

Pyro Safety Switches

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

Pyro Safety Switch PSS-4

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

Product specifications

Switching capacity

Inductive load 475 V / 13 300 A / 20 μ H
475 V / 23 500 A / 2,3 μ H

(Other request, Contact us)

Maximum switching capacity 1800J
Max switching capacity, 2 PSS-4 in series
triggered simultaneously 1000 V / 25 000 A / \leq 5 μ H
(max delay 15 μ s between triggering signals)

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 mm² min 350 A DC
85°C Max, load cable 70 mm² min 420 A DC
50°C Max, load cable 70 mm² min 500 A DC
Maximum pulse current 25 000 A / 5 ms

Busbar

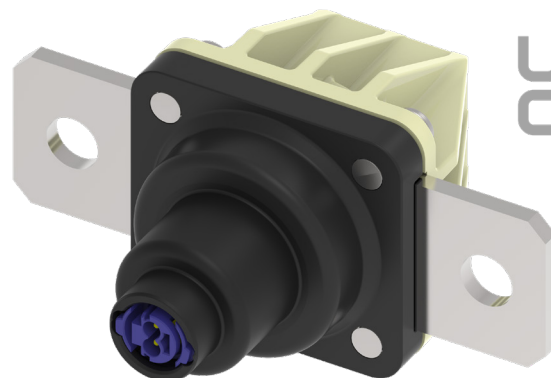
Contact raw-material (base) CuSn 0,15
Contact plating material (lead-free) Sn/Ni

Busbar profile

Cross-section nominal 78 mm²
Busbar resistance (at RT)
before ops. \leq 0,05 m Ω
after ops \geq 1 M Ω / 500 V

Operation time

Operating time $<$ 2 ms
Typical 0.8 ms for 450 V / 8 000 A / 15 μ H
0.8 ms for 530 V / 24 000 A / 3 μ H



Triggering conditions

Qualified acc. to AK-LV 16 & USCAR
Triggering circuit resistance \geq 1,7 Ω and \leq 2,5 Ω
Triggering current 1,75 A / 0,5 ms
Or 1,20 A / 2,0 ms
No-triggering current \leq 0,4 A
Or \leq 5,0 A / \leq 4 μ s
Diagnostic current: $<$ 100 mA
Triggering pulse slope $>$ 8 mA / μ s

Temperature

Operating temperature -40°C... + 105°C
Environmental 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

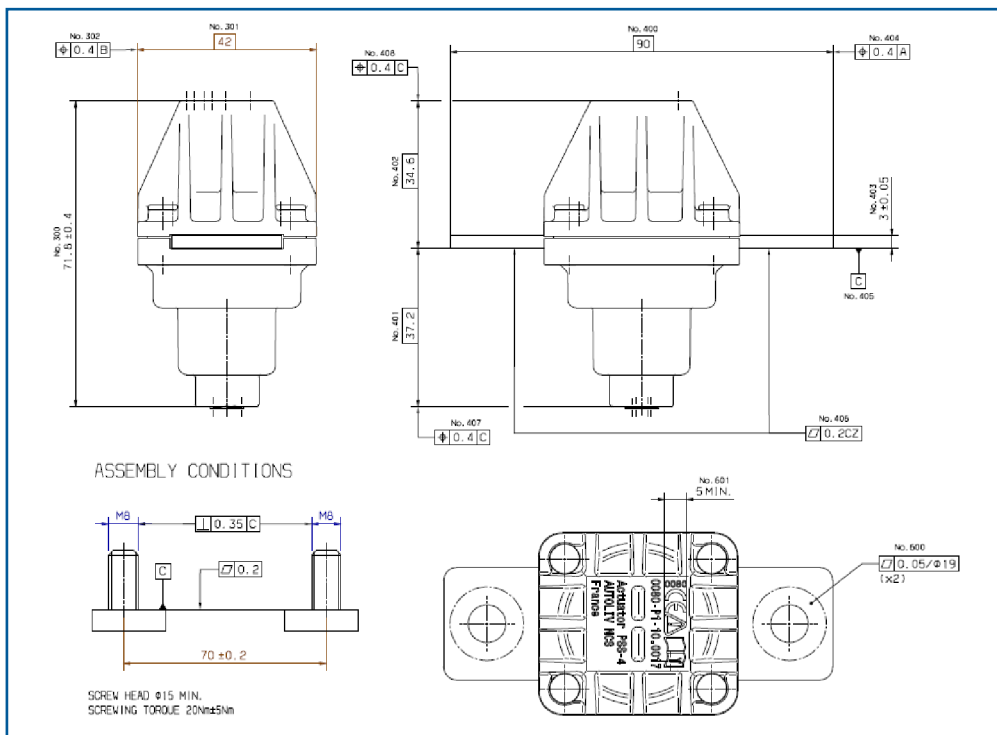
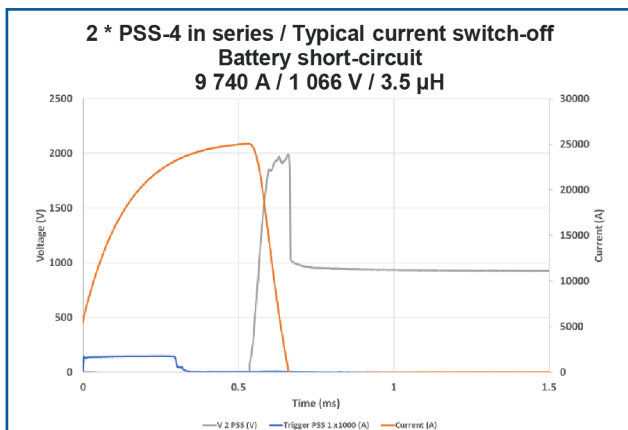
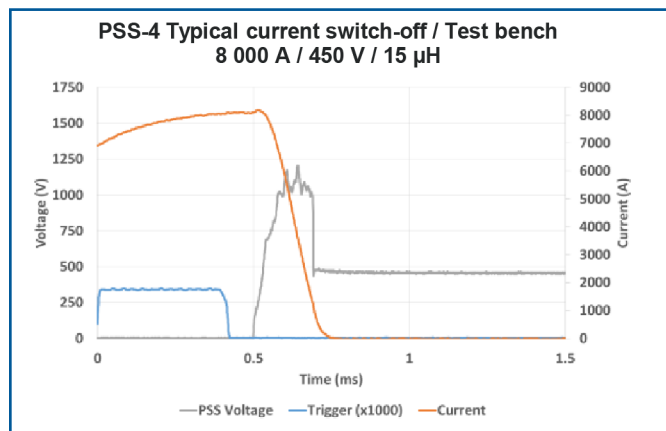
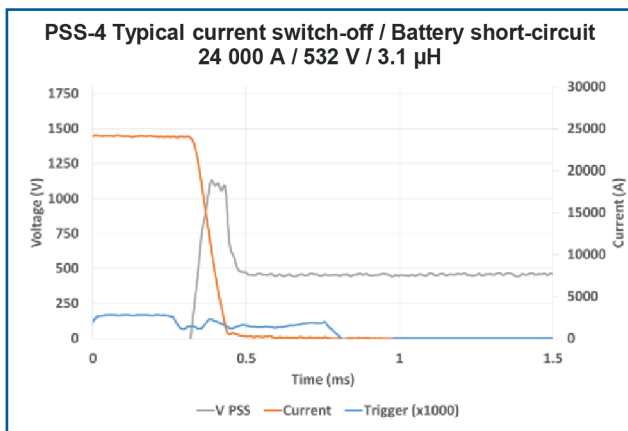
on bus-bar M6 or M8
on initiator ABX-5 or AK-2

Weight

\leq 145 g

Technical Data & Dimensions

Performance & 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 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

