

Product Overview

Gigabit Ethernet Micro Switch Twisted Pair Uplink PoE



Description

The new generation now supports complete gigabit performance on all connections. The central switch is connected via an integrated 10/100/1000Base-T port, whereby this is hidden after installation. Optional there are versions with additional TP downlink port available.

The complete Power-over-Ethernet (PoE) functionality has been designed in accordance with IEEE Std. 802.3af and is supported of all four RJ-45 ports (10/100/1000Base-T). Intelligent power management monitors the current power consumption of the end devices connected.

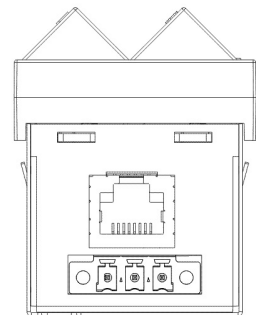
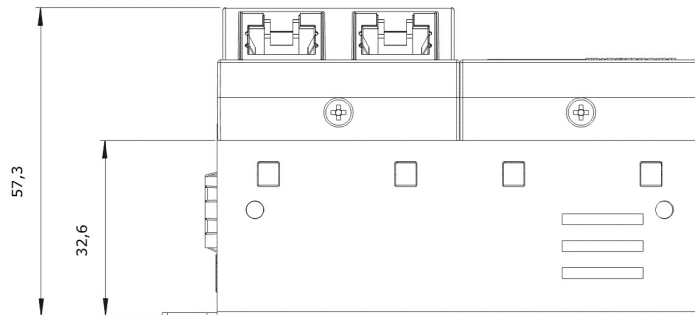
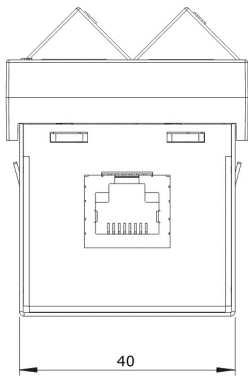
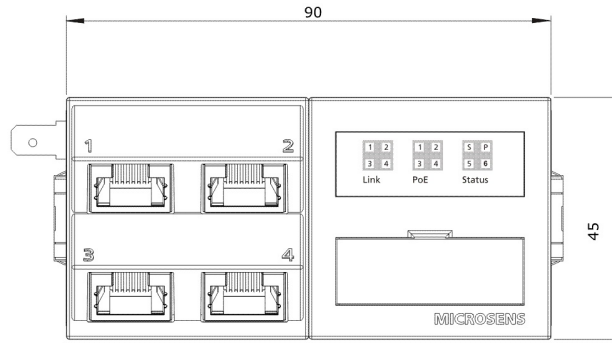
The switch is generally equipped with integrated network management and supports all management standards from Telnet to SNMP and web browser. Furthermore, the switch has at its disposal features for data prioritisation, VLANs and authentication in accordance with IEEE Std. 802.1x.

Properties

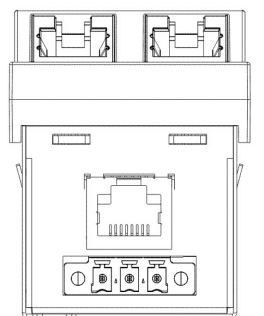
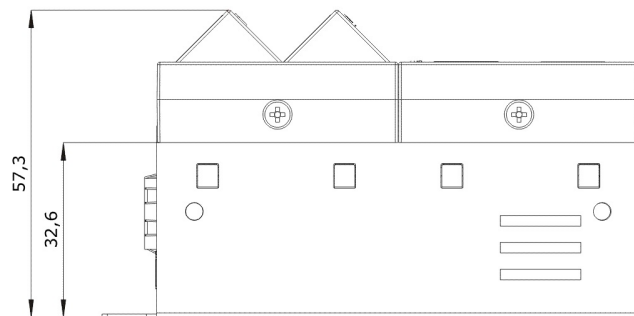
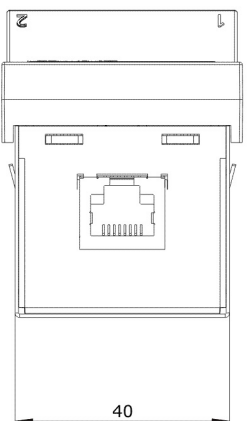
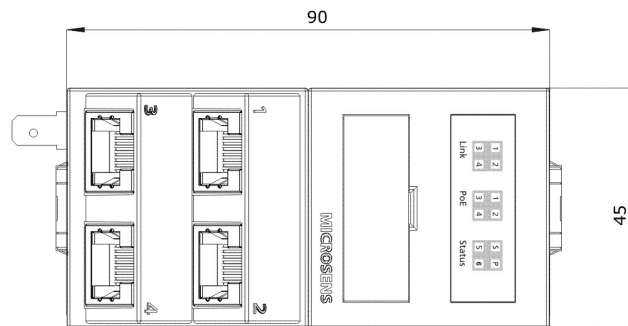
- Full Gigabit performance on all ports
- Power supply to end devices with PoE (Power Source Equipment)
- Alternative power supply via uplink port using Power over Ethernet (Powered Device)
- Easy installation due to snap-in mounting (wide range of accessories)
- Integrated management agent, SNMP/Web-based/Telnet/Device Manager
- VLANs and CoS according to IEEE 802.1q, Authentication according to BSI, IEEE 802.1x, etc.

Dimensions

Horizontal Version



Vertical Version



Specifications

General

Type	Gigabit Ethernet Switch Layer 2+, IEEE 802.3 compliant
Performance	Store-and-forward, Full wire-speed, non-blocking on all ports
MAC-Addresses	8,192 addresses, automatic learning and aging
Jumbo Frames	max. 10,240 bytes
VLANs	Tagging IEEE 802.3ac Priorisation IEEE 802.1p VLAN IDs 0..4095 Static and dynamic VLAN table
Quality of Service	4 hardware-queues per port prioritisation according to: * IPv4/IPV6 * VLAN priority IEEE 802.1p * port queue weighting strict or weighted, configurable"
Management	CLI: telnet Web: http SNMPv1, SNMPv2c Microsens NMP-Software

Uplink (Twisted-Pair)

Number of Ports	1
Type	Gigabit Ethernet, triple speed 10/100/1000Base-T
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause frames (IEEE 802.3x), configurable
Pinout	Auto MDI/MDI-X, auto polarity
Power-over-Ethernet	Powered Device (PD) IEEE 802.3af class 0, max. 15.4 W, forced-mode (legacy-devices), pinout wires 1/2 (+), 3/6 (-)

Display

Power	Local ports 1 to 4: green: PoE sourcing orange: PoE standby red: PoE error
Link	Local ports 1 to 4: blinking: activity green: authorized/forwarding orange: blocked red: unauthorized
Status	Switch Status (S)

Local Ports (Twisted-Pair)

Number of Ports	4
Type	Gigabit Ethernet, triple speed 10/100/1000Base-T
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause frames (IEEE 802.3x), configurable
Pinout	Auto MDI/MDI-X, auto polarity
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3af class 0, max. 15.4 W, forced-mode (legacy-devices), pinout wires 1/2 (+), 3/6 (-)

Downlink (Twisted-Pair)

Number of Ports	1 (MS450186PM-48 and MS450187PM-48, only)
Type	Gigabit Ethernet, triple speed 10/100/1000Base-T
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause frames (IEEE 802.3x), configurable
Pinout	Auto MDI/MDI-X, auto polarity

Control Panel

Reset Button	Reset of device, last saved configuration is reloaded
Config Button	Pressed separately: Request IP-configuration for management agent. Pressed together with reset-button: Reset to factory default settings, can be disabled

green: device ready
 Link status uplink (5)
 blinking: activity
 green: authorized/forwarding
 orange: blocked
 red: unauthorized
 Link status downlink (6)
 blinking: activity
 green: authorized/forwarding
 orange: blocked
 red: unauthorized

Power Supply (DC)

Input Voltage	44..57 VDC (48 VDC typ.)
Power Consumption	Typ. 6.5 W (device only), max. 65 W (incl. PoE)
Connector	3 pin screw clamp, PE/-/+
Ground Terminal (PE)	6.3 mm flat-pin plug

Mechanical

Dimensions	90 mm x 45 mm x 58 mm (l x w x d, without connectors)
Mounting depth	32,6 mm
Weight	310 g
Housing Color	Standard color: pure white (alternative colors on request)

Reliability

MTBF	100,000 h
Method	calculated, MIL-HDBK-217F

Environment

Operating Temperature	0..40 °C
Storage Temperature	-20..85 °C
Relative Humidity	10..90%, non condensing

Standards Compliance

CE Mark	2004/108/EC (EMC) 2006/95/EG (Low Voltage)
Safety	EN 60950-1:2006
Electromagnetic Emission	EN 55022:2006
Electromagnetic Immunity	EN 55024:1998
IEEE (Ethernet)	802.3i 10Base-T 802.3u 100Base-T 802.3z 1000Base-X 802.3ab 1000Base-T 802.3x Flow Control 802.3ac VLAN Tagging 802.3af PoE 802.1D Spanning Tree 802.1Q Tagged VLANs 802.1p Packet Prioritisation 802.1w Rapid Spanning Tree 802.1X Network Access Control
RFC	IPv4: - RFC 791 (IPv4) - RFC 826 (ARP) - RFC 792 (ICMP) - RFC 2131 (DHCP) - RFC 2474/3260 (IPv4 DiffServ/IPv6 Traffic Class) - RFC 4541 (IGMP) - RFC 1769 (SNTP) - RFC 1155/1156/1157 (SNMPv1) - RFC 1901/1905/1906 (SNMPv2) - RFC 3411/3412/3584 (SNMPv3) - RFC 2574/3414 (USM) - RFC 2575/3415 (VACM) - RFC 2865 (RADIUS) - RFC 2866 (Accounting) - RFC 2868 (Tunnel Attributes) - RFC 5424 (Syslog)

Additional Features

- Software**
- Port Monitor
 - CDP v1, v2

Order Information

Description	Article Number
Gigabit Ethernet Installations Switch, 5x10/100/1000T, horizontal mounting, 48 V DC power supply, manageable, VLANs, QoS, 4x PoE ports	MS450184PM-48
Gigabit Ethernet Installations-Switch, 5x10/100/1000T, vertical mounting, 48 V DC power supply, manageable, VLANs, QoS, 4x PoE ports	MS450185PM-48
Gigabit Ethernet Installations Switch, 6x10/100/1000T, horizontal mounting, 48 V DC power supply, manageable, VLANs, QoS, 4x PoE ports	MS450186PM-48
Gigabit Ethernet Installations-Switch, 6x10/100/1000T, horizontal mounting, 48 V DC power supply, manageable, VLANs, QoS, 4x PoE ports	MS450187PM-48

Accessories

Description	Article Number
Mounting set for cable trunks, frame S99 + MS mounting plate, suitable for 45x45 micro switch	MS140029
Power supply 100-230 VAC / 48 VDC, 1.35 A, 65 W	MS700675
SFP Fast Ethernet Transceiver 100Base-FX, Monomode 1310nm, digital Diagnostics, -40..85°C	MS100191DX
SFP Gigabit Ethernet Transceiver 1000Base-LX, Single Mode 1310nm, digital Diagnostics, -40..85°C	MS100210DX
nmp Professional - MICROSENS Network Management Platform - java software and one year update license	MS200160-1
nmp Standard - MICROSENS Network Management Platform - java software and one year update license	MS200162-1
NMP Server - management software with 1 year update licence, incl. 5 clients	MS200164-1

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