

CODE: **S98-BR** v.1.0/IIITYPE: **S98-BR 9-port switch with buffer power supply for 8 IP cameras and recorder.**

### Features:

- Uninterruptible power supply of 8 IP cameras (48V DC)
- uninterruptible power supply of the recorder (12V DC)
- 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
- Approximate backup time: 3h 45min
- Metal enclosure – color white RAL 9003 which can accommodate two 17Ah/12V batteries
- Supports auto-learning and auto-aging of MAC addresses (1K size)
- warranty – 2 year from the production date

### DESCRIPTION

The S98-BR is a complete solution for uninterruptible power supply of 8 IP cameras (48V DC power supply) and uninterruptible power supply of the DVR (12V DC power supply).

The main elements of this system include:

- 9 port PoE switch
- buffer power supply 27,6V unit which can accommodate two 2 x 17Ah/12V batteries
- a converter (DC/DC48250) increasing the voltage to 48V DC (supply of the PoE switch)
- 12V DC (DC/DC50SD) buck converter (DVR power supply)

In case of power decay, a battery back-up is activated immediately.

The approximate backup time is given assuming that all output ports are used (using typical devices and 17Ah batteries). The electricity consumption for own needs and the energy efficiency of the power intake track were taken into account. The exact description of how to perform the calculations can be found at: "[Approximate backup time - assumptions for calculations](#)".

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 e.g. recorder. The LEDs at the front panel indicate the operation status (description in the table. 8).

The switch is housed in a metal enclosure (color RAL 9003) which can accommodate two 2x17Ah/12V battery. The enclosure features a micro switch tamper indicating door opening (front panel). The S98-BR is fitted with two LEDs on the front panel (red LED – indicates 230V AC power supply of the PSU, green LED indicates the presence of DC voltage).

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.

## PARAMETERS OF THE SWITCH

<b>Ports</b>	9 10/100 Mb/s ports (8 x PoE + 1 x UPLINK) with connection speed auto-negotiation and MDI/MDIX Auto Cross)
<b>PoE power supply</b>	IEEE 802.3af (1÷8 ports), 48V DC / 15,4W at each port * Used pairs 4/5 (+), 7/8 (-)
<b>Protocols, Standards</b>	IEEE802.3, 802.3u, 802.3x CSMA/CD, TCP/IP
<b>Forwarding rate</b>	10BASE-T: 14880pps/port 100BASE-TX: 148800pps/port
<b>Bandwidth</b>	1,6 Gbps
<b>Transmission method</b>	Store-and-Forward
<b>Optical indication of operation</b>	Switch power supply; Link/Act; PoE Status

\* 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.

## ELECTRICAL PARAMETERS

<b>Mains supply</b>	176÷264V AC
<b>Current up to</b>	1,4A@230V AC max.
<b>Supply power</b>	184W
<b>Output current at the PoE ports (RJ45)</b>	8 x 0,3A $\Sigma$ I=2A (max.)
<b>Output voltage at the PoE ports (RJ45)</b>	48V DC
<b>Output current (recorder)</b>	5A
<b>Output voltage (recorder)</b>	12V DC
<b>Ripple voltage at the output to the recorder</b>	150mV
<b>Short-circuit protection SCP and overload protection OLP</b>	105% ÷ 150% PSU power, manual restart (the fault requires disconnection of the DC output circuit)
<b>PSU current consumption</b>	100mA
<b>Battery charge current</b>	1,0A max. / 2x17Ah (+/-5%)
<b>Approximate backup time</b>	3h 45min
<b>Battery circuit protection SCP and reverse polarity connection</b>	melting fuse
<b>Deep discharge battery protection UVP</b>	U<19V ( $\pm$ 5%) – disconnect of connection battery
<b>Sabotage protection:</b> - TAMPER output indicating enclosure opening	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)

## MECHANICAL PARAMETERS

<b>Dimensions</b>	W=397, H=350, D+D <sub>1</sub> =92+8 [+/- 2mm] W <sub>1</sub> =402, H <sub>1</sub> =355 [+/- 2mm]
<b>The dimensions of the battery compartment</b>	370 x 180 x 80mm (WxHxD) max
<b>Gross/Net weight</b>	5,5 / 5,8 kg
<b>Enclosure</b>	Steel plate, DC01 1,0mm color white RAL 9003
<b>Closing</b>	Cheese head screw x 2 (at the front), (lock assembly possible)
<b>Connectors</b>	Power supply of the cameras: RJ45 socket Outputs: $\Phi$ 0,63-2,50 (AWG 22-10), battery output BAT: 6,3F-2,5 TAMPER output: wires
<b>Notes</b>	The enclosure does not touch the assembly surface so that cables can be led.