

Allen-Bradley 1756 Series Service Manual

1756-M08SE

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Enclosure	None
Power	Dissipation 5.0 Watts
Backplane	Current (24Volts) 2.5 milliamps
Backplane	Current (5Volts) 760 milliamps
Module	Type SERCOS Interface Module
Series	ControlLogix
Part	Number/Catalog No. 1756-M08SE
Brand	Allen-Bradley
Supported	Data Rates 4 Mbps; 8 Mbps
SERCOS	cycle time @ 4 Mbps 0.5 ms, up to 2 drives 1 ms, up to 4 drives 2 ms, up to 8 drives
SERCOS	cycle time @ 8 Mbps 0.5 ms, up to 4 drives 1 ms, up to 8 drives 2 ms, up to 16 drives
Compatible	Chassis 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17
Compatible	Power Supply, Standard 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756- A17 Power supply, standard 1756-PA72/C, 1756- PA75/B, 1756-PB72/C, 1756-PB75/B, 1756- PC75/B, 1756-PH75/B
Compatible	Power Supply, Redundant 1756-PA75R, 1756-PB75R, 1756-PSCA2
Drive	Control Modes Position, velocity, and torque
Axes	per Module 8
Axes	per Controller 32
SERCOS	Data Rate 4 or 8 Megabits-Second
Current	Draw (5.1 Volts) 1.2 amps
Thermal	Dissipation 21.

3. Product Information

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Mfr. Part Number:

1756-M08SE

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen-Bradley 1756-M08SE ControlLogix 8 Axis SERCOS Servo Module

Full Description: Allen-Bradley 1756-M08SE ControlLogix 8 Axis SERCOS Servo Module, SERCOS Data Rate: 4 Mbps or 8 Mbps per second The Allen-Bradley 1756-M08SE is a ControlLogix Servo Interface Module. This module supports up to Eight (8) drives with SERCOS data rate of 4 Mbps and 8 Mbps. This module supports Position, velocity, and torque drive control modes and compatible with 2093 Kinetix 2000 multi-axis servo drive, 2094 Kinetix 6000 multi-axis servo drive, 2099 Kinetix 7000 high-power servo drive and 2098 Technical specifications for 1756-M08SE

Manufacturer Rockwell Automation

Enclosure None

Power Dissipation 5.0 Watts

Backplane Current (24Volts) 2.5 milliamps

Backplane Current (5Volts) 760 milliamps

Module Type SERCOS Interface Module

Series ControlLogix

Part Number/Catalog No. 1756-M08SE

Brand Allen-Bradley

Supported Data Rates 4 Mbps; 8 Mbps

SERCOS cycle time @ 4 Mbps 0.5 ms, up to 2 drives 1 ms, up to 4 drives 2 ms, up to 8 drives

SERCOS cycle time @ 8 Mbps 0.5 ms, up to 4 drives 1 ms, up to 8 drives 2 ms, up to 16 drives

Compatible Chassis 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17

Compatible Power Supply, Standard 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17 Power supply, standard 1756-PA72/C, 1756-PA75/B, 1756-PB72/C, 1756-PB75/B, 1756-PC75/B, 1756-PH75/B

Compatible Power Supply, Redundant 1756-PA75R, 1756-PB75R, 1756-PSCA2

Drive Control Modes Position, velocity, and torque

Axes per Module 8

Axes per Controller 32

SERCOS Data Rate 4 or 8 Megabits-Second

Current Draw (5.1 Volts) 1.2 amps

Thermal Dissipation 21.2 BTU-hour

Isolation Voltage 50 Volts Continuous

UPC 10612598295996 Description

The Allen-Bradley 1756-M08SE is a ControlLogix module. It is a Serial Real-time Communications System (SERCOS) interface module that is used to enable a ControlLogix rack to directly interface with SERCOS drives.

The 1756-M08SE supports integration of up to Eight (8) Kinetix drives, compatible with a variety of drives from different Kinetix series such as 2093 Kinetix 2000 multi-axis servo drive, 2094 Kinetix 6000 multi-axis servo drive, 2099 Kinetix 7000 high-power servo drive and 2098 Ultra3000 SERCOS servo drive. The 1756-M08SE is able to perform data exchange with speed of 4 Mbps and 8 Mbps and cycle times, depending on the data rate and number of connected drives. At 4 Mbps data rate, cycle times include 0.5 ms, up to 2 drives; 1 ms, up to 4 drives and 2 ms, up to 8 drives while at 8 Mbps, cycle times are 0.5 ms, up to 4 drives; 1 ms, up to 8 drives and 2 ms, up to 16 drives. This SERCOS can be configured to implement different drive control modes such as Position, velocity, and torque.

The 1756-M08SE is directly installed to a 1756 ControlLogix chassis. Compatible chassis are 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17 along Standard and redundant power supplies such as 1756-PA72/C, 1756-PA75/B, 1756-PB72/C, 1756-PB75/B, 1756-PC75/B, 1756-PH75/B and 1756-PA75R, 1756-PB75R, 1756-PSCA2, respectively.

Compatible physical media for high-speed communication of the SERCOS drive are Plastic-Fiber Optic cables with catalog numbers 2090-SCEPxx-0 non-jacketed, chlorinated polyethylene 2090-SCVPxx-0 standard jacket, polyvinyl chloride 2090-SCNPxx-0 nylon jacket and 2090-SCVGxx-0 standard jacket, polyvinyl chloride Glass fiber optic cables.

Compatible ControlLogix chassis include the 1756-A4, 1756-A7, 1756-A10, 1756-A13, and the 1756-A17. The 1756-M08SE module has an open-type enclosure. The 1756-M08SE module allows you to control the drives in position, velocity, and torque modes. This module supports reliable noise immunity and high-speed data transmission. It also supports ASA messages converted to a SERCOS format, and does not need interconnected wiring. Two SERCOS data rates are available for this module, namely 4 Mbps and 8 Mbps. At 4 Mbps, the SERCOS cycle time is 0.5 ms for up to 2 drives (but only the Kinetix 6000 drives lets you use a 0.5 ms cycle time), 1 ms for up to 4 drives, and 2 ms for up to 8 drives. The SERCOS cycle time at 8 Mbps is 0.5 ms for up to 4 drives (but also only for Kinetix 6000 drives), 1 ms for up to 8 drives, and 2 ms for up to 16 drives. This module has a current draw of 760 mA at 5.1V DC and 2.5 mA at 24V DC. It has a power dissipation of 5 W, a non-condensing relative humidity of 5% to 95%, a vibration of 2 g at 10 to 500 Hz, an operating shock of 30 g, and a non-operating shock of 50 g. Its operational temperature range is between 0 to 60 degrees Celsius and the storage temperature range is between -40 to 85 degrees Celsius.

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