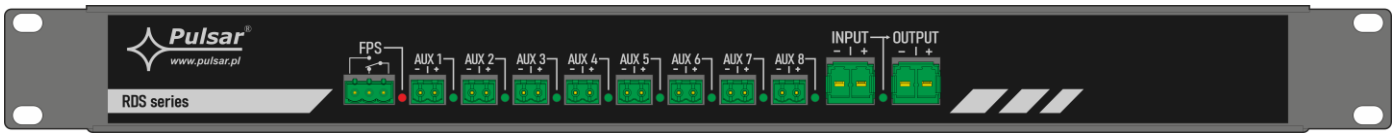
RDS

v1.0

Fuse module, 8 outputs; 10–60V, RACK 19" 1U



Edition: 1 from 13.03.2026
Supersedes edition: ----------

Features:

- universal supply voltage range **10 – 60 V**
- high current capacity: **up to 20 A**
- 8 outputs independently protected with glass fuse
- capability to use fuses up to **4 A**
- dedicated to **RACK** series power supplies
- LED optical indication
- **FPS** relay technical output of fuse activation indication
- power output for connecting an additional module or other devices
- warranty: 2 years

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1. Technical description.

1.1. General description.

The fuse module is designed for power distribution in systems based on RACK series power supplies. It features INPUT terminals for connecting the power supply, eight independently protected power outputs AUX1 – AUX8, and an OUTPUT terminal for connecting an additional fuse module or other device. Each AUX1 – AUX8 output is equipped with short-circuit protection (SCP) in the form of a F1A fuse (it is possible to use fuses up to max. F4A – not included). The total current must not exceed 20 A (this applies to the sum of AUX outputs as well as the OUTPUT terminal).

The status of the outputs is indicated by LEDs located next to each output. A blown fuse is indicated by the LED of the respective output turning off, in accordance with the infographic on the front panel, as well as by a change in the state of the technical output and illumination of the FPS LED. The PSU relay output can be used for remote status monitoring, e.g. for external optical indication. The devices are assembled in metal enclosures (RAL 9005 – black) intended for installation in 19” RACK cabinets.

1.2. Block diagram (Fig.1).

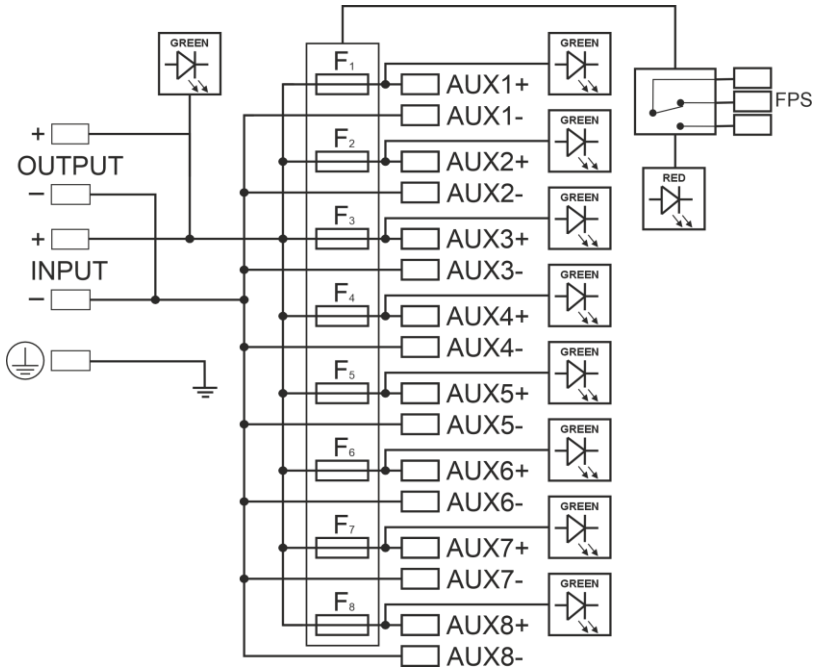


Fig.1. Block diagram of the module.

1.3. Description of components and connectors.

Table 1. Elements and connector of PSU (see Fig. 2a, 2b).

Element no.	Description
[1]	**FPS** – technical output of battery failure (blown fuse)
[2]	**FPS** failure indication LED
[3]	**AUX1…AUX8** outputs
[4]	LEDs indicating the status of **AUX1…AUX8** outputs
[5]	Power input **(INPUT)**
[6]	**Power** indication LED
[7]	Power supply output **(OUTPUT)**
[8]	Connector for connection of a protective conductor
[9]	Location of AUX fuses (accessible after removing the cover)

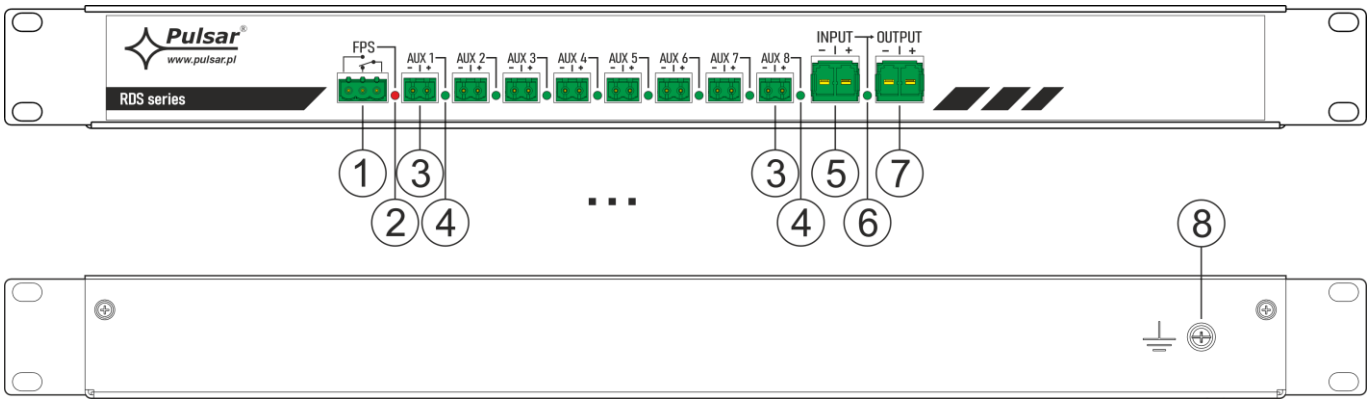


Fig. 2a. View of device

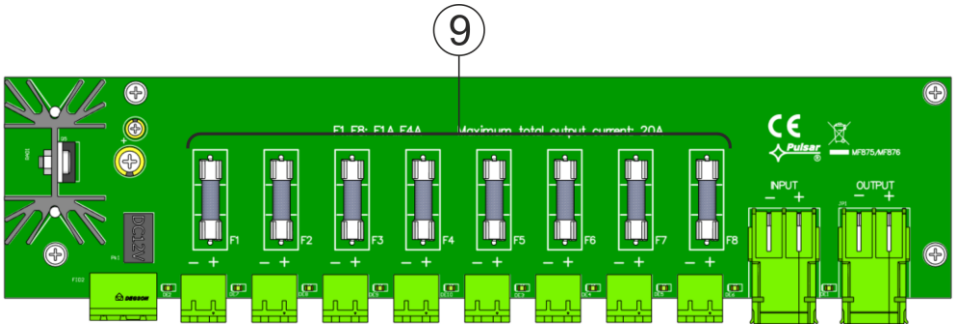


Fig. 2b. View of PCB device

1.4. Specifications:

- **electrical parameters (Tab. 3)**
- **operation safety (Tab. 4)**
- **operating parameters (Tab. 5)**

Table 3. Electrical parameters.

Input voltage	10 – 60 V DC
Output voltage	$U_{AUX} = U_{IN}$ (applying power)
Current consumption (for internal use)	25 – 45 mA @ U_{IN} = 10 – 60 V DC
Total output current	20 A
Number of power inputs	1
Number of power outputs	8 (AUX1 – AUX8) + 1 (OUTPUT)
Short circuit protection (SCP)	- F_{BAT} fuse (failure requires replacement of the fuse link under the device cover)
Optical indication	Status of AUX1÷AUX8 outputs (green LEDs) FPS - failure indication (red LED)
Technical output of the PSU	Relay: 1 A@ 30 V DC / 48 V AC
F1 ÷ F8 fuse	8 x F 1A (capability to use fuses up to max. F4 A – not included)
Enclosure dimensions (LxWxH) [±2mm]	W=19”, H=1U; 483 x 44 x 105 (WxHxD)
Enclosure colour:	RAL 9005 (black)
Net/gross weight	1,6 / 1,7 [kg]
Terminals: **Power supply:** **Outputs:** **Technical outputs:**	 Φ0,5÷3,2 (AWG 24-8) 0,5-4mm^2 Φ0,5÷3,2 (AWG 24-8) 0,5-4mm^2 Φ0,5-2,1 (AWG 24-12) 0,5-1,5mm^2
Equipment:	Set of connectors (2x PC 5/2-2P, 8x 2EDGK-2P, 1x 2EDGK-3P)

Table 4. Operation safety.

Protection class EN 62368-1	I (first)
Degree of protection EN 60529	IP20
Electrical strength of insulation: - between the input/output circuit and the protective circuit	 500 V DC min.
Isolation resistance: - between the input/output circuit and the protective circuit	 100 MΩ, 500 V DC

Table 5. Operating parameters.

Operating temperature	-10ºC...+40ºC
Storage temperature	-20ºC...+60ºC
Relative humidity	20%...90%, without condensation
Vibrations during operation	unacceptable
Impulse waves during operation	unacceptable
Direct insolation	unacceptable
Vibrations and impulse waves during transport	According to PN-83/T-42106

2. Installation.

2.1 Requirements.

The module is intended to be installed by a qualified installer holding appropriate (required and necessary for the given country) permits and authorizations to connect (interfere) with low-voltage installations. The device is intended for installation in a 19" RACK cabinet. In order to meet the EU requirements, follow the guidelines on: power supply, enclosures and shielding: - according to application.

2.2 Installation procedure.

1. Install the module in the selected location and route the connection cables.
2. Connect the power supply to the INPUT socket using the included PC5/2-2P connector. Maintain correct polarity (positive pole marked "+", negative pole marked "–").
3. If necessary, connect device cables to the technical output:
   FPS; technical failure output (fuse blown)
4. Connect the load(s) to the appropriate AUX1 – AUX8 output terminals using the included 2EDGK-2P connectors.
5. An additional fuse module or other device can be connected to the OUTPUT socket (PC5/2-2P).

The OUTPUT terminal is not protected by a fuse; power is passed directly to the next device. The load current must not exceed 20 A

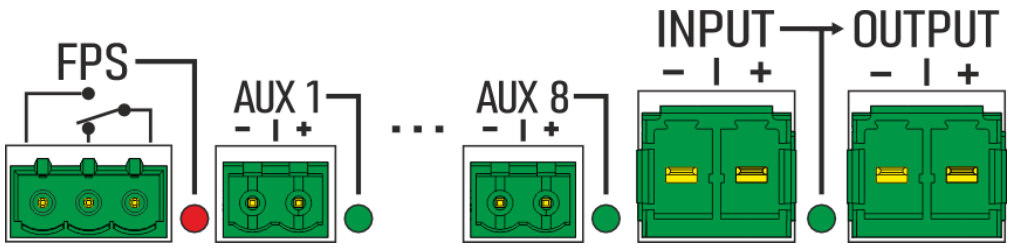
6. Switch on the power supply. The LEDs indicating the presence of voltage on the front panel should light up.

When calculating the system standby time, the current consumption of the fuse module for its own operation should also be taken into account (add it to the power supply's own current consumption).

3. Operating status indication.

3.1 Optical indication.

The power supply is equipped with optical status indication located on the front panel.



Red FPS LED:
- OFF - no failure
- ON - indicates a failure condition (AUX fuse blown)

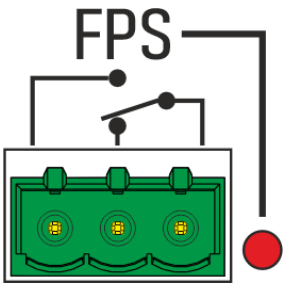
Green AUX LED:
- ON - presence of voltage at the AUX output
- OFF - no voltage at the AUX output

Green INPUT LED:
- ON - module powered
- OFF - no power supply

3.2 Technical output.

The PSU is equipped with indication outputs:

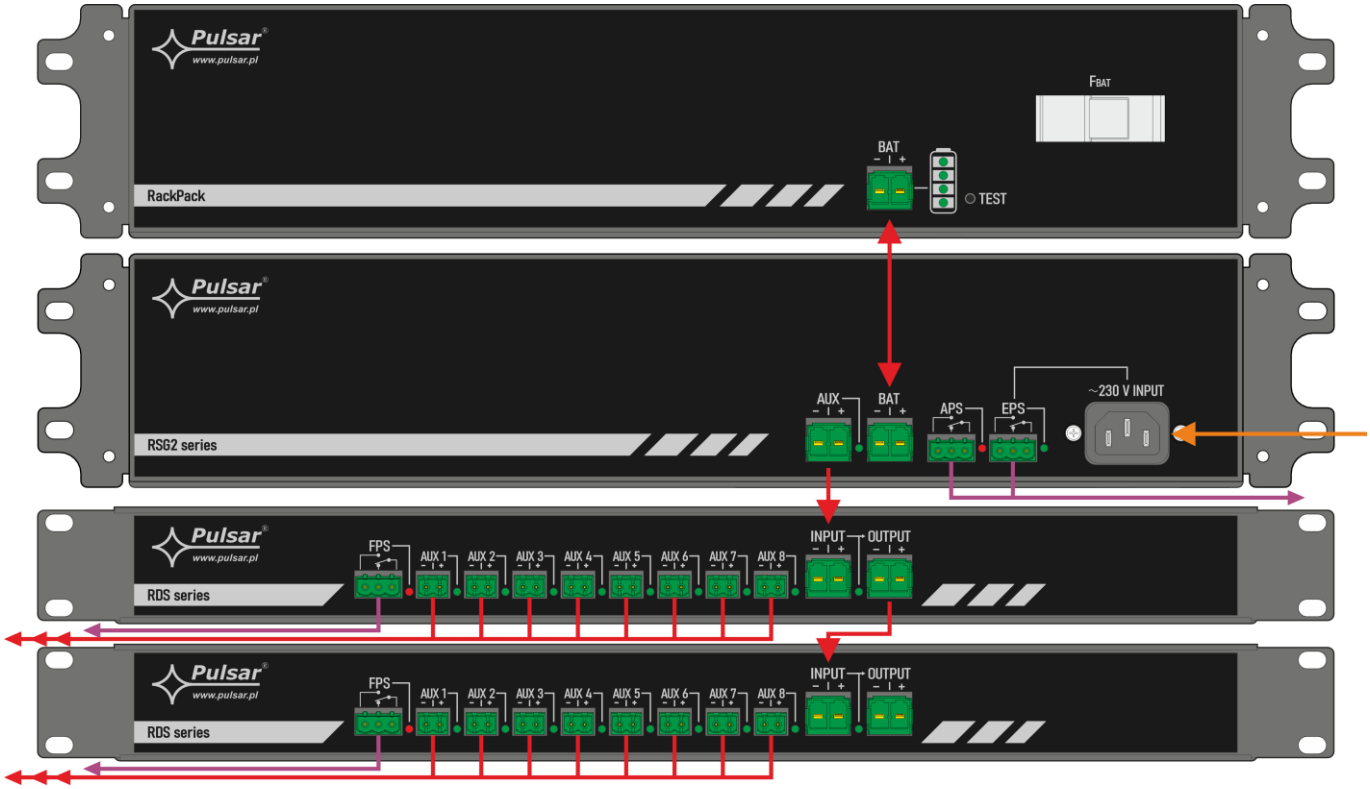
- **FPS - technical failure output (fuse blown)**
  The output indicates a blown fuse in any AUX circuit



CAUTION! The figure set of contacts shows a potential-free status of relay, which corresponds to power supply failur.

4. Integration of RACK series devices.

The RDS fuse module is part of the Pulsar RACK system, which includes devices that extend configuration capabilities. These include RSG2 series power supplies, RWB series units (dedicated to IP monitoring systems), and the RackPack battery enclosure. The devices are visually matched and feature a standardized connection method, which simplifies installation and allows the system to be adapted to individual requirements. An example configuration is shown below:



5. Maintenance.

The unit requires no special maintenance. When replacing a fuse, use only replacements compliant with the manual (accessible after removing the device cover).

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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