

# SCG-250-075-R01

## VLD - for DC traction / VLD class 1 (SCG)

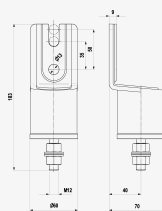
Voltage limiting device

VLD class 1, type VLD-F

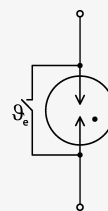
- the VLD is used to restrict excessive high contact voltages arising on exposed conductive parts of a railway equipment in case of a disturbance (short-circuit) in AC and DC railway electric traction systems, thus ensuring protection to persons that may come into contact with the parts mentioned
- in case of an overload caused by short-circuit or long-term withstand current the internal patented (PV CZ2017248) short-circuiting device intervenes by establishing a permanent short circuit across the protective element
- in the event of a failure connection between a live power supply part of the traction system and an exposed conductive part (e.g. due to the overhead power line fall) the VLD protects the parts affected by causing conductive itself, which results in turning off of the power supply
- the integrated protective element effectively eliminates high impulse overvoltage induced into the traction mains or railway equipment by a lightning strike
- the SCG is connected between the protected part and the return circuit
- easy mounting, installation right away on the protected equipment



Product dimensions



Basic circuit diagram



| Parameter name                    | Parameter value       |
|-----------------------------------|-----------------------|
| Class VLD according to EN 50526-2 | 1                     |
| Type VLD according to EN 50122-1  | F                     |
| Short-circuit current (@ 300 ms)  | $I_{SCC}$ 5.0 kA      |
| Leakage current at $U_w$          | $I_L$ < 1 $\mu$ A     |
| Non-triggering voltage            | $U_w$ 45.00 V         |
| High charge impulse (10/350)      | $I_{imp-hc}$ 50.00 kA |
| Lightning current impulse (8/20)  | $I_{imp-n}$ 100.00 kA |

|   |                       |                        |
|---|-----------------------|------------------------|
| High current impulse (8/20)             | $I_{\text{imp-high}}$ | 100.00 kA              |
| Nominal triggering DC voltage*          | $U_{\text{Tn}}$       | 75 V                   |
| Maximal residual voltage at $I_r$       | $U_{\text{RES}}$      | 15.00 V                |
| Maximal residual voltage at $I_w$       | $U_{\text{RES}}$      | 30.00 V                |
| Instantaneous triggering voltage*       | $U_{\text{Ti}}$       | 75.00 V                |
| Short time withstand current (@ 60 ms)  | $I_w$                 | 1.0 kA                 |
| Response time                           | $t_a$                 | 10 000 ns              |
| Degree of protection                    |                       | IP 67                  |
| Range of ambient temperatures (min/max) |                       | -40 / 70 °C            |
| According to standard                   |                       | EN 50122-1, EN 50526-2 |
| Weight                                  |                       | 0.84 kg                |
| ETIM Class                              |                       | EC002496               |
| Customs tariff number                   |                       | 85363030               |
| EAN                                     |                       | 8595090561538          |
|   |                       | *in ionized mode       |
| Order number                            |                       | A06153                 |