

Pyro Safety Switches

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

Pyro Safety Switch PSS-4 500V 600J

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 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
- No ionizing gases / No particles exhaust
- Material Flammability : V0



Product specifications

Maximum switching capacity With Cpk 600J
Systems configurations tested 500 V / 10 000 A / 12 µH
(Other request, Contact us)

Current carrying capacity

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

Customers applications	105°C Max, 350 A DC
examples	85°C Max, 420 A DC
(Load cable 70 mm² min)	50°C Max, 500 A DC
Maximum pulse current	25 000 A / 5 ms

Busbar

Raw-material (base)	CuSn 0,15
Plating material (lead-free)	Sn/Ni
Cross-section	60 mm² or 78 mm²
Busbar resistance (at RT)	
before ops.	≤ 0,05 mΩ
after ops	≥ 50 MΩ / 500 V

Operation time

Operating time	With Cpk 1,67 < 2 ms
450 V / 10kA / 20 µH	Typical 0.8 ms

Triggering conditions

Ohmic resistance	acc. to AK-LV 16 & USCAR
Current pulse	≥ 1,7 Ω and ≤ 2,5 Ω
	1,75 A / 0,5 ms
	Or 1,20 A / 2,0 ms
Pulse slope	> 8 mA / µs
No-triggering current	≤ 0,4 A Or ≤ 5,0 A / ≤ 4 µs
Diagnostic current:	< 100 mA

Temperatures

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

Validations

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

HV-LV resistance	
before/after ops.	≥ 1 GΩ / 500 V

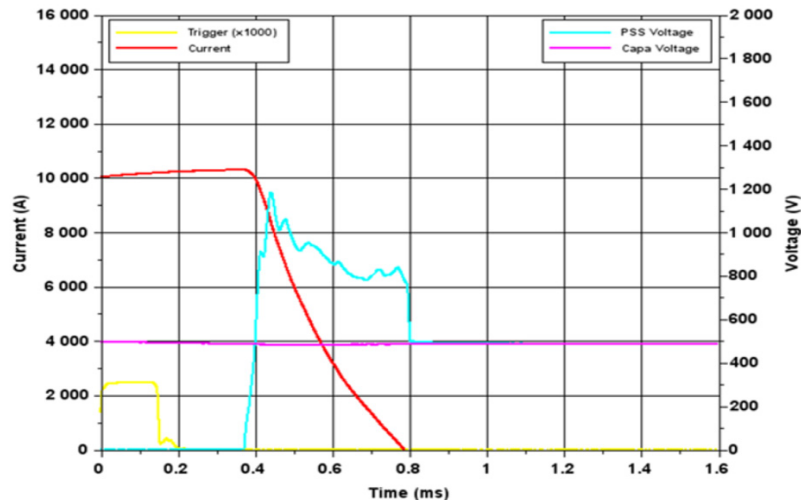
Terminal type

HV	M6 (Standard) or
	M8 (Option)
Triggering	AK-2 (Standard) or
	ABX-5 (Option)

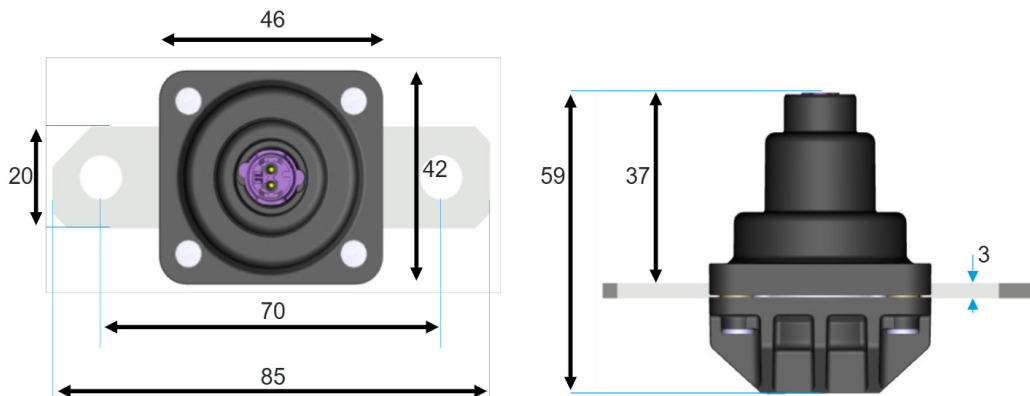
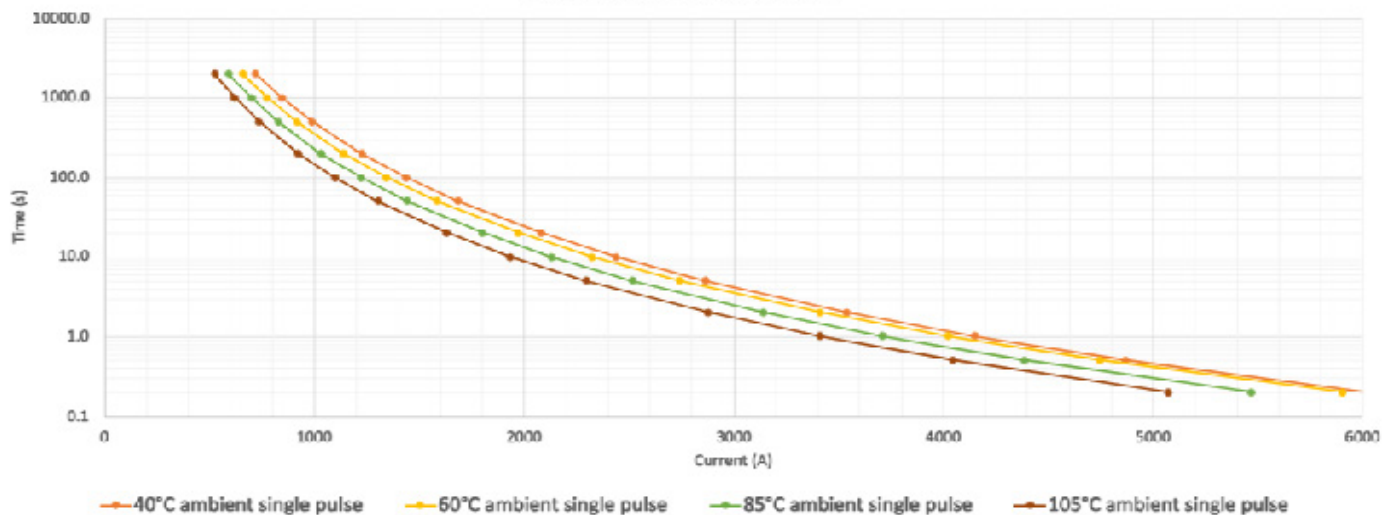
Weight	≤ 125 g
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Technical Data and Dimensions

Performance & Dimensions



Derating curve for single pulses



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