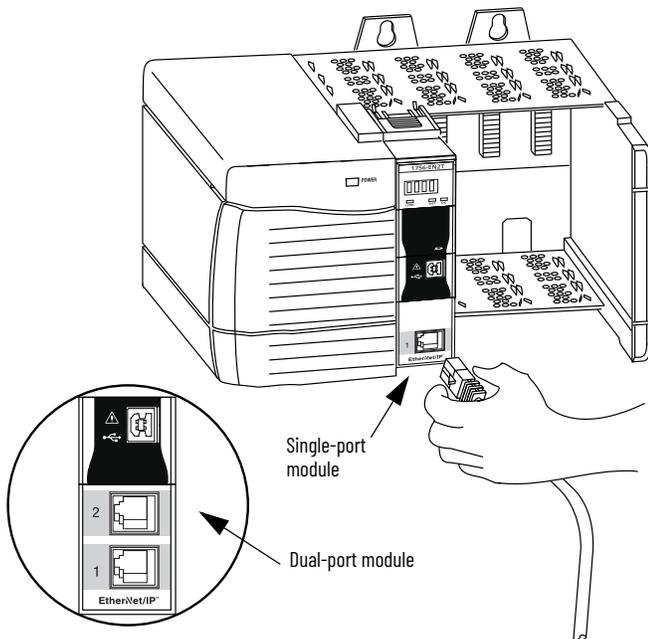
7. Download the Add-on Profile from the Product Compatibility and Download website at rok.auto/pcdc.
8. Connect to the module via the USB port (if the module is equipped with a USB port).
9. Download the firmware from the Product Compatibility and Download website at rok.auto/pcdc.
10. Apply chassis power and check status indicators.

Status Indicators

These 1756 EtherNet/IP communication modules feature the same status indicators. This graphic shows the front of each of these modules. (Extended-temperature modules are not shown.)

Single-port module

Dual-port module

Parallel Redundancy Protocol Dual-port module

1756-EN4TR Dual-port module

For more information on the status indicators, see the *ControlLogix EtherNet/IP Network Devices User Manual*, publication 1756-UM004.
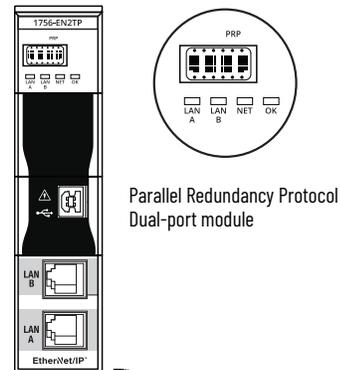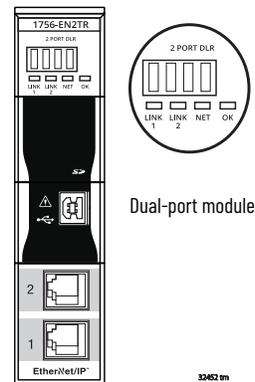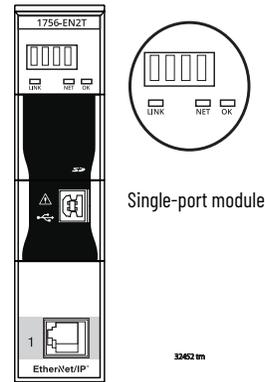
Specifications

Attribute	1756-EN2T, 1756-EN2TK, 1756-EN2TP, 1756-EN2TPK, 1756-EN2TR, 1756-EN2TRK, 1756-EN3TR, 1756-EN3TRK	1756-EN4TR, 1756-EN4TRK	1756-EN2TXT, 1756-EN2TRXT, 1756-EN2TPXT	1756-EN4TRXT
Voltage and current ratings	5.1V DC, 1 A	5.1V DC, 1.2 A	5.1V DC, 1 A	5.1V DC, 1.2 A
Temperature, operating • IEC 60068-2-1 (Test Ad, Operating Cold) • IEC 60068-2-2 (Test Bd, Operating Dry Heat) • IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0 ≤ Ta ≤ +60 °C (+32 ≤ Ta ≤ +140 °F)		-25 ≤Ta ≤ +70 °C (-13 ≤ Ta ≤ +158 °F)	
Temperature, surrounding air	60 °C (140 °F)		70 °C (158 °F)	
Corrosive Atmosphere[1] • ASTM B845-97 Method H Accelerated Test (20-Day Exposure)	Severity Level G3[2] per ANSI/ISA 71.04-2013, Airborne Contaminants - Gases Severity Level CX[2][3] per IEC 60721-3-3:2019, Chemically Active Substances			
Enclosure type rating	None (open-style)			
Isolation voltage	30V (continuous), Basic Insulation Type, Ethernet to Backplane, USB to Backplane, and USB to Ethernet Type tested at 860V AC for 60 s			
Wire size	Ethernet connections: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.
Temperature code	T4			

(1) Only applicable to modules that end with a "K" or "XT".
(2) Port Plugs must remain installed in unused ports at all times during storage and operation for the product to meet its corrosive atmosphere rating.
(3) Up to 9.6 microns per year, corrosion rate of copper.

Additional Resources

These resources contain information about related products from Rockwell Automation.

Resource	Description
Ethernet Design Considerations Reference Manual, publication ENET-RM002	Provides details about how to use EtherNet/IP communication modules with Logix 5000™ controllers and communicate with other devices on the EtherNet/IP network.
EtherNet/IP Network Devices, publication ENET-UM006.	Describes how you can use EtherNet/IP communication modules with your Logix 5000 controller and communicate with various devices on the Ethernet network.
EtherNet/IP Secure Communication User Manual, publication ENET-UM003	Provides information on system architecture, configuring secure communication, and diagnostics.
ControlLogix EtherNet/IP Network Devices User Manual, publication 1756-UM004	Describes how you can use ControlLogix EtherNet/IP communication modules with a Logix 5000 controller and communicate with various devices on the Ethernet/IP network.
EtherNet/IP Device Level Ring Application Technique, publication ENET-AT007.	Provides details about how to install, configure, and maintain linear and Device Level Ring (DLR) networks by using Rockwell Automation EtherNet/IP devices that are equipped with embedded switch technology.
EtherNet/IP Media Planning and Installation Manual, available from the Open DeviceNet® Vendor Association (ODVA) at http://www.odva.org	Provides details about how to use the required media components and provides information on how to plan for, install, verify, troubleshoot, and certify your EtherNet/IP network.

You can view or download publications at rok.auto/literature.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

Documentation Feedback

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

Waste Electrical and Electronic Equipment (WEEE)

At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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