

# EDS-316シリーズ

## 16ポートアンマネージドイーサネットスイッチ

### 機能とメリット

- 電源障害およびポート切断アラームのためのリレー出力警告
- ブロードキャストストーム防止
- -40～75°Cの広い動作温度範囲（-Tモデル）



### 認証



### 製品紹介

EDS-316イーサネットスイッチは、産業用イーサネット接続向けに経済的なソリューションを提供します。これらの16ポートスイッチには、電源障害やポート切断が発生したときにネットワークエンジニアに警告するリレー警告機能が組み込まれています。また、Class I Div.2およびATEX Zone 2規格で定義される危険な場所など、過酷な産業環境向けに設計されています。

スイッチは、FCC、UL、およびCE規格に準拠しており、-10～60°Cの標準動作温度範囲、または-40～75°Cの広い動作温度範囲をサポートしています。すべてのスイッチは、100%バーンインテストを受けており、産業用オートメーションの制御アプリケーションの特別なニーズを満たしています。EDS-316スイッチは、DINレールや配電ボックスに簡単に取り付けることができます。

### 仕様

#### Input/Output Interface

Alarm Contact Channels	1 relay output with current carrying capacity of 1 A @ 24 VDC
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#### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-316 models: 16 EDS-316-MM-SC/MM-ST/MS-SC/SS-SC models: 14 EDS-316-SS-SC-80 models: 14 EDS-316-M-SC/M-ST/S-SC models: 15
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All models support:  
Auto negotiation speed  
Full/Half duplex mode  
Auto MDI/MDI-X connection

100BaseFX Ports (multi-mode SC connector)	EDS-316-M-SC models: 1 EDS-316-MM-SC models: 2 EDS-316-MS-SC models: 1
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100BaseFX Ports (multi-mode ST connector)	EDS-316-M-ST models: 1 EDS-316-MM-ST models: 2
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100BaseFX Ports (single-mode SC connector)	EDS-316-MS-SC models: 1 EDS-316-S-SC models: 1 EDS-316-SS-SC models: 2
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100BaseFX Ports (single-mode SC connector, 80 km)	EDS-316-SS-SC-80 models: 2
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Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control					
Optical Fiber	100BaseFX					
			Multi-Mode	Single-Mode (40 km)	Single-Mode (80 km)	
	Fiber Cable Type	OM1	50/125 $\mu$ m	G.652	G.652	
			800 MHz x km			
	Typical Distance		4 km	5 km	40 km	80 km
	Wavelength	Typical (nm)	1300		1310	1550
		TX Range (nm)	1260 to 1360		1280 to 1340	1530 to 1570
		RX Range (nm)	1100 to 1600		1100 to 1600	1100 to 1600
	Optical Power	TX Range (dBm)	-10 to -20		0 to -5	0 to -5
		RX Range (dBm)	-3 to -32		-3 to -34	-3 to -34
		Link Budget (dB)	12		29	29
		Dispersion Penalty (dB)	3		1	1
<p>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) &gt; dispersion penalty (dB) + total link loss (dB).</p>						

### DIP Switch Configuration

Ethernet Interface	Port break alarm
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### Switch Properties

Packet Buffer Size	1.25 Mbits
MAC Table Size	4 K
Processing Type	Store and Forward

### Power Parameters

Input Voltage	12/24/48 VDC Redundant dual inputs
Input Current	0.34 A (EDS-316) @ 24 VDC 0.35 A (EDS-316-S-SC) @ 24 VDC 0.35 A (EDS-316-M-SC, EDS-316-M-ST) @ 24 VDC 0.40 A (EDS-316-SS-SC) @ 24 VDC 0.39 A (EDS-316-MM-SC, EDS-316-MM-ST) @ 24 VDC
Connection	1 removable 6-contact terminal block(s)
Operating Voltage	9.6 to 60 VDC
Reverse Polarity Protection	Supported
Overload Current Protection	Supported

## Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	80.1 x 135 x 105 mm (3.15 x 5.31 x 4.13 in)
Weight	1140 g (2.52 lb)
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: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

Safety	EN 62368-1 UL 508 UL 60950-1 CSA C22.2 No. 60950-1
EMC	EN 55032/35
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 MHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Hazardous Locations	ATEX Class I Division 2
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Maritime	DNV

## MTBF

Time	EDS-316 models: 2,226,219 hrs EDS-316-MM/MS/SS models: 1,904,659 hrs EDS-316-M/S models: 2,048,802 hrs
Standards	MIL-HDBK-217F

## Warranty

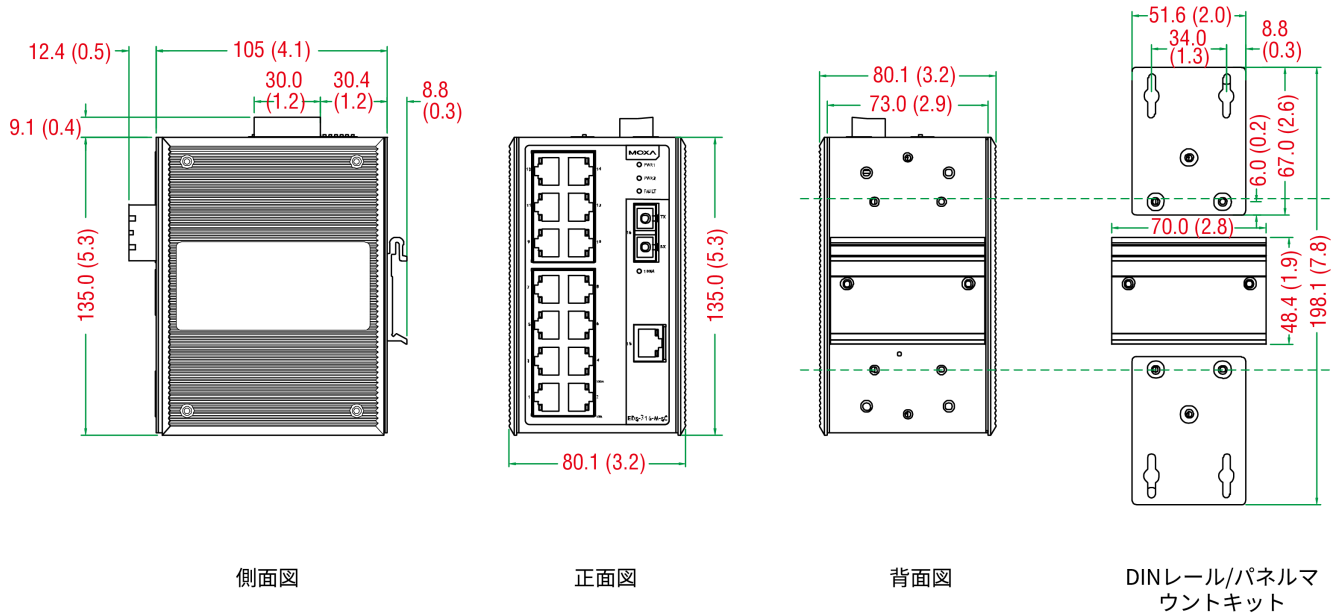
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/jp/warranty">www.moxa.com/jp/warranty</a>

## Package Contents

Device	1 x EDS-316 Series switch
Installation Kit	4 x cap, plastic, for RJ45 port 1 x cap, plastic, for SC fiber port (-M-SC/S-SC models) 2 x cap, plastic, for SC fiber port (-MS-SC/MM-SC models) 1 x cap, plastic, for ST fiber port (-M-ST models) 2 x cap, plastic, for ST fiber port (-MM-ST models)
Documentation	1 x quick installation guide 1 x warranty card

## 寸法

単位: mm (インチ)



## 注文情報

Model Name	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports Multi-Mode, SC Connector	100BaseFX Ports Multi-Mode, ST Connector	100BaseFX Ports Single-Mode, SC Connector	Operating Temp.
EDS-316	16	-	-	-	-10 to 60°C
EDS-316-T	16	-	-	-	-40 to 75°C
EDS-316-M-SC	15	1	-	-	-10 to 60°C
EDS-316-M-SC-T	15	1	-	-	-40 to 75°C
EDS-316-M-ST	15	-	1	-	-10 to 60°C
EDS-316-M-ST-T	15	-	1	-	-40 to 75°C
EDS-316-MM-SC	14	2	-	-	-10 to 60°C
EDS-316-MM-SC-T	14	2	-	-	-40 to 75°C
EDS-316-MM-ST	14	-	2	-	-10 to 60°C
EDS-316-MM-ST-T	14	-	2	-	-40 to 75°C
EDS-316-MS-SC	14	1	-	1	-10 to 60°C
EDS-316-S-SC	15	-	-	1	-10 to 60°C
EDS-316-S-SC-T	15	-	-	1	-40 to 75°C

Model Name	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports Multi-Mode, SC Connector	100BaseFX Ports Multi-Mode, ST Connector	100BaseFX Ports Single-Mode, SC Connector	Operating Temp.
EDS-316-SS-SC	14	-	-	2	-10 to 60°C
EDS-316-SS-SC-80	14	-	-	2	-10 to 60°C
EDS-316-SS-SC-T	14	-	-	2	-40 to 75°C

## アクセサリ（別売）

### 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
HDR-60-24	60 W/2.5 A DIN-rail 24 VDC power supply, universal 85 to 264 VAC or 120 to 370 VDC input voltage, -30 to 70°C operating temperature
NDR-120-24	120 W/5.0 A DIN-rail 24 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-120-48	120 W/2.5 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-240-48	240 W/5.0 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature

### Wall-Mounting Kits

WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm
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### Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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