Pyrotechnical Safety Switches



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



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

- 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



Switching capacity

Inductive load $475 \text{ V} / 13\,300 \text{ A} / 20 \,\mu\text{H} \\ 475 \text{ V} / 23\,500 \text{ A} / 2,3 \,\mu\text{H}$

(Other request, Contact us)

Maximum switching capacity 1800J Max switching capacity, 2 PSS-4 in series

triggered simultaneously $1000 \text{ V}/25000 \text{ A}/\leq 5 \mu\text{H}$

(max delay 15µs between triggering signals)

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 mm² min350 A DC85°C Max, load cable 70 mm² min420 A DC50°C Max, load cable 70 mm² min500 A DCMaximum pulse current25 000 A / 5 ms

Busbar

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

Busbar profile

Cross-section nominal 78 mm²

Busbar resistance (at RT)

before ops. $\leq 0.05 \,\mathrm{m}\Omega$ after ops $\geq 1 \,\mathrm{M}\Omega \,/\,500 \,\mathrm{V}$

Operation time

Operating time $$<2\,ms$$ Typical $$0.8\,ms$ for $450\,V\,/\,8\,000\,A\,/\,15\,\mu H$ $$0.8\,ms$ for $530\,V\,/\,24\,000\,A\,/\,3\,\mu H$

C E UK CA

Triggering conditions

Qualified acc. to AK-LV 16 \otimes USCAR Triggering circuit resistance ≥1,7 Ω and ≤ 2,5 Ω Triggering current 1,75 A / 0,5 ms Or 1,20 A / 2,0 ms Solution or ≤ 0,4 A Or ≤ 5,0 A / ≤ 4 μ s Diagnostic current: < 100 mA Triggering pulse slope > 8 mA / μ s

Temperature

Operating temperature $-40^{\circ}\text{C...} + 105^{\circ}\text{C}$ Environmental temperature $-40^{\circ}\text{C...} + 105^{\circ}\text{C}$ Storage temperature $-40^{\circ}\text{C...} + 65^{\circ}\text{C}$

Other Data

Vibration resistance acc. to

Mech. Shock resistance acc. to

Temperature cycle resistance acc. to

Chemical loads resistance acc. to

AK-LV 124

AK-LV 124

AK-LV 124

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

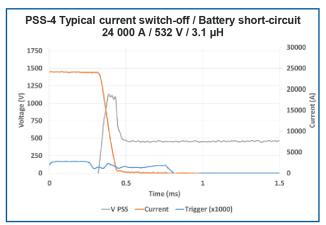
Weight ≤ 145 g

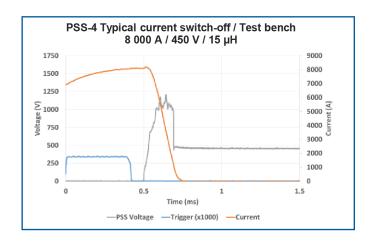
09/2023, Rev. 021 autoliv.com

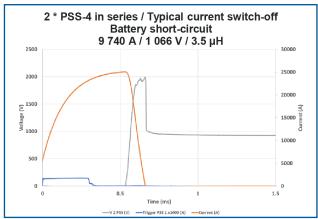
Technical Data & Dimensions

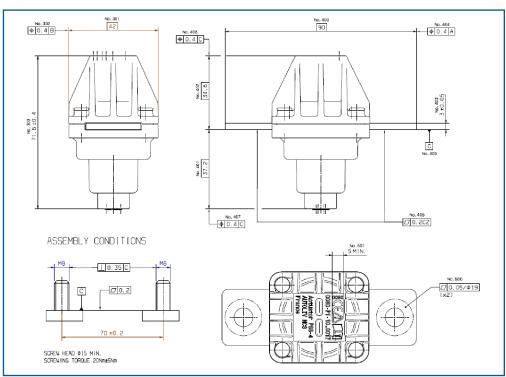


Performance & Dimensions









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 correctevaluation 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

