SF108
v2.0
SF108 12-port PoE switch for 8 IP cameras

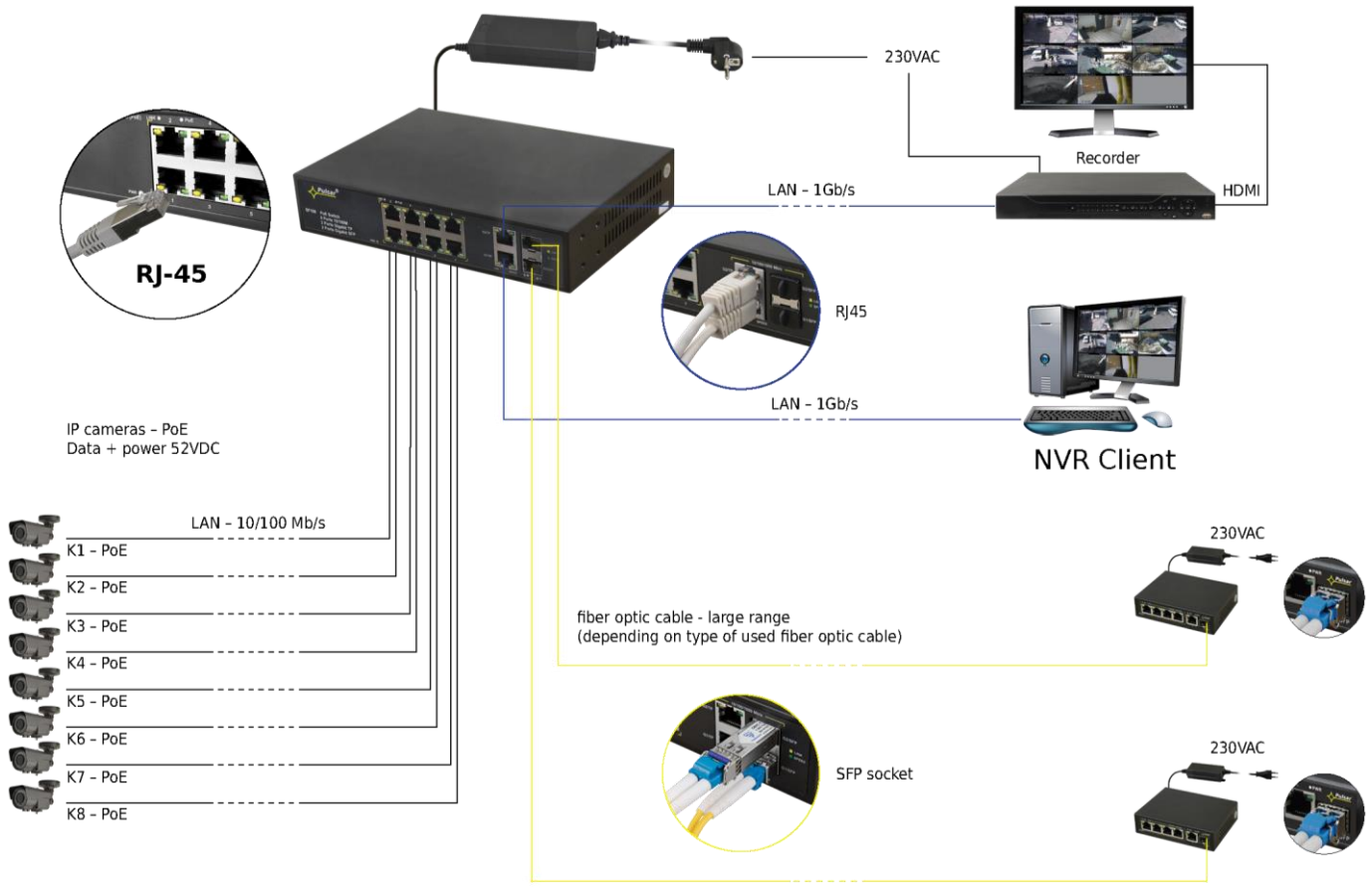
Edition: 7 from 14.07.2022
Supercedes edition: 6 from 10-03-2021

EN

Features:

- Switch 12 ports
  8 PoE ports 10/100 Mb/s, (1÷8 ports) (data and power supply)
  2 ports 10/100/1000 Mb/s (G1/TP, G2/TP ports) (UpLink)
  2 ports 1000 Mb/s SFP (G3/SFP, G4/SFP ports)
- 30 W for each PoE port, supports devices complaint with IEEE 802.33af/at standard
- Supports auto-learning and auto-aging of MAC addresses (1K size)
- LED indication
- PSD 520230 52 V DC; 2,3 A /120 W max. power supply desktop type included
- Additional assembly elements
- warranty – 2 years from production date

Example of use.



1. Technical description.

1.1. General description.

SF108 is a 12 - port PoE switch designed to supply IP cameras operating in IEEE 802.3af/at standard.
Automatic detection of any devices powered in the PoE standard is enabled at the 1 – 8 ports of the switch. The G1/TP and G2/TP ports is used for connection of another network device via RJ45 connector. The switch is fitted with SFP slots (marked as G3/SFP and G4/SFP); the use of fiber optic module (GBIC) allows fiber optic transmission.
The operating status of the device (described in the table below) is displayed on the LED display on the front panel. The PoE technology ensures a network connection and reduces installation costs by eliminating the need to supply a separate power cable for each device. This method allows supplying other network devices, such as IP phone, wireless access point or router.

1.2. Block diagram.

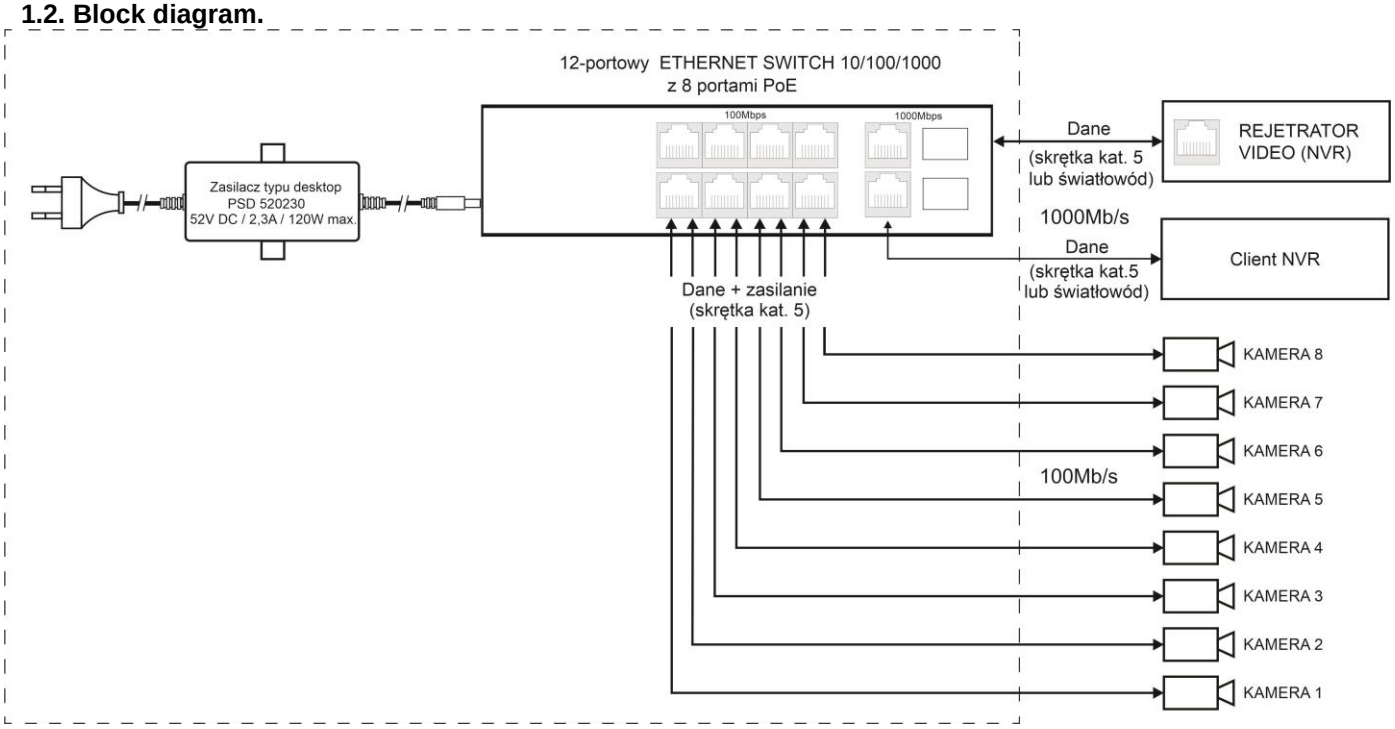


Fig. 1. Block diagram.

1.3. Description of components and connectors.

Table 1. (see Fig. 2)

Element no. (Fig. 2)	Description
[1]	8 x PoE port (1÷8)
[2]	2 x UPLINK ports (G1/TP, G2/TP)
[3]	2 x UPLINK ports (G3/SFP, G4/SFP)
[4]	Power Socket of 52 V DC
[5]	Additional mounting elements

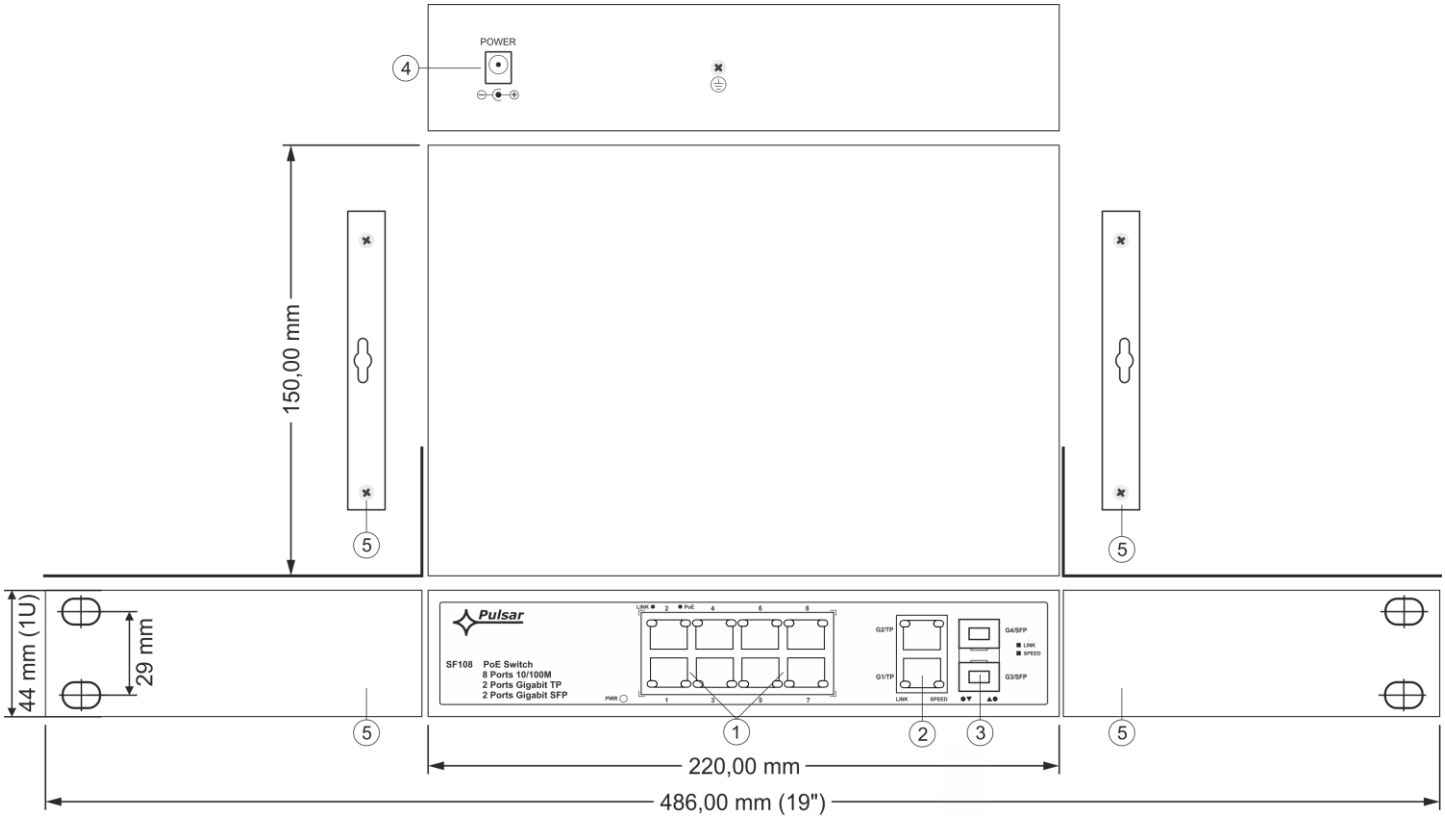


Fig. 2. The view switch'a.

1.4. Technical parameters (table 2.)

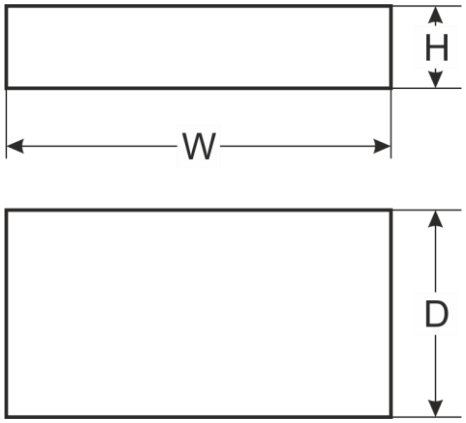


Table 2.

Ports	8 x PoE (10/100 Mb/s) (RJ-45) 2 x UPLINK (10/100/1000 Mb/s) (RJ-45) 2 x UPLINK (1000 Mb/s) (SFP) with connection speed auto-negotiation and MDI/MDIX Auto Cross)
PoE power supply	IEEE 802.3af/at (1÷8 ports), 52 V DC / 30 W at each port *
Protocols, Standards	IEEE 802.3, 802.3u, 802.3x CSMA/CD, TCP/IP
Forwarding rate	10BASE-T: 14880pps/port
	100BASE-TX: 148800pps/port
Bandwidth	24 Gb/s
Transmission method	Store-and-Forward
Optical indication of operation	Switch power supply Link PoE Status
Power supply	~100-240 V; 50/60 Hz; 1,5 A PSD 520230 52 V DC; 2,3 A /120 W max. power supply desktop type
Operating conditions	Temperature: -10^{o}C ÷ +40^{o}C relative humidity 20%...90%, without condensation
Dimensions	W=220, H=44, D=150 [+/- 2mm]
Additional equipment	plate to be fixed surface, bracket for RACK 19”
Net/gross weight	1,7 / 1,9 [kg]
Protection class EN 62368-1	I (first)
Storage temperatur	-20°C ÷ +60°C
Declarations	CE

***** The given value of 30 W per port is the maximum value. The total power consumption should not exceed 96 W.

2. Installation.

2.1. Requirements.

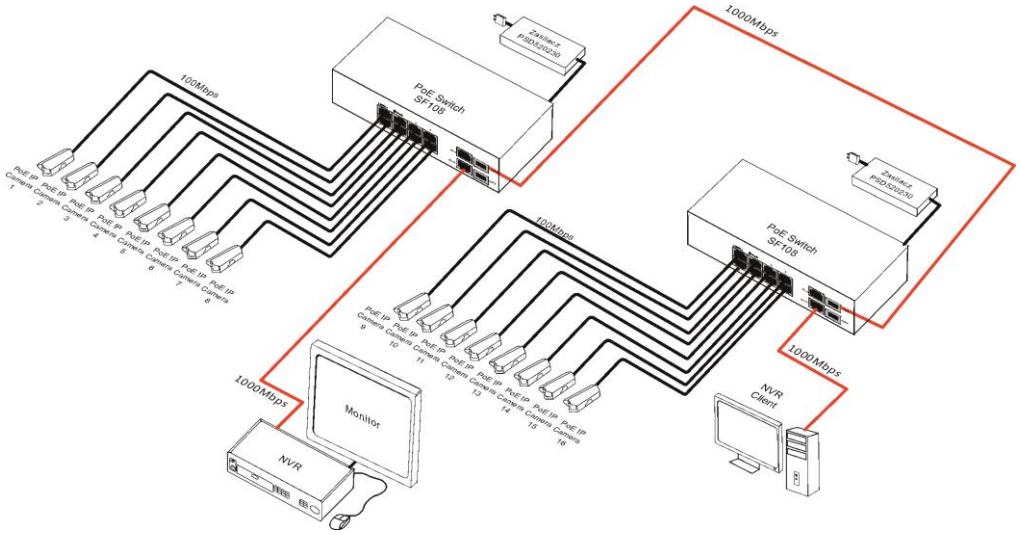
Unit should be mounted in confined spaces with normal relative humidity (RH=90% maximum, without condensing) and temperature from -10°C to +40°C. Ensure the free flow of air around the unit. The PSU shall work in a vertical position that guarantees sufficient convectional air-flow through ventilating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

The switch load balance should be done before installation. The given value of 30 W per port is the maximum value referring to a single output. The total power consumption should not exceed 96 W. The increased demand for power is particularly evident in the case of cameras with heaters or infrared illuminators - when launching these features, the power consumption increases rapidly, which may adversely affect the operation of the switch. As the device is designed for a continuous operation and is not equipped with a power-switch, therefore an appropriate overload protection in the power supply circuit should be provided. The electrical system shall be made in accordance with applicable standards and regulations.

2.2. Installation procedure.

1. Connect switch to PSD520230 52 V DC power supply unit desktop typ
2. Connect power supply to 230 V socket
3. Connect camera wires to RJ45 connectors (PoE connectors (sockets RJ45 from 1 to 8)
4. Connect remain devices LAN to RJ45(G1/TP and G2/TP) connectors and SFP(G3/SFP and G4/SFP) sockets
5. Check optical indication of switch operation (see Table 3).

Connection schemes:



3. Operation indication (see table 3)

Table 3. Operation indication

OPTICAL INDICATION OF SWITCH's POWER SUPPLY

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

OPTICAL INDICATION AT PoE PORTS (1÷8)

GREEN LED LIGHT (PoE) **Indication of PoE power supply at the RJ45 ports**	**OFF** – no power supply at the RJ45 port (the device is not connected or not compliant with IEEE 802.3af/at standard) **ON** – supply **Blinking** – short-circuit or output overload
YELLOW LED LIGHT (LINK) **The connection status of LAN devices, 10 Mb/s or 100 Mb/s and data transmission**	**OFF** – no connection **ON** – device is connected; 10 Mb/s or 100 Mb/s **Blinking** – data transmission

OPTICAL INDICATION AT UPLINK PORT (G1/TP, G2/TP)

YELLOW LED LIGHT (SPEED) G2/TP G4/SFP G1/TP G3/SFP	**OFF** – connection 10 Mb/s or 100 Mb/s **ON** – connection 1000 Mb/s
GREEN LED LIGHT (LINK) G2/TP G4/SFP G1/TP G3/SFP	**OFF** – no connection **ON** – device is connected **Blinking** – data transmission

OPTICAL INDICATION AT UPLINK PORT (G3/SFP, G4/SFP)

GREEN LED LIGHT (G3/SFP) G2/TP G4/SFP G1/TP G3/SFP	**OFF** – no connection **ON** – device is connected **Blinking** – data transmission
GREEN LED LIGHT (G4/SFP) G2/TP G4/SFP G1/TP G3/SFP	**OFF** – no connection **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 the European Union WEEE Directive, waste electrical and electronic equipment should be disposed of separately from normal household waste.

Pulsar sp. j.
Siedlec 150, 32-744 Łapczyca, Poland
Tel. (+48) 14-610-19-45
e-mail: sales@pulsar.pl
http:// www.pulsar.pl

Facebook Linkedin YouTube Pulsar.pl