

# Ethernet Media Converter 10Base-T/10Base-FL

# MICROSENS

## General

The MICROSENS media converter offers the direct connection of twisted pair cables (10Base-T) to multimode and single mode fiber (10Base-FL) in an Ethernet network (IEEE 802.3). In due to the direct connection it is possible to extend existing twisted pair cables over the limit of 100 m.

The link status of the segment is forwarded by the integrated link transparency of the converter, that means in case of missing link on the fiber side there is no link generated on the copper side (and vice versa).

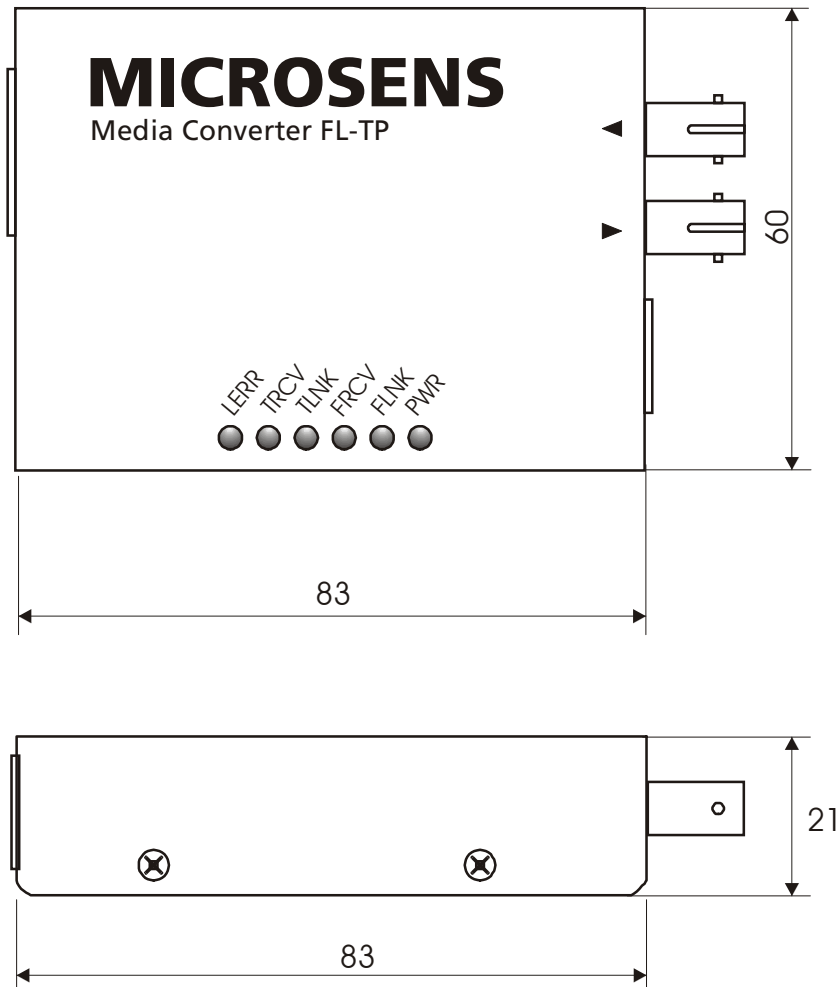
Colour coded LEDs give status information about the converter and can be used for network diagnostics.

## Technical Specifications

<b>Type</b>	Ethernet media converter for connection of twisted pair (10Base-T) and fiber (10Base-FL) segments.	
<b>Fiber type</b>	Multimode 62,5/125 or 50/125µm, Single mode 9/125µm, duplex	
<b>Datarate</b>	10 Mbit/s	
<b>Min. opt. power</b>	Multimode (850 nm)	-19 dBm (MS410501/601/532/551)
	Single mode (850 nm)	-20 dBm (MS410103)
	Single mode (1300 nm)	-24 dBm (MS410101)
		-16 dBm (MS410104)
<b>Opt. sensitivity</b>	-32,5 dBm (min.)	
<b>LED Displays</b>	<i>Power</i>	Ready for operation
	<i>FL-Link</i>	Fiber link
	<i>FL-Receive</i>	Data received at fiber port
	<i>TP-Link</i>	Twisted Pair link
	<i>TP-Receive</i>	Data received at twisted pair port
	<i>Link-Error</i>	Fiber link interrupted, no twisted pair link generated
<b>Power supply</b>	12 V DC / max. 500 mA with external power supply	
<b>Dimensions</b>	83 x 60 x 21 mm (w x d x h)	
<b>Operating temperature</b>	0°C to 55°C	
<b>Storage temperature</b>	-20°C to 80°C	
<b>Rel. humidity</b>	5% to 80% non condensing	

**Chassis**

The chassis consists of black powder coated steel sheet. The following figure shows the converter in original size.

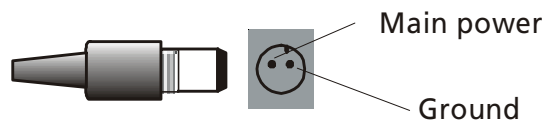


**Power supply**

The power supply is done via an external power supply 12 V DC / max 500 mA. Beside the standard 2.1 mm jack plug connector the user can get a screw connector for the power supply. Because of warranty reasons only MICROSENS power supplies can be used.



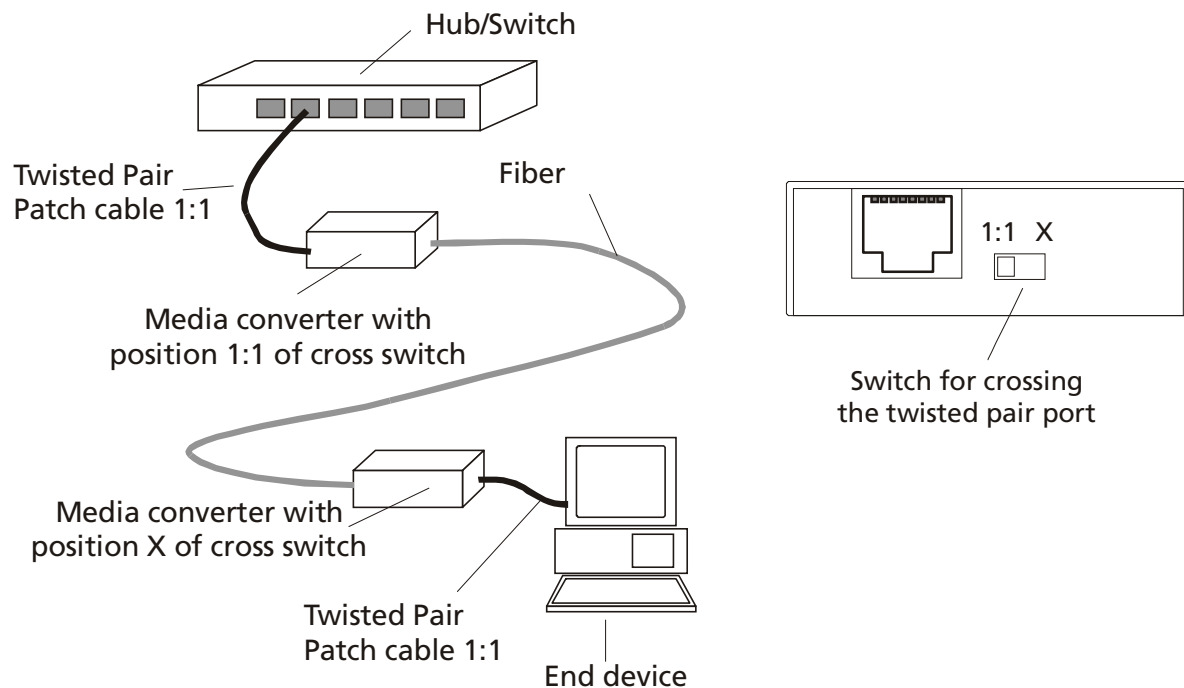
Version with jack plug connector (standard)



Version with screw connector (optional)

## Connections

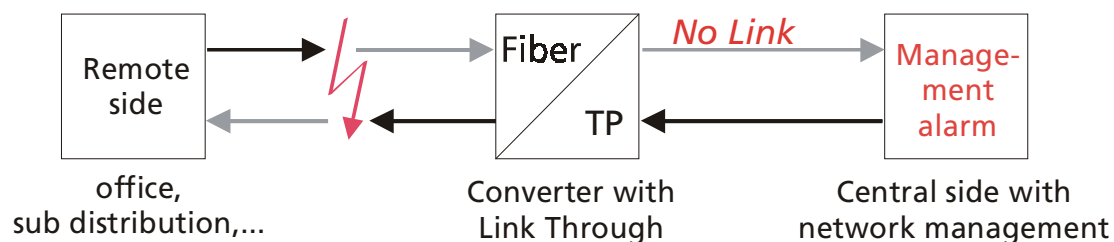
The connection of the converter to a hub/switch is done with an uncrossed cable. Because the port of the media converter can be crossed by the integrated cross switch, also end devices can be connected with an uncrossed cable.



In half duplex mode it is possible to cover distances up to 5 km depending on the model. For transmissions over a distance greater than 5 km it is necessary to use full duplex mode.

## Link Transparency

The converter has the integrated "Link Through" functionality to support the connection control. The connection status of the fiber segment is forwarded to the twisted pair segment. In due to this the twisted pair connection is switched off in a case of failure at the fiber segment.



## Accessories

Optional these media converters are available with rail mounting and 24 V screw terminal for the power supply.

## Order information

Part No.	Description	Connectors
MS410501	Media converter 10Base-T/10Base-FL, 850 nm multimode, 2 km, incl. external power supply (jack 2.1 mm)	2 x ST, 1 x RJ45
MS410601	Media converter 10Base-T/10Base-FL, 850 nm multimode, 2 km, incl. external power supply (jack 2.1 mm)	2 x SC, 1 x RJ45
MS410103	Media converter 10Base-T/10Base-FL, 850 nm single mode, 5 km, incl. external power supply (jack 2.1 mm)	2 x ST, 1 x RJ45
MS410101	Media converter 10Base-T/10Base-FL, 1300 nm single mode, 10 km, incl. external power supply (jack 2.1 mm)	2 x ST, 1 x RJ45
MS410104	Media converter 10Base-T/10Base-FL, 1300 nm single mode, 20 km, incl. external power supply (jack 2.1 mm)	2 x ST, 1 x RJ45
MS410532	Media converter 10Base-T/10Base-FL, 850 nm multimode, 2 km, incl. external power supply (screw connector)	2 x ST, 1 x RJ45
MS410551	Media converter 10Base-T/10Base-FL, 850 nm multimode, 2 km, incl. DIN rail mounting and 24 V screw terminal for power	2 x ST, 1 x RJ45,

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