

Data Sheet

Industrial Gigabit Ethernet L2 Switch

Overview

MICROSENS offers a new Industrial Gigabit Ethernet Switch with 8 RJ-45 ports and 4 SFP fiber uplink ports. The RJ-45 ports support Power-over-Ethernet (PoE+) and deliver up to 30 W power per port. One port is HPoE capable and provides 60 W.

The switch has extensive Layer 2 management functions, such as VLANs, IGMP Snooping, QoS or RSTP. It can be easily managed via a WEB GUI, CLI or SNMP.

PROPERTIES

- 8x 10/100/1000Base-T RJ-45 ports with PoE+ (1x HPoE)
- 4x 1000Base-X SFP slots
- Intended for industrial environments
- Fanless design
- Wide operating temperature range
- Redundant power inputs
- DIN-rail or wall-mounting

Software Features

System Management

- WEB GUI (http)
- CLI (Telnet, console)
- SNMP v1/v2/v3
- SNMP traps
- Central management platform (NMP)
- IP interface configuration per VLAN
- MAC address table
- Syslog
- Configuration upload/download
- Firmware upgrade
- Factory Default Reset
- System reboot
- User right settings
- System status and history
- NTP (Network Time Protocol)

Port Configuration

- Port enable/disable
- Individual port name
- Speed settings
- Half or full duplex
- Flow control
- Rate limiting
- Port isolation
- Storm control

Power-over-Ethernet PoE/PoE+

- IEEE 802.3af PoE (max. 15 W/Port)
- IEEE 802.3at PoE+ (max. 30 W/Port)
- 1x HPoE (60 W)
- Enabling or disabling PoE per port
- Port priority settings
- Limitation of total PoE power

Virtual LANs (VLANs)

- 4k VLANs
- Access and trunk mode
- Port-based and protocol-based
- IEEE 802.1Q settings

Quality of Service (QoS)

- Layer 1 priority (port-based)
- Layer 2 priority based on 802.1Q VLAN tags
- Layer 3 priority based on 802.1p (DSCP)
- 8 priority levels (4 queues)
- Strict priority or WRR (Weighted Round Robin)

Link Aggregation

- Up to 5 groups
- Static Link Aggregation

IP Multicast

- IGMP Snooping

Reliability

- Spanning Tree (STP) according to IEEE 802.1D
- Rapid Spanning Tree (RSTP) according to IEEE 802.1w
- Fast Ring protocol

Security

- RADIUS Client (802.1X)
- Static MAC locking
- IP-, port-, MAC-, or VLAN-based binding combinations

Technical Specifications

Switch

Type	Industrial Gigabit Ethernet L2 Switch, PoE+ PSE IEEE 802.3 compliant
Performance	Store-and-forward
Switching Capacity	24 Gbps
Packet Forwarding Rate	17.9 Mpps
Packet Buffer	4 Mbit
MAC addresses	8 k, automatic learning and aging

Twisted-Pair Ports

Number	8
Type	Gigabit Ethernet, Triple Speed 10/100/1000Base-T
Connector	RJ-45 port, shielded
Cable type	Twisted-Pair cable, Category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause Frames (IEEE 802.3x), configurable
Pin out	Auto MDI/MDI-X, Auto Polarity
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3af/at Class 0-4, max. 15 W / 30 W 1x 60 W HPoE
Total PoE Power	270 W
PoE Lines	1/2 (+), 3/6 (-)

Fiber Ports (SFP slots)

Number	4
Type	Gigabit Ethernet SFP slots, support of SFP digital diagnostics function
Connector	LC (SFP transceiver)
Flow Control	Pause Frames (IEEE 802.3x), configurable

CLI Console

Number	1
Type	RS-232
Connector	RJ-45

LED displays

Port LEDs	Link/activity, PoE status
Device LEDs	Power (2x)

Alarm Relay Output

Number	1 channel
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Power Supply

Input	48..57 VDC (54 VDC typ.)
Power Consumption	< 30 W (without PoE)
Connectors	5 pin screw connector

Environmental Conditions

Temperature	Operation	-40..+75 °C
	Storage	-40..+85 °C
Humidity	5..90%, non-condensing	

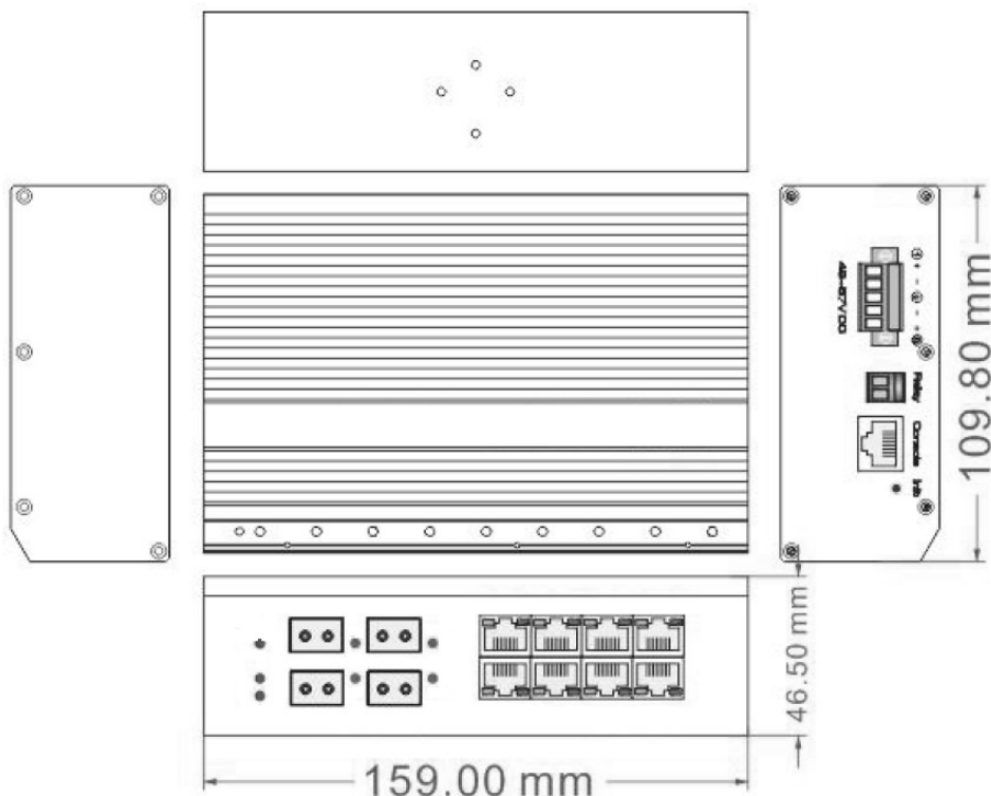
Mechanic

Dimensions	159 x 110 x 46.5 mm (L x W x H, without connectors)	
Material	Aluminium alloy	
Weight	Approx. 750 g	
Mounting	DIN-rail or wall mounting	

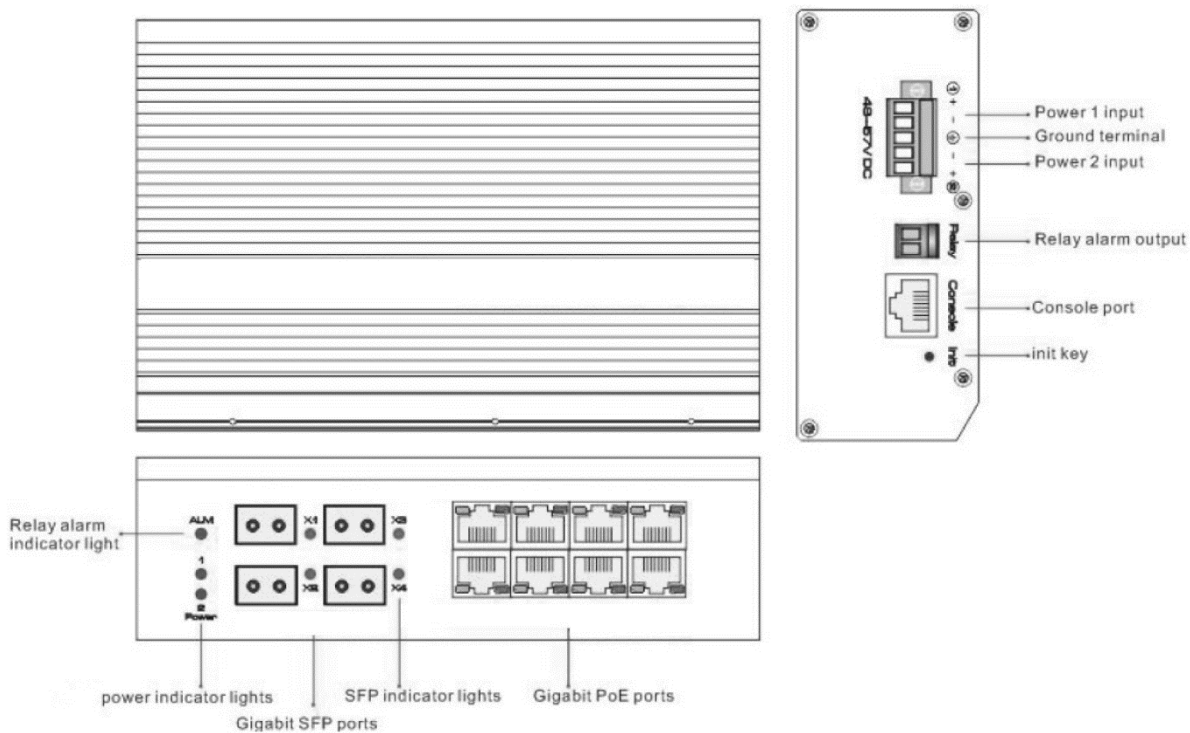
Standards

CE	2014/30/EU (EMC) 2014/35/EU (Low voltage) 2011/65/EU (RoHS)
Safety	EN 62368-1
Emitted interference	EN 55032:2015
Immunity	EN 55035:2017
Surge Immunity	6 kV (IEC61000-4-5)
ESD Immunity	8 kV contact discharge, 15 kV air discharge (IEC 61000-4-2)
Ethernet	IEEE 802.3 IEEE 802.3af/at (PoE/PoE+) IEEE 802.3u (100Base-TX) IEEE802.3ab (1000Base-T) IEEE 802.3z (1000Base-X) IEEE 802.3x (flow control) IEEE 802.3af/at (PoE/PoE+)

Dimensions



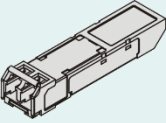
Interfaces



Order Information

	Description	Article No.:
	Industrial Gigabit Ethernet L2 Switch	
	Industrial Gigabit Ethernet L2 Switch, 8x 10/100/1000Base-T PoE+ (PSE), 4x 1000Base-X SFP slots, DIN-rail mounting, alarm output, console port, -40..75° C, Power supply input 48..57 VDC	MS657408PMX

Accessories

	Description	Article No.:
	SFP Transceiver (xWDM on request)	
	SFP Transceiver, Gigabit Ethernet, Digital Diagnostic 850 nm Multimode, 1000Base-SX, LC duplex	MS100200DX
	SFP Transceiver, Gigabit Ethernet, Digital Diagnostic 1310 nm Single mode, 1000Base-LX, LC duplex	MS100210DX
	Industrial Power Supplies	
	DIN-Rail Power Supply 120 Watt 48 V / 2.5 A, Wide Range Input 127-264 VAC	MS700446
	DIN-Rail Power Supply 240 Watt 48 V / 5 A, Wide Range Input 127-264 VAC	MS700447

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