

# EDS-2008-EL Series

8-port entry-level unmanaged Ethernet switches with metal housing



## Features and Benefits

- 10/100BaseT(X) (RJ45 connector)
- Compact size for easy installation
- QoS supported to process critical data in heavy traffic
- IP40-rated metal housing
- -40 to 75°C wide operating temperature range (-T models)

## Certifications



## Introduction

The EDS-2008-EL series of industrial Ethernet switches have up to eight 10/100M copper ports, which are ideal for applications that require simple industrial Ethernet connections. To provide greater versatility for use with applications from different industries, the EDS-2008-EL Series also allows users to enable or disable the Quality of Service (QoS) function, and broadcast storm protection (BSP) with DIP switches on the outer panel. In addition, the EDS-2008-EL Series has a rugged metal housing to ensure suitability for use in industrial environments and fiber connections (Multi-mode SC or ST) can also be selected.

The EDS-2008-EL Series has a 12/24/48 VDC single power input, DIN-rail mounting, and high-level EMI/EMC capability. In addition to its compact size, the EDS-2008-EL Series has passed a 100% burn-in test to ensure it will function reliably after it has been deployed. The EDS-2008-EL Series has a standard operating temperature range of -10 to 60°C with wide-temperature (-40 to 75°C) models also available.

## Specifications

### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-2008-EL: 8 EDS-2008-EL-M-ST: 7 EDS-2008-EL-M-SC: 7 Full/Half duplex mode Auto MDI/MDI-X connection Auto negotiation speed																					
100BaseFX Ports (multi-mode SC connector)	EDS-2008-EL-M-SC: 1																					
100BaseFX Ports (multi-mode ST connector)	EDS-2008-EL-M-ST: 1																					
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control IEEE 802.1p for Class of Service																					
Optical Fiber	<table border="1"> <thead> <tr> <th colspan="2" rowspan="2"></th> <th colspan="2">100BaseFX</th> </tr> <tr> <th>Multi-Mode</th> <th>Single-Mode</th> </tr> </thead> <tbody> <tr> <th rowspan="2">Fiber Cable Type</th> <th rowspan="2">OM1</th> <td>50/125 μm</td> <td rowspan="2">G.652</td> </tr> <tr> <td>800 MHz x km</td> </tr> <tr> <th colspan="2">Typical Distance</th> <td>4 km</td> <td>40 km</td> </tr> <tr> <th>Wavelength</th> <th>Typical (nm)</th> <td colspan="2">1300</td> </tr> </tbody> </table>					100BaseFX		Multi-Mode	Single-Mode	Fiber Cable Type	OM1	50/125 μm	G.652	800 MHz x km	Typical Distance		4 km	40 km	Wavelength	Typical (nm)	1300	
		100BaseFX																				
		Multi-Mode	Single-Mode																			
Fiber Cable Type	OM1	50/125 μm	G.652																			
		800 MHz x km																				
Typical Distance		4 km	40 km																			
Wavelength	Typical (nm)	1300																				

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type		OM1	50/125 μm	G.652
			800 MHz x km	
	TX Range (nm)	1260 to 1360		1280 to 1340
	RX Range (nm)	1100 to 1600		1100 to 1600
Optical Power	TX Range (dBm)	-10 to -20		0 to -5
	RX Range (dBm)	-3 to -32		-3 to -34
	Link Budget (dB)	12		29
	Dispersion Penalty (dB)	3		1
<p>Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.</p> <p>Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) &gt; dispersion penalty (dB) + total link loss (dB).</p>				

### Switch Properties

Processing Type	Store and Forward
MAC Table Size	2 K
Packet Buffer Size	768 kbits

### DIP Switch Configuration

Ethernet Interface	Quality of Service (QoS), Broadcast Storm Protection (BSP)
--------------------	--

### Power Parameters

Connection	1 removable 2-contact terminal block(s)
Input Current	EDS-2008-EL: 0.067A @ 24 VDC EDS-2008-EL-M-ST/EDS-2008-EL-M-SC: 0.105A @ 24 VDC
Input Voltage	12/24/48 VDC
Operating Voltage	9.6 to 60 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

### Physical Characteristics

Installation	DIN-rail mounting Wall mounting (with optional kit)
Weight	163 g (0.36 lb)
Housing	Metal
Dimensions	EDS-2008-EL: 36 x 81 x 65 mm (1.4 x 3.19 x 2.56 in) EDS-2008-EL-M-ST: 36 x 81 x 70.9 mm (1.4 x 3.19 x 2.79 in) (w/ connector) EDS-2008-EL-M-SC: 36 x 81 x 68.9 mm (1.4 x 3.19 x 2.71 in) (w/ connector)

## Environmental Limits

Ambient Relative Humidity	5 to 95% (non-condensing)
Operating Temperature	EDS-2008-EL/EDS-2008-EL-M-SC/EDS-2008-EL-M-ST: -10 to 60°C (14 to 140°F) EDS-2008-EL-T/EDS-2008-EL-M-SC-T/EDS-2008-EL-M-ST-T: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)

## Standards and Certifications

Safety	UL 61010-2-201 EN 62368-1 (LVD)
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
Freefall	IEC 60068-2-32

## MTBF

Time	EDS-2008-EL: 3,779,420 hrs EDS-2008-EL-M-SC/ EDS-2008-EL-M-ST: 3,382,651 hrs
Standards	Telcordia (Bellcore), GB

## Warranty

Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

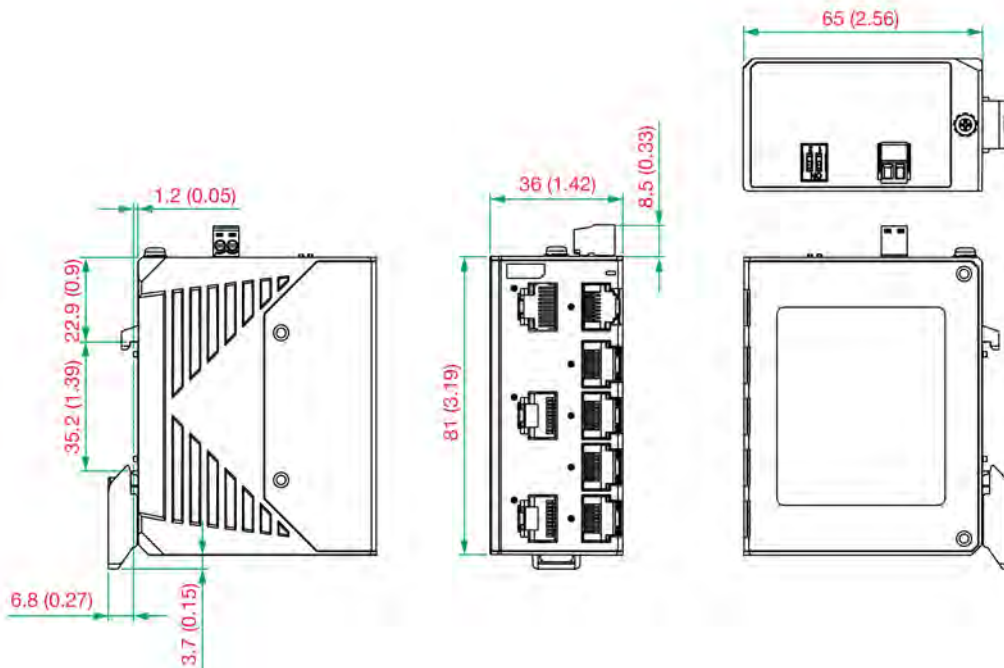
## Package Contents

Device	1 x EDS-2008 Series switch
Documentation	1 x quick installation guide 1 x warranty card

## Dimensions

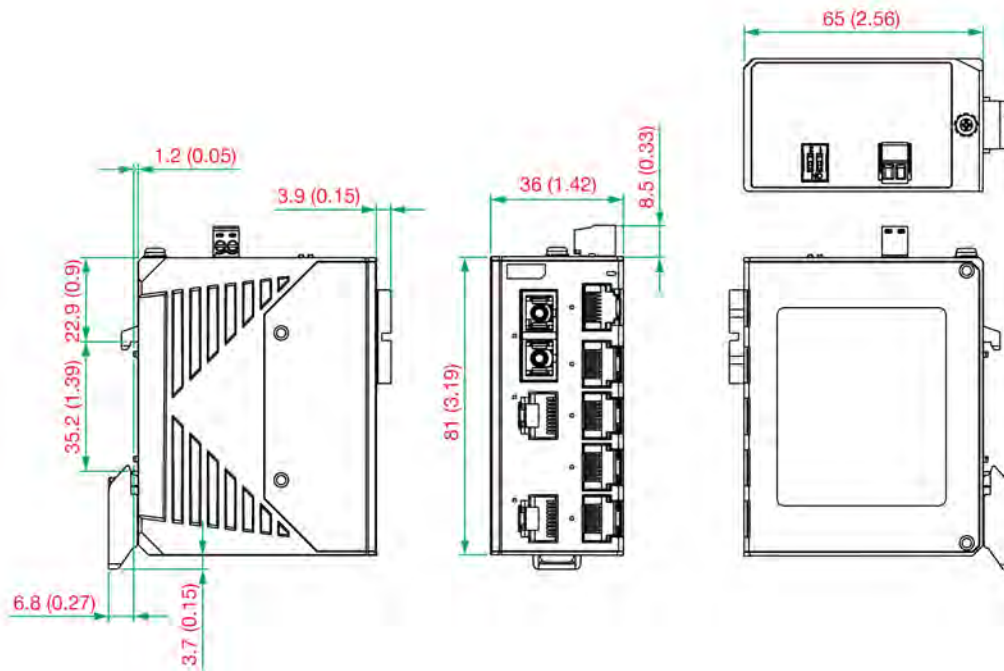
### EDS-2008-EL

Unit: mm (inch)



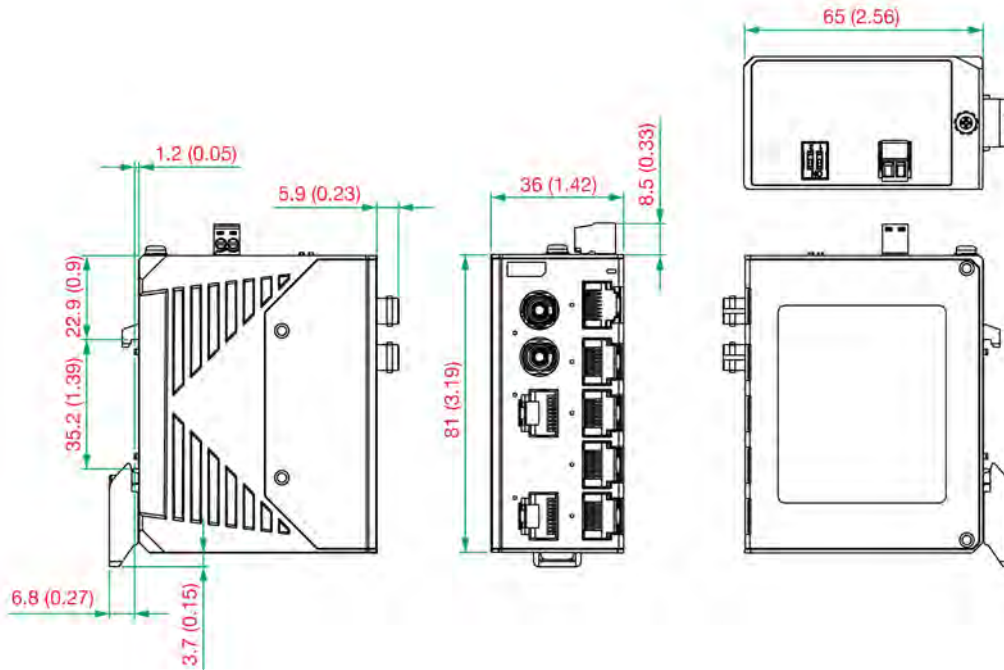
### EDS-2008-EL-M-SC

Unit: mm (inch)



## EDS-2008-EL-M-ST

Unit: mm (inch)



## Ordering Information

Model Name	10/100BaseT(X) Ports (RJ45 connector)	10/100BaseFX Ports (Multi-mode SC)	10/100BaseFX Ports (Multi-mode ST)	Housing	Operating Temperature
EDS-2008-EL	8	–	–	Metal	-10 to 60°C
EDS-2008-EL-M-SC	7	1	–	Metal	-10 to 60°C
EDS-2008-EL-M-ST	7	–	1	Metal	-10 to 60°C
EDS-2008-EL-T	8	–	–	Metal	-40 to 75°C
EDS-2008-EL-M-SC-T	7	1	–	Metal	-40 to 75°C
EDS-2008-EL-M-ST-T	7	–	1	Metal	-40 to 75°C

## Accessories (sold separately)

### Wall-Mounting Kits

WK-18	Wall-mounting kit, 1 plate (18 x 120 x 8.5 mm)
-------	--

### Power Supplies

DR-4524	45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature
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

### Rack-Mounting Kits

WK-18	Wall-mounting kit, 1 plate (18 x 120 x 8.5 mm)
RK-4U	19-inch rack-mounting kit

© Moxa Inc. All rights reserved. Updated Oct 25, 2023.

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.