



# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

# Industrial Media Converter



## Key Features

- ▶ The Perfect Media Converters for Fibre Deployment in Production Environments.
- ▶ Single and Multimode versions available.
- ▶ 35 mm DIN-rail mounting.
- ▶ IP Protection Class 20 compliant (\*)
- ▶ Relay Contact for connecting external Alarm Systems.
- ▶ Link Transparency function.
- ▶ Dual Power supply.

## Description

### The rise of Ethernet in Industrial Environments

In addition to being deployed in local networks, Ethernet is spreading increasingly across production environments. Modern machine control systems and industrial plants are already equipped with 10/100Base-TX interfaces.

### Fibre Optic Advantages in Production Facilities

Production environments can also benefit from flexible media conversion by employing fibre optics as they are insensitive against electromagnetic interference and do not suffer from galvanic separation, enable longer transmission distances, and are highly reliable. However, deployment of fibre optics for such as active hubs, switches, and media converters in office environments is fundamentally different

from the deployment in production environments where fast initialisation, high robustness and availability, as well as fail safe operation are required.

### Ready for Demanding Applications

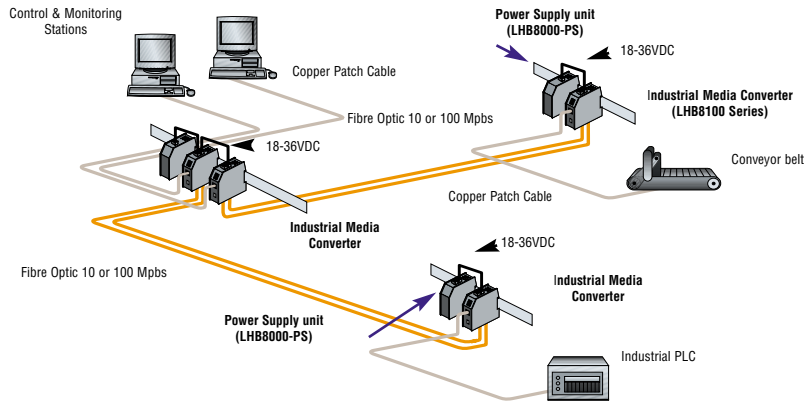
For this extremely demanding environment, Black Box offers special media converters in industrial designs. An integrated mounting device allows the direct installation on 35mm DIN-rails. The Media Converters are powered by a 24V DC power supply. A second mains terminal can be used for redundant power supply. The Ethernet converters have a crossover switch for reversing the port input of the RJ-45 connector. The fibre optic connector is located on the underside of the device. This ensures protection of the optical transceiver against dust and contamination.

### IP Protection Class 20 compliant (\*)

This means protection against middle-sized alien elements. More in particular protection against contact with active elements in or outside the enclosure, i.e. fingers; and protection against penetration of solid alien elements with a diameter larger than 12 mm.

### What's included:

- (1) Media Converter
- (1) Manual on CD-ROM



## Specifications

**Standards** — IEEE802.3 10BASE-T, 10BASE-FL and IEEE802.3u 100BASE-TX, 100BASE-FX

**Media Support** — Cat5, 5e, or 6 STP(preferably)/UTP; Fibre Optic multimode 50/125 µm & 62.5/125 µm; Fibre Optic Single-mode 8-9/125 µm

**Connectors** — data: (1) RJ-45 STP + (1) Fibre duplex ST/SC; power: (1) 2-position terminal blocks; 3-pole Alarm Relay Contact

**Distances Support** —  
 10Mbps Ethernet  
 Twisted pair STP: 100 metres;  
 Multimode fibre: 2 km for full duplex;  
 Single-mode fibre: 10 km for full duplex  
 100Mbps Fast Ethernet  
 Twisted pair STP: 100 metres;  
 Multimode fibre: 2 km for full duplex;  
 Single-mode fibre: 15 km for full duplex

**Wavelength** —  
 10Mbps Ethernet  
 Multimode fibre: 850nm  
 Single-mode fibre: 1300nm  
 100Mbps Fast Ethernet  
 Multimode fibre: 1300nm  
 Single-mode fibre: 1300nm  
 Data Transfer Rate — 10 or 100 Mbps

**Indicators** — LEDs: (1) Power, (1) FX-link, (1) TX-link, (1) FX-activity, (1) TX-activity and (1) alarm

**Temperature** —  
 Operating: 0° to 60°C;  
 Storage: -20° to 80°C  
 Humidity — 5% to 90% (non-condensing)

**Power Requirement** — Dual (one main and one redundant) Input 18-36VDC/maximum 200mA@24VDC from External power supply (e.g. LHB8000-PS)

**Certifications** — CE

**Size** — 10.8D x 3.8W x 1.16H cm

**Weight** — 850 g

## Ordering information

### ITEM

### CODE

#### Industrial Media Converter

Speed	Mode	Wavelength	Connectors	
10Mbps	MM	850nm	ST to copper	...LHB8100A
10Mbps	SM	1300nm	ST to copper	...LHB8101A
100Mbps	MM	1300nm	SC to copper	...LHB8102A
100Mbps	MM	1300nm	ST to copper	...LHB8103A
100Mbps	SM	1300nm	SC to copper	...LHB8107A
100Mbps	SM	1300nm	ST to copper	...LHB8108A

#### Power Supply

Power Supply Unit for up to 6 devices ..... LHB8000-PS

#### Accessories

DIN Rail, 1-m ..... DR100

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**On-line** — receive technical knowledge on-line, including technology overviews, Black Box Explains and the Knowledge Box.

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