

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)
- Compliant with PROFINET Conformance Class A¹

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.

The EDS-2008-EL Series is also compliant with PROFINET Conformance Class A (CC-A), making these switches suitable for PROFINET networks.

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

1. Only for models with hardware version 2.0.0 or later.

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><tr><th colspan="2" rowspan="2"></th><th colspan="2">100BaseFX</th></tr><tr><th>Multi-Mode</th><th>Single-Mode</th></tr><tr><th rowspan="2">Fiber Cable Type</th><th rowspan="2">OM1</th><th>50/125 μm</th><th rowspan="2">G.652</th></tr><tr><th>800 MHz x km</th></tr><tr><th colspan="2">Typical Distance</th><td>4 km</td><td>5 km</td><td>40 km</td></tr><tr><th rowspan="3">Wavelength</th><th>Typical (nm)</th><td colspan="2">1300</td><td>1310</td></tr><tr><th>TX Range (nm)</th><td colspan="2">1260 to 1360</td><td>1280 to 1340</td></tr><tr><th>RX Range (nm)</th><td colspan="2">1100 to 1600</td><td>1100 to 1600</td></tr><tr><th rowspan="4">Optical Power</th><th>TX Range (dBm)</th><td colspan="2">-10 to -20</td><td>0 to -5</td></tr><tr><th>RX Range (dBm)</th><td colspan="2">-3 to -32</td><td>-3 to -34</td></tr><tr><th>Link Budget (dB)</th><td colspan="2">12</td><td>29</td></tr><tr><th>Dispersion Penalty (dB)</th><td colspan="2">3</td><td>1</td></tr></table> <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) > dispersion penalty (dB) + total link loss (dB).</p>						100BaseFX		Multi-Mode	Single-Mode	Fiber Cable Type	OM1	50/125 μm	G.652	800 MHz x km	Typical Distance		4 km	5 km	40 km	Wavelength	Typical (nm)	1300		1310	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
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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) ² , Broadcast Storm Protection (BSP)
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Power Parameters

Connection	1 removable 2-contact terminal block(s)
Input Current	EDS-2008-EL: 0.052A @ 24 VDC EDS-2008-EL-M-ST/EDS-2008-EL-M-SC: 0.082A @ 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	169 g (0.37 lb)

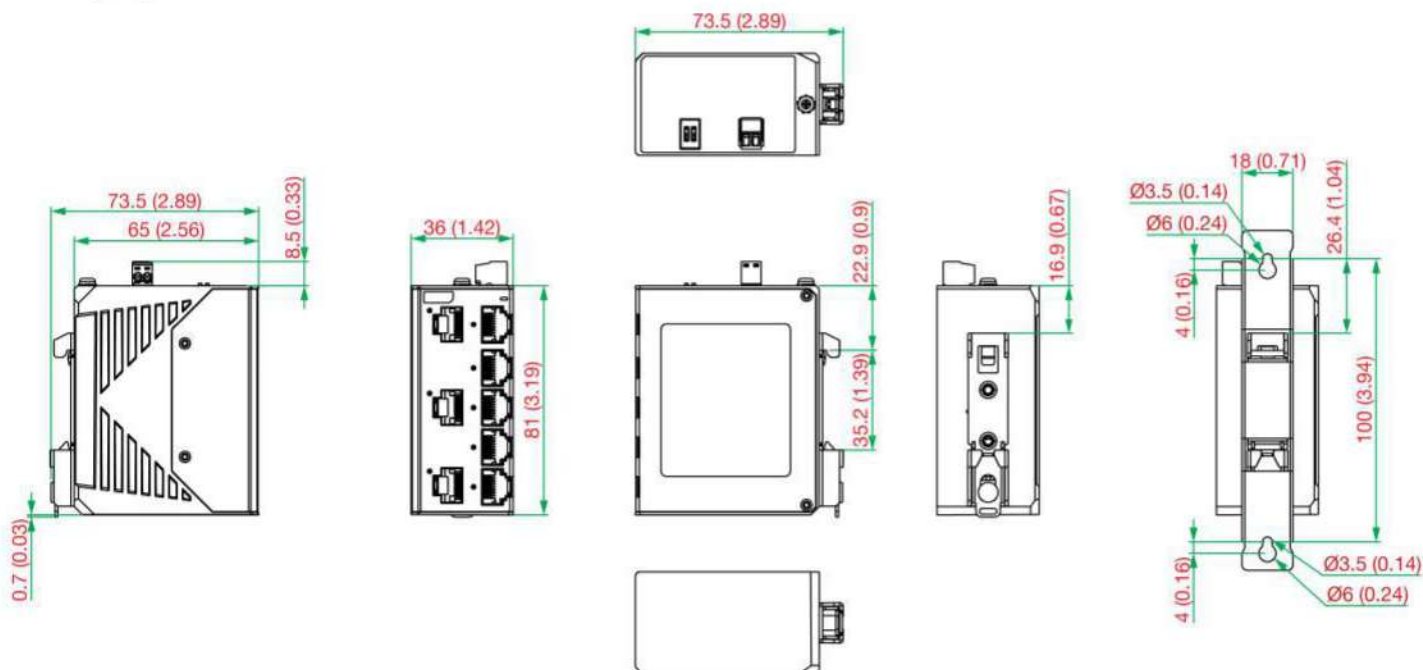
2. Enabling the QoS DIP switch will also enable Multicast Filtering which will block LLDP & PROFINET PTCP-Delay traffic.

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
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: 3,696,394 hrs EDS-2008-EL-M-SC/ EDS-2008-EL-M-ST: 3,329,688 hrs
Standards	Telcordia (Bellcore), GB
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x EDS-2008 Series switch
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

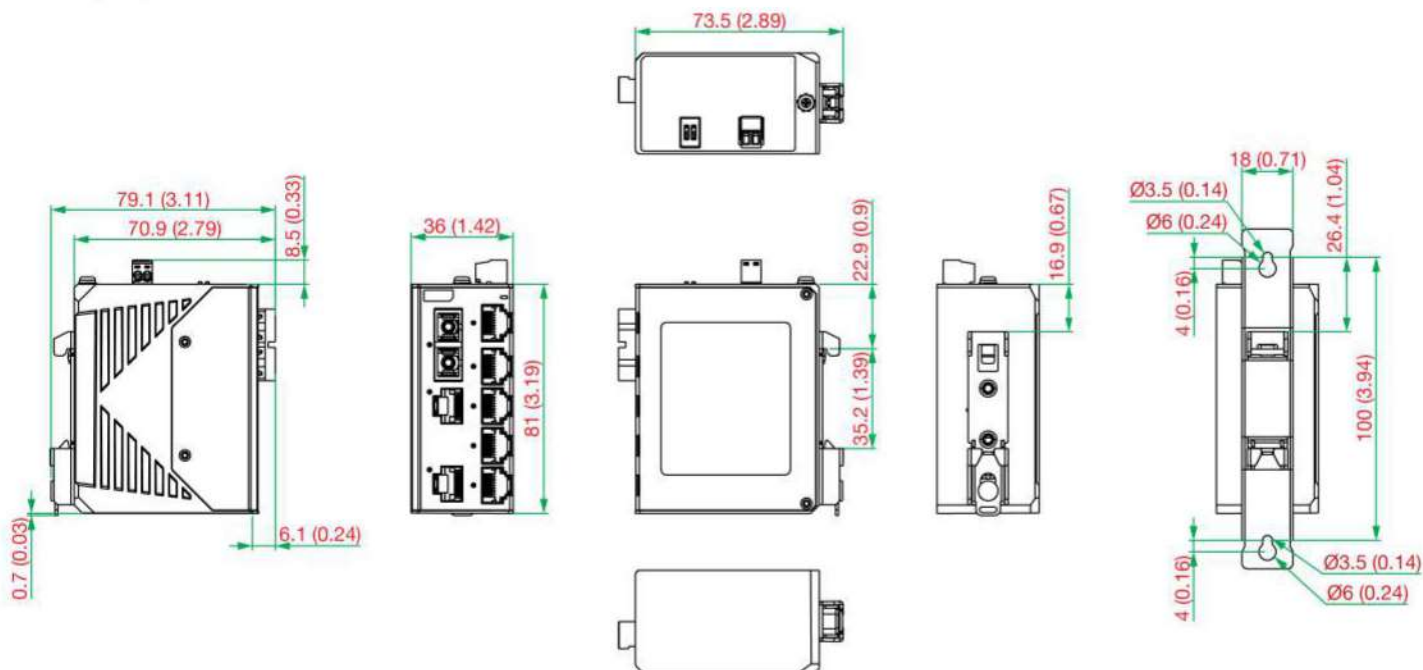
EDS-2008-EL

Unit: mm (inch)



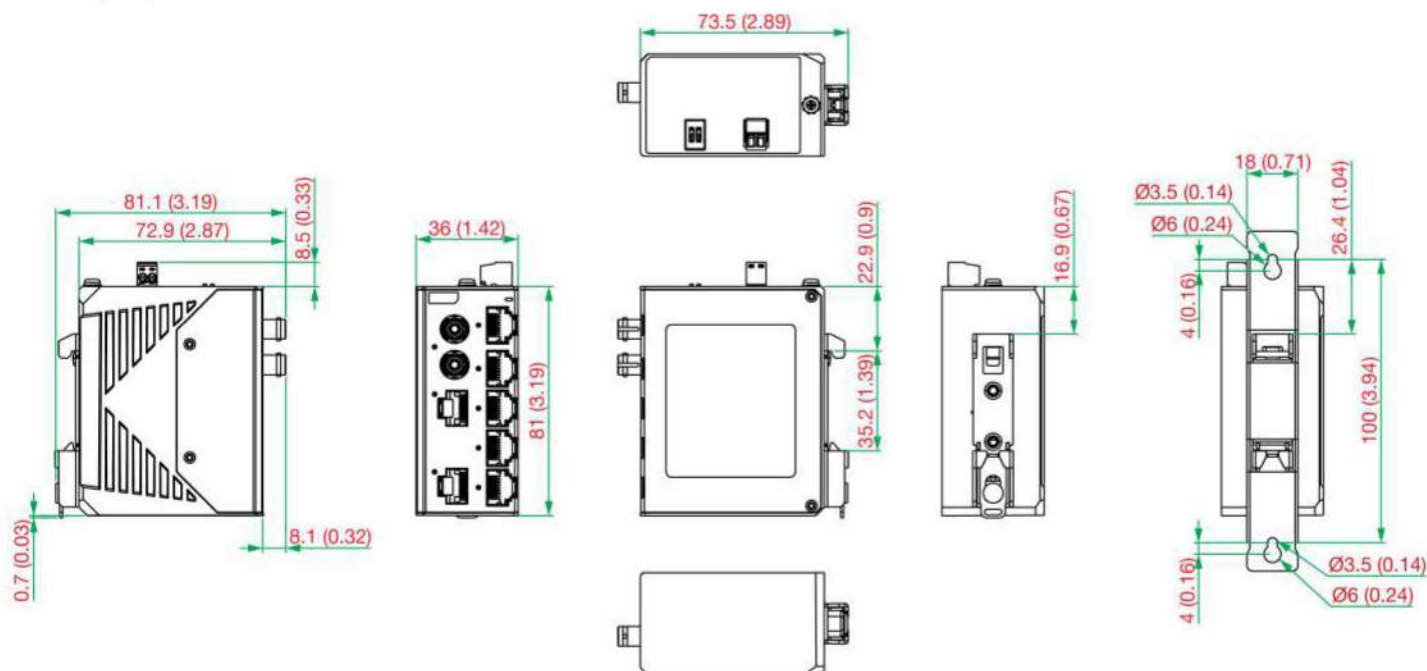
EDS-2008-EL-M-SC

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)
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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

Rack-Mounting Kits

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

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