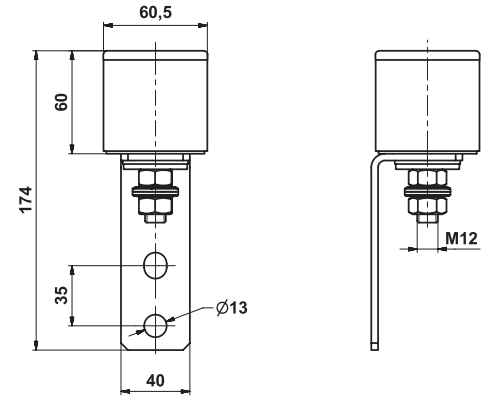


Low voltage limiter for railway application



HGS100 RW 500V



It is range of voltage limiters designed for overvoltage protection of personnel and equipment in DC and AC rail traction systems. It is recommended to install this limiter between the current return path and non-electrified parts of structures laying adjacent to the rails. Internal construction of HGS is based on application of high power gas-filled gas discharge tube (GDT), which is built in to stainless steel box. In case of overvoltage, HGS100 RW 500V generates a durable conductive path between the overloaded area and the railway's substation. This results in increased current loads that are sensed at the substation, tripping the safety switch and thus protecting personnel and equipment. In addition, all overvoltages generated by lightning are effectively limited by Hakel's internal construction of HGS100 RW 500V. All requirements given by EN 50122-1 and IEC 61643-1/A11 relating to electrical safety earthing for this specific use are also fulfilled.

Type	HGS100 RW 500V
Examinations according to	IEC 61643-11/A11, EN 50122-1
DC Spark-Over Voltage ¹⁾	300 ÷ 500 V
AC Spark-Over Voltage	> 250 V _{rms}
Impulse Spark-Over Voltage at 5 kV/μs - for 99% of measured values (wave 1,2/50 μs, 6 kV)	< 1200 V
Max. Impulse Discharge Current I _{max} (8/20 μs)	200 kA
Nominal Impulse Discharge Current I _n (8/20 μs)	100 kA
Max. Lightning Impulse Current I _{imp} (10/350 μs)	150 kA
Charge	75 As
Specific Energy	5500 kJ/Ω
Rated withstand current	up to 8 kA _{rms} / 100 msec (AC - mode)
	up to 20kA / 30 msec (DC - mode)
Behaviour after substantial overloading	internal short circuit inside HGS body
Insulation Resistance at 100 VDC	> 1 GΩ
Capacitance at 1 MHz	< 5 pF
Housing	IP66
Operating and Storage Temperature	- 40 ÷ + 90°C
Weight	950 g
Climatic Category (IEC 60068-1)	40/90/21
Article number	10 002

¹⁾ In ionised mode

Terms in accordance with ITU-T Rec. K-12, DIN 57845/VDE 0845 and EN 61643-11:2011