## Fast Ethernet Micro Switches (unmanaged)



## Description

The MICROSENS Ethernet 4 Port Installations-Switch permits the connection of four terminal devices to a fiber optic segment, via twisted pair cable, according to the IEEE 802.3 standard.

The Switch's integrated logic offers automatic protection of the network.

In the event of failure the defective segment is localized and disconnected from the net. Thanks to the 10/100 MBit/s auto negotiation mode the RJ45 Port adjusts the transfer rate automatically.

With single mode optical fiber its possible to cover distances of up to 40 km .

The use of the MICROSENS miniature switch in the end device is a very economical and perfect for small work groups. The uplink port for the connection to a central distributor is provided a data rate of $100 \mathrm{MBit} / \mathrm{s}$ and supports half as well as full duplex connections.

The Switch is mounted, enclosed in the universal housing unit, in to the cable channel. Thanks to the rotation technology, patented by MICROSENS, the fiber optic connector can be mounted in 4 positions in the cable channel in order to enable the kink-free connection of the fiber optic cable.

Color coded LEDs show the operating status of the Switch and can be used for error diagnostics.

## Properties

- 5 Port Switch, $4 \times 10 / 100$ Base-TX, $1 \times 100$ Base-FX
- Cost efficient copper/fiber integration
- Vertical/horizontal versions
- Fast, tool-free mounting by snap-in installation
- Integrated power supply with $100-240 \mathrm{~V}$ AC input


## Dimensions

hor. Version

vert. Version


## Specifications

| Type | Fast Ethernet Switch Layer 2+, IEEE 802.3 compliant |
| :---: | :---: |
| Performance | Store-and-forward, Full wirespeed, non-blocking on all ports |
| MAC-Adresses | 2,048 addresses, automatic learning and aging8 Adressen, automatisc Learning und Aging |
| Uplink (Fixed Optical Transceiver) |  |
| Number of Ports | 1 |
| Type | Fast Ethernet <br> Multimode: 100Base-FX <br> Single Mode: 100Base-FX |
| Connector | ST or SC duplex |
| Fiber Cable Type | Multimode: 50 or $62.5 / 125 \mu \mathrm{~m}$ fiber <br> Single Mode: $9 / 125 \mu \mathrm{~m}$ fiber |
| Distance | Multimode: 550 m <br> Single Mode: $10 \mathrm{~km}, 20 \mathrm{~km}$ (optional) actual distance may depend on fiber performance |
| Output Optical Power | Multimode 1300 nm : $-19 \mathrm{dBm}$ <br> Single Mode 1300 nm 15 km : $-15 \mathrm{dBm}$ |
| Receiver Sensitivity |  |
|  | Multimode 1300 nm : $-31 \mathrm{dBM}$ <br> Single Mode 1300 nm 15 km : $-31 d B$ |
| Flow Control | Pause frames (IEEE 802.3x) |
| Control Panel |  |
| Reset Button | Reset of device |
| Environment |  |
| Operating Temperature | $0 . .40^{\circ} \mathrm{C}$ |
| Storage Temperature | $-20 . .85{ }^{\circ} \mathrm{C}$ |
| Relative Humidity | 10..90\%, non condensing |

Local Ports (Twisted-Pair)

| Number of Ports | 4 |
| :--- | :--- |
| Type | Fast Ethernet, dual speed <br> $10 / 100 B a s e-T X$ |
| Connector | RJ-45 jack, shielded |
| Cable Type | Twisted-Pair cable, category <br> 5e, impedance 100 Ohm, <br> length max. 100 m |
| Flow Control | Pause frames (IEEE 802.3x) |
| Pinout | Auto MDI/MDI-X, auto polarity |

Display

| Type | Local ports 1 to 4: <br> blinking: activity <br> green: authorized/forwarding <br> orange: blocked <br> red: unauthorized |
| :--- | :--- |
| Status | Switch Status (S) <br> green: device ready <br> Link status uplink (5) <br> blinking: activity <br> green: authorized/forwarding <br> orange: blocked |

Power Supply (DC)

| Input Voltage | $195 . .265 \mathrm{~V} \mathrm{AC} \mathrm{(230} \mathrm{~V} \mathrm{AC} \mathrm{typ)}$. <br> $50 . .60 \mathrm{~Hz}(50 \mathrm{~Hz}$ typ.) |
| :--- | :--- |
| Power <br> Consumption | Typ. 4 W |
| Connector | 3 pin screw clamp, PE/N/ |
| Ground Terminal |  |
| (PE) | 3 pin screw clamp, PE/N/ |

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 <br> 802.3u 100Base-T <br> 802.3x Flow Control |

Mechanical

| Dimensions | $90 \mathrm{~mm} \times 45 \mathrm{~mm} \times 57 \mathrm{~mm}(\mathrm{I} \times$ <br> $\mathrm{d} \times \mathrm{h}$, without connectors ) |
| :--- | :--- |
| Mounting depth | 33 mm |
| Weight | 200 g |
| Housing Color | Standard color: pure white <br> (alternative colors on request) |
|  |  |

## Order Information

## Description

## Article Number

## Horizontal Installation

5 Port Fast Ethernet Installation switch $45 \times 45,4 \times 10 / 100 T X$ with 100BaseFX-Link, integrated power supply, Multimode 1310 nm ST connector

5 Port Fast Ethernet Installation switch 45x45, 4x10/100TX with 100BaseFX-Link, MS450231 integrated power supply, Multimode 1310 nm SC connector

5 Port Fast Ethernet Installation switch $45 \times 45,4 \times 10 / 100 T X$ with 100BaseFX-Link, MS450232 integrated power supply, Single Mode 1310nm ST-connector

5 Port Fast Ethernet Installation switch $45 \times 45,4 \times 10 / 100 T X$ with 100BaseFX-Link, MS450233 integrated power supply, Single Mode 1310nm SC-connector

## Vertical Installation

5 Port Fast Ethernet Installation switch $45 \times 45,4 \times 10 / 100 T X$ with 100 BaseFX-Link,

## MS450240

integrated power supply, Multimode 1310 nm ST connector

5 Port Fast Ethernet Installation switch 45x45, 4x10/100TX with 100BaseFX-Link,
MS450241
integrated power supply, Multimode 1310 nm SC connector

## Accessories

## Description

## Article Number

Universal installation set for E2 mounting boxes consisting of adapter plate and cover frame (pure white)

Universal installation kit for cable ducts with C-profile,
MS140029
incl. masking frame

Ackermann Installation set consisting of socket (165 mm length), device support and 1 x
MS140026
45 mm blind cover
Scope of delivery: parts pre-assembled

Ackermann Installation set consisting of socket (208 mm length), device support, 1 x 45
MS140027
mm blind cover, $1 x$ socket cover
Scope of delivery: parts pre-assembled

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