

EDS-P308 Series

8-port unmanaged Ethernet switches with 4 IEEE 802.3af PoE ports



- > 4 IEEE 802.3af compliant PoE and Ethernet combo ports
- > Up to 15.4 watts at 48 VDC per PoE port
- > Intelligent power consumption detection and classification
- > Redundant dual VDC power inputs
- > -40 to 75°C operating temperature range (T models)



Introduction

The EDS-P308 switches are smart, 8-port, unmanaged Ethernet switches supporting PoE (Power-over-Ethernet) on ports 1 to 4. The switches are classified as power source equipment (PSE), and when used in this way, the EDS-P308 switches enable centralization of the power supply and provide up to 15.4 watts of power per port. The switches can be used to power IEEE 802.3af compliant powered

devices (PD), eliminating the need for additional wiring, and support IEEE 802.3/802.3u/802.3x with 10/100M, full/half-duplex, MDI/MDI-X auto-sensing to provide an economical solution for your industrial Ethernet network. In addition, the built-in relay warning function alerts network engineers when power failures or port breaks occur.

Specifications

Technology

Standards:

IEEE 802.3af for Power-over-Ethernet

IEEE 802.3 for 10BaseT

IEEE 802.3u for 100BaseT(X)

IEEE 802.3x for Flow Control

Processing Type: Store and Forward

Switch Properties

MAC Table Size: 1 K

Packet Buffer Size: 512 kbit

Interface

RJ45 Ports: 10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection

Fiber Ports: 100BaseFX ports (SC connector)

PoE Pinout: V+, V+, V-, V- for pin 1, 2, 3, 6 (Endspan, MDI Alternative A)

DIP Switches: Port break alarm mask

Alarm Contact: 1 relay output with current carrying capacity of 0.5 A @ 48 VDC

Optical Fiber

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type		OM1	50/125 μm	G.652
			800 MHz*km	
Typical Distance		4 km	5 km	40 km
Wave-length	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

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).

Power Requirements

Input Voltage: 48 VDC, redundant dual inputs

Operating Voltage: 44 to 57 VDC

Input Current: 1.47 A @ 48 VDC

Overload Current Protection: 2.5 A @ 48 VDC

Connection: 1 removable 6-contact terminal block

Reverse Polarity Protection: Present

Power Consumption: Max. 8.96 W full loading without PDs' consumption

Power Budget:

Max. 61.6 W for total PDs' consumption

Max. 15.4 W for each PoE port

Physical Characteristics

Housing: Metal

IP Rating: IP30 protection

Dimensions: 53.6 × 135 × 105 mm (2.11 × 5.31 × 4.13 in)

Weight: 840 g (1.86 lb)

Installation: DIN-rail mounting, wall mounting (with optional kit)

Environmental Limits

Operating Temperature:

Standard Models: 0 to 60°C (32 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

Note: Please check Moxa's website for the most up-to-date certification status.

Safety: UL 508

EMC: EN 55032/24

EMI: CISPR 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: 4 kV; Signal: 2 kV

IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV

IEC 61000-4-6 CS: Signal: 10 V

IEC 61000-4-8

Marine: DNV, GL, LR, ABS, NK

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

MTBF (mean time between failures)

Time: 406,194 hrs

Standard: Telcordia (Bellcore), GB

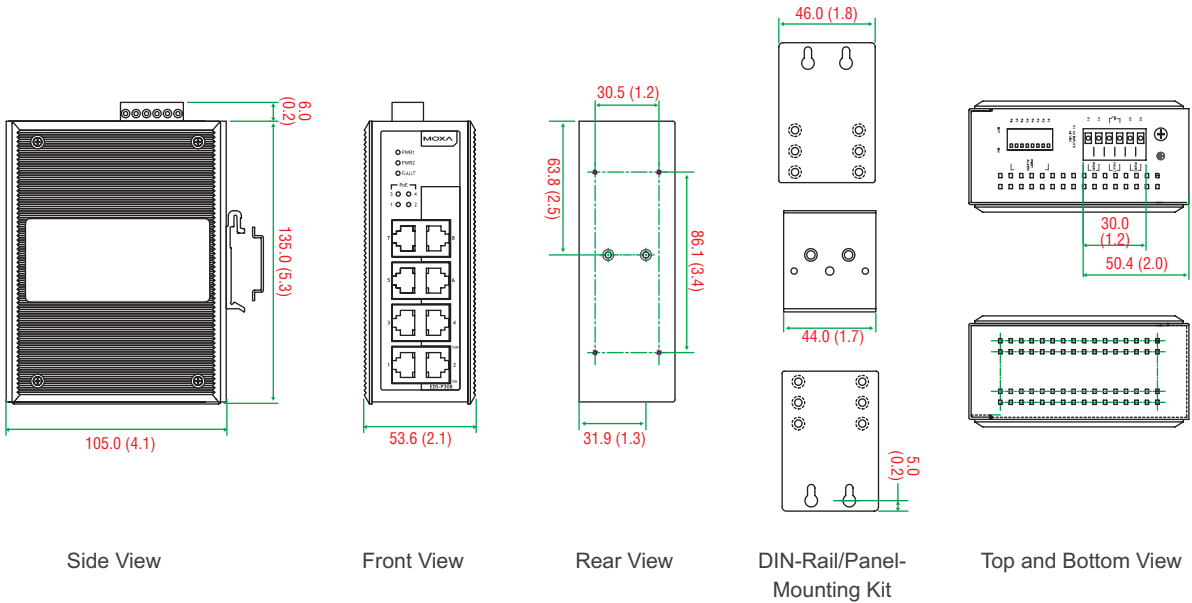
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)



Ordering Information

Available Models		Port Interface			
Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 75°C)	10/100BaseT(X)	PoE, 10/100BaseT(X)	100BaseFX	
				Multit-Mode, SC Connector	Single-Mode, SC Connector
EDS-P308	EDS-P308-T	4	4	—	—
EDS-P308-M-SC	EDS-P308-M-SC-T	3	4	1	—
EDS-P308-S-SC	EDS-P308-S-SC-T	3	4	—	1
EDS-P308-MM-SC	EDS-P308-MM-SC-T	2	4	2	—
EDS-P308-SS-SC	EDS-P308-SS-SC-T	2	4	—	2

Optional Accessories (can be purchased separately)

DR-75-48/120-48: 75/120 W DIN-rail 48 VDC power supplies

DRP-240-48: 240 W DIN-rail 48 VDC power supplies

RK-4U: 4U-high 19-inch rack-mounting kit

WK-46: Wall-mounting kit, 2 plates with 8 screws

Package Checklist

- EDS-P308 switch
- Protective caps for unused ports
- Hardware installation guide (printed)
- Warranty card