

Datasheet

Gigabit Ethernet Converter 1000Base-T / 1000Base-SX / -LX



General

The MICROSENS Gigabit Ethernet media converter enables the direct, repeaterless connection of twisted pair (1000Base-T) and multimode or single mode fiber optic segments (1000Base-SX or 1000Base-LX) in a Gigabit Ethernet network (IEEE 802.3z / IEEE 802.3ab). The direct connection makes it possible to extend existing twisted-pair cables beyond the limit of 100 m.

The converter enables cost-effective conversion of individual twisted-pair ports to fiber optic cables and thus the extension of segments.

Colour-coded LEDs indicate the current status of the converter and can be used for fault detection in the network.

As this special media converter works without bridge mode and therefore without autonegotiation, it offers minimal latency in media conversion.

Technical Details

Type	Gigabit Ethernet Mediaconverter	
Connection	1x 1000Base-SX / -LX (depending on model) 1x 1000Base-T	
Fiber Type	Multimode 62,5/125 resp. 50/125µm, Singlemode 9/125µm, duplex SC- or ST-Plugs (depending on model)	
Cable Type	Shielded Twisted Pair Cable, 100 Ohm, Category 5e,	
LED-Displays	<i>PWR</i>	Ready for operation
	<i>FX LNK</i>	FO connection intact
	<i>FX FDX</i>	FO Connection in Fullduplex intact
	<i>TX LNK</i>	TP-Connection intact
	<i>TX FDX</i>	TP-Connection in Fullduplex intact
	<i>ACT</i>	Data transfer
Power Supply	External Power Supply (5 V DC), incl. in scope of delivery 100..240 VAC, 50/60Hz	
Operating temp.	0..50 °C	
Storage temp.	-20..80 °C	
Humidity	5% bis 90 % non condensing	
Dimensions	70,3 x 26,2 x 94 mm (W x H x D)	

Configuration

TP-Connection	<i>Fixed</i> 1Gbit/s Vollduplex und Autonegotiation	
Switch for Fiber Mode:		
Fiber connection	<i>AUTO (Standard):</i>	1Gbit/s Vollduplex and Autonegotiation
	<i>FORCE</i>	1Gbit/s Vollduplex no Autonegotiation

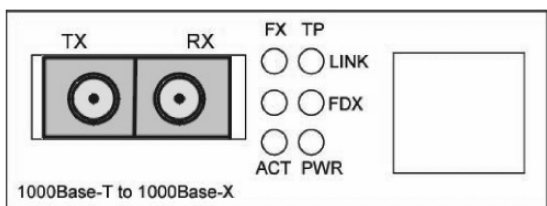
Note: For use in pairs, both converters should be configured to " FORCE " mode.

Optical Parameter

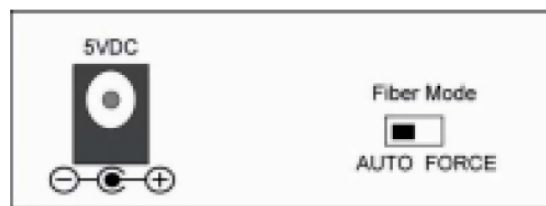
Multimode Model	<i>min. Distance:</i>	550 m (typ. with 50µm)
	<i>min. Transmission output:</i>	-10 dBm
	<i>min. Sensitivity:</i>	-20 dBm
	<i>Wavelength</i>	850 nm
Singlemode Model	<i>min. Distance:</i>	10 km (Fulllduplex)
	<i>min. Transmission output:</i>	-8 dBm
	<i>min. Sensitivity:</i>	-22 dBm
	<i>Wavelength</i>	1310 nm
	<i>min. Distance:</i>	20 km (Fulllduplex)
	<i>min. Transmission output:</i>	-5 dBm
	<i>min. Sensitivity:</i>	-22 dBm
	<i>Wavelength</i>	1310 nm
	<i>min. Distance:</i>	50 km (Fulllduplex)
	<i>min. Transmission output:</i>	-5 dBm
	<i>min. Sensitivity:</i>	-24 dBm
	<i>Wavelength</i>	1550 nm
	<i>min. Distance:</i>	70 km (Fulllduplex)
	<i>min. Transmission output:</i>	0 dBm
	<i>min. Sensitivity:</i>	-24 dBm
	<i>Wavelength</i>	1550 nm

Layout

The housing is made of powder-coated sheet steel.



Ports for fiber optic and copper



DIP switches and power supply

Order Information

Description	Art. No.
GbE Desktop Converter MM 1x 1000SX SC/MM, 1x 1000T, ext. PS (110/230VAC)	MS400190
GbE Desktop Converter MM 1x 1000SX ST/MM, 1x 1000T, ext. PS (110/230VAC)	MS400196
GbE Desktop Converter SM 1x 1000LX SC/SM (10km), 1x 1000T, ext. PS (110/230VAC)	MS400191
GbE Desktop Converter SM simplex 1x 1000LX SC/SM TX1310nm/RX1550nm (10km), 1x 1000T, ext. PS (110/230VAC)	MS400191A
GbE Desktop Converter SM simplex 1x 1000LX SC/SM TX1550nm/RX1310nm (10km), 1x 1000T, ext. PS (110/230VAC)	MS400191B
GbE Desktop Converter SM 1x 1000LX SC/SM (20km), 1x 1000T, ext. PS (110/230VAC)	MS400192
GbE Desktop Converter SM 1x 1000LX SC/SM (50km), 1x 1000T, ext. PS (110/230VAC)	MS400193
GbE Desktop Converter SM 1x 1000LX SC/SM (70km), 1x 1000T, ext. PS (110/230VAC)	MS400194

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