

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

EF23 Series

RoHS compliant



Feature Highlights

- 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

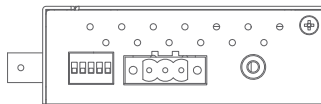
Product Description

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.

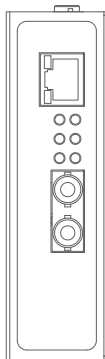
The EF23 Series Media Converter also provides auto MDI/MDI-X, Auto Negotiation, and Link Fault Pass-Through (LFP) function and one 5 pin DIP switch to configure the functions, such as the TX_Duplex mode, FX_Duplex mode, Speed mode, LFP, Auto Negotiation.

Mechanical

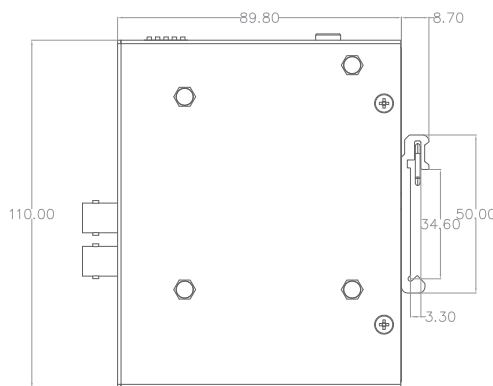
Top view



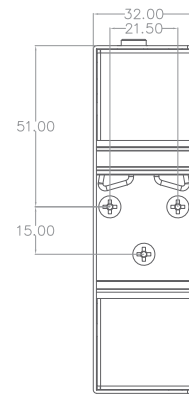
Front view



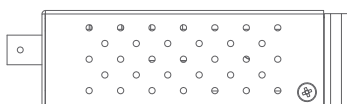
Side view and Panel Mounting View



Rear view



Bottom View



Specifications		
Technology		
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X), 100BaseFX	
Interface		
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	
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)	
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
Ordering Information		
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		
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
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,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	–