

# Canary Bridging Converters

## 10/100/1000 Mbs With SFP Transceivers

### Features Include:

- Compliance with IEEE 802.3 u, z, ab & 802.1D Specifications
- RJ-45 plus a Choice of High Speed Fiber Optic Data Connections
- Connectors for Multi & Single-mode, Single-Fiber Bi-Directional & CWDM

### **Bridging Converters:**

Canary's economical **CLE-10SF6** 10/100/1000 Bridging Converters bring compact, Gigabit Copper-to-Fiber Conversion to networks with a mix of Gigabit, 100 Mbs and legacy 10 Mbs devices.

Using Small Form Pluggable (SFP) type transceivers, **CLE-10SF6** Converters bring a high degree of flexibility to network design and increased usability. They are ideal for university dorm, large workgroup, research lab, business campus or any other remote mixed data rate environment.

Canary **CLE-10SF6** series Bridging Converters are available in three basic configurations:

- The first has a 10/100/1000 Mbs RJ-45, port and one flexible SFP type transceiver slot (empty) that can be loaded with an extensive choice of fiber optic interfaces available to the user.
- The second is the same configuration as the first but is shipped with an 850 nm, multi-mode SFP, LC-type Fiber optic connector pre-installed.
- The third version is similar except that it ships with a 1310 nm, single-mode SFP Fiber optic connector installed.

A wide array of other fiber optic connector types are available for **CLE-10SF6** series Converters, including multi-mode, long-reach single-mode, Single-Fiber Bi-Directional and CWDM transceivers – offering transmission ranges up to 120+ Km.

Other features include:

- 10/100/1000 Mbs Auto-negotiation
- Auto-Crossover (MDI/MDI-X) selection for the RJ-45 port.
- Automatic Flow Control.
- A DIP Switch to Enable/Disable 'Link Fault Signaling' (LFS) that forwards the loss of incoming Link on one port, through the second port, to the next adjacent station.

Canary Communications is an industry leader in providing advanced connectivity solutions for the evolving network.

### **CLE-10SF6 Bridging Ethernet Converter**



### **Small Form Pluggable Fiber Optic Connectors.**

Interchangeable SFP (Small Form Pluggable) LC type connectors provide maximum flexibility in connection types and added user convenience.

### **Long Range, Fiber Links for Bridging Converters.**

Extend data transmission distances to 120 Km over Fiber between converters or other remote devices.

### **Optional Single-Fiber Bi-Directional and CWDM Interfaces.**

Increases the number of users and data handling capacity of simplex or duplex optical cable and maintains user investments in existing fiber infrastructures.

### **Link Fault Signaling.**

Extends loss of Link awareness between connected devices or converters by forwarding the loss of Link (state) on one converter port, through the second converter port, to the next connected station – making it aware of a loss of Link somewhere in the connection path.

### **Unparalleled, Network Integration and Versatility.**

Use Canary's Bridging Media Converters for legacy, mixed 10/100/1000 Mbs environments where flexibility is a premium. With a SFP slot, one **CLE-10SF6** can function as a universal spare for many different units in large installations by merely changing SFP connectors.

For example, one **CLE-10SF6** loaded with a variety of pluggable optics, can substitute for many different CWDM units by simply changing the wavelength and power of its SFP optical transceivers.

**Canary Communications**

**Mechanical Specifications**

**Gigabit 10/100/1000 UTP-to-Fiber Converters**

The following models have similar features except for the Fiber port connector specifications:

**CLE-10SF6 (LC Connector Type, SFP Transceiver Port)**

- One 10/100/1000 Ethernet RJ-45 Data Port
- RJ-45 Auto-Cross MDI / MDI-X capability
- One LC Small Form Pluggable (SFP) Port
- SFP Port allows function as universal spare
- DIP Switch to Enable Link Fault Signaling (LFS)
- Five Diagnostic LED Indicators
- Compact external power supply

**CLE-10SF-SX (LC Multi-mode Type, SFP Transceiver)**

- One LC 850 nm, Multi-mode (SFP) Transceiver Installed
- All other features same as **CLE-10SF6** above.

**CLE-10SF-LX (LC Single-mode Type, SFP Transceiver)**

- One LC 1310 nm, Single-mode (SFP) Transceiver Installed
- All other features same as **CLE-10SF6** above.

**Notes on CWDM Usage:**

Group (A) Wavelengths (As) = 1470, 1510, 1550, 1590 nm  
 Group (B) Wavelengths (As) = 1490, 1530, 1570, 1610 nm

CWDM (SFP) optical transceivers are specified to use wavelengths from the above Groups in order to be compatible with Canary Passive Multiplexer/De-multiplexers and OADMs (Optical Add-Drop Multiplexers) as well as other vendor's products.

Each CWDM transceiver includes at least two characters that exactly specify its working wavelength. That is, where XX = the middle characters of the wavelength e.g. XX= 47 ~ 1470 nm. Thus a transceiver will have 1550 nm or 55 as part of the description or model number.

ITU G-652.C compliant single-mode fiber, or better, is recommended for CWDM applications.



**CLE-10SF6 (without SFP connectors) Other versions are similar.**

**Environmental:**

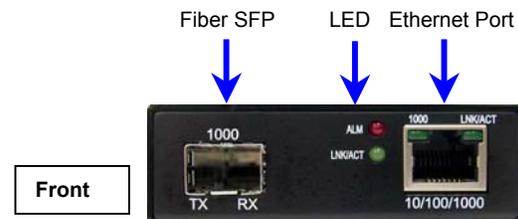
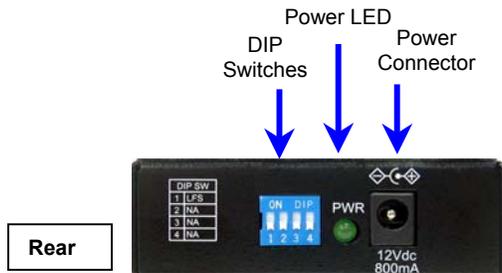
- OperatingTemp.: 0 to 50 °C
- Storage Temp.: -10 to 66 °C
- Relative Humidity: 5% to 95%, non-condensing

**Power Source:**

- Input: 100/240 VAC Max.
- Output: 12.0 VDC @ 0.8 Amps Nominal

**Mechanical:**

- Length: 4.4 inch (110 mm)
- Width: 2.9 inch (74 mm)
- Height: 0.9 inch (23 mm)
- Weight: 0.6 lb. (0.3 Kg) [Includes Power Supply]
- Ship Wt. 2.4 lb. (1.1 Kg)
- FCC Class A/Part 15, UL and CE approved.
- Other Certifications pending



For more information please visit us at:  
[www.canarycom.com](http://www.canarycom.com)  
[info@canarycom.com](mailto:info@canarycom.com)

