

EJS-04 Series

4-port industrial EtherCAT junctions



Features and Benefits

- 4 100BaseT(X) full-duplex RJ45 ports for multiple slave connections
- Supports topology conversion for more flexible EtherCAT networks
- Compact size for easy installation
- Wide power input range with redundancy options
- IP30-rated metal housing
- Meets the EN 61000-6-2 and EN 61000-6-4 standards for industrial EMC applications
- Supports DIN-rail grounding to optimize space and wiring

Certifications



Introduction

Moxa's EJS-04 Series EtherCAT junctions are equipped with 4 Fast Ethernet EtherCAT ports. These devices support star, line, ring, or tree topology conversion, enabling multiple EtherCAT devices to be connected in a modular and efficient manner. The EJS Series features a robust metal housing with high electromagnetic compatibility to shield against environmental inference while support for multiple grounding methods simplifies wiring and installation.

The EJS Series supports a range of redundancy features to enhance the reliability and availability of EtherCAT networks. Topology conversion minimizes production line interruptions and improves troubleshooting efficiency. The dual power input design lets you connect a redundant power supply for non-stop availability in the event of a main power failure. Moreover, the EJS Series can be used in redundancy topologies to provide alternative data paths in case one data path fails, ensuring that the exchange of data is not interrupted.

The EJS Series is certified for the EtherCAT Conformance Test by the EtherCAT Technology Group (ETG), meaning the EJS Series integrates into your existing network seamlessly, making the EJS Series ideal for use in any EtherCAT application.

Specifications

EtherCAT	
FMMU	8
Sync Manager	8
Supported Topologies	Star Line Tree Ring
Interfaces	4 x 100BaseT(X) ports (RJ45 connector) Auto MDI/MDI-X connection
Switch Properties	
Port Combination	1 (IN), 3 (OUT)
Port Delay	1 μs per port (approximately)
Rotary Switch Configuration	
ID Selector	Valid address range: 1 to 4095

Power Parameters

Connector	1 removable 4-contact terminal block(s)
Input Current	0.13 A (max.)
Input Voltage	12/24/48 VDC
Operating Voltage	9.6 to 60 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

LED Interface

LED Indicators	PWR1, PWR2, RUN
----------------	-----------------

Physical Characteristics

Dimensions	24.5 x 100 x 75 mm (0.96 x 3.94 x 2.95 in)
Weight	245 g (0.54 lb)
Cable Length	100 m
Housing	Metal
Installation	DIN-rail mounting Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	Standard models: -10 to 60°C (14 to 140°F) Wide temp models: -35 to 75°C (-31 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)

Standards and Certifications

Safety	UL 61010-2-201 EN 62368-1
EMC	EN 55032/35 EN 61000-6-2/-6-4
EMI	CISPR 22/32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6 IEC 60068-2-64
Freefall	ISTA-1A (with package)
MTBF	
Time	8,718,114 hrs
Standards	Telcordia (Bellcore), GB

Warranty

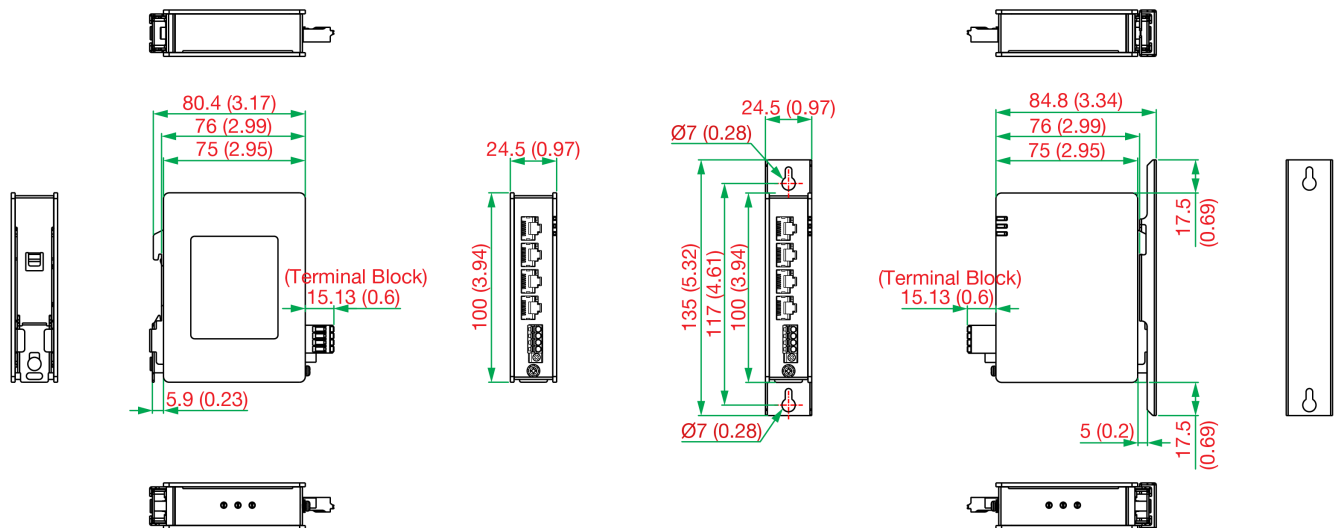
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x EJS-04 Series switch
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	100BaseT(X) Ports (RJ45 Connector)	Housing	Operating Temperature
EJS-04	4	Metal	-10 to 60°C
EJS-04-T	4	Metal	-35 to 75°C

Accessories (sold separately)

Power Supplies

MDR-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
MDR-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

© Moxa Inc. All rights reserved. Updated Dec 02, 2025.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.