Datasheet

Entry Line
Industrial Fast Ethernet 5-Port Switch Series
optionally with PoE (+)

MICROSENS

Features

5-Port Switch, opt. with PoE (+) overview:

MS657100X 5x TP Switch

MS657100PX 5x TP, 4x PoE+

MS657102X 1x FO MM SC, 4x TP

MS657102PX 1x MM SC, 4x TP with PoE+

MS657104X 1x FO SM SC, 4x TP

MS657104PX 1x SM SC, 4x TP with PoE+

- Fully compatible with 802.3af / 802.3at (PoE versions only)

Connections

- 4x 10/100Base-TX
  1x Uplink 10/100Base-TX oder FX
- 1x pluggable screw connector
- 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 2x 9..56 V DC
- Input 2x 48..56 V DC (PoE-Version only)
- an external power supply (230 V AC) is not included in scope of delivery
- optionally via DIN-Connector (P3)

Technical Details

Fast Ethernet Switch

Type	Fast Ethernet Switch Layer 2, IEEE 802.3 compliant
Switching Fabric	1.2Gbps
Data Processing	Store-and-forward
MAC Table	1K
Packet Buffer	1MB
MTBF	500.000 h

Environment

Operation temp.	-40..+75 °C
Humidity	5 ..95%, non condensing
Stroage temp.	-40..+85 °C

Twisted Pair Ports

Type	Fast Ethernet 10/100Base-TX
Quantity	4
Connection	RJ-45 socket, shielded
Cable type	Shielded Twisted-Pair cable, Cat. 5, Impedance 100 Ohm,
Power-over-Ethernet (PX-Versions only)	Power Sourcing Equipment (PSE) IEEE 802.3at Class 0, max. 36 W pro Port (4x)

FO Port (not with MS657100(P)X)

Type	1x SC, 100Base-FX
Multimode (MS657102(P)X	1310nm, typ. 2km Distance
Single mode (MS657104(P)X	1310nm, typ. 30km Distance

Displays (LEDs)

Power P1, P2, P3	Green: OK
Port	Green (static): Link OK Green (blinking): Activityt
PoE-Port	Amber: PoE detected (only for MS65710xPX)
Alarm	Amber (on):Error

Power supply (DC-Voltage)

Input MS65710xX MS65710xPX	9..56 V DC (redundant) 44..56 V DC (redundant)
Powerbudget	126 W (MS65710xPX)
Power consumption	Typ. 3.76 W (without PoE)
Grounding (PE)	Screw
Connection	P1 +/-, P2 +/- red., P3 (DIN-Connector 4-pin.)
Protection	▪ reverse polarity protection ▪ Overvoltage protection

Mechanical

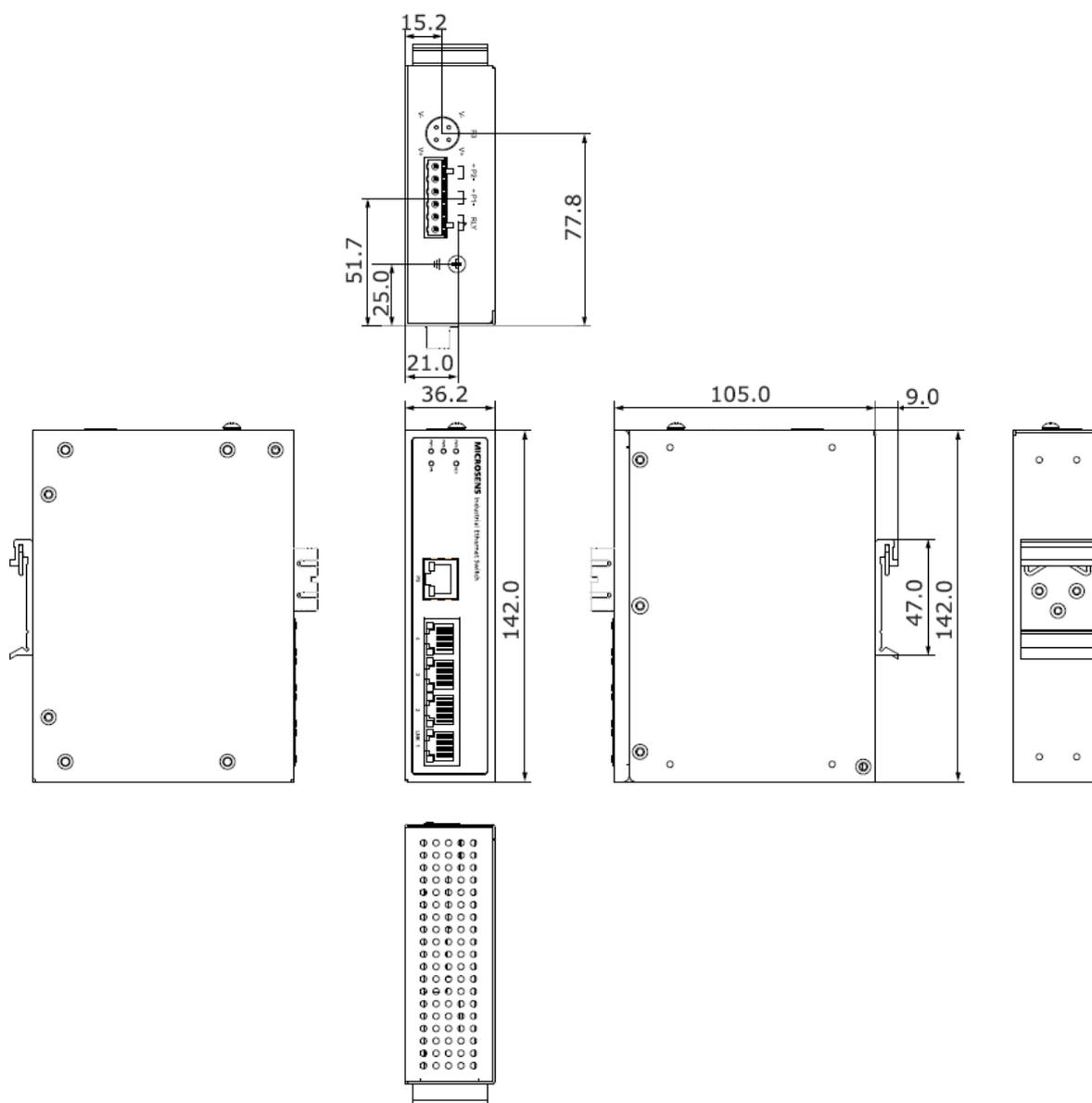|	
Dimensions incl. DIN-Adapter	36,2 x 105 x 142 mm (L x W x H, without connections)
Mounting	DIN-ISO support rail (35mm) to DIN EN 50022 or wall mounting
Housing protection class	IP30 (Metal Housing)
Alarm contact	1 A / 24 V max.

Standards

EMI	EN 55022 class A CE EN61000-4-2 CE EN61000-4-3 CE EN61000-4-4 CE EN61000-4-5 CE EN61000-4-6 CE EN61000-4-8 CE EN61000-4-11 CE EN61000-6-2 CE EN61000-6-4
Safety	EN60950-1
IEEE	802.3 10Base-T 802.3u 100Base-TX 802.3x Flow Control 802.3af PoE (MS65710xPX) 802.3at PoE+ (MS65710xPX)
Sonstige	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

Power supply

Power is supplied by an external power supply with an output voltage of 9..56 V DC (48..56 V DC for the PoE versions). The power supply is not included in the scope of delivery, but can be ordered separately (e.g. MS700456). It is connected via the pluggable screw terminal on the top of the device. The redundant power supply is connected via the second screw terminal.

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 Fast Ethernet (PoE) Switch FO/TP

	Description	Art.-No.
	5-Port Industrial Fast Ethernet Switch, **Extended Temperature Range -40..+75°C**	
	Industrial Switch, 5x 10/100Base-TX, 9..56 V DC redundant	**MS657100X**
	Industrial Switch, 5x 10/100Base-TX, of which 4x with PoE+, 48..56 V DC redundant	**MS657100PX**
	Industrial Switch, 4x 10/100Base-TX, 1x 100Base-FX, Multimode SC, 9..56 V DC redundant	**MS657102X**
	Industrial Switch, 4x 10/100Base-TX, of which 4x with PoE+, 1x 100Base-FX, Multimode SC, 48..56 V DC redundant	**MS657102PX**
	Industrial Switch, 4x 10/100Base-TX, 1x 100Base-FX, Single mode SC, 9..56 V DC redundant	**MS657104X**
	Industrial Switch, 4x 10/100Base-TX, of which 4x with PoE+, 1x 100Base-FX,single mode SC, 48..56 V DC redundant	**MS657104PX**

Alternativ Entry Line Products

	Bezeichnung	Art.-No.
	Industrial Gigabit Bridge, 1x 10/100/1000Base-T, 1x 100/1000Base-X (SFP-Slot), **Extended temperature range -40..+75°C**	
	Industrial Gigabit Ethernet Bridging converter 1x 10/100/1000Base-T to 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**
	6-Port Industrial Gigabit Switch, 4x 10/100/1000Base-T, 2x 100/1000Base-X (SFP-Slot), **1x as FO/TP-Comboport, extended temperature range -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**

Accesoires

	Description	Art.-No.
	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 temperature range -35…+70°C	**MS700456**
(Abb.: MS700456)	**Desktop-power supply for PoE (+)-pAplications (DIN-Connector)**	
	Desktop-Power supply **48** V DC / 2.5 A (120W), Wide range input 85…264 V AC Operating temperature range -40°C bis +85°C	**MS700721**