

Serial RS-232/422/485 to Ethernet Fiber Converters



Illustrated: Two Serial Rs-232 / 422 / 485 to Ethernet Fiber Converters plus one Copper Converter

Canary's competitively priced CSE-D9M1/D9S1 series of Serial-to-Ethernet Fiber optic media converters is a cost-effective solution to the integration of Serial devices with 100BASE-FX Ethernet networks.

Simple setup and installation, combined with multi-interface (RS-232/422/485) support, make CSE-D9M1/D9S1 converters ideal tools for easily migrating short-ranged serial devices to highly flexible Ethernet networks. With CSE-D9M1/D9S1 converters, users retain their investments in low-cost serial devices while enjoying the longer range, flexibility, and data handling power of Ethernet access.

Pushing the leading edge ... advancing the state of the art.

CSE-D9MX
Serial to
Multi-mode fiber

CSE-D9SX
Serial to
Single-mode fiber

Features:

**Supports
asynchronous data
transfer rate
up to 500Kbps**

**DIP switch-enabled
terminator resister**

**512 Kbyte
memory buffer**

**Cost effective
integration of serial
devices with
100BASE-FX
Ethernet networks.**



Product Specifications

Standards

- Fast Ethernet
IEEE 802.3u (100BASE-FX)
- Serial EIA/TIA RS-232E, RS-422, RS-485
EIA/TIA 574.

Interfaces

- Fiber:
100BASE-FX: ST, SC
Multi-mode: 50/125, 62.5/125,
100/140 η m
Single-mode: 9/125 η m cable
- Serial: One RS-232/422/485;
Female DB-9
- Signals:
RS-232: - TxD, RxD, RTS, CTS, DTR,
DSR, DCD, GND
RS-422: - TxD+/-, RxD+/-, RTS+/-,
CTS+/-, GND
RS-485: Data+/-, Data+/-, GND

Diagnostic LED Indicators for device status: Power, Link, Receive Activity

Power

- Input Voltage: 120 VAC
- Output: 12 VDC 800mA (External power adapter)
- Frequency: 60 Hz

Protocols

- RTS, CTS, DCD, DTR, DCR
and IEEE 802.3u

Physical

- Dimensions: 4.3 x 2.9 x .92 inches
(LxWxH) (109.2 mm x 73.8 mm x 23.4 mm)
- Weight: 0.70 lb (0.32 Kg)
- Emissions: FCC Part 15 of Class A;
CE Approved

All information contained within this document is subject to change without notice at Canary Communications' sole and absolute discretion. Customer agrees that Canary Communications is not liable for any actual, consequential, exemplary or other damages arising from any use of the information contained herein.

Canary warrants the performance of its products only in accordance with its stated Five-year or Three-year standard warranties. Canary Communications disclaims any and all other warranties including express, implied, statutory; and including warranties of merchantability or fitness for a particular purpose – except where prohibited by law. Canary Communications does not transfer rights to any copyrighted software code contained within or used by Canary Products.

Serial RS- Complete Converters

Switches

- Mode Switches: Push button,
DTE / DCE
- DIP Switches: RS-232, RS-422
RS-485/Auto, RS-485/RTC

Environment

- Operating Temperature: 0° to 55° Celsius;
- Relative Humidity: 10% to 80%, non-condensing
- Storage Temperature: -20° to 70° Celsius;
- Relative Humidity: 5% to 90%, non-condensing

Warranty

- Three years, parts and labor

The pages that follow provides ordering information for Canary's Serial RS-232/422/485 to Ethernet Fiber Converters products:

- **Serial to Multi-mode fiber**
CSE-D9MX
- **Serial to Single-mode fiber**
CSE-D9SX



Canary Communications is an
ISO 9001 : 2000 registered company.



Canary Communications, Inc.
18655 Madrone Pkwy, #100
Morgan Hill, CA 95037

Tel: (408)465-2277
Fax: (408)465-2278
Web: www.canarycom.com

© 2004 Canary Communications. Canary is a trademark of Canary Communications, Inc. All trademarks and registered trademarks are the properties of their respective companies.

Serial RS-232/422/485 to Ethernet Fiber Converters

CSE-D9MX – Serial to Multi-mode fiber

CSE-D9SX – Serial to Single-mode fiber



Illustrated: Serial RS-232 / 422 / 485 to Ethernet Fiber showing Standard SC Connectors

Featuring a multi-protocol DB-9 connector (RS-232, RS-422 and RS-485), and a choice of Fiber connectors, the CSE-D9M1/D9S1 series of media converters facilitates integration of asynchronous network devices with a TCP/IP based Ethernet network without requiring removal, replacement, or modification of the current serial cable infrastructure. The CSE-D9M1/CSED9S1 series is the right solution to reliably link remote terminals to host computers, and are perfect for manufacturing process control and security applications where electromagnetic/radio frequency interference is a major concern. Each unit offers economical transport of serial data over Ethernet fiber networks with extended distances of up to 30km.

A switch-enabled Terminator is used to make the CSE-D9M1/D9S1 converter present the characteristics (illusion) of an infinite line, thereby creating a true multi-drop network.

-
- Complies with EIA/TIA-232E, EIA/TIA-422, EIA/TIA-485
 - Diagnostic LEDs for device status: power, link and receive data
 - Supports asynchronous data transfer rate up to 500 Kbps
 - DTE, DCE push-button for device configuration
 - Straightforward 'plug-and-go' installation
 - DIP switch enabled termination resistor
 - Supports full and half-duplex modes
 - Available with SC/ST connectors
 - FCC Class A and CE approved
 - 512 KByte memory buffer
 - External power supply
-

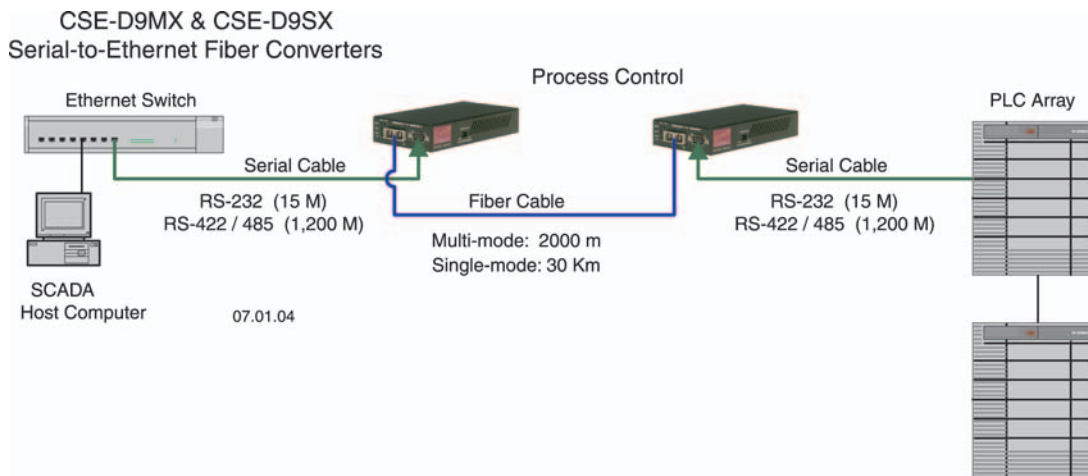
Serial RS-232/422/485 to Ethernet Fiber Converters

CSE-D9MX – Serial to Multi-mode fiber

CSE-D9SX – Serial to Single-mode fiber

Ordering Information

Model Numbers	Media Types	Min. Tx PWR	Max. Tx PWR	Rx Sensitivity	Min. PWR Budget	Max.PWR Budget	Max. Input PWR	Connector Type	Wavelengths (nm)	Transmit Distance
CSE-D9-MI	RS / MM *	-20.0 dBm	-14.0 dBm	-31.0 dBm	11.0 dB	17.0 dB	N/A	DB-9 / SC	1310 nm	2000 m
CSE-D9-M2	RS / MM	-20.0 dBm	-14.0 dBm	-31.0 dBm	11.0 dB	17.0 dB	N/A	DB-9 / ST	1310 nm	2000 m
<i>Specifications above in blue are for multi-mode, fiber connectors. Specifications below for single-mode, fiber connectors.</i>										
CSC-4D9-S1	RS / SM	-15.0 dBm	-8.0 dBm	-34.0 dBm	19.0 dB	26.0 dB	-7.0 dBm	DB-9 / SC	1310 nm	30 Km
CSC-4D9-S2	RS / SM	-15.0 dBm	-8.0 dBm	-34.0 dBm	19.0 dB	26.0 dB	-7.0 dBm	DB-9 / ST	1310 nm	30 Km
<i>* Serial RS-422 / 485 interfaces (copper cable): 24 AWG</i>										



This diagram illustrates typical applications for CSE-D9M1/D9S1 series converters. The actual distances will depend on several factors including the quality of cables used and the terminal equipment employed.