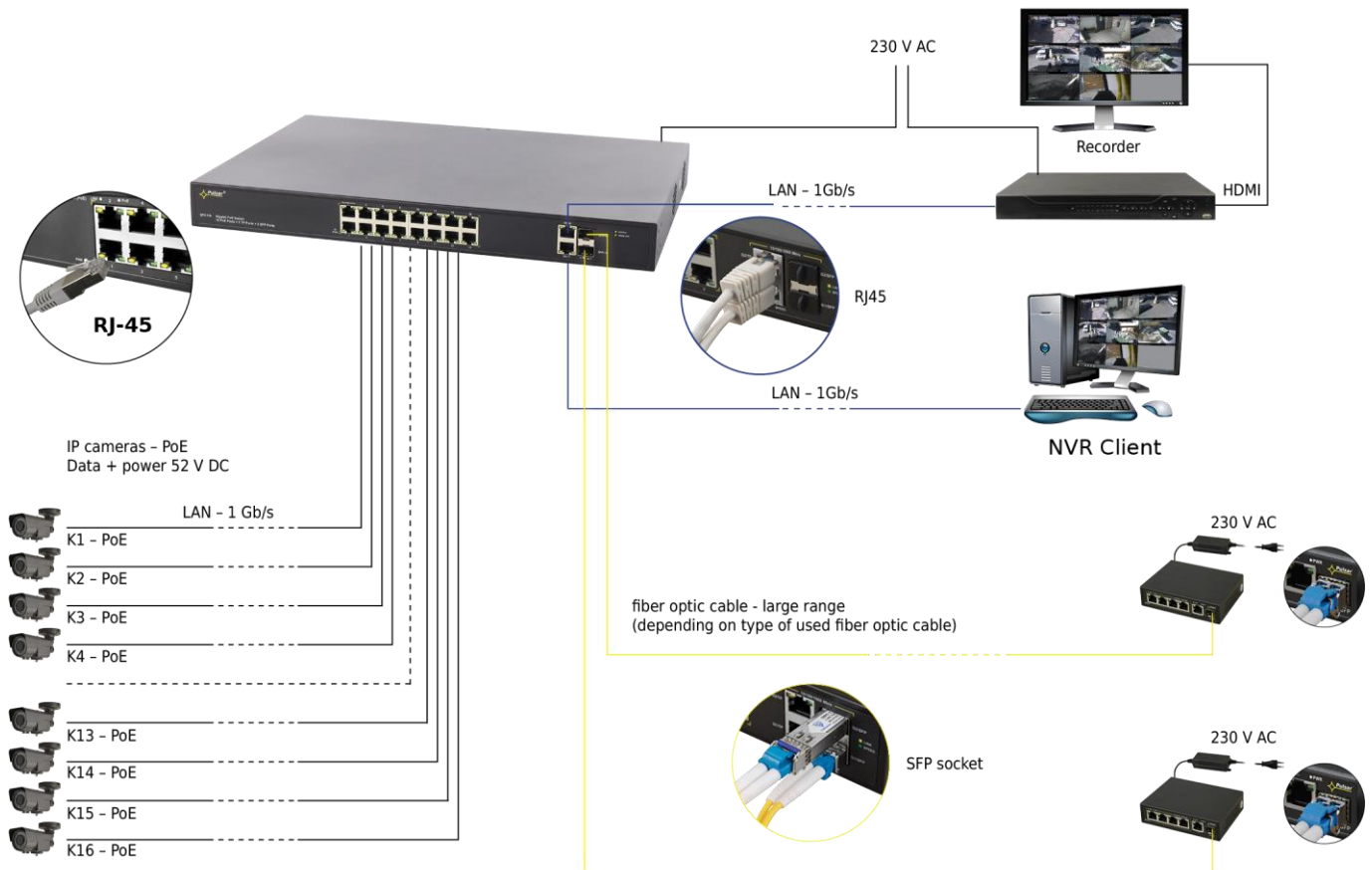


Features:

- Switch 16 ports
16 PoE ports 10/100/1000Mb/s (data transfer and power supply)
2 ports 10/100/1000Mb/s (TP/17, TP/18 ports) (UpLink)
2 ports 1000 Mb/s (SFP/19, SFP/20 ports) (UpLink)
- 30W for each PoE port, supports devices compliant with IEEE802.3af/at standard (**PoE+**)
- Supports auto-learning and auto-aging of MAC addresses (8K size)
- Optical indication
- Additional mounting elements
- Warranty – 2 years

Example of use.



1. Technical description

1.1. General description.

SFG116 is a 16-ports PoE switch designed to supply IP devices operating in IEEE 802.3af/at standard. The switch - at ports 1-16 - automatically detects devices powered in the PoE/PoE+ standard. Ports marked TP/17 and TP/18 allow connecting additional network devices via RJ45 connectors. The switch is also equipped with two SFP sockets (labeled SFP/19 and SFP/20), They allow data transmission via optical fiber using a fiber optic module (SFP GBIC). On front panel there is LEDs signaling of the device's status (description in table below).

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.

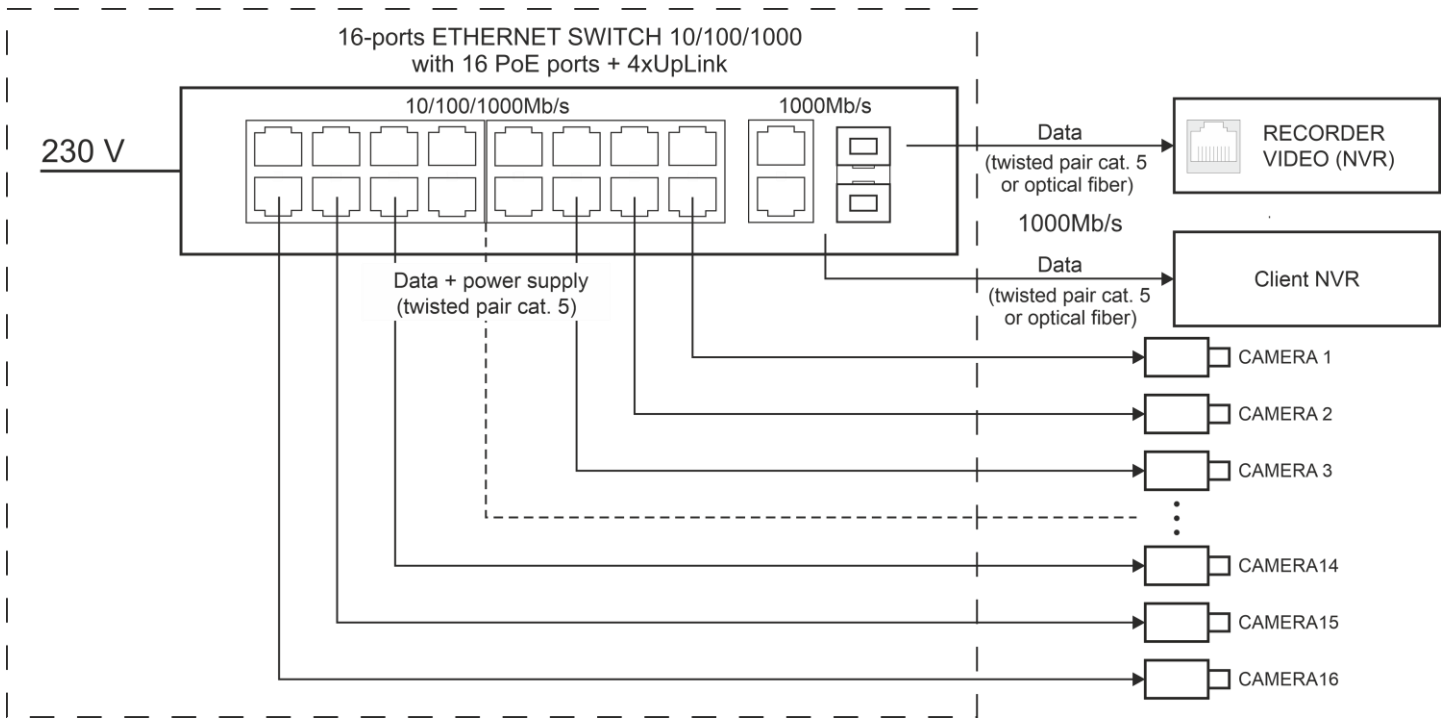


Fig. 1. Block diagram.

1.3. Description of components and connectors.

Table 1. (see Fig. 2, 3 i 4)

Element no. (Fig. 2)	Description
[1]	Optical indication
[2]	16 x PoE port (1÷16)
[3]	2 x UpLink port (TP/17, TP/18)
[4]	2 x UpLink port (SFP/19, SFP/20)
[5]	230 V power socket
[6]	Additional mounting elements

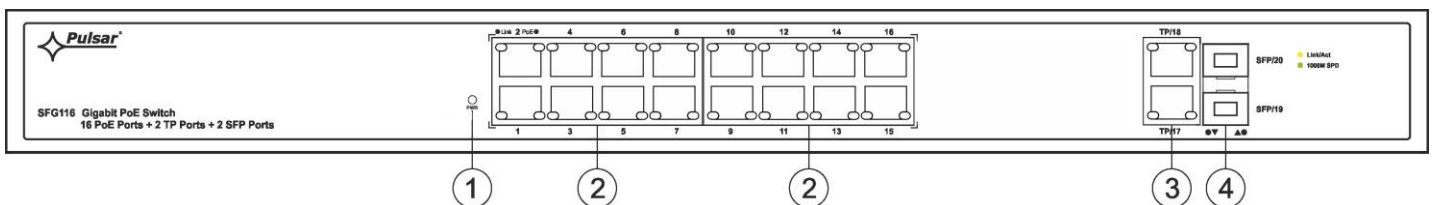


Fig. 2. Switch front panel.

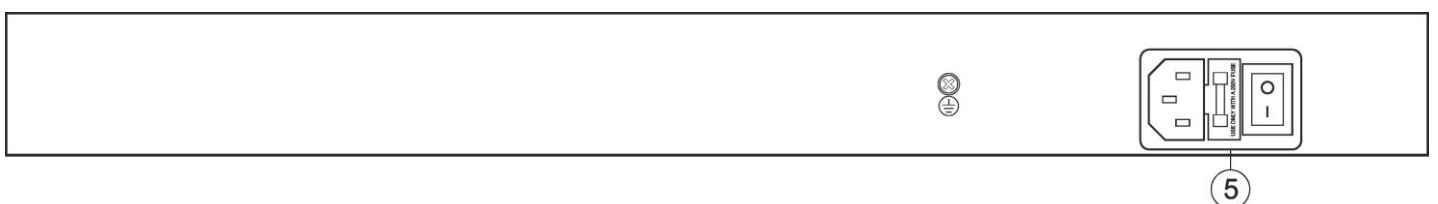


Fig. 3. Switch back panel.

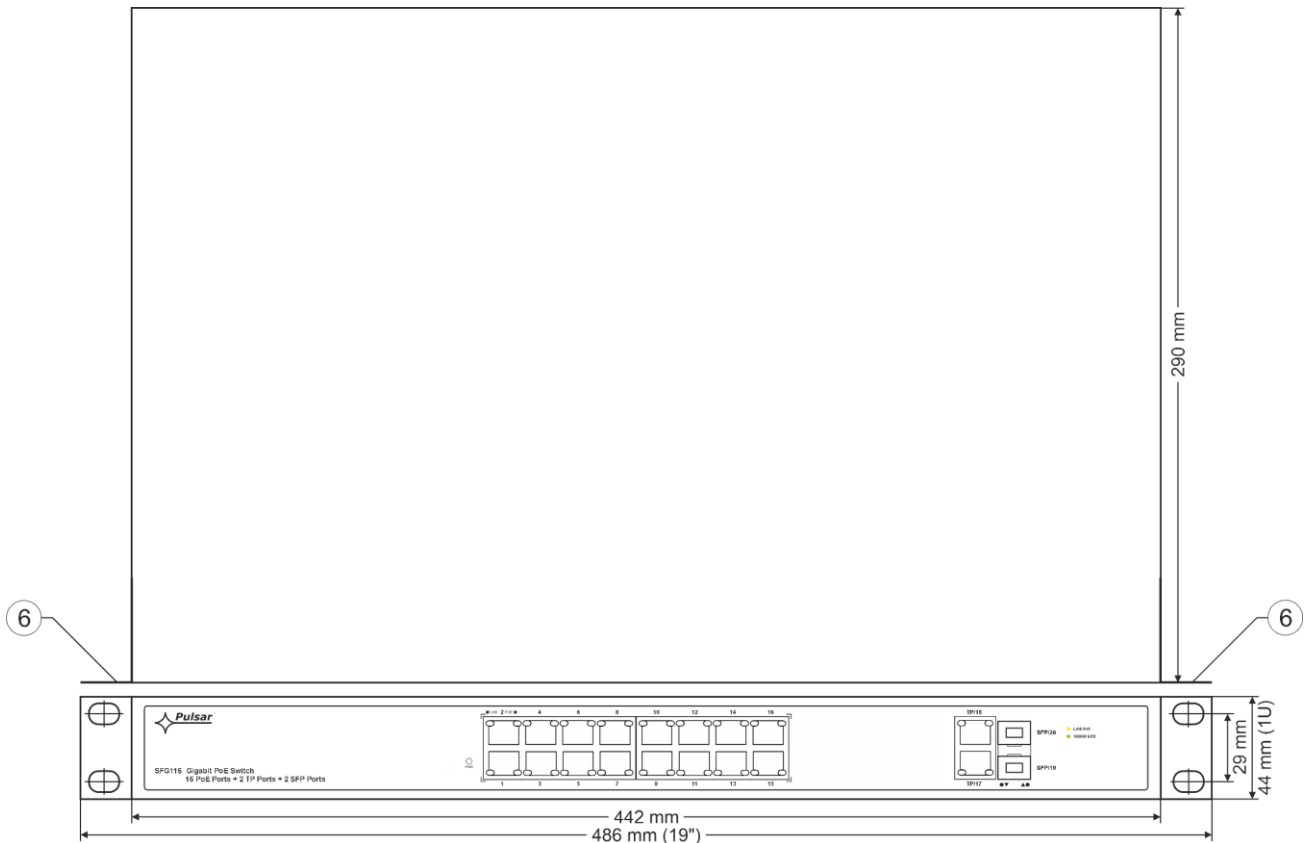


Fig. 4. View of the switch.

1.4. Specifications.

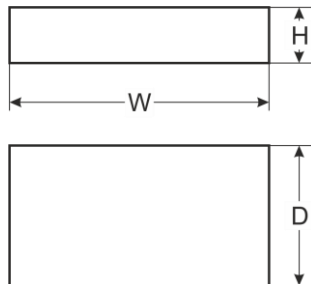


Table 2.

Ports	16 x PoE (10/100/1000 Mb/s) (RJ-45) 2 x UpLink (10/100/1000 Mb/s) (RJ-45) 2 x UpLink (1000 Mb/s) (SFP) with auto negotiation of connection speed, auto MDI/MDIX crossover
PoE supply	IEEE 802.3af/at (1÷16 ports), 52 V DC / 30 W at each port * Used pairs 1/2 (+), 3/6 (-)
Protocols, Standards	IEEE802.3, 802.3u, 802.3x, 802.3ab, 802.3z, TCP/IP
Bandwidth	56 Gb/s
Transmission method	Store-and-Forward
Optical indication of operation	Switch supplying; Link/Act; PoE Status
Power supply	~100-240 V; 50/60 Hz; 3 A
Operating conditions	Temperature: -10°C ÷ +40°C, relative humidity 20%...90%, without condensation
Dimensions	W=442, H=44, D=290 [+/- 2mm]
Additional accessories	Mount brackets ing for RACK 19"
Cable length AC	1,2m
Net/gross weight	3,8 / 4,3 [kg]
Protection class EN 62368-1	I (first)
Storage temperature	-20°C ÷ +60°C
Declaration	CE

* The given value of 30 W per port is the maximum value. The total power consumption should not exceed 160 W.

2. Installation

2.1. Requirements

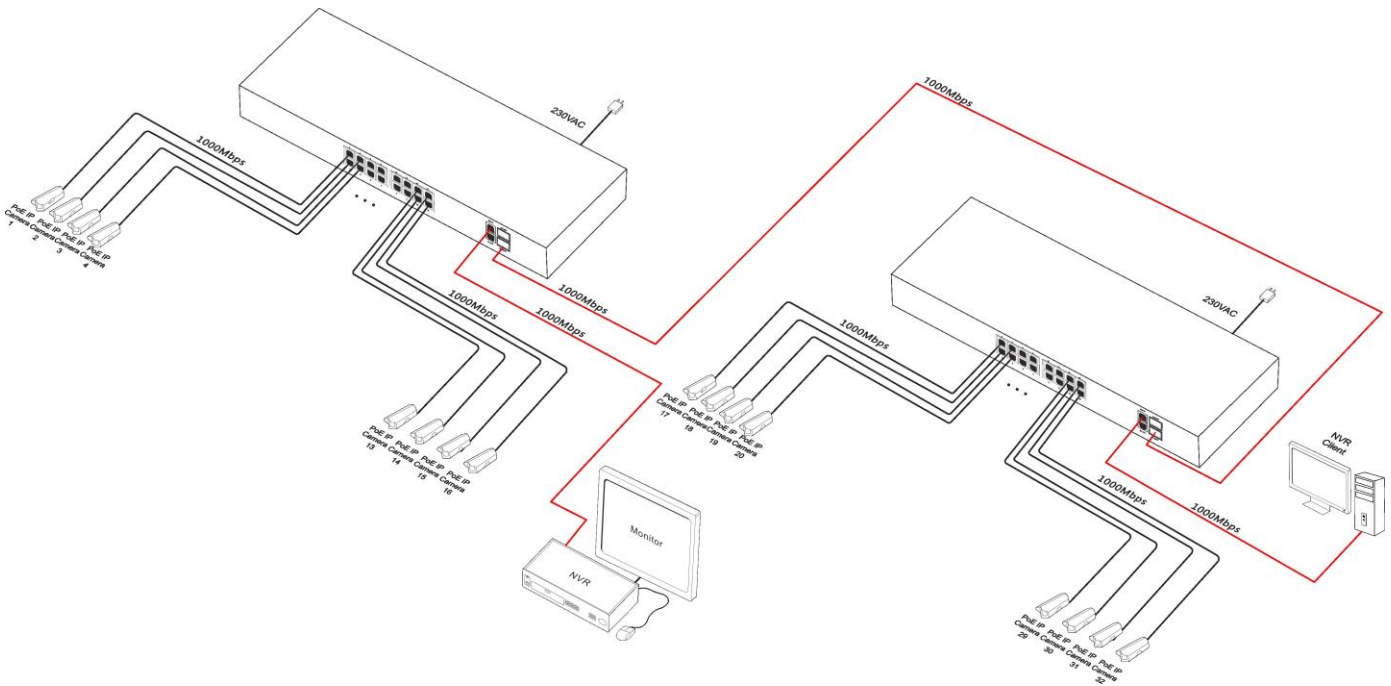
Unit should be mounted in confined spaces with normal relative humidity (RH=90% maximum, without condensing) and temperature from -10°C do +40°C. Ensure the free flow of air around the unit. The device shall work in a vertical position that guarantees sufficient convective air-flow through ventilating holes of the enclosure.

The load balance should be done before installation Switcha. The given value of 30 W per port is the maximum value referring to a single output. The total power consumption should not exceed 160 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 the 230 V power supply and turn on the device. The connection should be made with a three-core cable with a plug, which is included in the set. The switch should be installed in a place where air flow around it is ensured.
2. Connect the camera cables to the RJ45 (RJ45 sockets 1 to 16).
3. Connect the remaining LAN devices to RJ45 connectors (TP/17 and TP/18) and SFP sockets (SFP/19 and SFP/20).
4. Check the switch operation indicator (see Table 3).


Examples of connection:





3. Operation indication .

Table 3. Operation indication

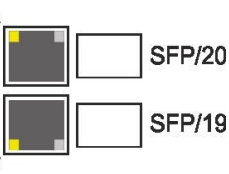
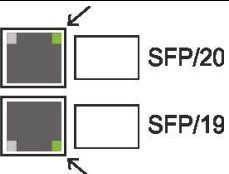
OPTICAL INDICATION OF THE SWITCH'S POWER SUPPLY

DIODA LED ŻÓŁTA (Power) Indication of the switch's power supply	PWR 	OFF – no power supply of the switch ON – power supply on, normal operation
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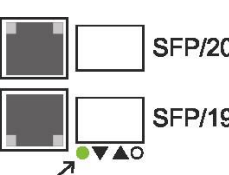
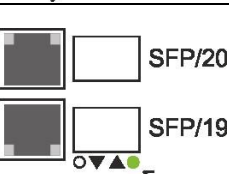
OPTICAL INDICATION AT THE PoE PORTS (1÷16)

GREEN LED LIGHT (PoE) 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 the IEEE802.3af/at standard) ON – power supply Blinking – short-circuit or output overload
YELLOW LED LIGHT (LINK) The connection status of LAN 10/100/1000 Mb/s and data transmission		OFF – no connection ON – the device is connected 10/100/1000 Mb/s Blinking – data transmission

OPTICAL INDICATION AT THE UPLINK PORT (TP/17 and TP/18)

YELLOW LED LIGHT (LINK)		OFF – no connection ON – the device is connected Blinking – data transmission
GREEN LED LIGHT (SPEED)		OFF – connected 10 Mb/s or 100 Mb/s ON – connected 1000 Mb/s

OPTICAL INDICATION AT THE UPLINK PORT (SFP/19 and SFP/20)

GREEN LED LIGHT (SFP/19)		OFF – no connection ON – the device is connected Blinking – data transmission
GREEN LED LIGHT (SFP/20)		OFF – no connection ON – the 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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