

Allen-Bradley 1756 Series Service Manual

1756HP-TIME

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1756-TIME
Series	ControlLogix
Clamp	Type Spring-Clamp
Module	Type Time Synchronization Module
Pins	20-Pin Connection
Status	Indicators PPS, SYNCH, OK
Weight	0.3 pounds (0.1 kilograms)
Built-in	communication ports Ethernet, IRIG-B and Antenna
Technology	Global Positioning System (GPS)
Backplane	Current (5Volts) 1,200 milliamps
Backplane	Current (24 Volts) 2.5 milliamps
Power	Dissipation (Max) 6.19 Watts
Voltage	and Current Rating Backplane: 1.01A @ 5.1V DC, 2.64 mA @ 1.2 V DC
Wire	Size 20 AWG
Isolation	voltage 30V (continuous), Basic Insulation Type Type tested at 1000V AC for 60 s • Ethernet Ports to Backplane • IRIG-B to Backplane
Dimensions	5.51 x 4.41 x 5.71 inches
Enclosure	type rating None (Open)
Operating	Temperature 32-140 Fahrenheit (0-60 Celsius)
Enclosure	None
Slot	Width 1 Description
The	Allen-Bradley 1756-TIME is a ControlLogix time synchronization module that uses GPS technology to provide accurat

3. Product Information

Mfr. Part Number:

1756HP-TIME

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Hiprom 1756HP-TIME ControlLogix GPS Position and Time Services Module

Full Description: Hiprom 1756HP-TIME ControlLogix Time Synchronization Module, provides accurate time synchronization on different interfaces by using Global Positioning System (GPS) technology. The Allen-Bradley 1756-TIME is a ControlLogix Time Synchronization module. This module provides a synchronized and accurate time with the use of Global Positioning System (GPS). It is directly installed to a ControlLogix chassis and occupies a single slot. It has an integrated Ethernet, IRIG-B and Antenna connection terminals. Technical specifications for 1756-TIME

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Slot Width 1 Description

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The Allen-Bradley 1756-TIME is a ControlLogix time synchronization module that uses GPS technology to provide accurate time synchronization on different interfaces. The different protocols and standards for synchronization includes the Inter-range Instrumentation Group Code B (IRIG-B) standards, PTP (Precision Time Protocol) on Ethernet and the ControlLogix backplane, Network Time Protocol (NTP) over Ethernet, and ControlLogix backplane for CST (Coordinated System Time) and UTC (Coordinated Universal Time) conversion.

The 1756-TIME Synchronization Module is powered through the ControlLogix backplane. Its status indicators provide device status and operational information. It has Ethernet connectors 1 and 2 that use the Rockwell Automation dual-port switch technology. It has an Antenna SMA connector that connects to the GPS bullet antenna. It also comes with an IRIG-B BNC type connector that links to the IRIG-B network where the module can be configured to become a master or slave clock.

Configure and operate the 1756-TIME with the Studio 5000 Logix Designer application. Upon setup, the initial IP address is set using the BOOTP/DHCP server.

The 1756-TIME is an Allen-Bradley module that is compatible for installation to any slot of 1756 ControlLogix Chassis. The primary intended function of this module is to provide synchronized and accurate time across the network, including the hardware and devices connected to it.

This module is critical for implementing an accurate time base in generating reports, triggering events, capturing timestamps, and troubleshooting. It also provides an accurate and coordinated time reference for data analysis and investigation when abnormal occurrences are encountered. This module is ideal for use in a control network with multiple connected devices.

It features an integrated Ethernet communication port for device and network interface, IRIG-B connection port and Antenna terminal for connection to the Global Positioning System (GPS) network.

This module is equipped with status indicators such as PPS indicator for depicting time source locked status. The SPS indicator is toggled every second for 100 ms. The SYNC LED is also used to indicate if the module is locked to a time source. The OK LED depicts if the module has started properly or if hardware fault is present.