

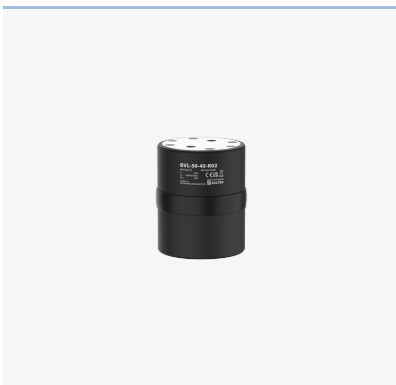
# BVL-50-45-R02

## VLD - for DC traction / VLD class 2.2 (BVL)

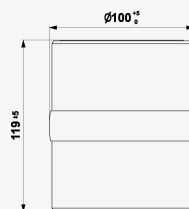
Voltage limiting device

voltage limiting device, VLD of class 2.2, type VLD-O+F, limiting of occurrence non-permissible touch voltages, equalizing of the earth potential and limiting of overvoltage of a railway system AC and DC, surge protective device SPD of type 1+2

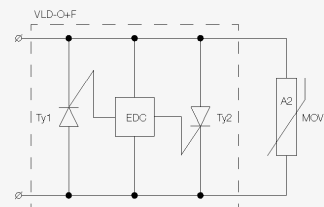
- limits non-permissible high touch voltages on non-live metal parts of a railway equipment in AC and DC railway system
- establishes temporary connection between the return circuit and the earth of the railway electric traction system, during the permissible value of voltage is exceeded
- equalizes the earth potential between the return circuit and the earth surrounding an electric and an electronics equipment and prevents their damage
- limits touch voltage and protects persons that might enter into contact with the parts affected
- eliminates high impulse overvoltages induced into the railway electric traction system or the railway equipment by a lightning strike



Product dimensions



Basic circuit diagram



Parameter name	Parameter value	
Class VLD according to EN 50526-2	2.2	
Type VLD according to EN 50122-1	VLD-O+F	
Rated AC (rms) current (@ 60 min)	$I_r$	50 A
Rated DC current (@ 60min)	$I_r$	50 A
Leakage current at $U_w$	$I_L$	< 50 $\mu$ A
Non-triggering voltage	$U_w$	36.00 V
Maximal short time DC withstand current (@ 30 ms)	$I_w$	16.0 kA
Maximal short time DC withstand current (@ 100 ms)	$I_w$	9.0 kA
Short time AC (rms) withstand current (@ 36 ms)	$I_w$	15.0 kA

High charge impulse (10/350)	$I_{imp-hc}$	35.00 kA
Lightning current impulse (8/20)	$I_{imp-n}$	50.00 kA
High current impulse (8/20)	$I_{imp-high}$	75.00 kA
Nominal triggering voltage	$U_{Tn}$	45.00 V
Maximal residual voltage at $I_{imp-n}$	$U_{RES}$	700.00 V
Maximal residual voltage at $I_r$	$U_{RES}$	1.20 V
Maximal residual voltage at $I_w$	$U_{RES}$	5.00 V
Instantaneous triggering voltage	$U_{Ti}$	45.00 V
Response time @ lightning current		25 ns
Response time of thyristors	$T_R$	< 1,5 ms
Degree of protection		IP 67
Range of ambient temperatures (min/max)		-40 / 70 °C
According to standard		EN 50122-1, EN 50526-2
Weight		2.10 kg
ETIM Class		EC003621
Customs tariff number		85301000
EAN		8595090567103
Order number		A06710