S98
v1.0
The S98 9-port switch for 8 IP cameras

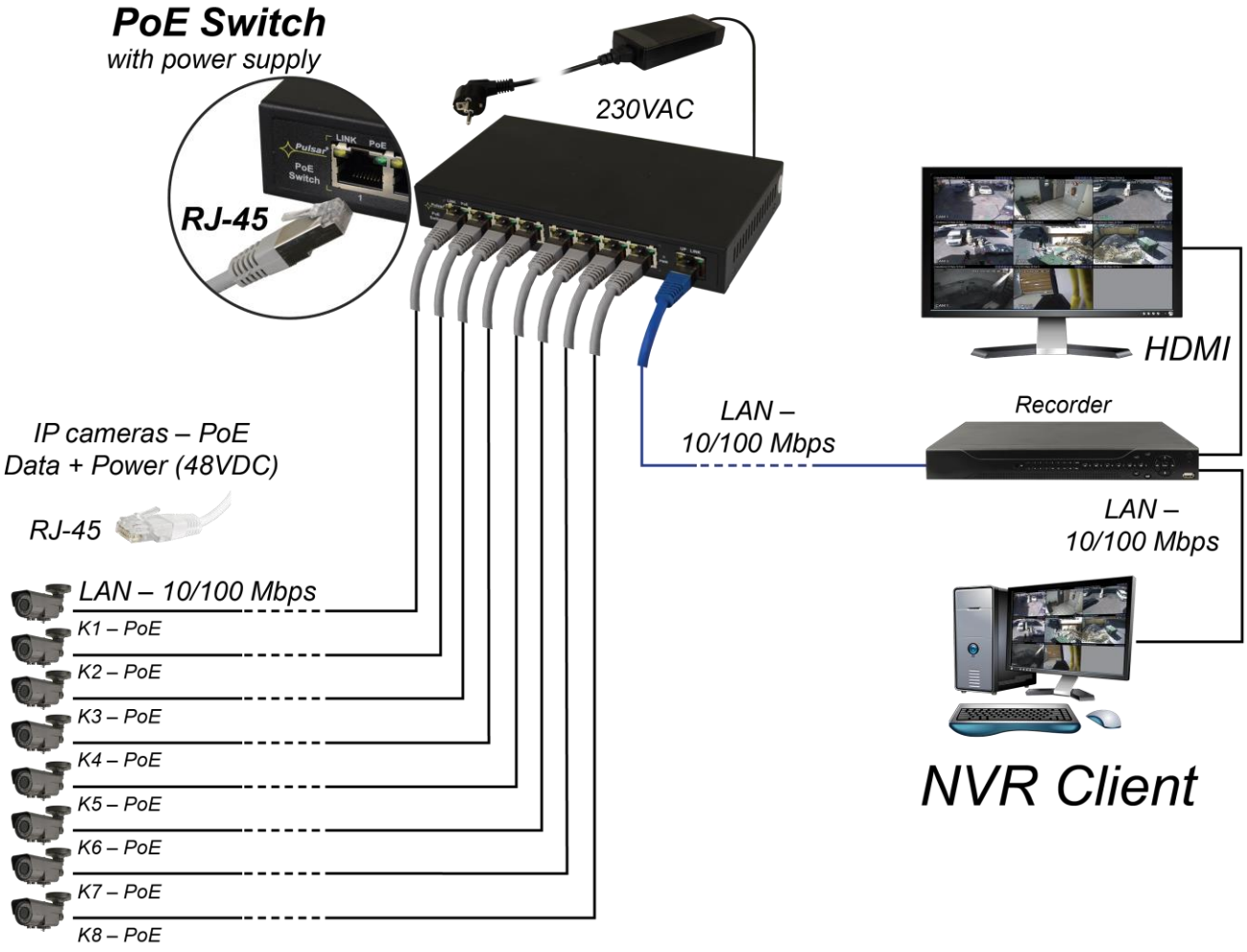
Edition: 3 from 09.01.2017
Supercedes the edition: 2 from 22.02.2016

EN**

Features:

- 9 10/100 Mb/s ports
- 8 PoE ports (data transfer and power supply)
- 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
- The PSD 480250 48VDC/2,5A/120W max. power supply desktop type included
- Additional assembly elements
- warranty – 2 year from the production date

Example of use.



1. Technical description

1.1. General description.

S98 is a 9-port PoE switch 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 – 8 ports of the switch. The UPLINK port is used for connection of another network device. The LEDs at the front panel indicate the operation status (description in the table below).
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.

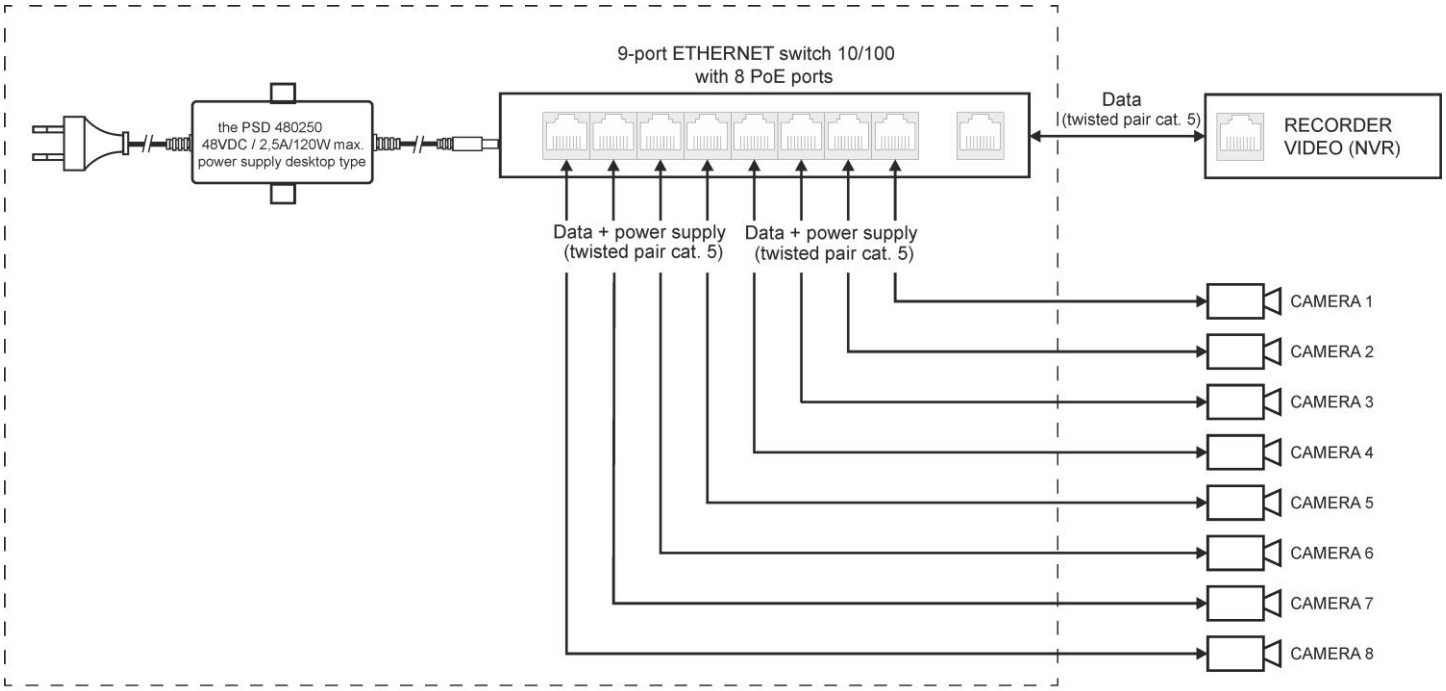


Fig. 1. Block diagram.

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]	1 x UPLINK port
[3]	Power Socket of the 48VDC

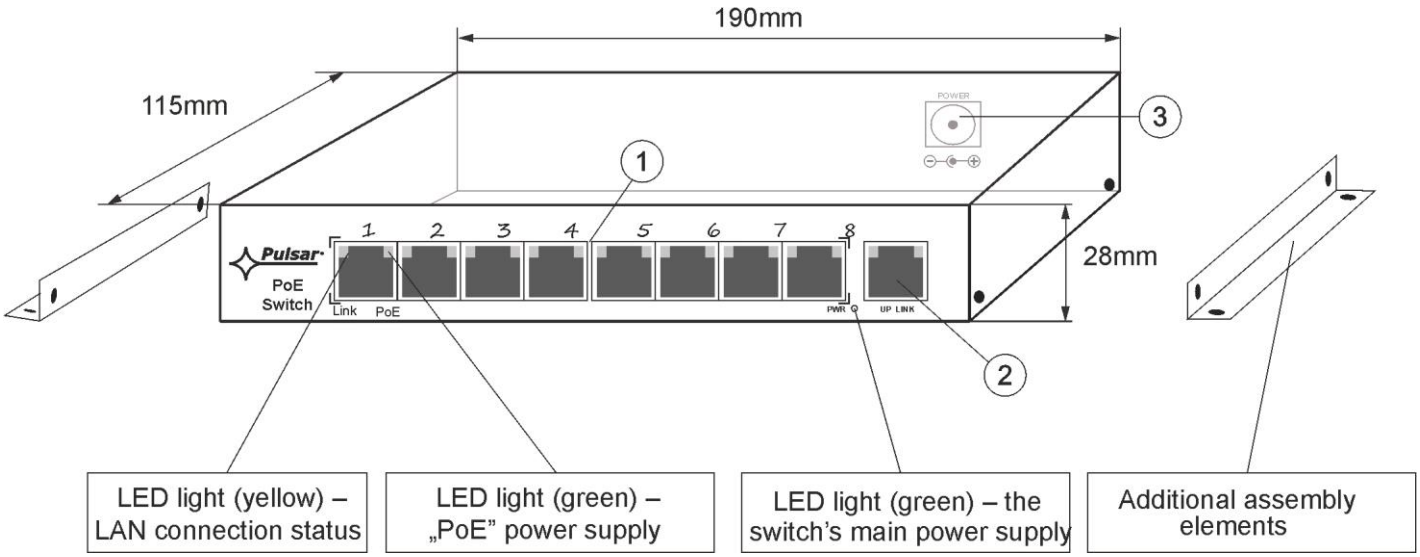


Fig. 2 The view switch'a.

1.4. Technical parameters (Table 2.)

Table 2.

Ports	9 10/100Mb/s ports (8 x PoE + 1 x UPLINK) with connection speed auto-negotiation and MDI/MDIX Auto Cross)
PoE power supply	IEEE 802.3af (1÷8 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/Act; PoE Status
Power supply	90 ÷ 264VAC 50÷60Hz / 2,5A 230VAC the PSD 480250 48VDC/2,5A/120W max. power supply desktop type
Operating conditions	temperature -10°C ÷ 40°C, relative humidity 5% - 90%, no condensation
Dimensions (W x H x D)	190 x 28 x 115 [mm]
Additional equipment	plate to be fixed surface
Net/gross weight	1,27/ 1,50kg
Protection class EN 60950-1:2007	II (second)
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 96W when all PoE ports are being used.

2. Installation

2.1. Requirements

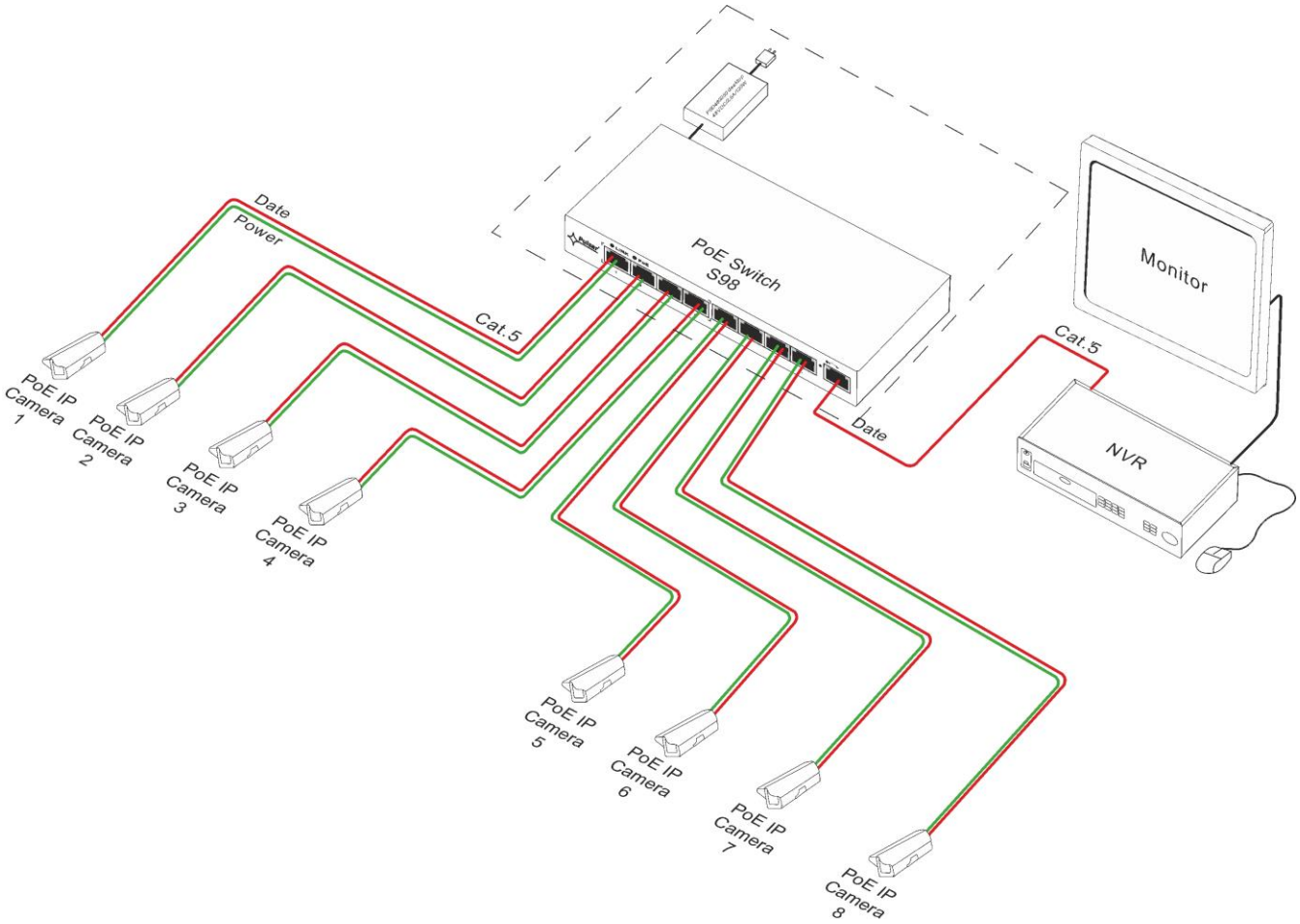
The unit should be mounted in confined spaces, in accordance with the 2nd environmental class, with normal relative humidity (RH=90% maximum, without condensation) and temperature from -10°C to +40°C. Ensure the free flow of air around the unit. The PSU shall work in a vertical position that guarantees sufficient convectional air-flow through ventilating holes of the enclosure.

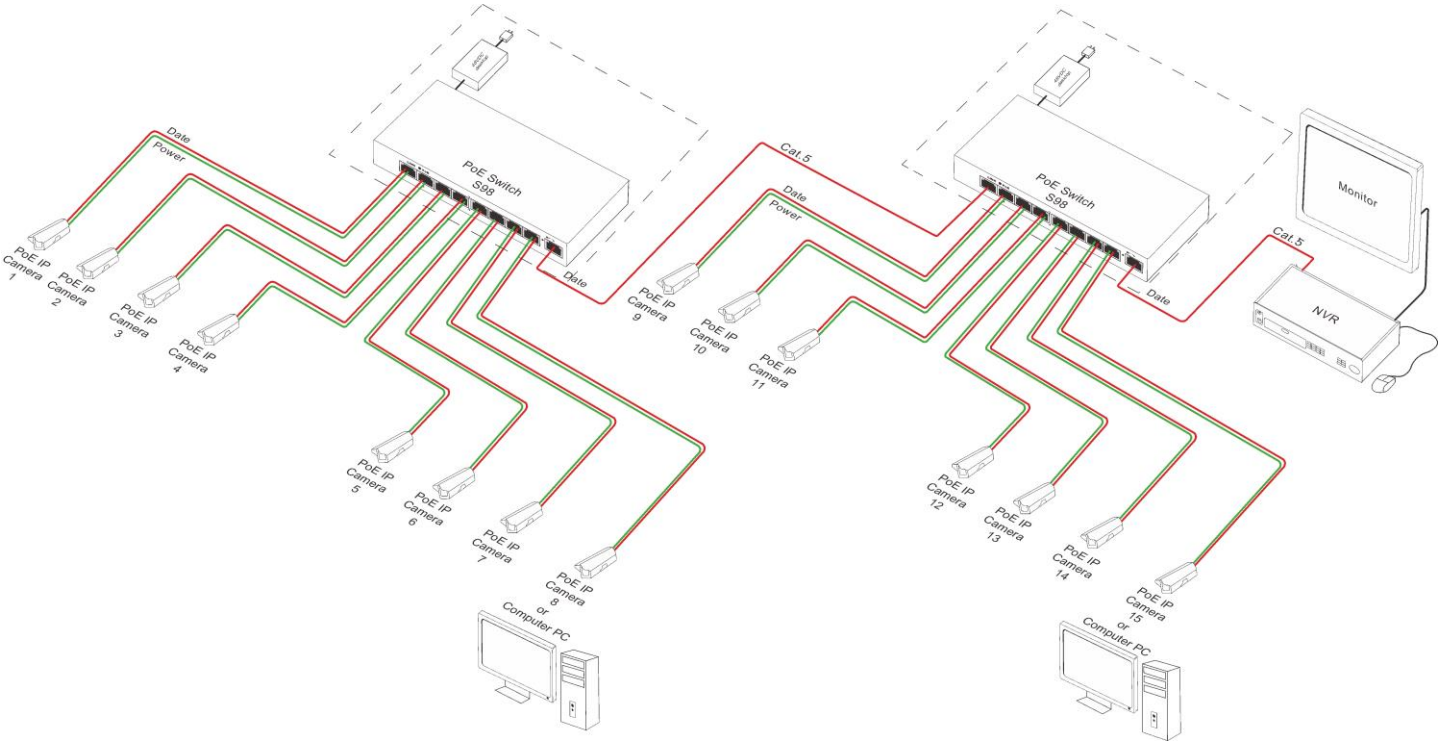
The load balance should be done before installation Switcha. The given value of 15.4W per port is the maximum value referring to a single output. The total power consumption should not exceed 96W when all PoE ports are being used. The increased demand for power is particularly evident in the case of cameras with heaters or infrared illuminators - when launching these features, the power consumption increases rapidly, which may adversely affect the operation of the switch. 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 the PSD480250 48VDC power supply unit desktop type.
2. Connect the power supply to the AC 230V socket.
3. Connect the camera wires to the RJ45 connectors (PoE connectors).
4. Check the optical indication of switch operation (see Table 3).

Connection schemes.





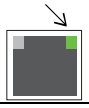
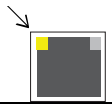
3. Operation indication.

Table 3. Operation indication

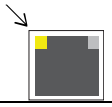
OPTICAL INDICATION OF THE SWITCH's POWER SUPPLY

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÷8)

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 at the RJ45 port **Blinking** – short-circuit or output overload
YELLOW LED LIGHT (LINK) **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

OPTICAL INDICATION AT THE UPLINK PORT(9)

GREEN LED LIGHT 	**OFF**- no connection **ON** – the device is connected: 10Mb/s or 100Mb/s
YELLOW LED LIGHT (LINK) **The connection status of LAN devices, 10MB/s or 100Mb/s and data transmission** 	**OFF**- no data transmission **ON** - the device is connected: 10Mb/s or 100Mb/s **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.

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