

## FEATURE HIGHLIGHTS



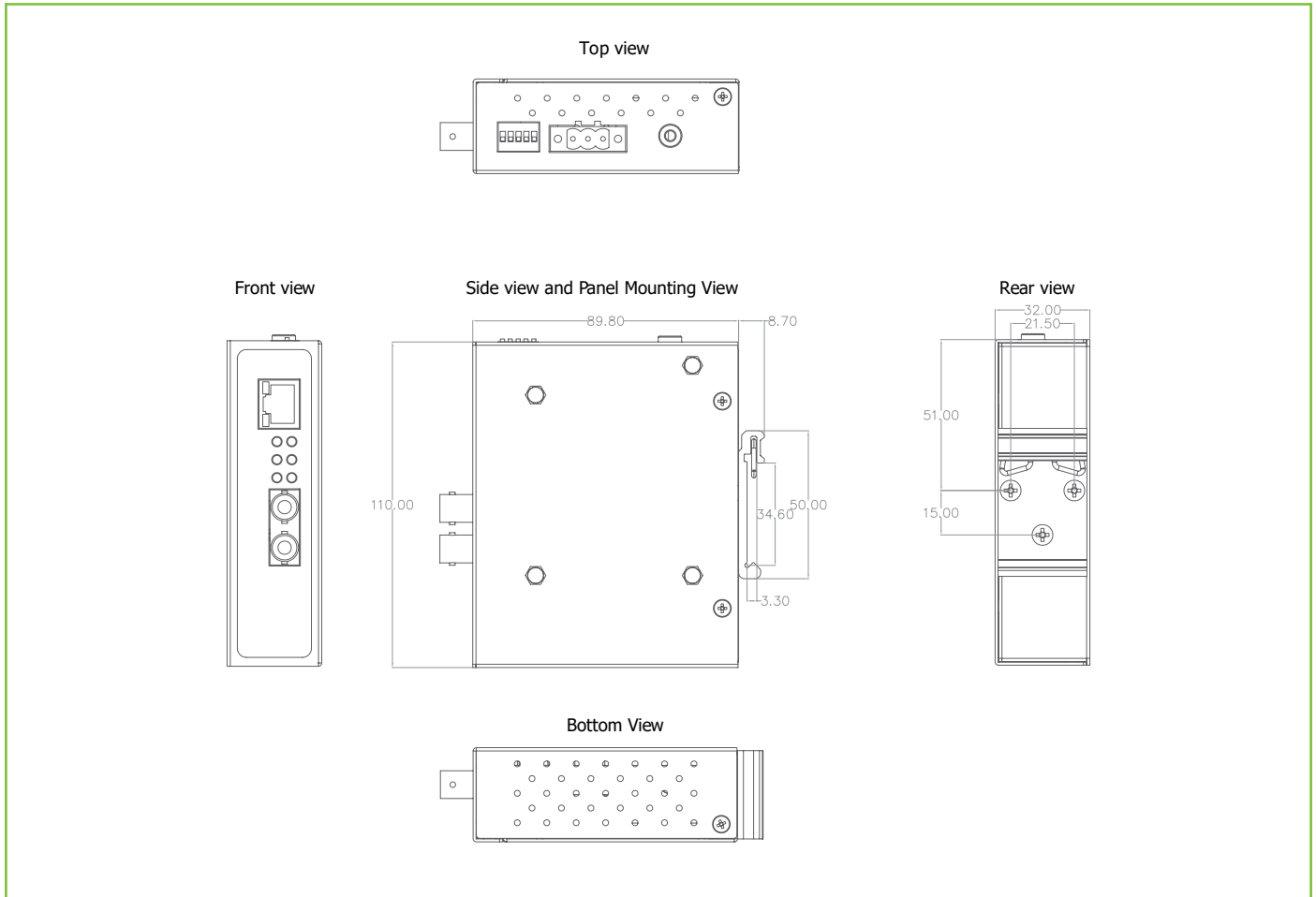
- Supports Auto MDI/MDI-X and Auto Negotiation
- Supports Multi-mode 2KM, Single-mode 30KM
- Supports Link Fault Pass-Through (LFP)
- Jumbo packets up to 9K bytes
- Operating temperature -10~70°C

## PRODUCT DESCRIPTION

The EF23 Series Industrial Media Converters provide industrial media conversion between 10/100BaseT(X) and 100BaseFX(SC connector); connection options include multi-mode SC connector (2km), and single- mode SC connector (30km). The EF23 Series Media Converter is designed for harsh industrial environments, and complies with FCC/CE standards.

The EF23 Series Media Converter also provides auto MDI/MDI-X, Auto Negotiation, and Link Fault Pass-Through (LFP) function and one 5 pin DIP switch to configure the functions, such as the TX\_Duplex mode, FX\_Duplex mode, Speed mode, LFP, Auto Negotiation.

## DIMENSIONS & LAYOUT



## SPECIFICATIONS

### Technical Specifications

Model Name	EF23
<b>Technology</b>	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X), 100BaseFX
<b>Interface</b>	
RJ45 Ports	10/100BaseT(X)
Fiber Ports	100BaseFX (SC connector)
LED Indicators	PWR,SPD,TX_LINK/ACT,TX_FDX/COL,FX_LINK/ACT,FX_FDX/COL
DIP Switch	TX Duplex mode, FX Duplex mode, Speed mode, LFP, Auto Negotiation

Power Requirements		
Input Voltage	6-48 VDC	
Input Current	0.5A max, 6 VDC	
Connection	Removable 3-pin Screw Terminal Block	
Reverse Polarity Protection	Present	
Physical Characteristics		
Housing	Metal, IP30 protection	
Dimensions(W x H x D)	32 x 90 x 110 mm (1.26 x 3.54 x 4.33 in)	
Weight	510g	
Installation	DIN-Rail mounting, wall mounting(optional)	
Environmental Limits		
Operating Temperature	-10°C ~ 70°C (14°F ~ 158°F)	
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	
Ambient Relative Humidity	5 to 95%, 55°C (non-condensing)	
Regulatory Approvals		
EMI	FCC Part15, CISPR (EN55032) Class A	
EMS	EN61000-4-2 (ESD) Level 3, Criteria B / EN61000-4-3 (RS) Level 2, Criteria A EN61000-4-4 (EFT) Level 3, Criteria A / EN61000-4-5 (Surge) Level 3, Criteria B/A EN61000-4-6 (CS) Level 2, Criteria A	
Shock	MIL-STD-810F Method 516.5	
Drop	MIL-STD-810F Method 516.5	
Vibration	MIL-STD-810F Method 514.5 C-1 & C-2	
RoHS	Yes	
MTBF	823877 hrs (94.04Years) (Data base: MIL-HDBK-217F, GB 25°C)	
Warranty Period	5 Year	
Optical Fiber Specifications		
P/N	100Base	
	Multi-mode	Single-mode
Distance	2Km	30Km
Bit rate(Mbps)	155	155
Wavelength(nm)	1310(LED)	1310(FP)
Application	Fast Ethernet / OC3	S1.1 / Fast Ethernet
TX Power(dBm)	-14~-20	-8~-15
RX Sens.(dBm)	<-31	<-34
Remark	EF23-1-1Fm-SC-2	EF23-1-1Fs-SC-30

## REGULATORY APPROVALS

EMI Immunity Type Tests				
Test		Description	Test Levels	Severity Levels
FCC part 15	-	Subpart B	-	Class A
EN55032	-	2012+AC:2013	-	Class A

EMS Tests				
Test	Description		Test Levels	Severity Levels
IEC61000-4-2	ESD	Contact discharge	6KV,Criterion A	Level 3
		Air discharge	8KV,Criterion B	Level 3
IEC61000-4-3	RS	Enclosure ports	3V/m(unmodulated, r.m.s) 80% AM 1KHz, Criterion A	Level 2
IEC61000-4-4	EFT	Power Port	±2KV,Cirterion A	Level 3
		Single port	±1KV,Cirterion A	Level 3
IEC61000-4-5	Surge	Power Port	±2KV,Cirterion A	Level 3
		Single Port	±2KV,Cirterion B	Level 3
IEC61000-4-6	CS	Power Port	3V/m(unmodulated, r.m.s) 80% AM 1KHz, Criterion A	Level 2
		Single Port		Level 2
Environmental Type Test				
Test	Description		Test Levels	Severity Levels
MIL-STD-810F	Shock	Impact acceleration & pulse duration	40g@11ms	-
MIL-STD-810F	RS	8 corners, 12 edges, 6 faces	122cm	-
MIL-STD-810F	EFT	Packaged Random waveform	x:2.4 Grms y:1.28 Grms z:3.851.04Grms	-
		Operating Random waveform	x:0.740 Grms y:0.204 Grms z:1.04Grms	-

## ORDERING INFORMATION

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Model name	Enclosure
EF23-1-1Fm-SC-2	100BaseT(X) to 100BaseFX Media Converter, Multi-mode, SC connector
EF23-1-1Fs-SC-30	100BaseT(X) to 100BaseFX Media Converter, Single mode, SC connector

### Optional Accessories

Model name	Enclosure
UN315-1212 (US-Y)	Y-Type power adaptor, 100~240VAC input, 1.25A @ 12VDC output, US plug, LV6
UNE315-1212(EU-Y)	Y-Type power adaptor, 100~240VAC input, 1.25A @ 12VDC output, EU plug, LV6
AD1024-24F	24W/1A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
AD1048-24FS	48W/2A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
AD1072-24F	72W/3A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
AD1100-24F	100W/4A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
AD1120-24F	120W/5A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
AD1120-48F	120W/2.5A DIN-Rail 48 VDC power supply with universal 100~240 VAC/120~370 VDC input
2ESDP-03P	3-pin 5.08mm Terminal Block with 180° Angle