



Interfaces pour l'informatique

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Produits et Solutions en  
Communication Industrielle  
Acquisition de Données et  
Transport de l'Information

# Basic Fiber Optic Products

**MICROSENS**



With the name “Basic Fiber Optic Products” we have created a new product range for distribution which meets all market requirements in terms of price and availability.

Get connected with MICROSENS

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# Basic Fiber Optic Products

## Fast Ethernet Bridge w/USB power 10/100Base-T/100Base-FX

The Bridge offers an easy and cost effective media conversion from fiber optic to copper in Fast Ethernet networks. A special feature is the powering via the USB port, so an additional power supply is not required.

- Segment splitting and speed adaptation
- Robust metal housing
- Power via USB port or external power supply
- Multimode max. 2 km, Single Mode up to 125 km, optional with simplex fiber (WDM)



Article-No.	Description
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MS400160	Fast Ethernet Bridge 1x10/100TX 1x100FX, Multimode 1300nm SC, ext. power supply or via USB, 1 x RJ-45, 2 x SC
MS400161	Fast Ethernet Bridge 1x10/100TX 1x100FX, Multimode 1300nm ST, ext. power supply or via USB, 1 x RJ-45, 2 x ST
MS400162	Fast Ethernet Bridge 1x10/100TX 1x100FX, Single Mode 1300nm SC laser 15km, 1 x RJ-45, 2 x SC

## Fast Ethernet Bridging Converter 10/100Base-T/100Base-FX

The Bridging Converter offers easy and cost effective media conversion from fiber optic to copper in Fast Ethernet networks. This product family is specially designed to minimize costs.

A special feature is the possibility to configure the Bridge in Converter mode for applications with low latency requirements.

- Compact and cost effective design
- Robust metal housing
- Bridging (10/100) or Converter Mode (100)
- Multimode max. 2 km, Single Mode up to 125 km, optional with simplex fiber (WDM)



Article-No.	Description
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MS400200	Fast Ethernet Bridge 1x10/100TX 1x100FX, Multimode 1300nm SC, ext. power supply, 1 x RJ-45, 2 x SC
MS400202	Fast Ethernet Bridge 1x10/100TX 1x100FX, Single Mode 1300nm SC laser 15km, 1 x RJ-45, 2 x SC

## Fast Ethernet Bridge 10/100Base-TX/100Base-FX with PoE

This Bridge provides fiber to copper media conversion whilst at the same time - via the 10/100Base-TX port, acting as a power supply for active terminal equipment such as WLAN-access points, IP-cameras or IP-phones. In addition to media conversion a speed adjustment is carried-out.



- Power-over-Ethernet according to IEEE802.3af with max. power class 15.4 Watt
- Compact desktop chassis
- Segment splitting and speed adaptation
- Auto-Negotiation 10/100Base-TX half-/full-duplex-mode manually configurable
- Multimode max. 2 km, Single Mode up to 125 km, optional simplex fiber (WDM)
- Internal power supply

Article-No.	Description
MS400090	Fast Ethernet Bridge 10/100Base-TX/100Base-FX, 1310 nm Multimode, 2 km, 2 x SC, 1 x RJ-45
MS400091	Fast Ethernet Bridge 10/100Base-TX/100Base-FX, 1310 nm Multimode, 2 km, 2 x ST, 1 x RJ-45
MS400092	Fast Ethernet Bridge 10/100Base-TX/100Base-FX, 1310nm Single Mode, 15 km, 2x SC, 1x RJ-45

## Gigabit Ethernet Converter 1000Base-T/1000Base-X

The Gigabit Converter offers a cost effective and fast media conversion from copper (1000Base-T) to fiber optic (1000Base-SX/LX). The direct link enables the extension of twisted pair connections beyond the 100 m limit.



- Compact table top unit
- Media conversion 1000Base-T/1000Base-SX/LX
- Auto-negotiation half- or full duplex-mode, or alternatively manual configuration
- Multimode max. 550 m (50/125µm), Single Mode up to 100 km, optionally via simplex fiber (WDM)
- SC-connector

Article-No.	Description
MS400190	Gigabit Ethernet converter 1000Base-T/1000Base-SX, 850 nm Multimode, max. 550 m, ext. power supply 1 x SC duplex, 1 x RJ-45, 1 x Power
MS400191	Gigabit Ethernet converter 1000Base-T/1000Base-LX, 1310 nm Single Mode, max. 10 km, ext. power supply 1 x SC duplex, 1 x RJ-45, 1 x Power

## Gigabit Ethernet Bridge with SFP 10/100/1000Base-T / 1000Base-X SFP

The Gigabit Ethernet Bridge has one RJ-45 port with 10/100/1000Base-T and one SFP slot according to 1000Base-X. The SFP slot accepts all SFPs available on the market, offering high flexibility.



- Compact desktop device
- Media conversion 1000Base-T/1000Base-X
- Speed conversion 10/100/1000 Mbps
- Half/full duplex with auto-negotiation or manually configurable
- Integrated auto crossover function to allow the use of standard patch cables

Article-No.	Description
MS400229	Gigabit Ethernet Bridge 10/100/1000Base-T / 1000Base-X 1x SFP Port, 1x RJ-45, ext. power supply

## Gigabit Ethernet Bridge with 2x SFP 100/1000Base-X / 1000Base-X

The Gigabit Ethernet Bridge has two SFP slots. One slot supports dual speed 100 Mbps (100FX) or 1000 Mbps (1000X) and the other slot GbE 1000X. The SFP slot accepts all SFPs available on the market, offering high flexibility.



- Compact Desktop Device
- Wavelength Conversion 850/1310/1550nm
- Speed conversion 100/1000 Mbps
- Integrated Link-Through functionality
- Manual configuration via DIP switch is possible

Article-No.	Description
MS400230	Gigabit Ethernet Bridge 100/1000Base-X / 1000Base-X, 2x SFP Port, ext. power supply

## Fast Ethernet PCMCIA Card

Increasing mobility also increases the importance of connecting notebooks in company-wide local networks. Using the new PCMCIA network card with fiber connection, you can integrate all the terminals directly into fiber networks (FTTD) with a PCMCIA 2.x compatible slot. Network connection is made using duplex fibers with either SC or ST connectors.



The adapter is fully compatible to IEEE 802.3u (100Base-FX). We also supply drivers for all standard operating systems. The full duplex/half duplex operating mode can also be configured via software. The PCMCIA adapter is easy to install and manage.

- Compact design, dongle-less
- IEEE 802.3u, PCMCIA Rel. 2.x, JEIDA 4.x conform
- Multimode versions with SC or ST connectors
- Single Mode versions with 20/40/60km capability, SC connector
- Drivers for all standard operating systems
- LEDs display Link/Activity, Full Duplex and Collision

Article-No.	Description
MS482750	PCMCIA Fast Ethernet Card 100Base-FX, Multimode 1310 nm, SC, 32 Bit, 2 x SC

## DVI Fiber Optic Extender

DVI (Digital Visual Interface) is for the digital transmission of video signals. Today DVI is already standard for video transmission between PCs and high quality TFT screens and video projectors.



- Easy transmission of DVI-D signals up to 700 m
- High resolution and picture quality
- For the connection of LCD-Displays, video projectors, Plasma displays, etc.
- Unidirectional transmission over 4 fibers (LC-connector)
- One transmitter can source multiple receivers
- Including external power supply

Article-No.	Description
MS550010-PS	DVI Extender, Transmitter max. 500m, Multimode 850 nm 4x LC, ext. power supply
MS550011-PS	DVI Extender, Receiver max. 500m, Multimode 850nm 4x LC, ext. power supply
MS550015-PS	DVI Extender, Receiver max. 5 km, Single Mode 1310nm 4x LC, ext. power supply
MS550016-PS	DVI Extender, Transmitter max. 5km, Single Mode 1310nm 4x LC, power budget >15dB, max. 8 nodes, ext. power supply

PS: Power supply option EU, UK, US

## Fast Ethernet 6 Port Switch, 5x10/100TX, 1x100FX Uplink

The Mini Switch is developed to build up cost effective Fiber To The Office networks. Up to five end devices can be connected with standard copper cables to the fiber optic uplink.



- Compact metal housing
- Cost effective especially for small networks
- Multimode and Single Mode versions
- External power supply

Article-No.	Description
MS453422	6 Port Fast Ethernet Switch 5x 10/100Base-TX, 1x 100Base-FX Multimode 1310nm SC, ext. power supply
MS453423	6 Port Fast Ethernet Switch 5x 10/100Base-TX, 1x 100Base-FX Single Mode 1310nm SC, ext. power supply

## Fast Ethernet 6 Port managed Switch with PoE, 5x10/100TX, 1x100FX Uplink

The Desktop Switch allows the connection of up to five end devices via twisted pair cable. Four end devices can be supplied with PoE. The additional fiber port allows the direct connection to a fiber segment.



- Fast Ethernet Mini-Switch with integrated network management
- Power-over-Ethernet according to IEEE803.3af on four TP ports, integrated PoE controller
- Extensive configuration options with PC based management tool
- Data prioritisation (QoS) according to IEEE802.3p
- Full VLAN functionality according to IEEE802.3Q
- Cost effective especially for small networks
- Multimode and Single Mode versions

Article-No.	Description
MS453082PM-48	6 Port Desktop PoE-Switch 5x 10/100Base-TX, 1x 100Base-FX Multimode 1310nm SC, Management, PoE, 5x RJ-45, 1x SC-duplex, 1x 48 VDC
MS453083PM-48	6 Port Desktop PoE Switch 5 x 10/100Base-TX, 1 x 100Base-FX Single Mode 1310nm SC, Management, PoE, 5x RJ-45, 1x SC-duplex, 1x 48 VDC
MS700675B	Power supply 48 VDC/1,25 A 65 W, Output (DC): screwable connector, Input (230VAC): euro power cord

## Gigabit Ethernet 5 Port Desktop Switch

The compact Gigabit Mini Switch offers all the essential functions for setting up a modern Ethernet network. It is ideal for use in both small companies and expanding existing network structures. In addition to four twisted pair connections, the device has a modular SFP slot.



The switch is available in two versions. In addition to the standard version the switch is available with integrated web management.

- Cost-effective, compact, fan less Gigabit Ethernet switch
- 4x 10/100/1000Base-T, autonegotiation, 1x SFP Uplink-Slot
- Layer 2 non blocking, 2k MAC addresses, 1MByte RAM
- Optional web management
- QoS, VLANs, STP/RSTP, 802.1x, LACP etc. (web management)

Article-No.	Description
MS453510	5 Port Gigabit Ethernet Desktop Switch , 4x 10/100/1000Base-T, 1x SFP Slot external power supply 4x RJ-45, 1x SFP, 1x 12 V DC
MS453510M	5 Port Desktop Switch 4x 10/100/1000Base-T, 1x SFP Port external power supply, Management 4x RJ-45, 1x SFP, 1x 12 V DC

## Gigabit Ethernet 8 Port Desktop Switch

With the 8 port Gigabit Ethernet switch, MICROSENS offers an universal device for professional use in small, medium and large networks. Based on the comprehensive management functionality with Web, CLI and SNMP access, the device satisfies all demands.



The Gigabit Ethernet Switch is flexible and offers the best solution for creating and expanding your networks. It has an integrated power supply unit and is fan-less. Additionally, the switch offers an unbeatable price/performance ratio.

- Compact fan-less Gigabit Ethernet switch with integrated power supply
- Integrated management with web-, SNMP,- and Telnet-interface
- 8x 10/100/1000Base-T, 2x SFP uplink-slots
- Data prioritisation according to IEEE802.3p/Q, VLAN support
- 802.1x port-based network access control (Authentication)
- STP/RSTP according to IEEE802.1d & 802.1w
- IGMP-Snooping, bandwidth management, port mirroring

Article-No.	Description
MS453522M	8 Port Gigabit Ethernet Switch 8x10/100/1000Base-T, 2x SFP Ports, Management, internal power supply

## Modular 24 Port Fast Ethernet Switch

This modular 24-Port Fast Ethernet Layer 2+ switch is a high performance device mainly for Fiber To The Office (FTTO) and Fiber To The Home (FTTH) applications. The switch has three modular slots on the front which can be equipped with 8 port switching modules. These modules are available with 10/100Base-TX copper interfaces or with fiber optic ports. The fiber ports can be chosen as Multimode, Single Mode or Single Mode WDM simplex interfaces.



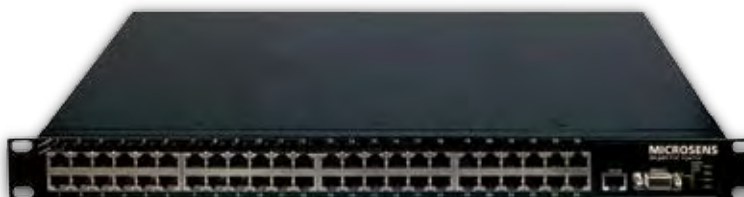
- 24 Port Fast Ethernet plus 2x Gigabit Ethernet uplinks
- Modular slots for fiber or copper ports
- High performance 8.8 Gbps capacity
- SNMP/RMON1/Telnet/CLI/ Web management
- QoS, VLAN, IGMP, Rapid Spanning tree etc.
- Redundant Power Supply option

Article-No.	Description
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MS400820M	24 Port Fast Ethernet L2+ Access Switch Chassis, 3 Module Slots, 2x10/100/1000T or SFP Uplink, manageable, 19" 1U
MS400822	8x 10/100Base-TX Module
MS400823	8x 100FX Multimode 1310nm SC Module
MS400824	8x 100FX Single Mode 1310nm 30km SC Module

## 24 Port PoE-Injector

Conversion of existing data networks to PoE does not necessarily have to be associated with an investment in PoE switches. MICROSENS offers the possibility of simple upgrading by means of the new 24 Port-PoE-Injector. The power injector is located between the existing edge switches and patch panels on the central side, providing the power supply compliant with IEEE 802.3af (PoE).



- Up to 15.4 W per port according to IEEE802.3af
- Integrated SNMP/Telnet/Web management
- Redundant power supply and UPS available
- Compact design 19", 1U

Article-No.	Description
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MS400900M	24 ports PoE-Injector , 19", 1U, manageable, IEEE802.3af, 48x RJ-45, 100..240 V AC, 1x RS-232
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## 1 Port PoE-Injector

The use of PoE does not have to be in conjunction with an investment in PoE switches. To use existing edge switches the injectors can be plugged into the existing RJ-45 connection.

- 1x 15.4 W according to IEEE 802.3af
- Provides existing Ethernet connections with PoE
- For individual requirements
- Plug-and-Play
- Low weight and compact dimensions



Article-No.	Description
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MS400920	1 Port PoE-Injector, IEEE802.3af, 2x RJ-45, 100..240VAC, 2x RJ-45, 1x power supply
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## PoE-Splitter for non-PoE-Devices

The connection of non-PoE conforming end devices or old networking devices to a PoE network is done by using compact PoE-splitters. This way of providing a power supply is possible for all kinds of end devices, which typically use a separate power adapter.

- Fully compliant to IEEE 802.3af
- Plug-and-Play
- Replaces the separate power supply
- Configurable output voltage (5 / 7.5 / 9 or 12 V DC)
- Multiple connectors (2 and 2.5 mm)
- Compact dimensions



Article-No.	Description
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MS400940	1 Port PoE-Splitter, output (5/7.5/9/12VDC) 1x RJ-45 jack, 1x RJ-45 connector, 1x DC-jack
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## SFP-Transceiver

Many active network components, especially in the backbone area such as switches or routers, are equipped with slots for optical SFP transceivers. This provides reach the ultimate flexibility in terms of network configuration using SFP transceivers. Their construction allows them to be installed during operation (hot swappable).

MICROSENS offers a large range of SFP s for applications such as SONET/SDH, Gigabit Ethernet and Fibre Channel. Besides multimode versions there are several Single Mode versions with various optical budgets available.

Besides the standard SFPs with 850/1310 nm, MICROSENS offers special CWDM transceiver (Coarse Wavelength Division Multiplexing) to extend capacities on existing fiber links. One simple WDM version offers the bi-directional transmission over one simplex Single Mode fiber.



Article-No.	Description
MS100190*	SFP pluggable transceiver Fast Ethernet 1310nm Multimode LC
MS100191*	SFP pluggable transceiver Fast Ethernet 1310nm Single Mode LC
MS100200*	SFP pluggable transceiver Gigabit Ethernet 850nm Multimode LC
MS100210*	SFP pluggable transceiver Gigabit Ethernet 1310nm Single Mode FP Laser 10km, LC
MS100240*	SFP Pluggable Transceiver, max. 2.125 Gbps, GBE, 1x/2x Fibre Channel 850nm Multimode 850nm, LC
MS100060*	SFP Pluggable Transceiver SR-1 2km, Multirate 0.1– 2.7 Gbps, OC-3/12/48 STM-1/4/16, GBE, 1x/2x FC , 1310nm Single Mode, LC

\*optional D = Diagnostics

# Industrial Ethernet

## Entry Line Converter and Switches

The IP protocol has already left the office environment and is going to all remaining communication areas. Industrial Ethernet has become a reality, allowing the reliable use of Ethernet components in harsh environments. Due to the growing number of applications the market requires simple, reliable and cost-effective products.

### General Features

- Robust design for harsh environments
- 12V - 48V DC redundant power supply
- Designed for 35 mm DIN-rails
- Metal housing
- Extended temperature range (-10°C to +60°C)
- IP-30 protection class
- Extremely cost-effective



### 8 and 5 Port Fast Ethernet Switches

- Fast Ethernet layer 2 switch according to IEEE802.3u
- Flow control
- Surge protection
- Power fault alarm relay

Article-No.	Description
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MS655100	Fast Ethernet Switch, 5x 10/100Base-TX
MS655140	Fast Ethernet Switch, 8x 10/100Base-TX

### 5 Port Fast Ethernet Switches with Fiber Ports

- Fast Ethernet layer 2 switch according to IEEE802.3
- Flow control
- Surge protection
- Power fault alarm relay



Article-No.	Description
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MS655102	Fast Ethernet Switch, 4x 10/100Base-TX, 1x 100Base-FX, MM, SC
MS655104	Fast Ethernet Switch, 4x 10/100Base-TX, 1x 100Base-FX, SM, 30 km, SC
MS655122	Fast Ethernet Switch, 4x 10/100Base-TX, 2x 100Base-FX, MM, SC
MS655124	Fast Ethernet Switch, 4x 10/100Base-TX, 2x 100Base-FX, SM, 30 km, SC

## 5 Port Gigabit Ethernet Switch with SFP-Slot

- Gigabit Ethernet layer 2 switch according to IEEE802.3
- Flow control
- Surge protection
- Power fault alarm relay
- SFP-slot for 1000Base-X



Article-No.	Description
MS655201	Gigabit Ethernet Switch, 4x 10/100/1000Base-T, 1x SFP-slot

## 8 Port Gigabit Ethernet Switch with SFP-Slots

- Gigabit Ethernet layer 2 switch according to IEEE802.3
- Flow control
- Surge protection
- Power fault alarm relay
- SFP-slot for 100Base-x/1000Base-X (dual speed)



Article-No.	Description
MS655210	Gigabit Ethernet Switch, 8x 10/100/1000Base-T, 2x SFP-slot (dual media)

## Fast and Gigabit Ethernet Bridging Converter

- Fast Ethernet and Gigabit Ethernet converter
- Auto negotiation for speed and duplex mode
- Copper port supports auto MDI/MDIX
- Link Through function integrated
- SFP-slot for 1000Base-X



Article-No.	Description
MS655060	Fast Ethernet Bridging Converter, 1x 10/100Base-TX, 1x 100Base-FX, MM, SC
MS655062	Fast Ethernet Bridging Converter, 1x 10/100Base-TX, 1x 100Base-FX, SM, 30 km, SC
MS655099	Gigabit Ethernet Bridging Converter, 1x 10/100/1000Base-T, 1x SFP-slot

## Ethernet Device Server RS-232/422/485

The Device Server allows fast and easy Ethernet network connection of serial devices with RS-232/422/485 interfaces. The use is universal and independent of the type of serial interface. For the transmission the IP protocol is used. For the connection to the Ethernet network the device has one RJ-45 port (10/100Base-TX) or fiber uplink (100Base-FX).



- RS-232/422/485 to Ethernet (IP)
- Windows Utility for discovery, configuration and monitoring
- Max. data rate up to 460.8 Kbps
- Virtual COM, TCP Server, TCP Client connections
- Network connection via 10/100TX or 100FX fiber Interface

Article-No.	Description
MS655400	Ethernet Device Server, 1x RS-232/422/485, 2x 10/100Base-TX
MS655401	Ethernet Device Server, 1x RS-232/422/485, 1x 100Base-FX, Multimode 1310nm, SC

## Industrial Power Supplies

For particularly critical industrial use in rough environments MICROSENS has developed a special compact power supply. Besides the standard features, this device offers additional optimizations for use in control panels. The design of the chassis increases the surface area and leads together with the high efficiency to optimum heat dissipation.



- Extreme compact chassis, IP20
- High efficiency
- Integrated over voltage protection
- Snap-on mounting on 35 mm hat-rails
- Parallel operation of up to 5 power supplies

Article-No.	Description
MS700420	DIN-rail power supply 24 Watt 24 V / 1.0 A, wide range input 85-264 VAC, 85..375 VDC, In: 3-pin, Out: 2-pin
MS700421	DIN-rail power supply 60 Watt 24 V / 2.5 A, wide range input 85-264 VAC, 85..375 VDC, In: 3-pin, Out: 5-pin
MS700422	DIN-rail power supply 120 Watt 24 V / 5.0 A, wide range input 85-264 VAC, 85..375 VDC, In: 3-pin, Out: 5-pin
MS700434	DC/DC DIN-rail power supply 24 Watt 24 V / 1.0 A, wide range input 18-75 V DC, In: 3-pin, Out: 2-pin

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