# Battery Disconnection Switch – PSS-3 Pyro-switch – Automotive Switch – High Current Device



- Maximum continuous current 300A at 85° C
- Second circuit power off simultaneously
- Non-reversible device
- High peak current carrying capability up to 2 000 A

# Product description:

A pyrotechnical actuator separates the electric connection irreversibly. Pyrotechnical switches are installed in many road vehicles. It is triggered by the ECU, and used to separate the "starter-generator-cable" from the electrical system (battery).

A second circuit is disconnected simultaneously.

# Typical applications:

Battery disconnection to prevent fires caused by short circuits during/after an accident. Second circuit can be used as cut-off information

## Switching capacity

Ohmic load  $2\ 000\ A\ /\ 200\ V$  Inductive load (60 $\mu$ H)  $2\ 000\ A\ /\ 150\ V$  Capacitive load  $>\ 200\ V$ , contact us

# Current carrying capacity

85°C, load cable 50 mm<sup>2</sup> 300 A 105°C, load cable 50 mm<sup>2</sup> 250 A 125°C, load cable 50 mm<sup>2</sup> 200 A Maximum short-time current 23°C, load cable 50 mm<sup>2</sup> 2 000 A / 10 s 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
32 mm²

Second circuit

Contact raw-material (base)

Contact plating material (lead-free)

Ag/Ni

wire cross section

Cu-Alloy

Ag/Ni

0.2 mm²

# Initiator Data (1/2)

Qualified acc. to AK-LV 16 & USCAR Initiator resistance  $\geq$ 1,7  $\Omega$  and  $\leq$  2,5  $\Omega$  Triggering pulse slope 10  $\mu$ s / A



# Initiator Data (2/2)

All- Fire current 1,75 A / 0,5 ms Or 1,20 A / 2,0 ms No-Fire current  $\leq 0,4 \text{ A}$  Or  $\leq 5,0 \text{ A} / \leq 4 \text{ µs}$  Monitor current: 100 mA

### Operation time

Release time < 3 ms

# Resistance & Insulation data

## **Temperature**

Operating temperature  $-40^{\circ}\text{C...} + 105^{\circ}\text{ C}$ Environmental temperature  $-40^{\circ}\text{C...} + 105^{\circ}\text{ C}$ Storage temperature  $-40^{\circ}\text{C...} + 65^{\circ}\text{ C}$ Self-ignition  $\geq 300^{\circ}\text{ C}$ 

## Other Data

Cardboard box

Vibration resistance acc. to

Mech. Shock resistance acc. to

Temperature cycle resistance acc. to

Chemical loads resistance acc. to ISO 16 750 – 5

Terminal type
on bus-bar
on second circuit
on initiator

Weight

M8 screw
NanoMQS
AK-1

Weight

65 g

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



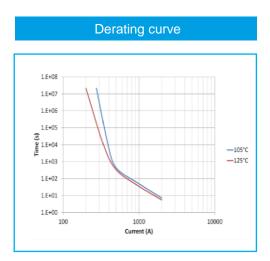
98 pcs.

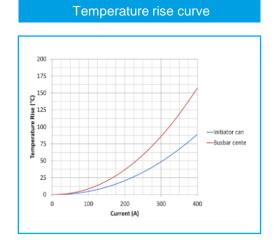
ISO 16 750 - 3

ISO 16 750 - 3

ISO 16 750 - 4







#### **Dimensions**

