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 300 A at 85°C
- Non-reversible device
- Suitable for voltage levels up to 70 VDC
- · High peak current carrying capability up to 2 000 A



Product specifications

Switching capacity

 $\begin{array}{ll} \text{Inductive load (60 μH max)} & 1\,400\,\text{A}\,/\,70\,\text{V} \\ \text{Inductive load (60 μH)} & 2000\,\text{A}\,/\,32\,\text{V} \end{array}$

For other requests, please contact us

Current carrying capacity

85°C, load cable 50 mm² 300 A 105°C, load cable 50 mm² 250 A 125°C, load cable 50 mm² 200 A

Maximum short-time current

23°C, load cable 50 mm² 2 000 A / 5 s

Triggering conditions

 $\begin{array}{ll} \text{Qualified acc. to} & \text{AK-LV 16 \& USCAR} \\ \text{Triggering circuit resistance} & \geq 1,7 \ \Omega \ \text{and} \leq 2,5 \ \Omega \\ \text{Triggering current} & 1,75 \ \text{A} \ / \ 0,5 \ \text{ms} \\ \text{Or} & 1,20 \ \text{A} \ / \ 2,0 \ \text{ms} \\ \end{array}$

No-triggering current ≤ 0,4 A

Or $\leq 5.0 \text{ A}/\leq 4 \text{ µs}$ Diagnostic current: < 100 mATriggering pulse slope > 8 mA/µs

Busbar

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

Busbar profile

Cross-section nominal 22 mm²

Operation time

Release time < 3 ms

Resistance & Insulation data

Busbar resistance (at RT) before ops. $\leq 0.1 \text{ m } \Omega$ after ops $\geq 10 \text{ M } \Omega$

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 ISO 16750-3 Mech. Shock resistance acc. to ISO 16750-3 Temperature cycle resistance acc. to ISO 16750-4 Chemical loads resistance acc. to ISO 16750-5

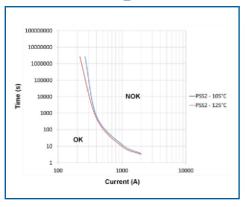
Terminal type

on bus-bar M8 screw on initiator AK-1 / AK-2 ABX-3

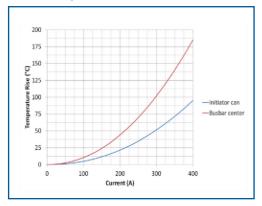
Weight 40 g

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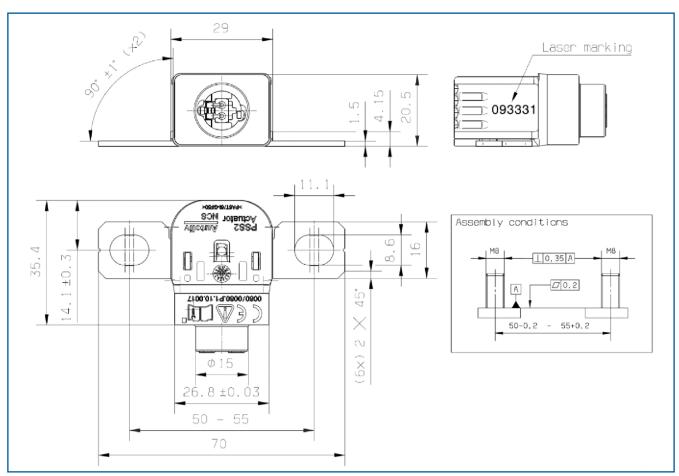
Derating curve



Temperature rise curve



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

