Datasheet

MICROSENS

Entry Line
Industrial Gigabit Ethernet 6-Port Switch FO
optionally with PoE (+)

Features

6-Port Gigabit Switch, opt. with PoE (+)

MS657203X Switch

MS657203PX Switch with PoE+

- Dual Speed SFP-Slots (100/1000Base-X)
- Fully compatible with 802.3af / 802.3at (only PoE-Version)

Connections

- 4x 10/100/1000Base-T
  2x 100/1000Base-X (SFP-Slot), of which 1x as FO/TP-Comboport
- SFP transceivers are not included in scope of delivery
- 1x pluggable screw clamp

- 1x Grounding screw
- 1x DIN-Connector

Housing

- DIN rail bracket or wall bracket (scope of delivery)
- Protection class: IP 30
- Metal housing

Power supply

- Input 12..56 V DC
- Input 48..56 V DC (PoE-Version only)

  an external power supply (230 V AC) is not included in scope of delivery

Technical Details

Gigabit Bridge

Type	Gigabit Ethernet Switch Layer 2, IEEE 802.3 compliant
Switching Fabric	12Gbps
Data Processing	Store-and-forward
MAC Table	1K
Packet Buffer	1MB
Jumbo Frames	max. 9 kBytes

Environment

Operation	-40..+75 °C
Humidty	5 ..95%, non condensing
Storage	-40..+85 °C

Twisted Pair Ports

Type	Gigabit Ethernet, Triple Speed 10/100/1000Base-T
Quantity	4+1
Connection	RJ-45 socket, shielded
Cable type	Shielded Twisted-Pair Cable, Cat. 5, Impedance 100 Ohm,
Flow Control	Pause Frames (IEEE 802.3x)
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3at Class 0, max. 30 W per Port (4x) – nur MS657203PX

FO Ports

Type	2x SFP (Dual Speed), 100/1000Base-X, of which 1x Comboport
Flow Control	IEEE 802.3x Flow Control
Connection	SFP with LC (typically)
SFPs	Not included in delivery

Displays (LEDs)

Power P1, P2, P3	Green: OK
Port	Green (static): Link OK Green (blinking): Activity
PoE-Port	amber: PoE detected (MS657203PX only)
SFP	Green (static): Link OK
	Green (blinking): Activity
Alarm	Amber (on):Error

DIP-Switch

DIP-Switch (2)	DIP-Switch 1 (Comboport) DIP 1 (ON): SFP-Port DIP 1 (OFF): TP-Port DIP-Switch 2 (SFP-Speed) DIP 1 (ON): 100Mbit/s DIP 1 (OFF): 1.000Mbit/s

Power supply (DC voltage)

Input MS657203X MS657203PX	12..56 V DC (redundant) 48..56 V DC (redundant)
Powerbudget	126 W (MS657203PX)
Power consumption	Typ. 5.8 W (without PoE)
Grounding (PE)	Screw
Connection	P1 +/-, P2 +/- red., P3 (DIN-Connector 4-pin)

Mechanical

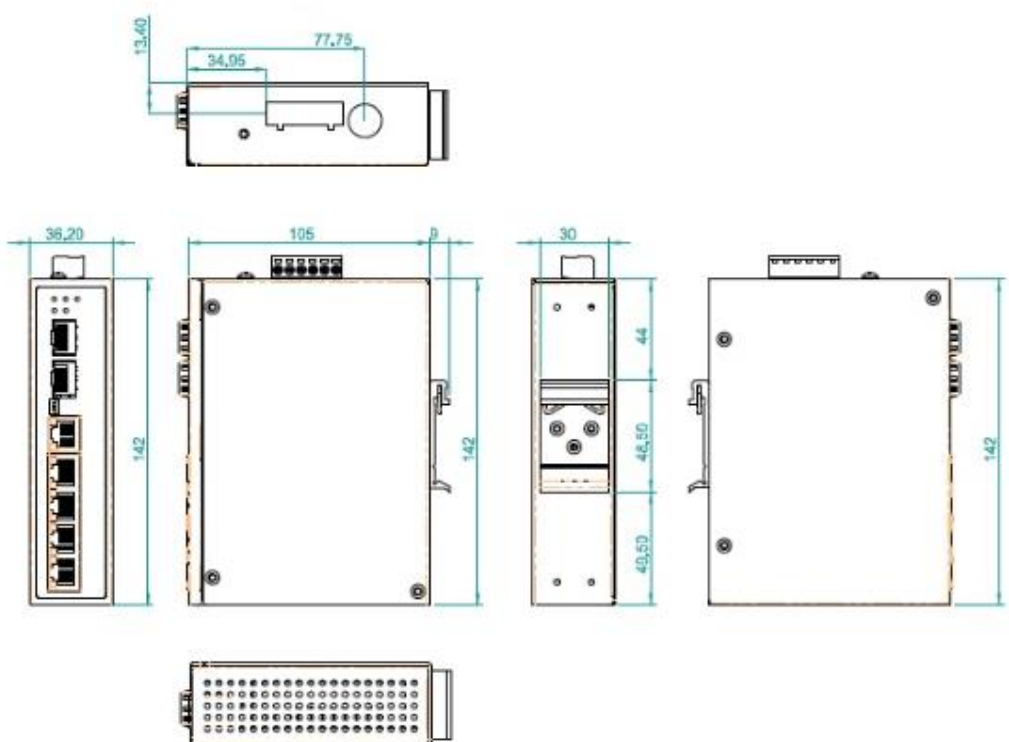|	
Dimensions incl. DIN-Adapter	36,2 x 105 x 142 mm (L x W x H, without connections)
Mounting	DIN-ISO support rail (35mm) to DIN EN 50022 or wall mounting
Housing protection class	IP30 (Metal housing)
Alarm contact	1 A / 24 V max.

Standards

EMV	EN55022 (Class A) EN55024
Safety	EN60950-1
IEEE	802.3 10Base-T 802.3u 100Base-TX 802.3ab 1000Base-T 802.3z 1000Base-X 802.3x Flow Control 802.3af PoE (MS657203PX) 802.3at PoE+ (MS657203PX)
Others	IEC60068-2-27 (Schock) IEC60068-2-32 (Free Fall) IEC60068-2-6 (Fibration)

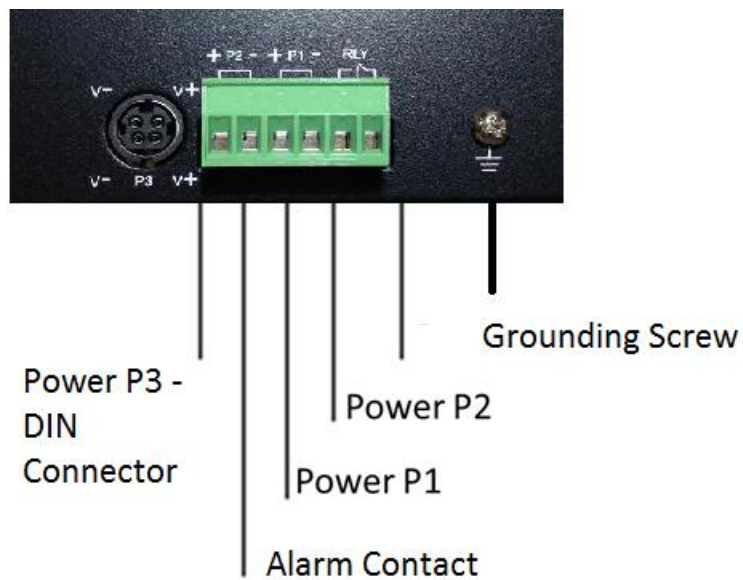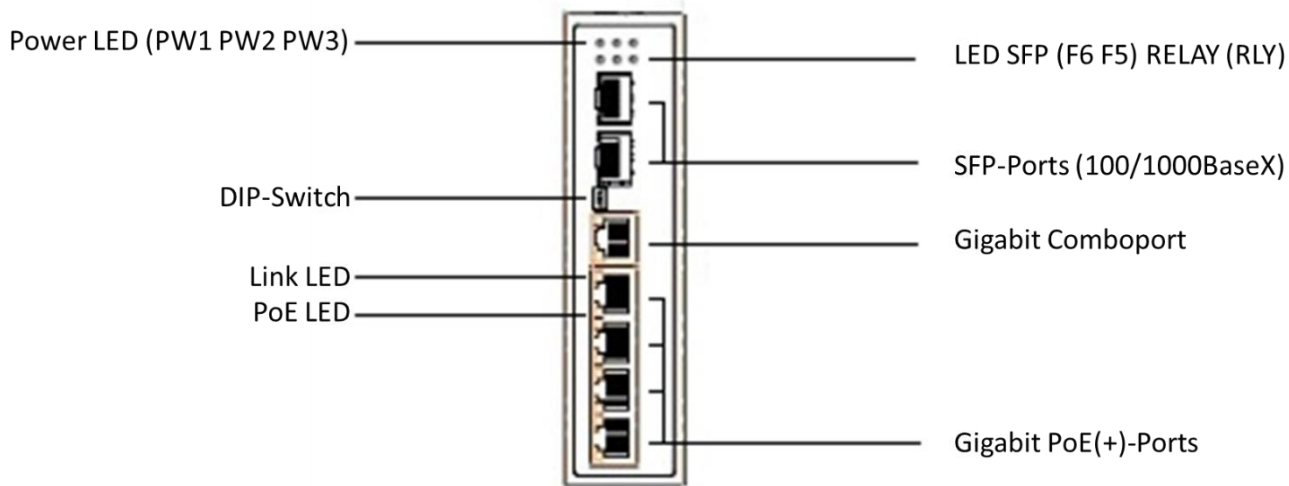## Twisted Pair Connections (RJ-45)

The integrated auto-crossing function of all twisted pair ports makes the use of crossed patch cables unnecessary. The switch automatically detects the pinout of the connected cable and adapts the port accordingly. For all connections standard 1:1 twisted pair cables can be used.

The Auto-negotiation mechanism detects the speed and transmission mode (full or half duplex) between connected ports automatically. A manual configuration is not required.

Dimensions

Ports

Power LED (PW1 PW2 PW3)

LED SFP (F6 F5) RELAY (RLY)

SFP-Ports (100/1000BaseX)

DIP-Switch

Gigabit Comboport

Link LED

PoE LED

Gigabit PoE(+)-Ports

Power P3 - DIN Connector

Grounding Screw

Power P2

Power P1

Alarm Contact

Power supply

Power is supplied by an external power supply with an output voltage of 12..56 V DC (48..56 V DC for the PoE version). The power supply unit is not included in the scope of delivery, but can be ordered separately (e.g. MS700456). It is connected via the pluggable screw connector on the top of the device. The redundant power supply is connected via the second screw connector.

As an alternative to the DIN rail power supply, a desktop power supply with 2.5 A can also be supplied with power via the existing DIN connector interface P3 (MS700721).

Safety Notes

Attention: Infrared light, which is used for data transmission in a fiber optic network, is not visible to the human eye, but can still cause damage.

To avoid damage to the eyes:
- Never look directly with the eye into the outputs of optical components or fiber optics. Risk of blindness!
- Cover all unused optical connections with caps.
- Do not put the transmission line into operation until all connections have been made

The active laser technology used in this product complies with **Laser-Class 1**

DANGER: Conductive components of power and telecommunications networks can carry dangerously high voltage.

To avoid electric shock:
- Do not carry out installation or maintenance work during lightning storms.
- All electric installations must be carried out in accordance with local regulations.

Order Information

Industrial Gigabit (PoE) Switch FO

Description	Art.-No.
6-Port Industrial Gigabit Switch, 4x 10/100/1000Base-T, 2x 100/1000Base-X (SFP-Slot), 1x as FO/TP-Comboport, extended operating temperature -40..+75°C	
Industrial Gigabit Switch, 2x 12..56 V DC redundant	**MS657203X**
Industrial Gigabit Switch, 4x 10/100/1000Base-T with PoE+ (30 W), 2x 48..56 V DC redundant	**MS657203PX**

Alternativ Entry Line Products

Description	Art.-No.
Industrial Gigabit Bridge, 1x 10/100/1000Base-T, 1x 100/1000Base-X (SFP-Slot), extended operating temperature -40..+75°C	
Industrial Gigabit Ethernet Bridging Converter 1x 10/100/1000Base-T auf 1x 100/1000Base-X SFP Port	**MS657099X**
Industrial Gigabit Ethernet Bridging Converter with PoE+ 1x 10/100/1000Base-T with PoE+ (30 W) to 1x 100/1000Base-X SFP Port	**MS657099PX**
8-Port Industrial Gigabit Switch, 8x 10/100/1000Base-T extended operating temperature -40..+75°C	
Industrial Gigabit Switch, 2x 12..56 V DC redundant	**MS657208X**
Industrial Gigabit Switch, 8x 10/100/1000Base-T mit PoE+ (30 W), 2x 48..56 V DC redundant	**MS657208PX**

Accesoires

Description	Art.-Nr.
SFP Transceiver, extended operating temperature -40.+85°C (further versions available)	
Gigabit Ethernet, Digital Diagnostic 850 nm Multimode, 1000Base-SX, LC duplex	**MS100200DX**
Gigabit Ethernet, Digital Diagnostic 1310 nm Singlemode, 1000Base-LX, LC duplex	**MS100210DX**
Fast Ethernet, Digital Diagnostic 1310 nm Multimode, 100Base-FX, LC duplex	**MS100190DX**
Fast Ethernet, Digital Diagnostic 1310 nm Singlemode, 100Base-FX, LC duplex	**MS100191DX**
Industrial DIN-Rail Power supply	
Industrial DIN-Rail Power Supply 24VDC/1,25A (30W) Input 100..240VAC/120..375VDC, Out: 24..28VDC, -20..+70°C	**MS700440**
DIN-Rail power supply **45...55** V DC / 2.5 A (120W), Wide range input 90…132 / 180…264 V AC Operating temp. -35…+70°C	**MS700456**
Desktop power supply for PoE (+) applications (DIN connector)	
Desktop-power supply **48** V DC / 2.5 A (120W), Wide range input 85…264 V AC Operating temp. -40°C bis +85°C	**MS700721**

(Abb.: MS700456)