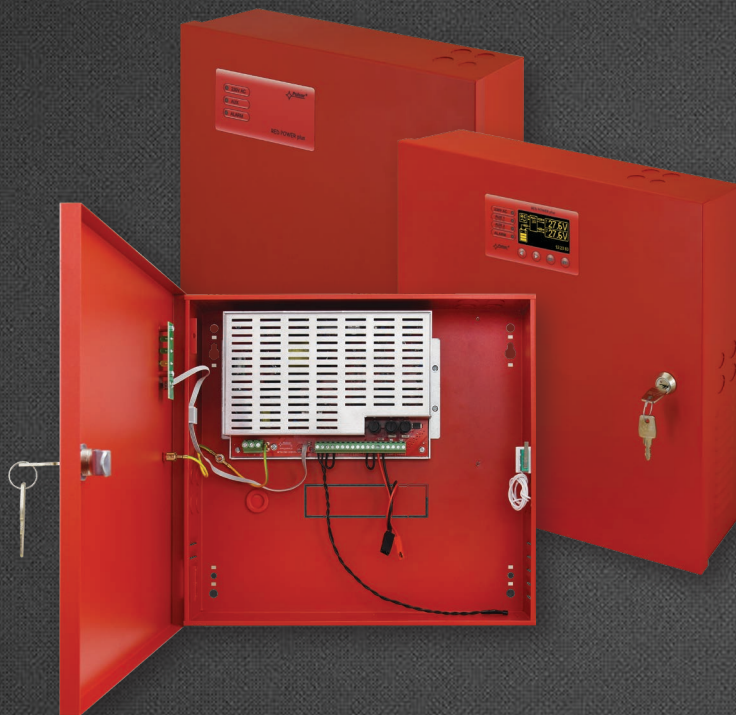


# Buffer power supplies and boxes for fire protection systems



**EN54C series**  
**EN54M series**

**Buffer power supply units**  
certified with: EN54-4, EN12101-10

Power supplies for fire alarm systems and  
smoke and heat control systems



**AWOP series**  
**AWOZ series**

**Fire protection**  
**installation boxes**

Fire resistance classification:  
E30, E60, E90

**Certification:**



**EN54C series**  
Certificate of constancy  
of performance  
CNBOP-PIB No 1438-CPR-0628  
Certificate of approval  
CNBOP-PIB No 3501/2019

**EN54M series**  
Certificate of constancy  
of performance  
CNBOP-PIB No 1438-CPR-0630



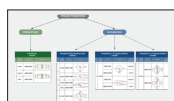
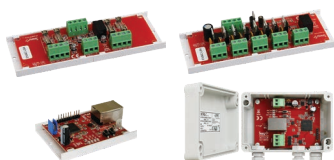


# Table of contents

## RED POWER plus



## RED POWER plus



## Buffer power supply units

Page 2

### Buffer power supply EN54C series

- switch mode
- 27,6VDC
- EN54-4, EN12101-10 certified
- communication: LAN, RS485 – appropriate modules required, only version with LCD graphic display

Page 4

### Buffer power supply modules EN54M series

- switch mode
- 27,6VDC
- in accordance with EN54-4, EN12101-10 standard for fire detection
- built-in power supply module

## Accessories for power supply EN54C and EN54CM series

Page 6

- fuse modules
- sequential modules
- bracket DIN, set for optical indication
- interfaces (LAN, RS485)

## Fire protection installation boxes

Page 8

- feed-trough
- junction
- distribution boxes protected with fuses
- selection of fire protection installation boxes

## Enclosures

Page 12

### Fire safety instructions box

Page 12

### Evacuation door key

## Batteries

Page 13

- HPB series
- SCB series



Certificate of constancy  
of performance  
CNBOP-PIB No 1438-CPR-0628

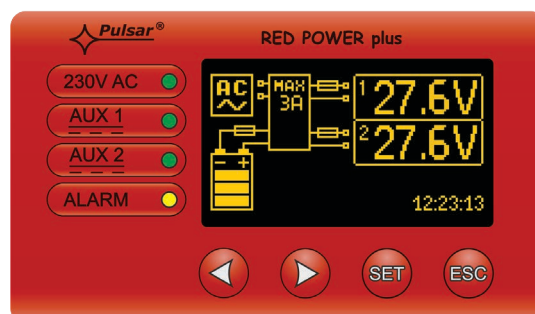
Certificate of approval  
CNBOP-PIB No 3501/2019

## Features

- in accordance with standards: EN 54-4, EN12101-10
- available versions with 2A/3A/5A/10A current
- available versions with space for 7Ah - 65Ah batteries
- independently protected outputs AUX1 and AUX2
- high efficiency (up to 89%)
- low level of voltage ripple
- microprocessor-based automation system
- measurement of resistance of battery circuit
- automatic temperature-compensated charging
- automatic battery test
- two-stage battery charging process
- accelerated battery charging
- monitoring of continuity of battery circuit
- monitoring of battery voltage
- monitoring of charging and maintenance of batteries
- cooperation with EN54C-LB4 and EN54C-LB8 fuse modules (optional equipment)
- cooperation with EN54C-LS4 and EN54C-LS8 sequential modules (optional equipment)
- deep discharge battery protection (UVP)
- battery overcharge protection
- LoB low battery voltage indication
- brackets set - EN54C-BR (optional equipment)
- battery output protection against short-circuit and reverse connection
- output voltage control
- fuse monitoring of AUX1 and AUX2 outputs
- relay output of collective failure ALARM
- EPS relay output indicating 230V power loss
- EXTi input of external failure
- protections:
  - SCP short-circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - antisabotage protection - tamper
  - closing enclosure - lock
- convection cooling (forced only in EN54C-10Axx)
- warranty: 3 years from production date

## Additional features of LCD series

- „SERIAL“ communication port with implemented MODBUS RTU protocol and TCP/IP - list of registers is available
- optical indication - graphic LCD display
  - display of electrical parameters, e.g. voltage, current, resistance of circuit
  - failure indication
  - PSU settings adjustable from panel's level
  - adjustable delay for 230VAC power loss indication
  - 2 levels of password protected access
  - operation memory of PSU
  - failure memory
  - real-time clock (RTC) with battery backup
- remote monitoring
  - Ethernet communication or RS485
  - online remote monitoring of operating parameters: voltage, current, temperature and resistance in battery circuit
  - PSU operation history from period of 113 days: voltage, current, and resistance in battery circuit
  - battery operating temperature readings from period up to 5 years
  - event log of up to 2048 power supply failures
  - SSL email encryption
  - remote battery test
  - automatic email notifications about failures



# Buffer power supply units EN54C series

**RED POWER plus**

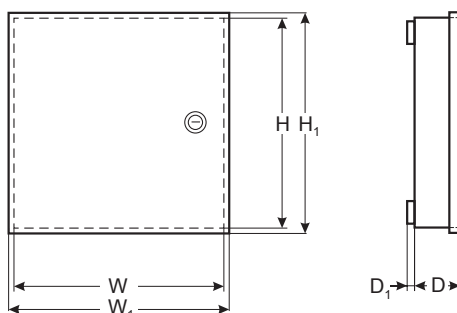


LED display



LCD display

Code		Output voltage	Total current		Fitting battery	Dimensions W×H×D+D <sub>1</sub> [+/- 2mm] W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
LED panel	LCD panel		for continuous operation I <sub>max a</sub> + I <sub>lad</sub>	for intermittent operation I <sub>max a</sub> + I <sub>lad</sub>		
EN54C-2A7	—	27,6VDC	1,6A + 0,4A	2A + 0A	2×7Ah	330×305×82+8 335×308
EN54C-2A17	—		1,2A + 0,8A	2A + 0A	2×17Ah	385×402×88+8 390×406
EN54C-3A7	—		2,6A + 0,4A	3A + 0A	2×7Ah	330×305×82+8 335×308
EN54C-3A17	EN54C-3A17LCD		2,2A + 0,8A	3A + 0A	2×17Ah	385×402×88+8 390×406
EN54C-3A28	—		1,8A + 1,2A	3A + 0A	2×28Ah	420×407×178+8 425×411
EN54C-5A7	—		4,6A + 0,4A	5A + 0A	2×7Ah	330×305×82+8 335×308
EN54C-5A17	EN54C-5A17LCD		4,2A + 0,8A	5A + 0A	2×17Ah	385×402×88+8 390×406
EN54C-5A28	—		3,8A + 1,2A	5A + 0A	2×28Ah	420×407×178+8 425×411
EN54C-5A40	EN54C-5A40LCD		3,2A + 1,8A	5A + 0A	2×40Ah	410×648×180+8 416×652
EN54C-5A65	—		2,4A + 2,6A	5A + 0A	2×65Ah	410×648×180+8 416×652
EN54C-10A17	EN54C-10A17LCD		9,2A + 0,8A	10A + 0A	2×17Ah	385×402×88+8 390×406
EN54C-10A28	—		8,8A + 1,2A	10A + 0A	2×28Ah	420×407×178+8 425×411
EN54C-10A40	EN54C-10A40LCD		8,2A + 1,8A	10A + 0A	2×40Ah	410×648×180+8 416×652
EN54C-10A65	—		7,4A + 2,6A	10A + 0A	2×65Ah	410×648×180+8 416×652





Certificate of constancy  
of performance  
CNBOP-PIB No 1438-CPR-0630

To be able to install module of PSU in fire alarm system, it has to be placed in enclosure of appropriate design and make complementary examinations to achieve certificate EN54-4+A1+A2 or EN12101-10+AC in accredited institution

## Features

- built-in power supply module
- in accordance with standards: EN 54-4, EN12101-10
- 27,6VDC uninterruptible power supply
- available versions with 2A/3A/5A/10A current
- available versions with space for 7Ah - 65Ah batteries
- independently protected outputs AUX1 and AUX2
- DIN rail mounting using additional EN54M-DIN1 bracket (optional equipment)
- cooperation with EN54C-LB4 and EN54C-LB8 fuse modules (optional equipment)
- cooperation with EN54C-LS4 and EN54C-LS8 sequential modules (optional equipment)
- optical indication - LED panel EN54M-LED (option)
- high efficiency (up to 89%)
- low level of voltage ripple
- microprocessor-based automation system
- measurement of resistance of battery circuit
- automatic temperature-compensated charging
- automatic battery test
- two-stage battery charging process
- accelerated battery charging
- monitoring of continuity of battery circuit
- monitoring of battery voltage
- monitoring of charging and maintenance of batteries
- deep discharge battery protection (UVP)
- battery overcharge protection
- LoB low battery voltage indication
- battery output protection against short-circuit and reverse connection
- output voltage control
- fuse monitoring of AUX1 and AUX2 outputs
- relay output of collective failure ALARM
- EPS relay output indicating 230V power loss
- EXTi input of external failure
- protections:
  - SCP short-circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- convection cooling (forced only in EN54M-10Axx)
- warranty: 3 years from production date

# Buffer power supply modules EN54M series

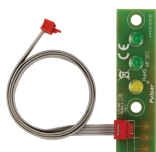
**RED POWER plus**

**EN54M-DIN1**

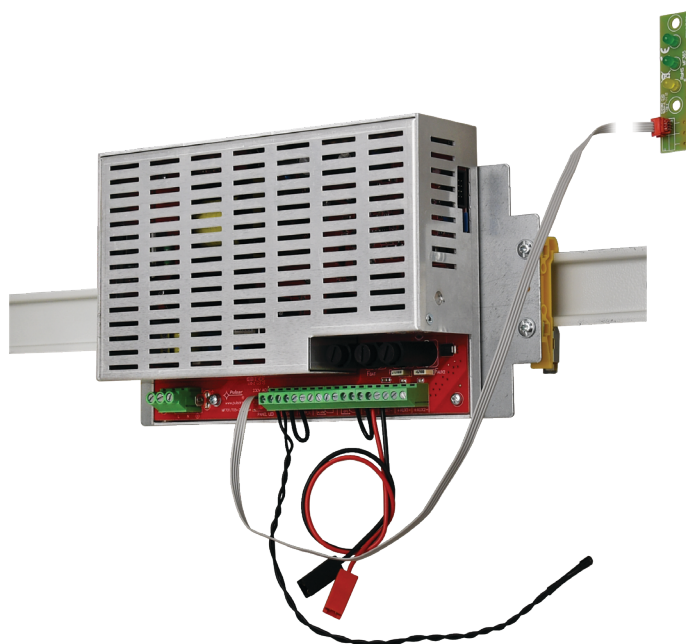


Bracket DIN/EN54M 1

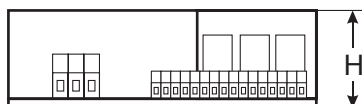
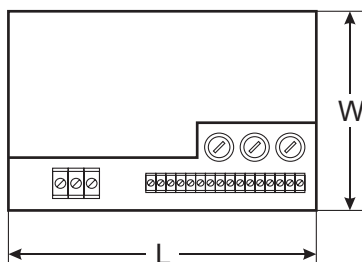
**EN54M-LED**



Set for optical indication EN54M



Code	Output voltage	Total current		Battery	Dimensions LxWxH [+/- 2mm]
		for continuous operation $I_{max a} + I_{lad}$	for intermittent operation (5 min) $I_{max a} + I_{lad}$		
EN54M-2A7	27,6VDC	1,6A + 0,4A	2A + 0A	2x7,2Ah	200x120x48
EN54M-2A7-17		1,2A + 0,8A	2A + 0A	2x7÷20Ah	
EN54M-3A7-17		2,2A + 0,8A	3A + 0A	2x7÷20Ah	
EN54M-3A17-40		1,2A + 1,8A	3A + 0A	2x17÷45Ah	
EN54M-5A7-17		4,2A + 0,8A	5A + 0A	2x7÷20Ah	204x141x52
EN54M-5A17-40		3,2A + 1,8A	5A + 0A	2x17÷45Ah	
EN54M-5A40-65		2,4A + 2,6A	5A + 0A	2x40÷65Ah	
EN54M-10A7-17		9,2A + 0,8A	10A + 0A	2x7÷20Ah	237x168x55
EN54M-10A17-40		8,2A + 1,8A	10A + 0A	2x17÷45Ah	
EN54M-10A40-65		7,4A + 2,6A	10A + 0A	2x40÷65Ah	

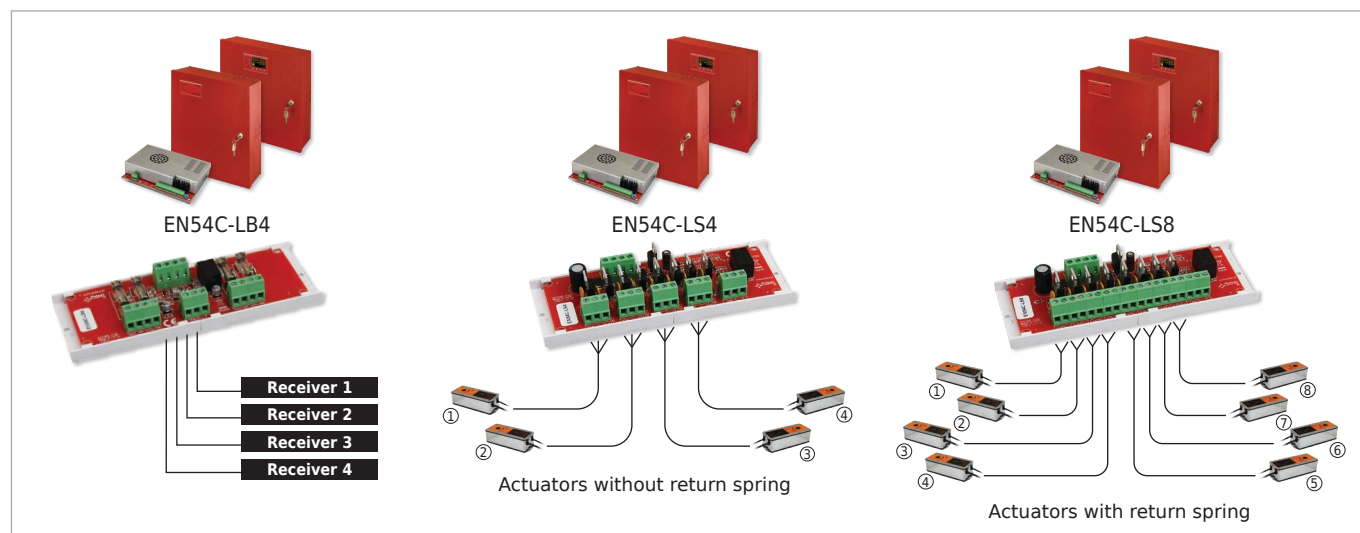
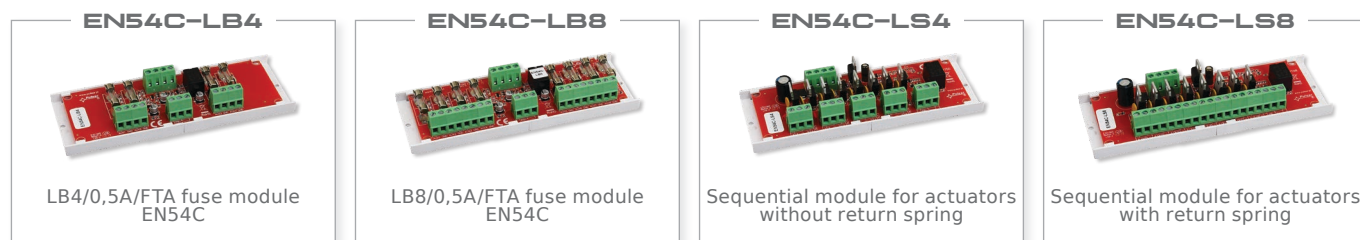


# Accessories for power supply units EN54C and EN54M series fuse modules, sequential modules, mounting, optical indication

Fuse modules are designed for power distribution in power supply units of EN54C series. Fuse activation is indicated by turning off corresponding LED: L1 for AUX1, L2 for AUX2 etc., technical output relay type and PSU LED. PSU technical output can be used for remote control of parameters, e.g. external optical indication.

Sequential modules are designed for cooperation with electric actuators used for fire shut-off dampers and fire ventilation dampers.

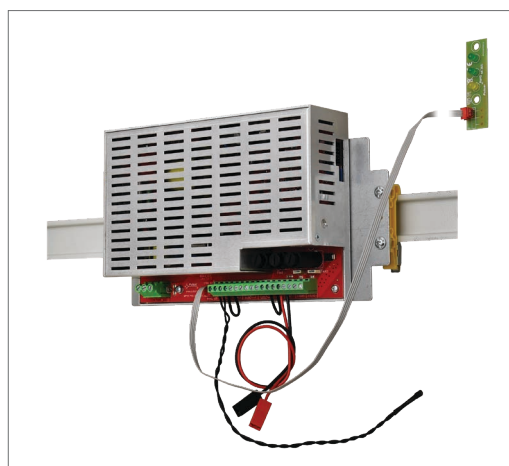
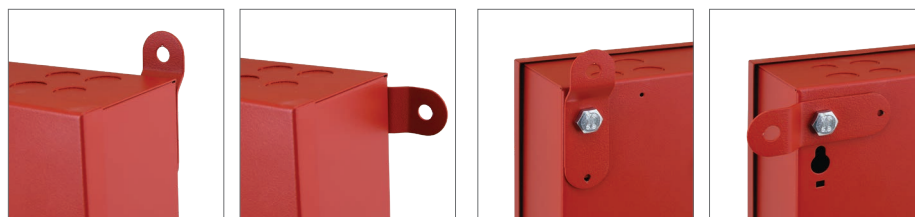
Sequential switching module causes receivers connected to its outputs to be sequentially switched, with a delay of 100 ms. Thanks to this solution, surge current is reduced to value ensuring correct operation of power supply. Thus, it enables safe connection of additional actuators. All outputs are independently protected by PTC fuses and have LED diodes signaling activation of each output.



Additional mounting brackets:

EN54C-BR - mounting EN54C series power supply units to surface.

EN54M-DIN1 - mounting plate allows install EN54M series power supply units on DIN rail (TH35)

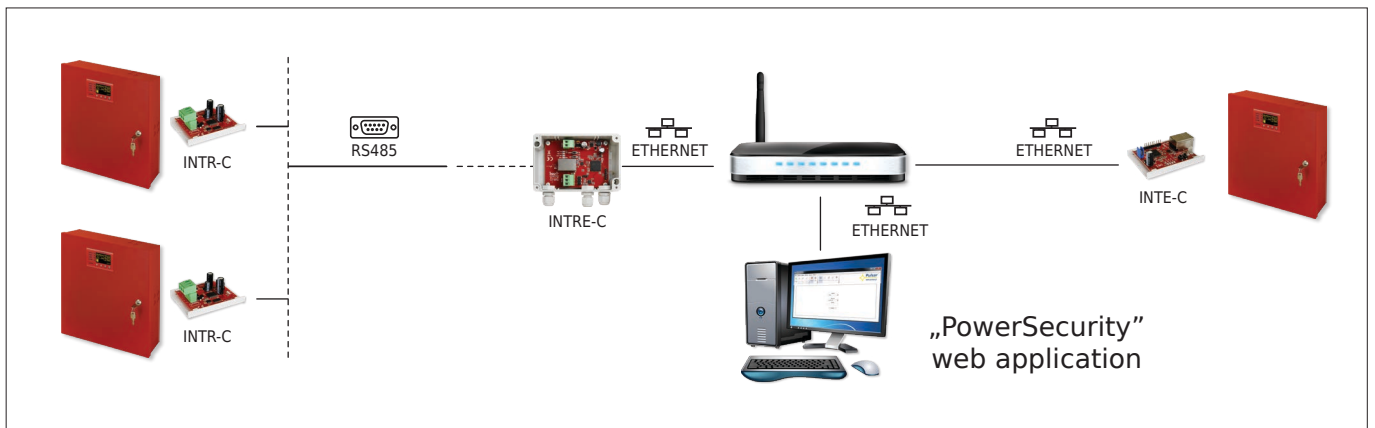
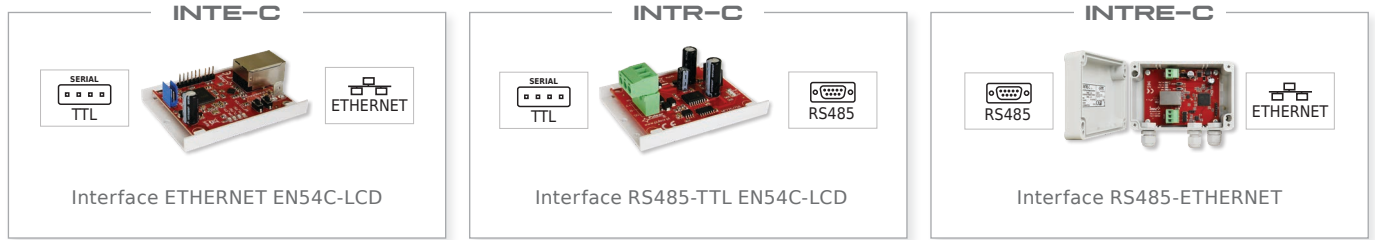




# Accessories for power supply units EN54C-...LCD series Interfaces

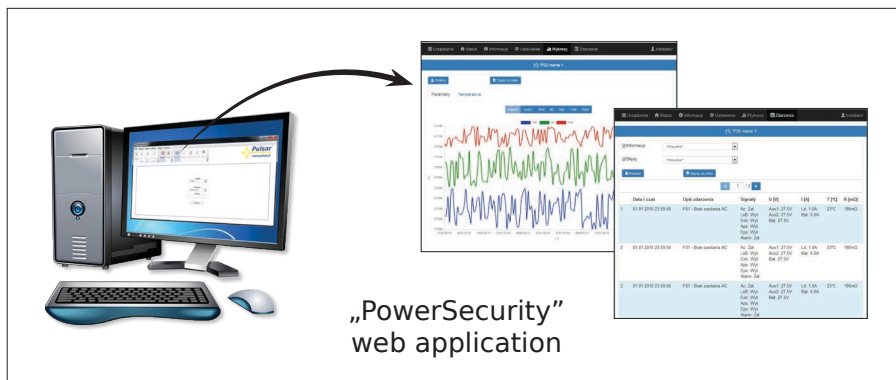
Modules for remote communication with PSU.

## Applies EN54C-...LCD

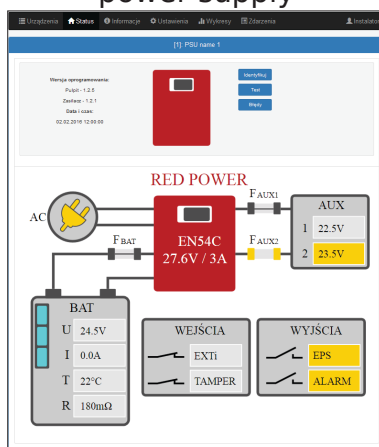


## „PowerSecurity” web application for EN54C-...LCD series power supplies

Free application to download from: [www.pulsar.pl/PowerSecurity-EN](http://www.pulsar.pl/PowerSecurity-EN)



Window of remote access to power supply



# Fire protection installation boxes



**Fire resistance classification:  
E30, E60, E90**

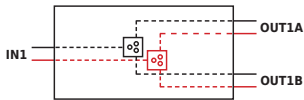
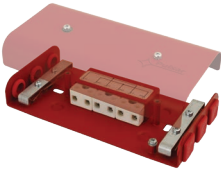
Fire protection installation boxes are intended for connecting fire protection devices in cable installation systems made in fire resistance class in accordance with DIN 4102-12, where continuity of power supply or signal transmission is required during fire.

Junction box is fitted with separate terminals for connecting signal line input, signal line output and indicator or another device via fuse.

## Junction

### AWOP-225PR

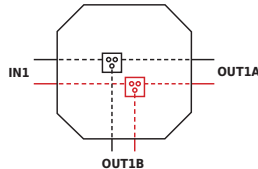
Distribution Junction Box  $2 \times 2,5\text{mm}^2$



- Voltage: 450VAC max
- Cable cross section: max.  $2,5\text{mm}^2$
- Dimensions: W=154 H=80 D=30 [mm]

### AWOP-225SR

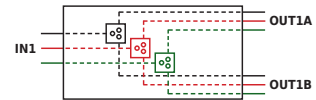
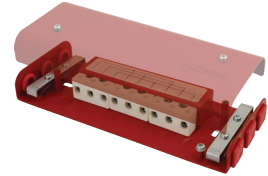
Distribution Junction Box  $2 \times 2,5\text{mm}^2$



- Voltage: 450VAC max
- Cable cross section: max.  $2,5\text{mm}^2$
- Dimensions: W=120 H=120 D=37 [mm]
- Suitable for installation of signalling device

### AWOP-325PR

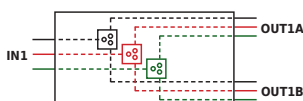
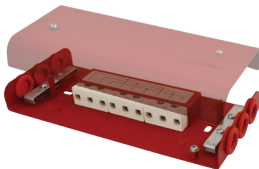
Distribution Junction Box  $3 \times 2,5\text{mm}^2$



- Voltage: 450VAC max
- Cable cross section: max.  $2,5\text{mm}^2$
- Dimensions: W=190 H=80 D=30 [mm]

### AWOP-360PR

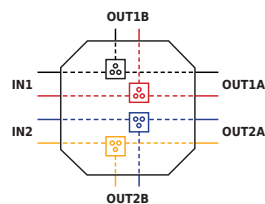
Distribution Junction Box  $3 \times 6\text{mm}^2$



- Voltage: 450VAC max
- Cable cross section: max.  $6\text{mm}^2$
- Dimensions: W=204 H=100 D=30 [mm]

### AWOP-425SR

Distribution Junction Box  $4 \times 2,5\text{mm}^2$

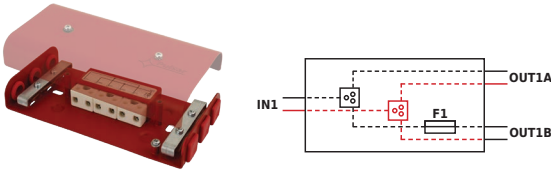


- Voltage: 450VAC max
- Cable cross section: max.  $2,5\text{mm}^2$
- Dimensions: W=120 H=120 D=37 [mm]
- Suitable for installation of signalling device

# Fire protection installation boxes

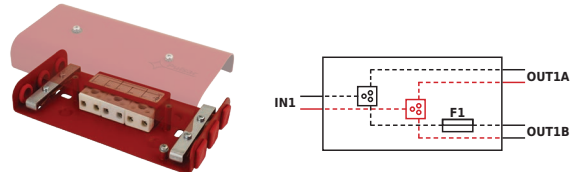
## Junction - with 1 fuse

**AWOZ-125P**  
Distribution Junction Box 0,375A



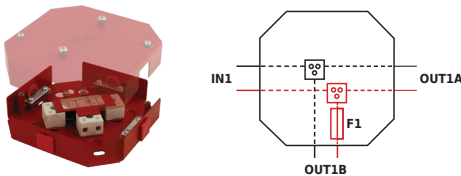
- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=154 H=80 D=30 [mm]

**AWOZ-125P1A**  
Distribution Junction Box 1A



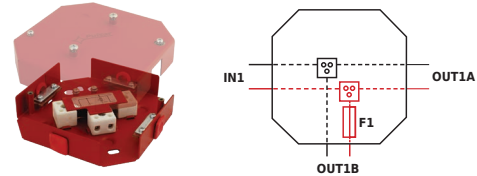
- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=154 H=80 D=30 [mm]

**AWOZ-125S**  
Distribution Junction Box 0,375A



- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=120 H=120 D=37 [mm]
- Suitable for installation of signalling device

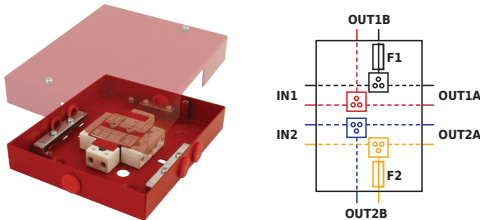
**AWOZ-125S1A**  
Distribution Junction Box 1A



- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=120 H=120 D=37 [mm]
- Suitable for installation of signalling device

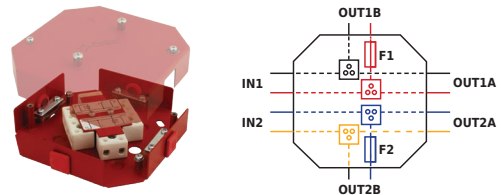
## Junction - with 2 fuses

**AWOZ-225P**  
Distribution Junction Box 2x0,375A



- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=146 H=122 D=30 [mm]

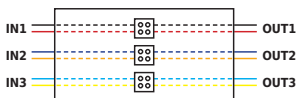
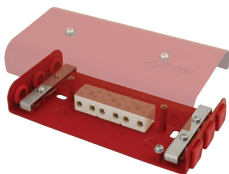
**AWOZ-225S**  
Distribution Junction Box 2x0,375A



- Voltage: 125VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=120 H=120 D=37 [mm]
- Suitable for installation of signalling device

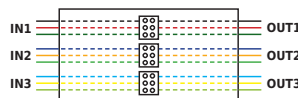
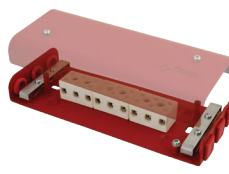
## Feed-through

**AWOP-625PP**  
Junction Box 6x2,5mm<sup>2</sup>



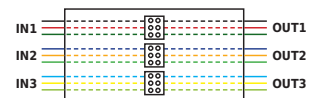
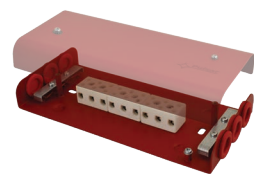
- Voltage: 450VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=154 H=80 D=30 [mm]

**AWOP-925PP**  
Junction Box 9x2,5mm<sup>2</sup>



- Voltage: 450VAC max
- Cable cross section: max. 2,5mm<sup>2</sup>
- Dimensions: W=190 H=80 D=30 [mm]

**AWOP-960PP**  
Junction Box 9x6mm<sup>2</sup>



- Voltage: 450VAC max
- Cable cross section: max. 6mm<sup>2</sup>
- Dimensions: W=204 H=100 D=30 [mm]

# Selection of fire protection installation boxes

## FIRE PROTECTION INSTALLATION BOXES

### FEED-TROUGH

#### Feed-trough 450VAC

Number of cores	Cable cross section	Model	Diagram
-----------------	---------------------	-------	---------

6	2,5mm <sup>2</sup>	AWOP-625PP	
9	2,5mm <sup>2</sup>	AWOP-925PP	
	6mm <sup>2</sup>	AWOP-960PP	

#### Distribution junction boxes without fuses 450VAC

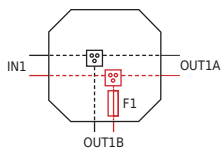
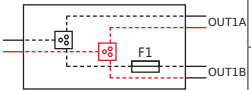
Number of cores	Cable cross section	Model	Diagram
-----------------	---------------------	-------	---------

2	2,5mm <sup>2</sup>	AWOP-225SR	
	2,5mm <sup>2</sup>	AWOP-225PR	
3	2,5mm <sup>2</sup>	AWOP-325PR	
	6mm <sup>2</sup>	AWOP-360PR	
4	2,5mm <sup>2</sup>	AWOP-425SR	

# JUNCTION

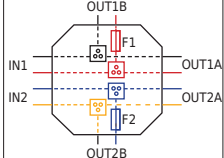
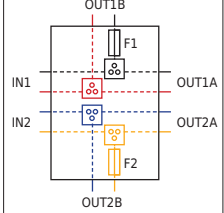
## distribution junction boxes with 1 fuse 125VAC

Number of cores	Cable cross section	Model	Diagram	Number of fuses
-----------------	---------------------	-------	---------	-----------------

2	2,5mm <sup>2</sup>	<b>AWOZ-125S</b>		<b>1x0,375A</b>
		<b>AWOZ-125S1A</b>		<b>1x1,0A</b>
		<b>AWOZ-125P</b>		<b>1x0,375A</b>
		<b>AWOZ-125P1A</b>		<b>1x1,0A</b>

## distribution junction boxes with 2 fuses 125VAC

Number of cores	Cable cross section	Model	Diagram	Number of fuses
-----------------	---------------------	-------	---------	-----------------

4	2,5mm <sup>2</sup>	<b>AWOZ-225S</b>		<b>2x0,375A</b>
		<b>AWOZ-225P</b>		

# Fire safety instructions box

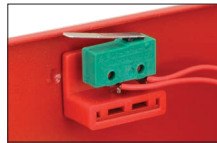
Cabinet is designed for storage of fire safety instructions. Enclosure design allows multiple opening without need for quick replacement because window is made of plastic instead of glass. This product can also be used as cabinet for other documentation, building plans, etc.



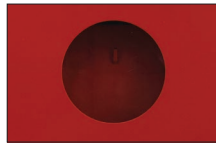
AWO676



Lock



Tamper indicating enclosure opening - 1 piece



Key window

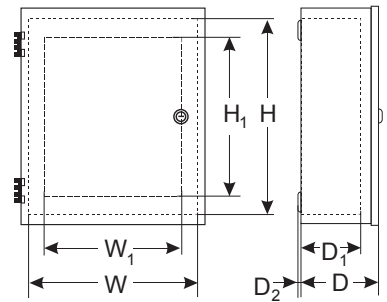


Porcelain screw connection in cabinet



Distance from wall - 5mm

Code	Application	Dimensions of storage space for documents: $W_1 \times H_1 \times D_1$ [ +/- 2mm]	External dimensions of enclosure: $W \times H \times D + D_2$ [ +/- 2mm]
AWO676	Documents: <ul style="list-style-type: none"> <li>• Fire safety instructions</li> <li>• VAS documentation</li> <li>• Building plans</li> </ul>	285×330×100	310×365×130+5



# Enclosure for evacuation door key

Enclosure is designed to store evacuation door key. Enclosure design allows multiple opening without need for quick replacement because window is made of plastic instead of glass.



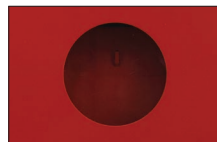
AWO675



Lock



Tamper indicating enclosure opening - 1 piece

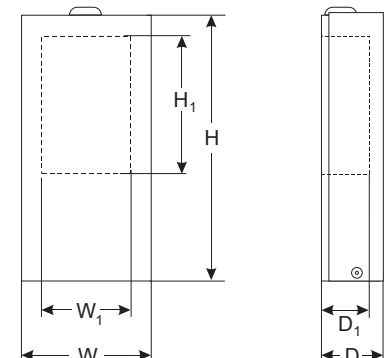


Key window

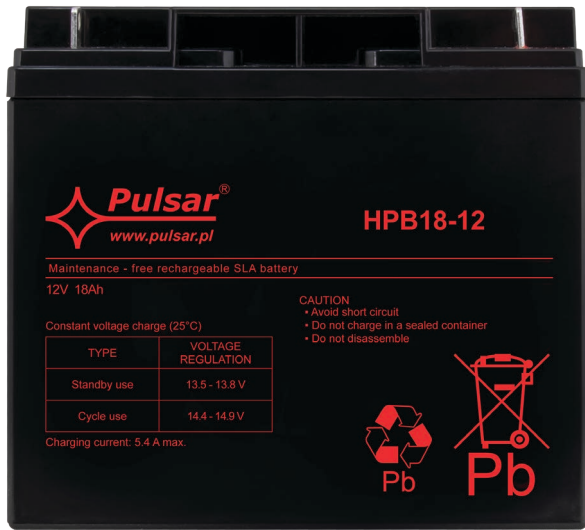


Porcelain screw connection in cabinet

Code	Application	Key space dimensions: $W_1 \times H_1 \times D_1$ [ +/- 2mm]	External dimensions of enclosure: $W \times H \times D$ [ +/- 2mm]
AWO675	evacuation door key	65×100×30	95×195×43

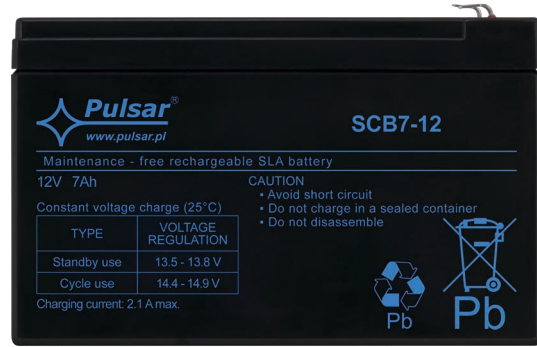


# Batteries - HPB / SCB series



## Features

- sealed and maintenance-free equipped with self-regulating valves
- low internal resistance
- high energy density
- operation in different positions



	Code	Rated capacity (C <sub>20</sub> )	Expected lifetime	Destination	Dimensions W × H × D [+/-2mm]	Net weight	Pack.
<b>HPB series</b>	HPB1,2-12	1,2Ah	5 ÷ 8 years	Fire alarm systems, I&HAS VAS UPS Photovoltaics Emergency lighting Automation Systems IDS Systems CCTV Systems ACC	98 × 59 × 44	0,54 kg	20 pcs
	HPB2,3-12	2,3Ah			178 × 68 × 35	0,9 kg	20 pcs
	HPB3,6-12	3,6Ah			133 × 65 × 65	1,3 kg	10 pcs
	HPB5-12	5Ah			90 × 106 × 70	1,5 kg	10 pcs
	HPB7-12	7Ah			152 × 100 × 65	2,1 kg	5 pcs
	HPB9-12	9Ah			152 × 100 × 65	2,55 kg	5 pcs
	HPB12-12	12Ah			150 × 100 × 98	3,5 kg	6 pcs
	HPB18-12	18Ah			182 × 168 × 77	5,1 kg	2 pcs
	HPB28-12	28Ah			175 × 125 × 166	7,9 kg	1 pcs
	HPB40-12	40Ah			197 × 171 × 166	12,5 kg	1 pcs
	HPB55-12	55Ah			229 × 211 × 138	17,1 kg	1 pcs
	HPB65-12	65Ah			349 × 178 × 167	20,4 kg	1 pcs
	HPB80-12	80Ah			260 × 215 × 168	24,8 kg	1 pcs
	HPB100-12	100Ah			330 × 219 × 171	29,5 kg	1 pcs
HPB120-12	120Ah	409 × 234 × 175	36,7 kg	1 pcs			
<b>SCB series</b>	SCB7-12	7Ah	3 ÷ 5 years	UPS Automation Systems IDS Systems CCTV Systems ACC	152 × 100 × 65	2,0 kg	5 pcs
	SCB18-12	18Ah			182 × 168 × 77	5,0 kg	2 pcs
	SCB40-12	40Ah			197 × 171 × 166	11,8 kg	1 pcs

## Contact us



Pulsar  
Siedlec 150  
32-744 Lapczyca, Poland



[sales@pulsar.pl](mailto:sales@pulsar.pl)



+48 14 610 19 45



[www.pulsar.pl](http://www.pulsar.pl)



Facebook



LinkedIn



YouTube



Pulsar.pl