

Pyro Safety Switches

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

Pyro Safety Switch PSS-3



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 300A
- Non-reversible device
- High peak current carrying capability up to 25 000 A
- Material Flammability : HB
- Second Circuit power off simultaneously : max 5A / 48V



Product specifications

Maximum switching capacity	Typical 150 J With Cpk 120 J
Systems Configurations tested	150 V / 2 000 A / 60 µH 200 V / 2 000 A / Ohmic load
(Other request, Contact us)	

Current carrying capacity

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

Customer application example (Load cable 50 mm ²)	85°C	300 A
	105°C	250 A
	125°C	200 A
Maximum pulse current	25 000 A / 5 ms 2 000 A / 10 s	

Busbar

Raw-material (base)	CuSn 0,15
Plating material (lead-free)	Sn/Ni
Cross-section	32 mm ²
Busbar resistance (at RT)	
before ops.	≤ 0,1 mΩ
after ops	≥ 10 MΩ / 500 V

HV-LV resistance before/after ops	≥ 1 GΩ / 500 V
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Operating time	With Cpk 1,67 < 3 ms Typical 0,8 ms
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Second Circuit

Contact raw material	Cu Alloy
Contact Plating	AgNi
Wire cross section	0,2mm ²

Triggering conditions

Ohmic resistance	acc. to AK-LV 16 & USCAR ≥ 1,7 Ω and ≤ 2,5 Ω
Current pulse	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

Temperature

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

Validations

Vibration resistance	ISO 16 750 – 3
Mech. Shock resistance	ISO 16 750 – 3
Temperature cycle resistance	ISO 16 750 – 4
Chemical loads resistance	ISO 16 750 – 5

Terminal type

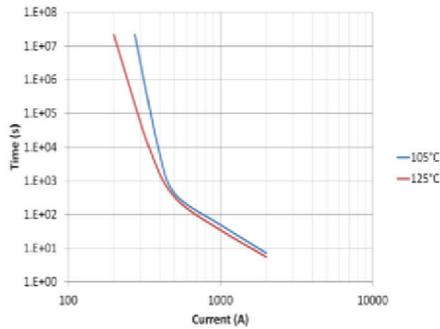
HV	M8
Second circuit	Nano MQS
Triggering	AK-1

Weight	≤ 65 g
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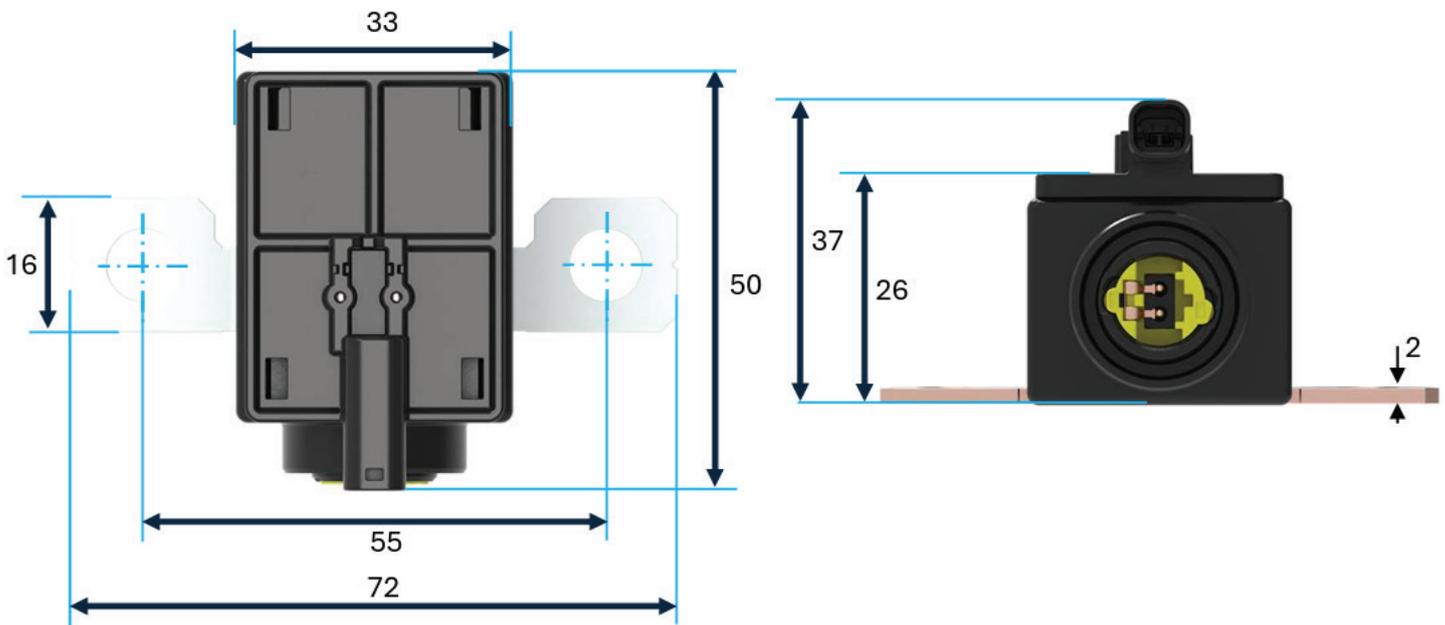
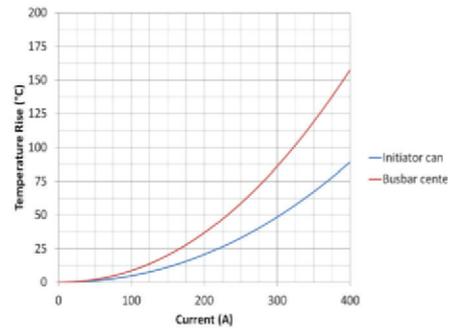
Technical Data and Dimensions

Performance & Dimensions

Derating curve



Temperature rise curve



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