

Datasheet

Protocol transparent MM / SM-Converter
40MBit/s – 155 MBit/s – 1.25 GBit/s



General

With its protocol-transparent media converters, MICROSENS offers a wide range of products to enable active conversion between multimode (MM) and single mode (SM = Single Mode) cables, depending on the protocol and fiber optic interfaces used.

The transparent connection enables the use in different network types up to max. 1.25 GBit/s transmission rate, e.g. Ethernet, Fast Ethernet, Gigabit Ethernet, FDDI, Madi, ESCON as well as STM-1 and STM-4.

Due to its many advantages, single mode fiber is the ideal carrier for data transmission at high bit rates over long distances. The transparent connection with multimode/single mode converters enables direct transfer without protocol conversion. This allows the bandwidth of the fiber network to be used to its full potential.

Due to protocol-specific properties, it is necessary to adapt the data rate of the protocol to be transmitted to the selection of the converter and its maximum data rate, otherwise errors may occur within the conversion.

The link status of the segment is passed on by the integrated link transparency of the converter ("Link Through"), i.e. if there is no link on one side of the fiber, no link is generated on the other side (and vice versa).

Power is supplied via an external plug-in power supply, which is included in the scope of delivery.

Technical Details

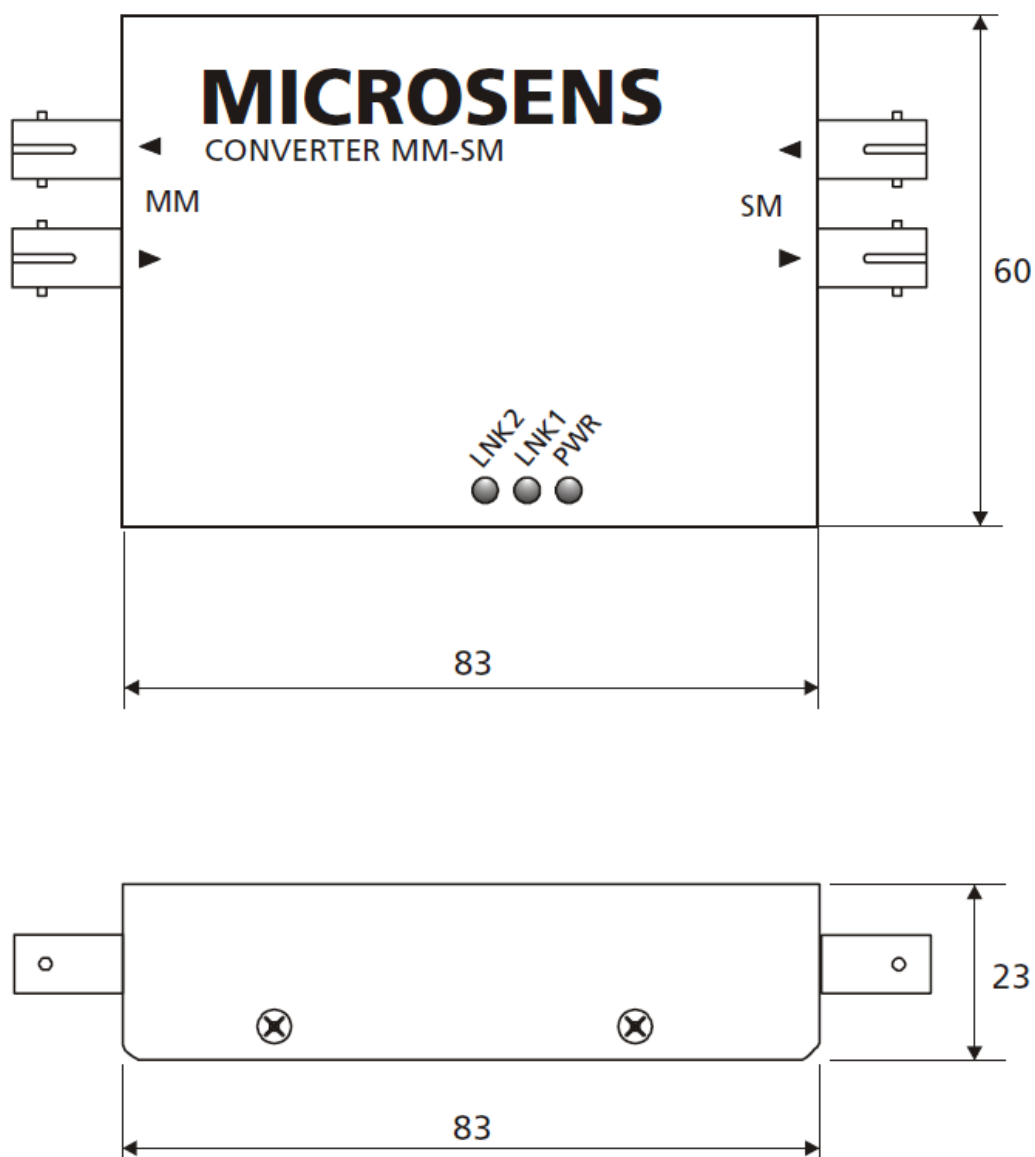
Type	Protocol transparent Multimode/Singlemode-Converter		
Fiber type	Multimode 62,5/125 or 50/125µm, Singlemode 9/125µm, duplex (depending on equipment and model)		
Data rate	max. 40MBit/s	(MS410504)	
	max. 155MBit/s	(MS41056x)	
	max. 1.25 GBit/s	(MS41059x)	
Cable type	Shielded Twisted Pair Cable, 100 Ohm, Category 5e,		
LED-Displays	PWR	Ready for operation	
	LNK1	Link Fiber port 1	
	LNK2	Link Fiber port 2	
Power supply	External Power Supply (5 V DC), incl. in scope of delivery 100..240 VAC, 50/60Hz		
Operating temp.	0..55 °C		
Storage temp.	-20..80 °C		
Humidity	5% bis 80 % non condensing		
Dimensions	60 x 23 x 83 mm (W x H x D)		

Optical Parameter

	typ. Distance (km)	opt. Output (dBm)	Sensitivity (dBm)	Wavelength (nm)
Multimode 40MBit/s		-13	-33	850
Singlemode 40MBit/s		-20	-33	1310
Multimode 155MBit/s		-19	-26	850
Multimode 155MBit/s		-19	-31	1310
Singlemode 155MBit/s	15	-11	-31	1310
Multimode 1.25GBit/s		-10	-20	850
Singlemode 1.25GBit/s	10	-8	-22	1310
Singlemode 1.25GBit/s	20	-5	-22	1310
Singlemode 1.25GBit/s	50	-4	-24	1550
Singlemode 1.25GBit/s	70	0	-24	1550

Layout

The housing is made of powder-coated sheet steel.



Order Information

Description	Art. No.
Converter, max. 40MBit/s	
MM/SM-Converter Desktop max. 40MBit/s MM 850nm ST dupl. / SM 1310nm ST dupl. 15km, transparent, ext. PS (110/230VAC)	MS410504
Converter, max. 155MBit/s	
MM/SM-Converter Desktop max. 155MBit/s MM 1310nm SC dupl. / SM 1310nm SC dupl. 15km, transparent, ext. PS (110/230VAC)	MS410567
MM/SM- Converter Desktop max. 155MBit/s MM 850nm ST dupl. / SM 1310nm ST dupl. 15km, transparent, ext. PS (110/230VAC)	MS410561
MM/SM- Converter Desktop max. 155MBit/s MM 850nm SC dupl. / SM 1310nm SC dupl. 15km, transparent, ext. PS (110/230VAC)	MS410562
MM/SM- Converter Desktop max. 155MBit/s MM 1310nm ST dupl. / SM 1310nm ST dupl. 15km, transparent, ext. PS (110/230VAC)	MS410564
MM/SM- Converter Desktop max. 155MBit/s MM 1310nm SC dupl. / SM 1310nm ST dupl. 15km, transparent, ext. PS (110/230VAC)	MS410565
MM/SM- Converter Desktop max. 155MBit/s MM 1310nm ST dupl. / SM 1310nm SC dupl. 15km, transparent, ext. PS (110/230VAC)	MS410566
MM/SM- Converter Desktop max. 155MBit/s MM 850nm ST dupl. / SM 1310nm SC dupl. 15km, transparent, ext. PS (110/230VAC)	MS410568
Converter, max. 1.25GBit/s	
MM/SM- Converter Desktop max. 1.25GBit/s MM 850nm SC dupl. / SM 1310nm SC dupl. 10km, transparent, ext. PS (110/230VAC)	MS410590
MM/SM- Converter Desktop max. 1.25GBit/s MM 850nm SC dupl. / SM 1310nm SC dupl. 20km, transparent, ext. PS (110/230VAC)	MS410591
MM/SM- Converter Desktop max. 1.25GBit/s MM 850nm SC dupl. / SM 1550nm SC dupl. 50km, transparent, ext. PS (110/230VAC)	MS410594
MM/SM- Converter Desktop max. 1.25GBit/s MM 850nm SC dupl. / SM 1550nm SC dupl. 70km, transparent, ext. PS (110/230VAC)	MS410595

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