

# SL-2ES Industrial Ethernet Media Converter

Sixnet Networking Series



## ▶▶▶ Industrial Ethernet Media Converter

The SL-2ES is an industrial Ethernet copper to fiber media converter that provides fast performance allowing for real-time operation. These ruggedized converters are industrial hardened to provide superior reliability. They require no user setup and immediately start operating as soon as you power them up.

### PRODUCT HIGHLIGHTS

- Slim packaging fits on your DIN rail
- High performance and value
- Truly industrial hardened design
- Dual power inputs keeps you running
- Plug & play saves you time and money
- UL/CSA, CE, Hazardous Locations (Zone 2) and Maritime rated
- Ultra-reliable 1,000,000+ hours MTBF

### ETHERNET COMPLIANCE

- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3x (Full-Duplex with Flow Control)

### ETHERNET PERFORMANCE

- 2 Ethernet ports: 1 copper and 1 fiber
- Ethernet protocols supported: all IEEE 802.3
- RJ45 port (shielded): 10/100BaseTX
- RJ45 speed (10 or 100 Mbps): auto-negotiation
- RJ45 MDI/MDIX: auto-crossover and TD/RD auto-polarity
- Fiber optic port speed: 100BaseFX (100 Mbps)
- Fiber optic port wavelength typical: 1300 nm center typ.
- Fiber multimode (mm) typical: 50 or 62.5/125 um (SC or ST)
- Fiber singlemode (sm) typical: 9 or 10/125 um (SC or ST)
- Fiber max. distance: (full duplex) 4 km (mm), 20 (sm) or 40 km (long haul) or more
- Typ. latency for 100 Mbps ports: 5 us + frame time; varies on load
- Fiber duplex operation: Full
- MAC addresses supported: 1024
- Memory bandwidth: 3.2 Gbps
- Ethernet isolation: 1500 VRMS 1 minute



### POWER INPUT

- Input power (typical): 2.0 W (all ports active)
- Redundant power inputs: 10-30 VDC
- Transient protection: 15,000 watts peak
- Spike Protection: 5,000 watts (10 times for 10 uS)

### ENVIRONMENTAL

- Operating temperature range: -10 to +60 °C
- Storage temperature range: -40 to +85 °C
- Humidity (non-condensing): 5 to 95% RH
- Vibration: IEC60068-2-6

### STANDARDS COMPLIANCE

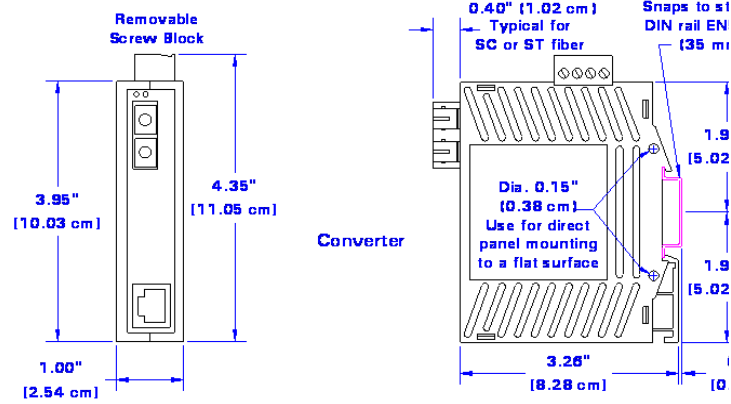
- Electrical safety: UL508/CSA C22.2/14, EN61010-1, CE
- EMI emissions: FCC part 15, ICES-003; EN61000-6-4, CE
- EMC immunity: EN61000-6-2, CE
- Hazardous locations: UL1604/CSA C22.2/213 (Class I, Div. 2); EN60079-15 (Zone 2, Category 3), CE (ATEX)
- Maritime: Rated for marine & offshore per ABS
- Eye safety (fiber models): IEC60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11

### PHYSICAL

- DIN rail or direct panel mounting
- Case: UL94V0 Lexan with IP30 protection
- Dimensions: see mechanical drawing
- Weight (typical): 0.11Kg (4oz.)

All specifications are subject to change. Consult factory for latest info.

## MECHANICAL DRAWING



### ORDERING GUIDE

<b>SL-2ES-2SC</b>	1 RJ45 port & 1 multimode fiber optic port with SC or ST style connector, 4 Km
<b>SL-2ES-2ST</b>	1 RJ45 port & 1 multimode fiber optic port with SC or ST style connector, 4 Km
<b>SL-2ES-3SC</b>	1 RJ45 port & 1 singlemode fiber optic port with SC or ST style connector, 20 Km
<b>SL-2ES-3ST</b>	1 RJ45 port & 1 singlemode fiber optic port with SC or ST style connector, 20 Km
<b>SL-2ES-3SCL</b>	1 RJ45 port & 1 singlemode fiber optic port with SC or ST style connector, 60 Km
<b>SL-2ES-3STL</b>	1 RJ45 port & 1 singlemode fiber optic port with SC or ST style connector, 60 Km

### ACCESSORIES

<b>SP-ETH-2</b>	Dual port 10/100 RJ45 lightning protector
<b>ET-PS-024-02</b>	AC to 24 VDC, 2A, power supply

Contact Sixnet for special or long haul fiber transceivers up to 120km