

## Datasheet

### 10 Port Gigabit Ethernet Desktop Switch with 2x FO Uplinks (SFP)



#### General

The fanless MICROSENS 10 Port Gigabit Ethernet Desktop Switch is the ideal solution for office environments with high demands on local port density and performance.

The manageable switch is equipped with 10 TP ports, which automatically adapt to the speed of the connected end device. Two of these ports can be configured as uplink ports. In addition, their property as combo ports allows flexible connection to copper or fiber optic based (multi/single mode) networks.

The switch offers an SNMP, Telnet and WEB interface for management functions and supports common Layer 2 standards such as QoS, VLAN, Port Access Control (PACC) and Layer 3 features (e.g. static routing).

The integrated 230VAC power supply allows a direct connection to the mains voltage without a separate power supply and has very compact dimensions.

## Features

### Gigabit Ethernet Desktop Switch

- 8x 10/100/1000Base-T
- 2x Combo Ports 10/100/1000Base-T or 100/1000Base-X SFP
- 1x Console port  
(designed as RJ-45)

### Security

- IEEE 802.1X
- SSH/SSL
- PVE (Private VLAN Edge)
- MAC Limiting per Port
- IP Source Guard
- Radius/ TACACS(+)
- Storm Control
- DHCP Snooping
- ACL (up to 256 entries)

### Layer 2 Features

- Spanning Tree: IEEE 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)
- LACP (IEEE 802.3ad), up to 5 Groups and max. 2 Ports per Group
- VLAN, up to 4K VLANs simultaneously, 4096 ID's, Port-based, tag-based (802.1Q), MAC-based)
- Q-in-Q VLAN
- GVRP (GARP VLAN Registration Protocol)
- DHCP Relay
- DHCP Option 66, 67, 82
- IGMP v1/v2/v3 Snooping, Querrier, Proxy
- MLD v1/v2 Snooping

### Layer 3 Features

- IPv4 Static Routing (Unicast)
- IPv6 Static Routing (Unicast)

### Management

- DHCP Server
- Zero Touch Upgrade
- RMON
- QoS (Hardware Queue, Scheduling, Classification, Rate Limiting)
- Port Mirroring
- UPnP
- s-Flow
- LLDP (802.1ab)
- SNMP v1, 2c und 3 (incl. USM)
- NTP
- IPv6 ready

### Network Management

- Support of all common management standards
- Webmanager (HTTP/HTTPS)
- Telnet/SSH/Console, incl. Standard-Commands (ping, syslog etc.)
- SNMP v1/v2c/v3
- Firmware files can be loaded, saved and implemented via TFTP, directly on the switch

### Power Supply

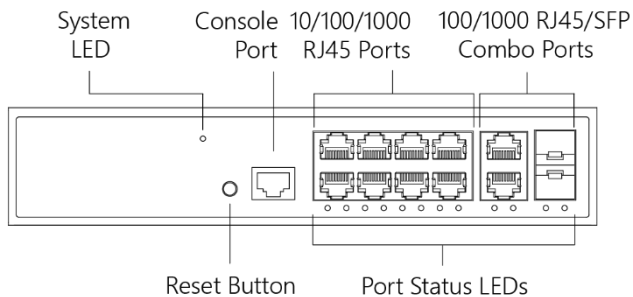
- internal power supply 230VAC, 3-pin IEC socket (rear)

### Mounting

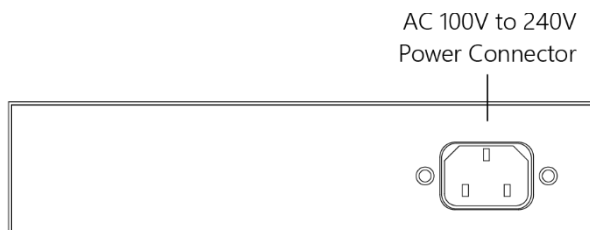
- Set of rubber feet for desk installation
- slot for wall mounting
- 19" mounting bracket

# Connections

## Front



## Rear



## Technical Details

### Switch

|                       |   |
|-----------------------|---|
| <b>Type</b>           | Gigabit Ethernet Switch Layer 2 & 3, IEEE 802.3 compliant |
| <b>MAC- Addresses</b> | 8.192 Addresses   |
| <b>Jumbo Frames</b>   | max. 9.216 Bytes  |

### Twisted-Pair Ports

|                   |  |
|-------------------|--|
| <b>Quantity</b>   | 10 (of which 2x combo port: TP or SFP)                                 |
| <b>Type</b>       | Gigabit Ethernet, Triple Speed 10/100/1000Base-T                       |
| <b>Connection</b> | RJ-45 Socket, shielded   |
| <b>Cable type</b> | Twisted-Pair Cable, Kategorie 5e, Impedance 100 Ohm, Length max. 100 m |

### Fiber Ports

|                   |                                 |
|-------------------|---------------------------------|
| <b>Quantity</b>   | 2 (Combo port: TP or SFP)       |
| <b>Type</b>       | SFP (Dual Speed) 100/1000Base-X |
| <b>Connection</b> | SFP with LC (typical)           |

### Control Panel

|                     |   |
|---------------------|---|
| <b>Reset-Button</b> | <u>Press for 2-7 Seconds:</u><br>Resetting the switch<br><u>Press for 7-12 Seconds:</u><br>Restoring factory settings |
|---------------------|---|

### Environment

|                    |  |
|--------------------|--|
| <b>Temperature</b> | Operation            0..40 °C<br>Storage                -20..70 °C |
| <b>Humidity</b>    | 10..90%, non condensing  |

### Mechanical

|                   |  |
|-------------------|--|
| <b>Dimensions</b> | 220 x 38 x 134mm<br>(W x H x D, without connections) |
| <b>Weight</b>     | 1.400 g  |

### Displays

|                   |   |
|-------------------|---|
| <b>Type</b>       | LED   |
| <b>System LED</b> | <i>green</i> Switch runs properly<br><i>off</i> Switch receives no or faulty voltage  |
| <b>RJ45 Ports</b> | <i>green</i> port is activated and a link (1000Mbit/s) has been established<br><i>blinking</i> Port receives/transmits data at 1000Mbit/s<br><i>Yellow</i> Port is activated and a Link (100Mbit/s) has been established<br><i>blinking</i> Port receives/transmits Data at 100Mbit/s<br><i>off</i> No link available/ detected or port deactivated |
| <b>SFP Ports</b>  | <i>green</i> Port is activated and a link (1000Mbit/s) has been established<br><i>blinking</i> Port receives/transmits Data at 1000Mbit/s<br><i>Yellow</i> Port is activated and a Link (100Mbit/s) has been established<br><i>blinking</i> Port receives/transmits Data at 100Mbit/s<br><i>off</i> No link available/detected or port deactivated  |

### Power Supply

|                   |  |
|-------------------|--|
| <b>Input</b>      | 100..240 VAC<br>50..60 Hz                                      |
| <b>Connection</b> | IEC plug (C14)   |
| <b>Cable</b>      | 3-pin. Power supply cable(C13)<br>(incl. in scope of delivery) |


### Standards

|                      |   |
|----------------------|---|
| <b>Certification</b> | CE, FCC Part 15 Class A, EN61000-4-5 (for RJ45 Port, Surge 6KV) |
|----------------------|---|


### Scope of delivery

|                          |  |
|--------------------------|--|
| <b>MOQ</b>               | 1 Stück  |
| <b>Scope of delivery</b> | 1x Desktop Switch<br>1x Set 19" Bracket<br>1x Power cable (C13)<br>1x Set of rubber feet<br>1x Console cable SUBD9/RJ-45<br>1x Manual (CD) |


## Order Information

|  | Description   | Art. No.         |
|---|---|------------------|
|   | <b>10 Port Gigabit Desktop Switch</b>   |                  |
|   | 10-Port GbE Desktop Switch managed<br>2x 100/1000X SFP-Slots resp. 10/100/1000T (Combo),<br>8x 10/100/1000T, RS-232 Port (RJ-45),<br>Fanless, int. 110/230VAC (C14) | <b>MS453526M</b> |

## Alternativ Products

|  | Description  | Art. No.         |
|---|--|------------------|
|   | <b>6 Port Gigabit Desktop Switch</b>   |                  |
|   | 6-Port GbE Desktop Switch managed<br>1x 100/1000X SFP-Slot,<br>5x 10/100/1000T, ext. PS (110/230VAC) | <b>MS453514M</b> |

## Accessories

|  | Description  | Art. No.          |
|---|--|-------------------|
|   | <b>SFP Transceiver (further models available on request)</b>             |                   |
|   | SFP GbE Transceiver 1.25G Multimode 850nm, DDM, LC, -40..+85°C           | <b>MS100200DX</b> |
|   | SFP GbE Transceiver 1.25G SingleMode 1310nm, 10km, DDM, LC, -40..+85°C   | <b>MS100210DX</b> |
|   | SFP FE Transceiver 155M Multimode 1310nm, DDM, LC, -40..+85°C            | <b>MS100190DX</b> |
| SFP FE Transceiver 155M SingleMode 1310nm, 15km, DDM, LC, -40..+85°C                | <b>MS100191DX</b>  |                   |
|   | Holder for 10 Port Desktop Switch  |                   |
|   | Magnetic holder for desktop switches, magnetic on both sides, 160x60x1mm | <b>MS140816</b>   |

## Service

| Description  | Art.-No.           |
|--|--------------------|
| <b>Warranty extension after 24-month manufacturer's warranty**</b>   |                    |
| Warranty extension by 1 year   | <b>MSGV01</b>      |
| Warranty extension by 2 years  | <b>MSGV02</b>      |
| Warranty extension by 3 years  | <b>MSGV03</b>      |
| <b>Pre-configuration according to customer requirements</b>  |                    |
| Pre-configuration of the component according to customer specifications                                    | <b>MSConfig</b>    |
| Pre-configuration of the component according to customer specifications (configuration file known already) | <b>MSConfig-OK</b> |
| <b>Pre-configuration according to customer requirements</b>  |                    |
| Creation and labeling according to customer specifications, max. 3 lines                                   | <b>MSLABEL</b>     |

\*\*The manufacturer's warranty is defined in the general terms and conditions [AGB \(§9\)](#) of MICROSENS GmbH & Co. KG.

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