### **EIR-G-SFP-T**

# 10/100/1000Base-TX to Gigabit SFP Hardened **Media Converter**

#### **Features**

- √ Complies with NEMA TS1 & TS2 Environmental requirements for Traffic control equipment
- ✓ Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- ✓ DIP switch configuration for "Link-Fault-Pass-Through", fiber auto/force mode, link down alarm
- √ 1000Mbps-Full-duplex, Auto-Negotiation, Auto-MDI/MDIX
- √ SFP socket for Gigabit fiber optic expansion
- √ Full wire-speed forwarding rate
- √ Alarms for power and port link failure by relay output
- ✓ Redundant power inputs with Terminal Block and DC Jack
- √ -40°C to 75°C (-40°F to 167°F) operating temperature range
- √ Hardened aluminum case
- √ Supports DIN-Rail or Panel Mounting installation

#### **Overview**

The EIR-G-SFP-T, Gigabit Ethernet media converters are designed to operate in harsh environments. The EIR-G-SFP-T functions at temperatures ranging from -40°C to 75°C (-40°F to 167°F) and is tested for functional operation @ -40°C to 85°C (-40°F to 185°F). Whether on the factory floor or the street corner, the EIR-G-SFP-T will provide flawless communications when you need it most. EIR-G-SFP-T offers 1000Base SFP socket to support multi-mode/single-mode fiber optics. The RJ-45 port on this unit provides Auto-MDIX and auto-negotiation. The link-faultpass-through feature allows the network management agent on adjacent equipment to react to a broken link. Flexibility is the main feature of the EIR-G-SFP-T, it may be DIN rail or panel mounted, and comes with power options to match the applications that require a tough, environmentally hardened, Gigabit Ethernet media converter.





### **Ordering Information**

Model Number	Description
EIR-G-SFP-T	Hardened Media Converter 1000Base-T to Gigabit SFP
Accessories	
SFP-1000SX-M-550M-T	SFP Module, 1000Base-SX, Multi-mode 550m, LC Connector (-40 to 85°C)
SFP-1000LX-S-10KM-T	SFP Module, 1000Base-LX, Single-mode 10km, LC Connector (-40 to 85°C)
SFP-1000LX-S-20KM-T	SFP Module, 1000Base-LX, Single-mode 20km, LC Connector (-40 to 85°C)



#### **Specifications**

Specifications		
Ethernet Technology		
Standards	IEEE802.3 10Base-T	
	IEEE802.3u 100Base-TX	
	IEEE802.3ab 1000Base-T	
	IEEE802.3z 1000Base-SX/1000Base-LX	
	IEEE802.3x	
Forward & Filtering Rate	1,488,100pps for 1000Mbps	
	Interface	
Ethernet Ports	1 - 10/100/1000Base-TX	
	1 - Gigabit SFP	
LED Indicators	Per Unit: Power Status (Power1, Power2, Power3, Fault), LFPT	
	Per Port: 10/100/1000TX: Link/Activity, Speed, Full-duplex/Collision Gigabit SFP: Link/Activity	
Alarm Contact	One relay output with current 1A @ 30VDC, 0.5A@120VAC	
Mechanical Mechanical		
Enclosure	Aluminum case, IP30	
Dimensions	5.00cm x 1.10cm x 1.35cm (2.0 x 4.3 x 5.3 inches)	
Weight	0.8Kg (1.76lbs.)	
Installation	DIN-Rail (Top hat type 35mm), Rack Mounting (Optional)	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)	
	Tested @ -40°C to 85°C (-40°F to 185°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	
Ambient Relative Humidity	5% to 95% (non-condensing)	
MTBF	348,518 Hours	
MTBF Calc. Method	Parts Count Reliability Prediction	
Langet Malta na	Power	
Input Voltage Power Consumption	Dual 12 to 48VDC (Terminal Block); 12VDC (DC Jack) 10.56W, 0.88A @ 12VDC, 0.44A @ 24VDC, 0.22A @ 48VDC	
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
	Regulatory Approvals	
Safety	EN60950-1, IEC60950-1	
EMI	FCC Part 15, Class A	
	VCCI, Class A	
	EN61000-6-3: EN55022, EN61000-3-2, EN61000-3-3	
EMS	EN61000-6-2	
	EN61000-4-2 (ESD Standards) Contact: + / - 4KV; Criteria B Air: + / - 8KV; Criteria B	
	EN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM Criteria A	
	EN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV; Criteria B D.C. Power Ports: + / - 4KV; Criteria B	
	EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line; Criteria B D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B	
	EN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A	
	EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz; Criteria A	
Environmental Test Compliance	IEC60068-2-6 Fc (Vibration Resistance) 5g @ 10~150KHz, Amplitude 0.35mm (Operation/Storage/Transport)	
	IEC60068-2-27 Ea (Shock) 25g @ 11ms (Half-Sine Shock Pulse; Operation) 50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)	
	IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)	
NEMA	NEMA TS1/2 Environmental requirements for Traffic control equipment	
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## **Diagrams**







