RSF116
v1.0
RSF116 16-port switch without power supply units for 16 IP cameras, RACK

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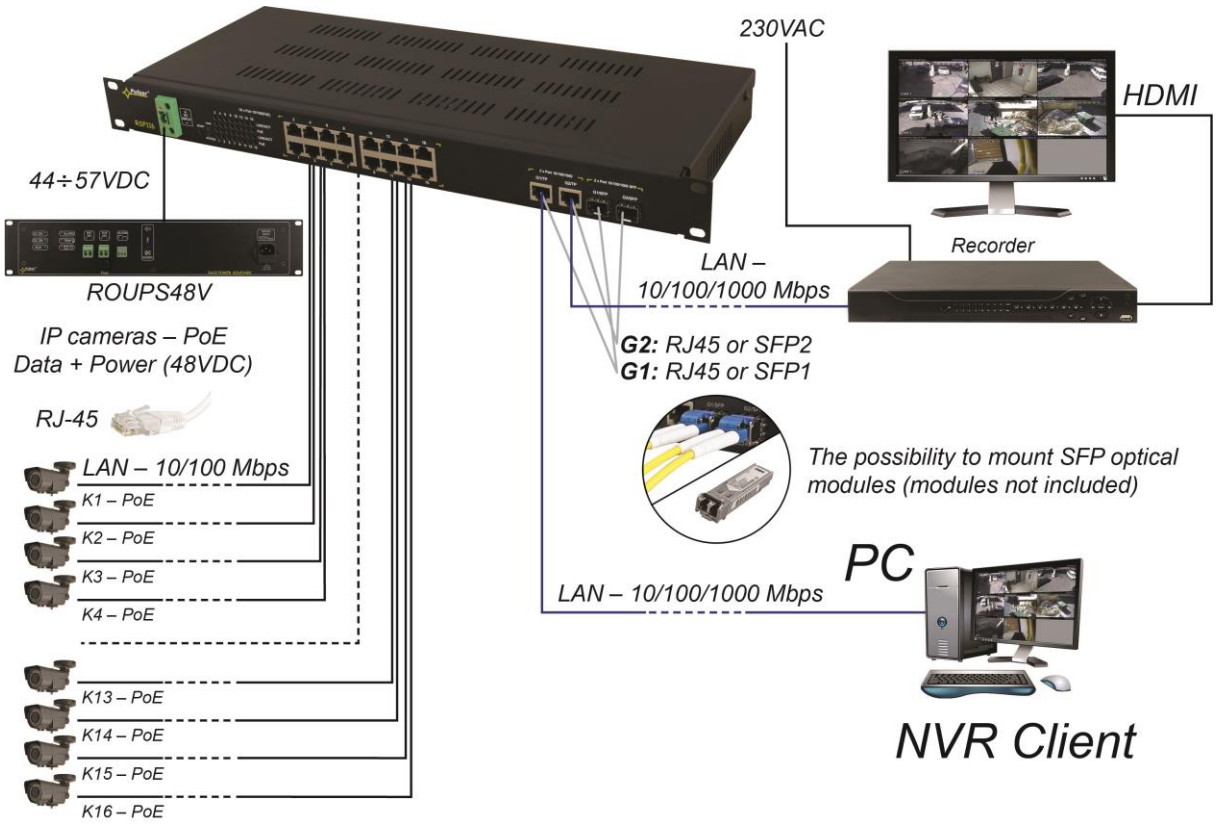
Supercedes the edition: 1 from 18.05.2017

EN

Features:

- 16 PoE ports 10/100Mb/s, (1÷16 ports) (data and power supply)
- 2 ports 10/100/1000 Mb/s (G1/TP, G2/TP2 ports)
- 2 ports 10/100/1000Mb/s SFP (G1/SFP, G2/SFP ports)
- wide range of mains supply AC: 44÷57V DC
- 15,4W for each PoE port, supports devices complaint with the IEEE802.3af standard
- Supports auto-learning and auto-aging of MAC addresses (1K size)
- LED indication
- Metal enclosure RACK 19" 1U
  - color: black RAL 9005
- warranty – 2 year from the production date

Example of use.



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1. Technical description.

1.1. General description.

RSF116 is a 16- port PoE switch in RACK 19” enclosure, designed to supply IP cameras operating in IEEE 802.3af standard. Automatic detection of any devices powered in the PoE standard is enabled at the 1 – 16 ports of the switch. The G1/TP, G2/TP ports is used for connection of another network device via RJ45 connector. The switch is fitted with SFP slots; 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.

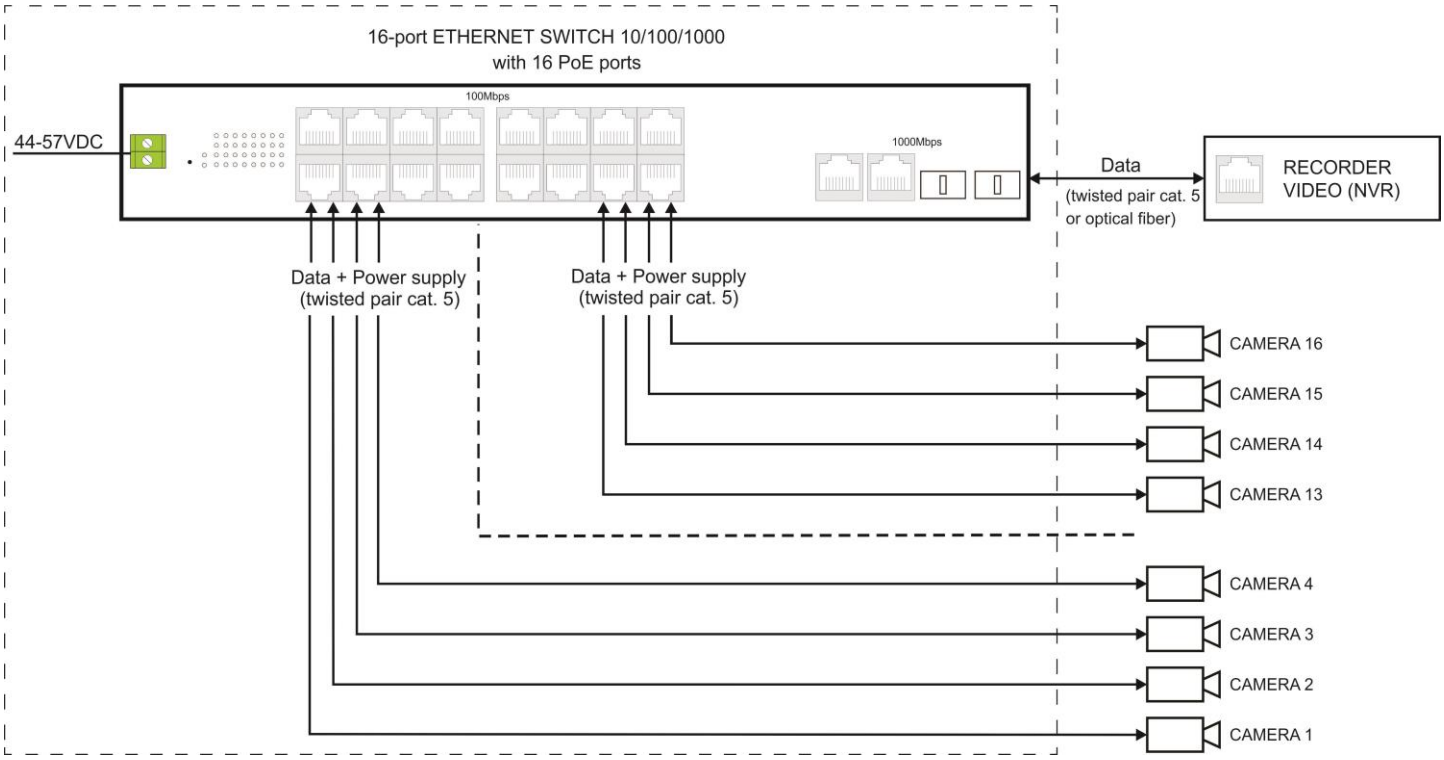


Fig. 1. Block diagram.

1.3. Description of components and connectors.

Table 1. (see Fig. 2)

Element no. (Fig. 2)	Description
[1]	16 x PoE port (1÷16)
[2]	2 x UPLINK port (G1/TP, G2/TP)
[3]	2 x UPLINK port (G1/SFP, G2/SFP)
[4]	LED lights: power supply and LAN connection status at PoE ports
[5]	Power socket AC 230V
[6]	**PWR** LED indicating the supply voltage at the power input of the switch

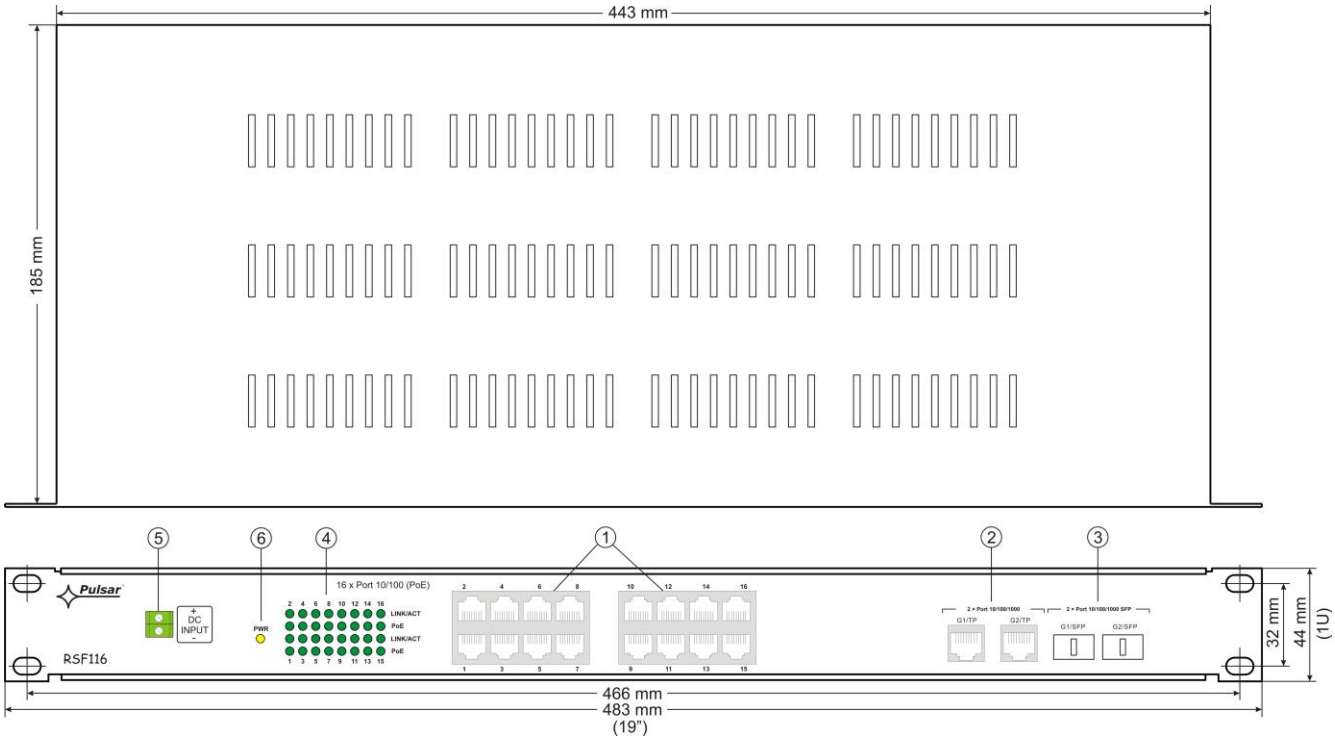


Fig. 2. The view switch'a.

1.4. Technical parameters (table 2.)

Table 2.

Ports	16 x PoE (10/100Mb/s) (RJ-45) 2 x UPLINK (10/100/1000Mb/s) (RJ-45) 2 x UPLINK (10/100/1000Mb/s) (SFP) with connection speed auto-negotiation and MDI/MDIX Auto Cross)
PoE power supply	IEEE 802.3af (1÷16 ports), 48VDC / 15,4W at each port * Used pairs 4/5 (+), 7/8 (-)
Protocols, Standards	IEEE802.3, 802.3u, 802.3x CSMA/CD, TCP/IP
Forwarding rate	10BASE-T: 14880pps/port
	100BASE-TX: 148800pps/port
Bandwidth	1,6Gbps
Transmission method	Store-and-Forward
Optical indication of operation	Switch power supply Link PoE Status
Power supply	44 ÷ 57V DC minimum power of 200W
Current consumption by PSU systems	150mA max.
Operating conditions	temperature -10°C ÷ 45°C, relative humidity 5% - 90%, no condensation
Enclosure dimensions	W=19", H=1U; 483 x 44 x 185 mm (WxHxD)
Enclosure	RACK 19″ 1U, Steel plate, DC01 1,0mm color: black RAL 9005
Fixation	four-point butt mounting to RACK profiles – the set include 2 M6 screws + cage nuts
Net/gross weight	2,4/2,7kg
Storage temperatur	-20°C ÷ 60°C
Declarations	CE

***** The given value of 15,4W per port is the maximum value. The total power consumption should not exceed 192W when all PoE ports are being used.

2. Installation.

2.1. Requirements.

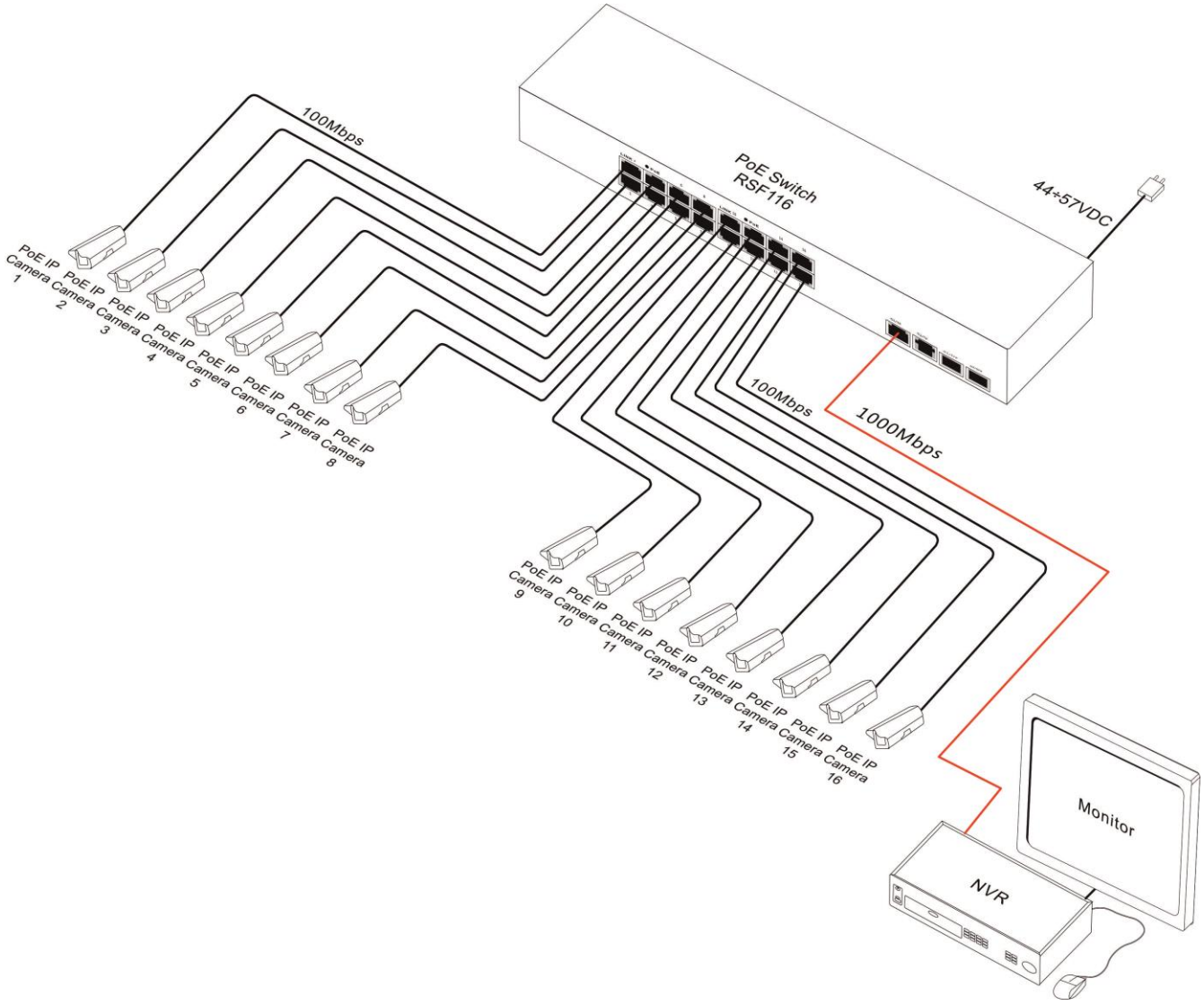
The unit should be mounted in confined spaces, in accordance with the 2nd environmental class, with normal relative humidity (RH=90% maximum, without condensation) and temperature from -10°C to +45°C.

The given value of 15,4W per port is the maximum value referring to a single output. The total power consumption should not exceed 192W when all PoE ports are being used. 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.

2.2. Installation procedure.

1. Mount the switch in the RACK 19” cabinet.
2. Connect the DC INPUT connector to a DC supply voltage in the range of 44 to 57V from an external power supply with a minimum power of 200W.
3. The place and method of installation should ensure free air flow around the unit.
4. Connect the camera wires to the RJ45 connectors (PoE connectors (sockets RJ45 from 1 to 16).
5. Connect the remaining LAN devices to RJ45 connectors (G1/TP or G1/G2 and SFP/SFP)
   CAUTION! G1/TP and G1/SFP connectors can not operate simultaneously
   CAUTION! G2/TP and G2/SFP connectors can not operate simultaneously
6. Check the optical indication of switch operation (see Table 3).

Connection schemes



3. Operation indication (see table 3)

Table 3.

OPTICAL INDICATION OF THE SWITCH's POWER SUPPLY

YELLOW 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÷16)

YELLOW LED LIGHT (LINK/ACT) **The connection status of LAN devices, 10MB/s or 100Mb/s and data transmission** 	**OFF**- no connection **ON** - the device is connected; 10Mb/s or 100Mb/s **Blinking** – data transmission
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 standard) **ON** – supply **Blinking** – short-circuit or output overload

4. Operation and use.

4.1 Overload or short circuit of the PSU output (SCP on).

In case of overload, the output voltage is automatically shut off, and so is the LED indicator. The restoration of the voltage takes place immediately once the failure (overload) is over).

4.2 Maintenance

Any and all maintenance operations may be performed following the disconnection of the PSU from the power supply network. The PSU does not require performing any specific maintenance measures. In case of fuse replacement, use a replacement of the same parameters.

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
Siedlec 150, 32-744 Łapczyca, Poland
Tel. (+48) 14-610-19-40, Fax. (+48) 14-610-19-50
e-mail: biuro@pulsar.pl, sales@pulsar.pl
http:// www.pulsar.pl, www.zasilacze.pl