

Product Overview

Fast Ethernet and Gigabit Ethernet Bridging Converter



Description

The new fast and Gigabit Ethernet Bridging converter of the Industrial Ethernet Entry Line offer transmission speeds up to 1 Gbps in Industrial Ethernet applications. In the office area Gigabit Ethernet has already established as the standard protocol. To integrate industrial end devices direct, MICROSENS offers the new Gigabit Ethernet Bridging Converter.

Beside the media conversion from copper to fiber the devices are doing a speed adaptation of 10/100Base-TX for Fast Ethernet and 10/100/1000Base-T for Gigabit Ethernet. This enables the direct connection of end devices with different speed to the existing central switch.

The devices are immediately ready for operation, a configuration by management is not necessary. With a pluggable connector the power is supplied (redundant possible) and offers the monitoring of the device by a relay.

Properties

- Optional converter or bridging function (via DIP-switch)
- Power-over-Ethernet optional
- Automatic speed adjustment per Auto Negotiation
- Integrated Auto Crossover function for use of standardized patch cable
- Link Through function
- SFP-Slot for 1000Base-X (GBE version)
- Optional for extended temperature range -40 to +75 °C

Specifications

General

Type	RJ-45 to Fiber Media Converter
Performance	Store-and-forward, RJ-45 port support Auto MDI/MDI-X Function
MAC-Addresses	max. 9,216 bytes

Uplink (Pluggable Transceiver)

Number of Ports	1 (only MS655099(X))
Type	1000M SFP Multi/Single Mode
Connector	SFP slot

Uplink (Twisted-Pair)

Number of Ports	1
Type	Fast Ethernet 10/100Base-TX
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Pinout	Auto MDI/MDI-X
Power-over-Ethernet	only MS655060P(X)-48 MS 655062P(X)-48: Power Sourcing Equipment(PSE) IEEE 802.3af class 0, max. 15.4 W pinout wires 1/2 (+), 3/6 (-)

Power Supply (DC)

Input Voltage	48 VDC redundant
Power Consumption	3.3Watts (without PoE); 16.4Watts (Full load with PoE)
Connector	Screw terminal

Local Ports (Twisted-Pair)

Number of Ports	2
Type	1 Fast/ Gigabit Ethernet (only MS655099/X) 1 Fiber
Connector	RJ-45 jack, different fiber ports (depending to the model)
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Flow Control and Back pressure
Pinout	Auto MDI/MDI-X
Power-over-Ethernet	IEEE802.3af Power over Ethernet, max 15,4W (only MS655060P(X)-48, MS655062P(X)-48)

Uplink (Fixed Optical Transceiver)

Number of Ports	1
Type	Fast Ethernet 100Base-FX
Connector	SC
Fiber Cable Type	MS655060(X), MS655060P(X)-48: Multimode 1310nm SC MS655062(X), MS655062P(X)-48: Singlemode 1310nm max 30km SC
Distance	Multimode: 550 m Single Mode: 30 km actual distance may depend on fiber performance
Flow Control	Pause frames (IEEE 802.3x), configurable

Display

Type	7 LEDs, color coded
Power	P1/P2 green on/off
Link	LNK/ACT (RJ-45 / fiber port) green on: Connected to network flashing: Networking is active off: Not connected to network
Status	FDX/COL (fiber port) yellow on: Full-duplex mode flashing: Packet collision occurred 100M (RJ-45) yellow on: Link to 100Mbps network off: Link to 10Mbps network

Mechanical

Dimensions	30 mm x 95 mm x 140 mm
Weight	438.5 g
Housing Color	black
Mounting	DIN35 rail, Wall

Reliability

MTBF	400.000h
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Environment

Operating Temperature	-10..60 °C (standard model) -40..75°C ("X" model)
Storage Temperature	-40..85 °C
Relative Humidity	5..95%, non condensing

Standards Compliance

CE Mark	CE EN6 1000-4-2 (ESD), CE EN6 1000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN6 1000-4-5 (Surge), CE EN6 1000-4-6 (CS), CE EN6 1000-4-8, CE EN6 1000-4-11, CE EN6 1000-4-12, CE EN6 1000-6-2, CE EN6 1000-6-4
Safety	CE/EN60950-1 Class 1 / Division 2
Other	Free Fall IEC60068-2-32 Shock IEC60068-2-27 Vibration IEC60068-2-6

Order Information

Description	Article Number
Fast Ethernet Bridges	
Industrial Fast Ethernet Bridge, 1x 10/100Base-TX to 100Base-FX Multimode 1310nm SC	MS655060
Industrial Fast Ethernet Bridge, 1x 10/100Base-TX to 100Base-FX Multimode 1310nm SC	MS655060X
Industrial Fast Ethernet Bridge, 1x 10/100Base-TX to 100Base-FX Monomode 1310nm SC	MS655062
Industrial Fast Ethernet Bridge, 1x 10/100Base-TX to 100Base-FX Monomode 1310nm SC	MS655062X
Fast Ethernet Bridges mit PoE	
Industrial Fast Ethernet Bridge, 10/100Base-TX to 100Base-FX Multimode 1310nm SC, 48VDC	MS655060P-48
Industrial Fast Ethernet Bridge, 10/100Base-TX to 100Base-FX Multimode 1310nm SC, 48VDC	MS655060PX-48
Industrial Fast Ethernet Bridge, 10/100Base-TX to 100Base-FX Single Mode 1310nm SC, 48VDC	MS655062P-48
Industrial Fast Ethernet Bridge, 10/100Base-TX to 100Base-FX Single Mode 1310nm SC, 48VDC	MS655062PX-48
Gigabit Ethernet Bridge	
Industrial Triple Speed Bridge, 10/100/1000Base-T to 1000Base-X SFP Port	MS655099
Industrial Triple Speed Bridge, 10/100/1000Base-T to 1000Base-X SFP Port	MS655099X

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