

Multi-Power Miniature Media Converters

Get Gigabit speeds in a robust industrial media converter.



FEATURES

- » Powered through an AC adapter or through a DC terminal block.
- » Extended temperature range when used with DC power.
- » RoHS compliant.
- » Can be used as a standalone device or DIN rail mounted.
- » The 10-/100-/1000-Mbps copper port autonegotiates speed.

OVERVIEW

Multi-Power Miniature Media Converters seamlessly and transparently convert 10-/100-/1000-Mbps copper to 1000-Mbps fiber. Because they're Layer 2 media converters, they automatically sense and adapt to speed on the copper side for truly plug-and-play operation.

Use the converters to extend your network over fiber at distances ranging from 300 meters (984.3 ft.) on multimode cable to as much as 80 kilometers (49.7 mi.) on single-mode cable. Single-strand models enable you to both send and receive over one strand of fiber by using different wavelengths in each direction.

Multi-Power Miniature Media Converters are perfectly adapted to industrial environments. The converters can be powered conventionally with an AC adapter or powered through a DC terminal block. The terminal block features a pair of input and a pair of output terminals, so you can easily cascade power in DIN Rail applications.

When used with DC power, the converters support an extended temperature range of -31 to +158° F (-35 to +70° C), making them suitable for a wide range of industrial applications.

The compact metal chassis is so small, you can tuck it nearly anywhere—it even includes VELCRO® strips for surface mounting so you can mount it out of the way on a wall or even under a shelf. For industrial applications, these converters also come with DIN clips for standard DIN rail mounting.

TECH SPECS

Data Rate — Copper: 10/100/1000 Mbps;

Fiber: 1000 Mbps

Standards — IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z

CE Approval — Yes

Connectors — (1) RJ-45, (1) SC, (1) AC power, (1) 4-terminal DC power

Indicators — LEDs: (1) FX LNK/ACT, (1) TX LNK/ACT

Environmental — Operating temperature:

DC configuration: -31 to +158°F (-35 to +70°C),

AC configuration: 32 to 122°F (0 to 50°C);

Storage temperature: -49 to +185°F (-45 to +85°C);

Humidity: 5 to 95%, noncondensing

Power — Dual power: AC: 100–240 VAC external power supply;

DC: 7–50 VDC at 2.5 watts, chassis grounded to negative terminal

Size — 0.8"H x 1.8"W x 3.4"D (2 x 4.6 x 8.6 cm)

Technically Speaking

Wave-division multiplexing (WDM).

Single-strand fiber conversion compresses the transmit and receive wavelengths into one single-mode fiber strand.

The conversion is done with Wave-Division Multiplexing (WDM) technology. WDM technology increases the information-carrying capacity of optical fiber by transmitting two signals simultaneously at different wavelengths on the same fiber. The way it usually works is that one unit transmits at 1550 nm and receives at 1310 nm. The other unit transmits at 1310 nm and receives at 1550 nm. The two wavelengths operate independently and don't interfere with each other. This bidirectional traffic flow effectively converts a single fiber into a pair of "virtual fibers," each driven independently at different wavelengths.

Although most implementations of WDM on single-strand fiber offer two channels, four-channel versions are just being introduced, and versions offering as many as 10 channels with Gigabit capacity are on the horizon.

WDM on single-strand fiber is most often used for point-to-point links on a long-distance network. It's also used to increase network capacity or relieve network congestion.

Item

Code

Multi-Power Miniature Media Converters

10-/100-/1000-Mbps Copper to 1000-Mbps Duplex Fiber

Multimode, 850-nm, SC

300 m

LGC320A

300 m, without AC Power Supply

LGC320A-NPS

Single-Mode, 1310-nm, SC

10 km

LGC321A

10 km, without AC Power Supply

LGC321A-NPS

40 km

LGC322A

40 km, without AC Power Supply

LGC322A-NPS

Single-Mode, 1550-nm, SC

70 km

LGC323A

10-/100-/1000-Mbps Copper to 1000-Mbps Single-Strand Fiber

Single-Mode, 10 km, SC (Order One of Each.)

1310-nm Transmit/1550-nm Receive

LGC324A

1550-nm Transmit/1310-nm Receive

LGC325A

Single-Mode, 40 km, SC (Order One of Each.)

1310-nm Transmit/1550-nm Receive

LGC326A

1550-nm Transmit/1310-nm Receive

LGC327A

Single-Mode, 60 km, SC (Order One of Each.)

1310-nm Transmit/1550-nm Receive

LGC328A

1550-nm Transmit/1310-nm Receive

LGC329A

Single-Mode, 80 km, SC (Order One of Each.)

1490-nm Transmit/1550-nm Receive

LGC330A

1550-nm Transmit/1490-nm Receive

LGC331A