

# Allen-Bradley 1756 Series Service Manual

1756-ENET

## 1. Description

Mfr. Part Number:

## 2. Specifications

| Specification | Value                                                                                                                                                                                       |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer  | Rockwell Automation                                                                                                                                                                         |
| Slot          | Width 1-slot                                                                                                                                                                                |
| Part          | Number/Catalog No. 1756-ENET                                                                                                                                                                |
| Brand         | Allen-Bradley                                                                                                                                                                               |
| Communication | Port: One (1) Ethernet; One (1) AUI Port                                                                                                                                                    |
| Ethernet      | Data Transfer speed: 10 Mbps                                                                                                                                                                |
| Supported     | topologies: Linear                                                                                                                                                                          |
| Supported     | functions: Scanner / Adapter; Messaging                                                                                                                                                     |
| Compatible    | Chassis: Series A and B: 1756-A4, -A7, -A10, -A13 Chassis                                                                                                                                   |
| Compatible    | Power Supply: 1756-PA72 and 1756-PB72                                                                                                                                                       |
| Module        | LEDs: TXD; RXD; OK                                                                                                                                                                          |
| Backplane     | current consumption: 350 mA                                                                                                                                                                 |
| Product       | Lifecycle: Discontinued                                                                                                                                                                     |
| Series        | ControlLogix                                                                                                                                                                                |
| Module        | Type Ethernet Communication Module                                                                                                                                                          |
| Location      | Chassis (Any Slot)                                                                                                                                                                          |
| Backplane     | Current (5.1 Volts DC) 900 milliamps                                                                                                                                                        |
| Backplane     | Current (24 Volts DC) 350 milliamps                                                                                                                                                         |
| Power         | Dissipation (Max) 13.3 Watts                                                                                                                                                                |
| Operating     | Temperature 32-140 Fahrenheit, 0-60 Celsius                                                                                                                                                 |
| Enclosure     | Open                                                                                                                                                                                        |
| UPC           | 10612598139436 Description                                                                                                                                                                  |
| The           | Allen-Bradley 1756-ENET is a ControlLogix communication module. It is an EtherNet/IP (Ethernet Industrial Protocol) interface communication module. It has been discontinued by the company |

## 3. Product Information

Mfr. Part Number:

1756-ENET

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen Bradley 1756-ENET ControlLogix EtherNet/IP Bridge Module, Twisted Pair

Full Description: Allen-Bradley 1756-ENET ControlLogix EtherNet Bridge Module, 10 Mbps (half-duplex), Twisted Pair

The 1756-ENET is a ControlLogix Ethernet communication module from Allen-Bradley. This module is part of the ControlLogix platform which supports a variety of functions such as scanner and adapter mode for control of realtime I/O data, optimized messaging as well as Common Industrial Protocol (CIP). This module has one (1) 10-BaseT Ethernet interface and one (1) AUI Ethernet Technical specifications for 1756-ENET

Manufacturer Rockwell Automation

Slot Width 1-slot

Part Number/Catalog No. 1756-ENET

Brand Allen-Bradley

Communication Port: One (1) Ethernet; One (1) AUI Port

Ethernet Data Transfer speed: 10 Mbps

Supported topologies: Linear

Supported functions: Scanner / Adapter; Messaging

Compatible Chassis: Series A and B: 1756-A4, -A7, -A10, -A13 Chassis

Compatible Power Supply: 1756-PA72 and 1756-PB72

Module LEDs: TXD; RXD; OK

Backplane current consumption: 350 mA

Product Lifecycle: Discontinued

Series ControlLogix

Module Type Ethernet Communication Module

Location Chassis (Any Slot)

Backplane Current (5.1 Volts DC) 900 milliamps

Backplane Current (24 Volts DC) 350 milliamps

Power Dissipation (Max) 13.3 Watts

Operating Temperature 32-140 Fahrenheit, 0-60 Celsius

Enclosure Open

UPC 10612598139436 Description

[www.oilautotech.com](http://www.oilautotech.com)

The Allen-Bradley 1756-ENET is a ControlLogix communication module. It is an EtherNet/IP (Ethernet Industrial Protocol) interface communication module. It has been discontinued by the company and replaced with new model number 1756-ENBT with the same specification. It supports general messaging, real-time I/O messaging, and the information exchange for applications like real-time control, time synchronization, and motion. The 1756-ENET also meets the CIP safety standard by allowing simultaneous transfer of safety and control data and diagnostics information. It uses advanced communication chips and physical media. The 1756-ENET Module has 100 Mbps EtherNet/IP communication rates and uses copper wire. It supports 128 Logix and 64 TCP/IP communication connections. It can support a maximum of 8 axes for integrated motion on the Ethernet/IP Network. It draws a 700 mA current at 5.1V DC and 3 mA at 24V DC. It has a maximum power dissipation of 3.7 W and thermal dissipation of 12.6 BTU/hr. It can be installed in any slot in the ControlLogix Chassis. For wiring, it uses unshielded RJ45, category 5, twisted-pair cable connectors to interface with the controller. To operate an EtherNet/IP network, parameters such as IP address, Subnet mask, Gateway etc., must be defined. The 1756-ENET bridge has various functions like providing support for messaging, distributed I/O, and tags. It encapsulates messages within standard TCP/IP protocol. ControlNet and DeviceNet network protocols allow it to share a common application layer. It does not require any scheduling or routing table to store information. Other features include explicit protected mode, electronic keying, device level ring network, and parallel redundancy protocol network support.

The 1756-ENET is an Ethernet communication interface from Allen-Bradley. This module is part of the ControlLogix platform. It is one of the first generation ControlLogix modules that is declared discontinued by the manufacturer in December 2020. This module comes with one (1) RJ-45 interface that supports Ethernet protocol and one (1) AUI port used for module maintenance and localized configuration.

The 1756-ENET is a single slot module therefore it occupies a single slot of the chassis. It is compatible for installation in Series A and Series B ControlLogix chassis particularly 1756-A4, -A7, -A10, -A13 as well as Series A and Series B power supplies such as 1756-PA72 and 1756-PB72 power supply.

The 1756-ENET may be configured to act as a scanner or adapter module. It may be used in Ethernet based distributed I/O configuration, allowing real-time control of I/O data. It also supports optimized rack configuration as well as perform I/O messaging. It is also compatible with Common Industrial Protocol (CIP) system protocol.

It also has front panel LED indicators such as RXD and TXD LED, intended for monitoring of received and transmitted data and a module OK LED for monitoring of the overall status of the module. The module's MAC address is printed on the module's front panel which may be viewed by flipping the module swing door.