

Pyro Safety Switches

Prevention in milliseconds to avoid short-circuits, fire ignition & battery draining.

Pyro Safety Switch PSS-4 500V 1000J

Autoliv's industry-standard Pyro Safety Switches comply with the high-quality requirements of the vehicle industry. Our Pyro Safety Switches offer a range of technical specifications, including different voltages, short circuit resistance and maximum current

- Maximum Switching capacity : 1000 J
- Maximum continuous current 500 A
- Non-reversible device
- Suitable for voltage levels up to 600 VDC
- High peak current carrying capability up to 25 000 A



Product specifications

Switching capacity

Inductive load 490 V / 10 000 A / 20 μ H
475 V / 12 000 A / 15 μ H

(Other request, Contact us)

Maximum switching capacity 1000J

Current carrying capacity

Customer cooling system must guarantee the temperature at terminals' connection point does not exceed +125°C

Customers applications examples:

| | |
|--|-----------------|
| 105°C Max, load cable 70 mm ² min | 350 A DC |
| 85°C Max, load cable 70 mm ² min | 420 A DC |
| 50°C Max, load cable 70 mm ² min | 500 A DC |
| Maximum pulse current | 25 000 A / 5 ms |

Busbar

| | |
|--------------------------------------|-----------|
| Contact raw-material (base) | CuSn 0,15 |
| Contact plating material (lead-free) | Sn/Ni |

| | |
|---------------------------|--|
| Busbar profile | |
| Cross-section nominal | 60 mm ² or 78 mm ² |
| Busbar resistance (at RT) | |
| before ops. | $\leq 0,05$ m Ω |
| after ops | ≥ 50 M Ω / 500 V |

Operation time

| | |
|----------------|--|
| Operating time | < 2 ms |
| Typical | 0.8 ms for 450 V / 10 000 A / 20 μ H |

Triggering conditions

| | |
|-------------------------------|---|
| Qualified acc. to | AK-LV 16 & USCAR |
| Triggering circuit resistance | $\geq 1,7 \Omega$ and $\leq 2,5 \Omega$ |
| Triggering current | 1,75 A / 0,5 ms |
| Or | 1,20 A / 2,0 ms |
| No-triggering current | $\leq 0,4$ A |
| Or | $\leq 5,0$ A / $\leq 4 \mu$ s |
| Diagnostic current: | < 100 mA |
| Triggering pulse slope | > 8 mA / μ s |

Temperature

| | |
|---------------------------|------------------|
| Operating temperature | -40°C... + 105°C |
| Environmental temperature | -40°C... + 105°C |
| Storage temperature | -40°C... + 65°C |

Other Data

| | |
|--------------------------------------|-----------|
| Vibration resistance acc. to | AK-LV 124 |
| Mech. Shock resistance acc. to | AK-LV 124 |
| Temperature cycle resistance acc. to | AK-LV 124 |
| Chemical loads resistance acc. to | AK-LV 124 |

Other: No ionizing gases / No particles exhaust

Terminal type

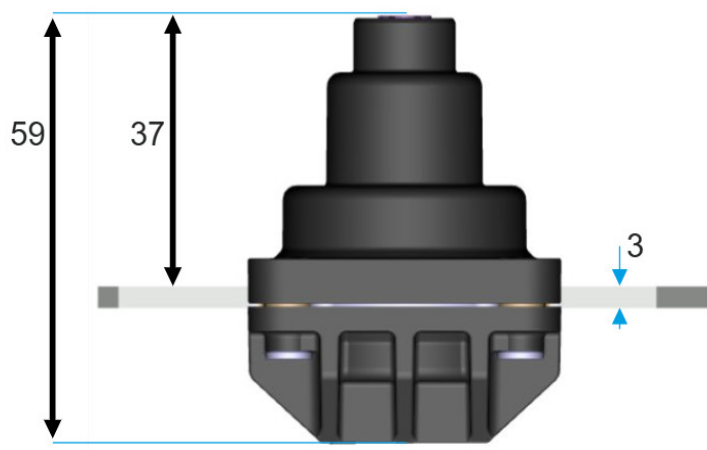
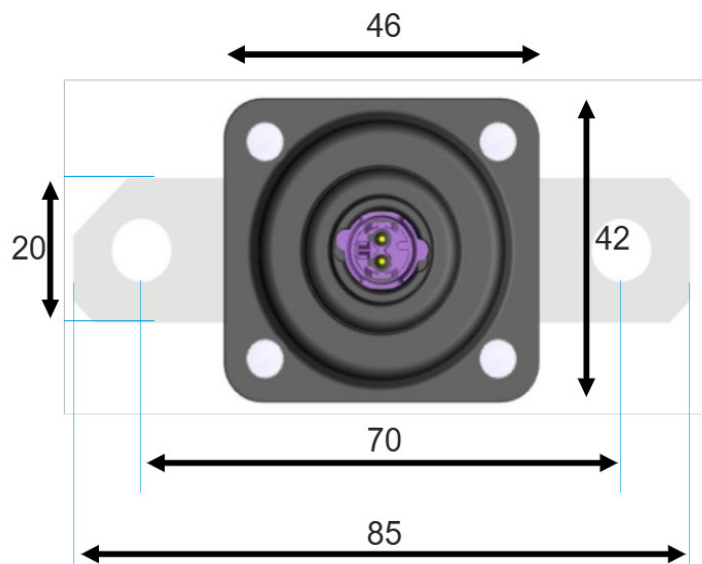
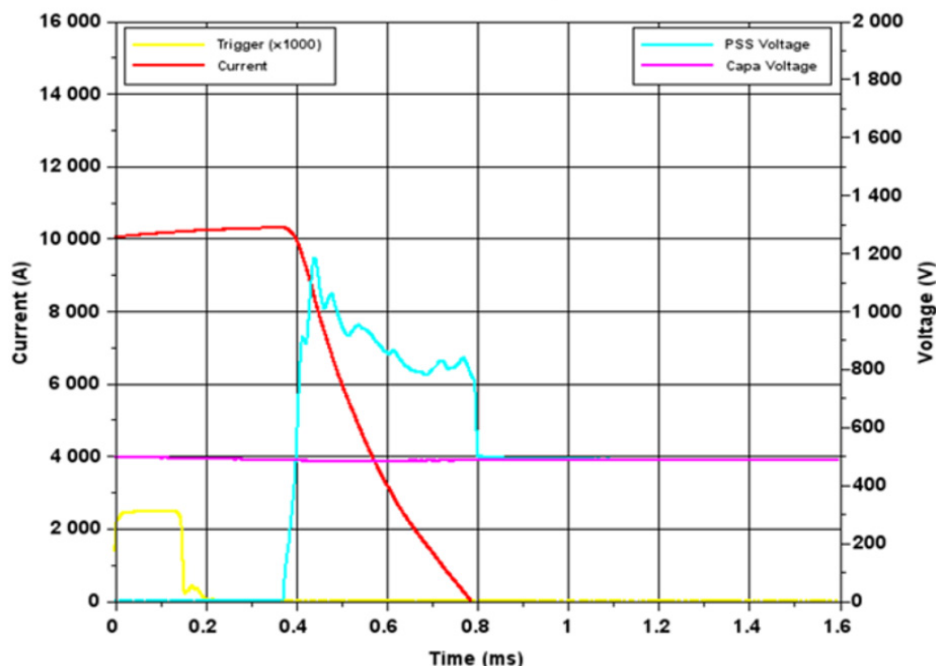
| | |
|--------------|---------------|
| on bus-bar | M6 or M8 |
| on initiator | ABX-5 or AK-2 |

| | |
|--------|--------------|
| Weight | ≤ 125 g |
|--------|--------------|

Technical Data & Dimensions

Performance & Dimensions

Typical current switch-off / Battery short-circuit
10 000 A / 490 V / 20 μ H



We refer emphatically to the fact, that all details mentioned, especially the application and utilization recommendation for the products and their system accessories, have been developed under normal conditions, and based on our knowledge and experience. Appropriate storage and usage of the products are assumed. A warranty or reliability of a finished project cannot be deduced because of varying materials, substrates and differing work conditions, neither by any indications nor from verbal statements, irrespective of any legal positions. For the possible accusation that FDT acted intentionally or grossly negligent, the user has to supply evidence that they provided Autoliv with all information and details necessary for an appropriate and correct evaluation through Autoliv in written form, immediately available and complete. The user is responsible for ensuring that the products are suitable for the given application. It is Autoliv's right to change product specifications without notice. Property rights of third parties are to be considered. In addition our particular sales and delivery terms are valid. The latest version of our product data sheet is obligatory, which can be requested directly through Autoliv. All information as well as all technical and drawing data comply with current technical standards and are based on our experience. National standards and regulations must be observed. Technical changes reserved. As of January 2016. © 2016



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