

Pyro Safety Switches

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

Pyro Safety Switch PSS-5

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 1000 VDC
- High peak current carrying capability up to 3000J

Product specifications

Switching capacity

Inductive load 920 V / 16 000 A / 16 μ H
 900 V / 15 000 A / 25 μ H
 450 V / 20 000 A / 15 μ H

Equivalent Coil Energy Performance : 3 000 J

$$\left(\frac{1}{2} L \times I^2 \right)$$

(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 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	78 mm ²
Busbar resistance (at RT)	
before ops.	≤ 0,05 m Ω
after ops	≥ 10 M Ω / 1000 V



Operation time

Operating time	< 2 ms
Typical	< 1 ms for 920 V / 16 000 A / 16 μ H < 1 ms for 900 V / 15 000 A / 25 μ H

Triggering conditions

Qualified acc. to	AK-LV 16 & 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
No-triggering current	≤ 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°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 screw
on initiator	ABX-5

Weight	≤ 300 g
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