



## Industrial 10/100BaseT(X) to 100BaseFX Media Converters

■ ■ EF23 Series

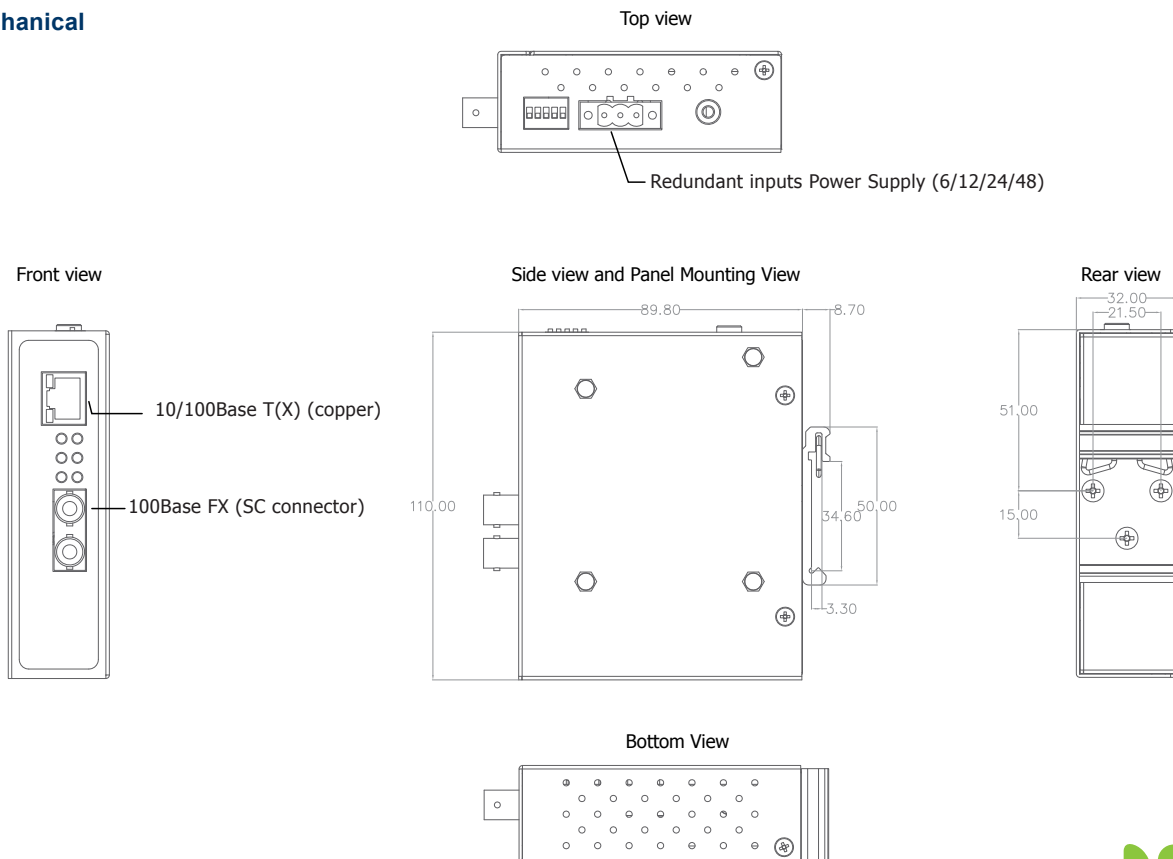
**RoHS compliant**

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

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.

### Mechanical



Specifications		
<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	
<b>Power Requirements</b>		
Input Voltage	6~48 VDC	
Input Current	0.5A max, 6 VDC	
Connection	Removable 3-pin Screw Terminal Block	
Reverse Polarity Protection	Present	
<b>Physical Characteristics</b>		
Housing	Metal, IP50 protection	
Dimension	32 x 90 x 110 mm (1.26 x 3.54 x 4.33 in)	
Weight	510g	
Installation	DIN-Rail mounting, wall mounting(optional)	
<b>Environmental Limits</b>		
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)	
<b>Regulatory Approvals</b>		
EMI	FCC Part15, CISPR (EN55022) 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	
<b>Optical Fiber Specifications</b>		
P/N	100Base	
	Multi-mode	Single-mode
Distance	2Km	30Km
Bit rate(Mbps)	155	155
Wavelength(nm)	1310(LED)	1310(FP LD)
Application	Fast Ethernet/155M ATM	S1.1/IR1/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
<b>Ordering Information</b>		
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	
<b>Optional Accessories</b>		
US315-12(US-TB3)	3-pin Terminal block (5.08 mm) power adaptor,100-240VAC input, 1.25A @ 12 VDC output, US plug	
USE315-12(EU-TB3)	3-pin Terminal block (5.08 mm) power adaptor,100-240VAC input, 1.25A @ 12 VDC output, EU plug	
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	

## Regulatory Approvals and Environmental Type Tests

### EMI Immunity Type Tests

Test	Description	Test Levels	Severity Levels
FCC part 15	Subpart B	—	Class A
EN55022	2006+A1:2007	—	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,Criterion A	Level 3
		Single port	±1KV,Criterion A	Level 3
IEC61000-4-5	Surge	Power Port	±2KV,Criterion A	Level 3
		Single Port	±2KV,Criterion 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	Freefall	8 corners, 12 edges, 6 faces	122cm	—
MIL-STD-810F	Vibration	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	—

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