

# Pyro Safety Switches

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

## Pyro Safety Switch PSS-6



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 functions, like switch-off, or switch-on upon demand.

- Safe crowbar connection based on proven airbag technology
- Non-reversible device
- Suitable for voltage levels up to 550 Vr.m.s.
- Stable and reliable contact
- No ionizing gases / No particles exhaust



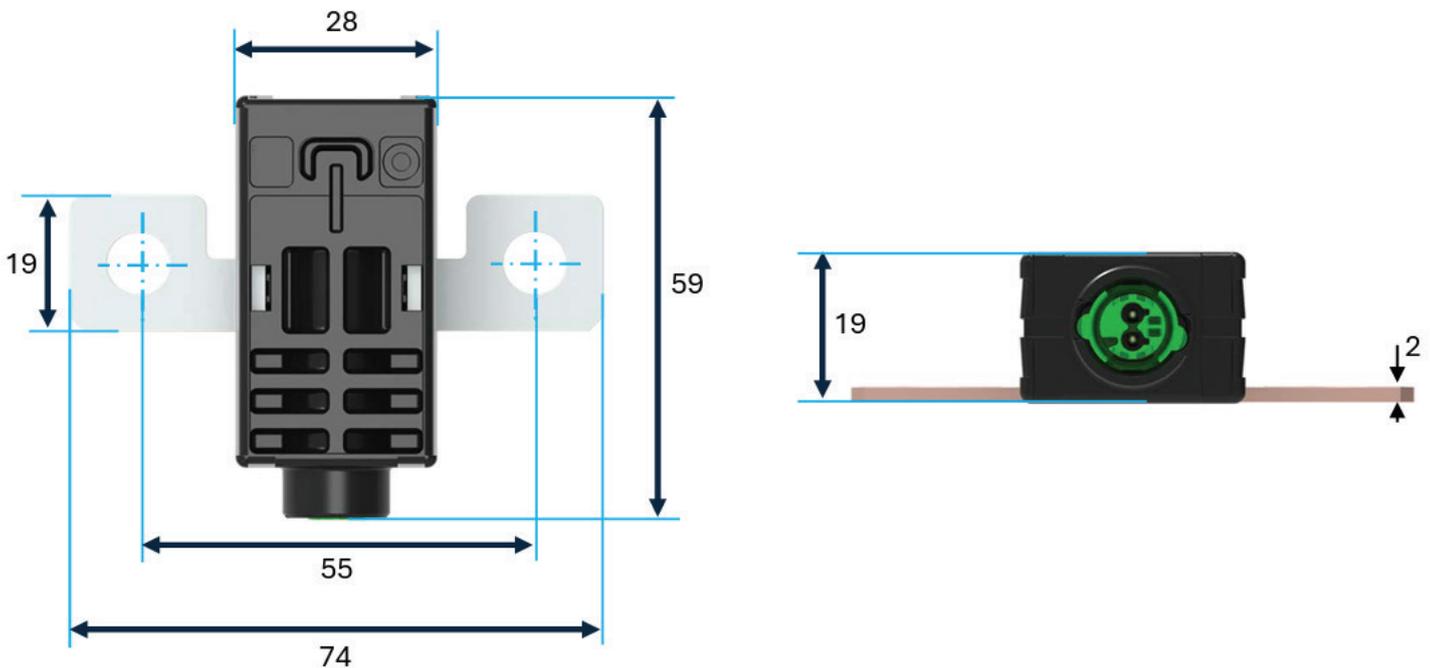
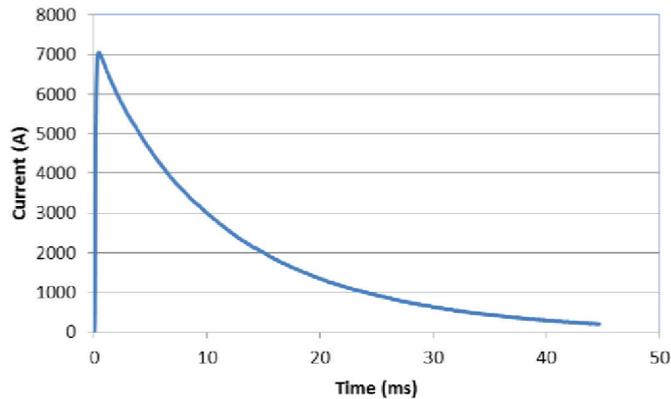
### Product specifications

Maximum current profile	5 kA / 5 ms + 600 A / 60 s	<b>Triggering conditions</b>	acc. to AK-LV 16 & USCAR
Systems configurations tested	100 A / 1 year 2 kA / 4s		
(Other request, Contact us)		Pulse slope	$> 8 \text{ mA} / \mu\text{s}$
Voltage (IEC 60664-1)	Max Creepage pollution degree 2 – 550 V r.m.s.	No-triggering current	$\leq 0,4 \text{ A}$ Or $\leq 5,0 \text{ A} / \leq 4 \mu\text{s}$
<b>Busbar</b>		Diagnostic current	$< 100 \text{ mA}$
Raw material (base)	CuSn 0,15	<b>Temperature</b>	
Plating material (lead-free)	Ni/Ag	Operating	$-40^\circ\text{C} \dots + 105^\circ\text{C}$
Cross-section	38 mm <sup>2</sup>	Environmental	$-40^\circ\text{C} \dots + 105^\circ\text{C}$
Busbar resistance (at RT)		Storage	$-40^\circ\text{C} \dots + 65^\circ\text{C}$
before ops.	$\geq 10 \text{ M}\Omega / 500 \text{ V}$	<b>Validations</b>	
after ops.	$\leq 0,3 \text{ m}\Omega$	Vibration resistance	AK LV 124
Operating time	With Cpk 1,67 $< 1 \text{ ms}$ Typical 0,5 ms	Mech. Shock resistance	AK LV 124
		Temperature cycle resistance	AK LV 124
		Chemical loads resistance	AK LV 124
		HV-LV resistance before/after ops.	$\geq 1 \text{ G}\Omega / 500 \text{ V}$
<b>Typical applications</b>	The closing device “crowbars” or short-circuits the two Fuel Cell terminals in less than a millisecond. This consumes Hydrogen contained in the Fuel Cell and makes it safe. It can be used as a relay to activate any electrical system, to bypass faulty modules, or discharge capacitors from DC-DC converters.	<b>Terminal type</b>	
		HV	M6 or M8
		Triggering	ABX-5
		Weight	$\leq 80 \text{ g}$

## Technical Data and Dimensions

### Performance & Dimensions

Short circuit example



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 correct evaluation 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



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