



**2023**

**29** YEARS  
OF EXPERIENCE



MANUFACTURER OF POWER SUPPLIES,  
METAL ENCLOSURES AND ELECTRONICS



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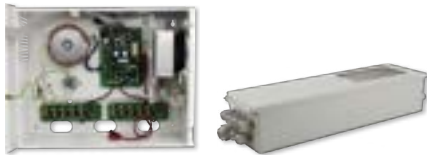
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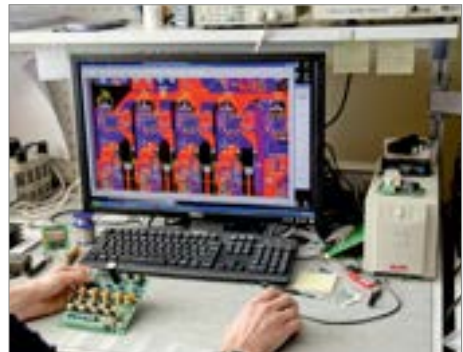
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## OEM / ODM



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## Power supply units with battery backup

### HPSB series

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- switch mode
- 13,8 V DC / 27,6 V DC / 54 V DC

### HPSBH series

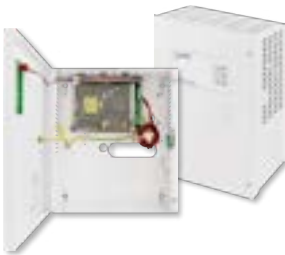
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- switch mode
- 13,8 V DC
- ABS enclosure - IP44

### HPSG2 series

21



- switch mode
- 13,8 V DC / 27,6 V DC
- with technical outputs
- compliant with standards:
  - alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)
  - access control EN60839-11 for grades 1, 2 (Grade 1, 2)

### HPSG2H series

22



- switch mode
- 13,8 V DC
- with technical outputs
- compliant with standards:
  - alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)
  - access control EN60839-11 for grades 1, 2 (Grade 1, 2)
- ABS enclosure - IP44

### HPSDCG2 series

23



- switch mode, multi-output
- 13,8 V DC
- with technical outputs
- compliant with standards:
  - alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)
  - access control EN60839-11 for grades 1, 2 (Grade 1, 2)

### AWZG2 series

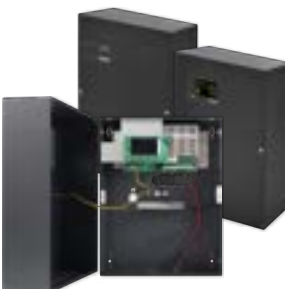
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- 13,8 V DC / 27,6 V DC
- with technical outputs
- compliant with standards:
  - alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)
  - access control EN60839-11 for grades 1, 2 (Grade 1, 2)

### HPSG3 series

25



- switch mode
- 13,8 V DC / 27,6 V DC
- with technical outputs
- compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3
- LCD version - omunication LAN, RS485 - appropriate modules required

### PSG3 series

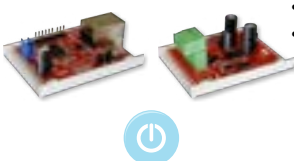
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- switch mode
- 13,8 V DC / 27,6 V DC
- with technical outputs
- compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3

### Accessories for HPSG3...LCD series

29

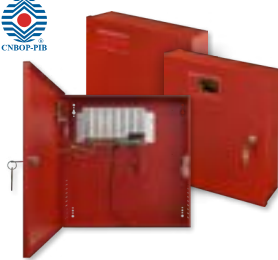





- interfaces (LAN, RS485)
- „PowerSecurity“ web application



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## Power supply units with battery backup

<b>EN54C series</b>	<b>30</b>
 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• 27,6 V DC</li> <li>• EN54-4 and EN12101-10 certified</li> <li>• communication: LAN, RS485 – appropriate modules required</li> </ul> <p style="text-align: center;"><b>RED POWER plus</b></p>	 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• 27,6 V DC</li> <li>• compliant with EN54-4 standard for fire detection</li> </ul> <p style="text-align: center;"><b>RED POWER plus</b></p>
<b>Accessories for EN54C, EN54M series</b>	<b>34</b>
 <ul style="list-style-type: none"> <li>• fuse modules</li> <li>• sequential modules</li> <li>• interfaces (LAN, RS485)</li> <li>• „PowerSecurity“ web application</li> </ul>	<b>AWZ series – DAHUA</b>
	<b>35</b>
	 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• 13,8 V DC</li> <li>• power supply unit for Access Control Systems</li> </ul>

## Batteries

<b>HPB, SCB series</b>	<b>36</b>
	

## Enclosed power supply units

<b>PS series</b>	<b>37</b>
 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• 12 V DC / 48 V DC</li> </ul>	<b>PSB series</b>
	<b>38</b>
	 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• with battery backup 13,8 V DC / 27,6 V DC / 54 V DC</li> </ul>
<b>PSG2 series</b>	<b>39</b>
 <ul style="list-style-type: none"> <li>• switch mode</li> <li>• with battery backup 13,8 V DC / 27,6 V DC</li> <li>• with technical outputs</li> <li>• compliant with standards: <ul style="list-style-type: none"> <li>◦ alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)</li> <li>◦ access control EN60839-11 for grades 1, 2 (Grade 1, 2)</li> </ul> </li> </ul>	<b>PSDCG2 series</b>
	<b>40</b>
	 <ul style="list-style-type: none"> <li>• switch mode, multi-output</li> <li>• with battery backup 13,8 V DC</li> <li>• with technical outputs</li> <li>• compliant with standards: <ul style="list-style-type: none"> <li>◦ alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)</li> <li>◦ access control EN60839-11 for grades 1, 2 (Grade 1, 2)</li> </ul> </li> </ul>

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## PoE switches for IP cameras (compliant with IEEE 802.3af/at)

### S series

42



- PoE switch with power supply unit
- 10/100 Mb/s and 1 Gb/s ports
- number of outputs: 4 / 8 / 16 / 24
- Long Range mode

### SG series

43



- PoE switch with power supply unit
- 1 Gb/s ports
- number of outputs: 4 / 8

### SF series

44



- PoE switch with power supply unit
- with SFP sockets
- 10/100 Mb/s and 1 Gb/s ports
- number of outputs: 8 / 16 / 24

### SFG series

45



- PoE switch with power supply unit
- with SFP sockets
- 1 Gb/s ports
- number of outputs: 4

### SFG10F8 series

46



- optical switch with power supply unit
- SFP sockets: 8 pcs.
- RJ45 sockets: 2 pcs.
- 1 Gb/s ports

### S...WP, SG...WP, SF...WP, SFG...WP series

48



- PoE switch without power supply
- 10/100 Mb/s and 1 Gb/s ports
- number of outputs: 4 / 8 / 16 / 24
- for installation in universal power supply systems SWS / SWB / SWR / SWSH / SWBH series

## PoE switches for IP cameras, industrial (compliant with IEEE 802.3af/at)

### ISFG, ISF series

47




- industrial
- PoE switch without power supply units
- with SFP sockets
- 10/100 Mb/s and 1 Gb/s ports
- number of outputs: 2 / 4 / 8
- possibility of redundant supplying

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## Power supply systems for PoE switches

**SWS series** **49**




- switch mode power supply 52 V DC
- operation with PoE switches: 4/8 ports

**SWB series** **50**




- switch mode power supply 52 / 54 V DC
- uninterruptible power
- operation with PoE switches: 4/8 ports

**SWB-RACK series** **51**



- switch mode power supply 54 V DC
- operation with PoE switches: 4 / 8 / 16 / 24 ports
- RACK 19" brackets
- recorder space


**SWR series** **52**



- switch mode power supply 52 V DC / 54 V DC
- recorder power supply 12 V DC
- operation with PoE switches: 4/8 ports
- recorder space


◦ with battery backup

**SWSH series** **53**



- switch mode power supply 52 V DC
- ABS enclosure - IP56
- operation with PoE switches: 4/8 ports


**SWBH series** **54**



- switch mode power supply 52 V DC
- ABS enclosure - IP44
- operation with PoE switches: 4 ports

## PoE power supplies with battery backup enclosed 52 V DC


**PWB series** **55**



- switch mode power supply 52 V DC
- recommended batteries:
  - 1x 7÷17Ah
  - 2x 7÷17Ah

## PoE switches for IP cameras – in hermetic enclosure IP56 (compliant with IEEE 802.3af/at)


**S...H, SG...H series** **56**



- PoE switch for IP cameras with power supply
- desktop type power supply included
- 10/100 Mb/s and 1 Gb/s ports
- number of outputs: 4

## SFP fiber optic modules for switches of SF..., SFG..., ISFG..., ISF... series


**GBIC series** **57**



- fiber type: single mode (SM) / multimode (MM)
- optical connector Type: LC / SC

## Twisted pair wires

**PU-NC series** **58**



- U/UTP (unshielded cable)
- F/UTP (shielded cable)

## Alarm, intercom, telecommunication cables

**PU-SC series** **59**









- YTDY
- 6x0,5 / 8x0,5



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## Multi-output power supply units

(HD-CVI / HD-TVI / AHD cameras, access control, other applications)

<b>HPSDC series</b> <span style="float: right;"><b>60</b></span>	 <ul style="list-style-type: none"> <li>• 12 V DC</li> <li>• number of outputs: 4 / 8 / 16 (e.g. cameras HD)</li> <li>• fuse type: glass fuse</li> </ul>	<b>PSDC series</b> <span style="float: right;"><b>61</b></span>	 <ul style="list-style-type: none"> <li>• 12 V DC</li> <li>• number of outputs: 4 / 8 / 16 (e.g. cameras HD)</li> <li>• fuse type: glass fuse</li> <li>• enclosed</li> </ul>
<b>HPSDCSEP series</b> <span style="float: right;"><b>62</b></span>	 <ul style="list-style-type: none"> <li>• 12 V DC</li> <li>• number of outputs: 4 (e.g. cameras HD)</li> <li>• with adjustable output voltage and galvanic separation of each channel</li> <li>• fuse type: glass fuse</li> </ul>	<b>PSDCSEP series</b> <span style="float: right;"><b>63</b></span>	 <ul style="list-style-type: none"> <li>• 12 V DC</li> <li>• number of outputs: 4 (e.g. cameras HD)</li> <li>• enclosed</li> <li>• with adjustable output voltage and galvanic separation of each channel</li> <li>• fuse type: glass fuse</li> <li>• enclosed</li> </ul>
<b>PSAC series</b> <span style="float: right;"><b>64</b></span>	 <ul style="list-style-type: none"> <li>• ~24 V AC or ~27 V AC</li> <li>• number of outputs: 8 (e.g. cameras HD)</li> <li>• fuse type: glass fuse / PTC</li> <li>• with failure outputs</li> </ul>	<b>PSACH series</b> <span style="float: right;"><b>65</b></span>	 <ul style="list-style-type: none"> <li>• ~24 V AC or ~27 V AC</li> <li>• number of outputs: 1 (e.g. cameras HD)</li> <li>• fuse type: glass fuse</li> <li>• IP65 hermetic enclosure</li> </ul>

## Power supply units with battery backup for HD cameras and DVR

<b>PSUPS... CR series</b> <span style="float: right;"><b>66</b></span>	 <ul style="list-style-type: none"> <li>• power supply unit 13,8 V DC / 12 V DC</li> <li>• number of outputs: 8 / 16 HD cameras 13,8 V DC + recorder 12 V DC / 4A (12 V DC/5A)</li> <li>• with recorder space</li> <li>• GDPR</li> </ul>	<b>Battery controllers</b> <span style="float: right;"><b>67</b></span>	 <ul style="list-style-type: none"> <li>• 12 V DC / 24 V DC / 48 V DC</li> <li>• cooperation with 13,8 / 27,6 / 54 V</li> <li>• uninterruptible power supply units</li> </ul>
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## DSO-PRA Power System for PRAESENSA system by BOSCH


(certified with: EN54-4, EN12101-10+ / standards)

<b>DSO-PRA</b> <span style="float: right;"><b>68</b></span>	 <ul style="list-style-type: none"> <li>• VAS cabinets</li> <li>• Devices VAS: BOSCH - PRAESENSA</li> <li>• Fans, thermostat, batteries, wheels</li> <li>• Safety contact strip</li> <li>• 230 V AC voltage distribution terminal</li> <li>• Indication panel</li> <li>• Firefighter's microphone power supply unit</li> <li>• Enclosure of firefighter's microphone</li> <li>• Power adapter of firefighter's microphone</li> <li>• Ethernet communication (BOSCH)</li> <li>• Configuration software for DSO-PRA - Bosch PRAESENSA</li> </ul>	<b>DSOP24V</b> <span style="float: right;"><b>69</b></span>	 <ul style="list-style-type: none"> <li>• VAS cabinets</li> <li>• Devices VAS: BOSCH - PAVIRO</li> <li>• Fans, thermostat, batteries, wheels</li> <li>• Power supplies for VAS</li> <li>• Safety contact strip</li> <li>• 230 V AC voltage distribution terminal</li> <li>• Indication panel</li> <li>• Firefighter's microphone power supply unit</li> <li>• Enclosure of firefighter's microphone</li> <li>• Power adapter of firefighter's microphone</li> <li>• Ethernet communication</li> <li>• Configuration software for DSOP24V - Bosch PAVIRO</li> </ul>
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## Power supply units for DIN rail

DINB series	70
	<ul style="list-style-type: none"><li>power supply units with battery backup 13,8 V DC / 27,6 V DC</li></ul>

## Plug-in and desktop type power supplies

PSA series	71
	<ul style="list-style-type: none"><li>12 V DC plug-in type</li></ul>

PSD series	72
	<ul style="list-style-type: none"><li>12 V DC / 15 V DC / 52 V DC desktop type</li></ul>

PSC series	73
	<ul style="list-style-type: none"><li>12 V DC / 13,8 V DC</li><li>hermetic enclosure IP67</li><li>epoxy encapsulated</li></ul>

PSP series	74
	<ul style="list-style-type: none"><li>PoE Power Supply</li><li>52 V DC desktop type</li></ul>

## Desktop type power supplies with battery backup


PSCLB series	75
	<ul style="list-style-type: none"><li>13,8 V DC</li><li>power supply unit with battery backup 13,8 V DC</li><li>hermetic enclosure IP67</li><li>epoxy encapsulated</li></ul>


## Accessories for CCTV cameras - HD cameras


Transmitters, converters	76
	

## Accessories for CCTV cameras - IP cameras

Adapters / Splitters	76
	

SFP fiber optic modules for switches of SF..., SFG..., ISFG..., ISF... series	57
	<ul style="list-style-type: none"><li>fiber type: single mode (SM) / multimode (MM)</li><li>optical connector Type: LC / SC</li></ul>

Extenders PoE	77
	<ul style="list-style-type: none"><li>increases Ethernet and PoE power range by 100 meters</li></ul>

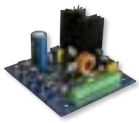
Extenders PoE - hermetic enclosure IP56	79
	<ul style="list-style-type: none"><li>increases Ethernet and PoE power range by 100 meters</li><li>hermetic enclosure IP56</li></ul>

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## Power supply modules with battery backup

MSRK series

80



- power supply 20-22 V AC
- switch mode 13,8 V DC
- compliant with standards:
  - alarm system EN50131-6 for grades 1, 2 (Grade 1, 2)
  - access control EN60839-11 for grades 1, 2 (Grade 1, 2)

## DC/DC power converter modules

DC/DC series

81



- step down
- step up
- step down and step up

DCDCH / DC/DC series

82



- step down
- hermetic IP67, epoxy encapsulated
- in plastic enclosure

## Voltage reducers

RN series

83



- reduce voltage:
  - 13,8 V DC → 12 V DC

## Fuse modules, protection modules

Distribution modules

84



- PTC
- glass fuse
- with technical outputs

Distribution modules in plastic enclosures

85



- PTC
- glass fuse

Straight-through

86



- 230 V AC - glass fuse (galvanic separation of each output)

## Relay and time modules

Relay modules

86



- AC/DC supply, fuse in C/NO/NC relay circuit
- DC power, fuse in coil circuit
- DC power, without fuse

Relay modules with T -, T + control inputs

87



- DC power, without fuse

Time modules

87



- multi-function relay - C/NO/NC - 230 V AC
- with OC output
- with relays - C/NO/NC - 30 V DC

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## Transformers

TRP, TRZ, EI series, others

88



- range: 10VA÷80VA

## Panic alarm buttons

Foot-operated panic button

89



- PN series

## Accessories

Modules

90



- module for conversion technical outputs (OC type) into technical outputs of relay type (C/NO/NC)
- dedicated to power supply units series:
  - AWZ639: AWZG2
  - AWZ642: PSG3 / HPSG3

Accessories

134



- connectors
- cables
- tamper switches
- locks
- DIN rail brackets
- mounting elements
- others

## Mean Well products



Power supply units

136



- enclosed
- for DIN rail
- with battery backup
- for LED lighting

Power converters

136



- DC/AC
  - with full sinusoid
  - with modified sinusoid
- DC/DC

Battery chargers


136





- 12V / 24V / 48V
- charger with capacity from 120W to 1000W

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## Enclosures for alarm control panels Surface-mounted


Standard - fitted with transformer of TRP series / with power supply	<b>91</b>
 <ul style="list-style-type: none"><li>• Universal</li><li>• SATEL</li><li>• PARADOX</li><li>• DSC</li><li>• KSENIA</li></ul>	

GRADE 3 - fitted with transformer of TRP / TRZ series	<b>92</b>
 <ul style="list-style-type: none"><li>• SATEL</li><li>• PARADOX</li></ul>	

Two-level - fitted with transformer of TRP series	<b>93</b>
 <ul style="list-style-type: none"><li>• Universal</li></ul>	

With power supply of LRS series	<b>93</b>
 <ul style="list-style-type: none"><li>• RISCO</li></ul>	


Empty - without transformer	<b>94</b>
 <ul style="list-style-type: none"><li>• Universal</li><li>• Universal EMPTY / DSC-EMPTY</li></ul>	


Empty - without transformer - GRADE 3	<b>95</b>
 <ul style="list-style-type: none"><li>• SATEL</li></ul>	

## Enclosures for alarm control panels Flush-mounted

Empty - without transformer	<b>95</b>
 <ul style="list-style-type: none"><li>• Universal</li></ul>	

## Enclosures for expanders Surface-mounted


Standard	<b>96</b>
 <ul style="list-style-type: none"><li>• Universal</li><li>• SATEL</li><li>• BOSCH</li></ul>	

GRADE 3	<b>96</b>
 <ul style="list-style-type: none"><li>• Universal</li><li>• SATEL</li></ul>	

## Enclosures for keypads

	<b>97</b>
 <ul style="list-style-type: none"><li>• surface-mounted</li><li>• flush-mounted</li></ul>	

## Enclosures for GSM transmitters

	<b>98</b>
 <ul style="list-style-type: none"><li>• GSM</li></ul>	



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## Enclosures for Access Control Systems

99



- BOSCH
- Nedap

## Enclosure for VAS (Voice Alarm Systems)

101



- enclosure for loudspeaker line supervision system by BOSCH

## Enclosures for batteries

102



- surface mounted
- DIN rail mounted

## Enclosures for power supply units

103



- Pulsar: PS series
- Mean Well: LRS, RS, RSP series

## Enclosures for CCTV recorders

104



- horizontal
- vertical
- vertical - with space for monitor

## Enclosures with DIN rails

107



- surface-mounted

## Teletechnical enclosures

108



- residential - surface mounted - TOM
- residential - flush mounted - TOM
- universal with plywood - TUN

## Fire protection installation boxes

110



- straight-through boxes
- distribution boxes
- distribution boxes protected by fuses

## Others

111



- enclosure with cable frame
- fire safety instructions box
- enclosure for evacuation door key

## Plastic enclosures - hermetic IP65

112



- with mounting plate - AWO series
- without mounting plate - AWP series

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## RACK 19" cabinets

### RWA series - wall mounted, ready-to-assemble **114**



- 600 × 450
- 600 × 600
- 6U / 9U / 12U

### RW series - wall mounted, fully assembled **115**



- 600 × 450
- 600 × 600
- 6U / 9U / 12U / 15U

### RWD series - double section - fully assembled **116**



- 600 × 600
- 6U / 9U / 12U

### RS series - floor standing, ready-to-assemble **117**



- 600 × 600
- 600 × 800
- 600 × 1000
- 800 × 800
- 800 × 1000
- 15U / 22U / 27U / 42U

### ZRS series - floor standing, fully assembled **118**



- 600 × 600
- 600 × 800
- 600 × 1000
- 15U / 22U / 27U / 42U

## Accessories for RACK 19" cabinets

### Enclosure for alarm control panel - vertical **119**



- mounting dimensions:
  - 19" × 7U

### Enclosures for alarm control panel - horizontal, sliding **120**



- mounting dimensions:
  - 19" × 2U
  - 19" × 4U

### ARAD enclosures **121**



- mounting dimensions:
  - 19" × 1U
  - 19" × 2U
  - 19" × 3U
  - 19" × 4U

### Drawers **122**



- mounting dimensions:
  - 19" × 2U
  - 19" × 3U
  - 19" × 4U

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## Accessories for RACK 19" cabinets

### Enclosures with DIN rail

123



- mounting dimensions:
  - 19" × 3U
  - 19" × 4U

### Battery enclosures

129



- mounting dimensions:
  - 19" × 2U

### Fixed shelves, sliding shelves

124



- mounting dimensions:
  - 19" × 1U
  - 19" × 2U

### Sliding rails

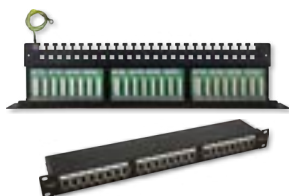
125



- constant
- sliding

### Patch panels - Cat. 5e and 6 - UTP / FTP

126



- mounting dimensions:
  - 19" × 1U

### Fans

127



- mounting dimensions:
  - 19" × 1U

### Fans with thermostat

127



- mounting dimensions:
  - 19" × 1U

### Thermostats

128



- mounting dimensions:
  - 19" × 1U

### Power distribution units

128



- mounting dimensions:
  - 19" × 1U

### Lighting

129



- mounting dimensions:
  - 19" × 1U

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## Accessories for RACK 19" cabinets

### Blanking panels

129



- mounting dimensions:
  - 19" × 1U
  - 19" × 2U
  - 19" × 3U
  - 19" × 4U

### Patch panel frames

130



- mounting dimensions:
  - 19" × 1U

### Cable management panels

130



- mounting dimensions:
  - 19" × 1U

### Brush grommets

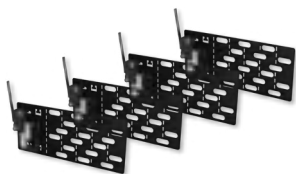
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- mounting dimensions:
  - 19" × 1U

### Tampers - tampering protectors

131



### Grounding wires

132



### Plinths

132



### Casters, leveling feet

133



### Locks, screws

133



### Other accessories

134





# About us

PULSAR is company established in 1994. Its main profile is production of equipment and accessories for alarm, access control and CCTV systems. Currently, our production halls, warehouse and others plant departments cover 8000m<sup>2</sup>.

Our company employs more than 200 people with high professional qualifications, working in each of following departments: production, construction and technological, marketing and administration. These allow us to ensure constant high quality of products and provided services.

Today, PULSAR is Polish leader in its sector, and has many clients in Europe, Middle East, USA and Africa.

Company position in market is result of high quality and reliability of our products, experience and excellent customer service.

Corporation policy ensures continuous increase in sales and expansion into new markets.

Firm has been gradually extending training range and actively participates in fairs and trade events (e.g. SECUREX, IFSEC, ENERGETAB, ROMANIAN SECURITY FAIR, SICUREZZA, INTERSEC, NEW SECURITY, SAFETY EXPO, AUTOMATICON, SECURITY EXPO, INDELEX, SECTECH, SICUR, MIPS, SECUREXPO, EXPOPOWER), due to contacts with our customers and buyers.

## EXPOPROTECTION 2022 – FRANCE



## SECURITY ESSEN 2022 – GERMANY



## SICUREZZA 2021 – ITALY



## SAFETY EXPO 2019 – ITALY



# Products

PULSAR has been continuously extending its product range. New designs are result of thorough analysis of market needs and consultations with business partners. New products are being developed by our qualified Design Department engineering staff, who takes into account distributors' and fitters' comments and opinions in their designs.

Current product mix of our company includes:

## Metal enclosures



- for I&HAS alarm systems
- for monitoring systems
- for access control
- for CCTV

## Power supply units



- multi-output
- with battery backup
- hermetic
- 24 V AC

## Metal enclosures with DIN rail



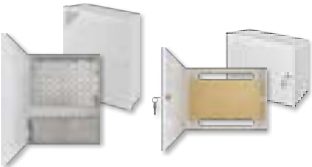
- with DIN rails
- with DIN rails / RACK profiles

## PoE switches



- standard
- for DIN rails / industrial
- with RACK 19" brackets

## Teletechnical enclosures



- universal for households
- universal with plywood

## Power supply systems for PoE switches



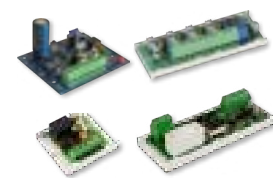
- SWS series
- SWB series
- SWR series
- SWSH series
- SWBH series
- enclosures with recorder space

## RACK 19" cabinets and accessories



- wall mounted cabinets
- floor standing cabinets
- PoE switches
- enclosures
- others

## Modules



- power supplies with battery backup
- DC/DC voltage converters
- voltage reducers
- fuse modules
- protection modules
- time modules

## Power supply units with battery backup



- universal:  
13,8 V DC / 27,6 V DC / 54 V DC
- compliant with EN50131-6 standard for alarm systems
- certified with EN54-4 standard for fire detection

## AC/AC transformer



- TRP series - IP30
- TRZ series - IP43
- EI series
- others

## Power supply units



- enclosed
- 24 V AC
- open frame

## Accessories



- for enclosures
- for power supply units

We are an authorized distributor of Mean Well brand  
Product offer is available at [www.pulsar.pl/meanwell](http://www.pulsar.pl/meanwell)



# Available on request (OEM / ODM)

Our company undertake and comprehensively implements individual designs of metal enclosures and power supply units according to needs, specifications and designs submitted by our clients. Purpose for carrying out individual designs is to ensure client's maximum satisfaction. Therefore, rule we have approved as basis of our activity is to meet our clients' requirements so that they are fully satisfied with product and contact with our company.

## Enclosures



## Power supplies & Electronics



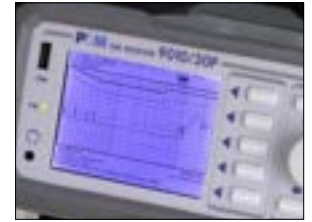
## Design Department

Construction and Technological Department of our company is responsible for issues of product designs, selection and quality of employed materials, production technology for accessories, and preparing individual designs. We own suitable tooling and developed machinery stock, which allows us to implement both our own and external designs.

### Design department



### EMC laboratory



## Quality - ISO 9001

In concern for product quality, our production process is based exclusively on highest quality components supplied by reliable distributors. Devices are subjected to repeated checks during each production stage. Having in mind legal and functional aspects, equipment is put through LVD and EMC tests in accredited research laboratories.

This is proven by valid CE certificates and certificates confirming equipment compliance with EN 50131 standard for alarm systems issued for selected products. High functional and technical quality is proven by our clients' opinions. Having obtained quality management system certificate ISO 9001, our company guarantees proper quality policy.

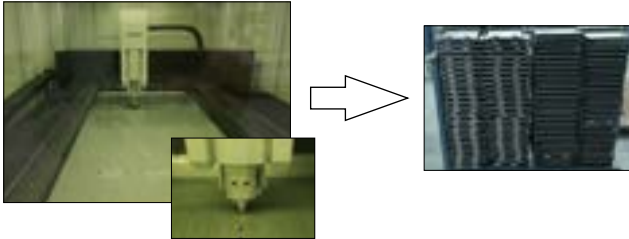




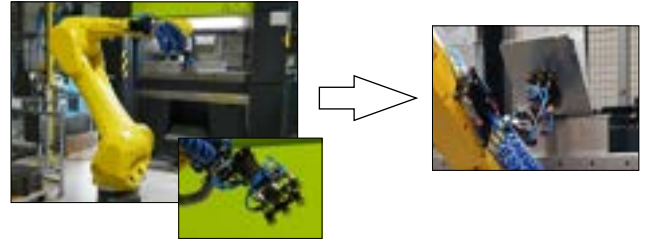
# Machinery stock

PULSAR has been continuously modernising its machinery stock in order to improve quality of products, extend product mix and services, and reduce production costs. Currently, we have following machines and facilities:

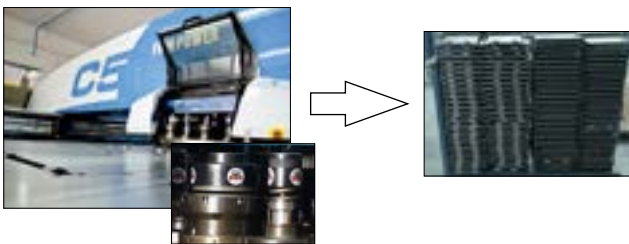
Lasser cutter



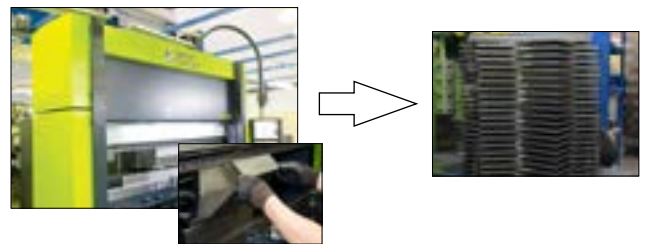
Industrial robot



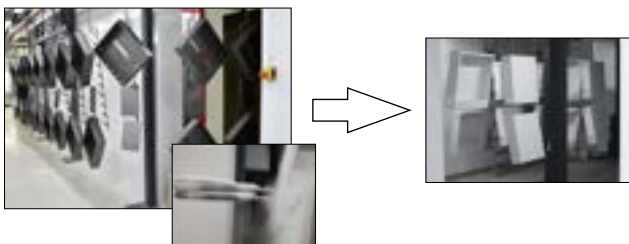
FINN-POWER numerical cutters



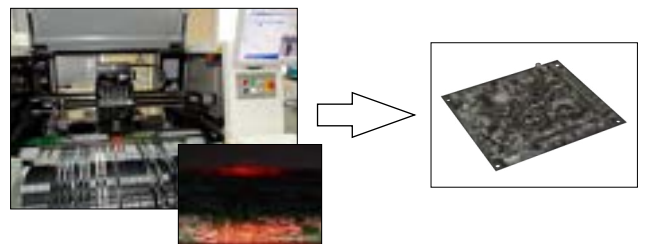
Press brakes, eccentric



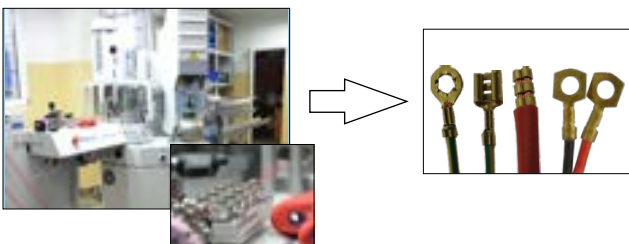
Powder coating line



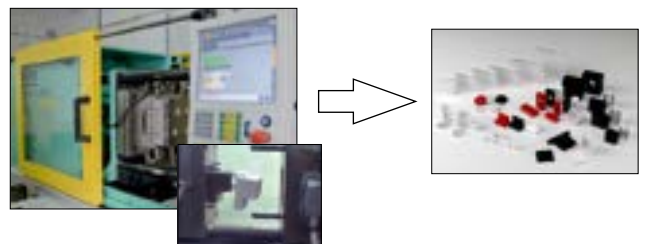
SMD (Surface Mounted Devices) assembly stations



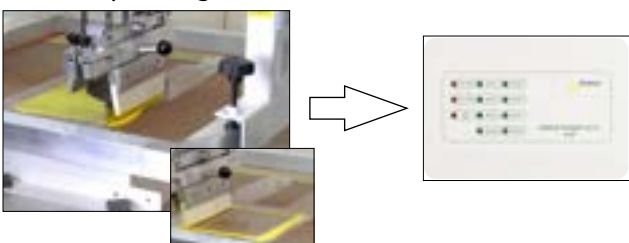
Wire processing machine



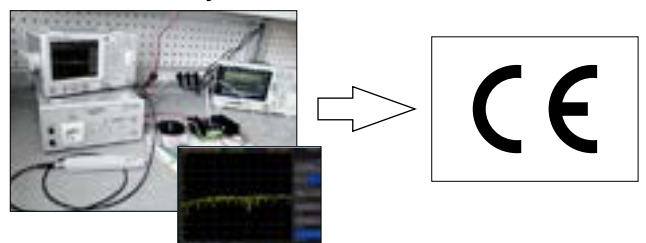
Injection moulding machines



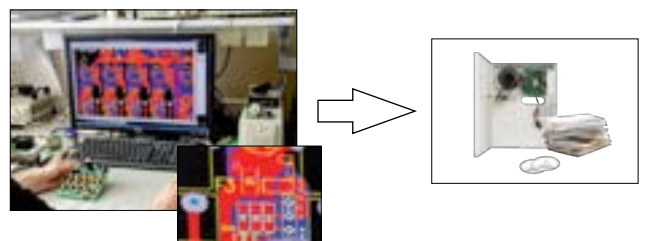
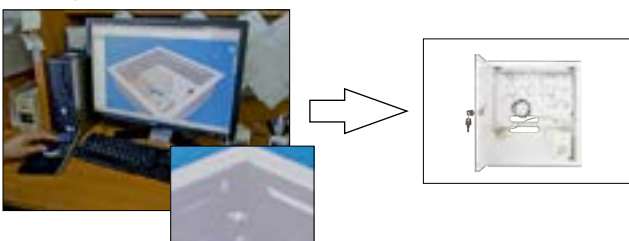
Screen printing



EMC laboratory



Design software: CAD "INVENTOR", ALTIUM DESIGNER





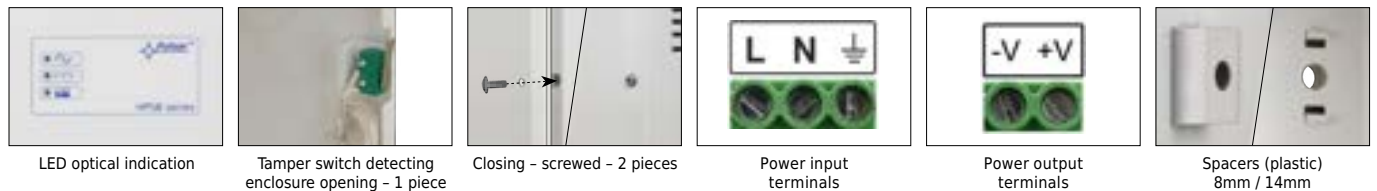
# Switch mode power supply units with battery backup 13,8 V DC / 27,6 V DC / 54 V DC

## HPSB series

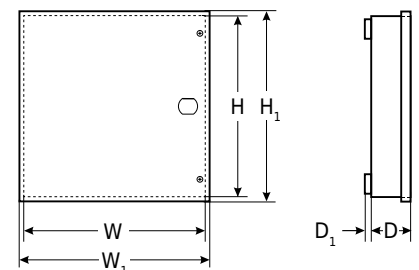
- power supply: 200÷240 V AC
- impulse voltage stabilizer
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - OHP overheat protection \*
  - surge protection
  - anti-sabotage protection (unwanted enclosure opening)
- notes:
  - surface mounted enclosure, closing - screwed (lock assembly possible)
- warranty: 2 years from production date



Sample product:  
HPSB-12V7A-C



Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery/batteries	Mounting plate	Dimensions W×H×D+D <sub>1</sub> [+/- 2mm]	
HPSB-12V2A-B	13,8 V DC	2,5A	0,5A	7Ah	—	175×185×82+8	
HPSB-12V3A-B		3,5A	0,5A	7Ah	—	205×237×82+8	
HPSB-12V3A-C		3,5A	0,5A	17Ah	—	237×305×82+8	
HPSB-12V5A-C		5,5A	0,5A / 1A	17Ah	—		
HPSB-12V7A-C		7A	1A / 2A	17Ah	BM2	305×305×105+8	
HPSB-12V7A-D		7A	1A / 2A	40Ah	BM1	335×385×173+14	
HPSB-12V10A-C		10A	1A / 4A	17Ah	BM2	305×305×105+8	
HPSB-12V10A-D		10A	1A / 4A	40Ah	BM1	335×385×173+14	
HPSB-12V15A-D		15A	2A / 4A	40Ah	BM1		
HPSB-12V20A-E		20A	2A / 4A / 8A	65Ah	BM1	465×395×173+14	
HPSB-24V2A-B	27,6 V DC	2,2A	0,2A / 0,5A	2×7Ah	—	237×305×82+8	
HPSB-24V3A-B		3,5A	0,5A / 1A	2×7Ah	BM2	305×305×105+8	
HPSB-24V3A-C		3,5A	0,5A / 1A	2×17Ah	BM1	335×385×173+14	
HPSB-24V5A-C		5A	0,5A / 2A	2×17Ah	BM1		
HPSB-24V5A-D		5A	0,5A / 2A	2×40Ah	BM1	465×395×173+14	
HPSB-24V7A-C		7A	1A / 2A	2×17Ah	BM1	335×385×173+14	
HPSB-24V10A-C		10A	1A / 2A / 4A	2×17Ah	BM1		
HPSB-24V10A-D		10A	1A / 2A / 4A	2×40Ah	BM1	465×395×173+14	
HPSB-48V3A-B		54 V DC	3A	0,5A / 1A	4×7Ah	BM1	335×385×173+14
HPSB-48V5A-C			5A	0,5A / 1A / 2A	4×17Ah	BM1	465×395×173+14



### Accessories:



**BM1 / BM2**  
Mounting plate



# Power supply units with battery backup 13,8 V DC switch mode, ABS enclosure IP44 HPSBH series

- supply voltage: 200 – 240 V AC
- impulse voltage stabilizer
- deep discharge battery protection (UVP)
- ABS enclosure – IP44
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- possibility of pole mounting (requires OZB3 adapter)
- warranty: 2 years from production date



Closing - screwed - 4 pieces



Ventilation cover  
- 2 pieces



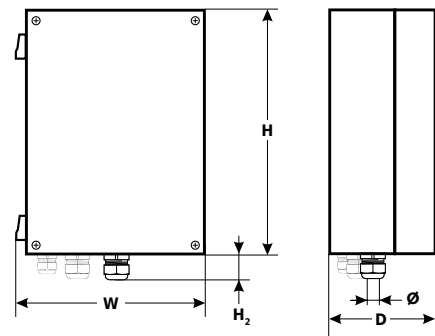
Cable glands



Battery connectors

Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery	Enclosure dimensions W×H×D [+/- 2mm]	Number of cable glands / cable diameter
HPSBH-12V3A-B	13,8 V DC	3,5A	0,5A	7Ah	210×248×95	2 pc. / 10 - 14mm

## Accessories:



Receiver e.g.



Camera



Detector



Indicator



Electromagnetic lock



Electric strike



Intercom



Video intercom

# Switch mode power supply units with battery backup 13,8 / 27,6 V DC

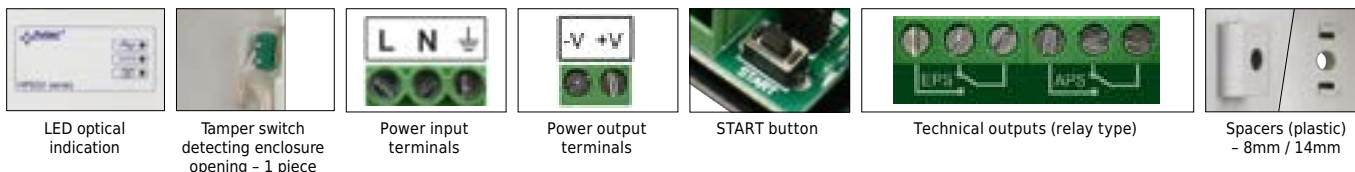
Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2  
Compliant with EN60839-11 standard for access control - GRADE 1, 2

## HPSG2 series

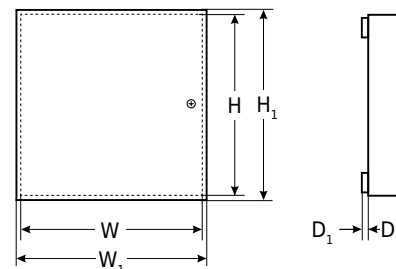
- power supply: 200÷240 V AC
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- automatic battery test
- technical outputs relay type:
  - EPS - 230V power failure AC
  - APS - battery failure
- function START allows running PSU from battery circuit
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection (unwanted enclosure opening)
- warranty: 2 years from production date



Sample product:  
HPSG2-12V7A-C



Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery/batteries	Mounting plate	Dimensions W×H×D+D <sub>1</sub> [+/- 2mm]
HPSG2-12V2A-B	13,8 V DC	2,5A	0,5A / 1A	7Ah	—	205×237×82+8
HPSG2-12V3A-C		3,5A	0,5A / 1A	17Ah	—	
HPSG2-12V5A-C		5A	1A / 2A	17Ah	—	
HPSG2-12V7A-C		7A	1A / 2A	17Ah	—	335×385×173+14
HPSG2-12V7A-D		7A	1A / 2A	40Ah	BM1	
HPSG2-12V10A-D		10A	1A / 4A	40Ah	BM1	
HPSG2-12V20A-E		20A	2A / 4A / 8A	65Ah	BM1	
HPSG2-24V2A-B	27,6 V DC	2,5A	0,5A / 1A	2×7Ah	—	237×305×82+8
HPSG2-24V3A-B		3,5A	0,5A / 1A	2×7Ah	BM2	
HPSG2-24V3A-C		3,5A	0,5A / 1A	2×17Ah	BM1	335×385×173+14
HPSG2-24V5A-C		5A	1A / 2A	2×17Ah	BM1	
HPSG2-24V5A-D		5A	1A / 2A	2×40Ah	BM1	
HPSG2-24V10A-D		10A	1A / 2A / 4A	2×40Ah	BM1	465×395×173+14



### Accessories:



**BM1 / BM2**  
Mounting plate

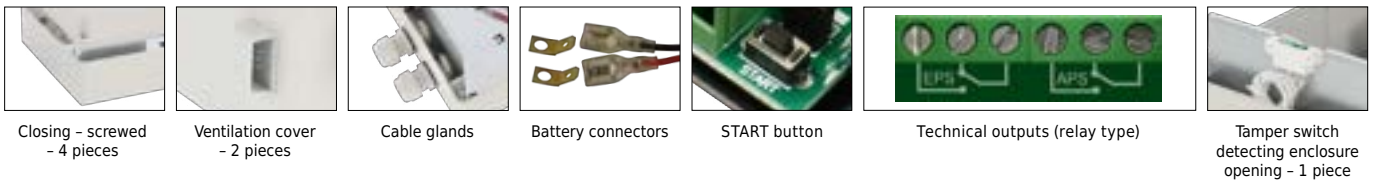


# Power supply units with battery backup 13,8 V DC, ABS enclosure IP44

Compliant with EN50131-6 standard for alarm systems – GRADE 1, 2  
 Compliant with EN60839-11 standard for access control – GRADE 1, 2

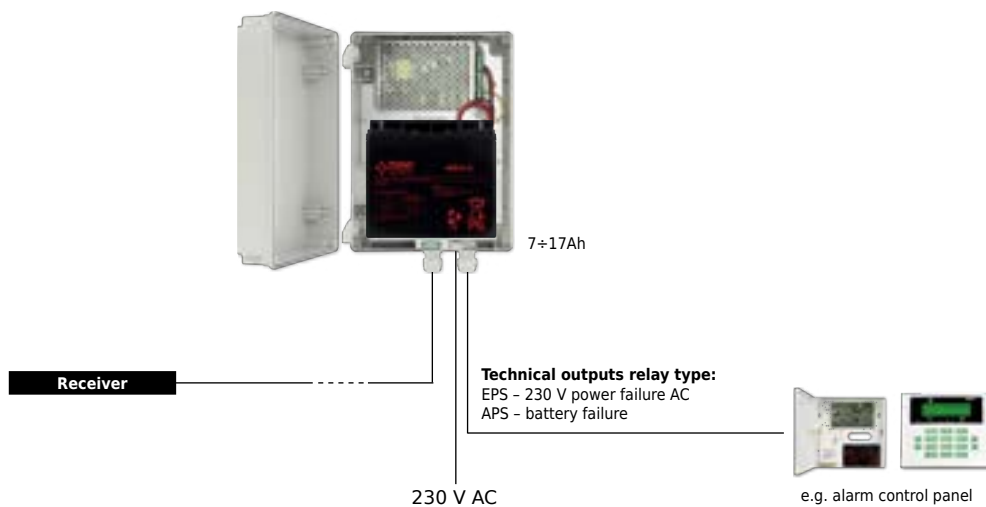
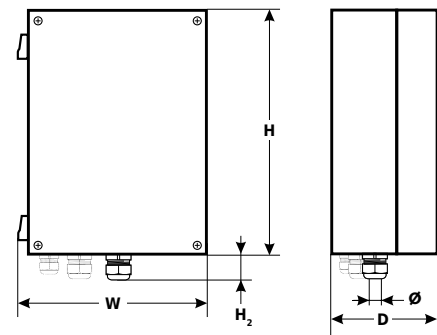
## HPSG2H series

- supply voltage 200 - 240 V AC
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- technical outputs relay type:
  - EPS - 230V power failure AC
  - APS - battery failure
- function START allows running PSU from battery power
- deep discharge battery protection (UVP)
- ABS enclosure - IP44
- protections:
  - SCP short circuit protection, OLP overload protection
  - OVP overvoltage protection, surge protection
  - antisabotage protection (unwanted enclosure opening)
- possibility of pole mounting (requires OZB4 adapter)
- warranty: 2 years from production date



Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery	Enclosure dimensions W×H×D [+/- 2mm]	Number of cable glands / cable diameter
HPSG2H-12V5A-C	13,8 V DC	5A	1A / 2A	17Ah	238×308×130	2 pc. / 10 - 14mm

### Accessories:



Receiver e.g.



# Multi-output switch mode power supply units with battery backup 13,8 V DC

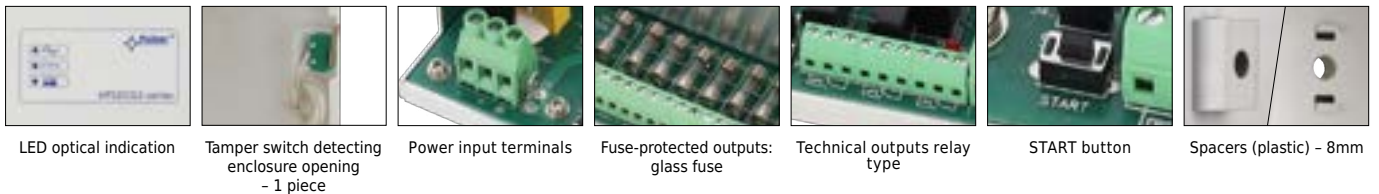
compliant with EN50131-6 standard for alarm systems – GRADE 1, 2  
 compliant with EN60839-11 standard for access control systems – GRADE 1, 2

## HPSDCG2 series

- power supply: 200-240 V AC
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- LED optical indication
- dynamic battery test
- battery voltage control
- function START allows running PSU from battery circuit
- technical outputs relay type:
  - EPS technical output indicating AC power loss
  - APS technical output indicating battery failure
  - FPS technical output indicating fuse failure
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- warranty: 2 years from production date

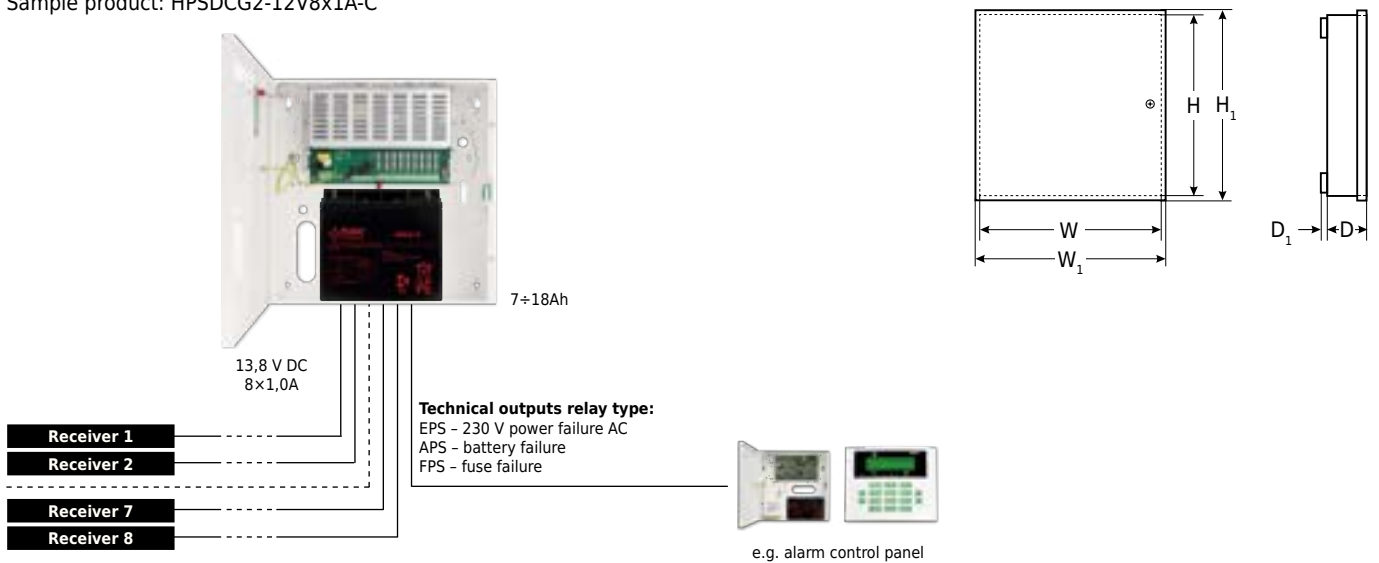


Sample product:  
HPSCDG2-12V8x1A-C

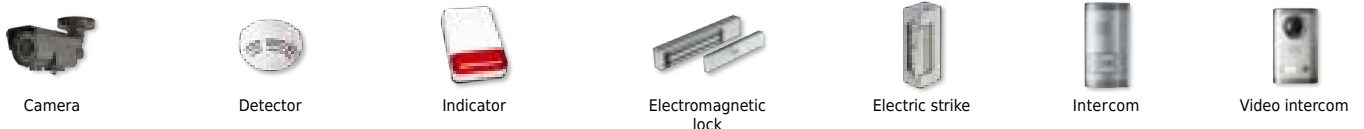


Code	Output voltage	Total output current with charging	Number of outputs	Battery charging current	Recommended battery	Fuse type	Technical output	Dimensions W×H×D+D <sub>1</sub> [± 2mm]
HPSCDG2-12V4x1A-B	13,8 V DC	5A	4×1A	0,5A / 1,0A	7Ah	1,0A - glass fuse	✓	300×258×77+8
HPSCDG2-12V8x1A-C		10A	8×1A	1A / 2A	17Ah		✓	300×300×105+8
HPSCDG2-12V8x1A-D		10A	8×1A	1A / 2A	40Ah		✓	330×380×173+14

Sample product: HPSCDG2-12V8x1A-C



Receiver e.g.





# Switch mode with transformer power supply units with battery backup - 13,8 V DC / 27,6 V DC

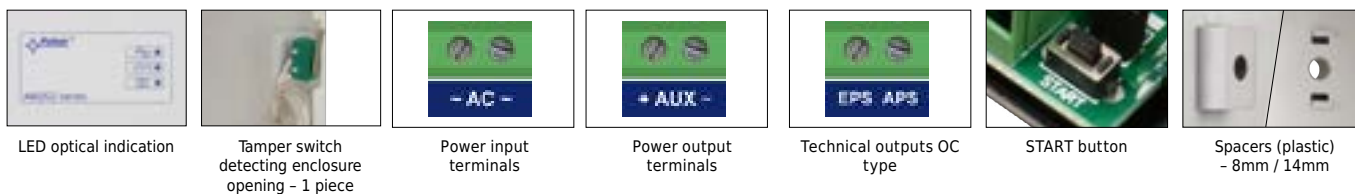
Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2  
Compliant with EN60839-11 standard for access control - GRADE 1, 2

## AWZG2 series

- power supply: 230 V AC
- microprocessor-based automation system
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- automatic battery test
- battery voltages control
- technical outputs OC type:
  - EPS - 230 V power failure AC
  - APS - battery failure indication
- function START allows running PSU from battery circuit
- deep discharge battery protection (UVP)
- possibility of using AWZ639 - technical outputs relay type
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - anti-sabotage protection (unwanted enclosure opening)
- warranty: **5 years from production date**



Sample product:  
AWZG2-12V2A-B



LED optical indication

Tamper switch detecting enclosure opening - 1 piece

Power input terminals

Power output terminals

Technical outputs OC type

START button

Spacers (plastic) - 8mm / 14mm

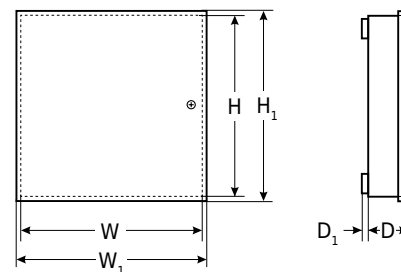
Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery/batteries	Dimensions W×H×D+D <sub>1</sub> [± 2mm]
<b>AWZG2-12V2A-B</b>	13,8 V DC	2A	0,2A / 0,5A	7Ah	205×237×82+8
<b>AWZG2-12V3A-C</b>		3A	0,5A / 1A	17Ah	235×305×82+8
<b>AWZG2-12V5A-C</b>		5A	0,5A / 1A / 2A	17Ah	305×305×105+8
<b>AWZG2-12V5A-D</b>		5A	0,5A / 1A / 2A	40Ah	335×385×173+14
<b>AWZG2-24V2A-B</b>	27,6 V DC	2A	0,5A / 1A	2×7Ah	205×305×82+8
<b>AWZG2-24V3A-C</b>		3A	0,5A / 1A	2×17Ah	335×385×173+14

### Accessories:



#### AWZ639

Technical outputs - relay  
2× OC → 2× NO/NC/C



# Switch mode power supply units with battery backup 13,8 / 27,6 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3

Compliant with EN60839-11 standard for access control

## HPSG3 series

- **EN50131-6 compliance in grades 1÷3 and II environmental class**
- **EN60839-11 compliance**
- supply voltage 200 – 240 V AC
- high efficiency
- low ripple voltage
- microprocessor-based automation system
- measurement of resistance of battery circuit
- automatic temperature compensation of battery charging
- output voltage control
- automatic battery test
- battery circuit continuity control
- battery voltage control
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery overcharge protection
- battery output protection against short circuit and reverse connection
- function START allows running PSU from battery circuit
- technical outputs OC type „open collector”
- collective failure input EXT IN
- EPS technical output indicating AC power loss
- PSU technical output indicating PSU failure
- APS technical output indicating battery failure
- protections:
  - SCP short circuit protection, OLP overload protection
  - OVP overvoltage protection, surge protection
  - anti-sabotage protection: tamper switches detecting door opening and detachment from mounting surface
- convectional cooling
- **warranty: 3 years from production date**
  
- **only for LCD version:**
  - **communication: LAN, RS485 - appropriate modules required**
  - **„SERIAL” communication port with implemented MODBUS RTU protocol**



In accordance with EN50131-6,  
GRADE 1÷3 standard for alarm  
systems



Tamper switch detecting enclosure opening - 1 piece  
Tamper switch detecting detachment from mounting surface - 1 piece



Power output terminals



Terminals for battery connection



Technical outputs



Input of external failure indication EXT IN



START button



Spacers (plastic)

# Switch mode power supply units with battery backup 13,8 / 27,6 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3

Compliant with EN60839-11 standard for access control

## HPSG3 series



LED display



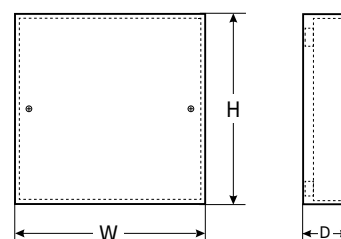
graphic LCD display

Code		Output voltage	Total output current with charging	Battery charging current	Recommended battery/batteries	Dimensions W×H×D [+/- 2mm]
LED panel	LCD panel					
HPSG3-12V3A-C	HPSG3-12V3A-C-LCD	13,8 V DC	3,5A	0,8A	17Ah	314×408×110
HPSG3-12V5A-C	HPSG3-12V5A-C-LCD		5,5A	0,8A	17Ah	
HPSG3-12V5A-D	HPSG3-12V5A-D-LCD		5,5A	1,8A	40Ah	314×408×190
HPSG3-12V10A-E	HPSG3-12V10A-E-LCD		10A	2,6A	65Ah	414×407×190
HPSG3-24V2A-C	HPSG3-24V2A-C-LCD	27,6 V DC	2,5A	0,8A	2× 17Ah	314×408×190
HPSG3-24V5A-D	HPSG3-24V5A-D-LCD		5A	1,8A	2× 40Ah	414×408×190

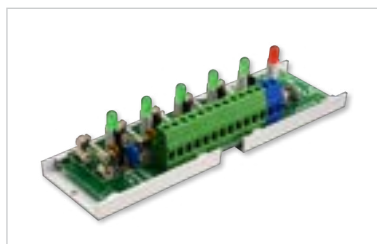
### Accessories:



Interfaces (LAN, RS485)



**AWZ642**  
Technical outputs - relay  
3× OC → 3× NO/NC/C



**AWZ536**  
LB5/5×0,5A/2,5/AW fuse module



Web application (free)  
„PowerSecurity”

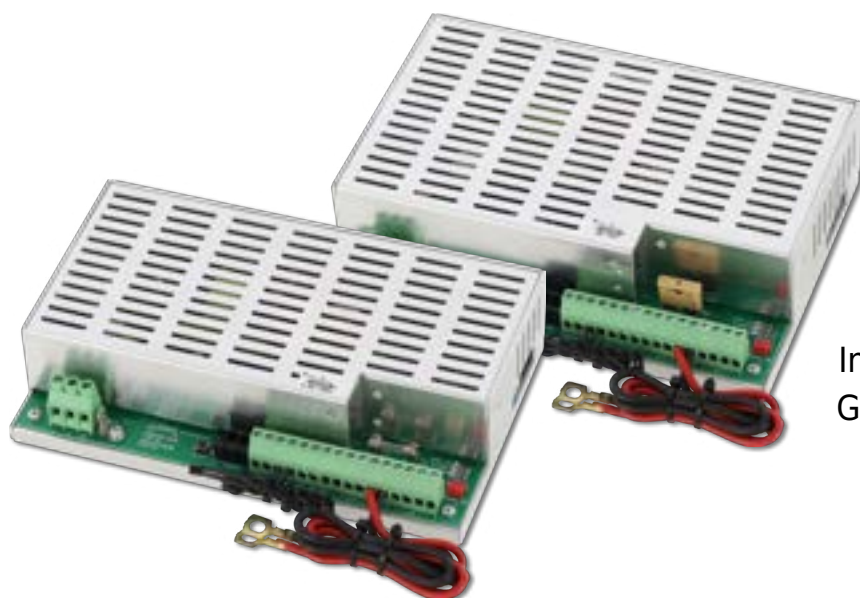
# Switch mode power supply modules with battery backup 13,8 / 27,6 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3

Compliant with EN60839-11 standard for access control

## PSG3 series

- **EN50131-6 compliance in grades 1÷3 and II environmental class**
- **EN60839-11 compliance**
- supply voltage 200 – 240 V AC
- high efficiency
- low ripple voltage
- microprocessor-based automation system
- measurement of resistance of battery circuit
- automatic temperature compensation of battery charging
- output voltage control
- automatic battery test
- battery circuit continuity control
- battery voltage control
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery overcharge protection
- battery output protection against short circuit and reverse connection
- function START allows running PSU from battery circuit
- optical indication
- technical outputs OC type „open collector”
- collective failure input EXT IN
- EPS technical output indicating AC power loss
- PSU technical output indicating PSU failure
- APS technical output indicating battery failure
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- convectional cooling
- **warranty: 3 years from production date**



In accordance with EN50131-6,  
GRADE 1÷3 standard for alarm  
systems



Power input terminals



Power output terminals



Terminals for battery  
connection



Technical outputs



Input of external failure  
indication EXT I



START button



Connector for LED  
indicators

# Switch mode power supply modules with battery backup 13,8 / 27,6 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2, 3

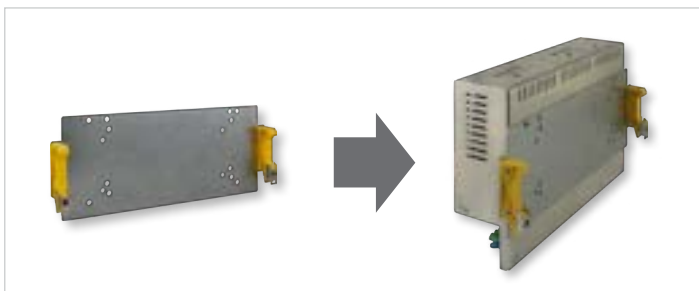
Compliant with EN60839-11 standard for access control

## PSG3 series



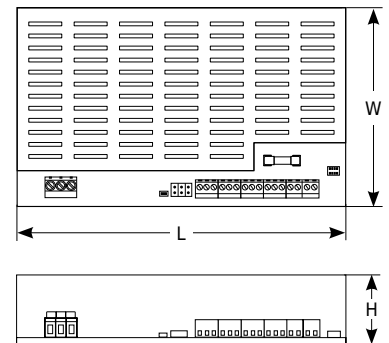
Code	Output voltage	Total output current with charging	Battery charging current	Recomended battery/batteries	Adapter DIN	Dimensions LxWxH
PSG3-12V2A-B	13,8 V DC	2,5A	0,4A	7Ah	DIN4	200x120x48
PSG3-12V3A-C		3,5A	0,8A	17Ah		
PSG3-12V5A-C		5,5A	0,8A	17Ah		
PSG3-12V5A-D		5,5A	1,8A	40Ah		
PSG3-12V10A-E		10A	2,6A	65Ah		
PSG3-24V2A-C	27,6 V DC	2,5A	0,8A	2x17Ah		200x120x48
PSG3-24V5A-D		5,0A	1,8A	2x40Ah		204x141x52

### Accessories:



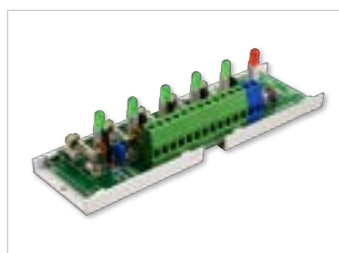
#### DIN4

Mounting plate for power supplies (allows mounting power supplies on TH35 rail).



#### AWZ642

Technical outputs - relay  
3x OC → 3x NO/NC/C



#### AWZ536

LB5/5x0,5A/2,5/AW fuse module



#### PKAZ168

Set for optical indication  
(three LEDs indicating status of power supply).

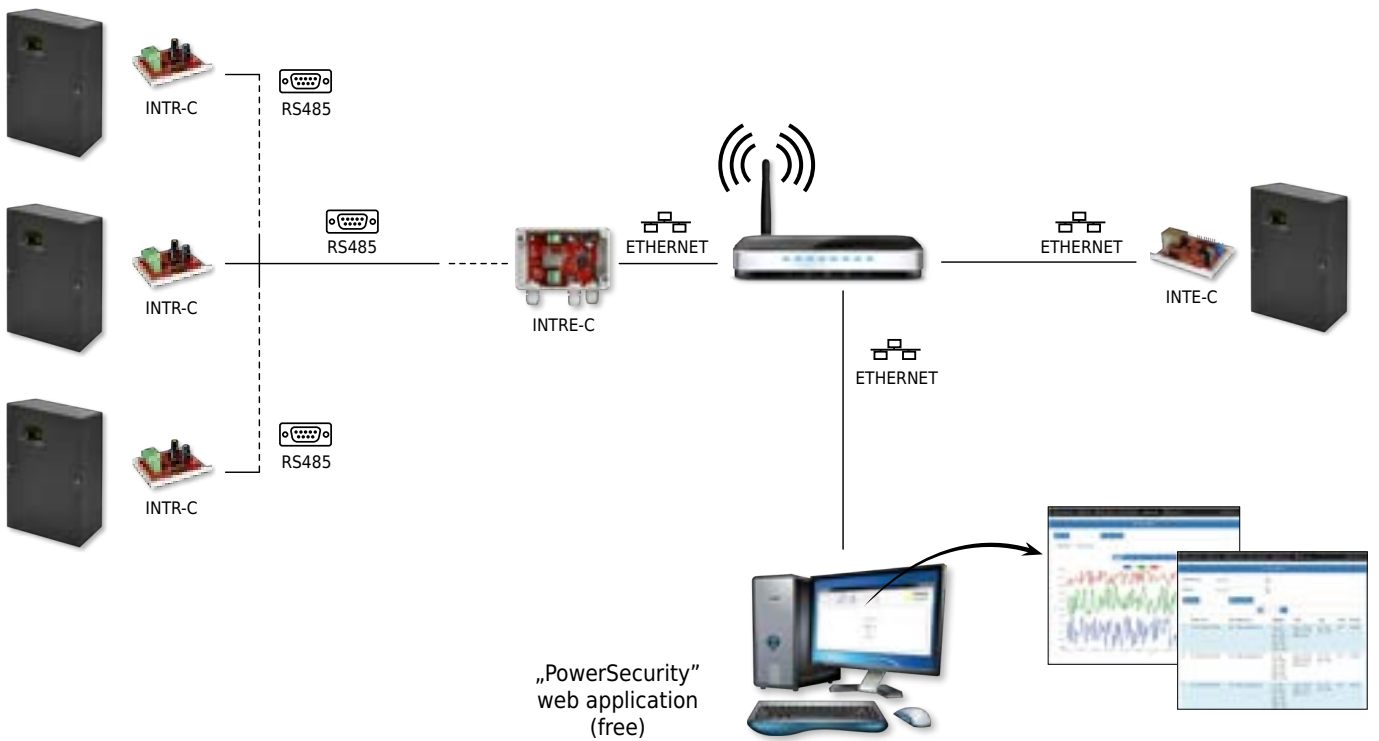
# Accessories for power supply units of HPSG3...LCD series

## Interfaces

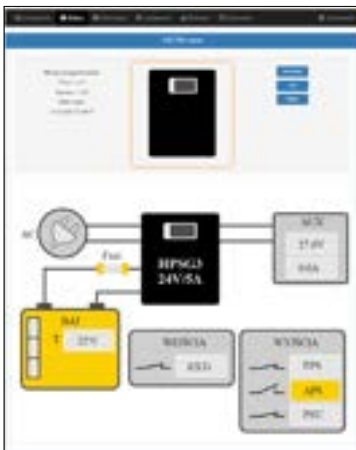
**INTE-C**  
Interface ETHERNET

**INTR-C**  
Interface RS485-TTL

**INTRE-C**  
Interface RS485-ETHERNET



Window of remote access to power supply





# Switch mode power supply units with battery backup 27,6 V DC EN54-4 and EN12101-10 certified EN54C series

**RED POWER plus**

- power supply: 230 V
- impulse voltage stabilizer
- microprocessor based operating control
- certified with EN54-4 and EN12101-10 standards
- certificate of constancy of performance CNBOP-PIB No 1438-CPR-0628
- certificate of approval CNBOP-PIB No 3501/2019
- independently protected outputs AUX1 and AUX2
- monitoring of continuity of battery circuit
- relay type output of collective failure ALARM
- input of external failure indication EXTi
- EPS relay type output of 230 V AC power failure indication
- LoB low battery voltage indication
- deep discharge battery protection (UVP)
- communication: LAN, RS485 – appropriate modules required – only version with LCD graphic display
- cooperation with EN54C-LB4 and EN54C-LB8 fuse modules (optional equipment)
- cooperation with EN54C-LS4 and EN54C-LS8 sequential modules (optional equipment)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection (unwanted enclosure opening)
- warranty: **3 years from production date**



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

Certificate of approval  
CNBOP-PIB No 3501/2019



Tamper switch detecting enclosure opening  
- 1 piece



Lock



EPS relay type output of 230 V AC power failure indication



Relay type output of collective failure ALARM



Input of external failure indication EXTi



Battery connectors



Independently protected outputs AUX1 and AUX2

# Switch mode power supply units with battery backup 27,6 V DC EN54-4 and EN12101-10 certified EN54C series

**RED POWER plus**



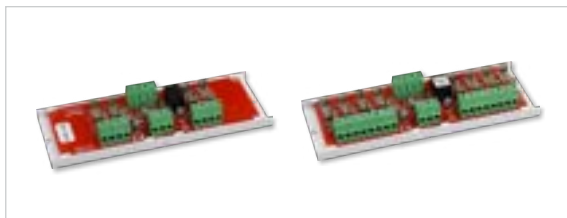
LED display



graphic LCD display

Code		Output voltage	Total current		Recommended batteries	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	—	27,6 V DC	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

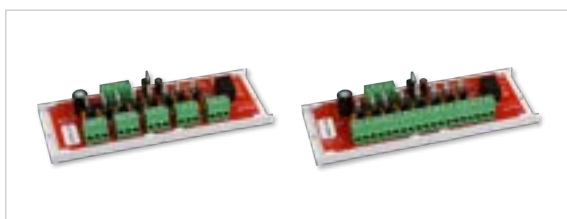
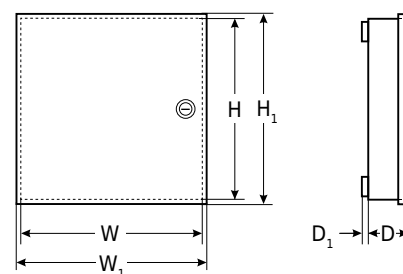
## Accessories:



**Fuse modules**  
EN54C-LB4, EN54C-LB8



**Set of brackets**  
EN54C-BR



**Sequential modules**  
EN54C-LS4, EN54C-LS8

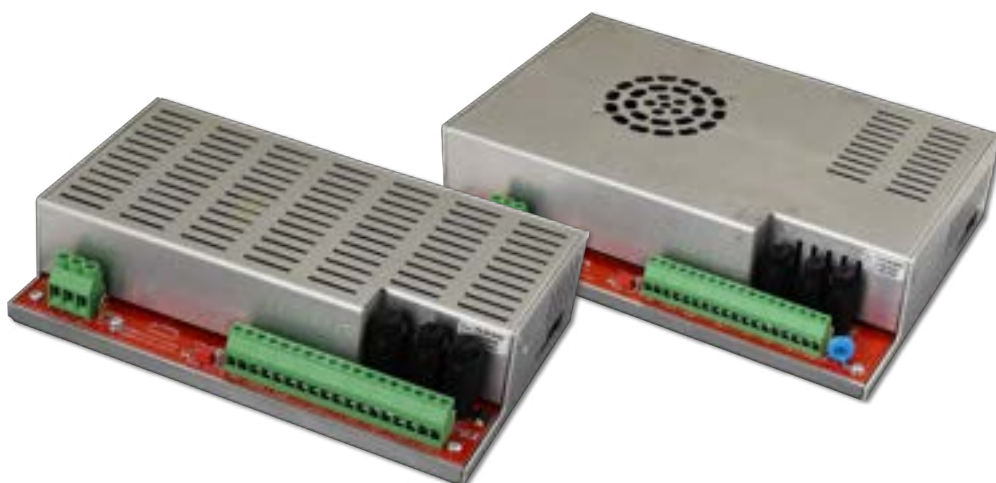


**Interfaces (LAN, RS485)**  
– only for EN54C...LCD series

# Switch mode power supply modules with battery backup 27,6 V DC in accordance with EN54-4 standard for fire detection **EN54M series**

**RED POWER plus**

- power supply: 230 V
- impulse voltage stabilizer
- microprocessor based operating control
- in accordance with EN54-4 and EN 12101-10 standards
- certificate of constancy of performance CNBOP-PIB No 1438-CPR-0630
- independently protected outputs AUX1 and AUX2
- monitoring of continuity of battery circuit
- relay type output of collective failure ALARM
- input of external failure indication EXTi
- EPS relay type output of 230 V AC power failure indication
- LoB low battery voltage indication
- deep discharge battery protection (UVP)
- cooperation with EN54-LB4 and EN54-LB8 fuse modules (optional equipment)
- cooperation with EN54C-LS4 and EN54C-LS8 sequential modules (optional equipment)
- DIN rail mounting using EN54M-DIN1 bracket (optional)
- optical indication - EN54M-LED panel (optional)
- protections:
  - SCP short circuit protection, OLP overload protection
  - OVP overvoltage protection, surge protection
- warranty: **3 years from production date**



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.



LED optical indication  
connector



EPS relay type output of  
230 V AC power failure  
indication



Relay type output of collective  
failure ALARM



Input of external failure  
indication EXTi



Battery connectors

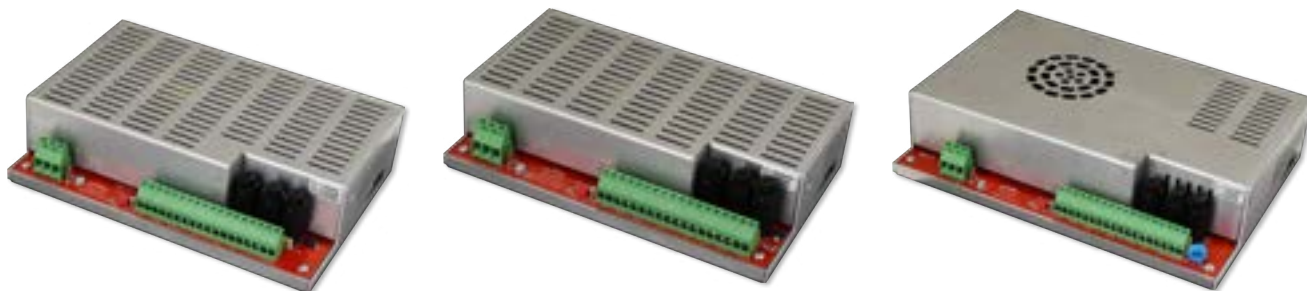


Independently protected  
outputs  
AUX1 and AUX2

# Switch mode power supply modules with battery backup 27,6 V DC in accordance with EN54-4 standard for fire detection

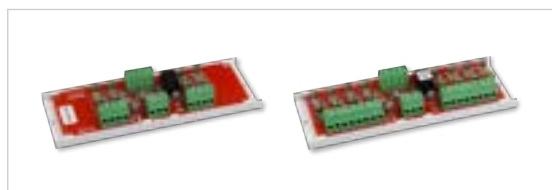
## EN54M series

**RED POWER plus**



Code	Output voltage	Total current		Recommended batteries	Dimensions LxWxH [+/- 2mm]
		for continuous operation $I_{max a} + I_{lad}$	for intermittent operation $I_{max a} + I_{lad}$		
EN54M-2A7	27,6 V DC	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	

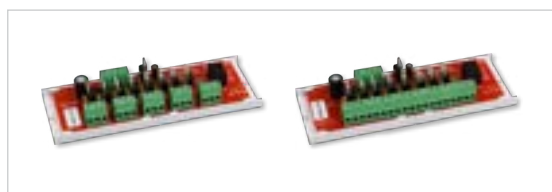
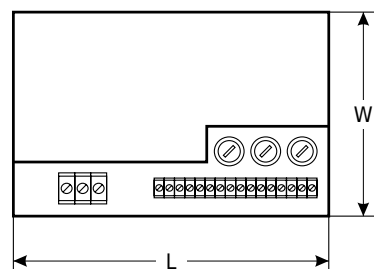
### Accessories:



**Fuse modules**  
EN54C-LB4, EN54C-LB8



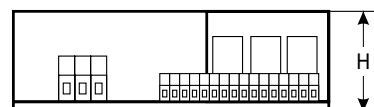
**Bracket DIN**  
EN54M-DIN1



**Sequential modules**  
EN54C-LS4, EN54C-LS8



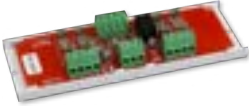
**Set for optical indication**  
EN54M-LED



# Accessories for power supply units EN54C and EN54M series

## EN54C-LB4

LB4/0,5A/FTA fuse module EN54C



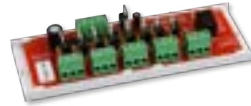
## EN54C-LB8

LB8/0,5A/FTA fuse module EN54C



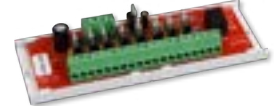
## EN54C-LS4

sequential module for actuators with return spring



## EN54C-LS8

sequential module for actuators without return spring



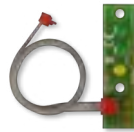
## EN54M-DIN1

Bracket DIN



## EN54M-LED

Set for optical indication



## EN54C-BR

Set of brackets



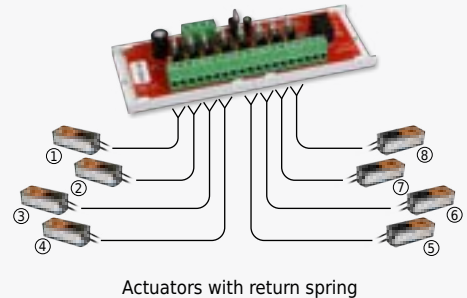
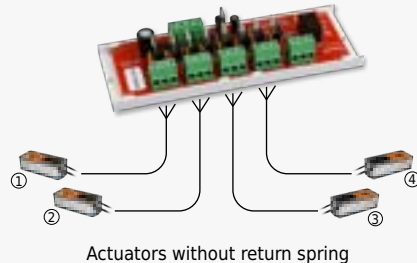
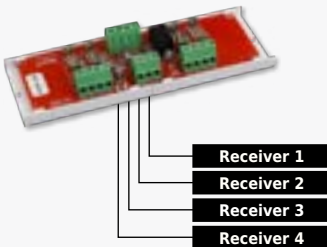
EN54C-LB4



EN54C-LS4



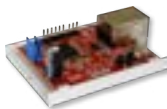
EN54C-LS8



## Applies EN54C-...LCD

### INTE-C

Interface ETHERNET



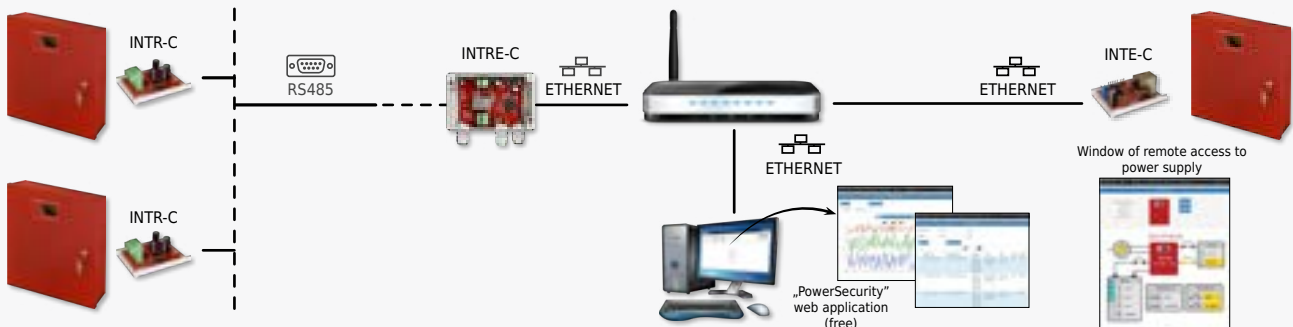
### INTR-C

Interface RS485-TTL



### INTRE-C

Interface RS485-ETHERNET





# Switch mode power supply units with battery backup 13,8 V DC for Access Control Systems - DAHUA AWZ series

- power supply: 200÷240 V AC
- impulse voltage stabilizer
- deep discharge battery protection (UVP)
- technical outputs relay type:
  - EPS – AC power failure
  - APS – battery failure
- number of DIN rails / length / number of „S” fields: 1 / 185mm / 10
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection
- dedicated to mounting controllers:
  - **DAHUA ASC2104B-T, ASC2102B-T (and similar)**
- warranty: 2 years from production date



LED optical indication



Tamper switch detecting enclosure opening - 1 piece



Closing - screwed - 2 pieces

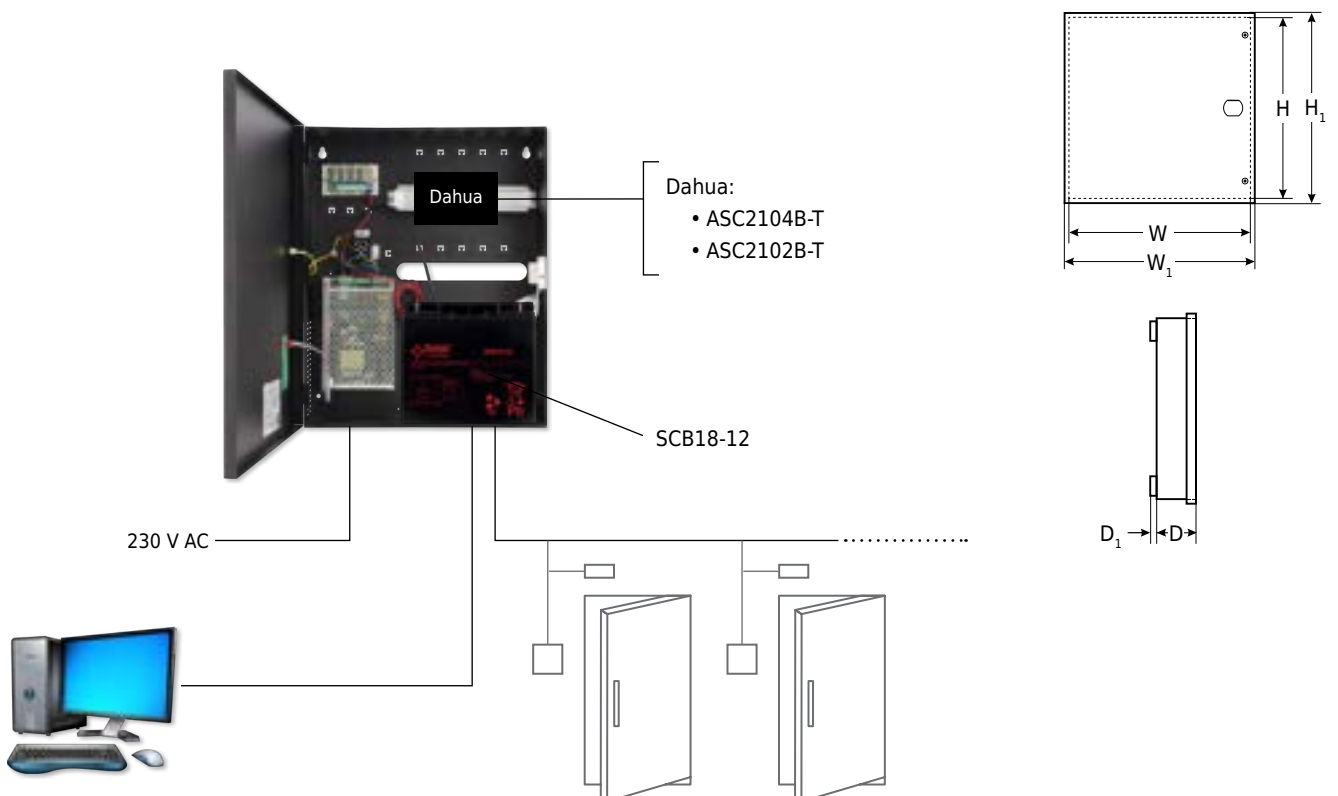


Technical outputs (relay type)



Spacers (plastic) - 8mm

Code	Output voltage	Total output current with charging	Battery charging current	Recommended battery	Number of DIN rails / length / number of „S” fields	Dimensions W×H×D+D <sub>1</sub> [+/- 2mm]
<b>AWZ637</b>	13,8 V DC	7A	1,0A / 2,0A	17Ah	1 / 185mm / 10	320×397×92+8





# 12V Batteries

## Maintenance Free Batteries

### HPB series



designed  
lifetime 5÷8 years

- dedicated for:
  - power supplies for fire alarm systems: EN54C / EN54M series
  - I&HAS power supply: PSBEN series
  - voice alarm systems
  - Security systems (CCTV, AC, IDS)
  - UPS power supply
  - automation

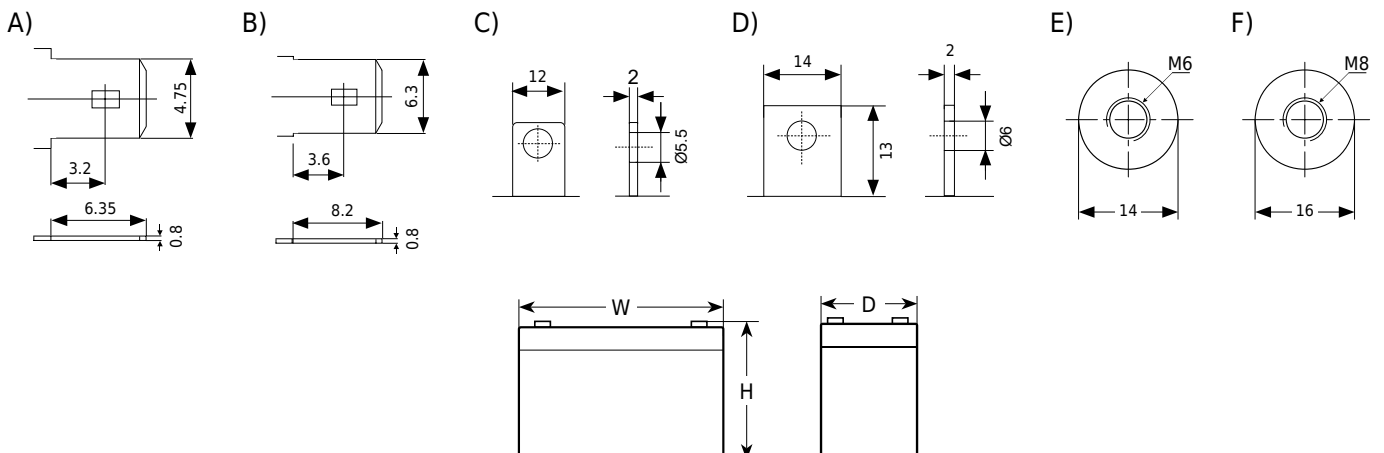
### SCB series



designed  
lifetime 3÷5 years

- dedicated for:
  - Security systems (CCTV, AC, IDS)
  - UPS power supply
  - automation

	Code	Output voltage	Rated capacity (C <sub>20</sub> )	Connectors	Charging current		Charging voltage in 25°C		Dimensions W×H×D [±2mm]
					recom- mended	maximum	Backup operation	Cyclic operation	
HPB series	HPB1,2-12	12 V DC	1,2Ah	A	0,13A	0,36A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	98×59×44
	HPB2,3-12	12 V DC	2,3Ah	A	0,23A	0,69A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	178×68×35
	HPB3,6-12	12 V DC	3,6Ah	A	0,36A	1,08A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	133×65×65
	HPB5-12	12 V DC	5Ah	A	0,5A	1,5A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	90×106×70
	HPB7-12	12 V DC	7Ah	A	0,7A	2,1A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	152×100×65
	HPB9-12	12 V DC	9Ah	B	0,9A	2,7A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	152×100×65
	HPB9-12-4,8	12 V DC	9Ah	A	0,9A	2,7A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	152×100×65
	HPB12-12	12 V DC	12Ah	B	1,2A	3,6A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	150×100×98
	HPB12-12-4,8	12 V DC	12Ah	A	1,2A	3,6A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	150×100×98
	HPB18-12	12 V DC	18Ah	C	1,8A	5,4A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	182×168×77
	HPB28-12	12 V DC	28Ah	D	2,6A	7,8A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	175×125×166
	HPB40-12	12 V DC	40Ah	E	4A	12A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	197×171×166
	HPB55-12	12 V DC	55Ah	E	5,5A	16,5A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	229×211×138
HPB65-12	12 V DC	65Ah	E	6,5A	19,5A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	349×178×167	
HPB80-12	12 V DC	80Ah	F	8A	24A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	269×215×168	
HPB100-12	12 V DC	100Ah	F	10A	30A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	330×219×171	
HPB120-12	12 V DC	120Ah	F	12A	36A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	409×234×175	
SCB series	SCB7-12	12 V DC	7Ah	A	0,7A	2,1A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	152×100×65
	SCB18-12	12 V DC	18Ah	C	1,8A	5,4A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	182×168×77
	SCB40-12	12 V DC	40Ah	E	4A	12A	13,5 V DC ÷ 13,8 V DC	14,4 V DC ÷ 14,9 V DC	197×171×166



# Enclosed switch mode power supply units 12 V DC / 48 V DC PS series

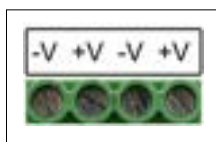
- power supply: 200÷240 V AC
- impulse voltage stabilizer
- adjustable output voltage
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- possibility of mounting power supplies on TH35 rail (required mounting plate)
- warranty: 2 years from production date



Sample product:  
PS-12V10A



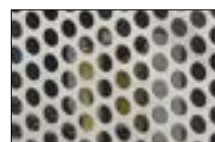
Power input terminals



Power output terminals



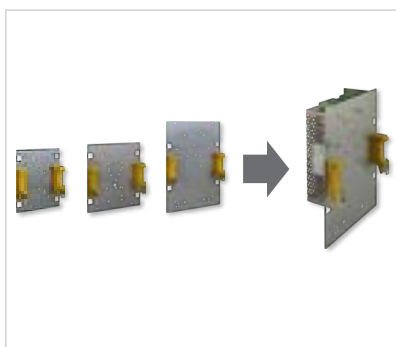
Potentiometer for output voltage adjustment



Enclosure: perforated sheet - convectional cooling

Code	Output voltage	Voltage adjustment	Output current	DIN adapter	Enclosure		Dimensions L×W×H [+/- 2mm]
					AWO384	AWO385	
PS-12V2A	12 V DC	12-15 V DC	2A	DIN1 / DIN2	✓	✓	85×60×37
PS-12V3A		12-15 V DC	3A	DIN1 / DIN2	✓	✓	110×78×36
PS-12V5A		12-15 V DC	5A	DIN2	✓	✓	129×98×40
PS-12V7A		12-15 V DC	7A	DIN3	✓	✓	159×98×42
PS-12V10A		12-15 V DC	10A	DIN3	—	✓	199×110×50
PS-12V15A		12-15 V DC	15A	DIN3	—	✓	214×114×50
PS-48V1A	48 V DC	48÷53 V DC	1,2A	DIN2	✓	✓	129×98×40
PS-48V3A		48÷53 V DC	3A	DIN3	—	✓	199×110×50

## Accessories:



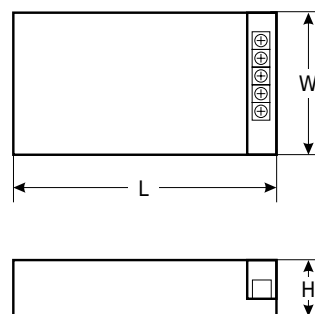
### DIN1 / DIN2 / DIN3

Mounting plate (allows mounting power supplies on TH35 rail)



### AWO384 / AWO385

Enclosures for enclosed power supplies



# Enclosed switch mode power supply units with battery backup

## 13,8 V DC / 27,6 V DC / 54 V DC

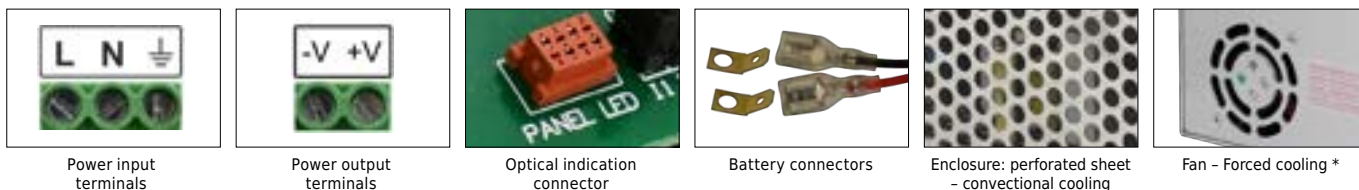
### PSB series

- power supply: 200÷240 V AC
- impulse voltage stabilizer
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - OHP overheat protection \*
- possibility of mounting power supplies on TH35 rail (required mounting plate)
- warranty: 2 years from production date



Sample product:  
PSB-12V7A

\* depending on model



Power input terminals

Power output terminals

Optical indication connector

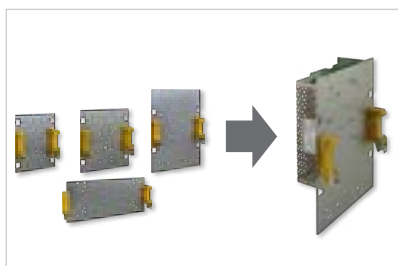
Battery connectors

Enclosure: perforated sheet - convective cooling

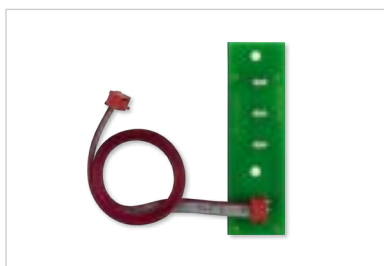
Fan - Forced cooling \*

Code	Output voltage	Total output current with charging	Battery charging current	DIN adapter	Dimensions L×W×H [+/- 2mm]
PSB-12V2A	13,8 V DC	2,5A	0,5A	DIN1 / DIN2	110×78×36
PSB-12V3A		3,5A	0,5A	DIN1 / DIN2	
PSB-12V5A		5,5A	0,5A / 1A	DIN2	129×98×40
PSB-12V7A		7,0A	1A / 2A	DIN3	159×98×42
PSB-12V10A		10A	1A / 4A	DIN3	199×110×50
PSB-12V15A		15A	2A / 4A	DIN3 / DIN4	214×114×50
PSB-12V20A		20A	2A / 4A / 8A	DIN4	237×168×54
PSB-24V2A	27,6 V DC	2,2A	0,2A / 0,5A	DIN2	129×98×40
PSB-24V3A		3,5A	0,5A / 1A	DIN3	159×98×42
PSB-24V5A		5,0A	0,5A / 2A	DIN3	199×110×50
PSB-24V7A		7,0A	1A / 2A	DIN3 / DIN4	214×114×50
PSB-24V10A		10A	1A / 2A / 4A	DIN4	237×168×54
PSB-48V3A	54 V DC	3A	0,5A / 1A	DIN3	199×110×50
PSB-48V5A		5A	0,5A / 1A / 2A	DIN4	237×168×54

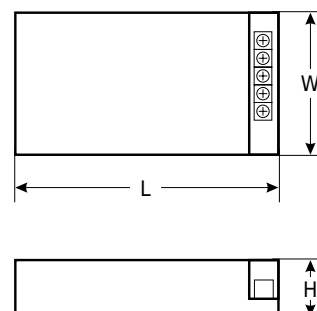
### Accessories:



**DIN1 / DIN2 / DIN3 / DIN4**  
Mounting plate (allows mounting power supplies on TH35 rail)



**PKAZ168**  
Set for optical indication  
(three LEDs indicating status of power supply)



# Enclosed switch mode power supply units with battery backup 13,8/27,6 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2  
 Compliant with EN60839-11 standard for access control - GRADE 1, 2  
**PSG2 series**

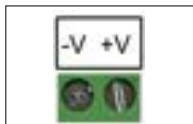
- power supply: 200÷240 V AC
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- automatic battery test performed every 5 minutes
- technical outputs relay type:
  - EPS - 230 V power failure AC
  - APS - battery failure
- function START allows running PSU from battery circuit
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- possibility of mounting power supplies on TH35 rail (required mounting plate)
- warranty: 2 years from production date



Sample product:  
PSG2-12V7A



Power input terminals



Power output terminals



Technical outputs (relay type)



Battery connectors



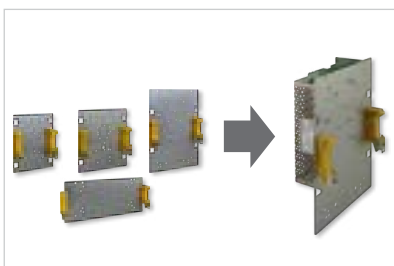
START button



Optical indication connector

Code	Output voltage	Total output current with charging	Battery charging current	DIN adapter	Dimensions LxWxH [+/- 2mm]
PSG2-12V1A	13,8 V DC	1,2A	0,2A	DIN1 / DIN2	129x98x40
PSG2-12V2A		2,5A	0,5A / 1A	DIN2	
PSG2-12V3A		3,5A	0,5A / 1A	DIN2	
PSG2-12V5A		5A	1A / 2A	DIN3	159x98x42
PSG2-12V7A		7A	1A / 2A	DIN3	
PSG2-12V10A		10A	1A / 4A	DIN4	
PSG2-12V20A		20A	2A / 4A / 8A	DIN4	204x141x52
PSG2-24V2A	27,6 V DC	2,5A	0,5A / 1A	DIN3	159x98x42
PSG2-24V3A		3,5A	0,5A / 1A	DIN3	
PSG2-24V5A		5A	1A / 2A	DIN4	204x141x52
PSG2-24V10A		10A	1A / 2A / 4A	DIN4	

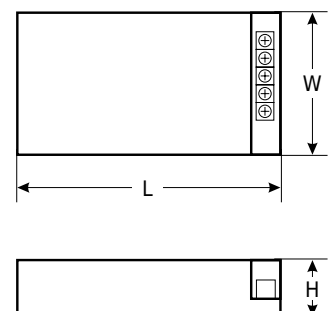
## Accessories:



**DIN1 / DIN2 / DIN3 / DIN4**  
Mounting plate (allows mounting power supplies on TH35 rail)



**PKAZ168**  
Set for optical indication (three LEDs indicating status of power supply)



# Enclosed, multi-output switch mode power supply unit with battery backup 13,8 V DC

compliant with EN50131-6 standard for alarm systems - GRADE 1, 2  
compliant with EN60839-11 standard for access control systems - GRADE 1, 2

## HPSDCG2 series

- power supply: 200-240 V AC
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- LED optical indication
- dynamic battery test
- battery voltage control
- function START allows running PSU from battery circuit
- technical outputs relay type:
  - EPS technical output indicating AC power loss
  - APS technical output indicating battery failure
  - FPS technical output indicating fuse failure
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection, OLP overload protection
  - OVP overvoltage protection, surge protection
- warranty: 2 years from production date



Sample product:  
PSDCG2-12V8x1A



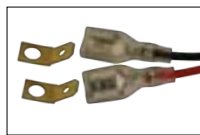
Power input terminals



Fuse-protected outputs:  
glass fuse



Technical outputs  
relay type



Battery connectors



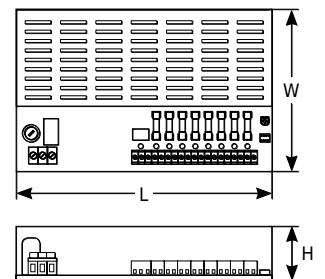
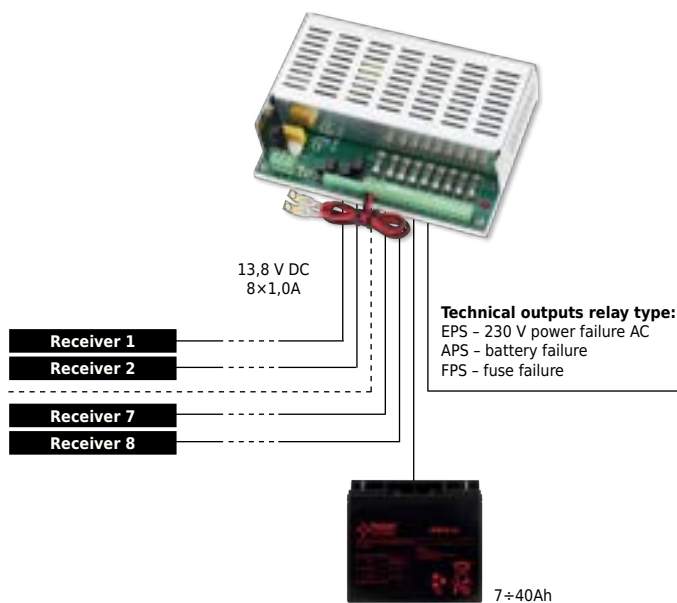
START button



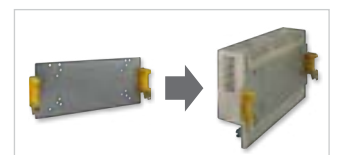
Optical indication  
connector

Code	Output voltage	Total output current with charging	Number of outputs	Battery charging current	DIN adapter	Fuse type	Technical outputs	Dimensions LxWxH [+/- 2mm]
PSDCG2-12V4x1A	13,8 V DC	5A	4x1A	0,5A / 1,0A	DIN4	1,0A - glass fuse	✓	200x120x48
PSDCG2-12V8x1A		10A	8x1A	1A / 2A	DIN4		✓	204x141x52

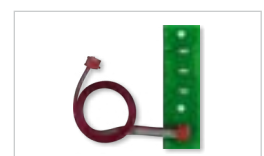
Sample product: PSDCG2-12V8x1A



### Accessories:



**DIN4**  
Mounting plate (allows mounting power supplies on TH35 rail)



**PKAZ168**  
Set for optical indication

Receiver e.g.



Camera



Detector



Indicator



Electromagnetic  
lock



Electric strike



Intercom



Video intercom



# Table of switches

Code	Number of ports: PoE	UPLINK		COMBO	Long Range mode 100 Mb/s - up to 100m 10 Mb/s - up to 250m	Power supply	Brackets for mounting to surface	Mounting / brackets / for RACK 19"	DIN rail brackets	Dimensions WxHxD [+/- 2mm]		
		ports RJ45	sockets SFP									
<b>64</b>												
S64	4 - 100 Mb/s	2 - 100 Mb/s	-	-	✓ (ports 1+4)	52 V DC / 60W desktop	✓	/	-	/	-	118x28x85
S64WP						48-57 V DC / 60W external power supply						
SG64	4 - 1 Gb/s	2 - 1 Gb/s	-	-	-	52 V DC / 60W desktop	✓	/	-	/	-	118x28x85
SG64WP						48-57 V DC / 60W external power supply						
SFG64	4 - 1 Gb/s	-	2 - 1 Gb/s	-	-	52 V DC / 60W desktop	✓	/	-	/	-	118x28x95
SFG64WP						48-57 V DC / 60W external power supply						
SFG64F1	4 - 1 Gb/s	1 - 1 Gb/s	1 - 1 Gb/s	-	-	52 V DC / 60W desktop	✓	/	-	/	-	118x28x95
SFG64F1WP						48-57 V DC / 60W external power supply						

## 108

S108-90W	8 - 100 Mb/s	2 - 100 Mb/s	-	-	✓ (ports 1+8)	52 V DC / 90W desktop	✓	/	-	/	-	190x28x105
S108						52 V DC / 120W desktop						
S108WP	8 - 1 Gb/s	2 - 1 Gb/s	-	-	-	48-57 V DC / 120W external power supply	✓	/	-	/	-	190x27x105
SG108-90W						52 V DC / 90W desktop						
SG108	8 - 1 Gb/s	2 - 1 Gb/s	-	-	-	52 V DC / 120W desktop	✓	/	-	/	-	190x27x105
SG108WP						48-57 V DC / 120W external power supply						
SF108-90W	8 - 100 Mb/s	2 - 1 Gb/s	2 - 1 Gb/s	-	-	52 V DC / 90W desktop	✓	/	✓	/	-	220x44x150
SF108						52 V DC / 120WA desktop						
SF108WP	-	2 - 1 Gb/s	8 - 1 Gb/s	-	-	48-57 V DC / 120WA external power supply	✓	/	-	/	-	221x29x115
SFG10F8						12 V DC / 2A desktop						

## 116

S116	16 - 100 Mb/s	2 - 1 Gb/s	-	-	✓ (ports 9+16)	230 V AC	✓	/	✓	/	-	270x44x181
S116WP						48-54 V DC/ 240W external power supply						
SF116	16 - 100 Mb/s	2 - 1 Gb/s	2 - 1 Gb/s	✓	-	230 V AC	-	/	✓	/	-	442x44x224
SF116WP						48-54 V DC/ 240W external power supply						

## 124

S124	24 - 100 Mb/s	2 - 1 Gb/s	-	-	✓ (ports 17+24)	230 V AC	✓	/	✓	/	-	330x44x204
S124WP						48-54 V DC; 360W external power supply						
SF124	24 - 100 Mb/s	2 - 1 Gb/s	2 - 1 Gb/s	✓	-	230 V AC	-	/	✓	/	-	442x44x224
SF124WP						48-54 V DC; 360W external power supply						

### ISFG, ISF series without power supply unit, with SFP socket, industrial

ISFG42	2 - 1 Gb/s	-	2 - 1 Gb/s	-	-	48+57 V DC / 60W external power supply	-	/	-	/	✓	30x128x112
ISFG64	4 - 1 Gb/s	-	2 - 1 Gb/s	-	-	48+57 V DC / 96W external power supply	-	/	-	/	✓	30x128x112
ISF108	8 - 100 Mb/s	2 - 1 Gb/s	2 - 1 Gb/s	-	-	48+57 V DC / 120W external power supply	-	/	-	/	✓	54x176x153

### Legend:

4 - 100 Mb/s	— mark of number of ports 100 Mb/s
8 - 1 Gb/s	— mark of number of ports 1 Gb/s

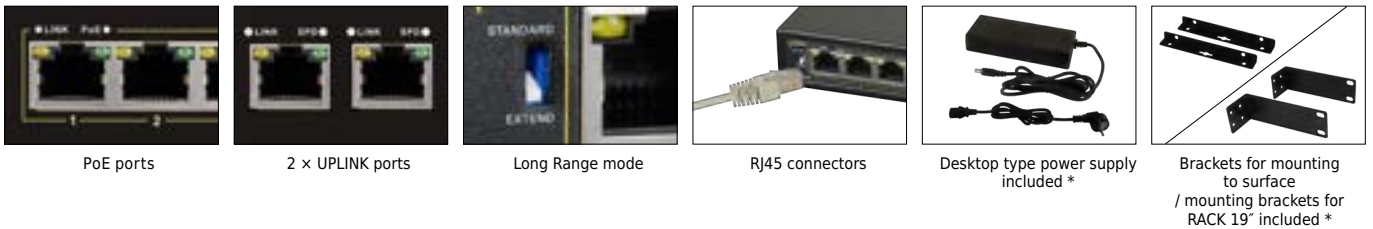
# PoE switches for IP cameras with power supply S series

- supports devices compliant with IEEE 802.3af/at standard
- 10/100 Mb/s and 1 Gb/s ports \*
- PoE ports - data transfer and power supply
- Long Range mode: STANDARD - 100m/100 Mb/s or EXTEND - 250m/10 Mb/s
- 30W for each PoE port - 52 V DC (PoE+)
- desktop type power supply included \*
- additional mounting elements:
  - brackets for mounting to surface \*
  - mounting brackets for RACK 19" \*
- warranty: 2 years from production date

\* depending on model

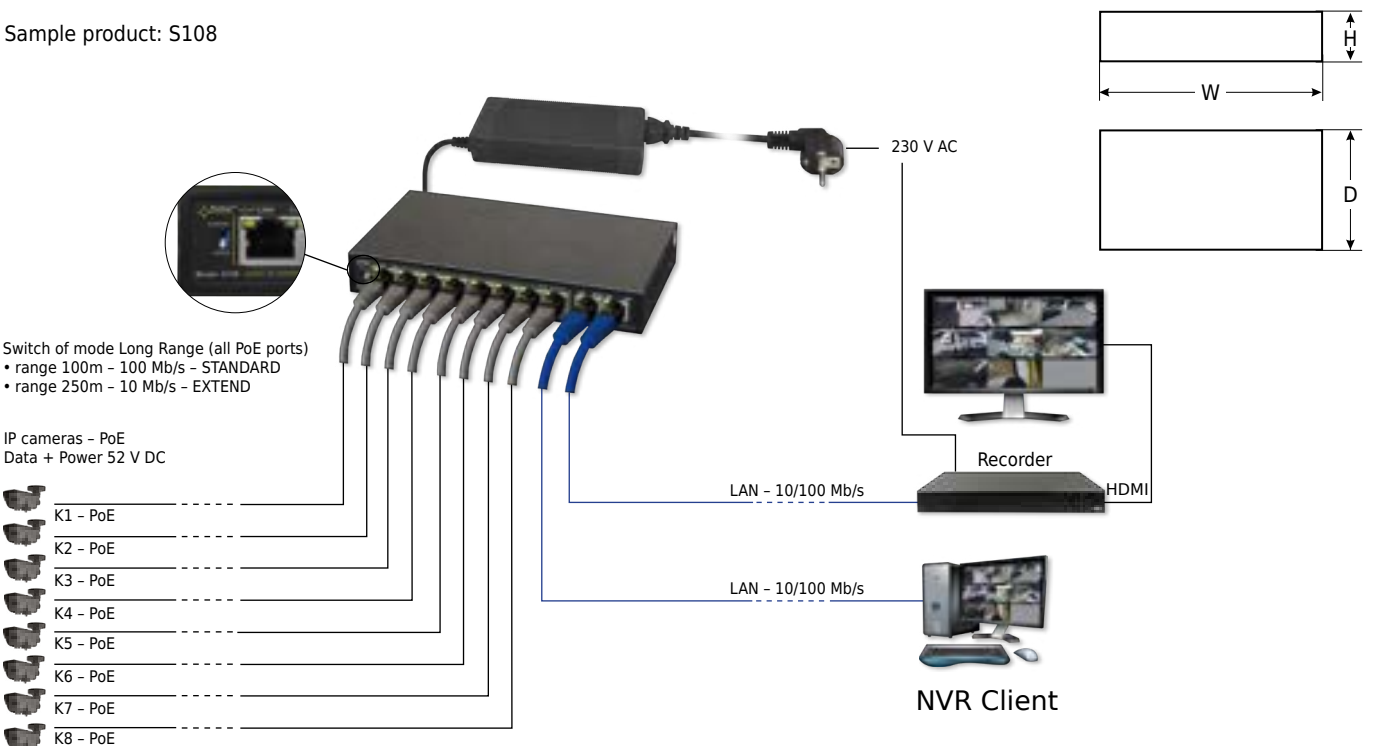


Sample product: S108



Code	Number of ports: PoE	Long Range mode 100 Mb/s - up to 100m 10 Mb/s - up to 250m	Number of ports: UPLINK	Power supply	Brackets for mounting to surface / Mounting brackets for RACK 19"	Dimensions WxHxD [+/- 2mm]
S64	4 - 100 Mb/s	✓ (ports 1÷4)	2 - 100 Mb/s	52 V DC / 60W desktop	✓ / -	118x28x85
S108-90W	8 - 100 Mb/s	✓ (ports 1÷8)		52 V DC / 90W desktop	✓ / -	190x28x105
S108		✓ (ports 1÷8)		52 V DC / 120W desktop	✓ / -	
S116	16 - 100 Mb/s	✓ (ports 9÷16)	2 - 1 Gb/s	230 V AC	- / ✓	270x44x181
S124	24 - 100 Mb/s	✓ (ports 17÷24)			- / ✓	330x44x204

Sample product: S108



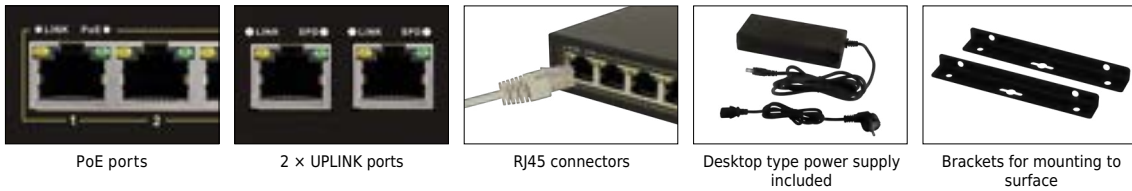
# PoE switches for IP cameras with power supply

## SG series

- supports devices compliant with IEEE 802.3af/at standard
- 1 Gb/s ports
- PoE ports - data transfer and power supply
- 30W for each PoE port - 52 V DC (PoE+)
- desktop type power supply included
- additional mounting elements:
  - brackets for mounting to surface
- warranty: 2 years from production date



Sample product:  
SG108



PoE ports

2 x UPLINK ports

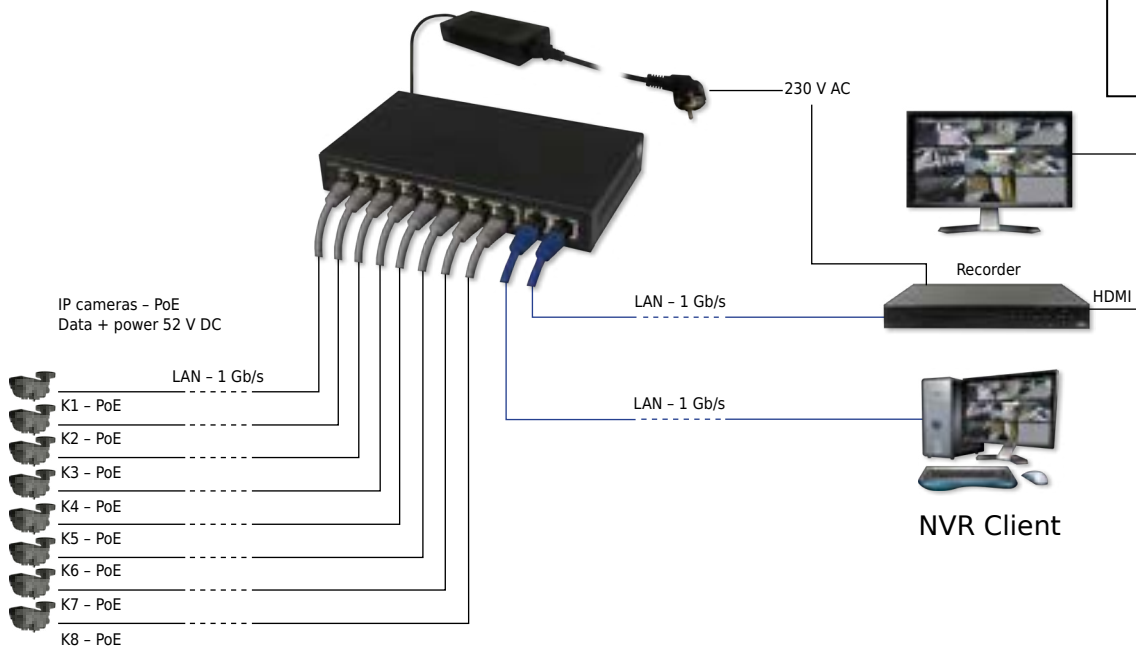
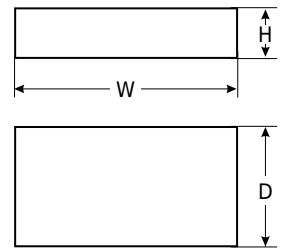
RJ45 connectors

Desktop type power supply included

Brackets for mounting to surface

Code	Number of ports: PoE	Number of ports: UPLINK	Power supply	Brackets for mounting to surface	Dimensions W×H×D [+/- 2mm]
SG64	4 - 1 Gb/s	2 - 1 Gb/s	52 V DC / 60W desktop	✓	118×28×85
SG108-90W	8 - 1 Gb/s		52 V DC / 90W desktop	✓	190×27×105
SG108	8 - 1 Gb/s		52 V DC / 120W desktop	✓	190×27×105

Sample product: SG108



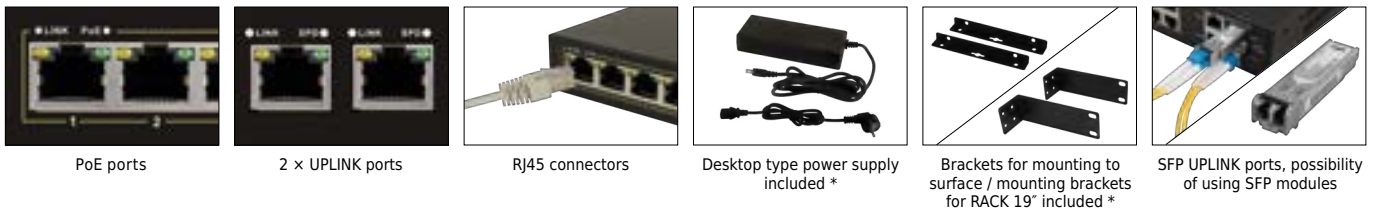
# PoE switches for IP cameras with power supply, with SFP sockets SF series

- supports devices compliant with IEEE 802.3af/at standard
- 10/100 Mb/s and 1 Gb/s ports
- PoE ports - data transfer and power supply
- 30W for each PoE port - 52 V DC (PoE+)
- desktop type power supply included \*
- additional mounting elements:
  - brackets for mounting to surface \*
  - mounting brackets for RACK 19" \*
- warranty: 2 years from production date



Sample product:  
SF116

\* depending on model



PoE ports

2 x UPLINK ports

RJ45 connectors

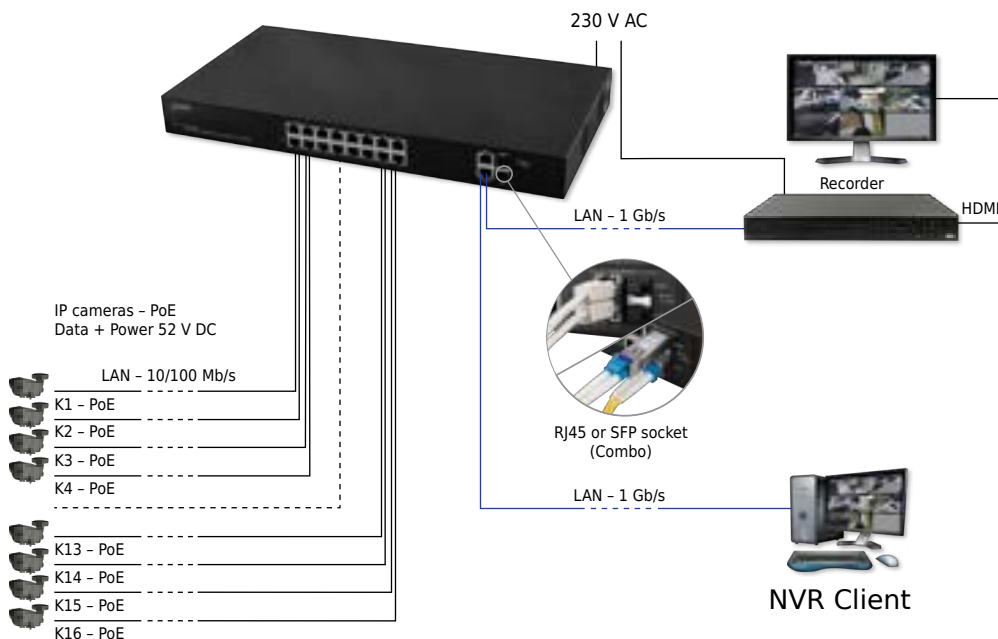
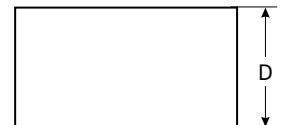
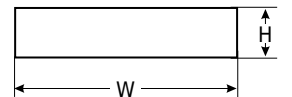
Desktop type power supply included \*

Brackets for mounting to surface / mounting brackets for RACK 19" included \*

SFP UPLINK ports, possibility of using SFP modules

Code	Number of ports: PoE	UPLINK		Combo	Power supply	Brackets for mounting to surface /	Mounting brackets for RACK 19"	Dimensions W×H×D [+/- 2mm]
		ports RJ45	sockets SFP					
SF108-90W	8 - 100 Mb/s	2 - 1 Gb/s	2 - 1 Gb/s	—	52 V DC / 90W desktop	✓ /	✓	220×44×150
SF108				—	52 V DC / 120W desktop	✓ /	✓	
SF116	16 - 100 Mb/s			✓	230 V AC	— /	✓	442×44×224
SF124	24 - 100 Mb/s			✓	230 V AC	— /	✓	

Sample product: SF116



# PoE switches for IP cameras with power supply, with SFP sockets

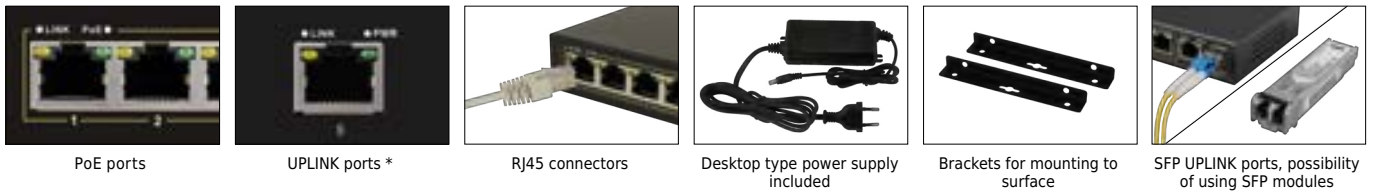
## SFG series

- supports devices compliant with IEEE 802.3af/at standard
- 1 Gb/s ports
- PoE ports – data transfer and power supply
- 30W for each PoE port – 52 V DC (PoE+)
- desktop type power supply included
- additional mounting elements:
  - brackets for mounting to surface
- warranty: 2 years from production date



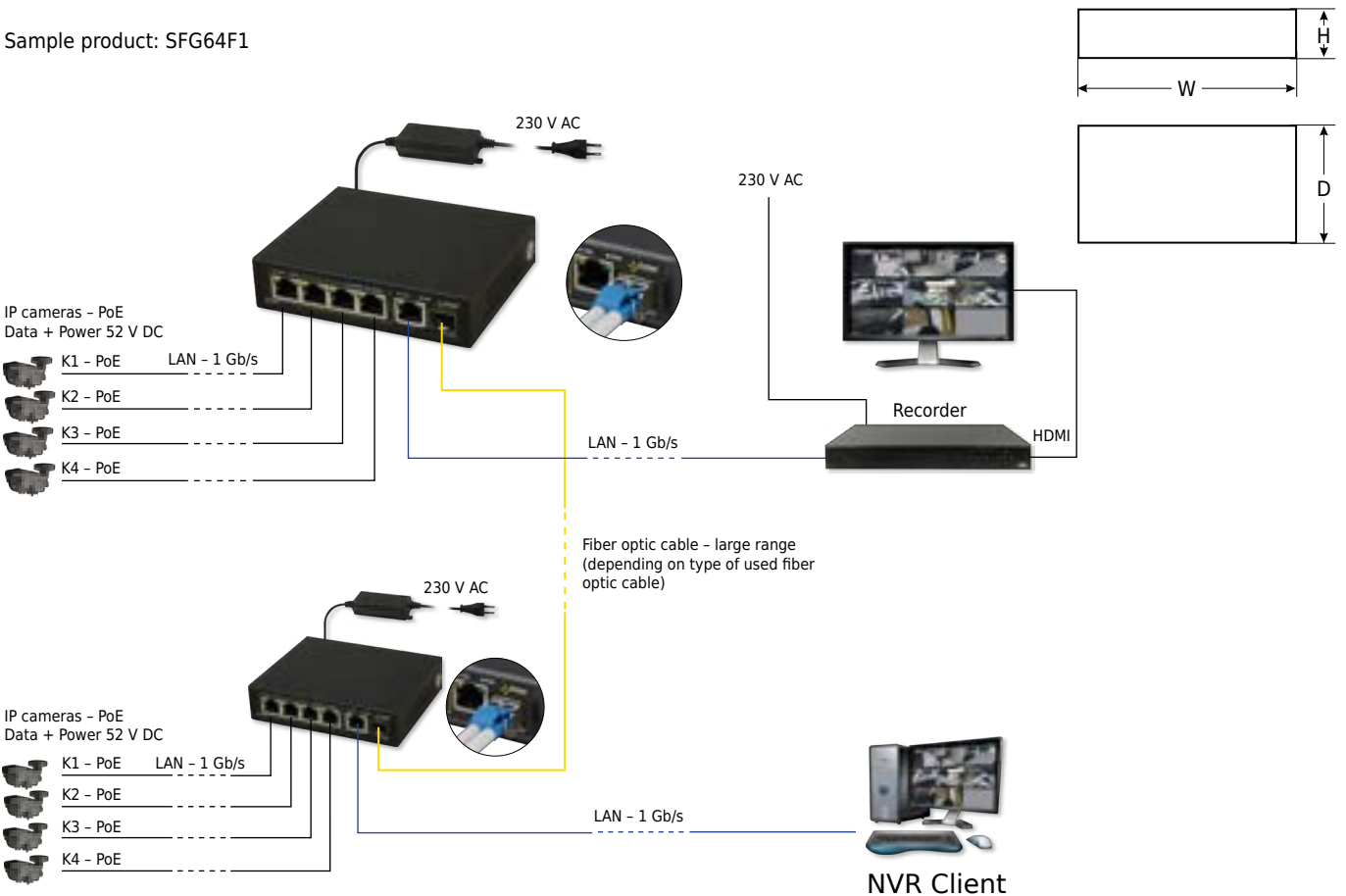
Sample product:  
SFG64F1

\* depending on model



Code	Number of ports: PoE	UPLINK		Power supply	Brackets for mounting to surface	Dimensions W×H×D [+/- 2mm]
		ports RJ45	sockets SFP			
SFG64	4 - 1 Gb/s	—	2 - 1 Gb/s	52 V DC / 60W desktop	✓	118×28×95
SFG64F1		1 - 1 Gb/s	1 - 1 Gb/s			

Sample product: SFG64F1



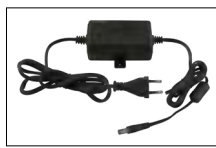


# Fiber optical switch with power supply, with SFP sockets SFG10F8 series

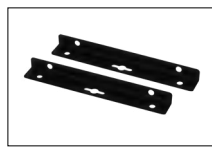
- 1 Gb/s ports
- desktop type power supply included
- additional mounting elements:
  - brackets for mounting to surface
- warranty: 2 years from production date



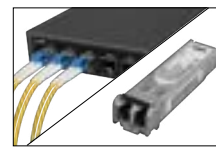
2 x UPLINK ports



Desktop type power supply included

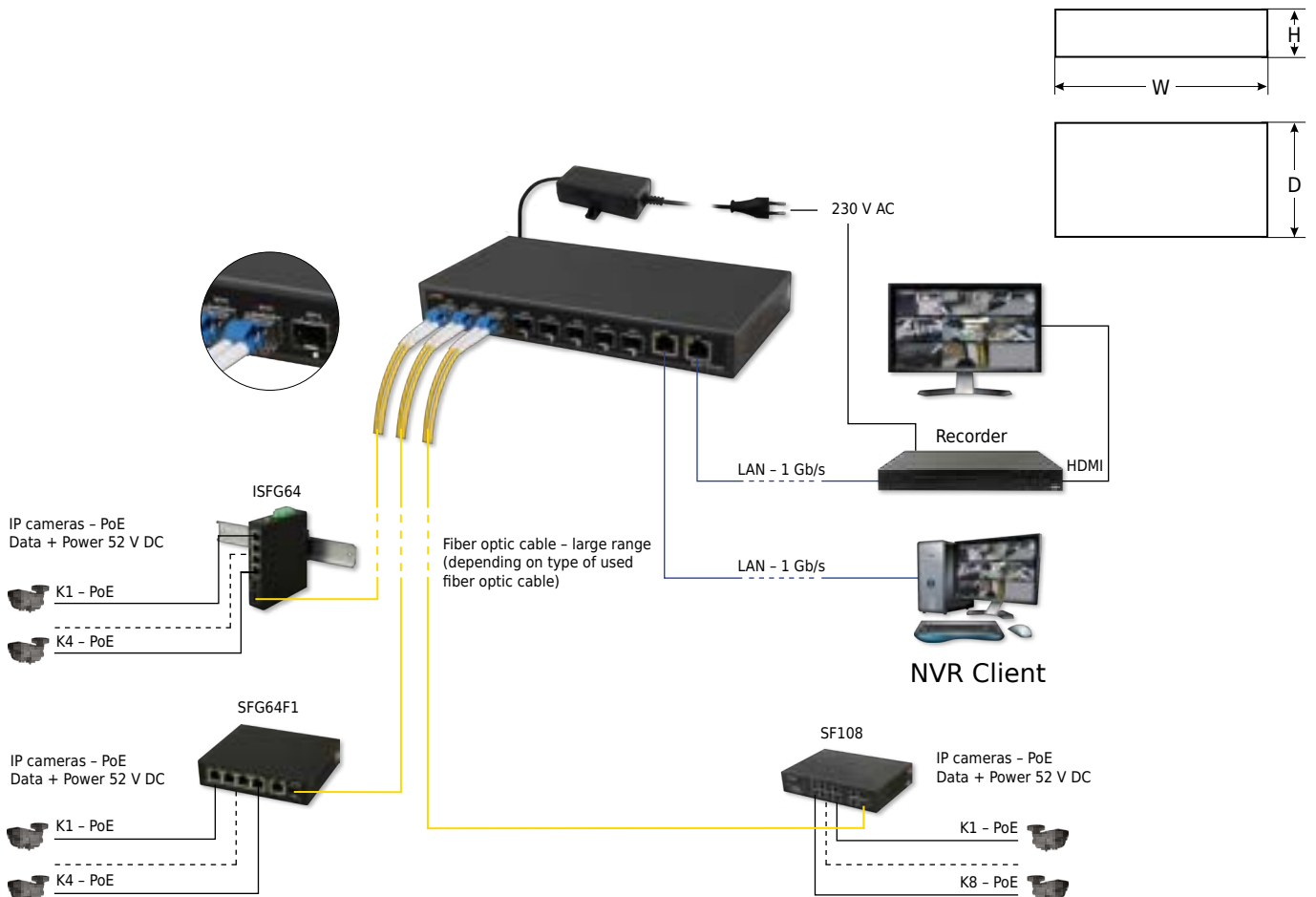


Brackets for mounting to surface



SFP UPLINK ports, possibility of using SFP modules

Code	Number of ports: PoE	UPLINK		Power supply	Brackets for mounting to surface	Dimensions W×H×D [± 2mm]
		ports RJ45	sockets SFP			
<b>SFG10F8</b>	—	2 - 1 Gb/s	8 - 1 Gb/s	12 V DC / 2A desktop	✓	221×29×115



# Industrial PoE switches for IP cameras without power supply, with SFP sockets

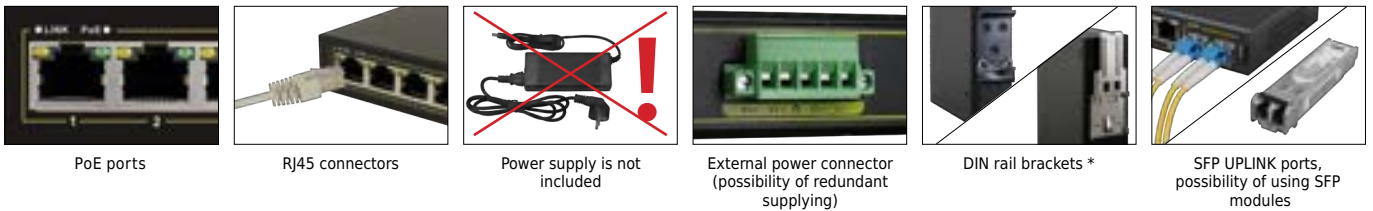
## ISFG, ISF series

- supports devices compliant with IEEE 802.3af/at standard
- 10/100 Mb/s and 1 Gb/s ports \*
- PoE ports - data transfer and power supply
- 30W for each PoE port - 52 V DC (PoE+)
- external power supply 52÷57 V DC
- possibility of redundant supplying
- power supply unit is not included
- additional mounting elements:
  - DIN rail brackets
- warranty: 2 years from production date

\* depending on model



Sample product:  
ISFG64



PoE ports

RJ45 connectors

Power supply is not included

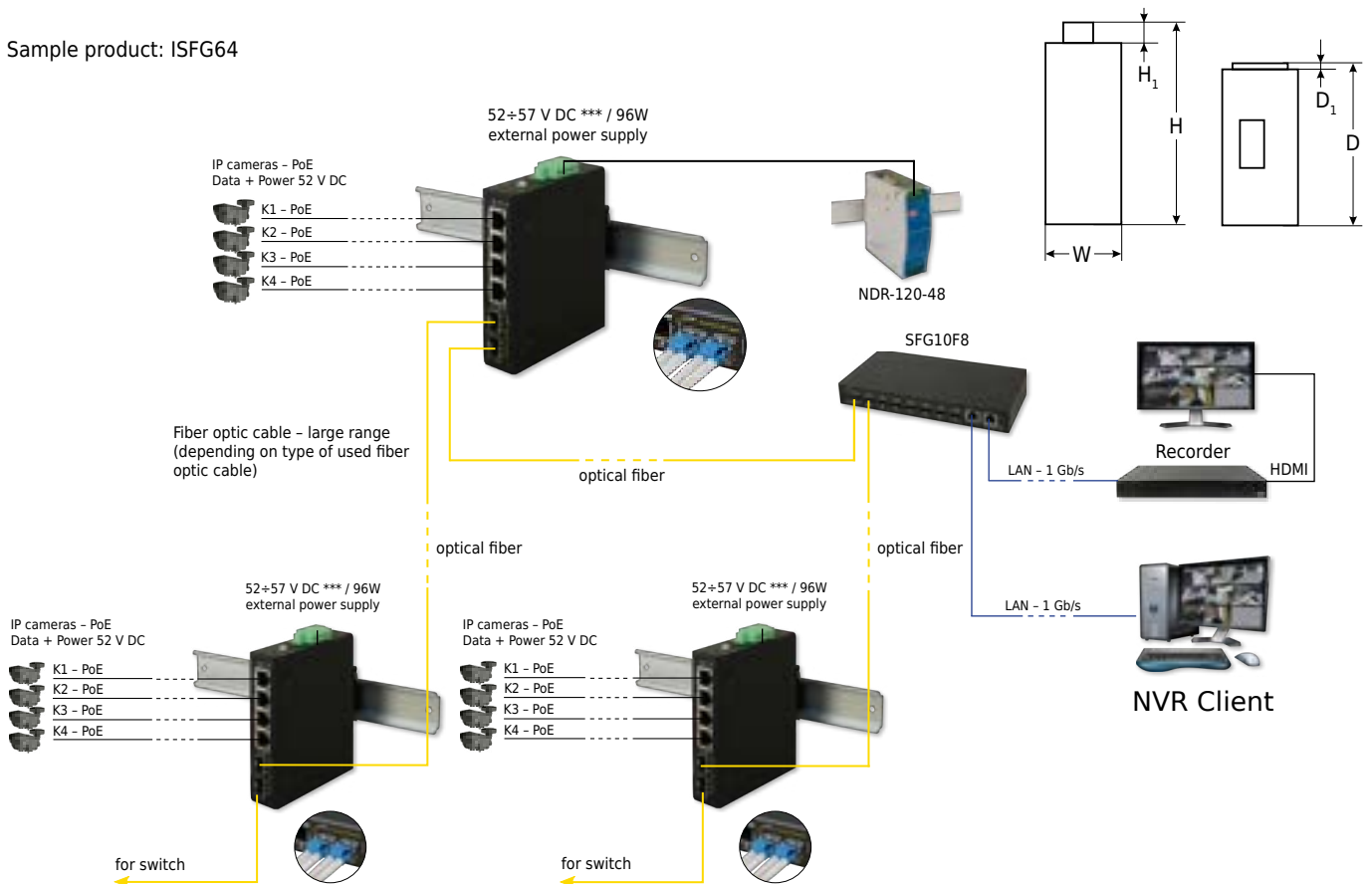
External power connector (possibility of redundant supplying)

DIN rail brackets \*

SFP UPLINK ports, possibility of using SFP modules

Code	Number of ports: PoE	UPLINK		Power supply	DIN rail brackets	Dimensions W×H×D [± 2mm] H <sub>1</sub> ×D <sub>1</sub> [± 2mm]
		ports RJ45	sockets SFP			
ISFG42	2 - 1 Gb/s	—	2 - 1 Gb/s	48÷57 V DC / 60W external power supply	✓	30×128×112 10×9
ISFG64	4 - 1 Gb/s	—		48÷57 V DC / 96W external power supply	✓	
ISF108	8 - 100 Mb/s	2 - 1 Gb/s		48÷57 V DC / 120W external power supply	✓	54×176×153 10×8

Sample product: ISFG64



\*\*\* to maintain PoE+ standard

# PoE switches for IP cameras - without power supply


for installation in universal power supply systems SWS/SWB/SWR/SWSH/SWBH series  
**S...WP, SG...WP, SF...WP, SFG...WP series**

- supports devices compliant with IEEE 802.3af/at standard
- 10/100 Mb/s and 1 Gb/s ports \*
- PoE ports - data transfer and power supply
- Long Range mode: STANDARD - 100m/100 Mb/s or EXTEND - 250m/10 Mb/s \*
- 30W for each PoE port - 52 V DC (PoE+)
- external power supply 48-54 V DC/ 48=57 V DC \*
- power supply unit is not included
- additional mounting elements:
  - brackets for mounting to surface \*
  - mounting brackets for RACK 19" \*
- warranty: 2 years from production date




Sample product:  
SF116WP

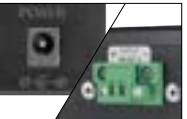
\* depending on model




PoE ports



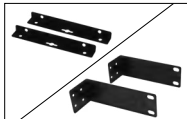
2 x UPLINK ports




Power input



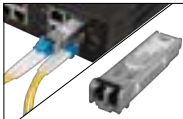
Power supply unit is not included



Brackets for mounting to surface / mounting brackets for RACK 19" included \*



Long Range mode

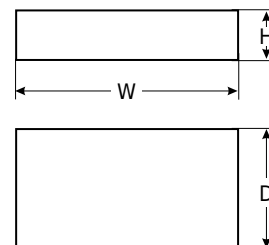


SFP UPLINK ports, possibility of using SFP modules

Applies to: S...WP series
Applies to: SF...WP series

Code	Number of ports: PoE	Long Range mode 100 Mb/s - up to 100m 10 Mb/s - up to 250m	UPLINK		Power supply	Brackets for mounting to surface / mounting brackets for RACK 19"	Mounting brackets for RACK 19"	Dimensions W×H×D [± 2mm]
			RJ45 ports	SFP sockets				
<b>S64WP</b>	4 - 100 Mb/s	✓ (1÷4 ports)	2 - 100 Mb/s	—	48-57 V DC	✓ / —	—	118×28×85
<b>SG64WP</b>	4 - 1 Gb/s	—	2 - 1 Gb/s	—	48-57 V DC	✓ / —	—	118×28×85
<b>SFG64WP</b>	4 - 1 Gb/s	—	—	2 - 1 Gb/s	48-57 V DC	✓ / —	—	118×28×95
<b>SFG64F1WP</b>	4 - 1 Gb/s	—	1 - 1 Gb/s	1 - 1 Gb/s	48-57 V DC	✓ / —	—	118×28×95
<b>S108WP</b>	8 - 100 Mb/s	✓ (1÷8 ports)	2 - 100 Mb/s	—	48-57 V DC	✓ / —	—	190×28×105
<b>SG108WP</b>	8 - 1 Gb/s	—	2 - 1 Gb/s	—	48-57 V DC	✓ / —	—	190×28×105
<b>SF108WP</b>	8 - 100 Mb/s	—	2 - 1 Gb/s	2 - 1 Gb/s	48-57 V DC	✓ / ✓	✓	220×44×150
<b>S116WP</b>	16 - 100 Mb/s	✓ (9÷16 ports)	2 - 1 Gb/s	—	48-54 V DC	— / ✓	✓	270×44×181
<b>SF116WP</b>	16 - 100 Mb/s	—	2 - 1 Gb/s	2 - 1 Gb/s	48-54 V DC	— / ✓	✓	442×44×224
<b>S124WP</b>	24 - 100 Mb/s	✓ (17÷24 ports)	2 - 1 Gb/s	—	48-54 V DC	— / ✓	✓	330×44×204
<b>SF124WP</b>	24 - 100 Mb/s	—	2 - 1 Gb/s	2 - 1 Gb/s	48-54 V DC	— / ✓	✓	442×44×224

Example of application:

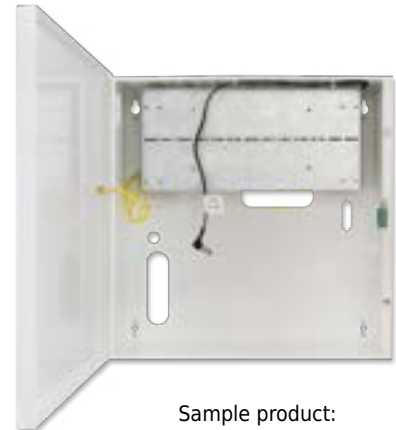


# Power supply systems for PoE switches

## SWS series

Enclosure with power supply unit and additional adapter for mounting switch

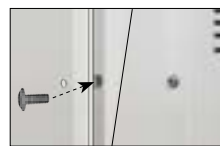
- power supply: 200-240 V AC
- output voltage – PoE: 52 V DC – JACK plug 2,1/5,5
- dedicated to 4/8 port PoE switches
- metal enclosure – color white RAL9003
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection
- warranty: 2 years from production date



Sample product:  
SWS-150



Tamper switch detecting enclosure opening - 1 piece



Closing - screwed - 2 pieces



Spacers (plastic) - 8mm



Switch power supply JACK 2,1/5,5 plug



Mounting plate for PoE switches

Code	Output voltage - PoE / power	Adjustable output voltage - PoE	Enclosure dimensions W×H×D+D <sub>1</sub> [+/- 2mm]	Mounting plate dimensions W <sub>2</sub> ×H <sub>2</sub> ×D <sub>2</sub> [+/- 2mm]
<b>SWS-60</b>	52 V DC / 60W	48÷53 V DC	230×300×82+8	200×110×50
<b>SWS-150</b>	52 V DC / 150W	48÷53 V DC	300×300×105+8	230×110×45

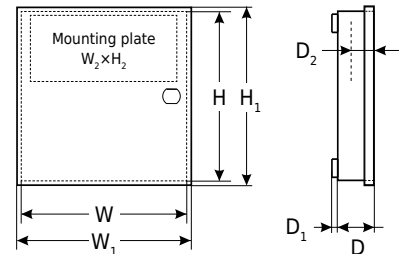
### Accessories:



Converter (e.g. recorder power supply 12 V DC)

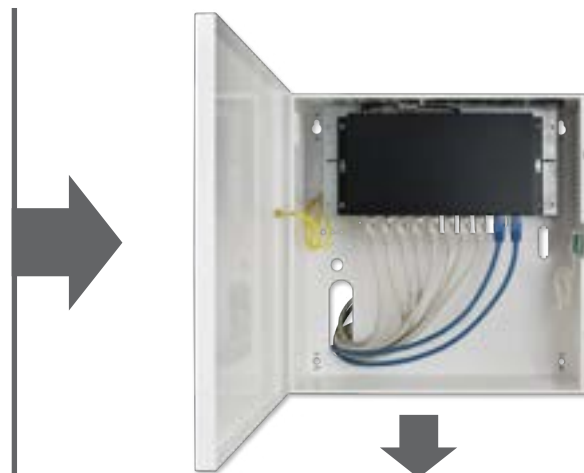


MR008 (various code) MR027 (same code)

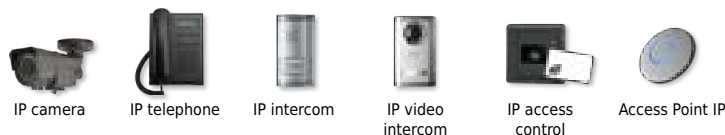
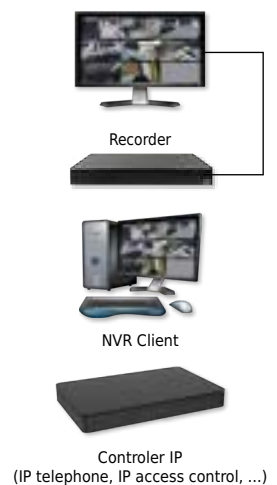


Sample product: SWS-150

Switches:  
S64WP / S108WP  
SG64WP / SG108WP  
SFG64WP / SFG64F1WP



IP receivers  
Data + power supply 52 V DC



# Power supply systems for PoE switches with battery backup

## SWB series

Enclosure with power supply unit with battery backup and additional mounting plate for mounting switch and recorder \*

- power supply: 200-240 V AC
- output voltage – PoE: 52 V DC / 54 V DC \* – JACK plug 2,1/5,5
- possibility of installing additional mounting plate \*
- optical indication
- battery charging current: 0,5A / 1A / 2A jumper selectable \*
- deep discharge battery protection – UVP
- battery charging and maintenance control
- metal enclosure – color white RAL9003
- protections:
  - SCP short circuit protection,
  - OVP overvoltage protection,
  - surge protection,
  - OLP overload protection,
  - OHP overheat protection, \*
  - anti-sabotage protection,
- warranty: 2 years from production date



\* depending on model



Code	Output voltage – PoE / power	Battery charging current	Recommended battery/batteries	Enclosure dimensions W×H×D+D <sub>1</sub> [+/- 2mm]	Mounting plate dimensions W <sub>2</sub> ×H <sub>2</sub> ×D <sub>2</sub> [+/- 2mm]	Additional mounting plate
<b>SWB-60</b>	52 V DC / 60W	1A / 2A	1×7Ah	300×300×105+8	230×110×45	—
<b>SWB-120</b>	52 V DC / 120W	0,5A / 2A	2×17Ah	330×380×173+8	245×150×90	BM2
<b>SWB-300</b>	54 V DC / 300W	0,5A / 1A / 2A	4×17Ah	460×390×173+8	245×150×90	

### Accessories:



### Sample product: SWB-300

Switches:  
S64WP / S108WP  
SG64WP / SG108WP  
SFG64WP / SFG64F1WP  
SF108



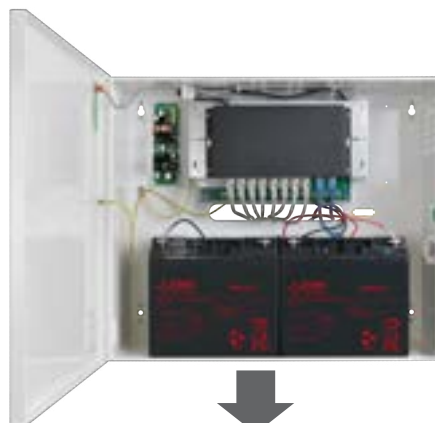
Batteries 4×7=17Ah



BM2 – mounting plate



DC/DC50HV converter – 12V/5A



IP receivers  
Data + power supply 52 V DC



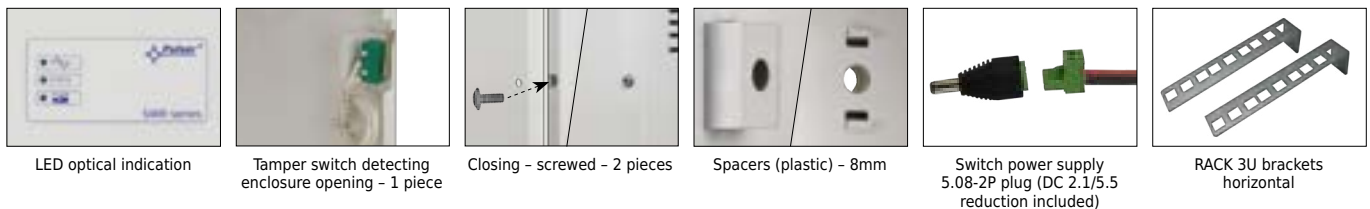


# Power supply systems for PoE switches with battery backup

## SWB...RACK series

Enclosure with power supply unit with battery backup and mounting bracket for RACK 19" standard devices

- power supply: 200-240 V AC
- output voltage - PoE: 54 V DC- EDG 5.08MM-2P plug (JACK plug 2,1/5,5 - included)
- available models: 300W
- RACK - 3U brackets, with adjustable mounting height on 3 levels
- enclosure construction is compliant with requirements of General Data Protection Regulation GDPR (possibility of installing two locks with different codes)
- optical indication
- battery charging current: 0,5A / 1A / 2A jumper selectable
- deep discharge battery protection - UVP
- battery charging and maintenance control
- metal enclosure - color white RAL9003
- protections:
  - SCP short circuit protection,
  - OVP overvoltage protection,
  - surge protection,
  - OLP overload protection,
  - OHP overheat protection,
  - anti-sabotage protection,
- warranty: 2 years from production date



LED optical indication

Tamper switch detecting enclosure opening - 1 piece

Closing - screwed - 2 pieces

Spacers (plastic) - 8mm

Switch power supply 5.08-2P plug (DC 2.1/5.5 reduction included)

RACK 3U brackets horizontal

Code	Output voltage - PoE / power	Battery charging current	Recommended batteries	RACK 19" profiles / recorder space	GDPR (possibility of installing two locks with different codes)	Enclosure dimensions W×H×D+D <sub>1</sub> [± 2mm]	Installation space W <sub>2</sub> ×H <sub>2</sub> ×D <sub>2</sub> [± 2mm]
SWB-300RACK	54 V DC/ 300W	0,5A / 1A / 2A	4×17Ah	3U - horizontal / ✓	✓	535×650×165+14	530×430×155

### Accessories:

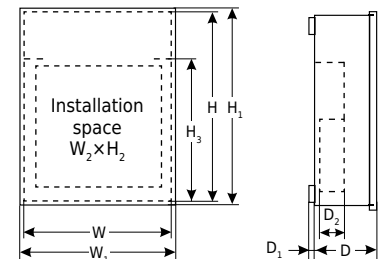


Universal RACK adapter for desktop switches

Converter (e.g. recorder power supply 12 V DC)

Set of two straps for mounting recorder

Lock, type 802 - various code



Switches:  
S116WP / S124WP  
SF108WP, SF116WP, SF124WP

Batteries 4×7÷17Ah

DC/DC50HV converter - 12V/5A

Patch Panel

Recorder RACK



NVR Client



Controler IP (IP telephone, IP access control, ...)

IP receivers  
Data + power supply 52 V DC



IP camera



IP telephone



IP intercom



IP video intercom



IP access control



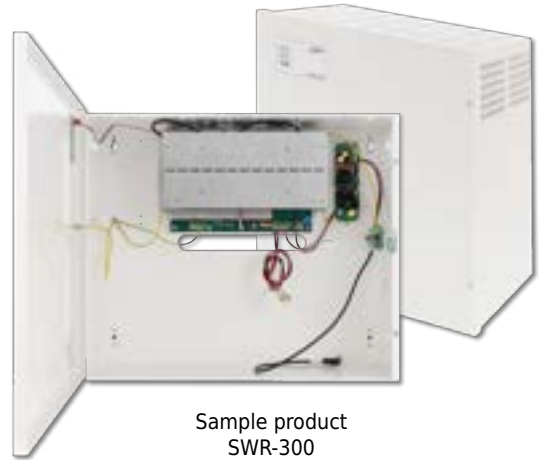
Access Point IP

# Power supply systems for PoE switches and recorder with battery backup

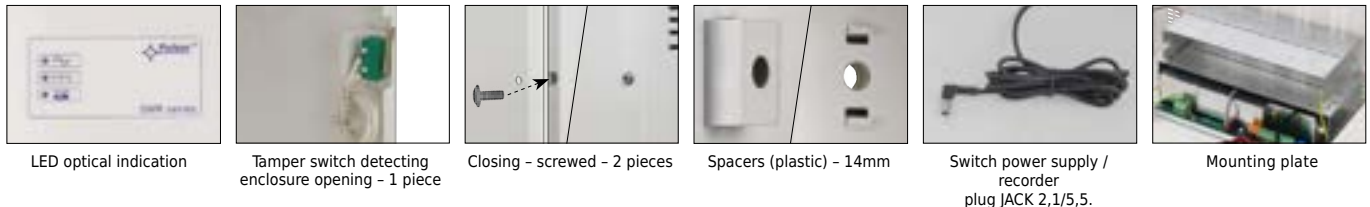
## SWR series

Enclosure with power supply with battery backup and additional mounting plate for switch and recorder \*

- power supply: 200-240 V AC;
- output voltage:
  - 120W - PoE: 52 V DC / recorder: 12 V DC / 2A (max.);
  - 300W - PoE: 54 V DC / recorder: 12 V DC / 5A (max.);
- recorder power supply, switch: JACK plug 2,1/5,5;
- removable universal mounting plates;
- optical indication;
- battery charging current: 0,5A / 1A / 2A jumper selectable \*;
- deep discharge battery protection (UVP);
- battery charging and maintenance control;
- metal enclosure - colour white RAL9003;
- possibility of mounting tamper switch detects detachment from wall (required PKAZ067);
- protections:
  - SCP short circuit protection;
  - OLP overload protection;
  - OVP overvoltage protection;
  - OHP overheat protection \*;
  - surge protection;
  - anti-sabotage protection;
- warranty: 2 years from production date.

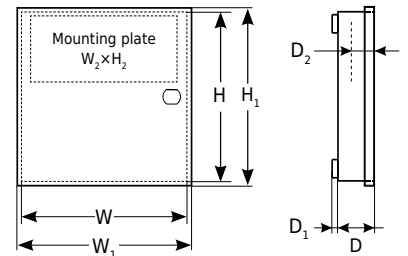


\* depending on model



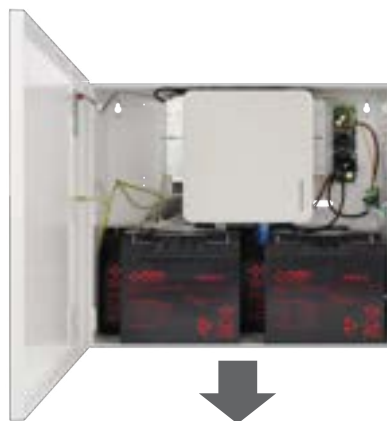
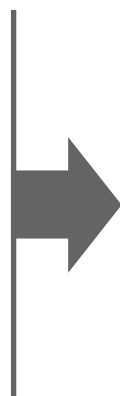
Code	Maximum current	Circuit switch	Circuit recorder	Battery charging current	Recommended batteries	Dimensions of recorder space $W_2 \times H_2 \times D_2$ [ +/- 2mm]	Dimensions $W \times H \times D + D_1$ [ +/- 2mm]
<b>SWR-120</b>	120W	52 V DC	12 V DC (2A max.)	0,5A / 2A	2x17Ah	250x350x48 (at 2x7Ah) 250x180x48 (at 2x17Ah)	330x380x173+14
<b>SWR-300</b>	300W	54 V DC	12 V DC (5A max.)	0,5A / 1A / 2A	4x17Ah	380x380x48 (at 4x7Ah) 380x280x48 (at 4x17Ah)	460x390x173+14

### Accessories:

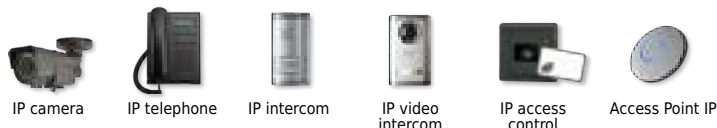


Sample product: SWR-300

Switches:  
S64WP / S108WP  
SG64WP / SG108WP  
SFG64WP / SFG64F1WP  
SF108WP



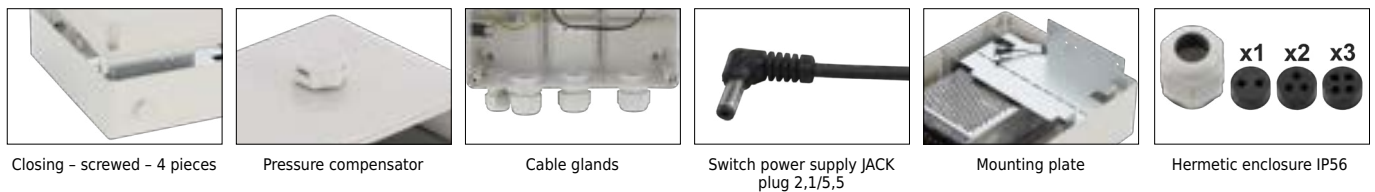
IP receivers  
Data + power supply 52 V DC



# Power supply systems for PoE switches without battery backup, ABS IP56 SWSH series

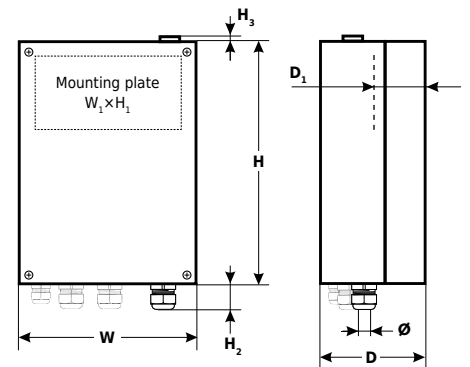
Enclosure with power supply unit and mounting plate for switch

- power supply: 200-240 V AC
- output voltage - PoE: 52 V DC - JACK plug 2,1/5,5
- dedicated to 2/4/8 port PoE switches
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- ABS enclosure - IP56
- UV resistance;
- warranty: 2 years from production date



Code	Output voltage - PoE / Power	Adjustable output voltage - PoE	Enclosure dimensions W×H×D [+/- 2mm]	Mounting plate dimensions W <sub>1</sub> ×H <sub>1</sub> ×D <sub>1</sub> [+/- 2mm]	Number of cable glands / cable diameter
<b>SWSH-120</b>	52 V DC / 120W	48÷53 V DC	225×308×130	191×100×57	1 piece / 10÷14mm 3 pieces / 13÷18mm

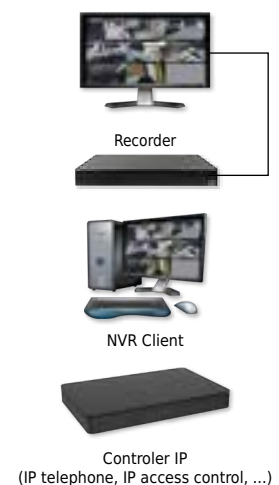
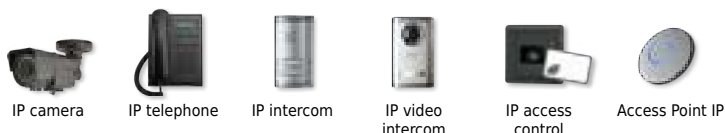
## Accessories:



Switches:  
S64WP / S108WP  
SG64WP / SG108WP  
SFG64WP / SFG64F1WP  
  
ISFG42 / ISFG64 / ISF108



IP receivers  
Data + power supply 52 V DC



# Power supply systems for PoE switches with battery backup

## ABS IP44 SWBH series

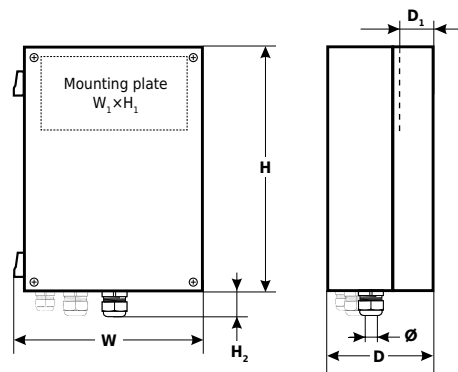
Enclosure with power supply with battery backup and mounting plate for switch

- power supply: 200-240 V AC;
- output voltage - PoE: 52 V DC - JACK plug 2,1/5,5;
- function START allows running PSU from battery circuit;
- dedicated to 2/4 port PoE switches;
- battery charging current: 0,5A;
- deep discharge battery protection (UVP);
- battery charging and maintenance control;
- protections:
  - SCP short circuit protection;
  - OLP overload protection;
  - OVP overvoltage protection;
  - surge protection;
- ABS enclosure - IP44
- UV resistance;
- warranty: 2 years from production date.



Code	Output voltage - PoE / Power	Battery charging current	Recommended battery	Enclosure dimensions W×H×D [+/- 2mm]	Mounting plate dimensions W <sub>1</sub> ×H <sub>1</sub> ×D <sub>1</sub> [+/- 2mm]	Number of cable glands / cable diameter
SWBH-60	52 V DC / 60W	0,5A	1 × 7Ah	240×308×130	204×92×35	1 piece / 10÷14mm 2 pieces / 13÷18mm

### Accessories:



Switches:  
S64WP  
SG64WP  
SFG64WP  
SFG64F1WP

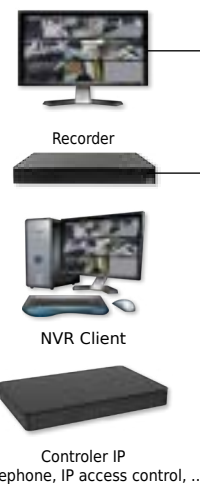
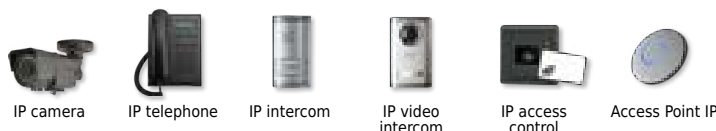
ISFG42 / ISFG64

Batteries 1x7Ah

Battery 1x7Ah



IP receivers  
Data + power supply 52 V DC

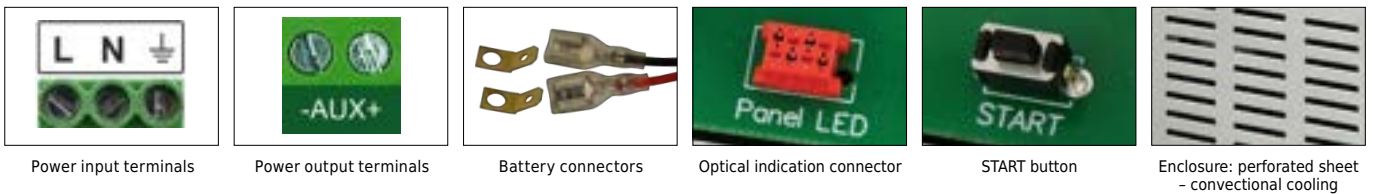


# Enclosed power supply units with battery backup 52 V DC PWB series

- dedicated for PoE supplying systems
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection
- optional equipment:
  - set of LED optical indication PKAZ168
  - DIN4 mounting plate
- warranty: 2 years from production date

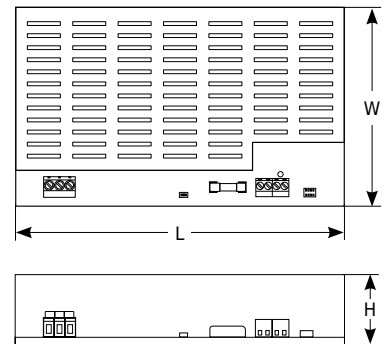
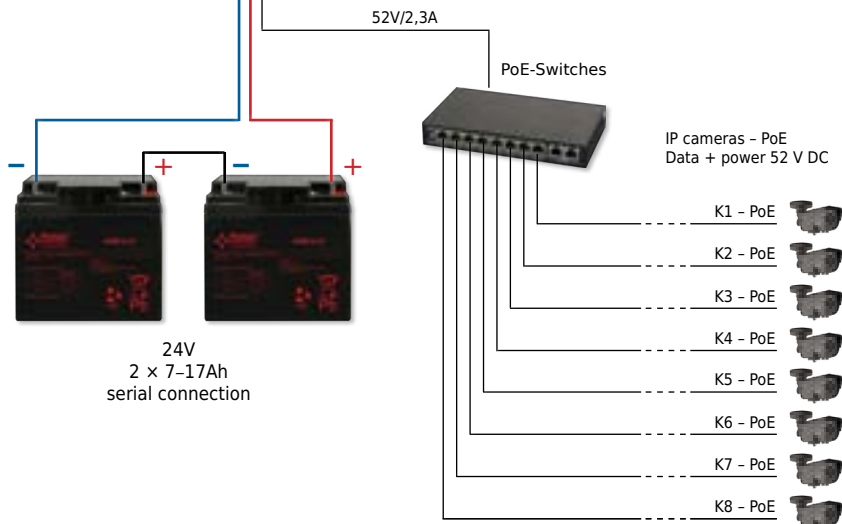
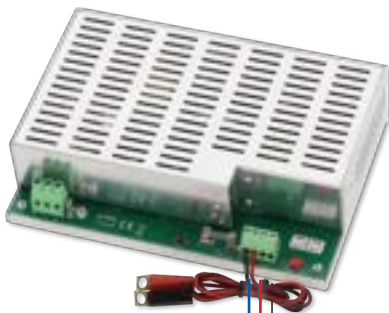


Sample product:  
PWB-52V2A

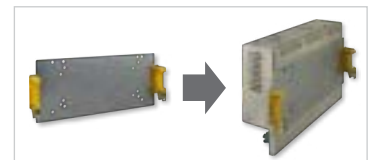


Code	Output voltage	Total current	Battery charging current	Recommended battery/ batteries	Dimensions LxWxH [+/- 2mm]
<b>PWB-52V1A</b>	52 V DC	1,15A	0,5A	1 x 7+17Ah	200x120x48
<b>PWB-52V2A</b>		2,3A		2 x 7+17Ah	204x141x52

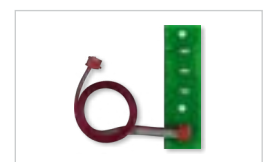
Sample product: PWB-52V2A



## Accessories:



**DIN4**  
Mounting plate (allows mounting power supplies on TH35 rail)



**PKAZ168**  
Set for optical indication



# PoE switches for IP cameras with power supply, in hermetic enclosure - IP56 S...H, SG...H series

- supports devices compliant with IEEE 802.3af / at standard
- 10/100 Mb/s and 1 Gb/s \*
- PoE ports - data transfer and power supply
- Long Range mode: STANDARD - 100m/100 Mb/s or EXTEND - 250m/10 Mb/s \*
- 30W for each PoE port - 52 V DC (PoE+)
- hermetic enclosure - IP56
- warranty: 1 year from production date

\* depending on model

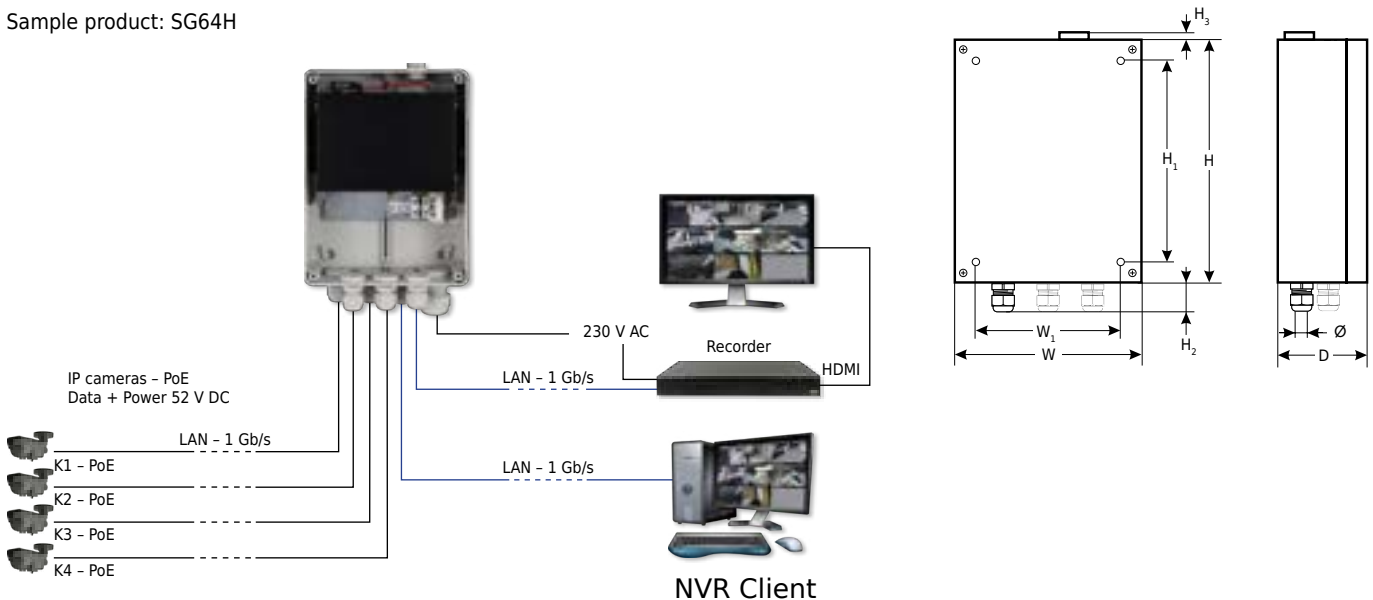


Sample product:  
SG64H



Code	Number of ports: PoE	Long Range mode 100 Mb/s - up to 100m 10 Mb/s - up to 250m	Number of ports: UPLINK	Power supply	Number of cable glands / Ø cables	Dimensions WxHxD [+/- 2mm]
<b>S64H</b>	4 - 100 Mb/s	✓ (ports 1÷4)	2 - 100 Mb/s	52 V DC / 60W desktop	6 pcs. / 4÷8mm 1 pcs. / 10÷14mm	146x196x78
<b>SG64H</b>	4 - 1 Gb/s	—	2 - 1 Gb/s			

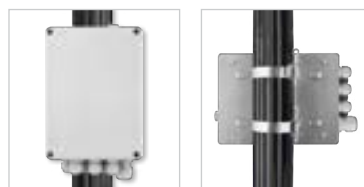
Sample product: SG64H



## Accessories:



**OZB2 / OZB3 / OZB4**



Pole mounting horizontally or vertically

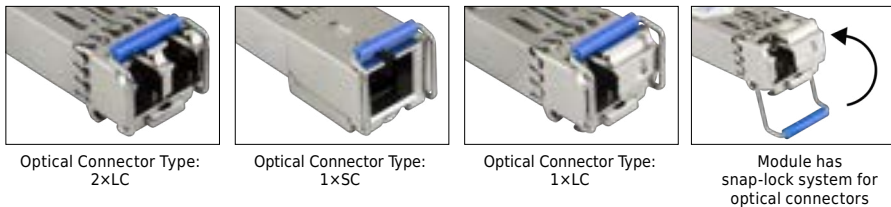
# SFP fiber optic modules for switches of SF..., SFG..., ISFG..., ISF... series GBIC series

- fiber type: single mode (SM) / multimode (MM) \*
- optical connector Type: LC / SC \*
- wavelength: 1310nm / 1310nm \*  
1310nm / 1550nm \*  
1550nm / 1310nm \*
- transmission range: up to 2 km / up to 20 km \*
- transmission speed: 1,25 Gb/s
- standards and protocols: IEEE 802.3z 1000Base-FX
- power supply: 3,3 V DC (power from SFP port)
- notes:
  - built-in DDM (Digital Diagnostics Monitoring)
  - module has snap-lock system for optical connectors
- warranty: 2 years from production date



Sample product:  
GBIC-101

\* depending on model

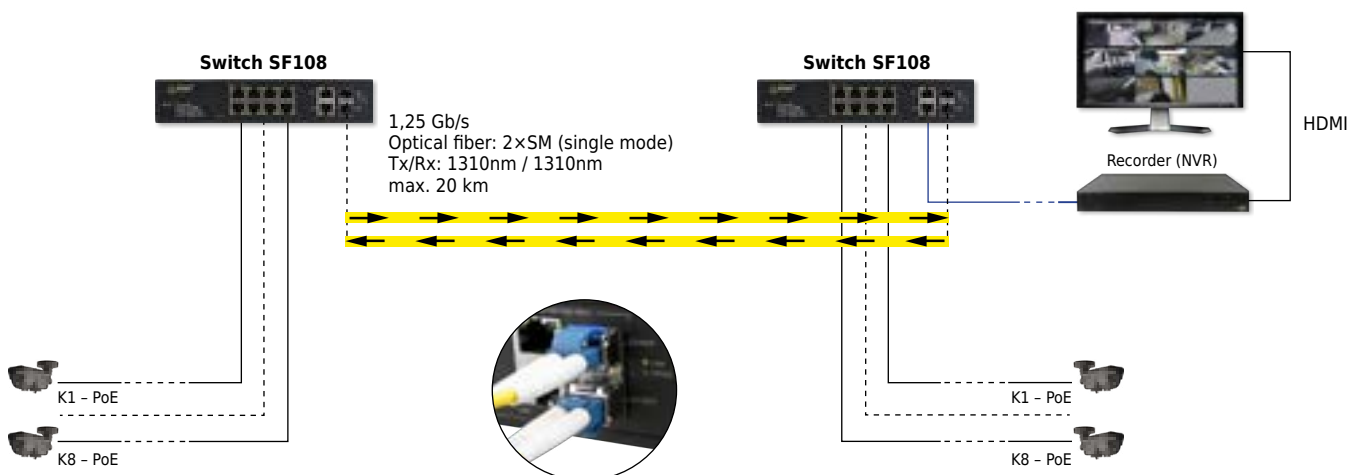


Code	Fiber type	Optical Connector Type	Wavelength Tx / Rx	Transmission range	Transmission speed
<b>GBIC-101</b>	SM	2xLC	1310nm / 1310nm	20km	1,25 Gb/s
<b>GBIC-102</b>	MM	2xLC	1310nm / 1310nm	2km	1,25 Gb/s
<b>GBIC-103</b>	SM	1xSC	1310nm / 1550nm	20km	1,25 Gb/s
<b>GBIC-104</b>	SM	1xSC	1550nm / 1310nm	20km	1,25 Gb/s
<b>GBIC-105</b>	SM	1xLC	1310nm / 1550nm	20km	1,25 Gb/s
<b>GBIC-106</b>	SM	1xLC	1550nm / 1310nm	20km	1,25 Gb/s

Sample product: GBIC-101



Optical Connector Type  
2xLC



# Twisted pair wires

## U/UTP - unshielded, F/UTP - shielded, Category 5e / 6

### PU-NC series

Destination:

- IP video surveillance systems (especially recommended for IP systems PoE)
- HD CCTV systems (CVI, TVI, AHD) - video, audio and power transmission
- ICT systems (LAN networks)

- Material - Cu (99,99%)
- cable length in package 305m - marker on cable every 1m
- U/UTP - unshielded / F/UTP - shielded \*
- bending radius 40mm
- category 5e / 6 \*
- class of performance reaction to fire: Fca / Eca \*
- indoor / outdoor \*
- 2 / 5 years warranty \*

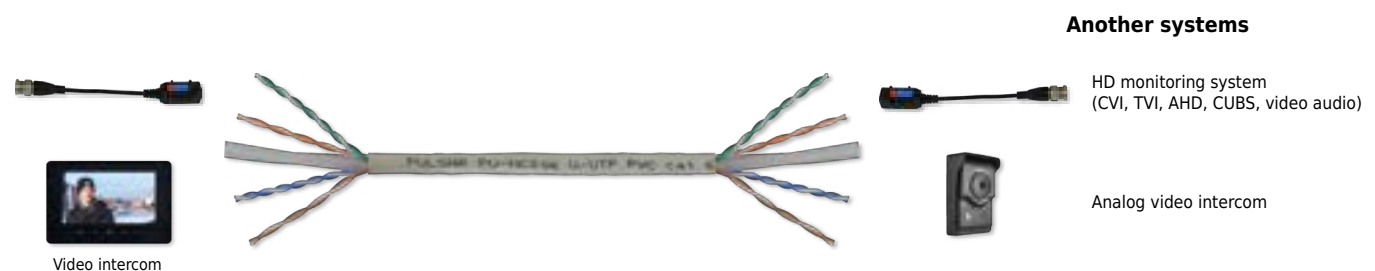
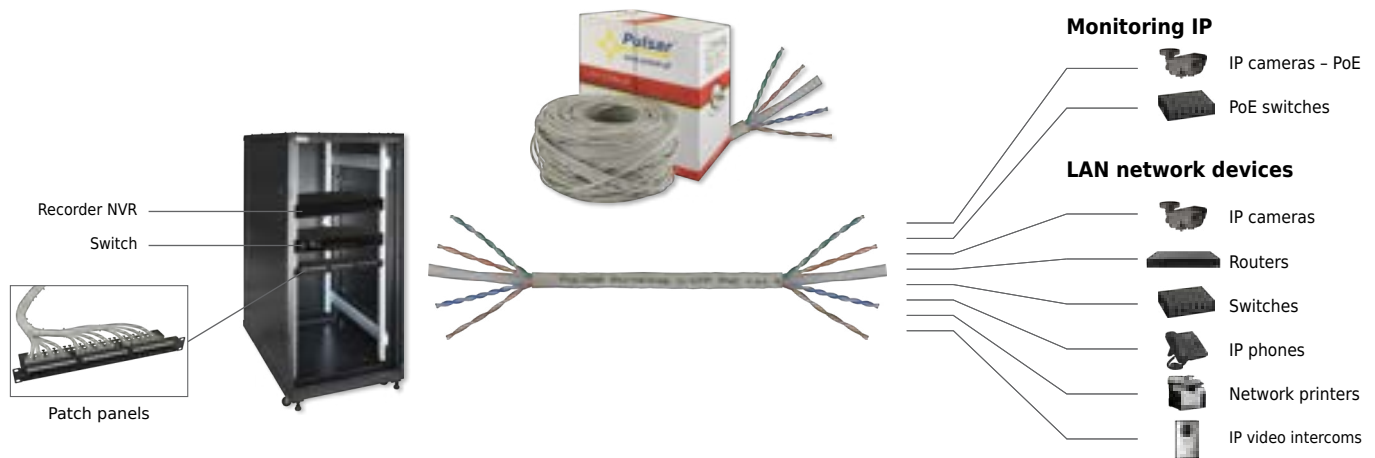
\* depending on model



Sample product:  
PU-NC206

Code	Category	Type	Destination	Ø cables / cores [mm]	Material	Colour	Package dimensions [mm]
<b>PU-NC200</b>	5e	U/UTP	indoor	4,5 / 0,45	PVC	RAL7035 (grey)	345×345×190
<b>PU-NC201</b>	5e	U/UTP	indoor	5,0 / 0,50	PVC	RAL7032 (grey-beige)	355×355×200
<b>PU-NC206</b>	6	U/UTP	indoor	6,3 / 0,55	PVC	RAL7032 (grey-beige)	410×410×210
<b>PU-NC211</b>	5e	F/UTP	indoor	6,2 / 0,50	PVC	RAL7032 (grey-beige)	410×410×210
<b>PU-NC301</b>	5e	U/UTP	outdoor	5,3 / 0,50	PE	RAL9005 (black)	385×385×210

Sample product: PU-NC206



# Alarm, intercom, telecommunication cables

## YTDY

### PU-SC series

Destination:

- construction of low-voltage installations permanently installed inside buildings
- alarm, intercom, telecommunication systems and others

- Material - Cu (99,99%)
- cable length in package 100m - marker on cable every 1m
- YTDY
- bending radius 38/43mm \*
- reaction to fire class: Eca
- inside
- 5 years warranty

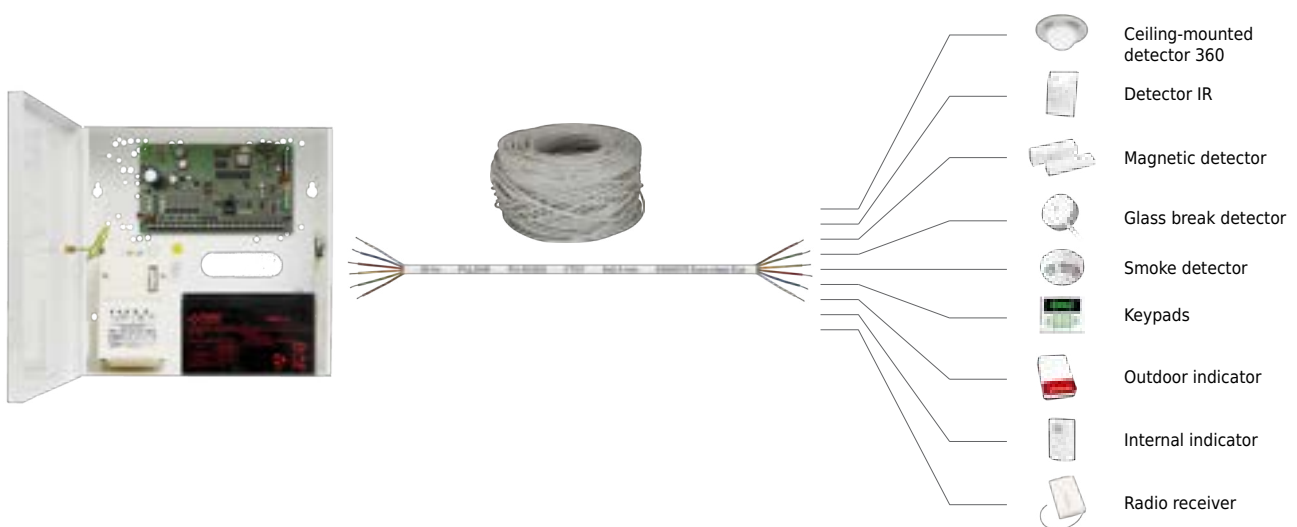
\* depending on model



Sample product:  
PU-SC605

Code	Type	Destination	Number of cores	Ø cables / cores [mm]	Material	Colour	Number of reels in pack	Package dimensions [mm]
PU-SC605	YTDY	inside	6	3,8 / 0,5	PVC	RAL9010 (white)	8	460×230×220
PU-SC805			8	4,3 / 0,5			6	480×240×200

Sample product: PU-SC605

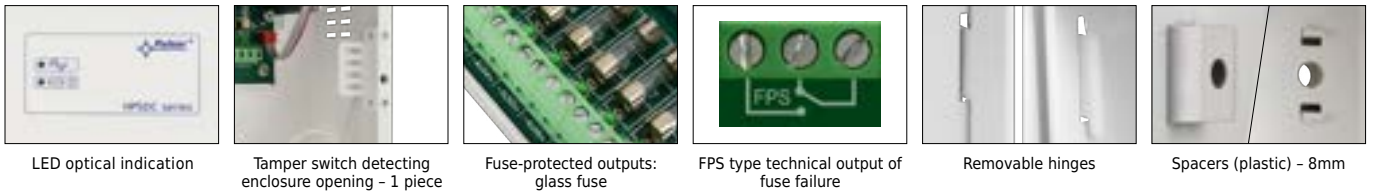


# Multi-output power supply units 12 V DC HPSDC series

- power supply: 200÷240 V AC
- voltage adjustment range: 12÷15 V DC
- fuse type: glass fuse
- FPS technical output, fuse failure - relay type: 1A@ 30 V DC / 50 V AC
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection (unwanted enclosure opening)
- notes:
  - surface mounted enclosure, closing - screwed (lock assembly possible)
- warranty: 2 years from production date



Sample product:  
HPSDC-12V16x1A



LED optical indication

Tamper switch detecting enclosure opening - 1 piece

Fuse-protected outputs: glass fuse

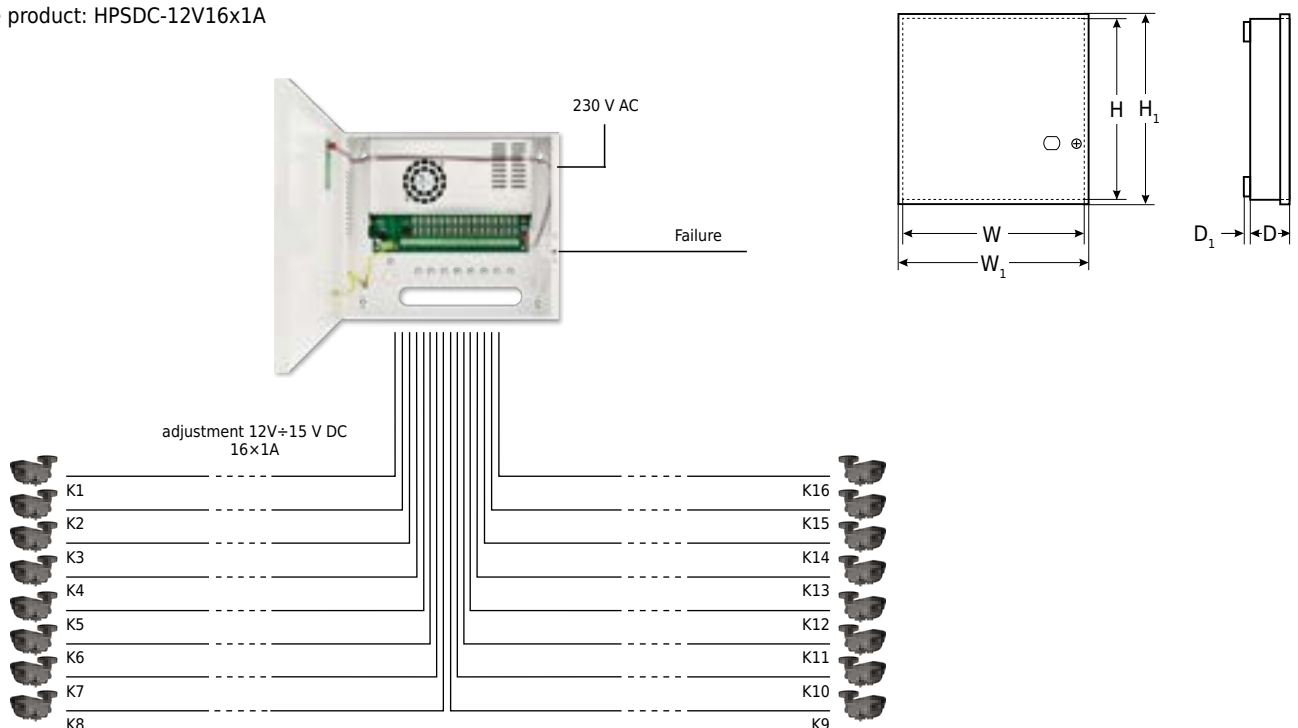
FPS type technical output of fuse failure

Removable hinges

Spacers (plastic) - 8mm

Code	Output voltage	Output current max.	Number of outputs	Fuse type	Technical output	Dimensions W×H×D+D <sub>1</sub> [+/- 2mm] W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
HPSDC-12V4x1A	12 V DC (12-15 V DC)	4A	4×1A	1,0A - glass fuse	✓	270×200×68+8 275×205
HPSDC-12V8x1A		7A	8×1A		✓	
HPSDC-12V16x1A		15A	16×1A		✓	300×258×78+8 305×262

Sample product: HPSDC-12V16x1A



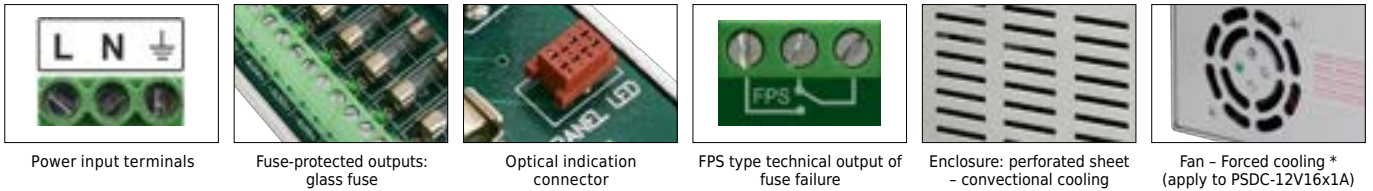


# Enclosed multi-output power supply units 12 V DC PSDC series

- power supply: 200÷240 V AC
- voltage adjustment range: 12÷15 V DC
- fuse type: glass fuse
- FPS technical output, fuse failure - relay type: 1A@ 30 V DC / 50 V AC
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- optional equipment:
  - set of LED optical indication PKAZ168
  - DIN4 mounting plate (possibility of mounting power supplies on TH35 rail)
- warranty: 2 years from production date

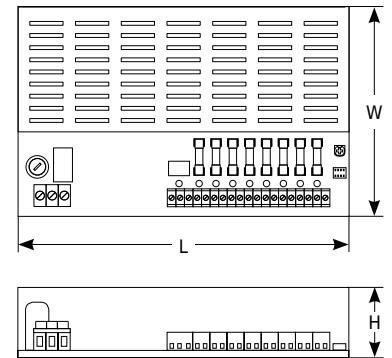
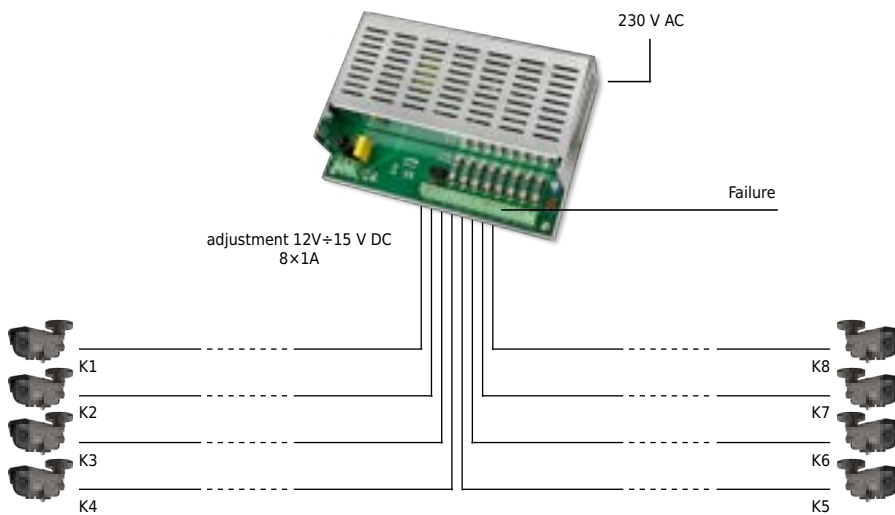


Sample product:  
PSDC-12V8x1A

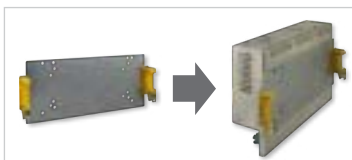


Code	Output voltage	Output current max.	Number of outputs	Fuse type	Technical output	Dimensions LxWxH [+/- 2mm]
PSDC-12V4x1A	12 V DC (12-15 V DC)	4A	4x1A	1,0A - glass fuse	✓	200x120x48
PSDC-12V8x1A		7A	8x1A		✓	204x141x52
PSDC-12V16x1A		15A	16x1A		✓	237x168x55

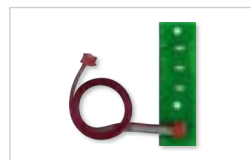
Sample product: PSDC-12V8x1A



## Accessories:



**DIN4**  
Mounting plate (allows mounting power supplies on TH35 rail)



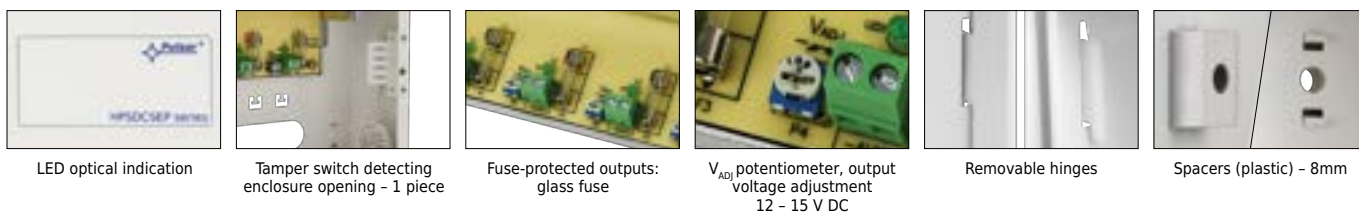
**PKAZ168**  
Set for optical indication

# Multi-output power supply units 12 V DC with adjustable output voltage and galvanic separation of each channel HPSDCSEP series

- power supply: 100÷240 V AC
- 4 independent, galvanic separated outputs
- independent output voltage adjustment 12 - 15 V DC
- 4 independent outputs protected by 1A fuses
- LED optical indication
- fuse type: glass fuse
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - anti-sabotage protection (unwanted enclosure opening)
- notes:
  - surface mounted enclosure, closing – screwed (lock assembly possible)
- warranty: 2 years from production date



HPSPDCSEP-12V4x1A



LED optical indication

Tamper switch detecting enclosure opening - 1 piece

Fuse-protected outputs: glass fuse

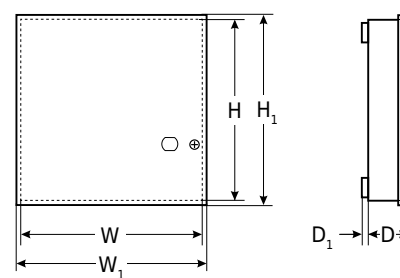
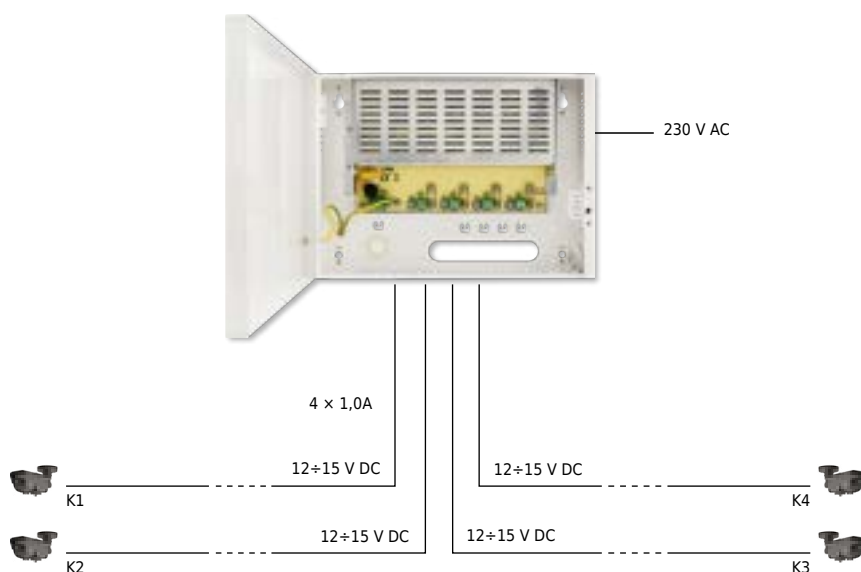
$V_{ADJ}$  potentiometer, output voltage adjustment 12 - 15 V DC

Removable hinges

Spacers (plastic) - 8mm

Code	Output voltage (adjustable)	Output current	Fuse	Dimensions $W \times H \times D + D_1$ [± 2mm]
HPSPDCSEP-12V4x1A	4 adjustable outputs (12-15 V DC)	4 × 1A	1A	270×200×67+8

HPSPDCSEP-12V4x1A



# Multi-output power supply units 12 V DC, enclosed with adjustable output voltage and galvanic separation of each channel PSDCSEP series

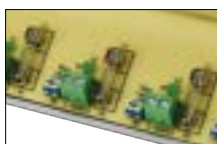
- power supply: 100÷240 V AC
- power supply output 4x 12 V DC/1A
- 4 independent, galvanic separated outputs
- independent output voltage adjustment 12 - 15 V DC
- 4 independent outputs protected by 1A fuses
- LED optical indication
- fuse type: glass fuse
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
- optional equipment:
  - DIN4 mounting plate (possibility of mounting power supplies on TH35 rail)
- warranty: 2 years from production date



PSDCSEP-12V4x1A



Power input terminals



Fuse-protected outputs: glass fuse



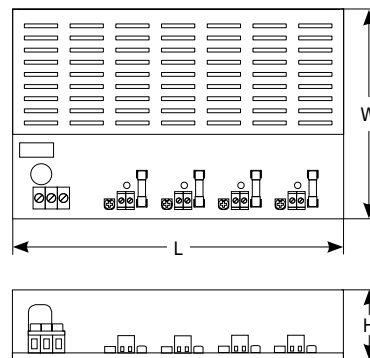
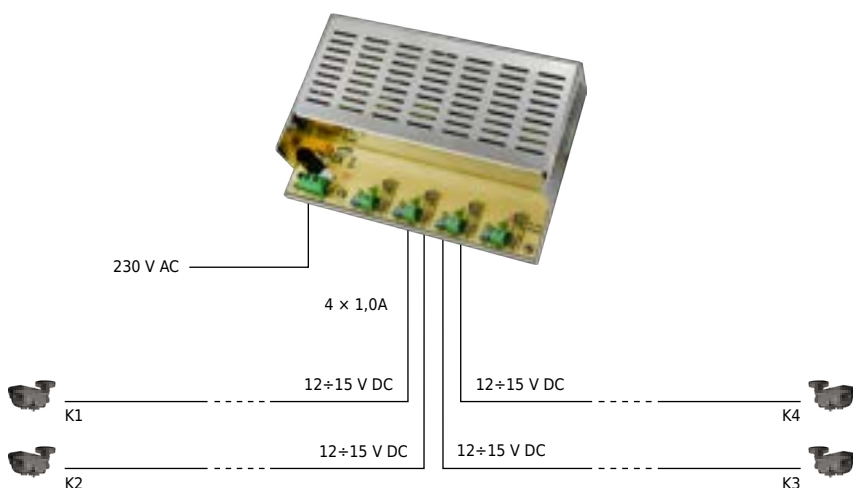
V<sub>ADJ</sub> potentiometer, output voltage adjustment 12-15 V DC



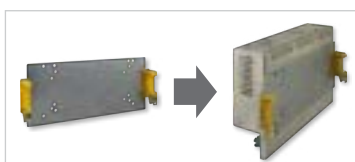
Enclosure, perforated sheet - convectional cooling

Code	Output voltage (adjustable)	Output current	Fuse	DIN adapter	Dimensions LxWxH [+/- 2mm]
PSDCSEP-12V4x1A	4 adjustable outputs (12-15 V DC)	4 x 1A	1A	DIN4	204x141x52

PSDCSEP-12V4x1A



## Accessories:

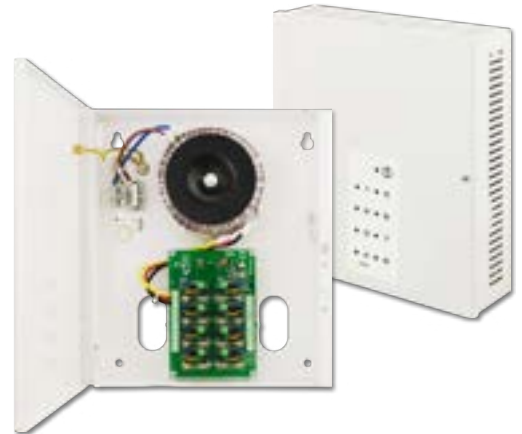


### DIN4

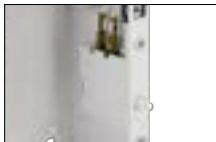
Mounting plate (allows mounting power supplies on TH35 rail)

# Multi-output power supply units ~24 V AC PSAC series

- power supply: 230 V AC / 50Hz
- output voltage: ~24 V AC or ~27 V AC
- fuse type: glass fuse / PTC
- technical outputs OC type:
  - FPS – indication of fuse failure
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OHP overheat protection
  - surge protection
  - anti-sabotage protection
- notes:
  - surface mounted enclosure, closing – screwed
- warranty: 5 years from production date



LED optical indication



Tamper switch detecting enclosure opening - 1 piece



Fuse type: glass fuse / PTC



FPS OC type technical output of fuse failure

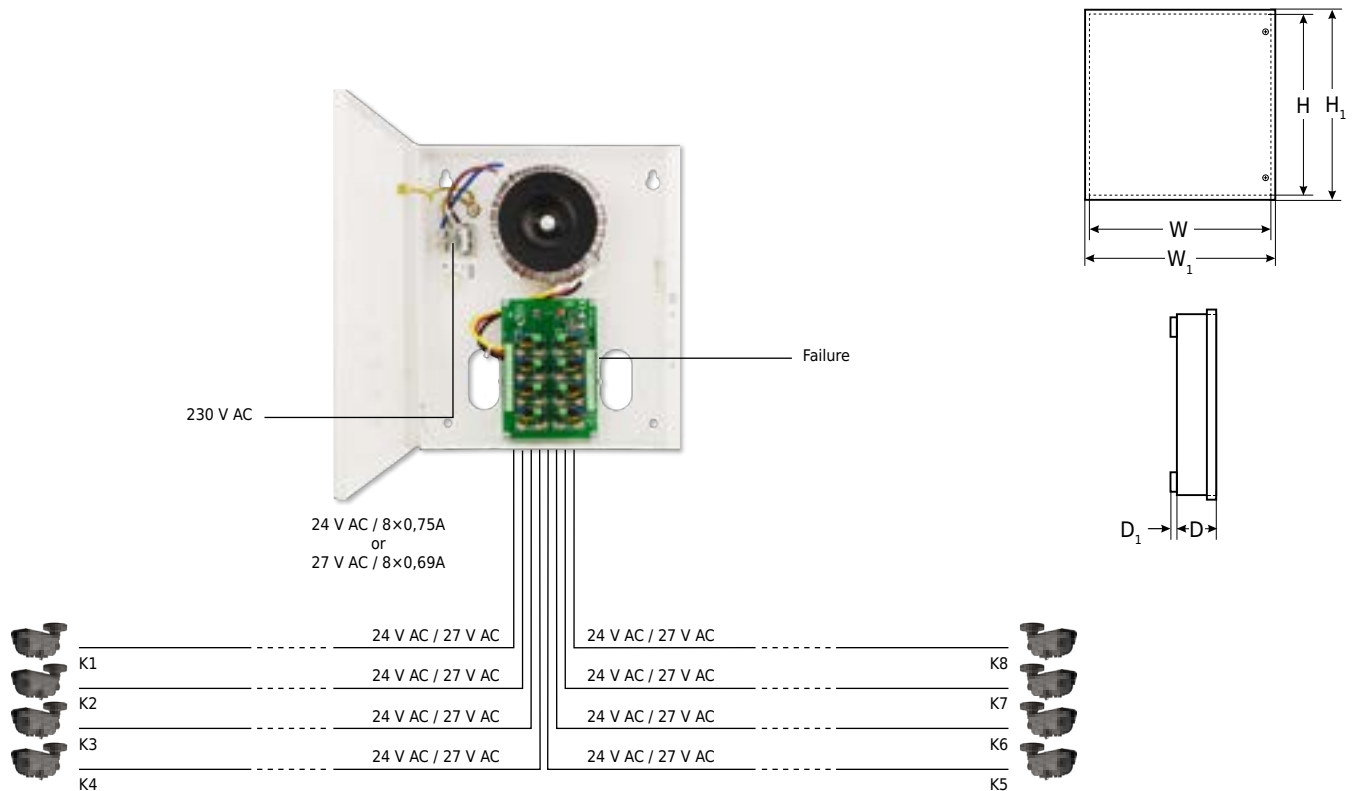


Removable hinges



Spacers (plastic) - 8mm

Code	Output voltage	Output current	Outputs	Fuse type (jumper selectable)	Technical output	Dimensions W×H×D+D <sub>1</sub> [± 2mm] W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>PSAC08246</b>	24 V AC or 27 V AC	6,0A or 5,5A	8×0,75A or 8×0,69A	1,0A - glass fuse / PTC	✓	210×242×62+8 214×246



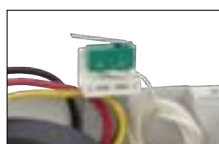
# Multi-output power supply units ~24 V AC in hermetic enclosure IP65 PSACH series

- power supply: 230 V AC / 50Hz
- fuse type: glass fuse
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OHP overheat protection
  - anti-sabotage protection
- notes:
  - hermetic enclosure IP65, ABS
  - surface mounted enclosure, closing - screwed
  - glands mounted - 2 pcs.
- warranty: 2 years from production date

\* depending on model



Sample product:  
PSACH01246



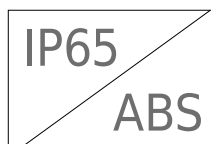
Tamper switch detecting enclosure opening - 1 piece



Gasket Closing - screwed - 4 pieces



Mounting plate



Hermetic enclosure IP65  
Material: ABS

Code	Output voltage	Output current	Outputs	Fuse type	Number of cable glands / Ø cables	Mounting dimensions $W_1 \times H_1$ [+/- 2mm]	Dimensions $W \times H \times D$ [+/- 2mm] $H_2$ [+/- 2mm]
PSACH01244	24 V AC or 27 V AC	4,0A or 3,7A	1x4,0A or 1x3,7A	4,0A - glass fuse	2 pieces / 4÷8mm	126x145	160x160x90 25
PSACH01246		6,0A or 5,5A	1x6,0A or 1x5,5A	6,0A - glass fuse			

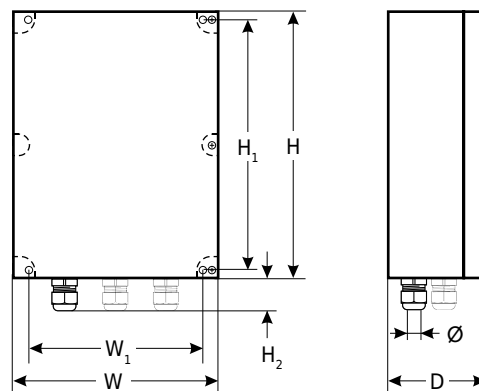
Sample product: PSACH01246



24 V AC / 1x6A  
or  
27 V AC / 1x5,5A

230 V AC

K1





# Switch mode power supply units with battery backup 13,8/12 V DC for HD cameras and DVR with recorder space PSUPS...CR series

Enclosure construction is compliant with requirements of General Data Protection Regulation GDPR (possibility of installing two locks with different codes).

- power supply: 176÷264 V AC
- output voltage: 13,8 V DC, 12 V DC
- fuse type: glass fuse
- deep discharge battery protection - UVP
- protections:
  - SCP short circuit protection, OLP overload protection,
  - OVP overvoltage protection, surge protection,
  - OHP overheat protection \*, anti-sabotage protection,
- notes:
  - enclosure with recorder space
  - surface mounted enclosure, closing - screwed
  - built-in power factor correction system (PFC) \*
  - forced cooling - built-in fan \*
- warranty: 2 years from production date



Sample product: PSUPS20A12CR

\* depending on model



LED optical indication



Tamper switch detecting enclosure opening - 1 piece



Outputs protected by fuses



Recorder power supply output



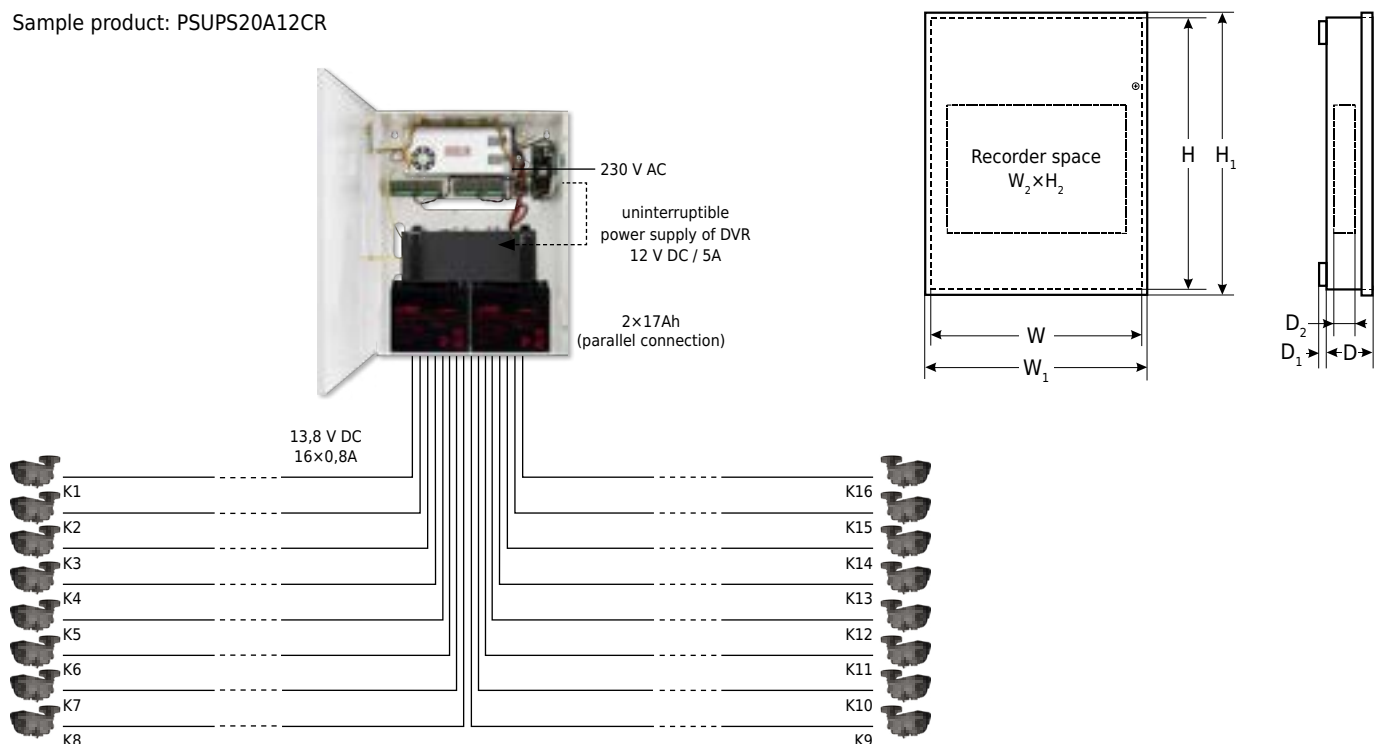
Recommended batteries



Straps for mounting recorder

Code	Circuit	Output voltage	Total output current with charging	Number of outputs	Battery charging current	Fuse type	Recommended battery/batteries	Dimensions of recorder space $W_2 \times H_2 \times D_2$ [+/- 2mm]	Dimensions $W \times H \times D + D_1$ [+/- 2mm] $W_1 \times H_1$ [+/- 2mm]
PSUPS10A12CR	cameras	13,8 V DC	10A	8×0,75A	1A	1,0A - glass fuse	1×17Ah	380×320×65	420×535×193+14 425×540
	recorder	12 V DC		1×4,0A		5,0A - glass fuse			
PSUPS20A12CR	cameras	13,8 V DC	20A	16×0,8A	2A / 4A / 8A	1,0A - glass fuse	2×17Ah (parallel connection)	380×320×65	420×535×193+14 425×540
	recorder	12 V DC		1×5,0A		5,0A - glass fuse			

Sample product: PSUPS20A12CR



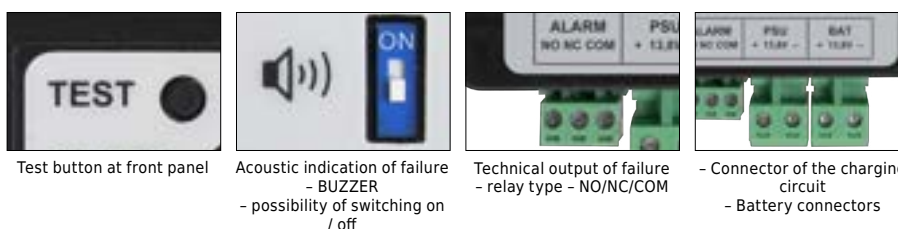
# Battery controllers: 12 V DC / 24 V DC / 48 V DC AWZ series

- cooperation with 13.8 V DC / 27.6 V DC / 54 V DC uninterruptible power supply units \*
- microprocessor-based automation system
- automatic battery test performed every 5 minutes
- test button at front panel
- measurement of resistance of battery circuit
- battery electrical continuity control
- battery detection
- low battery voltage indication - DC operation
- battery output protection against short-circuit and reverse connection
- technical output of failure - relay type - NO/NC/COM
- acoustic indication of failure - BUZZER - possibility of switching on / off
- optical indication of failure - LED
- warranty: 2 years from production date

\* depending on model



Sample product:  
AWZ632



Test button at front panel

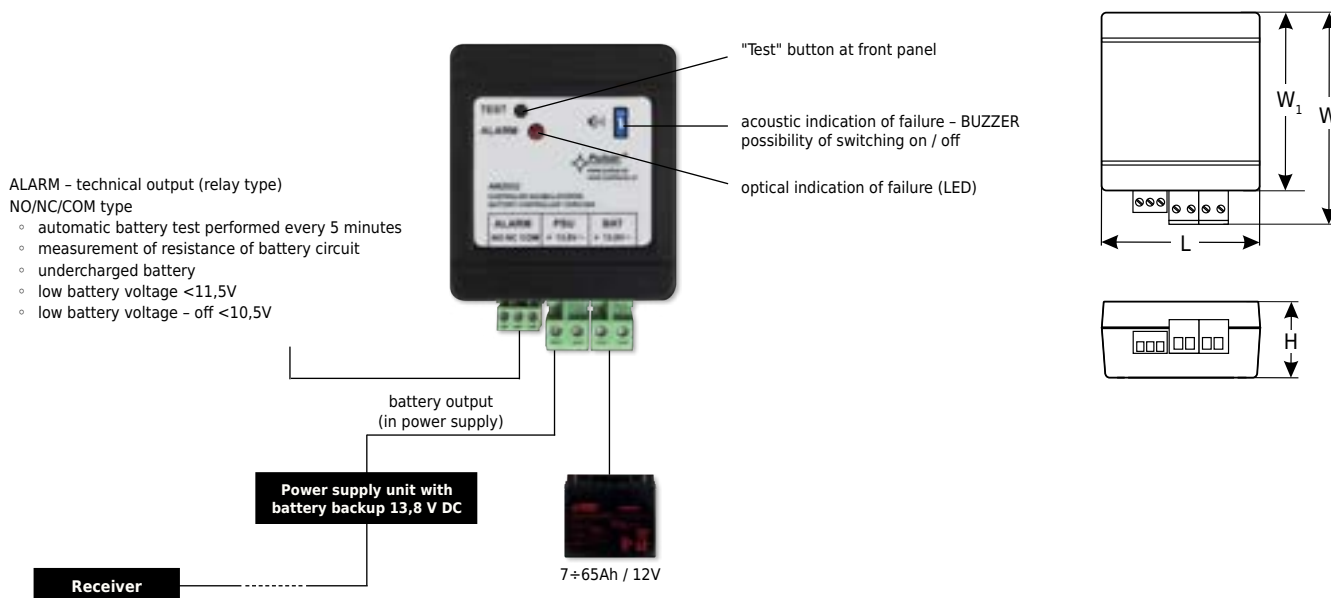
Acoustic indication of failure  
- BUZZER  
- possibility of switching on / off

Technical output of failure  
- relay type - NO/NC/COM

- Connector of the charging circuit  
- Battery connectors

Code	Fuse type	Output voltage	Current (max.)	Maximum total capacity	Technical outputs of alarm	Dimensions LxWxH [+/- 2mm]
<b>AWZ632</b>	1x glass fuse - 25A	13,8 V DC	20A	65Ah	✓	80x108x38
<b>AWZ633</b>	1x glass fuse - 15A	27,6 V DC	10A	40Ah		
<b>AWZ634</b>	1x glass fuse - 7,5A	54 V DC	5A	18Ah		

Sample product: AWZ632



Receiver e.g.



Camera



Detector



Indicator



Electromagnetic lock



Electric strike



Intercom



Video intercom

# DSO-PRA Power System for PRAESENSA system by BOSCH



In accordance with  
EN54-4, EN12101-10 standard

VAS cabinets



Devices VAS: BOSCH - PRAESENSA



Fans, thermostat, batteries, wheels



Protection terminal block,  
230 V AC voltage distribution terminal,  
Indication panel



Enclosure of firefighter's microphone,  
End of Line (EOL) Supervision Board



Configuration software for DSO-PRA - Bosch PRAESENSA



Ethernet communication (BOSCH)



# DSOP24V Power System for PAVIRO system by BOSCH



MTP Gold Medal  
Securex 2018

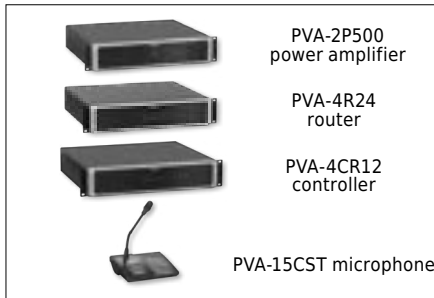


In accordance with  
EN54-4, EN12101-10 standard

VAS cabinets



Devices VAS: BOSCH - PAVIRO



Fans, thermostat, batteries, wheels



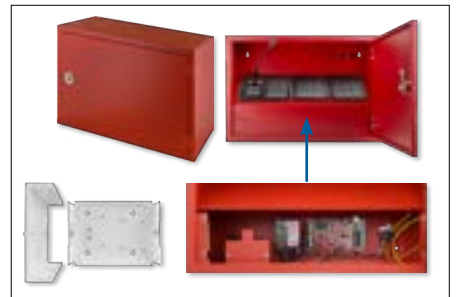
Power supplies for 350W - 1000W  
Voice Alarm Systems



Protection terminal block,  
230 V AC voltage distribution terminal,  
Indication panel



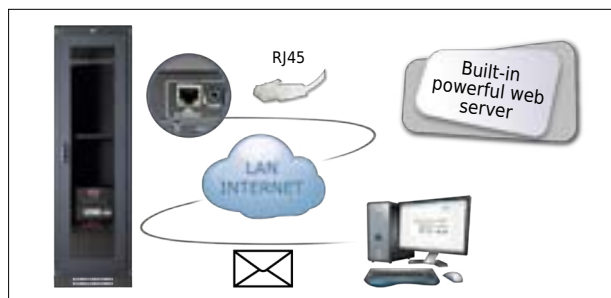
Firefighter's microphone power supply unit,  
Enclosure of firefighter's microphone,  
End of Line (EOL) Supervision Board



Configuration software for DSOP24V - Bosch



Ethernet communication



# Power supplies for DIN rail with battery backup 13,8 / 27,6 V DC DINB series

- power supply: 176÷264 V AC
- impulse voltage stabilizer
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection
- warranty: 2 years from production date



Sample product:  
DINB13850



Power input terminals



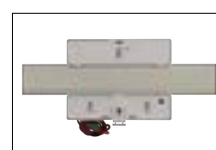
Power output terminals



Battery connectors

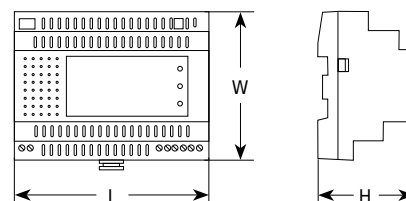


LED optical indication

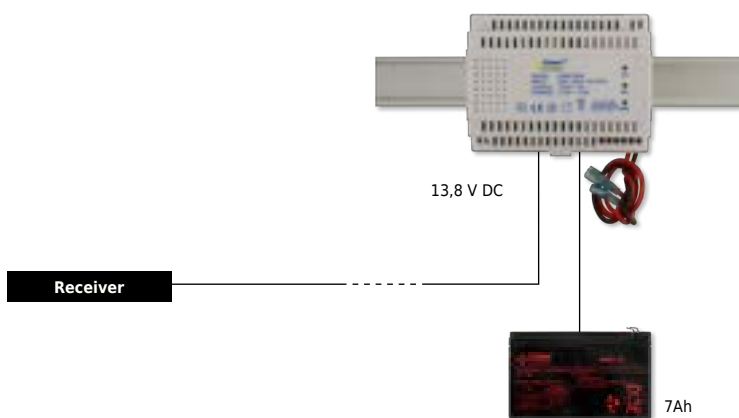


Mounting on a DIN rail (TH35)

Code	Output voltage	Total output current with charging	Battery charging current	Dimensions L×W×H [± 2mm]
<b>DINB13850</b>	13,8 V DC	5,5A	0,5A	122×93×60
<b>DINB27630</b>	27,6 V DC	3,2A	0,2A	122×93×60



Sample product: DINB13850



Receiver e.g.



Camera



Detector



Indicator



Electromagnetic lock



Electric strike



Intercom



Video intercom



# Plug-in type power supplies 12 V DC PSA series

- power supply: 100÷240 V AC
- cable length DC - 1,45 m
- output - JACK plug - DC 5.5/2.1 - female
- standby power <0,1W / <0,3W \*
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection (AC input)
- warranty: 2 years from production date

\* depending on model



Sample product:  
PSA12020



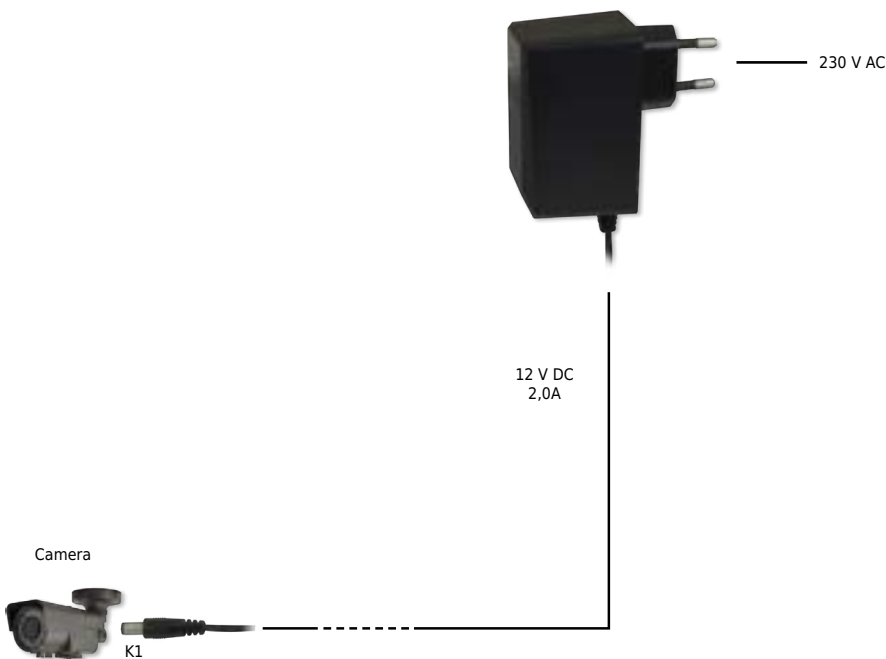
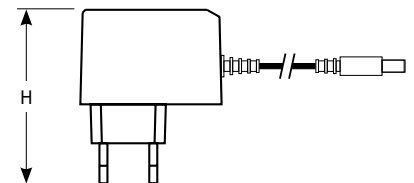
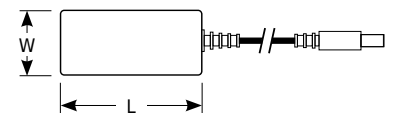
230 V AC plug



DC plug 5.5/2.1  
female

Code	Output voltage	Output current	Dimensions L×W×H [+/- 2mm]
PSA12005	12 V DC	0,5A	59×39×65
PSA12010		1,0A	64×28×78
PSA12020		2,0A	78×36×85
PSA12030		3,0A	90×36×94

Sample product: PSA12020



# Desktop type power supplies 12 V DC / 15 V DC / 52 V DC PSD series

- power supply: 90÷264 V AC
- standby power <0,3W; <0,5W \*
- set includes 230 V AC power cable
- cable length DC - 1,45m / 1,5m \*
- output - JACK plug - DC 5.5/2.1 - female
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection (AC input)
- warranty: 2 years from production date



Sample product:  
PSD12050

\* depending on model



230 V AC plug

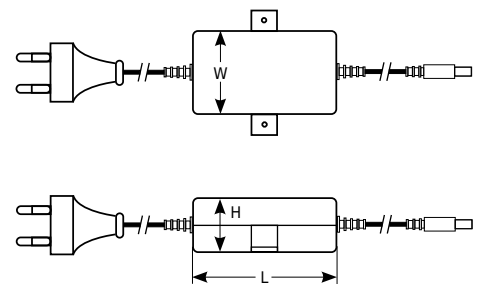
DC plug 5.5/2.1 female

LED optical indication

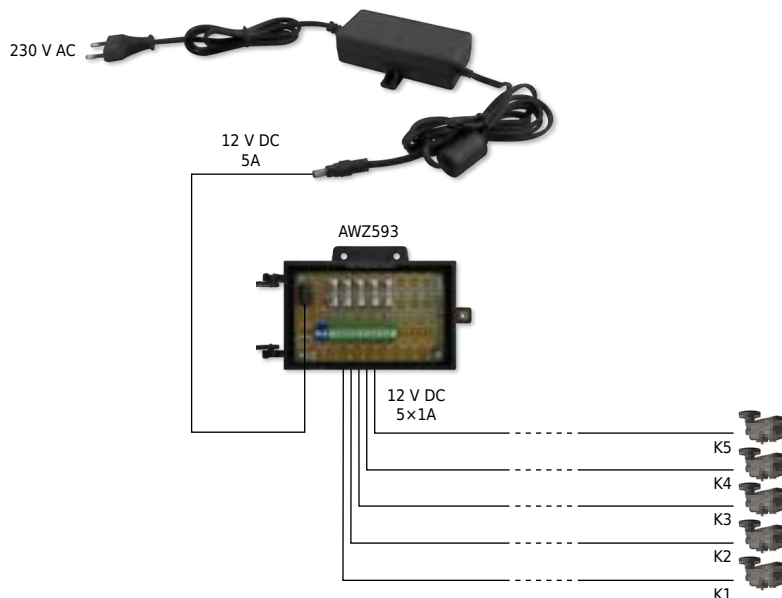
Mounting brackets

Suppression filter

Code	Output voltage	Output current	LED indication	Dimensions L×W×H [+/- 2mm]
PSD12010	12 V DC	1,0A	✓	65×36×30
PSD12020		2,0A	✓	86×50×32
PSD12030		3,0A	✓	107×48×33
PSD12050		5,0A	✓	116×54×35
PSD12070		7,0A	✓	175×72×45
PSD15040	15 V DC	4,0A	✓	116×54×35
PSD520115	52 V DC	1,15A	✓	116×54×35
PSD520175		1,75A	—	132×61×32
PSD520230		2,3A	✓	172×73×34



Sample product: PSD12050



# Power supplies 12 V DC / 13,8 V DC IP67 hermetic enclosure, epoxy encapsulated PSC series

- power supply: 90÷264 V AC
- power supply is not fitted with 230 V AC plug
- IP67 hermetic enclosure - epoxy encapsulated
- cable length DC - 0,5 m
- DC output - JACK plug - DC 5.5/2.1 - female \*
- standby power <0,3W
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection (AC input)
- warranty: 2 years from production date

\* depending on model



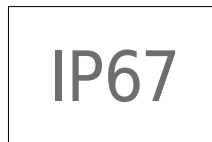
Sample product:  
PSC12010



DC plug 5.5/2.1 female \*



Suppression filter

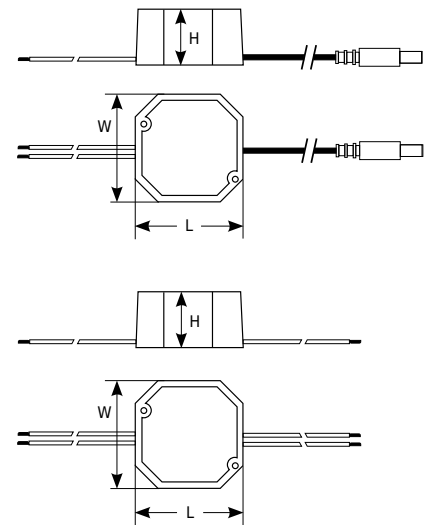


Hermetic enclosure IP67

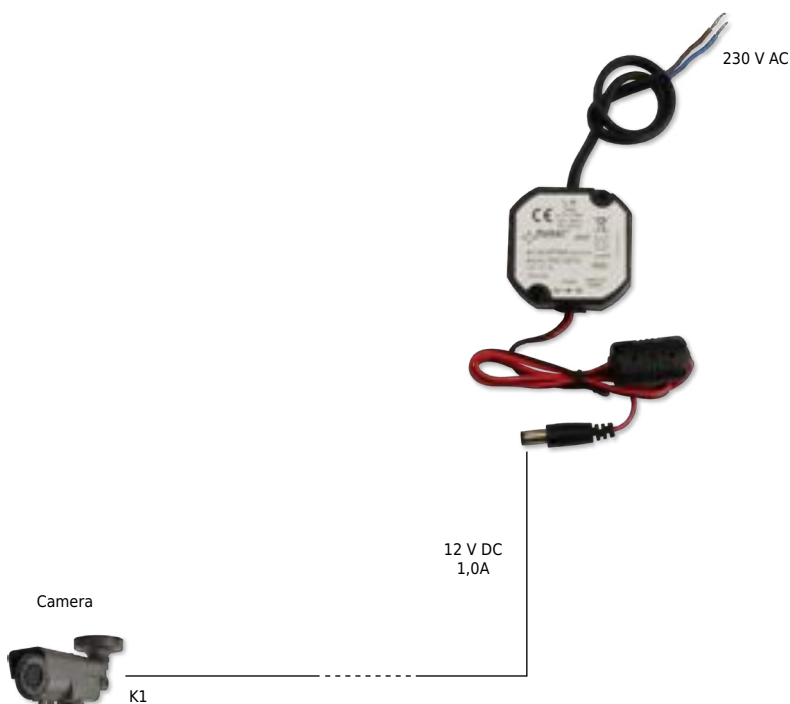


Epoxy encapsulated

Code	Output voltage	Output current	Notes	Dimensions L×W×H [± 2mm]
<b>PSC12010</b>	12 V DC	1,0A	DC output - JACK plug - DC 5.5/2.1 - female	48×50×25
<b>PSC12015</b>		1,5A		58×58×28
<b>PSC13008</b>	13,8 V DC	0,8A	—	48×50×25



Sample product: PSC12010

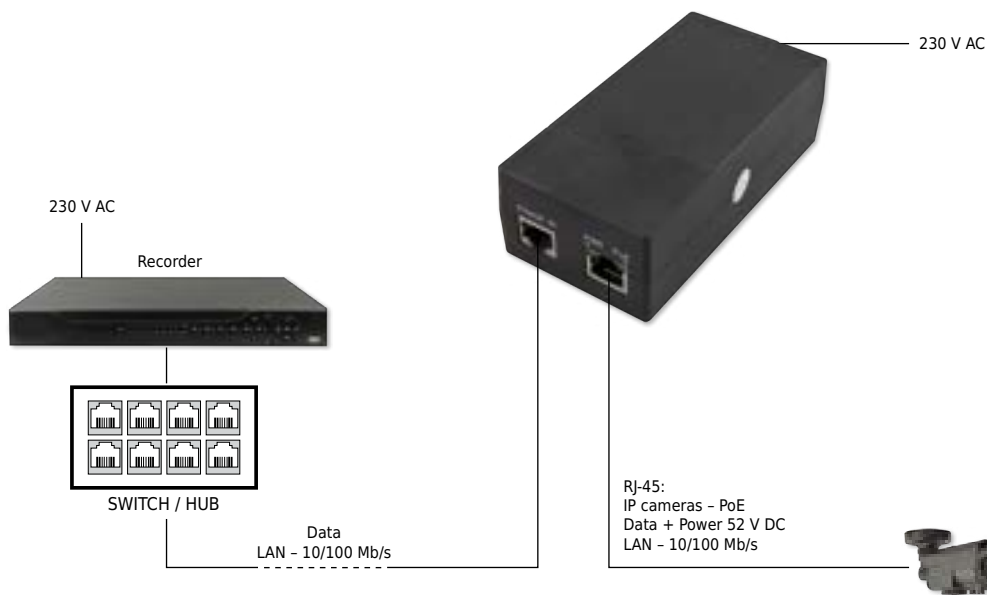
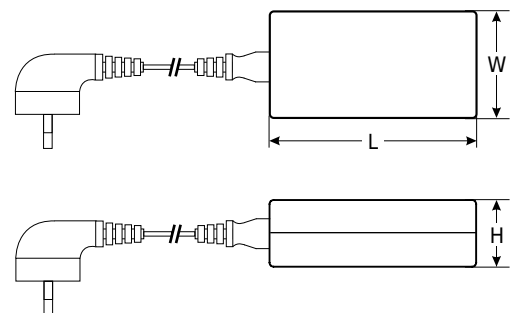


# Desktop type power supplies 52 V DC PSP series

- power supply: 90÷264 V AC
- power supply outputs: 52 V DC/0,3A - PoE/RJ45
- compliance with IEEE 802.3af standard
- LED optical signalization
- protections:
  - OLP overload protection
  - overvoltage protection (AC input)
- notes:
  - designed for 10 Mb/s and 100 Mb/s network
- warranty: 2 years from production date



Code	Output voltage	Output current	Compliance with / IEEE 802.3af standard	Dimensions L×W×H [± 2mm]
PSP52003	52 V DC	0,3A	✓	119×61×38



# Desktop type power supplies with battery backup 13,8 V DC IP67 hermetic enclosure, epoxy encapsulated PSCLB series

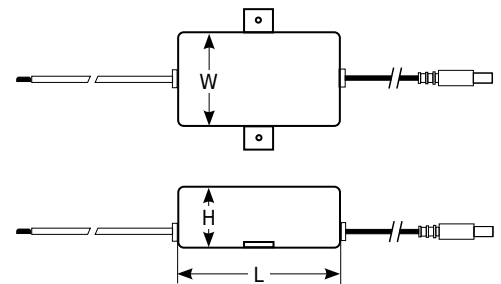
- power supply: 90÷264 V AC
- power supply is not fitted with 230 V AC plug
- IP67 hermetic enclosure - epoxy encapsulated
- cable length DC - 0,5m
- DC output - JACK plug - DC 5.5/2.1 - female
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - surge protection (AC input)
- warranty: 2 years from production date



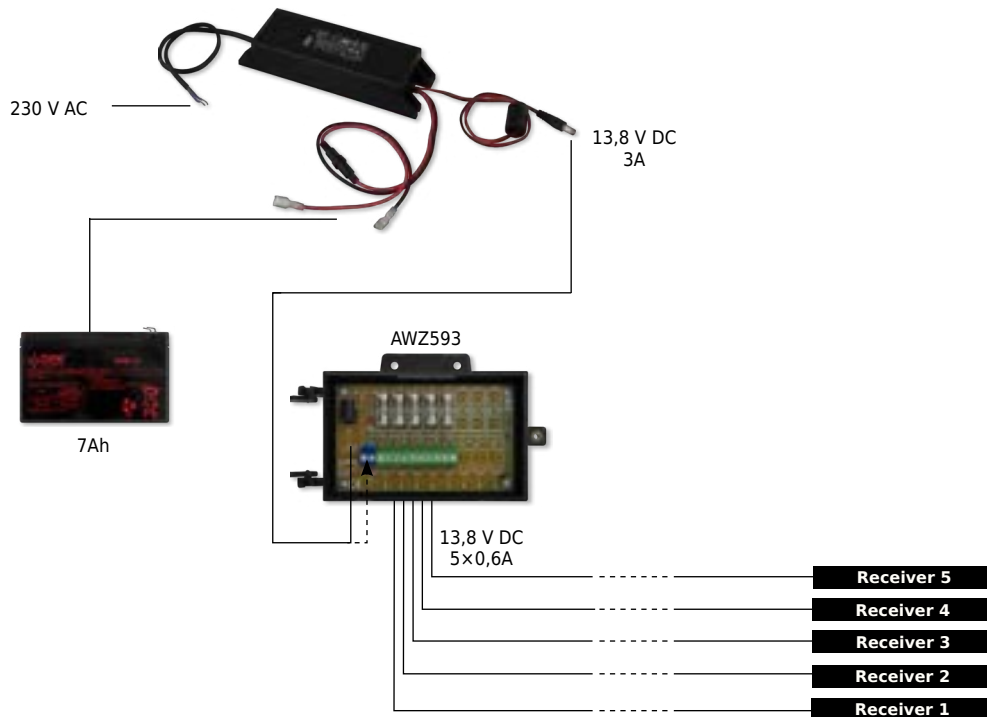
Sample product:  
PSCLB13830



Code	Output voltage	Total current	Battery charging current	Dimensions LxWxH [+/- 2mm]
PSCLB13820	13,8 V DC	2,3A	0,3A	150x56x34
PSCLB13830		3,3A		178x56x34



Sample product: PSCLB13830



Receiver e.g.



Camera



Detector



Indicator



Electromagnetic lock



Electric strike



Intercom





Video intercom



# Accessories for CCTV

## Transmitters, PoE Adapters, PoE Splitters, Converters

Code	Type	Connector type input / output	Note
<b>Transmitters</b>			
 <b>P-TR1HD</b>	HD transmitters (passive)	BNC plug / UTP screw terminals	Set of passive video HD transmitters with BNC plug on cable
 <b>P-TR1HD3</b>	HD transmitters (passive)	BNC plug / self clinching terminal	Set of passive video HD transmitters with BNC plug on cable (self clinching terminal)
 <b>P-TRPV1</b>	HD transmitters (passive)	BNC plug outlet, plug JACK 5.5/2.1 / RJ45 socket	Set of passive video HD transmitters and power
<b>PoE adapters</b>			
 <b>P-POE1</b>	PoE Adapter	RJ45 socket / RJ45 plug plug JACK 5.5/2.1	Set of adapters with RJ45 and 5.5/2.1 connectors
<b>Spiltter PoE</b>			
 <b>P-POE2</b>	Splitter	RJ45 socket / 2x RJ45 plug	Splitter 2xRJ45 (plug) - 1xRJ45 (socket)
 <b>SP-POE12</b>	Spiltter	RJ45 socket / RJ45 plug plug JACK 5.5/2.1	Splitter PoE
<b>Converters</b>			
 <b>HDMI-VGA</b>	Converter	HDMI / VGA	Signal converter

# Accessories for CCTV Extenders PoE

- PoE input: PoE IN - compliant with IEEE 802.3af/at
- PoE output: PoE OUT - compliant with IEEE 802.3af
- increases Ethernet and PoE power range by 100 meters
- supports 10/100/1000 Mb/s networks \*
- LED optical signalization
- protections:
  - SCP short circuit protection
  - surge protection (PoE input) \*
  - OLP overload protection
- warranty: 2 years from production date

\* depending on model



EXT-POEG2



EXT-POE2DIN



PoE IN input



PoE OUT output

Code	RJ45 input / compliant with IEEE 802.3af/at	RJ45 output / compliant with IEEE 802.3af	Output power	Installation		Dimensions LxWxH [+/- 2mm]
				DIN rail	mounting screws	
EXT-POE2DIN	PoE IN / compliant	PoE OUT1 / compliant PoE OUT2 / compliant	15,4W / port ( $\Sigma$ =20W)	✓	✓	79x50x23
EXT-POEG2				-	✓	103x50x29

Sample product: EXT-POEG2



Increases Ethernet and PoE power range by 100 meters

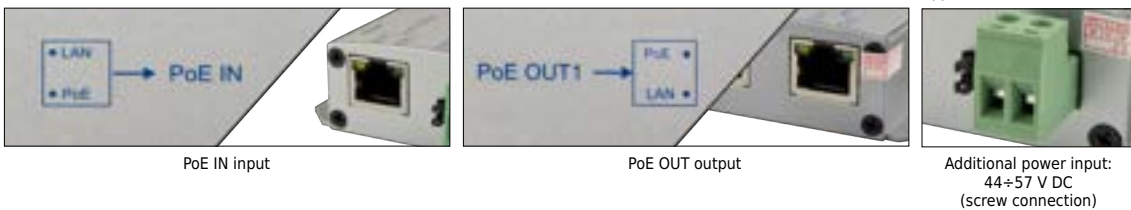
# Accessories for CCTV Extenders PoE

- PoE input: PoE IN - compliant with IEEE 802.3af/at
- PoE output: PoE OUT - compliant with IEEE 802.3af \*
- increases Ethernet and PoE power range by 100 meters
- supports 10/100 Mb/s networks
- LED optical signalization
- protections:
  - SCP short circuit protection
  - surge protection (PoE input)
  - OLP overload protection
- warranty: 2 years from production date

\* depending on model



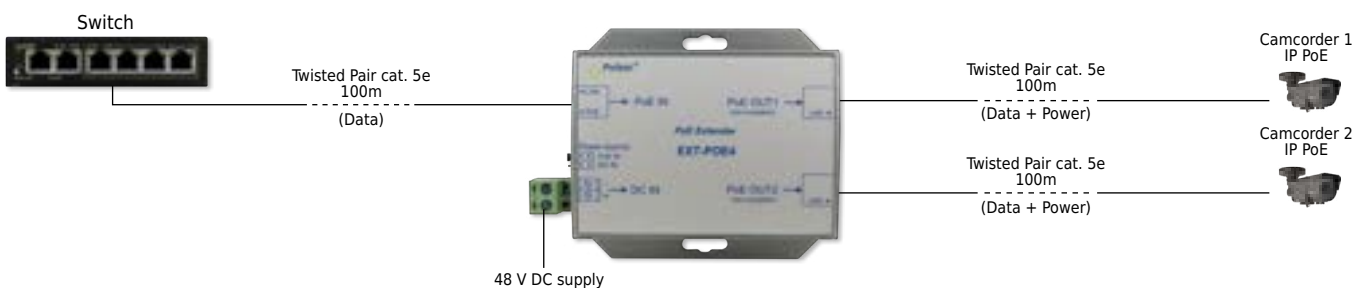
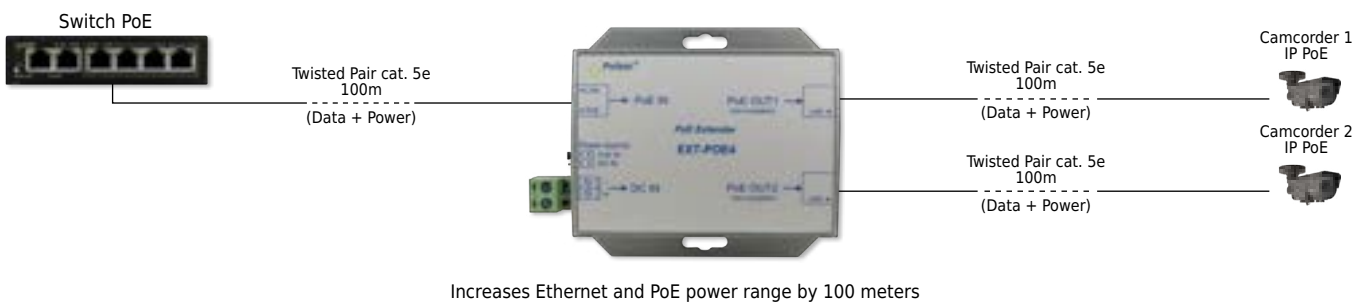
Sample product:  
EXT-POE4



Applies to: EXT-POE4

Code	Additional power input	RJ45 input / compliant with IEEE 802.3af/at	RJ45 output / compliant with IEEE 802.3af	Output power	Dimensions LxWxH [+/- 2mm]
EXT-POE2	—	PoE IN / compliant	PoE OUT1 / compliant PoE OUT2 / compliant	15,4W / port ( $\Sigma = 20W$ )	81x77x26
EXT-POE3		PoE IN / compliant	PoE OUT1 / compliant PoE OUT2 / compliant PoE OUT3 / not compliant	30W / port (OUT1/2) 15,4W / port (OUT3) ( $\Sigma = 30W$ )	
EXT-POE4	DC IN 44÷57 V DC	PoE IN / compliant	PoE OUT1 / not compliant PoE OUT2 / not compliant	15,4W / port ( $\Sigma = 20W$ )	

Sample product: EXT-POE4



Use of locally powered EXT-PoE4 extender  
Connection of two IP PoE cameras and extension of range for another 100 meters

# Accessories for CCTV

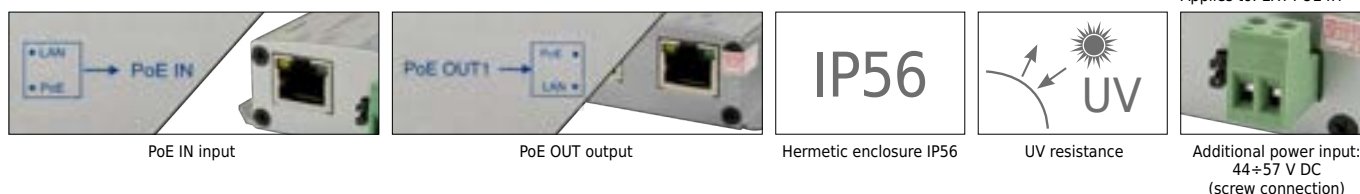
## Extenders PoE - in hermetic enclosure IP56

- PoE input: PoE IN – compliant with IEEE 802.3af/at
- PoE output: PoE OUT – compliant with IEEE 802.3af \*
- increases Ethernet and PoE power range by 100 meters
- supports 10/100 Mb/s networks
- LED optical signalization
- protections:
  - SCP short circuit protection
  - surge protection (PoE input)
  - OLP overload protection
- notes:
  - hermetic enclosure IP56
  - UV resistance
- warranty: 1 year from production date



Sample product:  
EXT-POE2H

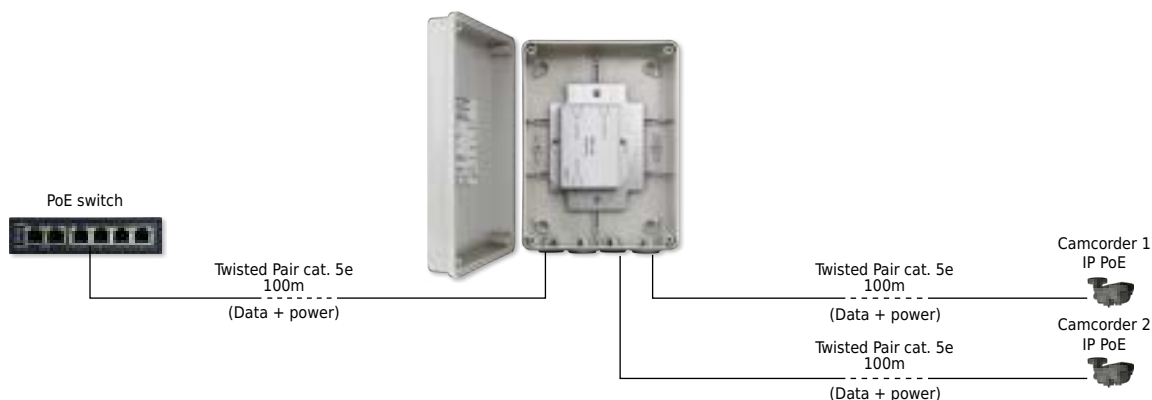
\* depending on model



Applies to: EXT-POE4H

Code	Additional power input	RJ45 input / compliant with IEEE 802.3af/at	RJ45 output / compliant with IEEE 802.3af	Output power	Number of cable glands / Ø cables	Dimensions W×H×D [+/- 2mm]
EXT-POE2H	—	PoE IN / compliant	PoE OUT1 / compliant PoE OUT2 / compliant	15,4W / port ( $\Sigma = 20W$ )	4 pieces / 6÷13mm	148×198×78
EXT-POE3H		PoE IN / compliant	PoE OUT1 / compliant PoE OUT2 / compliant PoE OUT3 / not compliant	20W / port (OUT1/2) 15,4W / port (OUT3) ( $\Sigma = 30W$ )		
EXT-POE4H	DC IN 44÷57 V DC	PoE IN / compliant	PoE OUT1 / not compliant PoE OUT2 / not compliant	15,4W / port ( $\Sigma = 20W$ )		

Sample product: EXT-POE2H



Connection of two IP PoE cameras and extension of range for another 100 meters

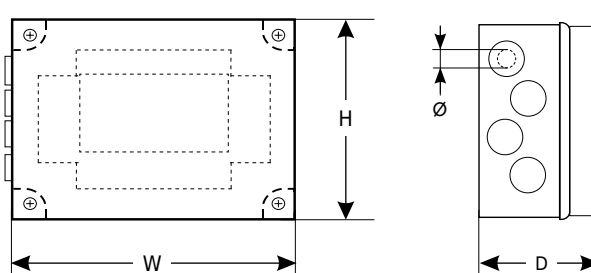
### Accessories:



**OZB2**  
(applies EXT-POE...H)



Sample assembly



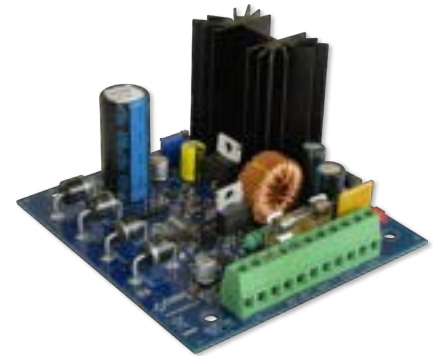
# Switch mode power supply modules with battery backup 13,8 V DC

Compliant with EN50131-6 standard for alarm systems - GRADE 1, 2

Compliant with EN60839-11 standard for access control - GRADE 1, 2

## MSRK series

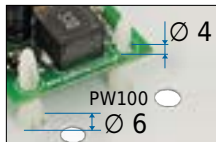
- impulse voltage stabilizer
- compliant with norm EN50131-6 in grade 1, 2, EN60839-11 in grade 1, 2 and II environment class
- supply voltage: external transformer required 20-22 V AC
- battery charging and maintenance control
- battery output protections: short circuit protection and reverse polarity connection
- protections:
  - SCP short circuit protection
  - OLP overload protection
- technical outputs OC type:
  - EPS - 230 V power failure AC
  - APS - battery failure indication
- deep discharge battery protection (UVP)
- adjustable time indicating AC power failure
- function START allows running PSU from battery circuit
- warranty: **5 years from production date**



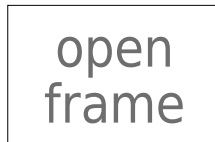
Sample product:  
MSRK3012



Power input/output terminals



Mounting: PW100 distance pins



Construction - „open frame“



START button

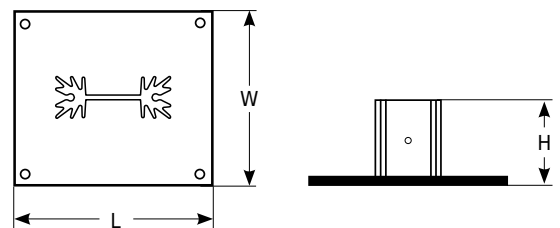


Technical outputs OC type: EPS, APS

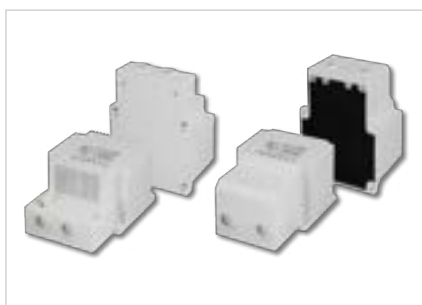


Optical indication connector

Code	Output current	Total output current with charging	Battery charging current	Technical outputs	Deep discharge battery protection	Dimensions LxWxH [+/- 2mm]
<b>MSRK2012</b>	13,8 V DC	2A	0,2A / 0,5A	✓	✓	86x73x42
<b>MSRK3012</b>		3A	0,5A / 1,0A	✓	✓	94x98x57



### Accessories:



Transformers of TRP, TRZ series



**AWZ639**  
Technical outputs - relay  
2x OC → 2x NO/NC/C

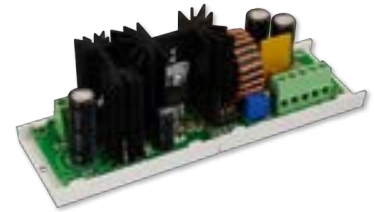


**PKAZ168**  
Set for optical indication  
(three LEDs indicating status of power supply)



# DC/DC voltage converters open frame, with technical output DC/DC series

- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP over voltage protection \*
  - OHP overheat protection \*
- technical output OC type:
  - PSU - converter failure \*
- notes:
  - construction: „open frame”
  - installation: mounting panel with adhesive tape / mounting screws
  - minimum difference between input voltage and output voltage is: **2÷3 V DC** \*
- warranty: 2 years from production date



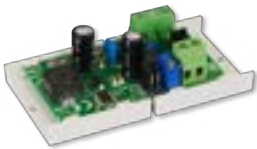
Sample product:  
DC/DC50SD

\* depending on model

Code	Input voltage	Output voltage	Output current	Technical output of converter failure	Dimensions L×W×H [+/- 2mm]
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## step down voltage converters

<b>DC/DC10SD</b>	8÷28 V DC	4,5÷ 19 V DC	1A/12 V DC	✓	80×43×27
<b>DC/DC20SD</b>			2A/12 V DC	✓	100×43×27
<b>DC/DC50SD</b>		4,5÷24 V DC	5A/12 V DC	✓	140×43×45
<b>DC/DC50HV</b>	28÷60 V DC	12÷24 V DC	5A/12 V DC	✓	140×43×45



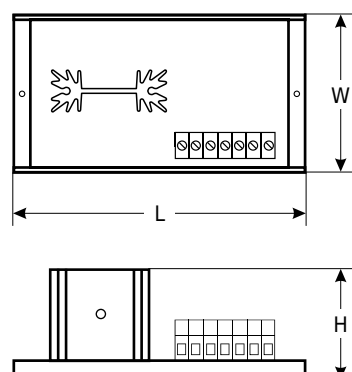
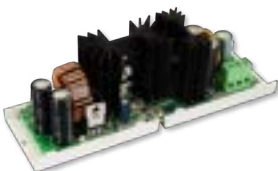
## step up / step down voltage converters

<b>DC/DC20SE</b>	9,5÷16 V DC	5÷15 V DC	2A/12 V DC	✓	110×43×37
<b>DC/DC50SE-SEP with separation</b>		12 V DC	5A/12 V DC	—	150×54×60



## step up voltage converters

<b>DC/DC25SU</b>	9,5÷16 V DC	18÷28 V DC	2,5A/24 V DC	✓	140×43×45
<b>DC/DC52115</b>	9,5÷28 V DC	52 V DC	1,15A/52 V DC	✓	130×43×45
<b>DC/DC52230</b>	18÷28 V DC		2,3A/52 V DC	✓	140×43×45



## DC/DC voltage converters - 12 V DC hermetic IP67, epoxy encapsulated DCDCH series

- power supply: 18÷30 V DC
- hermetic enclosure IP67, ABS, epoxy encapsulated
- length of DC input cable: 0,3m
- length of DC output cable: 0,5m + DC plug 5.5/2.1 female
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - against reverse input voltage polarity
- notes:
  - mounting: 2 Ø3,2mm holes
- warranty: 2 years from production date



Sample product:  
DCDCH-12V2A-SD



DC plug 5.5/2.1  
female

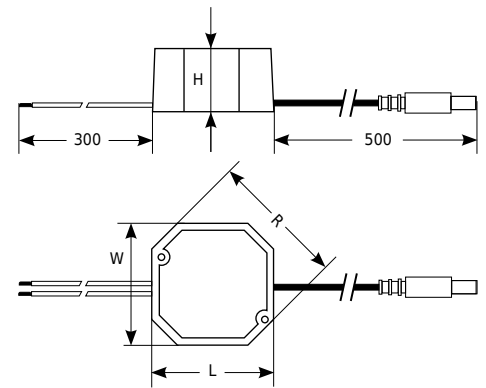


Hermetic enclosure IP67



Epoxy encapsulated

Code	Input voltage	Output voltage	Output current	Dimensions L×W×H / R [+/- 2mm]
DCDCH-12V1A-SD	18÷30 V DC	12 V DC	1A	48×50×25 / 56
DCDCH-12V2A-SD			2A	58×58×28 / 66



## DC/DC voltage converters - 12 V DC DC/DC series - in plastic enclosure

- power supply: 12÷30 V DC
- length of DC input cable: 0,13m + screw connection / 5.5/2.1 JACK socket - male \*
- length of DC output cable: 0,13m + DC plug 5.5/2.1 female
- protections:
  - against reverse input voltage polarity
- warranty: 1 year from production date

\* depending on model



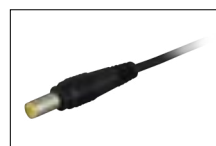
Sample product:  
DC/DC05-J



Screw connection \*



5.5/2.1 JACK socket - male \*



DC plug 5.5/2.1 female

Code	Input voltage	Output voltage	Output current	Notes		Dimensions L×W×H [+/- 2mm]
				input	output	
DC/DC05	12÷30 V DC	12 V DC	0,5A	screw connection	DC plug 5.5/2.1 female	50×20×18
DC/DC05-J				5.5/2.1 JACK socket - male		

# Voltage reducer - linear

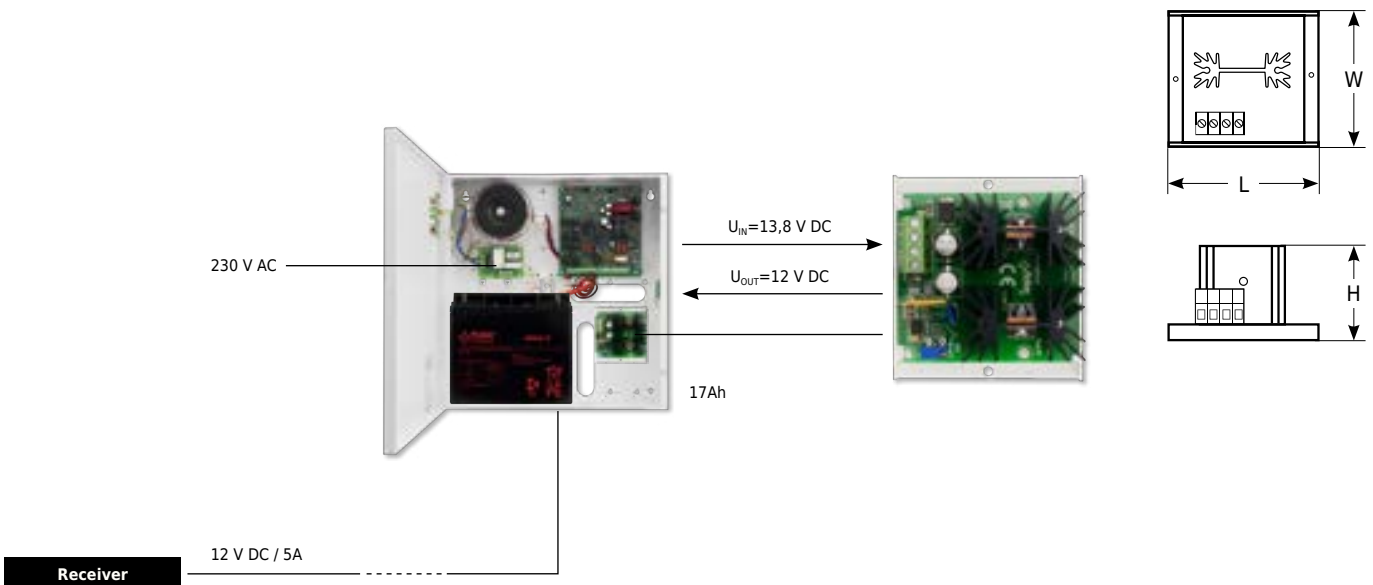
## 13,8 V DC → 12 V DC

### RN series

- supply voltage: 12÷14 V DC
- voltage adjustment range:  $11V \div U_{IN}$
- linear voltage regulator
- lossless conductivity below stabilisation threshold
- protections:
  - SCP short circuit protection
  - OLP overload protection
- installation:
  - screw, mounting pins or adhesive tape
- warranty: 2 years from production date



Code	Input voltage	Output voltage (adjustment)	Output current	Dimensions LxWxH [+/- 2mm]
<b>RN500</b>	13,8 V DC (12÷14 V DC)	12V ( $11V \div U_{IN}$ )	5,0A	76x70x45



Receiver e.g.



Camera



Detector



Indicator



Electromagnetic lock



Electric strike



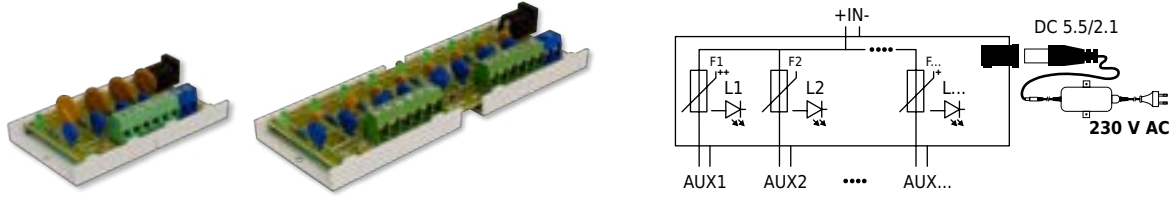
Intercom



Video intercom

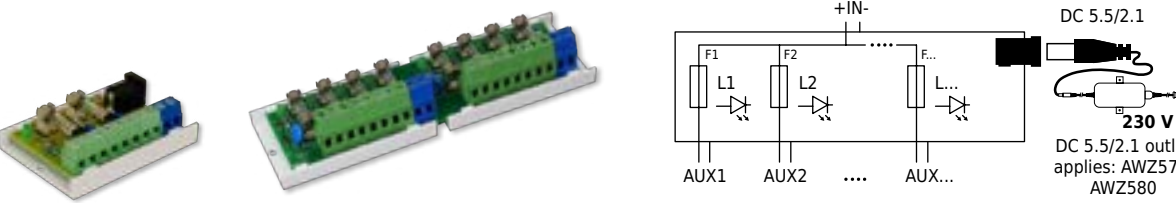
# Fuse modules

## Distribution - PTC



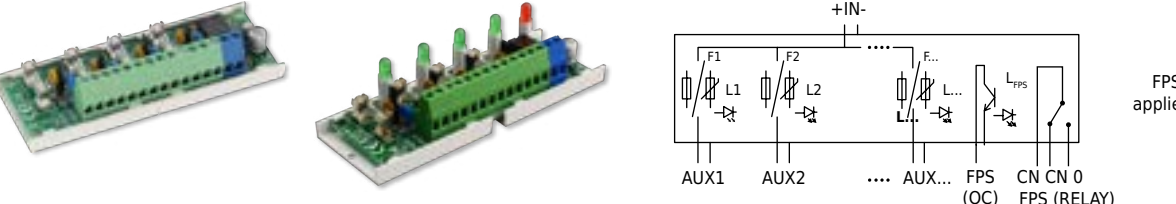
Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Fuse PTC	DC 5.5/2.1 socket	Dimensions LxWxH [+/- 2mm]
AWZ575	10÷30 V DC	2 / 4	1mm <sup>2</sup>	4x1,0A	✓	✓	80x43x21
AWZ577		2 / 8		8x0,3A	✓	✓	124x43x21
AWZ578				8x0,5A	✓	✓	
AWZ579				8x1,0A	✓	✓	

## Distribution - glass fuse



Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Glass fuse	DC 5.5/2.1 socket	Dimensions LxWxH [+/- 2mm]
AWZ576	10÷30 V DC	2 / 4	1mm <sup>2</sup>	4x0,5A	✓	✓	80x43x20
AWZ580		2 / 8		8x0,5A	✓	✓	124x43x20
AWZ597	10÷30 V DC 10÷24 V AC	1 / 2	2,5mm <sup>2</sup>	2x2,0A	✓	—	60x43x26
AWZ589	10÷30 V DC	1 / 4		4x2,0A	✓	—	80x43x27
AWZ598	10÷30 V DC 10÷24 V AC	2 / 8		8x1,5A	✓	—	144x43x26

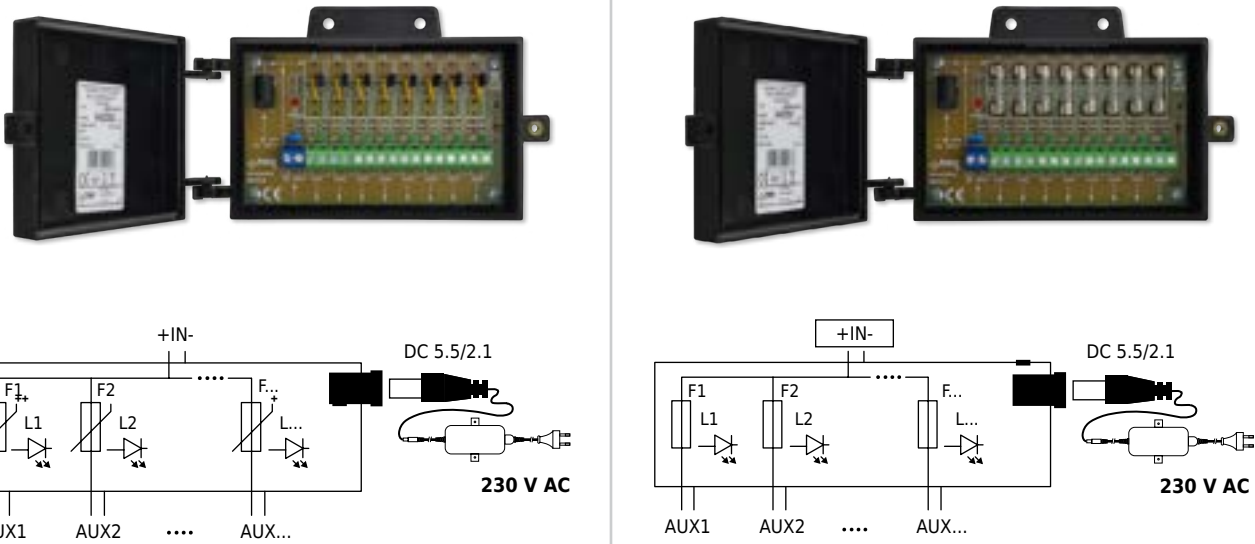
## Distribution fuse modules with technical outputs of failure - glass fuse / PTC (jumper selectable fuse type)



Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Fuse		Technical outputs	Dimensions LxWxH [+/- 2mm]
					PTC	/ glass fuse		
AWZ536	10÷30 V DC 10÷24 V AC	1 / 5	2,5mm <sup>2</sup>	5x0,5A	✓ / ✓		OC type	150x43x30
AWZ588		1 / 4		4x0,5A	✓ / ✓		OC type, RELAY	125x43x32

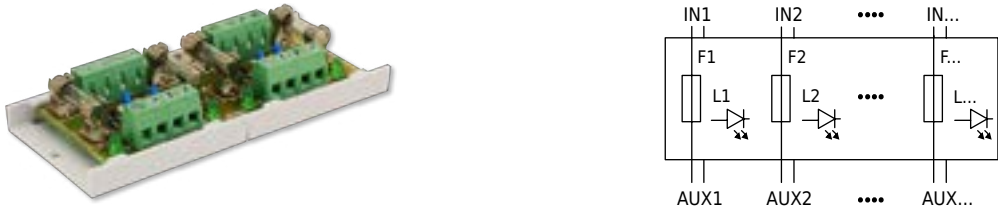
# Fuse modules

## Fuse modules in plastic enclosure glass fuse / PTC



Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Fuse		DC 5.5/2.1 socket	Dimensions W×H×D [+/- 2mm] W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
					PTC	/ glass fuse		
AWZ594	10÷30 V DC	2 / 5	2mm <sup>2</sup>	5×1,0A	✓	/ -	✓	150×94×42 126×78
AWZ592		2 / 8		8×1,0A	✓	/ -	✓	
AWZ593		2 / 5		5×1,0A	-	/ ✓	✓	
AWZ591		2 / 8		8×1,0A	-	/ ✓	✓	

## Straight-through - glass fuse (galvanic separation of each output)



Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Glass fuse	Dimensions L×W×H [+/- 2mm]
AWZ533	10÷30 V DC 10÷24 V AC	4 / 4	1mm <sup>2</sup>	4×1,5A	✓	100×43×20


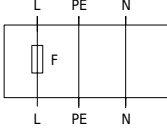


# Fuse modules

## Relay modules


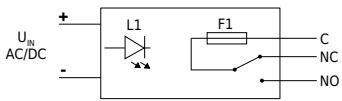
### Fuse modules

straight-through, 230 V AC - glass fuse

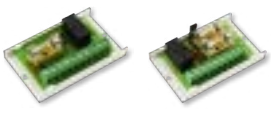
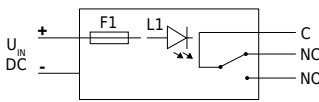
						
Code	Power supply	Number of inputs / outputs	Cable cross section (max)	Output protection	Glass fuse	Dimensions LxWxH [+/- 2mm]
<b>AWZ618</b>	230 V AC	1 / 1	1,5mm <sup>2</sup>	1xT 3,15A	✓	60x43x40

### Relay modules


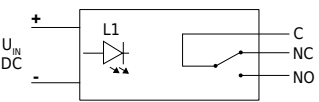
AC/DC power, fuse in C/NC/NO relay circuit

						
Code	Supply voltage	Number of relays	Maximum connection voltage	Maximum connection current	Dimensions LxWxH [+/- 2mm]	
<b>AWZ510</b>	10÷16 V DC / 10÷13 V AC	1	30 V DC / 50 V AC	1A	50x43x20	
<b>AWZ512</b>		2			80x43x20	
<b>AWZ514</b>	10÷16 V DC / 10÷16 V AC	1	30 V DC / 250 V AC	6A	70x43x23	
<b>AWZ517</b>	20÷32 V DC / 20÷32 V AC	1			75x70x30	
<b>AWZ625</b>	10÷16 V DC / 10÷16 V AC	2			150x70x30	
<b>AWZ626</b>		4				

DC power, fuse in coil circuit

					
Code	Supply voltage	Number of relays	Maximum connection voltage	Maximum connection current	Dimensions LxWxH [+/- 2mm]
<b>AWZ511</b>	10÷14 V DC	1 (2 x C/NO/NC)	30 V DC / 50 V AC	2A	70x43x20
<b>AWZ513</b>					


DC power, without fuse

					
Code	Supply voltage	Number of relays	Maximum connection voltage	Maximum connection current	Dimensions LxWxH [+/- 2mm]
<b>AWZ529</b>	10÷14 V DC	2	30 V DC / 50 V AC	2A	70x43x22
<b>AWZ528</b>		3		1A	70x43x20
<b>AWZ520</b>		5		2A	140x43x25
<b>AWZ612</b>		1		1A	40x43x20
<b>AWZ622</b>		1		1A	30x27x18
<b>AWZ624</b>	20÷28 V DC	2	30 V DC / 50 V AC	2A	70x43x22

# Relay modules

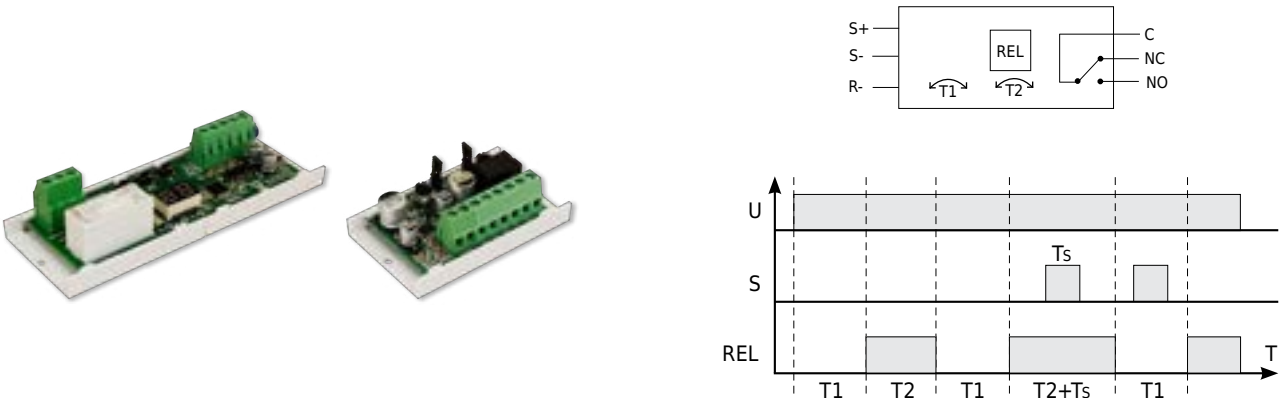
## Time relay modules

DC power, without fuse - control inputs: T -, T +



Code	Supply voltage	Control inputs	Number of relays	Maximum connection voltage	Maximum connection current	Dimensions LxWxH [+/- 2mm]
<b>AWZ508</b>	10÷15 V DC 21÷28 V DC (jumper selectable - Z1)	T-, T+	2	30 V DC / 50 V AC	2A	80×43×22
<b>AWZ610</b>	10÷14 V DC	T-, T+	1			50×43×22

Time relay modules, DC power, without fuse



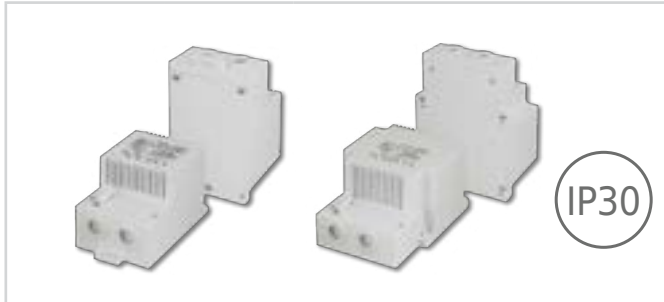
Code	Supply voltage	Control inputs	Number of relays	Maximum connection voltage	Maximum connection current	Time range	Dimensions LxWxH [+/- 2mm]
<b>AWZ516</b>	10÷16 V DC	S+, S-, R-	1	30 V DC / 250 V AC	10A	0,1s ÷ 100h (18 different time-logic functions)	120×43×22
<b>AWZ525</b>	10÷14 V DC	S+, S-	1	30 V DC / 50 V AC	1A	1s ÷ 5min	60×43×23
<b>AWZ526</b>		S+, S-, R-					70×43×23

# Transformers

## 10VA÷80VA

Transformers are designed to supply devices requiring galvanic isolation and U1, U2 or U3 AC voltage (i.e. alarm control panels, radio transmitters, GSM, access control panels etc.).

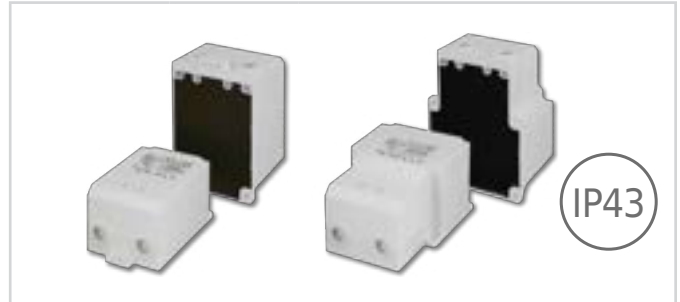
TRP series - IP30, ABS/PC



IP30

Code	Power	Output voltage
<b>AWT050</b>	20VA	16V/1,2A or 18V/1A
<b>AWT053</b>	20VA	12V/1,6A or 14V/1,4A
<b>AWT150</b>	40VA	16V/2,2A or 18V/2A
<b>AWT500</b>	50VA	16V/3A or 18V/2,8A or 20V/2,5A
<b>AWT800</b>	80VA	16V/5A or 18V/4,5A or 20V/4A
<b>AWT824</b>	80VA	17V/4,7A or 24V/3,3A or 30V/2,7A

TRZ series - IP43, ABS/PC, cast resin



IP43

Code	Power	Output voltage
<b>AWT468</b>	40VA	16V/2,2A or 18V/2A
<b>AWT682</b>	60VA	18V/3,3A or 20V/3,0A
<b>AWT8161820</b>	80VA	16V/5A or 18V/4,5A or 20V/4A
<b>AWT8172430</b>	80VA	17V/4,7A or 24V/3,3A or 30V/2,7A

EI series, cast resin



Code	Power	Output voltage
<b>AWT830</b>	30VA	16,5V/1,8A
<b>AWT845</b>	45VA	16,5V/2,7A

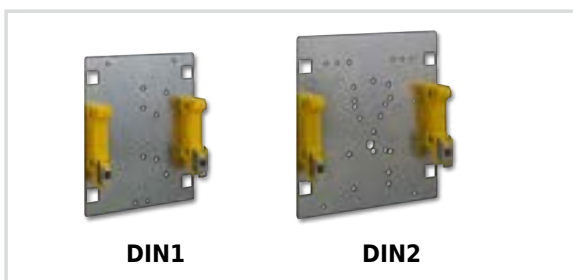
Transformers for electric strikes and intercoms



IP64

Code	Power	Output voltage
<b>AWT027</b>	10VA	11,5V/0,8A or 14V/0,6A

Accessories:  
- DIN rail brackets



DIN1

DIN2

# Panic alarm button

Foot-operated panic button PN

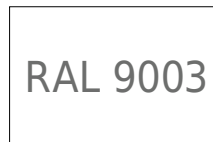
- ALARM output: C/NC/NO - 1A@30 V DC / 50 V AC max
- TAMPER output: C/NC/NO - 1A@30 V DC / 50 V AC max
- operating conditions II environmental class, -10°C÷40°C
- enclosure: metallic DC01; 0,7mm, RAL 9003, IP20
- connectors:  $\Phi 0,41 \pm 1,63$  (AWG 26-14)
- warranty: 2 years from production date



Cable entry

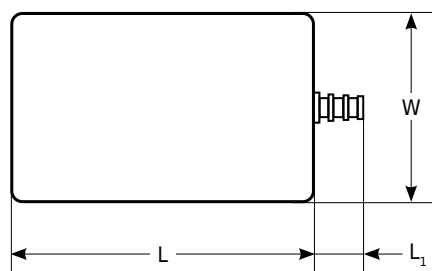
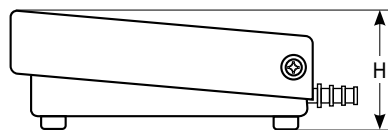


Distance



Metal enclosure colour: RAL 9003

Code	ALARM output	TAMPER output	Dimensions L×W×H [+/- 2mm] L <sub>1</sub> [+/- 2mm]
<b>AWZ700</b>	C/NC/NO	C/NC/NO	106×66×36 18



# Relay module AWZ639 / AWZ642

## Module of technical relay outputs

AWZ639 / AWZ642 relay module is used for changing technical outputs (OC type) into technical outputs of relay type (C/NO/NC).

Dedicated for power supplies of:

AWZ639: AWZG2

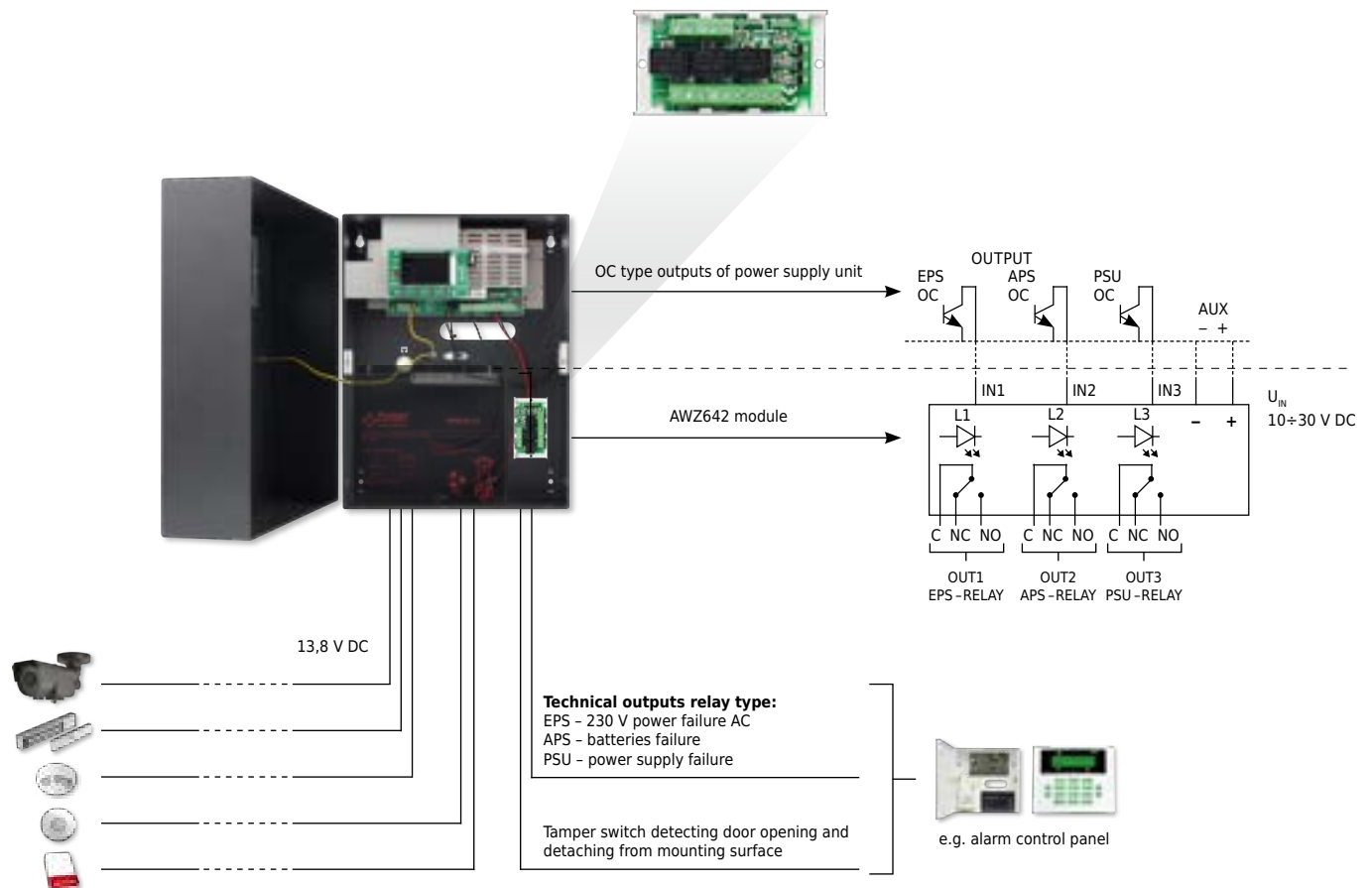
AWZ642: PSG3 / HPSG3



Sample product  
AWZ642

Code	Supply voltage	Control outputs	Technical outputs - relay type	Relays	Dimensions LxWxH [+/- 2mm]
<b>AWZ639</b>	10÷30 V DC	IN1 IN2	OUT1 OUT2	2×REL-C/NO/NC, 1A@30 V DC/50 V AC	69×20×43
<b>AWZ642</b>		IN1 IN2 IN3	OUT1 OUT2 OUT3	3×REL-C/NO/NC, 1A@30 V DC/50 V AC	

Sample product: AWZ642



# Enclosures for alarm control panels

fitted with transformer of TRP series / with power supply

## Universal

Dedicated for control panels DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
<b>AWO000</b>	TRP 20VA	16V/1,2A or 18V/1,0A	7Ah/12V	250×252×81+8	256×256
<b>AWO009</b>	TRP 40VA	16V/2,2A or 18V/2,0A	7Ah/12V	250×250×80+8	255×255
<b>AWO150</b>			7Ah/12V	280×292×81+8	286×296
<b>AWO220</b>			17Ah/12V	320×305×90+8	325×310
<b>AWO200</b>			17Ah/12V	320×398×91+8	326×403
<b>AWO250</b>	TRP 50VA	16V/3,0A or 18V/2,8A or 20V/2,5A	17Ah/12V	320×400×120+8	325×405
<b>AWO300</b>	TRP 80VA	16V/5,0A or 18V/4,5A or 20V/4,0A	17Ah/12V		
<b>AWO301</b>			24Ah/12V	348×398×171+8	354×403

## SATEL

Dedicated for control panels SATEL.



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
<b>AWO256</b>	TRP 50VA	16V/3,0 or 18V/2,8A or 20V/2,5A	17Ah/12V	320×400×90+8	325×405

## PARADOX

Dedicated for control panels PARADOX.



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
<b>AWO003</b>	TRP 20VA	16V/1,2A or 18V/1,0A	7Ah/12V	250×252×81+8	256×256
<b>AWO008</b>			7Ah/12V		
<b>AWO152</b>	TRP 40VA	16V/2,2A or 18V/2,0A	7Ah/12V	280×290×80+8	285×295
<b>AWO232</b>			17Ah/12V	320×305×90+8	325×310
<b>AWO214</b>			17Ah/12V	320×398×91+8	326×403

## DSC

Dedicated for control panels DSC.



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
<b>AWO171</b>	TRP 40VA	16V/2,2A or 18V/2,0A	7Ah/12V	280×295×78+6	285×300

## KSENIA

Dedicated for control panels KSENIA.



Code	Power supply output (adjustment)	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
<b>AWO102</b>	15V / 1,7A 13,5 - 16,5 V DC	7Ah/12V	250×292×81+8	256×296
<b>AWO195</b>	15V / 3,4A 13,5 - 18 V DC	17Ah/12V	320×434×91+8	326×438

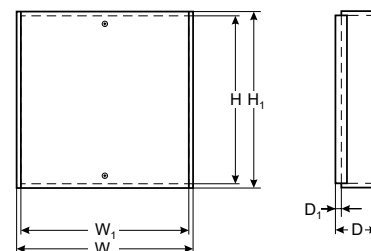


# Enclosures for alarm control panels construction compliant with EN50131, GRADE 3 version

fitted with transformer of TRP / TRZ series \*

## SATEL

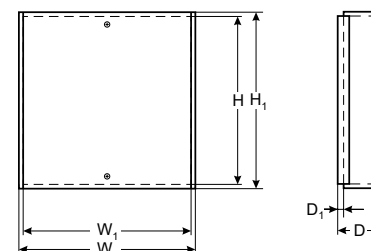
Dedicated for control panels SATEL.



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D (D <sub>1</sub> ) [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>AWO213</b>	TRZ 40VA	16V/2,2A or 18V/2,0A	17Ah/12V	330×305×110 (15)	325×310
<b>AWO257</b>	TRZ 50VA	16V/3,0A or 18V/2,8A or 20V/2,5A	17Ah/12V	340×400×110 (15)	335×405
<b>AWO270</b>	TRZ 75VA	20V/3,75A	17Ah/12V		
<b>AWO306</b>	TRP 80VA	16V/5,0A or 18V/4,5A or 20V/4,0A	28Ah/12V	460×550×175 (20)	455×555

## PARADOX

Dedicated for control panels PARADOX.



Code	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D (D <sub>1</sub> ) [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>AWO268</b>	TRP 40VA	16V/2,2A or 18V/2,0A	17Ah/12V	340×400×130 (15)	335×405
<b>AWO278</b>	TRP 80VA	16V/5,0A or 18V/4,5A or 20V/4,0A	17Ah/12V		

\* depending on model

# Enclosures for alarm control panels

## Universal - two-level version

fitted with transformer of TRP series

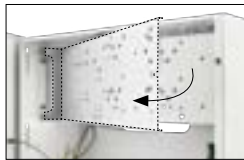
### Dedicated for control panels

DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...

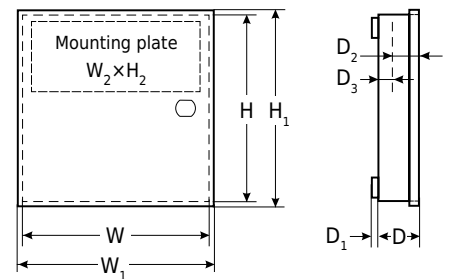
### Communication modules

**GORKE** - ATG; **ROPAM** - BASIC, MULTI GSM; **SATEL** - ETHM, GSM LT1, LT2, GPRS-T1/T2/T4

Two-level security metallic enclosures for alarm control panels are designed for mounting motherboard of alarm control panel and input/output security and expansion modules, etc. First level is dedicated for installation of control panels, while second one for communication modules. In addition, installation of expansion modules is also possible. Enclosures are fitted with transformer of TRP series in PC / ABS plastic enclosure - IP30.



2<sup>nd</sup> level - hinged mounting plate



Code	Transformer	Power supply output	Fitting battery	External dimensions of enclosure: $W \times H \times D + D_1$ [ $\pm 2\text{mm}$ ]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2\text{mm}$ ]	Mounting plate dimensions: $W_2 \times H_2$ [ $\pm 2\text{mm}$ ]	Working depth: $D_2 / D_3$ [ $\pm 2\text{mm}$ ]
<b>AWO200K</b>	TRP 50VA	16V/3,0A or 18V/2,8A or 20V/2,5A	17Ah/12V	348×433×141+8	354×438	310×135	62/75

# Enclosures for alarm control panels

## RISCO

with power supply LRS

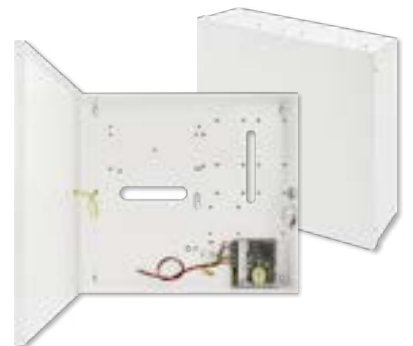
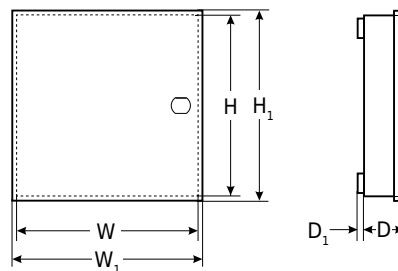
### Dedicated for control panels

RISCO

Metallic enclosure is designed as component of RISCO intruder alarm security systems.

It is intended for installation:

- control panels
- additional modules



Code	Power supply	Power supply output	Fitting battery	External dimensions of enclosure: $W \times H \times D + D_1$ [ $\pm 2\text{mm}$ ]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2\text{mm}$ ]
<b>AWO317</b>	LRS-75-15	14,4VDC/5A	17Ah/12V	430×398×91+8	436×403

# Empty enclosures for alarm control panels

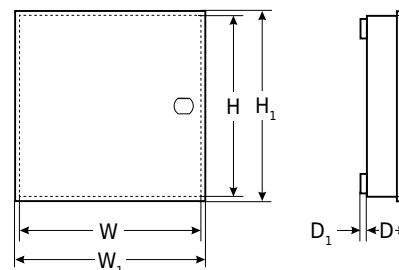
without transformer

## Universal

Dedicated for control panels: DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...



Code	Recommended battery	External dimensions of enclosure: $W \times H \times D + D_1$ [ +/- 2mm]	External dimensions of front panel: $W_1 \times H_1$ [ +/- 2mm]
<b>AWO000PU</b>	7Ah/12V	250×250×80+8	255×255
<b>AWO150PU</b>	7Ah/12V	280×290×80+8	285×295
<b>AWO220PU</b>	17Ah/12V	320×305×90+8	325×310
<b>AWO200PU</b>	17Ah/12V	320×398×91+8	326×403
<b>AWO250PU</b>	17Ah/12V	320×400×120+8	325×405
<b>AWO301PU</b>	24Ah/12V	348×398×171+8	354×403



## Universal - EMPTY / DSC-EMPTY

Dedicated for control panels: DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...



Code	Dedicated for control panels	Recommended battery	External dimensions of enclosure: $W \times H \times D + D_1$ [ +/- 2mm]	External dimensions of front panel: $W_1 \times H_1$ [ +/- 2mm]
<b>AWO000EMT</b>	<b>Universal</b>	7Ah/12V	250×250×80	255×255
<b>AWO150EMT</b>		7Ah/12V	280×290×80	285×295
<b>AWO220EMT</b>		17Ah/12V	320×305×90	325×310
<b>AWO200EMT</b>		17Ah/12V	320×398×91	326×403
<b>AWO250EMT</b>		17Ah/12V	320×400×120	325×405
<b>AWO171EMT</b>	<b>DSC</b>	7Ah/12V	280×295×78+6	285×300

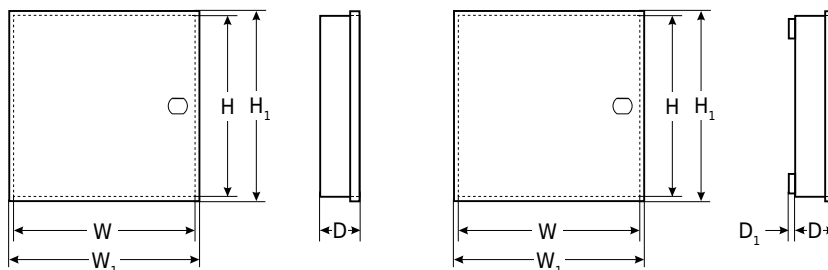
## Accessories:



**PKAZ158**  
Mounting set is intended to EMPTY enclosures



**PKAZ196**  
Mounting set is intended to DSC EMPTY enclosures



# Empty enclosure for alarm control panels SATEL - GRADE 3 version

without transformer

## Dedicated for control panels

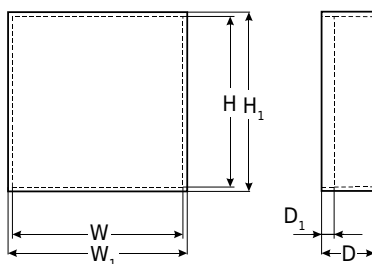
SATEL

Metallic enclosure for alarm control panels is designed for mounting motherboard of alarm control panel and input/output expansion modules, security modules, relays, etc.

Enclosure in empty version is without transformer - this enclosure has holes for mounting transformer of TRP, TRZ series. Enclosure compliant with EN50131 (GRADE 3) is used in alarm systems in accordance with EN50131.



**Compliant  
with EN50131  
GRADE 3**



Accessories:



**AWO269S**

Code	Recommended battery	External dimensions of enclosure: W×H×D (D <sub>1</sub> ) [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>AWO269PU</b>	17Ah/12V	320×400×130 (15)	326×408

# Empty, flush-mounted enclosures for alarm control panels Universal

without transformer

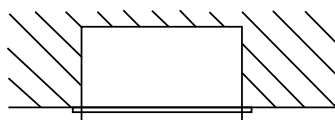
## Dedicated for control panels

DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...

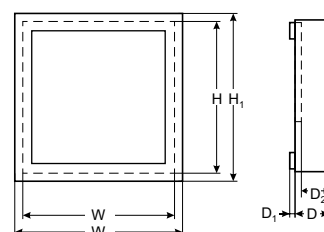
Metallic enclosures for alarm control panels are designed for mounting motherboard of alarm control panel and input/output expansion modules, security modules, relays, etc. Designed for flush mounting. They are fitted with adjustable flange and removable doors for esthetic installation. Enclosures in empty version are without transformer - these enclosures have holes for mounting transformer of TRZ series.



Sample product:  
**AWO510PU**



Code	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [± 2mm]	External dimensions of flange: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]	Working depth: D <sub>2</sub> [± 2mm]
<b>AWO500PU</b>	17Ah/12V	310×305×100+8	345×355	95
<b>AWO510PU</b>	17Ah/12V	345×395×100+8	380×450	
<b>AWO520PU</b>	28Ah/12V	350×395×180+8	380×430	175



# Enclosures for expanders

## Universal

Dedicated for expanders DSC, SATEL, PARADOX, RISCO...



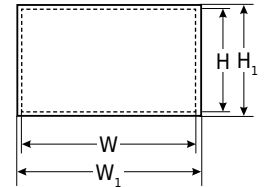
Code	Destination	External dimensions of enclosure: $W \times H \times D + D_1$ [ $\pm 2$ mm]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2$ mm]
AWO452	DSC, SATEL, PARADOX, RISCO	218×150×50+8	222×155
AWO453		262×172×49+8	267×176

## SATEL

Dedicated for expanders SATEL.



Code	Destination	Recommended battery	External dimensions of enclosure: $W \times H \times D + D_1$ [ $\pm 2$ mm]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2$ mm]
AWO224	SATEL	17Ah/12V	320×304×101+8	326×308

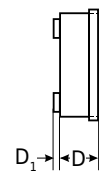


## BOSCH

Dedicated for expanders BOSCH.



Code	Destination	External dimensions of enclosure: $W \times H \times D + D_1$ [ $\pm 2$ mm]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2$ mm]
AWO455	BOSCH	218×150×50+8	222×155



# Enclosures for expanders

## GRADE 3 version

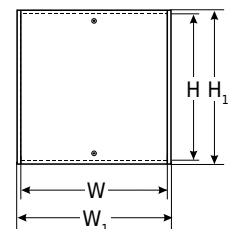
construction compliant with EN50131

## Universal

Dedicated for expanders DSC, SATEL, PARADOX, RISCO, ZKTeko....



Code	Destination	External dimensions of enclosure: $W \times H \times D (D_1)$ [ $\pm 2$ mm]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2$ mm]
AWO454	DSC, SATEL, PARADOX, RISCO, ZKTeko	299×203×67 (16)	292×207

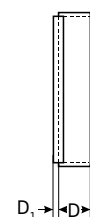


## SATEL

Dedicated for expanders SATEL.



Code	Destination	Recommended battery	External dimensions of enclosure: $W \times H \times D (D_1)$ [ $\pm 2$ mm]	External dimensions of front panel: $W_1 \times H_1$ [ $\pm 2$ mm]
AWO229	SATEL	17Ah/12V	330×305×120 (15)	325×310



## Enclosures for keypads Surface-mounted

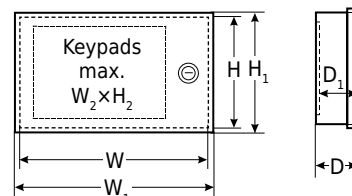
### Dedicated for keypads of control panels

DSC, SATEL, PARADOX...

Metallic enclosures for keypads are designed for installation keypads (drivers) for Intrusion Detection Systems, Access Control systems, etc. Their design provides protection against unauthorized access to keypads (drivers) in public utility buildings.



Sample product:  
AWO353



Code	Destination	LED / LCD	Control window	External dimensions of enclosure: W×H×D [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]	Keypad mounting dimensions: W <sub>2</sub> ×H <sub>2</sub> ×D <sub>1</sub> [± 2mm]
<b>AWO350</b>	DSC, FBII, SCANTRONIC, ROKONET, PARADOX, NAPCO, SUMMIT	LED	—	192×132×42	198×137	135×125×32
<b>AWO352</b>	SATEL	LED	—	211×110×42	218×115	155×105×32
<b>AWO359</b>	SATEL, PARADOX, PYRONIX	LED	—	140×135×42	147×140	85×130×32
<b>AWO363</b>	INTERLOGIX, SINTONY, CADDX, NETWORKX, GALAXY, PARADOX	LED	—	169×190×50	177×195	110×185×41
<b>AWO351</b>	DSC, FBII, SCANTRONIC, ROKONET, PARADOX, NAPCO, SUMMIT, SATEL, CADDX NETWORKX, PULSON	LCD	—	235×135×42	242×140	185×130×32
<b>AWO353</b>	SATEL, PARADOX, GALAXY, VISONIC, PYRONIX, CADDX NETWORKX, ROKONET, ELKRON, ADEMCO, PIMA, FBII	LCD	—	215×150×50	223×155	160×145×42
<b>AWO360 *</b>	SATEL, PARADOX, GALAXY, VISONIC, PYRONIX, CADDX NETWORKX, ROKONET, ELKRON, ADEMCO, PIMA, FBII	LCD	✓	215×149×50	223×158	

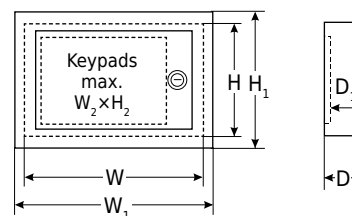
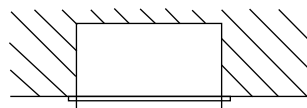
\* available on demand

## Enclosure for keypads Flush-mounted

### Dedicated for keypads of control panels

DSC, SATEL, PARADOX...

Metallic enclosure for keypads is designed for installation keypads (drivers) for Intrusion Detection Systems, Access Control systems, etc. Its design provides protection against unauthorized access to keypads (drivers) in public utility buildings.



Code	Destination	LED / LCD	External dimensions of enclosure: W×H×D [± 2mm]	External dimensions of flange: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]	Keypad mounting dimensions: W <sub>2</sub> ×H <sub>2</sub> ×D <sub>1</sub> [± 2mm]
<b>AWO356</b>	DSC, FBII, SCANTRONIC, ROKONET, PARADOX, NAPCO, SATEL, CADDX NETWORKX, GALAXY, VISONIC, PYRONIX, ELKRON, ADEMCO, PIMA, SUMMIT	LED	250×162×61	276×193	185×142×52



# Enclosures for GSM transmitters

## Dedicated for receivers

EBS, PRONAL

Metallic enclosures for receivers are designed as supplementary elements for Intrusion Detection Systems, Access Control systems, etc. Dedicated for GSM transmitter mounting systems (event notification). Enclosures are fitted with transformer of TRP series.



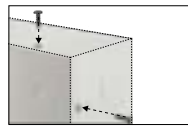
Pre-embossed for antenna



Transformer of TRP series



Tamper switch detecting enclosure opening - 1 piece



Screw closing - 4 pieces



Embossing for a lock (MR008 / MR027)

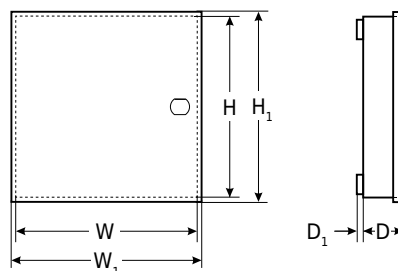


Spacers (plastic) - 8mm



Removable hinges

Code	Destination	Transformer	Power supply output	Recommended battery	External dimensions of enclosure: W×H×D+D <sub>1</sub> [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>AWO040</b>	EBS / PRONAL	TRP 20VA	14V/1,4A or 18V/1,0A	7Ah / 12V	250×250×80+8	255×255



# Enclosures for Access Control Systems BOSCH

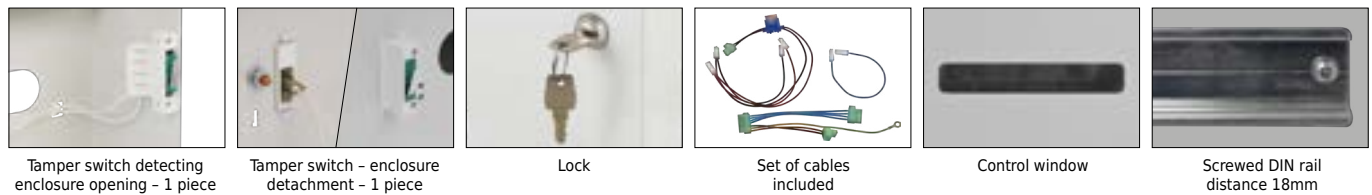
## Dedicated for Access Control Systems BOSCH

Enclosures are designed for mounting (depending on configuration):

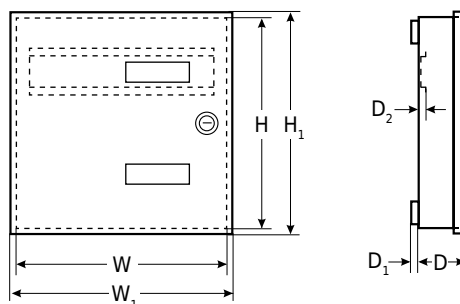
- AMC (Access Modular Controller) of access control system on TH/TS35 (35mm) DIN rail
- power supply of PCB on TH/TS35 (35mm) DIN rail
- additional modules or other devices adapted for mounting on TH/TS35 (35mm) DIN rail
- 2x7Ah/12V battery

### Industrial use

electrolytic galvanized steel sheet DC01, polyester paint - RAL 7035 (grey, structural)



Code	Number of DIN rails / length / number of „S” fields / $D_2$	Recommended batteries	Control window	External dimensions of enclosure: $W \times H \times D + D_1$ [ +/- 2mm]	External dimensions of front panel: $W_1 \times H_1$ [ +/- 2mm]
<b>AW0513</b>	1 / 380mm / 21 / 18mm	2x7Ah / 12V	1	405x320x90+14	412x323
<b>AW0514</b>	2 / 380mm / 21 / 18mm		2	405x520x90+14	412x523



# Enclosures for Access Control Systems Nedap

## Dedicated for Access Control Systems Nedap

- Enclosures are designed for mounting (depending on configuration):
  - 9981624 AP7803m – Access Control Controller (AEpu)
  - 9981632 AP7003m – Access control expansion module (AEpack)
  - 9984135 AP7031m – I / O module (AEpack) power supply of PCB on TH/TS35 (35mm) DIN rail
- power supplies of Pulsar / Mean Well
- 1x17Ah / 2x17Ah batteries (depending on model)



AWO601W



AWO602



Tamper switch detecting enclosure opening  
- 1 piece \*



AC power input



Embossing for a lock  
(MR008 / MR027)



Removable hinges



Spacers (plastic) - 8mm / 14mm \*

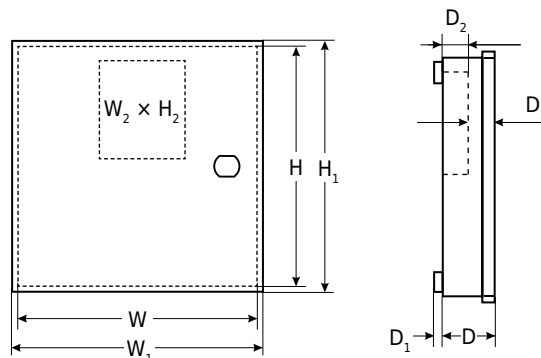
Applies to AWO601W



Mounting plate

\* depending on model

Code	Recommended battery/batteries	Mounting plate dimensions: $W_2 \times H_2$ [ +/- 2mm]	Enclosure dimensions: $W \times H \times D + D_1$ [ +/- 2mm] $W_1 \times H_1$ [ +/- 2mm]
<b>AWO601W</b>	2x7Ah, 1x17 / 12V	82x121	230x372x80+8 235x375
<b>AWO602</b>	2x17Ah / 12V	—	340x550x170+14 345x555

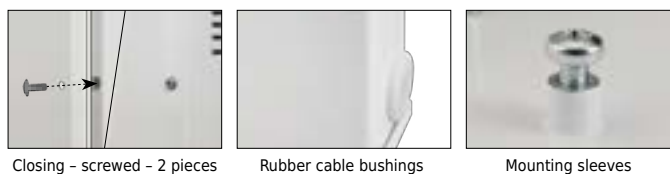
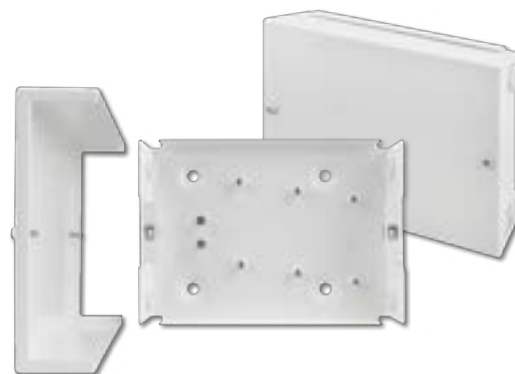


# Enclosure for VAS (Voice Alarm Systems) Enclosure for loudspeaker line supervision system by BOSCH

## Dedicated for VAS

BOSCH: LBB 4442/00, LBB 4441/00, LBB 4443/00, PVA-1WEOL, PLN 1EOL, LBC 1256/00, PRA-EOL.

Enclosure is designed for mounting loudspeaker line supervision systems by BOSCH used in Voice Alarm Systems. Design of enclosure allows mounting Praesideo, Plena, Praesensa and Paviro systems by BOSCH. Enclosure is fitted with four cable glands allowing connecting loudspeaker wires with maximum diameter of 10mm.

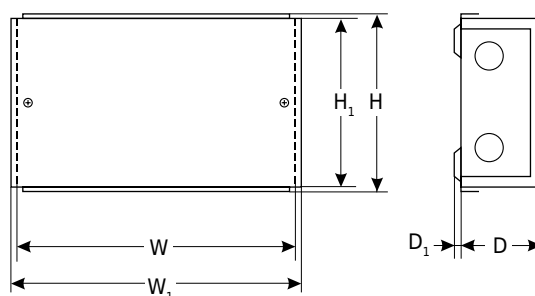


Closing - screwed - 2 pieces

Rubber cable bushings

Mounting sleeves

Code	Destination	External dimensions of enclosure: $W \times H \times D + D_1$ [ +/- 2mm]	External dimensions of front panel: $W_1 \times H_1$ [ +/- 2mm]
<b>AW0506</b>	BOSCH: Presideo, Paviro, Plena, Praesensa	150x112x31+3	153x108



# Enclosures for batteries

## Surface mounted, DIN rail mounted

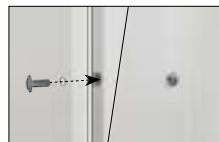
Metallic enclosures for batteries are designed as supplementary elements for Intrusion Detection Systems, Access Control systems, etc. Dedicated for surface mounting of maintenance-free lead-acid batteries of following capacities: 7Ah / 17Ah / 28Ah / 44Ah / 65Ah. In addition, when using PKAZ107, it is possible to mount enclosure on DIN rail (TH35) - only AWO401.



Sample product:  
AWO401



Tamper switch detecting enclosure opening - 1 piece



Closing - screwed - 2 pieces



Spacers (plastic) - 8mm



Removable front cover

Applies to AWO401 enclosure



Holes for PKAZ107



PKAZ107

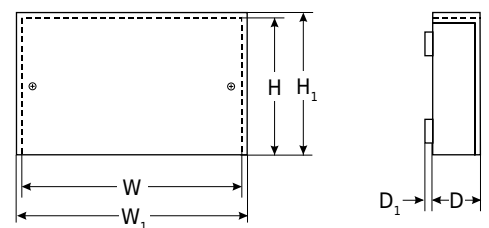


Code	Recommended battery/batteries					Surface mounted	DIN rail mounted (Required set: PKAZ107)	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
	7Ah	17Ah	28Ah	44Ah	65Ah				
AWO401	1×	1×	—	—	—	✓	✓	205×190×81+8	209×189
AWO402	2×	2×	1×	1×	—	✓	—	230×202×173+8	234×201
AWO403	4×	4×	2×	1×	1×	✓	—	390×202×173+8	394×201

### Accessories:



PKAZ107

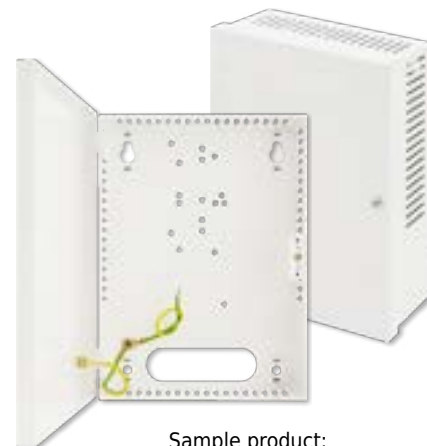


# Enclosures for power supply units

## Pulsar: PS series

## Mean Well: LRS, RS, RSP series

Enclosures are designed for power supply units of PS (Pulsar), LRS, RS and RSP series (Mean Well). They protect cables and power supply unit against direct access of unauthorized persons, while providing good ventilation.



Sample product:  
AWO384



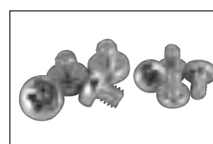
Closing - screwed - 1 piece



Removable hinges

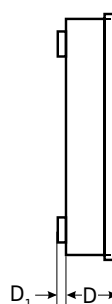
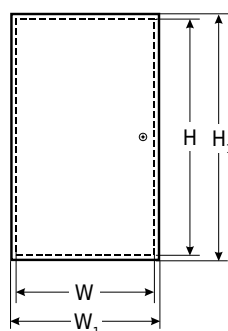


Spacers (plastic) - 8mm



Set includes screws for mounting power supply unit

Code	Space for power supply unit		External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
	Pulsar	Mean Well		
<b>AWO384</b>	PS-12V2A, PS-12V3A, PS-12V5A, PS-48V1A	LRS-35-xx, LRS-50-xx, LRS-75-xx, LRS-100-xx, LRS-150-xx  RS-15-xx, RS-25-xx, RS-35-xx, RS-50-xx, RS-75-xx, RS100-xx	148×204×51+8	153×208
<b>AWO385</b>	PS-12V2A, PS-12V3A, PS-12V5A, PS-48V1A, PS-12V7A, PS-12V10A, PS-48V3A, PS-12V15A	LRS-35-xx, LRS-50-xx, LRS-75-xx, LRS-100-xx, LRS-150-xx  RS-15-xx, RS-25-xx, RS-35-xx, RS-50-xx, RS-75-xx, RS100-xx, RS150-xx  RSP-100-xx, RSP-150-xx, RSP-200-xx, RSP-320-xx, RSP-500-xx	175×277×61+8	180×281





# Enclosures for CCTV recorders horizontal

Enclosure construction is compliant with requirements of General Data Protection Regulation (GDPR), as personal data must be protected and stored securely.

Enclosures protect recorder against unauthorized access or theft. They are made of 1mm thickness steel, equipped with two locks (various code); two keys for each lock and tamper switch indicating enclosure opening. Due to horizontal installation and low depth, they are ideal for places where enclosures of large dimensions, such as cabinets type RACK 19", cannot be installed. After opening enclosures, easy access to buttons on front panel of recorder is provided. Wiring in rear side of recorder can also be easily accessed by simply remove upper part of enclosure. To mount enclosures under tabletop use appropriate brackets (available as accessory).



Sample product:  
AWO447



Possibility to install ARAW45 fan



Mounting under tabletop



Closing lock, type 802 - various code - 2 pieces



Tamper switch detecting enclosure opening - 1 piece



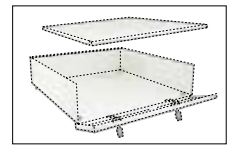
Legs length - 14mm



Removable hinges



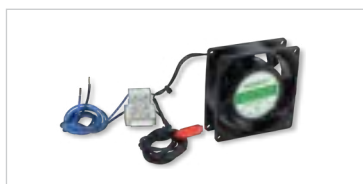
Space for fan



Removable front cover

Code	Bracket	Possibility of mounting ARAW45	External dimensions of enclosure: $W \times H + H_3 \times D$ [ +/- 2mm ]	External dimensions of front panel: $W_1 \times H_1$ [ +/- 2mm ]	Dimensions of recorder space: $W_2 \times H_2 \times D_2$ [ +/- 2mm ]
<b>AWO445</b>	AWO445BR	✓	400×99+14×300	405×105	355×90×235
<b>AWO447</b>		✓	400×99+14×430		355×90×360
<b>AWO483</b>	AWO483BR	✓	500×99+14×400	505×105	455×90×335
<b>AWO471</b>	AWO471BR	✓	550×124+14×572	555×130	505×115×505

## Accessories:

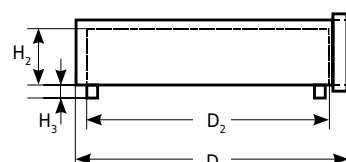
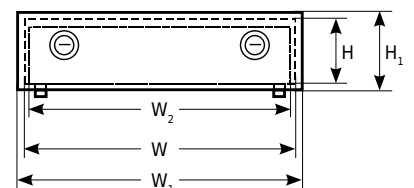


### ARAW45

Fan with temperature sensor 45°C



**AWO445BR** – Bracket DVR/SMALL  
**AWO483BR** – Bracket DVR/MEDIUM  
**AWO471BR** – Bracket DVR/BIG



# Enclosures for CCTV recorders vertical

Enclosure construction is compliant with requirements of General Data Protection Regulation (GDPR), as personal data must be protected and stored securely.

Enclosures protect recorder against unauthorized access or theft. They are made of 1,2mm thickness steel.

Due to vertical installation and low depth, they are ideal for places where deeper enclosures or cabinets RACK 19" type cannot be installed. After opening enclosure, front cover are held in horizontal position, providing easy access to buttons on front panel of recorder.



Sample product:  
AWO529 / AWO529W



Enclosure is fitted with straps for mounting recorder



Possibility to install ARAW45 fan



Sample product:  
AWO529S / AWO529WS



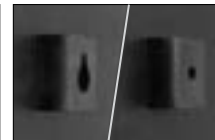
Closing lock, type 802  
- various code  
- 2 pcs. for AWO  
- 1 pcs. for AWO...S



Tamper switch detecting enclosure opening - 1 pcs.



Tamper switch detecting detachment from mounting surface (for AWO...S required PKAZ067)



Spacers (plastic) - 14mm



Opening limitation

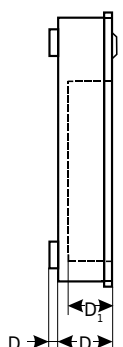
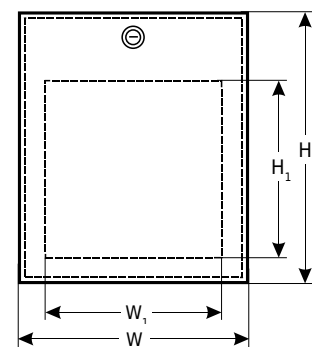
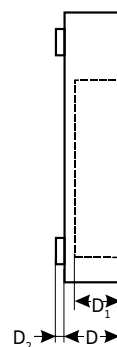
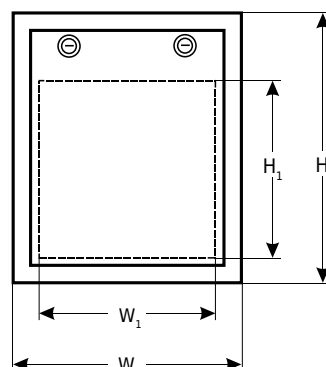
Code	Colour	Possibility of mounting ARAW45	Number of locks MR008 (various code)	External dimensions of enclosure W×H×D+D <sub>2</sub> [+/- 2mm]	Dimensions of recorder space W <sub>1</sub> ×H <sub>1</sub> ×D <sub>1</sub> [+/- 2mm]
AWO528	RAL9005 (black matt)	—	2 pcs.	320×430×82+14	260×250×55
AWO528S		—	1 pcs.		
AWO528W	RAL9003 (white)	—	2 pcs.		
AWO528WS		—	1 pcs.		
AWO529	RAL9005 (black matt)	—	2 pcs.	435×500×121+14	375×335×95
AWO529S		—	1 pcs.		
AWO529W	RAL9003 (white)	—	2 pcs.		
AWO529WS		—	1 pcs.		
AWO530	RAL9005 (black matt)	✓	2 pcs.	535×650×121+14	470×485×95
AWO530S		✓	1 pcs.		
AWO530W	RAL9003 (white)	✓	2 pcs.		
AWO530WS		✓	1 pcs.		

## Accessories:



**ARAW45**

Fan with temperature sensor 45°C



# Enclosures for CCTV recorders

## Vertical - with space for monitor

Enclosures construction is compliant with requirements of General Data Protection Regulation (GDPR), as personal data must be protected and stored securely.

Enclosures protects recorder/monitor/switch against unauthorized access or theft. Enclosure is made of steel with thickness of 1,2mm.

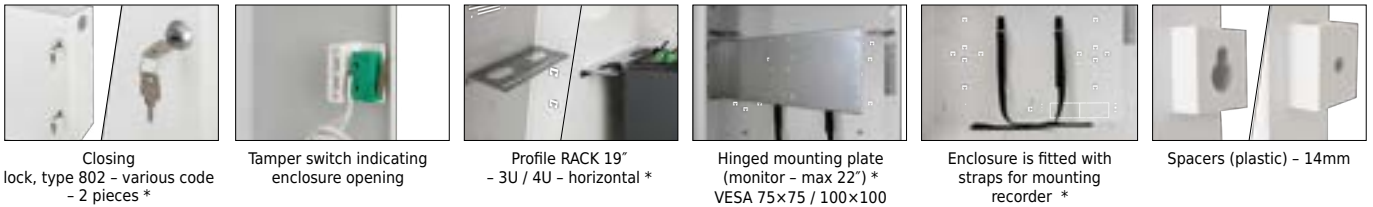
### Possibility of install inside:

- recorder
- desktop type switches
- RACK 19" switches
- RACK 19" patch panel
- monitor (max 22") - applies to AW0531W

Warranty: 2 years from production date

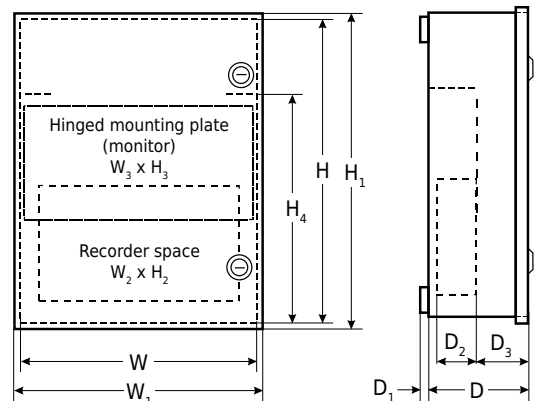


Sample product:  
AW0531W



\* depending on model

Code	Recommended batteries	Outlet 230 V AC	Locking with keys (GDPR)	Place for a monitor (max 22") VESA 75x75 VESA 100x100	Possibility of mounting ARAW45	RACK 19" holder (horizontal)	External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]	Dimensions of recorder space: W <sub>2</sub> ×H <sub>2</sub> ×D <sub>2</sub> [+/- 2mm]	Straps for mounting recorder
AW0531W	4×7Ah	—	✓	✓	✓	4U	589×650×261+14	480×400×180	✓
AW0532W	4×7Ah / 2×17Ah	2 pieces	— (assembly required 2×MR008)	—	—	3U	535×540×163+14	530×380×155	— (ZPR kit required)



### Accessories:



**ARAW45**  
Fan with temperature sensor 45°C



**RAPDS**  
Universal RACK adapter for desktop switches



**ZPR**  
Set of two straps for mounting recorder



**MR008**  
Lock, type 802 - various code

# Enclosures with DIN rails

## Surface-mounted

Enclosure can be used as element integrating electrical installations, automation systems, CCTV, Access Control Systems (ACS), Intrusion Detection Systems (IDS), etc. Dedicated for devices mounted on DIN rail (TH35mm).

### Industrial use

steel DC01, polyester paint - RAL 7035 (grey, structural)



Sample product:  
AWO613



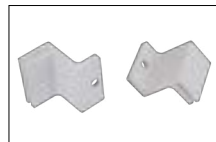
Tamper switch unwanted enclosure opening - 1 piece



Closing - screwed



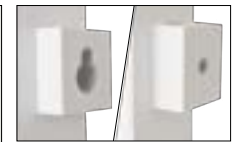
Screwed DIN rail



Plastic spacers



Pre-embossed for lock (MR008, MR027)



Spacers (plastic) - 14mm

Code	Number of DIN rails / length / number of „S” fields	Recommended battery/ batteries	Destination	External dimensions of enclosure: W×H×D+D <sub>1</sub> [± 2mm]	External dimensions of front panel: W <sub>1</sub> ×H <sub>1</sub> [± 2mm]
<b>AWO611</b>	1 / 320mm / 18	2×17Ah/12V	Standard + Mean Well	375×205×155+14	380×210
<b>AWO612</b>	2 / 320mm / 18	2×17Ah/12V	Standard + Mean Well	375×410×151+14	380×415
<b>AWO613</b>	3 / 320mm / 18	2×17Ah/12V	Standard + Mean Well	375×586×151+14	381×591
<b>AWO621</b>	1 / 320mm / 18	1×17Ah/12V	Standard + Mean Well	375×205×100+14	380×210
<b>AWO622</b>	2 / 320mm / 18	2×17Ah/12V	Standard + Mean Well	375×410×96+14	381×415

### Accessories:



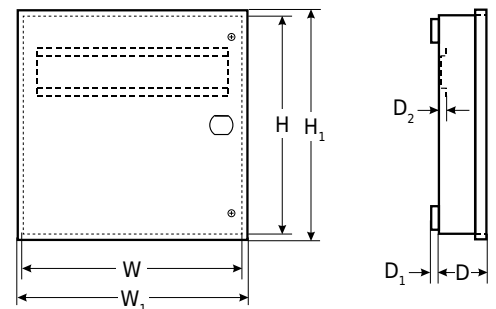
**PKAZ169**

Set for enclosures with DIN rails



**PKAZ067**

Tamper switch detachment from surface 14mm with wires



# Teletechnical enclosures

## Residential - surface-mounted / flush mounted - TOM

Residential teletechnical enclosures allow integrate elements of computer network, telephone network, television network (TV, SAT), fiber-optic network and other telecommunication and electrical installations in public buildings and collective residential buildings.

### Industrial use

electrolytically galvanized steel DC01, polyester paint RAL 9003 (white)



Sample product:  
AWO805



Sample product:  
AWO802



Tamper switch unwanted enclosure opening - 1 piece



Closing - screwed



Mounting shelf



Mounting plate



Enclosure ventilation

Applies to: AWO805



Spacers (plastic) - 8mm

Code	Possibility of installing					External dimensions of enclosure: W×H×D+D <sub>1</sub> [+/- 2mm]
	keystone connectors (eg. RJ45, BNC)	dual „F” sockets (F-F connector)	simplex fiber optic adapter - SC	duplex fiber optic adapter - APC	equipment with standard of 45×45mm	
surface-mounted						
<b>AWO805</b>	12	12	2	1	1	295×345×90+8
flush mounted						
<b>AWO802</b>	12	12	2	1	1	295×345×90

### Accessories:



GF-GF



GF-GF-K



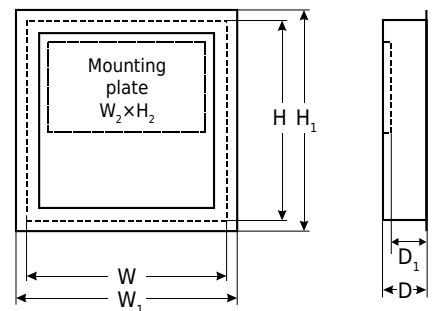
PKAZ040



SC/APC-1SM



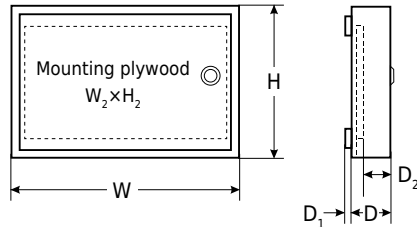
SC/APC-2SM



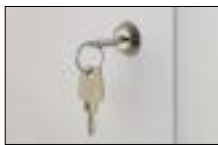
# Teletechnical enclosures

## Universal with plywood mounting - TUN

Enclosures can be used as element integrating TV/SAT installations, (multiswitch, amplifier, splitters and taps), CCTV, Access Control Systems (ACS), Intrusion Detection Systems (IDS), automation etc.



Sample product:  
AWO654



Lock MR027  
same code



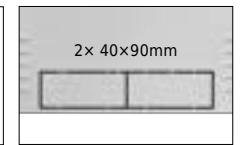
Mounting plate  
waterproof plywood - 6mm



Removable back mounting plate



Spacers (plastic) - 14mm



2x 40x90mm  
Knock-outs Top/Bottom  
2x 40x90mm

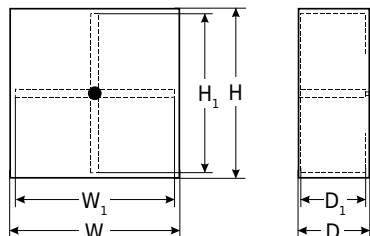
Code	Pre-embossed, Top/Bottom	External dimensions of enclosure: $W \times H \times D + D_1$ [ +/- 2mm ]	Assembly plywood dimensions: $W_2 \times H_2$ [ +/- 2mm ]	Working depth: $D_2$ [ +/- 2mm ]
<b>AWO654</b>	2 pcs. - 40x90mm	485x365x145+14	470x260	120
<b>AWO656</b>		645x485x185+14	630x380	160

## Enclosures with cable frame

Enclosure is applied in ICT and telecommunication sectors. It is designed to store excessive fiber optic cable. Enclosure is compliant with requirements of ZN96/TPSA-009 standard. It consists of two parts - cover and frame.

Cross-shaped frame allows storing excessive cable while maintaining safe bending radius. Possibility of coiling of up to 120 meters of fiber optic cable, depending on its diameter.

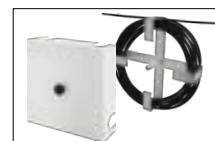
Cover protects cable against mechanical damage. Cover is mounted with single screw.



Wall mounting - 4 screws



120 meter spare cable



Metal enclosure  
(Cable protection)



Cable output



Knob Ø40mm / M8x16

Code	External dimensions of enclosure: $W \times H \times D$ [ +/- 2mm ]	Frame dimensions: $W_1 \times H_1 \times D_1$ [ +/- 2mm ]
<b>AWO644</b>	400x400x105	395x395x90



# Fire protection installation boxes

## Straight-through, distribution, with 1 / 2 fuses

### AWOP and AWOZ series

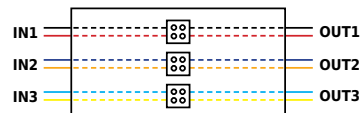
Junction boxes for fire alarm systems are designed for connecting fire protection devices in cable installation systems with fire resistance according to DIN 4102-12 standard, where uninterrupted power supply or transmission of signal in case of fire are required.



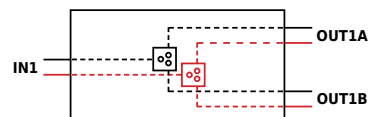
### Fire resistance classification E30, E60, E90



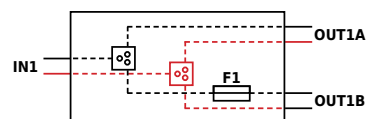
#### Straight-through



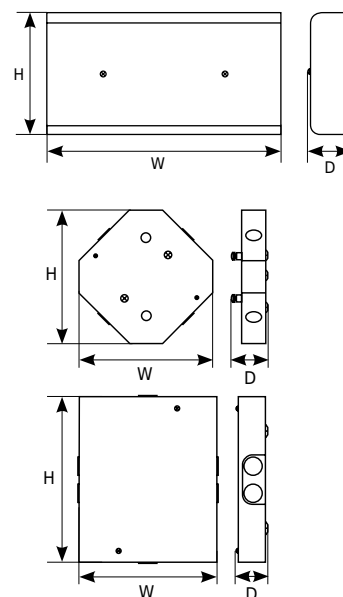
#### Distribution



#### Distribution box protected with fuses



Code	Voltage	Fuse	Cable cross section	Dimensions / Shape W×H×D [± 2mm]
<b>Straight-through boxes</b>				
<b>AWOP-625PP</b>	450 V AC	—	2,5mm <sup>2</sup>	154×80×30 / □
<b>AWOP-925PP</b>	450 V AC	—	2,5mm <sup>2</sup>	190×80×30 / □
<b>AWOP-960PP</b>	450 V AC	—	6mm <sup>2</sup>	204×100×30 / □
<b>Distribution boxes</b>				
<b>AWOP-225PR</b>	450 V AC	—	2,5mm <sup>2</sup>	154×80×30 / □
<b>AWOP-225SR</b>	450 V AC	—	2,5mm <sup>2</sup>	120×120×37 / ◇
<b>AWOP-325PR</b>	450 V AC	—	2,5mm <sup>2</sup>	190×80×30 / □
<b>AWOP-360PR</b>	450 V AC	—	6mm <sup>2</sup>	204×100×30 / □
<b>AWOP-425SR</b>	450 V AC	—	2,5mm <sup>2</sup>	120×120×37 / ◇
<b>Distribution boxes with one fuse</b>				
<b>AWOZ-125P</b>	125VAC	1×0,375A	2,5mm <sup>2</sup>	154×80×30 / □
<b>AWOZ-125P1A</b>	125VAC	1×1,0A	2,5mm <sup>2</sup>	154×80×30 / □
<b>AWOZ-125S</b>	125VAC	1×0,375A	2,5mm <sup>2</sup>	120×120×37 / ◇
<b>AWOZ-125S1A</b>	125VAC	1×1,0A	2,5mm <sup>2</sup>	120×120×37 / ◇
<b>Distribution boxes with two fuses</b>				
<b>AWOZ-225P</b>	125VAC	2×0,375A	2,5mm <sup>2</sup>	122×142×30 / □
<b>AWOZ-225S</b>	125VAC	2×0,375A	2,5mm <sup>2</sup>	120×120×37 / ◇



## Fire safety instructions box

Enclosure is designed for storage of fire safety instructions. Its 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.



Lock



Tamper switch detecting enclosure opening - 1 piece



Key window

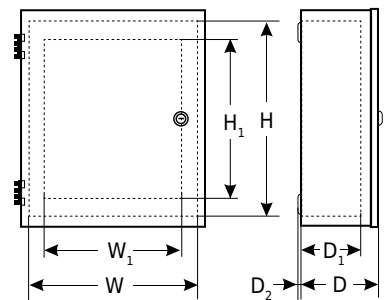


Porcelain screw connection in cabinet



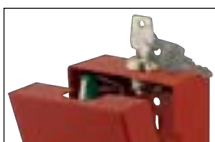
Spacers - 5mm

Code	Application	Dimensions of storage space for documents: $W_1 \times H_1 \times D_1$ [ +/- 2mm]	External dimensions of enclosure: $W \times H \times D_2$ [ +/- 2mm]
<b>AW0676</b>	documents: <ul style="list-style-type: none"> <li>• fire safety instructions</li> <li>• VAS documentation</li> <li>• building plans</li> </ul>	285×330×40	310×365×70+5



## Enclosure for evacuation door key

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



Lock



Tamper switch detecting enclosure opening - 1 piece

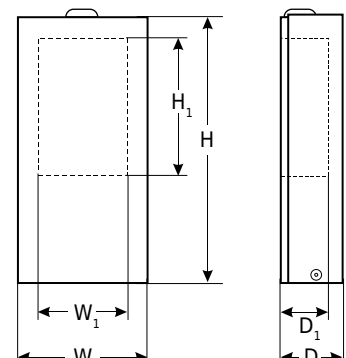


Key window



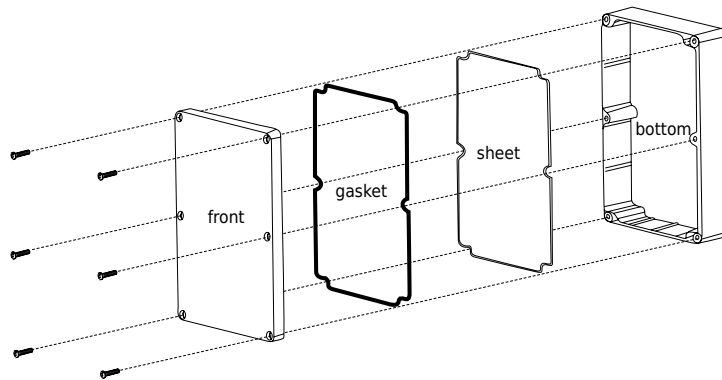
Porcelain screw connection in cabinet

Code	Application	Key space dimensions: $W_1 \times H_1 \times D_1$ [ +/- 2mm]	External dimensions of enclosure: $W \times H \times D$ [ +/- 2mm]
<b>AW0675</b>	evacuation door key	65×100×30	95×195×43



# Plastic enclosures IP65 with mounting plate AWO series

For mounting devices that require IP65 protection class, with mounting plate.



Closing - screwed  
- 4/6 pieces



Gasket



Removable back  
mounting plate



Hermetic enclosure IP65



Material: ABS

Code	External dimensions of enclosure: $W \times H \times D$ [ $\pm 2$ mm]	Internal dimensions of enclosure: $W_1 \times H_1 \times D_1$ [ $\pm 2$ mm]	Mounting dimensions of enclosure: $W_2 \times H_2$ [ $\pm 2$ mm]	Mounting plate dimensions: $W_3 \times H_3$ [ $\pm 2$ mm]
<b>AWO603</b>	160×160×90	123×152×77	145×125	150×110
<b>AWO604</b>	184×263×96	157×236×83	153×251	157×235

## Accessories:



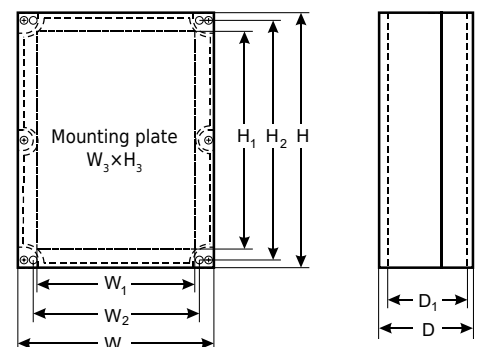
**ML146**  
(M12×1.5)



**ML147**  
(M16×1.5)

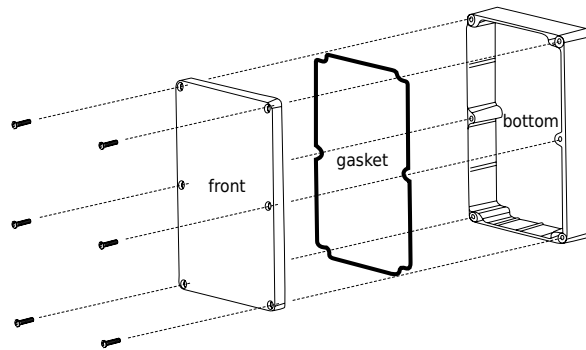


**ML145**  
(M20×1.5)



# Plastic enclosures IP65 without mounting plate AWP series

For mounting devices that require IP65 protection class.



Closing - screwed  
- 4/6 pieces



Gasket



Hermetic enclosure IP65



Material: ABS

Code	External dimensions of enclosure: W×H×D [+/- 2mm]	Internal dimensions of enclosure: W <sub>1</sub> ×H <sub>1</sub> ×D <sub>1</sub> [+/- 2mm]	Mounting dimensions of enclosure: W <sub>2</sub> ×H <sub>2</sub> [+/- 2mm]
<b>AWP161609</b>	160×160×90	152×122×80	126×145
<b>AWP261809</b>	185×265×95	158×237×85	152×252

## Accessories:



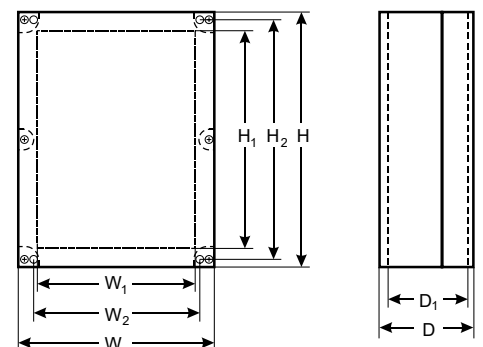
**ML146**  
(M12×1.5)



**ML147**  
(M16×1.5)



**ML145**  
(M20×1.5)



# RACK 19" cabinets - wall mounted, ready-to-assemble

## RWA series

600×450 / 600×600

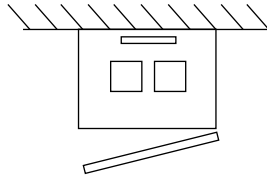
**RACK 19"**

RACK 19" cabinets enable integrating CCTV, AC, I&HAS, RTV, LAN, or other systems in small companies or households. They are intended for devices manufactured in enclosures of 19" standard. Thanks to RACK cabinets, devices are aesthetically mounted and protected against mechanical damage.

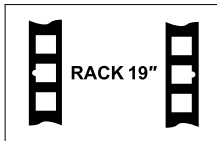
### Help:

- Use CONFIRACK®  
Available on [www.pulsar.pl](http://www.pulsar.pl)

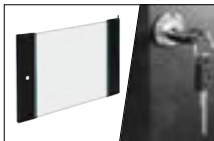
**CONFIRACK®**



Sample product:  
RWA964



Standard RACK 19"



Front door: 5mm toughened glass + lock



Possibility of mounting RAZB16 side lock



Pre-embossed 340x56mm

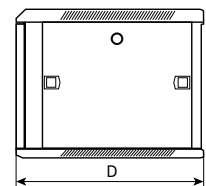
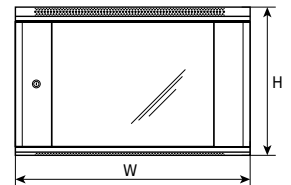


Ventilation

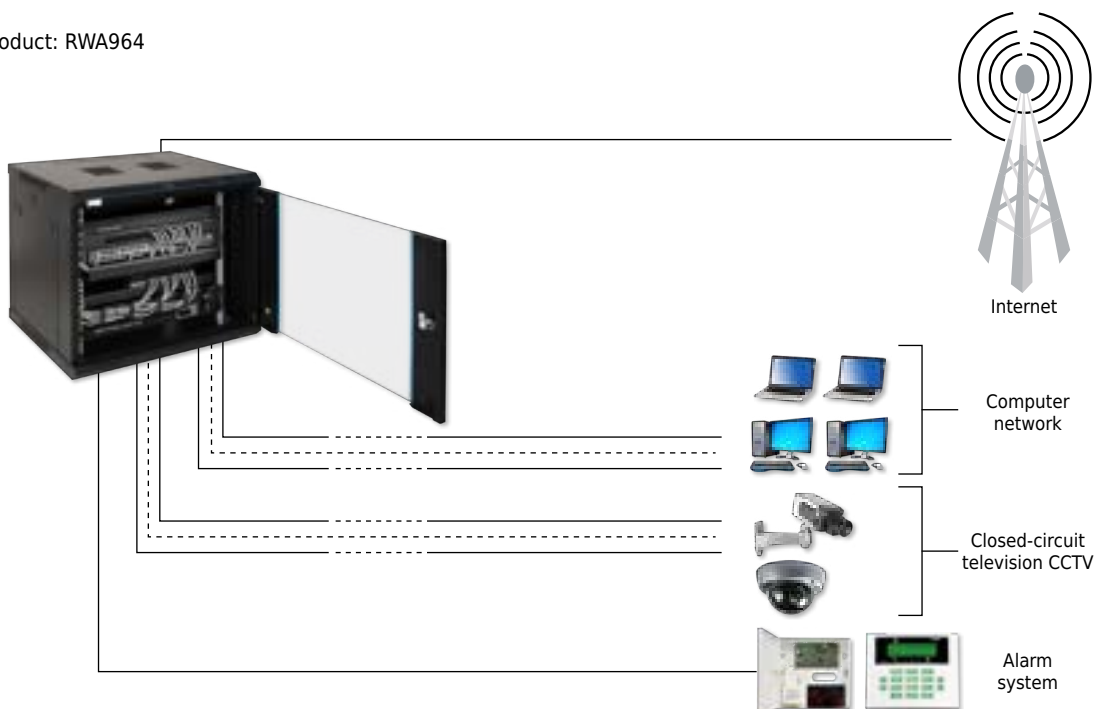


Ready-to-assemble

Code	Static load	Mounting dimensions W×H	External dimensions W×H×D [+/- 2mm]
<b>600×450</b>			
<b>RWA664</b>	70 kg	19"×6U	600×372×450
<b>RWA964</b>	70 kg	19"×9U	600×502×450
<b>RWA1264</b>	70 kg	19"×12U	600×636×450
<b>600×600</b>			
<b>RWA666</b>	70 kg	19"×6U	600×372×600
<b>RWA966</b>	70 kg	19"×9U	600×502×600
<b>RWA1266</b>	70 kg	19"×12U	600×636×600



Sample product: RWA964



# RACK 19" cabinets - wall mounted, fully assembled

## RW series

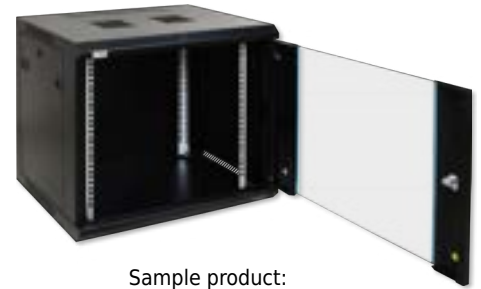
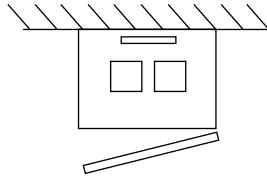
600×450 / 600×600

**RACK 19"**

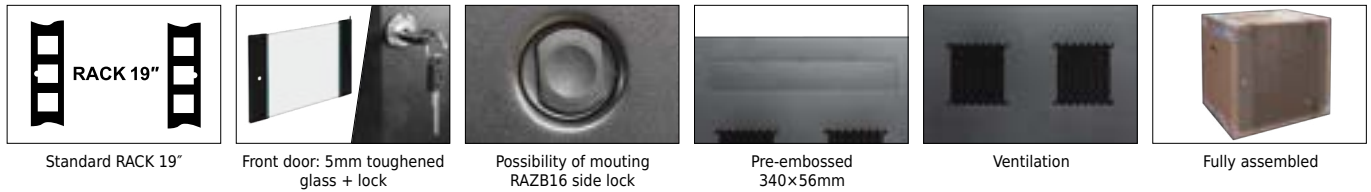
RACK 19" cabinets enable integrating CCTV, AC, I&HAS, RTV, LAN, or other systems in small companies or households. They are intended for devices manufactured in enclosures of 19" standard. Thanks to RACK cabinets, devices are aesthetically mounted and protected against mechanical damage.

### Help:

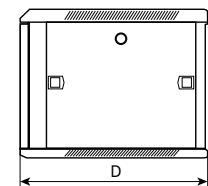
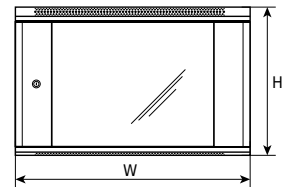
- Use CONFI-RACK® Available on [www.pulsar.pl](http://www.pulsar.pl)



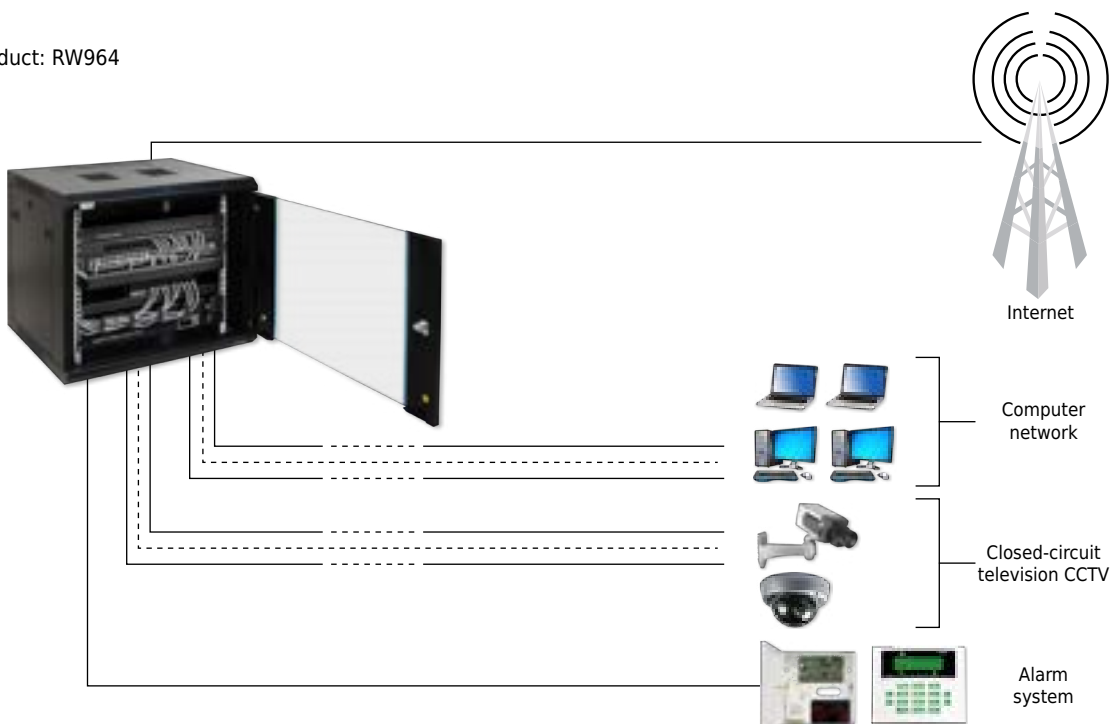
Sample product: RW964



Code	Static load	Mounting dimensions W×H	External dimensions W×H×D [+/- 2mm]
<b>600×450</b>			
RW664	70 kg	19"×6U	600×368×450
RW964	70 kg	19"×9U	600×503×450
RW1264	70 kg	19"×12U	600×636×450
<b>600×600</b>			
RW666	70 kg	19"×6U	600×368×600
RW966	70 kg	19"×9U	600×503×600
RW1266	70 kg	19"×12U	600×636×600
RW1566	70 kg	19"×15U	600×770×600



Sample product: RW964





# RACK 19" cabinets - double section - fully assembled

## RWD series

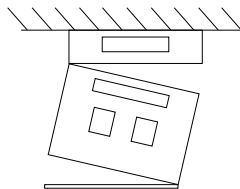
600x600

**RACK 19"**

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### Help:

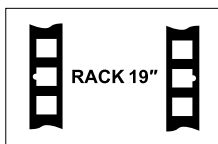
- Use CONFIRACK® Available on [www.pulsar.pl](http://www.pulsar.pl)



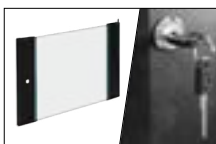
Two-section design



Sample product: RWD1266



Standard RACK 19"



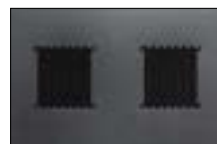
Front door: 5mm toughened glass + lock



Possibility of mounting RAZB16 side lock



Ventilation holes / end caps 273x60mm

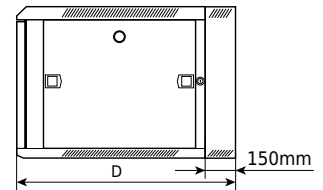
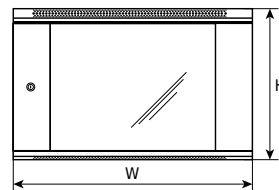


Ventilation

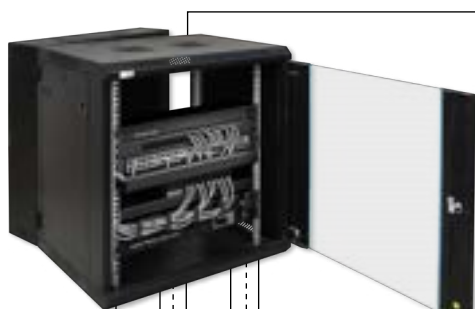


Fully assembled

Code	Static load	Mounting dimensions WxH	External dimensions WxHxD [+/- 2mm]
600x600			
RWD666	70 kg	19"x6U	600x368x600
RWD966	70 kg	19"x9U	600x501x600
RWD1266	70 kg	19"x12U	600x635x600



Sample product: RWD1266



Internet



Computer network



Closed-circuit television CCTV



Alarm system

# RACK 19" cabinets - floor standing, ready-to-assemble

## RS series

600×600 / 600×800 / 600×1000 / 800×800 / 800×1000

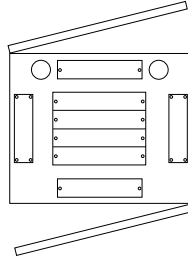
### RACK 19"

RACK 19" cabinets enable integrating CCTV, AC, I&HAS, RTV, LAN, or other systems in medium and big companies. They are intended for devices manufactured in enclosures of 19" standard. Thanks to RACK cabinets, devices are aesthetically mounted and protected against mechanical damage.

#### Help:

- Use CONFI-RACK®  
Available on [www.pulsar.pl](http://www.pulsar.pl)

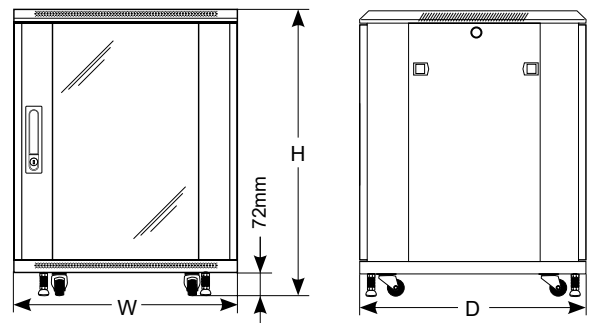
**CONFI**  
**RACK**



Sample product:  
RS2768



Code	Static load	Mounting dimensions W×H	External dimensions W×H×D [+/- 2mm]
<b>600×600</b>			
RS1566	1000 kg	19"×15U	600×855×600
RS2266	1000 kg	19"×22U	600×1166×600
RS4266	1000 kg	19"×42U	600×2055×600
<b>600×800</b>			
RS2768	1000 kg	19"×27U	600×1388×800
RS4268	1000 kg	19"×42U	600×2055×800
<b>600×1000</b>			
RS2761	1000 kg	19"×27U	600×1388×1000
RS4261	1000 kg	19"×42U	600×2055×1000
<b>800×800 - server</b>			
RS4288	1000 kg	19"×42U	800×2055×800
<b>800×1000 - server</b>			
RS4281	1000 kg	19"×42U	800×2055×1000



Sample product: RS2768



# RACK 19" cabinets - floor standing, fully assembled

## ZRS series

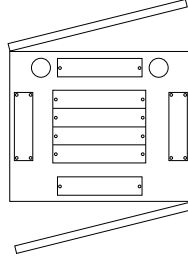
600×600 / 600×800 / 600×1000

### RACK 19"

RACK 19" cabinets enable integrating CCTV, AC, I&HAS, RTV, LAN, or other systems in medium and big companies. They are intended for devices manufactured in enclosures of 19" standard. Thanks to RACK cabinets, devices are aesthetically mounted and protected against mechanical damage.

#### Help:

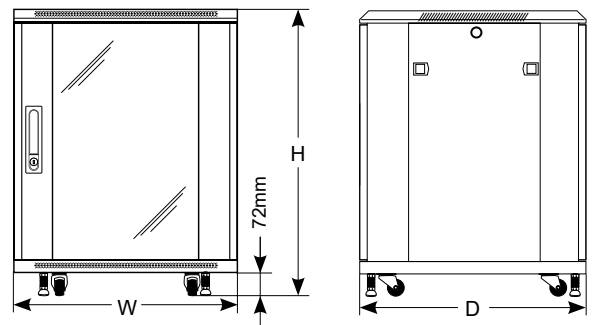
- Use CONFI-RACK® Available on [www.pulsar.pl](http://www.pulsar.pl)



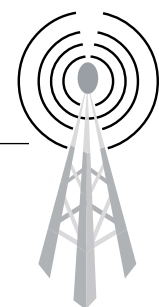
Sample product: ZRS2768



Code	Static load	Mounting dimensions W×H	External dimensions W×H×D [+/- 2mm]
<b>600×600</b>			
ZRS1566	1000 kg	19"×15U	600×855×600
ZRS2266	1000 kg	19"×22U	600×1166×600
ZRS4266	1000 kg	19"×42U	600×2055×600
<b>600×800</b>			
ZRS2768	1000 kg	19"×27U	600×1388×800
ZRS4268	1000 kg	19"×42U	600×2055×800
<b>600×1000</b>			
ZRS2761	1000 kg	19"×27U	600×1388×1000
ZRS4261	1000 kg	19"×42U	600×2055×1000



Sample product: ZRS2768



Internet



Computer network



Closed-circuit television CCTV



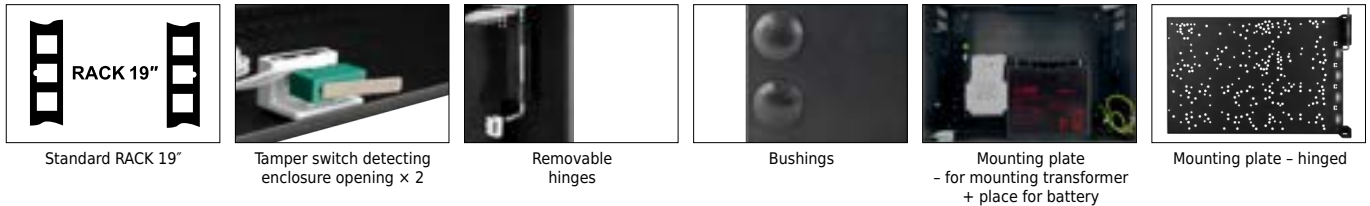
Alarm system

# Accessories for RACK 19" cabinets

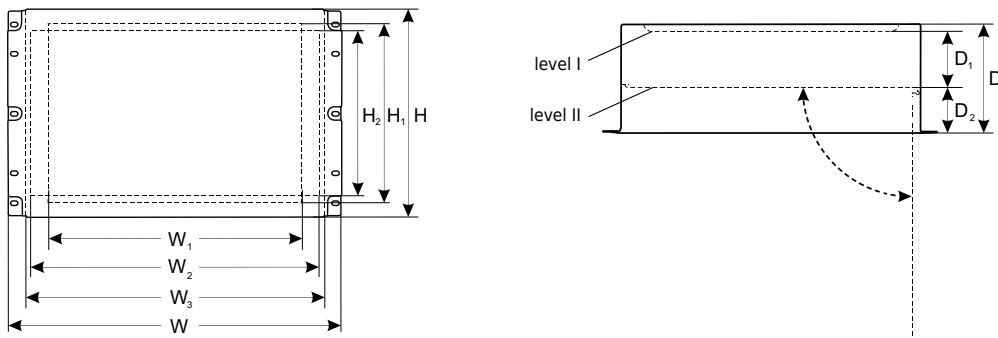
## Enclosure for alarm control panel - vertical

**RACK 19"**

RAW07 metallic enclosure is designed for mounting alarm control panel and input/output modules in RACK 19" cabinets. This enclosure is fitted with removable mounting plate (level I) and removable hinged mounting plate (level II). Enclosure has place for single 7Ah / 12V battery. Mounting plate (level I) has pre-embossed for transformer of TRP / and TRZ series and built-in power supply units of PS / PSB / and PSG2 series by Pulsar. Hinged mounting plate (level II) has holes for mounting for control panels and expansion modules from following companies: DSC, PARADOX, RISCO, SATEL, PYRONIX, CROW, and ROGER.



Code	Static load	Mounting dimensions W×H	Dimensions W / W <sub>3</sub> / H / D [+/- 2mm]	Mounting plate (level I) W <sub>1</sub> ×H <sub>1</sub> ×D <sub>1</sub> [+/- 2mm]	Hinged mounting plate (level II) W <sub>2</sub> ×H <sub>2</sub> ×D <sub>2</sub> [+/- 2mm]
<b>RAW07</b>	20kg	19"×7U	483 / 431 / 310 / 152	350×268×85	400×262×55



### Accessories:



Possible to be mounted inside enclosure:



# Accessories for RACK 19" cabinets

## Enclosures for alarm control panel - horizontal, sliding

**RACK 19"**

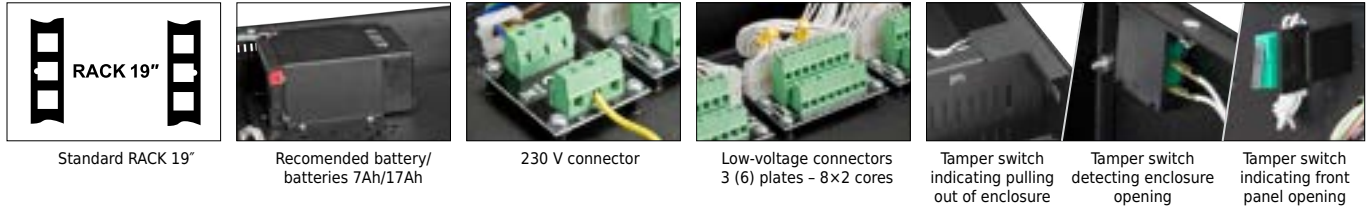
RACK security enclosures are designed for mounting alarm control panel and input / output modules in free-standing RACK 19" cabinets with depths in range from 800 to 1000 mm. They consist of two elements:

1. Patch panel is used to switch between YTDY 6x0,5 cable with copper cores and elastic cable supplying signals and power to control panel.
2. Pull out enclosure with 2U / 4U height - alarm control panel and input / output modules are mounted in this section - with space for 7Ah / 17Ah battery, transformer and ARAW45 fan (transformer and fan are not included).



Sample product:  
ARAD-S4

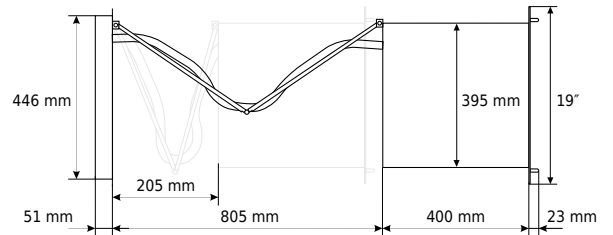
Universal holes in enclosure allow mounting control panels and expansion modules of following companies: DSC, PARADOX, RISCO, SATEL, PYRONIX, CROW, ROGER.



Code	Signal wires (pairs x cross-section)	Number of PCB boards	Maximum current	Recommended battery	Mounting dimensions WxH	Mounting plate (level I)	Hinge mounting plate (level II)
ARAD-S2	24x0,5	3	1,5A / 30 V DC	7Ah / 12V	19"x2U	250x260 (358x330)	n/a
ARAD-S4	48x0,5	6	1,5A / 30 V DC	17Ah / 12V	19"x4U	155x278 (360x342)	370x284 (370x352)

For mounting inside RACK cabinet, use ARAS rails. Depending on its depth:

- ARAS800 for RACK cabinets, depth D=800
- ARAS1000 for RACK cabinets, depth D=1000

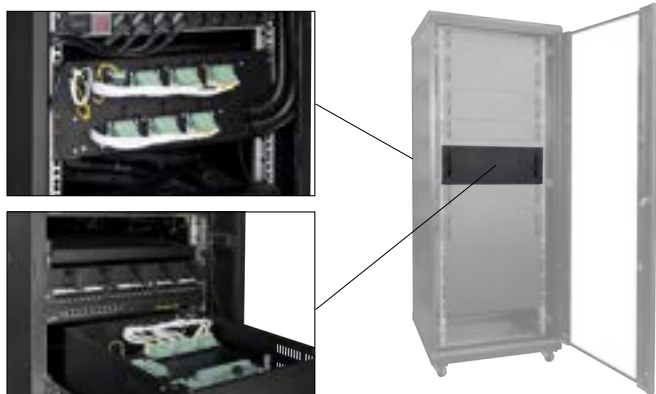


### Accessories:

- ARAS800 / ARAS1000
- MM019 / MM020 / MM064
- ARAP16P / ARAP21P
- ARAW45
- AWZ618



Sample product: ARAD-S4



Sliding enclosure



Possible to be mounted inside enclosure:





# Accessories for RACK 19" cabinets

## ARAD enclosures

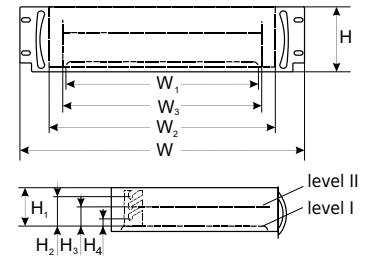
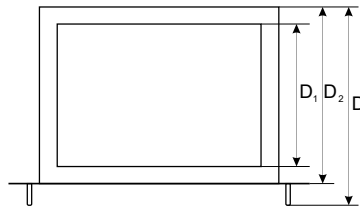
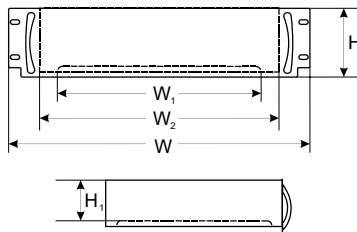
**RACK 19"**

Enclosures are intended for mounting inside RACK 19" cabinets. Enclosures allow integrate elements of CCTV, AC, I&HAS, RTV, LAN systems in RACK 19" cabinets. They are intended for mounting alarm control panels, AC controllers, power supply units, batteries, etc.

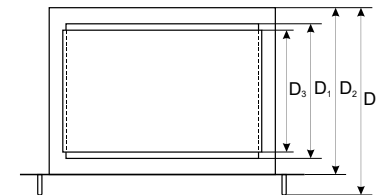


Sample product:  
ARAD2

Code	Dedicated for RACK 19" cabinets with depth	Installation		Mounting dimensions W×H	Dimensions W <sub>2</sub> ×D <sub>2</sub> [+/- 2mm]	Mounting plate (level I) W <sub>1</sub> ×D <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]	Hinged mounting plate (level II) W <sub>3</sub> / D <sub>3</sub> / H <sub>2</sub> / H <sub>3</sub> / H <sub>4</sub> [+/- 2mm]
		ARAS sliding rails	Front mounting (without ARAS rails...)				
ARAD1S	450	—	✓	19"×1U	395×270	n/a, H <sub>1</sub> =40	n/a
ARAD2S		—	✓	19"×2U	395×270	358×228×70	n/a
ARAD3S		—	✓	19"×3U	395×400	358×358×70	n/a
ARAD4S		—	✓	19"×4U	395×270	358×228×113	n/a
ARAD2	600 / 800 / 1000	Accordingly to cabinet's depth: • depth 450 - ARAS450 • depth 600 - ARAS600 • depth 800 - ARAS800 • depth 1000 - ARAS1000	✓	19"×2U	395×400	358×358×113	n/a
ARAD3			✓	19"×3U	395×270	358×228×160	362 / 220 / 116 / 87 / 56
ARAD4			✓	19"×4U	395×400	358×358×160	362 / 350 / 116 / 87 / 56



Sample product: ARAD2



Possible to be mounted inside enclosure:



Power supply unit



Transformer



Battery



Alarm control panel



Modules

## Accessories for ARAD

ARAS rails for ARAD enclosures

Code	Dedicated for RACK 19" cabinets with depth				Mounting dimensions W×H	Adjustment D <sub>1</sub> +D <sub>2</sub> [+/- 2mm]	Dimensions W / H <sub>1</sub> / D [+/- 2mm]
	450	600	800	1000			
ARAS450	✓	—	—	—	19"×1U	262÷388	40 / 48 / 270
ARAS600	—	✓	—	—	19"×1U	415÷610	40 / 48 / 400
ARAS800	—	—	✓	—	19"×1U	507÷705	40 / 48 / 400
ARAS1000	—	—	—	✓	19"×1U	668÷794	40 / 48 / 400



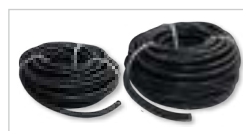
ARAS... rails



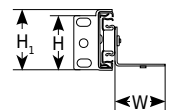
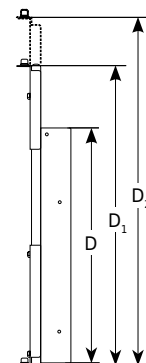
ARAW45 fan



ARAP16P, ARAP21P glands



MM019, MM020 cable protection conduit





# Accessories for RACK 19" cabinets

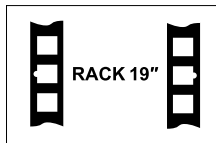
## Drawers

2U / 3U / 4U high RACK drawers are intended for storing / mounting supplementary elements in RACK cabinets.

**RACK 19"**



Sample product:  
RASR3



Standard RACK 19"



Front mounting

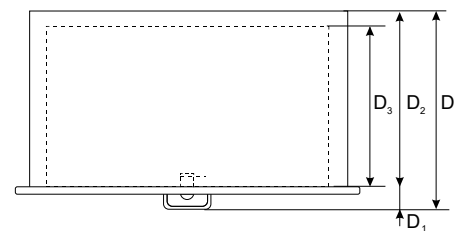
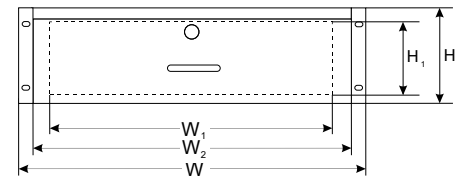


Lock



Partial extension  
slide

Code	Mounting dimensions $W \times H \times D_2$	Dimensions $W \times H \times D$ [± 2mm] $W_1 \times H_1 \times D_3$ [± 2mm]
<b>RASR2</b>	19"×2U×360mm	482×88×392 400×66×340
<b>RASR3</b>	19"×3U×360mm	482×132×392 400×109×340
<b>RASR4</b>	19"×4U×360mm	482×178×392 400×155×340



Sample product: RASR3



# Accessories for RACK 19" cabinets Enclosures with DIN rail

**RACK 19"**

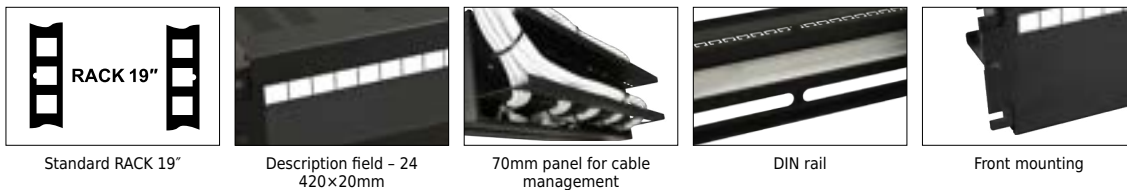
**ARADIN1** - Voltage distribution panel is intended for mounting S type fuses: in RACK 19" cabinet. One enclosure can accommodate max. 24 fuses, 1S wide.

**ARADIN2 / ARADIN3** - Enclosures with DIN rail for RACK cabinets are intended for mounting equipment located inside. Each enclosure has rail, length: 24x1S. Height of module cannot exceed 160mm.

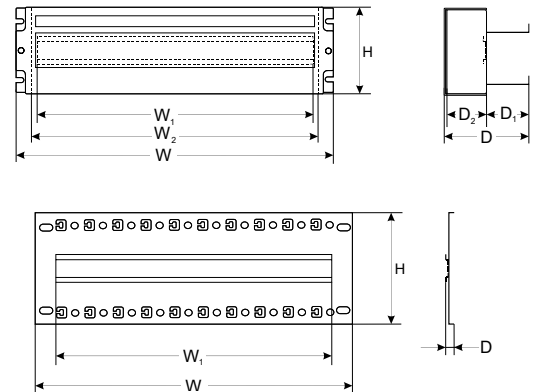
**RADIN** - Mounting plate of 4U high with DIN rail is designed for mounting devices on DIN rail in rear side of RACK 19" cabinets. Combination of rail with steel plate ensures tight mounting of device on rail including possibility of attaching power cables / signal cables to mounting plate. RADIN offers economical alternative for enclosures ARADIN1, ARADIN2, ARADIN3 mounted in RACK 19" cabinets.



Sample product:  
ARADIN3



Code	Number of "S" fields $W_1$	Mounting dimensions $W \times H$	Dimensions $W \times H \times D$ [ $\pm 2$ mm] $W_1 / W_2 / D_1 / D_2$ [ $\pm 2$ mm]
<b>ARADIN1</b>	24	19" x 3U	482 x 131 x 140 435 / 444 / 70 / 62
<b>ARADIN2</b>	24	19" x 3U	482 x 131 x 235 435 / 444 / 70 / 162
<b>ARADIN3</b>	24	19" x 4U	482 x 174 x 235 435 / 444 / 70 / 162
<b>RADIN</b>	25	19" x 4U	483 x 176 x 21 440 / - / - / -



Sample product: ARADIN3



Possibility of installing:



# Accessories for RACK 19" cabinets

## Fixed shelves

### RACK 19"

**RAPD600** - Front mounted shelf with dimensions of 445x315 is universal fixed shelf dedicated for RACK 19" cabinets of RWA / RW / RWD / RS and ZRS type.

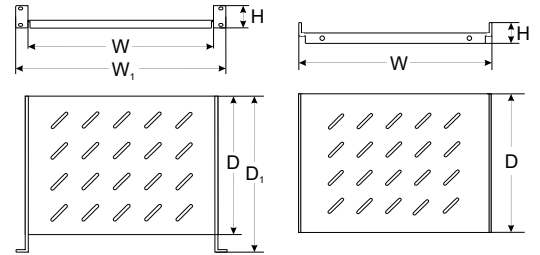
**RAPDS** - Shelf dedicated to switches:  
S64, S108, S108-90W  
SG64, SG108, SG108-90W  
SFG64, SFG64F1

**RAPS...** - Fixed shelves for RACK 19" cabinets of RWA / RW / RWD / RS and ZRS type. They are side mounted in RACK profiles.



Sample product:  
RAPD600

Code	For RACK cabinets, type / Depth								Shelf dimensions WxD [+/- 2mm]	External dimensions W <sub>1</sub> / H / D <sub>1</sub> [+/- 2mm]
	RWA		RW		RWD		RS and ZRS			
	450	600	450	600	600	600	800	1000		
RAPD600	✓	✓	✓	✓	✓	✓	✓	✓	445x315	483 / 87 / 350
RAPDS	✓	✓	✓	✓	✓	✓	✓	✓	445x242	485 / 45 / 242
RAPS450	✓	—	✓	—	✓	—	—	—	485x250	— / 48 / —
RAPS600	—	✓	—	✓	—	✓	—	—	485x350	— / 48 / —
RAPS800	—	—	—	—	—	—	✓	—	485x550	— / 48 / —
RAPS1000	—	—	—	—	—	—	—	✓	485x750	— / 48 / —



# Accessories for RACK 19" cabinets

## Sliding shelves

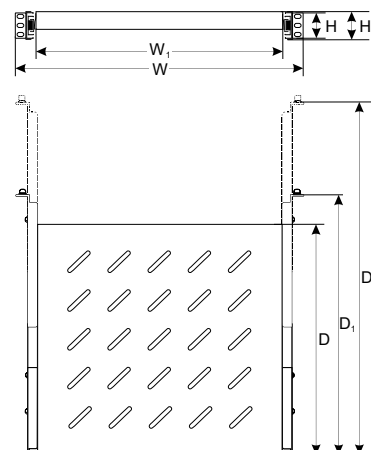
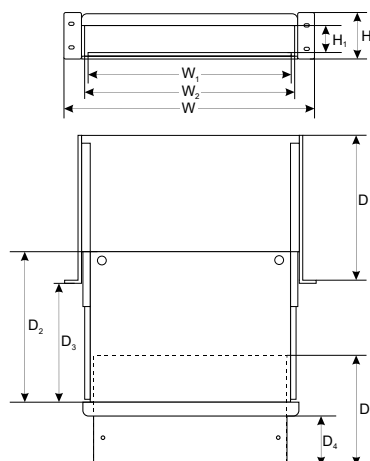
**RAPW-K** - Pull out shelf for keypads and mouse dedicated for free-standing RACK cabinets with computer to monitor / configure devices included in system.

**RAPW...** - Pull-out shelves for RACK 19" cabinets of RWA / RW / RWD / RS and ZRS type. They are mounted in front and rear RACK profiles and offer possibility of smooth adjustment of rear brackets. Rails have 15kg load capacity and full extension slide possibility which guarantees easy access to devices mounted inside RACK cabinets.



Sample product:  
RAPW600

Code	For RACK cabinets, type / Depth								Static load	Mounting dimensions WxH	Shelf dimensions W <sub>1</sub> x D [ +/- 2mm]	Adjustment D <sub>1</sub> +D <sub>2</sub> [ +/- 2mm]
	RWA		RW		RWD		RS and ZRS					
	450	600	450	600	600	600	800	1000				
RAPW-K	—	—	—	—	—	✓	✓	✓	20 kg	19"×2U	(W <sub>1</sub> =408, D <sub>1</sub> =300) (W <sub>2</sub> =414, D <sub>2</sub> =303)	—
RAPW450	✓	—	✓	—	✓	—	—	—	15 kg	19"×1U	420×280	261÷390
RAPW600	—	✓	—	✓	—	✓	—	—	15 kg	19"×1U	420×400	412÷610
RAPW800	—	—	—	—	—	—	✓	—	15 kg	19"×1U	420×550	463÷661
RAPW1000	—	—	—	—	—	—	—	✓	15 kg	19"×1U	420×730	623÷822



# Accessories for RACK 19" cabinets

## Mounting rails

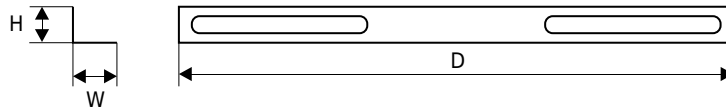
**RACK 19"**

**RASM...** - mounting rails 450 / 600 / 800 / 1000 are intended for supporting mount heavy devices (switch, PSU, UPS) in RACK 19" cabinets.



Sample product:  
RASM600

Code	For RACK cabinets, type / depth								Dimensions W×H×D [+/- 2mm]
	RWA		RW		RWD	RS and ZRS			
	450	600	450	600	600	600	800	1000	
RASM450	✓	—	✓	—	✓	—	—	—	45×45×250
RASM600	—	✓	—	✓	—	✓	—	—	45×45×350
RASM800	—	—	—	—	—	—	✓	—	45×45×550
RASM1000	—	—	—	—	—	—	—	✓	45×45×750



# Accessories for RACK 19" cabinets

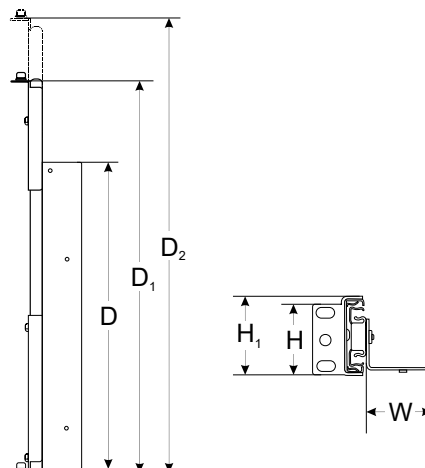
## Sliding mounting rails

ARAS rails for ARAD enclosures.



Sample product:  
ARAS450

Code	For RACK cabinets with depth				Mounting dimensions W×H	Adjustment D <sub>1</sub> +D <sub>2</sub> [+/- 2mm]	Dimensions W / H <sub>1</sub> / D [+/- 2mm]
	450	600	800	1000			
ARAS450	✓	—	—	—	19"×1U	262÷388	40 / 48 / 270
ARAS600	—	✓	—	—	19"×1U	415÷610	40 / 48 / 400
ARAS800	—	—	✓	—	19"×1U	507÷705	40 / 48 / 400
ARAS1000	—	—	—	✓	19"×1U	668÷794	40 / 48 / 400

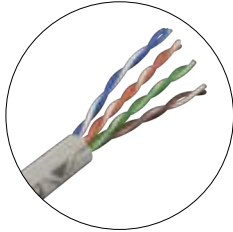


# Accessories for RACK 19" cabinets

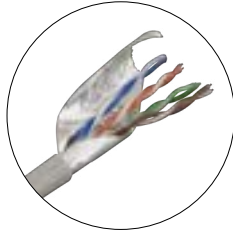
## Patch panels - Cat. 5e and 6 - UTP / FTP

**RACK 19"**

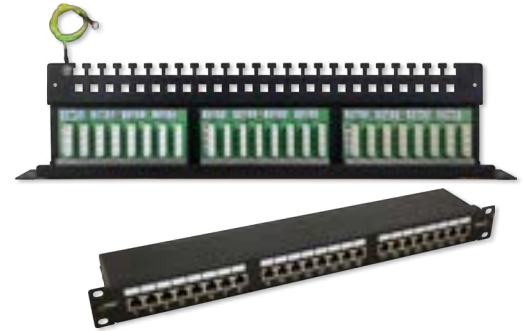
Patch panels are final element of structured network cabling in RACK 19" cabinets. Fundamental element of telecommunication network.



UTP twisted pair (unshielded)

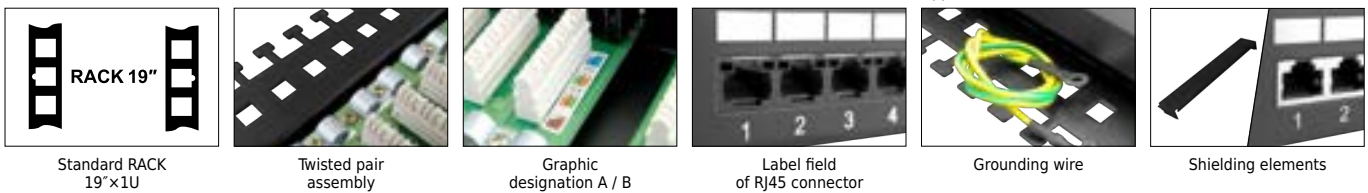


FTP twisted pair (shielded)



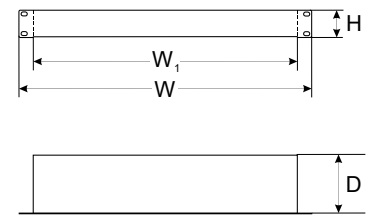
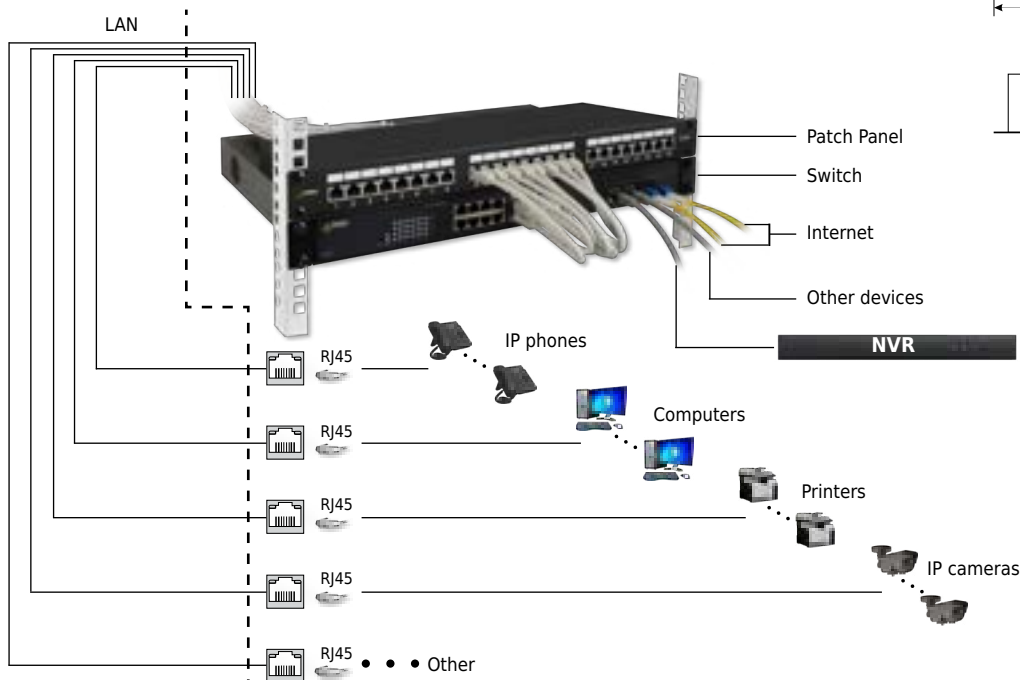
Sample product: RP-F24V6

Applies: RP-F24V5 and RP-F24V6



Code	Number of ports	Category	Twisted pair type	Mounting dimensions W×H×D	Installation of connectors LSA	Description field /	Numbering of RJ45 connectors	Mounting shelf for cables
RP-U24H5	24	Cat 5e	UTP	19"×1U×120mm	vertical	✓ / ✓	✓	✓
RP-U24V5	24	Cat 5e	UTP	19"×1U×110mm	horizontal	✓ / ✓	✓	✓
RP-U48V5	48	Cat 5e	UTP	19"×1U×89mm	horizontal	— / ✓	✓	✓
RP-F24V5	24	Cat 5e	FTP	19"×1U×110mm	horizontal	✓ / ✓	✓	✓
RP-U24V6	24	Cat 6	UTP	19"×1U×110mm	horizontal	✓ / ✓	✓	✓
RP-F24V6	24	Cat 6	FTP	19"×1U×110mm	horizontal	✓ / ✓	✓	✓

Sample product: RP-F24V6



# Accessories for RACK 19" cabinets

## Fans

### RACK 19"

**RAW1 / RAW2** – Fan designed for mounting in upper plate of wall mounted RACK cabinets of RWA / RW / RWD type. Forces air circulation from inside cabinet to outside. Mounted from inside, in upper part of RACK cabinet. They are fitted with 230 V AC non-detachable power cable with 2m length.

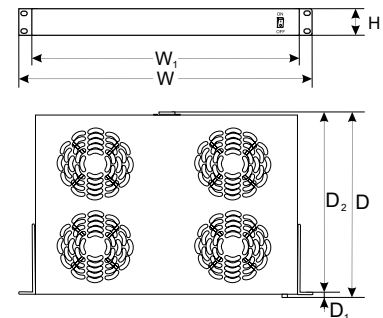
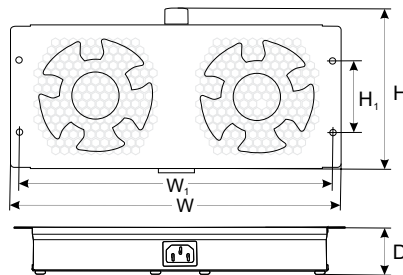
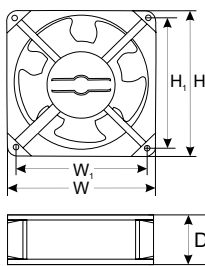
**RAWP** – Panel of two fans designed for mounting in upper plate of free-standing RACK cabinets of RS / ZRS type. Forces air circulation from inside cabinet to outside. Mounted from outside, in upper part of RACK cabinet. Possibility of cascade connection of panels. It is fitted with 230 V AC detachable power cable with 2m length.

**RAWP-1** – Panel of four fans in RACK 19" enclosure with 1U height. Forces air circulation between active devices generating heat inside RACK cabinets. It is fitted with 230 V AC detachable power cable with 2m length. Thermostats RAT and RAT-1R are dedicated for RAWP-1 fans panel.



Sample product:  
RAWP-1

Code	Number of fans	Dedicated for RACK 19" cabinets:					Mounting dimensions $W_1 \times H_1$	Dimensions $W \times H \times D$ [ $\pm 2$ mm]
		RWA	RW	RWD	RS	ZRS		
RAW1	1	✓	✓	✓	—	—	105×105	120×120×38
RAW2	2	✓	✓	✓	—	—	105×105	120×120×38
RAWP	2	—	—	—	✓	✓	285×65	298×150×47
RAWP-1	4	✓	✓	✓	✓	✓	(W×H) 19"×1U	483×43×304



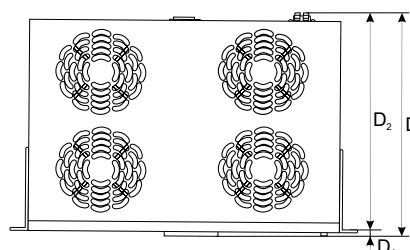
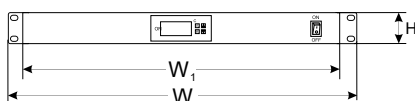
# Accessories for RACK 19" cabinets

## Fans with thermostat

**RAWP-1R** – Panel of four fans with integrated digital thermostat in RACK 19" enclosure with 1U height. Forces air circulation between active devices generating heat inside RACK cabinets. It is fitted with detachable temperature sensor with 2m length and with 230 V AC detachable power cable with 2m length.



Code	Mounting dimensions $W \times H$	Dimensions $W \times H \times D$ [ $\pm 2$ mm] $W_1 / D_1 / D_2$ [ $\pm 2$ mm]
RAWP-1R	19"×1U	482×44×314 430 / 10 / 305





# Accessories for RACK 19" cabinets

## Thermostats

**RACK 19"**

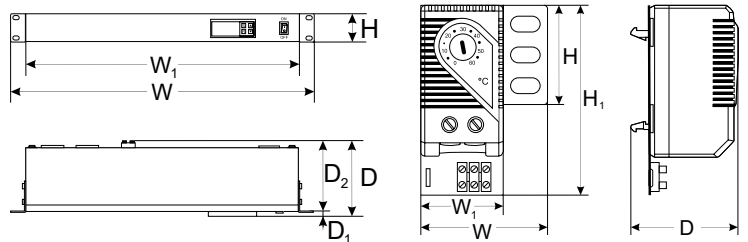
**RAT** - Bimetallic thermostat dedicated for controlling fan units of RAW1 / RAW2 and RAWP type. Equipped with 1 U metal bracket for mounting on RACK profile.

**RAT-1R** - Digital thermostat panel in RACK 19" enclosure with 1U height. It is fitted with two power sockets - used for controlling fan units of RAW1 / RAW2 and RAWP type. Panel is fitted with detachable temperature sensor with 2m length and with 230 V AC detachable power cable with 2m length.



Sample product:  
RAT-1R

Code	Mounting dimensions W×H	Dimensions W×H×D [± 2mm] W <sub>1</sub> / H <sub>1</sub> / D <sub>1</sub> / D <sub>2</sub> [± 2mm]
RAT	1U	53×41×43 34 / - / - / -
RAT-1R	19"×1U	483×43×130 430 / - / 10 / 120



# Accessories for RACK 19" cabinets

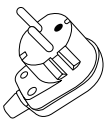
## Power distribution units

Power distribution units are mounted between RACK profiles. They enable plugging up to 8 devices supplied with 230 V AC.

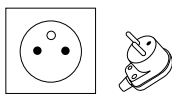


Sample product:  
RALZ/F

**RALZ**

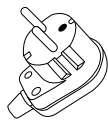


**plug:**  
type: E/F  
(„Unischuko”)

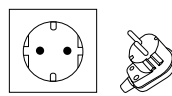


**socket:**  
type: E

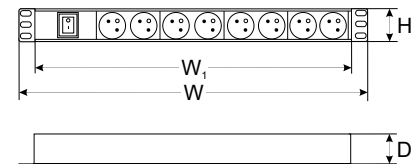
**RALZ/F**



**plug:**  
type: E/F  
(„Unischuko”)



**socket:**  
type: F  
(„Schuko”)



Code	Plug type	Socket type	Number of sockets	Power	Mounting dimensions W×H	Dimensions W×H×D [± 2mm]
RALZ	E/F „Unischuko”	E	8	3500W	19"×1U	484×45×45
RALZ/F	E/F „Unischuko”	F „Schuko”				

## Accessories for RACK 19" cabinets

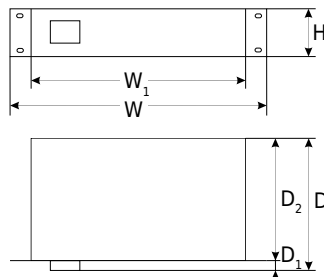
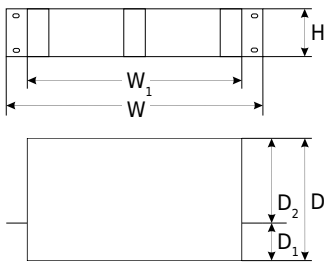
### Battery enclosures

**RACK 19"**

**RAKU2** - Battery enclosure for RACK 19" cabinets designed for installation of 2×17Ah or 4×7Ah batteries. It is mounted in rear of RACK cabinet (of RWA / RW / RWD / RS and ZRS series) behind power supply units and switches with battery backup.

**RAKU3** - Battery enclosure for RACK 19" cabinets designed for installation of 4×17Ah or 4×7Ah batteries. It is fitted with four BAT1+BAT4 connectors for capacity and voltage configuration of batteries inside enclosure.

Code	Recommended batteries	Mounting dimensions W×H	Dimensions W×H×D [+/- 2mm] W <sub>1</sub> / D <sub>1</sub> / D <sub>2</sub> [+/- 2mm]
<b>RAKU2</b>	2×17Ah / 12V 4×7Ah / 12V	19"×2U	483×88×180 429 / 60 / 120
<b>RAKU3</b>	4×17Ah / 12V 4×7Ah / 12V	19"×2U	483×88×422 435 / 12 / 410



RAKU2



RAKU3

Accessories for RAKU2:



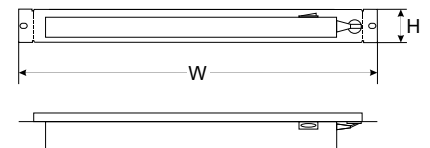
RAKU2-ZP

## Accessories for RACK 19" cabinets

### Lighting

RAOS lighting should be mounted at rear or at front side of RACK 19" cabinets. It is designed for lighting inside of cabinet during installation or servicing.

Code	Power supply	Mounting dimensions W×H
<b>RAOS</b>	230 V AC / 5W	19"×1U



## Accessories for RACK 19" cabinets

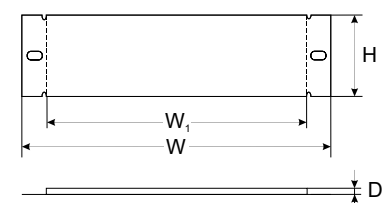
### Blanking panels

Blanking panels for RACK 19" cabinets are intended for blanking empty spaces between equipment mounted inside cabinets.

Code	Mounting dimensions W×H	Dimensions W×H×D [+/- 2mm]
<b>RAPZ1</b>	19"×1U	482×45×12
<b>RAPZ2</b>	19"×2U	482×88×12
<b>RAPZ3</b>	19"×3U	482×133×12
<b>RAPZ4</b>	19"×4U	482×177×12



Sample product:  
RAPZ4



# Accessories for RACK 19" cabinets

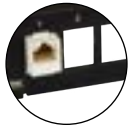
## Patch panel frames

**RACK 19"**

Patch panel frames are designed for installation (depending on model) up to 24 „F” type / Keystone RJ45 / single SC-APC / double SC-APC connectors in RACK 19" cabinets.



RAP-F



RAP-RJ45



RAP-SCAPC1



RAP-SCAPC2



Sample product:  
RAP-SCAPC2

Code	Connector type	Accessories	Module space	Mounting dimensions WxH	Dimensions WxHxD [+/- 2mm]
RAP-F	F	GF-GF	24	19"×1U	483×43×13
RAP-RJ45	keystone RJ45	GF-GF-K			
RAP-SCAPC1	SC / APC	SC/APC-1SM			
RAP-SCAPC2	double SC / APC modules	SC/APC-2SM			

### Accessories:



GF-GF



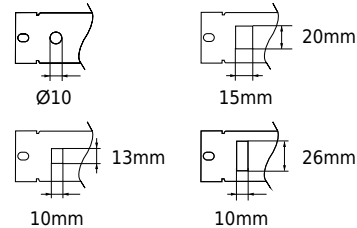
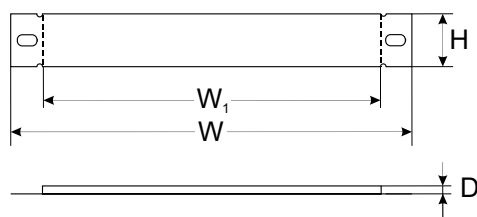
GF-GF-K



SC/APC-1SM



SC/APC-2SM



# Accessories for RACK 19" cabinets

## Cable management panels

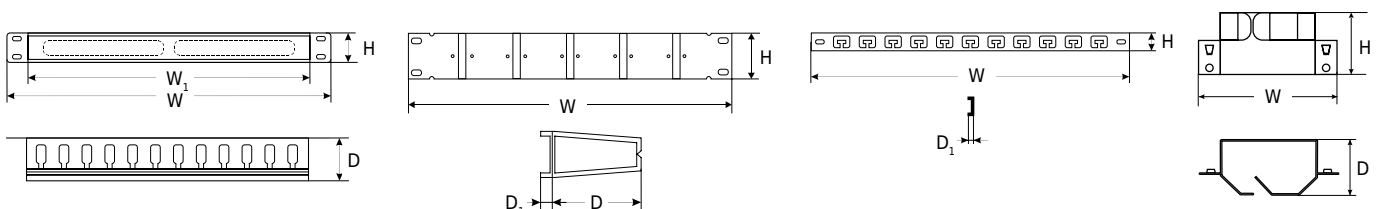
**RAOK-1M/P/T** - Cable management panels are designed to organize and protect horizontal cabling in RACK cabinet against accidental damage.

**RAOK-LR** - Cable management panel is designed to organize and protect vertical cabling in RACK cabinets of RS / ZRS type against accidental damage (RACK cabinet width - 600mm).



Sample product:  
RAOK-1P

Code	Mounting dimensions WxH	Dimensions WxHxD [+/- 2mm]
RAOK-1M	19"×1U	483×44×70
RAOK-1P	19"×1U	482×44×68
RAOK-1T	19"×1U	483×35×11
RAOK-LR	—	116×52×45



# Accessories for RACK 19" cabinets

## Brush grommets

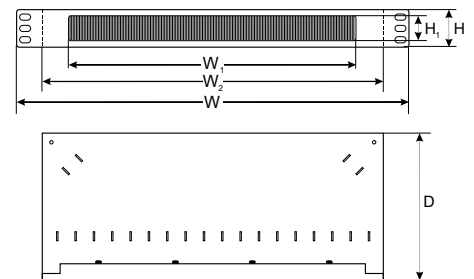
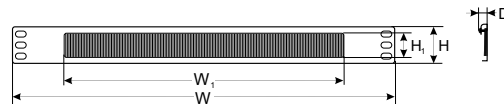
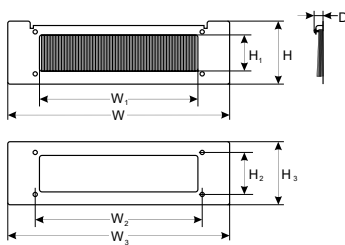
**RACK 19"**

Brush grommets for RACK cabinets enable entering cables aesthetically and protect cabinet against intrusion of any objects.



Sample product:  
RAPS-1P

Code	Dedicated for RACK 19" cabinets:					Mounting dimensions W×H	Dimensions W×H×D [+/- 2mm] W <sub>1</sub> ×H <sub>1</sub> [+/- 2mm]
	RWA	RW	RWD	RS	ZRS		
RAPS-U	✓	✓	✓	—	—	—	380×80×16 230×40
RAPS	—	—	—	✓	✓	—	273×64×16 220×40
RAPS-1	✓	✓	✓	✓	✓	19"×1U	483×44×16 320×25
RAPS-1P	✓	✓	✓	✓	✓	19"×1U	483×44×322 320×25



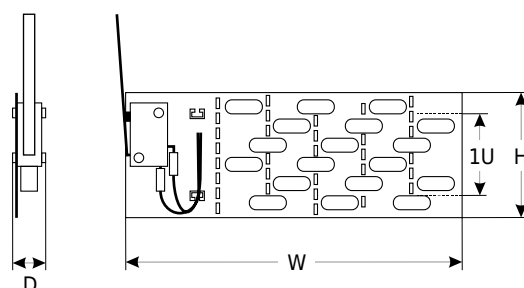
# Accessories for RACK 19" cabinets

## Tampers

Tampers are designed to protect RACK 19" cabinets against unauthorized opening. Alarm is activated by opening front, rear or side door of cabinet.



Code	For RACK cabinets	External dimensions W×H×D [+/- 2mm]
RWST	RW / RWA / RWD / RS / ZRS	153×66×17

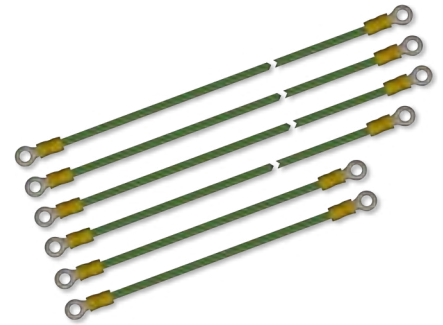


## Accessories for RACK 19" cabinets

### Grounding wires

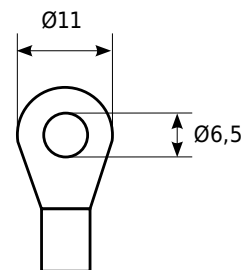
Sets of grounding wires are designed to ground all components of RACK 19" cabinets.

**RACK 19"**



Sample product:  
RAPU

Code	For RACK cabinets	Length
RAPU	RWA / RW / RWD	3×120cm, 1×60cm, 2×30cm
RAPU-Z	RS / ZRS	1×280cm, 1×80cm, 6×40cm



## Accessories for RACK 19" cabinets

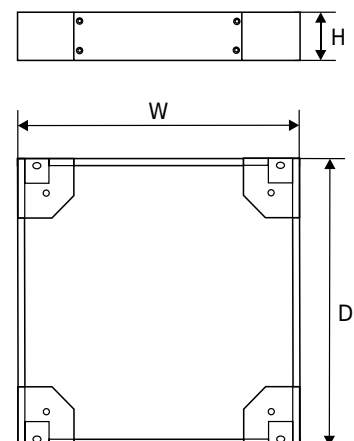
### Plinths

Plinths with height of 100mm are designed for RS and ZRS free-standing cabinets. Allow stabilizing cabinet and floor mounting.



Sample product:  
RAC166M

Code	For RACK cabinets, type: RS / ZRS width × depth [mm]	Dimensions W×H×D [+/- 2mm]
RAC166M	600×600	596×100×596
RAC168M	600×800	596×100×796
RAC1610M	600×1000	596×100×996
RAC188M	800×800	796×100×796
RAC1810M	800×1000	796×100×996



## Accessories for RACK 19" cabinets

### Casters, leveling feet

#### RACK 19"

**RAK** - Casters for free standing RACK cabinets. Set of 4 casters enables easy moving and position adjustment of cabinet.

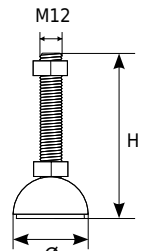
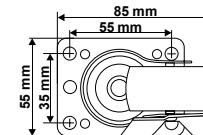
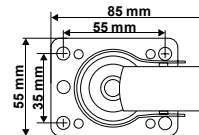
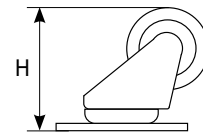
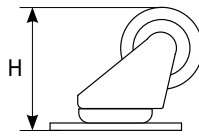
**RAKB** - Casters for free standing RACK cabinets. Set of 4 casters enables easy moving of cabinet and locking it in selected position.

**RAN** - Leveling feet are for leveling and stabilising RACK cabinet.



Sample product:  
RAKB

Code	Dimensions W×H×D [± 2mm]
RAK	55×70×85
RAKB	55×70×85
RAN	M12 / Ø=32, H=90



## Accessories for RACK 19" cabinets

### Locks, screws

**RAZ25** - Universal round lock 25 is intended for front / rear door of RACK cabinets, type: RWA, RW, RWD, RS, ZRS.

**RAZB16** - Round side panel lock 16 is intended for mounting in side panels of RACK cabinets, type: RW, RWD, RS, ZRS.

**RAZ-D** - Lock intended to rear door of RACK cabinets RWD series.

**RAZ-S** - Universal front door lock for RACK cabinets of RS / ZRS types.

**RAS4** - Set of four M6 screws is intended for mounting devices inside RACK standard enclosure in RACK cabinets.



RAZ-S

Sample product:  
RAZ-S



RAZB16



RAS4

Code	Dimensions [± 2mm]
RAZ25	D=29
RAZB16	D=13
RAZ-D	D=26
RAZ-S	34×140×30
RAS4	M6×16



# Other accessories

## Connectors



**ML108**  
Reduction - CABLE-OUTLET DC 5.5/2.1



**ML109**  
Reduction - CABLE-PLUG DC 5.5/2.1



**ML120**  
Reduction - CABLE-OUTLET DC 5.5/2.1/N



**ML121**  
Reduction - CABLE-PLUG DC 5.5/2.1/N



**ML517**  
Power adapter for HIKVISION DVR (DIN 4 pin/ 5.5/2.1 socket)



**GF-GF**  
GF-GF Transition socket F - socket F (professional)



**GF-GF-K**  
GF-GF double F type adapter (professional), keystone



**SC/APC-1SM**  
APC-1SM fiber optic adapter - single mode



**SC/APC-2SM**  
APC-2SM fiber optic adapter - single mode

## Cables



**PSD13**  
Cable 230 V AC 3x0.75mm<sup>2</sup>, 2m, CEE 7/7 (EF), IEC C13 angled plug



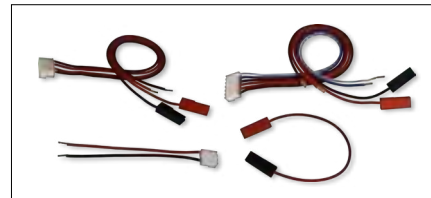
**SP4**  
Splitter 4 DC 5.5/2.1



**SP8**  
Splitter 8 DC 5.5/2.1



**PKAZ040**  
Set of grounding cables to enclosures



**PKAZ041**  
Set of wires dedicated to power supplies PSC series of Mean Well

## Set for EMPTY enclosures

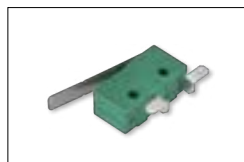


**PKAZ158**  
Mounting set is intended to EMPTY enclosures



**PKAZ196**  
Mounting set is intended to DSC EMPTY enclosures

## Tampers



**ML101**  
TAMPER S



**PKAZ066**  
Tamper switch detachment from surface 8mm with wires



**PKAZ067**  
Tamper switch detachment from surface 14mm with wires

## Locks



**MR008**  
Lock, type 802 - various code



**MR027**  
Lock, type 876 - repeatable code



**MR045**  
Lock, type B254 - repeatable code



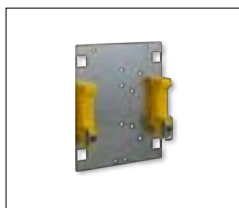
**MR009**  
Raw key (for MR008 / MR027)



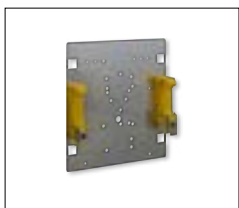
**MR042**  
Key 9081 (for MR027)

# Other accessories

## DIN brackets



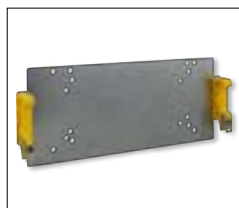
**DIN1**  
DIN holder for power supply units and transformers



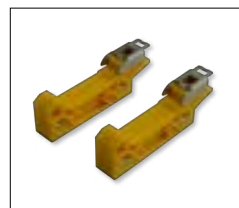
**DIN2**  
DIN holder for power supply units and transformers



**DIN3**  
DIN holder for power supply units



**DIN4**  
DIN holder for power supply units

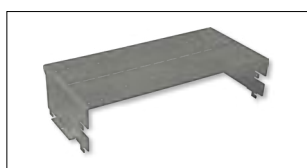


**PKAZ107**  
Mounting kit for DIN rail

## Mounting plate



**BM1**  
Mounting plate BM1



**BM2**  
Mounting plate BM2

## Mounting elements



**ML146**  
Cable glands M12x1.25



**ML147**  
Cable glands M16x1.5



**ML145**  
Cable glands M20x1.5



**ARAP16P**  
Cable gland fi 16mm



**ARAP21P**  
Cable gland fi 21mm



**MM064**  
Cable protection conduit fi 6



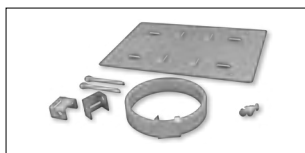
**MM019**  
Cable protection conduit fi 16



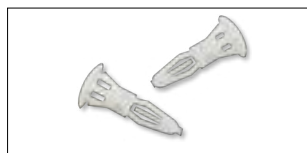
**MM020**  
Cable protection conduit fi 21



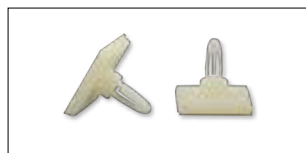
**RAS4**  
Screw set RACK 4 pcs.



**OZB2 / OZB3 / OZB4**  
Pole mount bracket



**PW100**  
Mounting pin Ø6



**MM054**  
Adhesive pin spacer  
Ø6 - LCBSB-4-01-ART

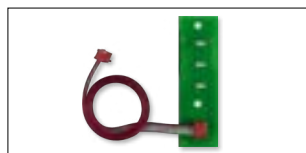
## Others



**ML062**  
Angle muff 6,3/KK45-0,8-5,1



**ARAW45**  
Fan with temperature sensor 45°C

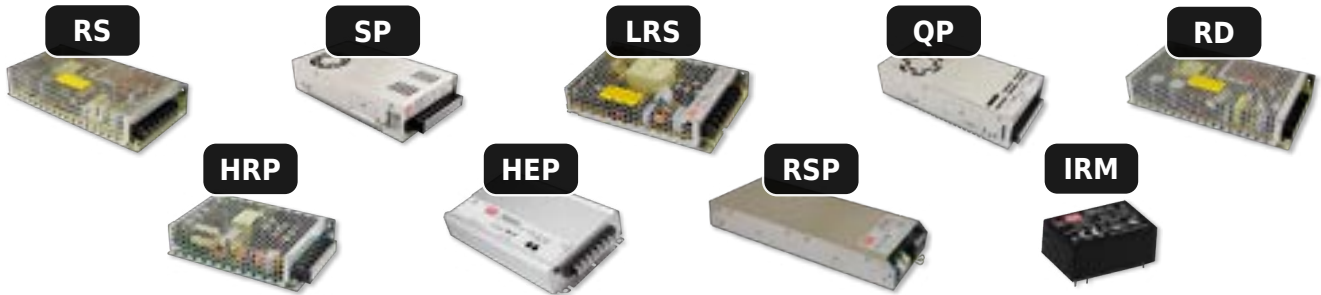


**PKAZ168**  
Set for optical indication



**ZPR**  
Set of two straps for mounting recorder

**Enclosed power supply units**



**Power supply units for DIN rail**



**Buffer power supply units**



**Power supply units for DIN rail  
- with battery backup**



**Power supplies for LED lighting**



**DC/AC inverters**

- with full sinusoid
- with full sinusoid and UPS function
- with modified sinusoid
- input voltage  $U_{IN} = 12 \text{ V DC} / 24 \text{ V DC} / 48 \text{ V DC}$
- output voltage  $U_{OUT} = 110\text{VAC} / 230 \text{ V AC}$



**DC/DC converters**



**Battery chargers**



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