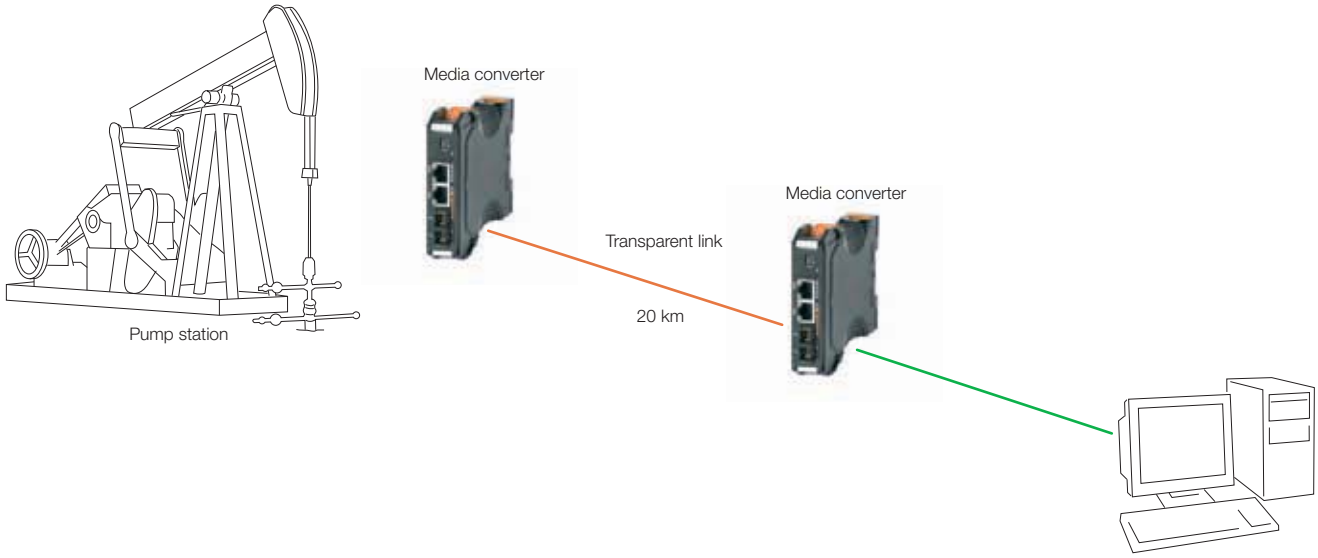
Introduction Media converters

The use of fibre optics is advisable when reliability demands are high or there are long distances to cover. One simple and inexpensive solution is the Weidmüller media converter, which can convert an RJ45 port to an optical port with an SC or ST glass fibre connection. The supply voltage can be designed as a redundant system and therefore provides users with high fail-safe security. The conversion of RJ45 copper ports to SC or ST fibre optic ports can be set transparently.

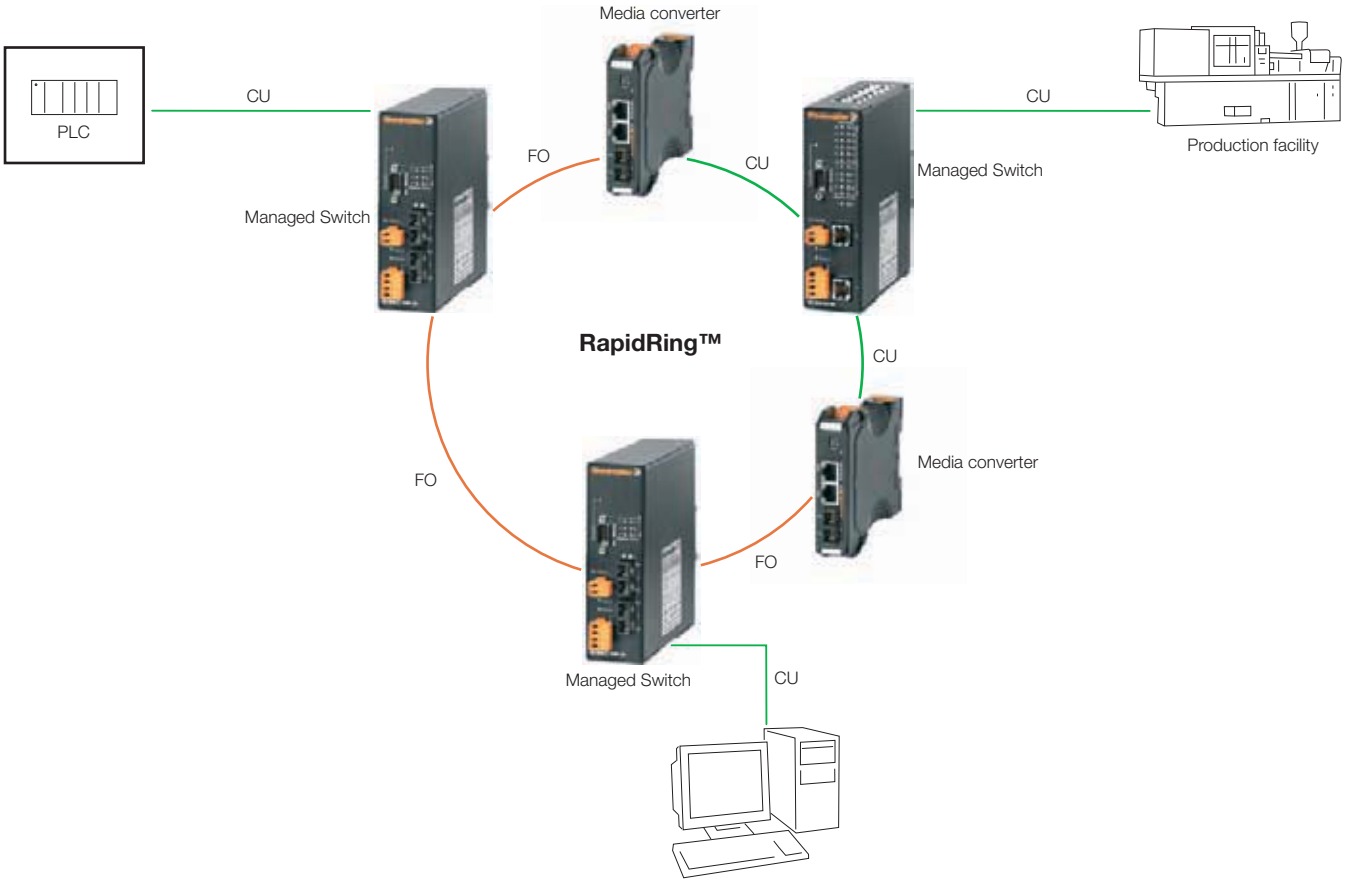
Weidmüller Industrial Ethernet media converters provide a solution for industrial applications that require a highly reliable, robust data exchange between copper and glass fibre media. Media converters are cost-effective devices and give users the option of integrating fibre optics into their networks. The Weidmüller media converters are real-time-compatible and remain transparent in the network.

Single-mode long-distance cabling



Long-distance cabling of up to 60 km is possible in single-mode with our media converters. Our standard converter features a max. 2-km transmission path in multi-mode and a max. 20-km transmission path in single-mode. The required connection cables can be found in Chapter D.

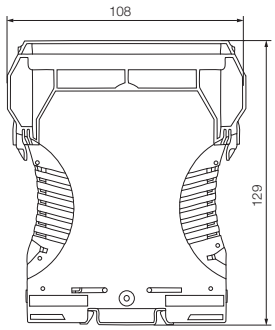
Media converter in RapidRing™, with transparent link



Because of their transparent network links, our media converters are well suited for use within a redundant connection in a ring topology.

WaveLine Media Converter

- Transparent in network
- Multimode or singlemode



WaveLine Media Converter

Weidmüller's media converters can be switched between half duplex and full duplex by means of a small switch. This means they can be used in demanding real-time applications. Thus RapidRing™ transparency is no problem!
The multi-mode version can transmit with no interference for up to 2 km. The single-mode version can transmit up to 20/60 km. Longer transmission capabilities are available on request.

Ordering data

Number of ports	Type	Order No.
1 x RJ45 MDI/MDI-X, 1 x SC multi-mode	IE-MC-SC-WAVE	**8916300000**
1 x RJ45 MDI/MDI-X, 1 x SC single-mode	IE-MC-SC-SM-WAVE	**8916290000**
1 x RJ45 MDI/MDI-X, 1 x SC single-mode 60	IE-MC-SC-SM60-WAVE	**8963430000**
1 x RJ45 MDI/MDI-X, 1 x ST multi-mode	IE-MC-ST-WAVE	**8916310000**
1 x RJ45 MDI/MDI-X, 1x ST-Singlemode	IE-MC-ST-SM-WAVE	**8958520000**
	Singlemode design up to 120 km on request	

Accessories

	Type	Order No.
RJ45 dust-protection plug	IE-DPC	**8813490000**
markers	WS 15/5 MC NEUTRAL	**1609880000**
Note	Cables and connection elements are found starting at Chapter C.	

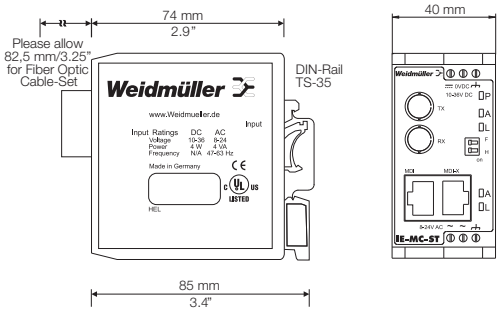
Technical data

Housing	Plastic V0
Length / Width / Height	108 mm / 22.5 mm / 127.8 mm
AC input voltage, min.-max.	10-24 V AC
DC input voltage, min.-max.	10-35 V DC
AC input power / DC	4 VA AC / 4 Watt DC
Input frequency	47 - 63 Hz
Operating temperature, min.-max.	0 °C-60 °C
Storage temperature, min.-max.	-40 °C-85 °C
Installation	TS 35
Protection class	IP 20
Standard	IEEE 802.3; 802.3u; 802.3x; Class I, Division 2
Data rate	RJ45/100m: 100BASE-TX Fibre-optic connection: 100BASE-FX (1310 nm) Multi-mode to 2 km Single-mode to 20/60 km Transparent
Segment length	Copper 100 m; fibre (multi-mode) 2 km; fibre (single-mode) 20/60 km
Status indication	Power/data rate, Connection/Activity
Approvals	cULus, CE, EN55024, EN 55022, Gost R
Optical budget	8 dB for 62.5/125 µm multimode cable 4 dB for 50/125 µm multimode cable 13 dB for 9/125 µm singlemode cable
Supported protocols	Profinet RT, Modbus TCP, TCP/IP, EthernetIP

Note:

Media converter

- Transparent in network
- For mounting on TS32 and TS35
- Transmission distances up to 20 km
- Multimode or singlemode



Media converter

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Ordering data

Number of ports	Type	Order No.
1 x RJ45 MDI/MDI-X, 1 x SC multi-mode	IE-MC-SC	**8808220000**
1 x RJ45 MDI/MDI-X, 1 x SC single-mode	IE-MC-SC-SM	**8848840000**
1 x RJ45 MDI/MDI-X, 1 x ST multi-mode	IE-MC-ST	**8808190000**
	Singlemode design up to 120 km on request	

Accessories

	Type	Order No.
RJ45 dust-protection plug	IE-DPC	**8813490000**
Note	Cables and connection elements are found starting at Chapter C.	

Technical data

Housing	Plastic
Length / Width / Height	85 mm / 40 mm / 79 mm
AC input voltage, min.-max.	8-24 V AC
DC input voltage, min.-max.	10-36 V DC
AC input power / DC	4 VA AC / 4 Watt DC
Input frequency	DC; 47 - 63 Hz AC
Operating temperature, min.-max.	0 °C-60 °C
Storage temperature, min.-max.	-40 °C-85 °C
Installation	TS 32/35
Protection class	IP 20
Standard	IEEE 802.3; 802.3u; 802.3x; Class I, Division 2
Data rate	RJ45/100m: 100BASE-TX Fibre-optic connection: 100BASE-FX (1310 nm) Multi-mode to 2 km Single-mode to 20 km Transparent
Segment length	Copper 100 m; fibre (multi-mode) 2 km; fibre (single-mode) 20/60 km
Status indication	Power/data rate, Connection/Activity
Approvals	cULus, CE, EN55024, EN 55022, Gost R, GL
Optical budget	8 dB for 62.5/125 µm multimode cable 4 dB for 50/125 µm multimode cable 13 dB for 9/125 µm singlemode cable
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Note: