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	

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type		OM1	50/125 µm 800 MHz x km	G.652
Typical Distance		4 km	5 km	40 km
Wavelength	Typical (nm)	1300		1310

		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

Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.
Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).

Switch Properties

Processing Type	Store and Forward
MAC Table Size	8 K
Packet Buffer Size	4 Mbits

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
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: 20 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	3,472,660 hrs
Standards	Telcordia (Bellcore), GB

Warranty

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

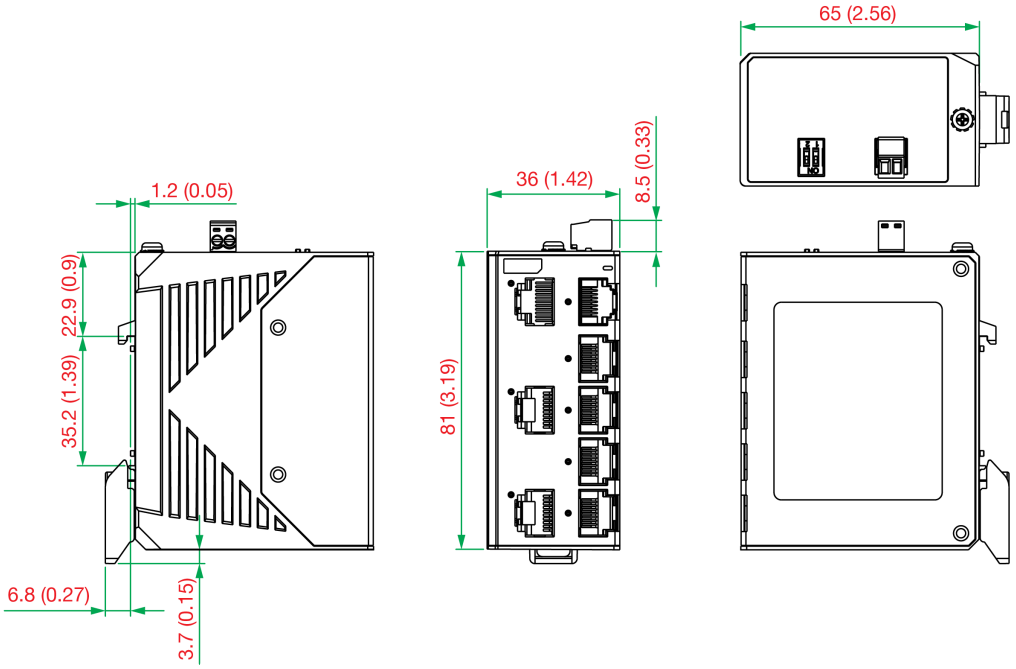
Package Contents

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

Dimensions

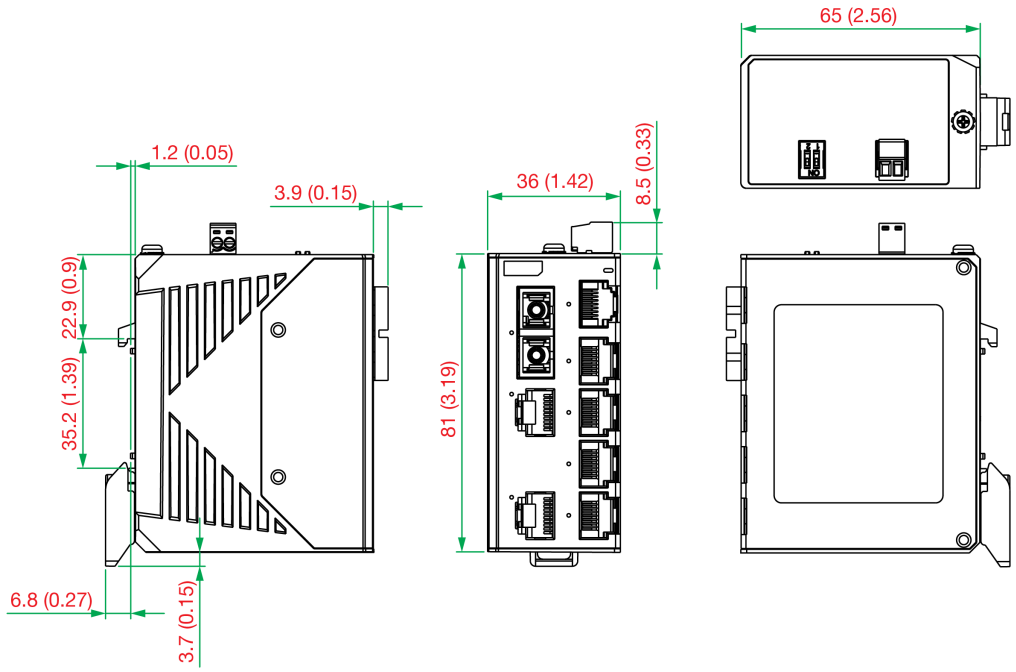
EDS-2008-EL

Unit: mm (inch)



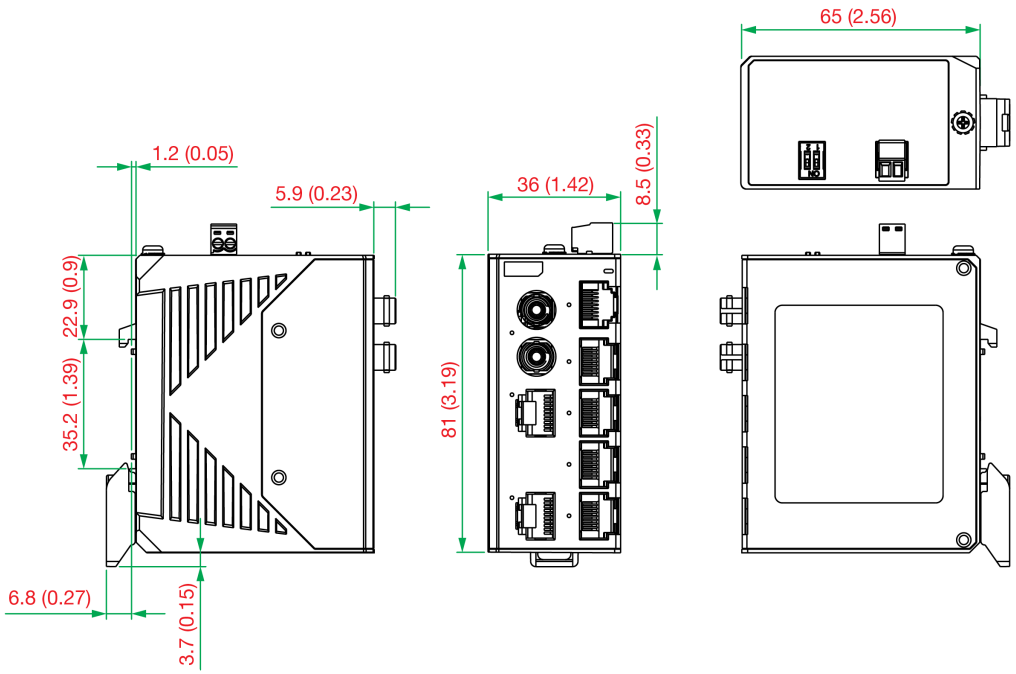
EDS-2008-EL-M-SC

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)

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