

Battery Disconnection Switch – PSS-2

Pyro-switch – Automotive Switch – High Current Device

Autoliv

- 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 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).

Typical applications:

Battery disconnection to prevent fires caused by short circuits during/after an accident.

Switching capacity

| | |
|--------------------------------------|----------------|
| Inductive load (60µH max) | 1 400 A / 70 V |
| Inductive load (60µH max) | 2 000 A / 32 V |
| For other request, please contact us | |

Current carrying capacity

| | |
|--------------------------------------|---------------|
| 85°C, load cable 50 mm ² | 300 A |
| 105°C, load cable 50 mm ² | 250 A |
| 125°C, load cable 50 mm ² | 200 A |
| Maximum short-time current | |
| 23°C, load cable 50 mm ² | 2 000 A / 5 s |

Busbar

| | |
|--------------------------------------|--------------------|
| Contact raw-material (base) | CuSn 0,15 |
| Contact plating material (lead-free) | Sn/Ni |
| Busbar profile | |
| Cross-section nominal | 22 mm ² |

Initiator Data

| | |
|------------------------|--------------------|
| Qualified acc. to | AK-LV 16 & USCAR |
| Initiator resistance | ≥1,7 Ω and ≤ 2,5 Ω |
| All- Fire current | 1,75 A / 0,5 ms |
| Or | 1,20 A / 2,0 ms |
| No-Fire current | ≤ 0,4 A |
| Or | ≤ 5,0 A / ≤ 4 µs |
| Monitor current: | 100 mA |
| Triggering pulse slope | 10 µs / A |



Operation time

| | |
|--------------|--------|
| Release time | < 3 ms |
|--------------|--------|

Resistance & Insulation data

| | |
|---------------------------|----------|
| Busbar resistance (at RT) | |
| before ops. | ≤ 0,1 mΩ |
| after ops | ≥ 10 MΩ |

Temperature

| | |
|---------------------------|-------------------|
| Operating temperature | -40°C... + 105°C |
| Environmental temperature | -40°C... + 105°C |
| Storage temperature | -40°C..... + 65°C |
| Self-ignition | ≥ 300°C |

Other Data

| | |
|--------------------------------------|----------------|
| Vibration resistance acc. to | ISO 16 750 – 3 |
| Mech. Shock resistance acc. to | ISO 16 750 – 3 |
| Temperature cycle resistance acc. to | ISO 16 750 – 4 |
| Chemical loads resistance acc. to | ISO 16 750 – 5 |

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

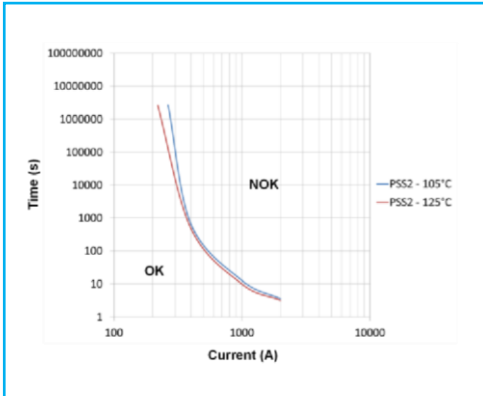
| | |
|--------|------|
| Weight | 40 g |
|--------|------|

| | |
|----------------------------|------------|
| Packaging unit | |
| Small unit (cardboard box) | 260 pcs. |
| Large unit (container) | 5 200 pcs. |

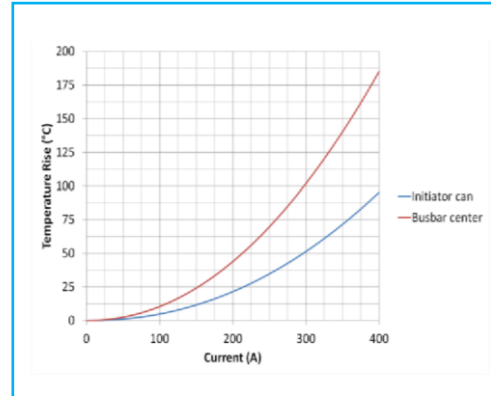
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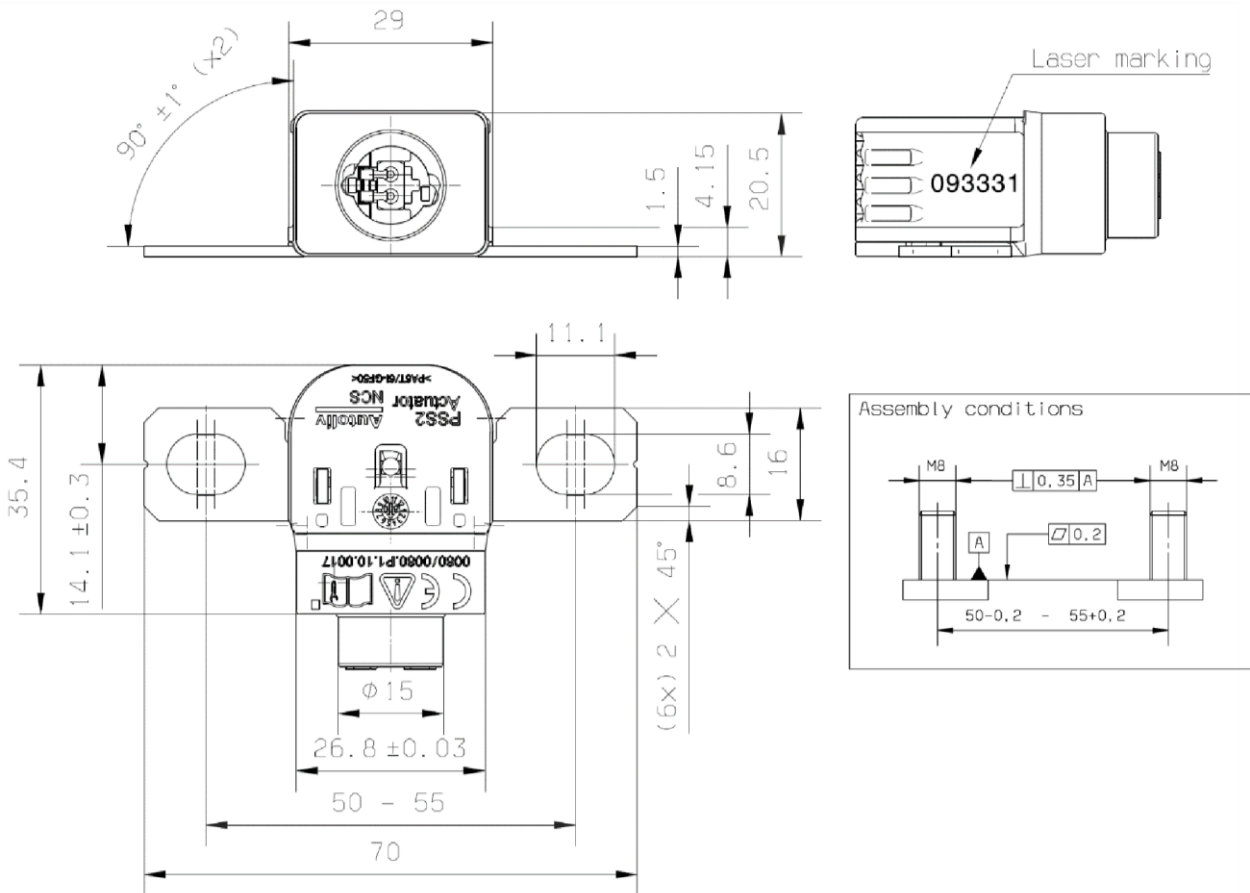
Derating curve



Temperature rise curve



Dimensions



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