ISFE64
v1.0
Industrial PoE switch ISFE64 2,5/10G (4xPoE, 2xSFP)

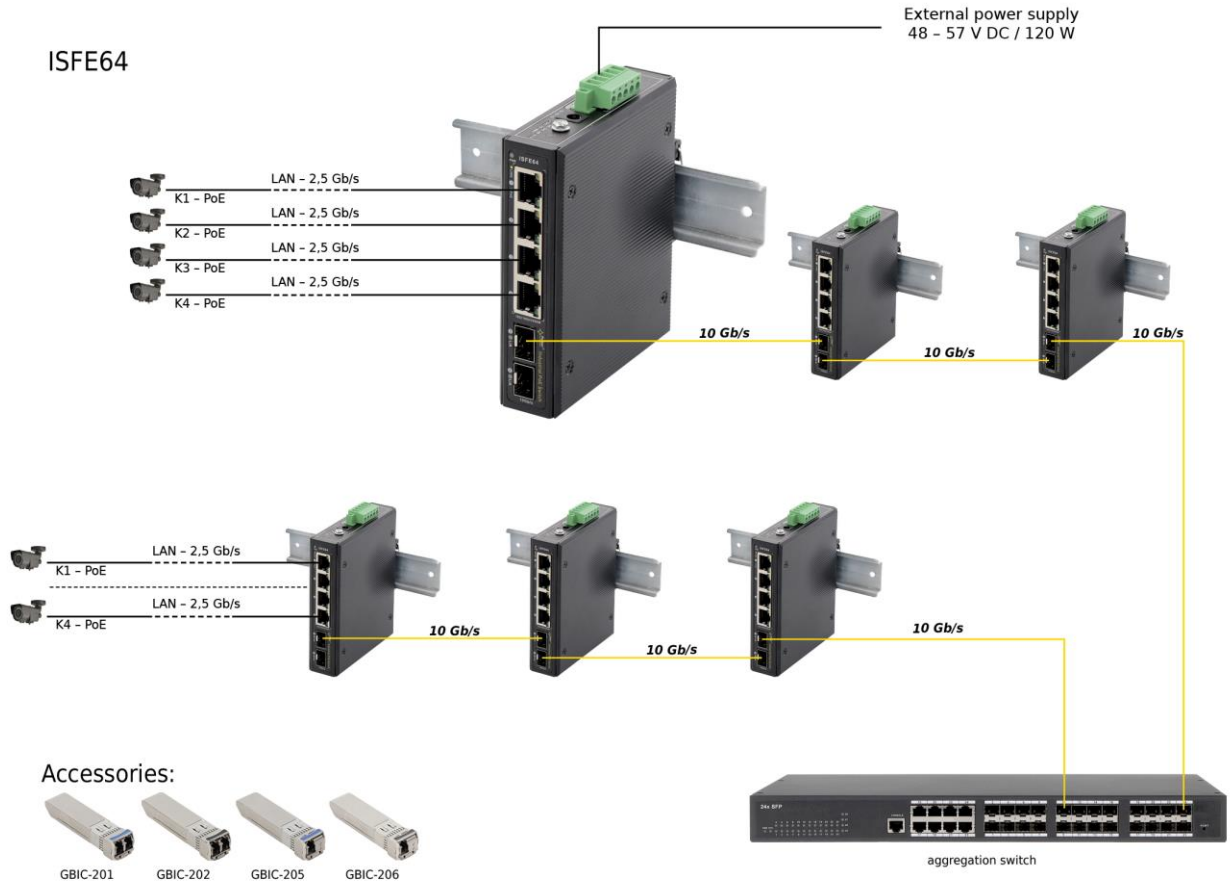
Edition: 1 from 17.09.2024
Supercedes edition: ----------

EN

Features:

- 6 ports switch
  4 PoE ports 100/1000/2500 Mb/s, (1 – 4 ports) (data and power supply)
  2 ports 1000/2500/10000 Mb/s SFP+
- 30 W for each PoE port, supports devices complaint with IEEE802.3af/at standard **(PoE+)**
- Supports auto-learning and auto-aging of MAC addresses (4K size)
- **Possibility of redundant power supply**
- Mounting on a DIN rail (TH35)
- LED indication
- warranty – 5 year

Example of use



1. Technical description

1.1. General description.

ISFE64 is a 6-ports PoE switch designed to supply IP cameras operating in IEEE 802.3af/at standard. Automatic detection of any devices powered in the PoE/PoE+ standard is enabled at the 1 – 4 ports of the switch. UP LINK ports (marked 5 and 6) are used to connect further network devices using fiber optics (using SFP modules - GBIC). On front panel there is LEDs signaling of the device's status (description in table below). Device has solutions that allow it to be powered from two sources (emergency power supply, redundant power supply) – in case of a failure of one source, it immediately switches to backup one.

The PoE technology provides a network connection and reduces installation costs by eliminating the need to supply a separate power cable to each device. In addition to cameras, other network devices using this technology can be supplied in this way, e.g. IP phone, wireless access point, router.

1.2 Block diagram.

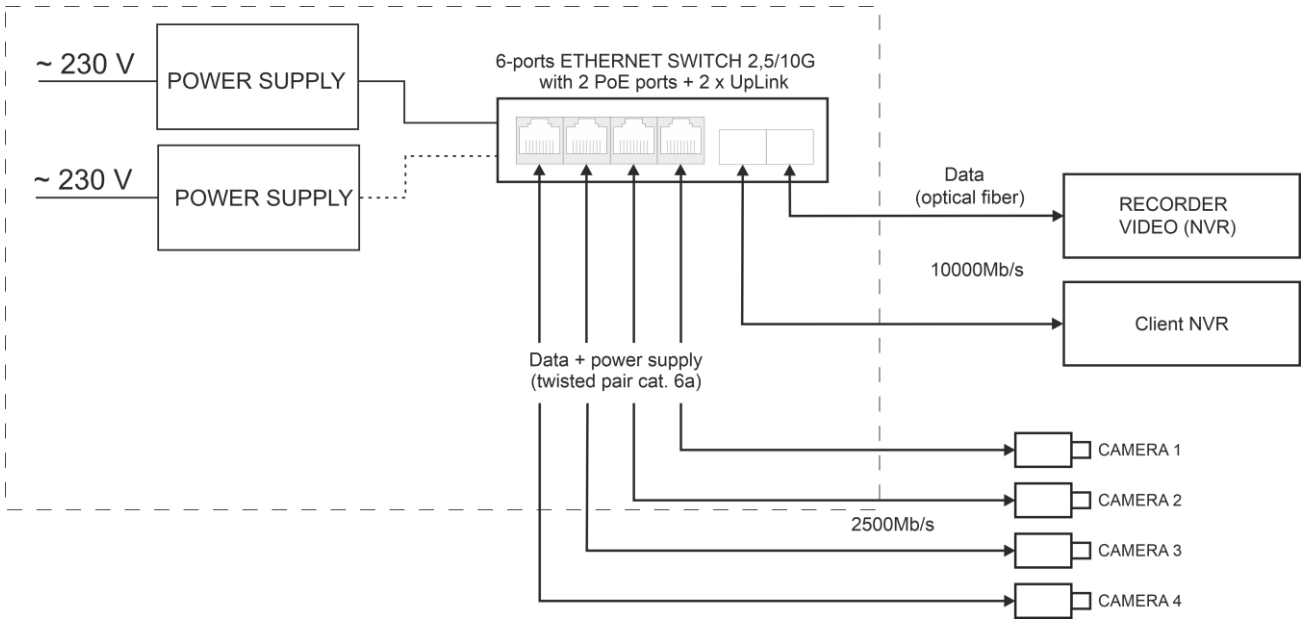


Fig. 1. Block diagram.

1.3. Description of components and connectors.

Table 1. (See Fig. 2)

Component No. (Fig. 2)	Description
[1]	4 x PoE port (1 – 4)
[2]	2 x UP LINK ports (SFP)
[3]	Power Socket (V1/V2)
[4]	Power Socket DC5,5/2,1
[5]	Holder for DIN rail

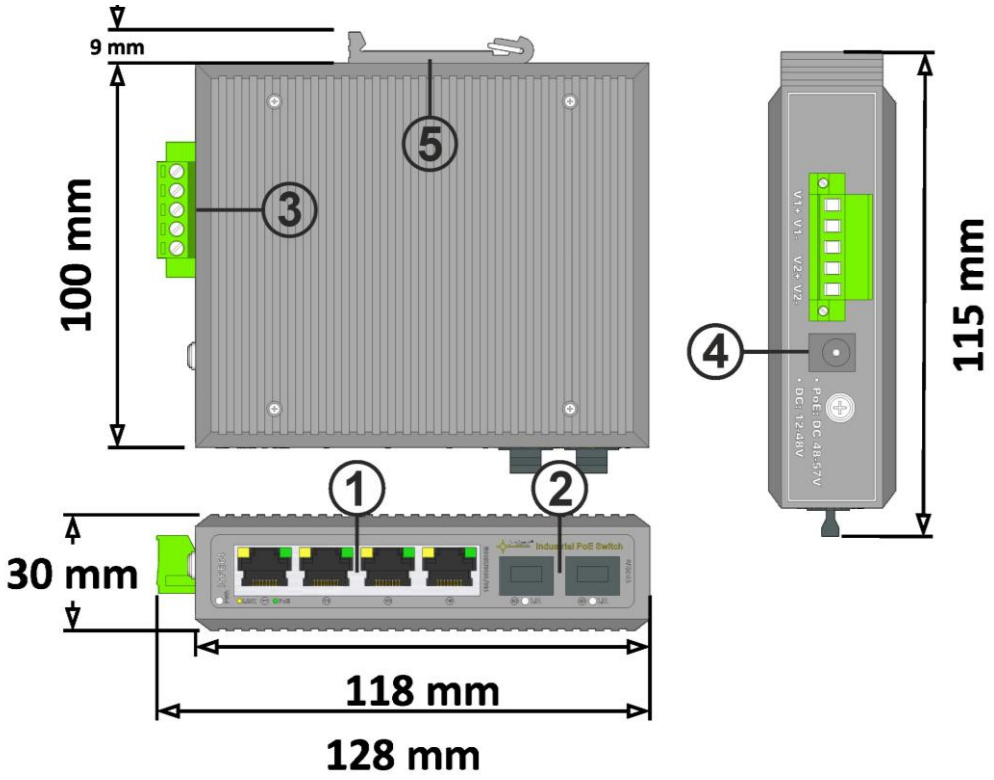


Fig. 2. The view of the switch.

1.4. Technical parameters

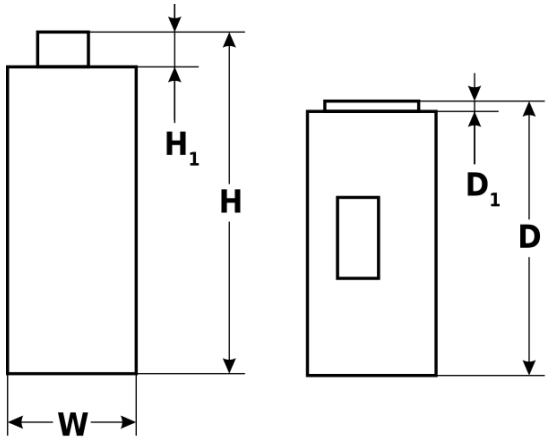


Table 2.

Ports	4 ports 100/1000/2500 Mb/s (PoE) 2 ports 1000/2500/10000 Mb/s (UP LINK) with connection speed auto-negotiation and MDI/MDIX Auto Cross
PoE power supply	IEEE 802.3af/at (1 – 4 ports), 52 V DC / 30 W at each port *
Protocols, Standards	IEEE802.3, 802.3u, 802.3x CSMA/CD, TCP/IP
Bandwidth	60 Gb/s
Transmission method	Store-and-Forward
Optical indication of operation	Switch power supply; Link/Act; PoE Status
Power supply	Switch: 12 – 57 V DC; 2,5 A max. PoE: 48 – 57 V DC; 2,5 A max.
Self-power consumption	5 W max.
Operating conditions	Temperature -30°C – +70°C, Relative humidity 5% – 90%, no condensation
Dimensions	W=30, H=128, H_1=10, D=112, D_1=8 [+/- 2 mm]
Gross/Net weight	0,3 / 0,4 [kg]
Protection class EN 62368-1	I (first)
Storage temperature	-30°C – +70°C
Declarations	CE

***** The given value of 30 W per port is the maximum value. The total power consumption should not exceed 120 W.

2. Installation.

2.1. Requirements.

Unit should be mounted in confined spaces with normal relative humidity (RH=90% maximum, without condensing) and temperature from -30°C to +70°C. Ensure the free flow of air around the unit. The PSU shall work in a vertical position that guarantees sufficient convectional air-flow through ventilating holes of the enclosure.

The switch load balance should be done before installation. Depending on application, appropriate power supply should be selected, PoE available only at 48 – 57 V (52 V recommended).

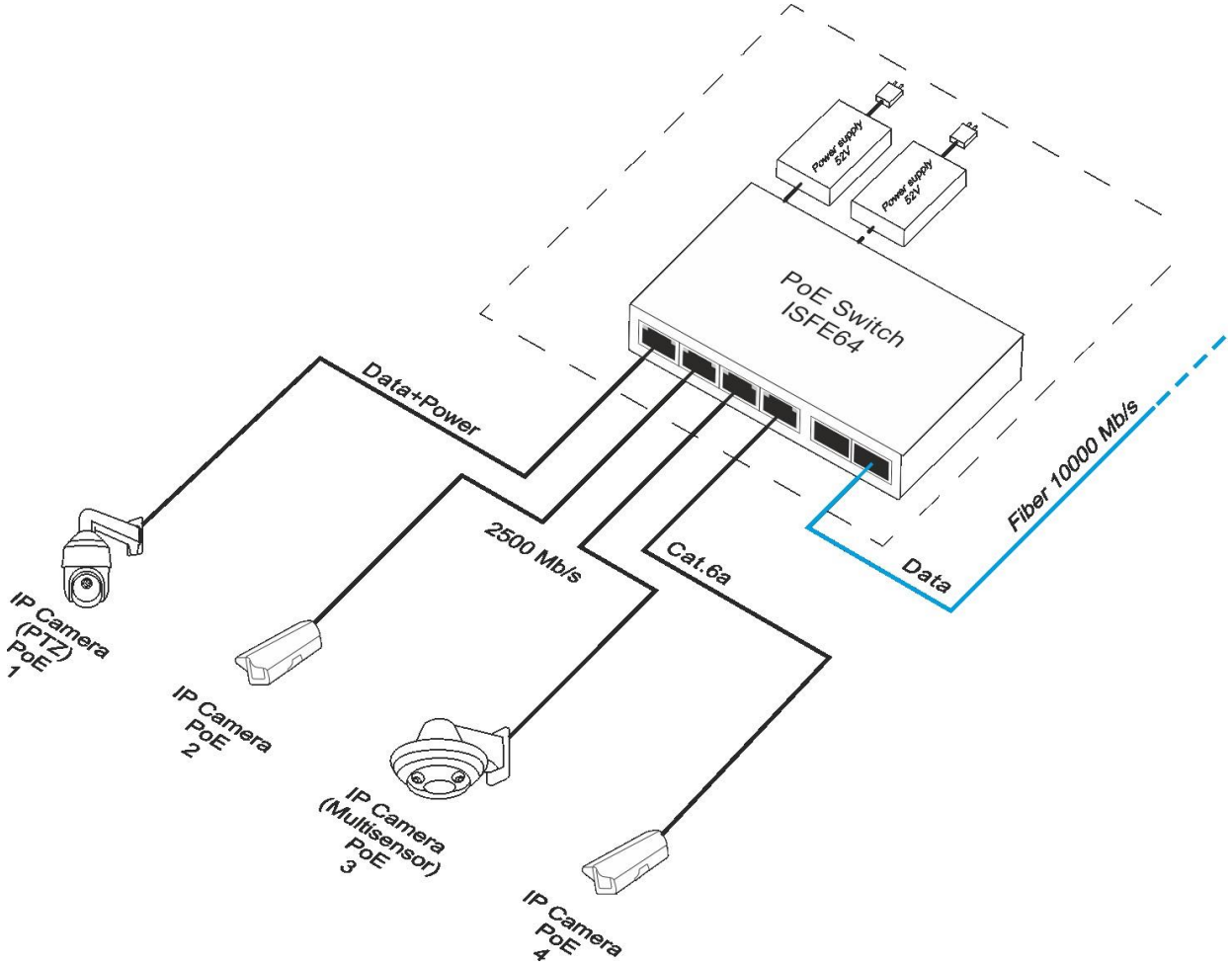
CAUTION! The DC connector is an electrical connection to the V1 input. To enable redundant power supply, the power supplies must be connected to the V1 (or DC) and V2 inputs.

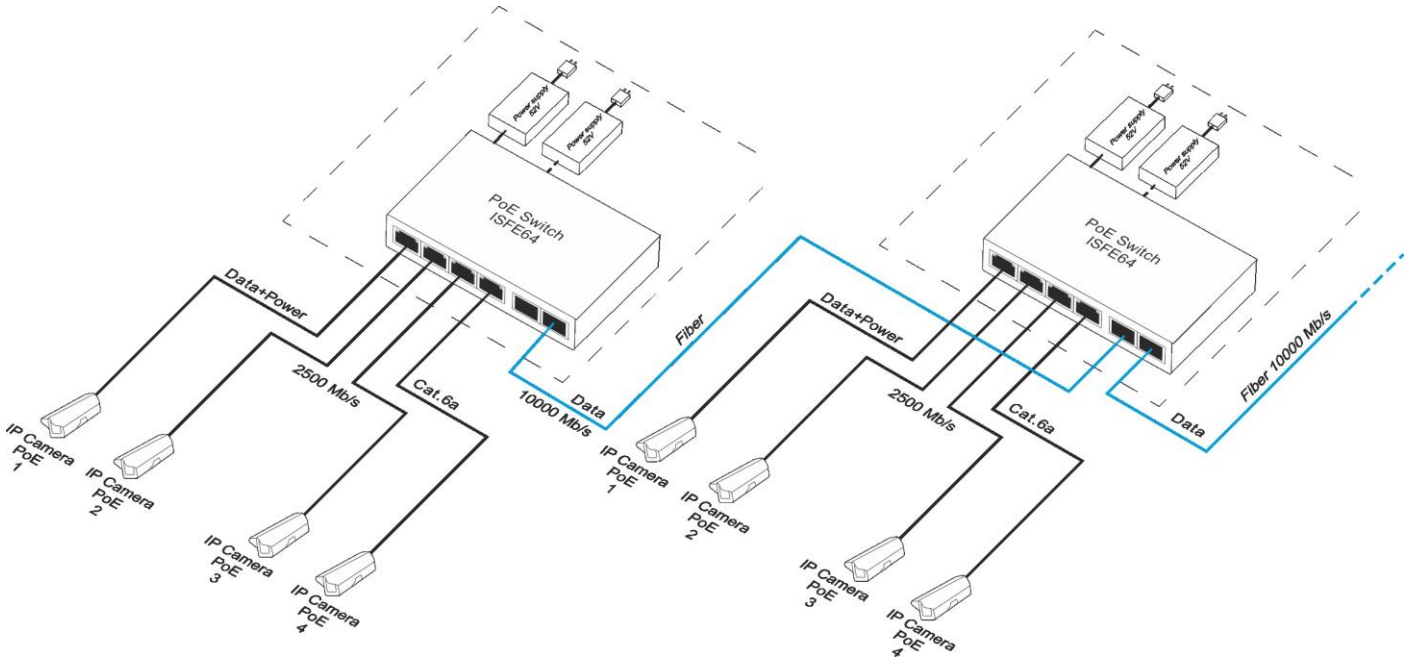
The given value of 30 W per port is the maximum value referring to a single output. The total power consumption should not exceed 120 W. The increased demand for power is especially visible when cameras are equipped with heaters or infrared illuminators. When these elements are turned on, power consumption increases rapidly, which may result in incorrect operation of the switch. Device is designed for continuous operation, it does not have a power switch. Therefore, the power supply circuit should be provided with appropriate overload protection. The electrical system shall follow valid standards and regulations.

2.2. Installation procedure

1. Connect switch to power supply unit(s), paying attention to polarization and other parameters.
2. Connect the power supply(s) to the 230 V socket.
3. Connect the camera wires to the RJ45 connectors (sockets PoE).
4. Check the optical indication of switch operation (see Table 3).

Connection schemes:





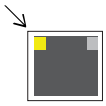
3. Operation indication (see Table 3).

Table 3. Operation indication

OPTICAL INDICATION OF THE SWITCH's POWER SUPPLY

GREEN LED LIGHT (Power) **Indication of the switch's power supply** PWR	**OFF** – no power supply of the switch **ON** – power supply on, normal operation

OPTICAL INDICATION AT THE PoE PORTS (1 – 4)

GREEN LED LIGHT **Indication of the PoE power supply at the RJ45 ports** 	**OFF** – no power supply at the RJ45 port (the device is not connected or not compliant with IEEE802.3af/at standard) **ON** – power supply on RJ45 port **Blinking** – failure on PoE port (may be caused by: short circuit, overload, or during switch-only operation)
YELLOW LED LIGHT (LINK) **The connection status of LAN devices and data transmission** 	**OFF** – no connection **ON** – device is connected **Blinking** – data transmission

OPTICAL INDICATION AT THE UP LINK PORTS

GREEN LED LIGHT (5) **The connection status of LAN devices and data transmission** 5	**OFF** – no connected device **ON** – device is connected **Blinking** – data transmission
GREEN LED LIGHT (6) **The connection status of LAN devices and data transmission** 6	**OFF** – no connection device **ON** – device is connected **Blinking** – data transmission

WEEE LABEL
Waste electrical and electronic equipment must not be disposed of with normal household waste. According to European Union WEEE Directive, waste electrical and electronic equipment should be disposed of separately from normal household waste.

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