

## HGS 100

- High power gas discharge tubes are intended for equipotential bonding between inactive parts, which are not conductively interconnected due to the operating conditions.
- In case of origin of potential difference between those parts, the high power gas discharge tube ignites and conductively interconnects both insulated parts for a transient time.
- High protection degree of the housing allows using indoors, outdoors and also in the underground.
- They can be used, for example, between utility pipelines and external lightning protection systems, between pipelines and other inactive metal parts, or between insulated flanges used on pipelines.
- The RW variant is primarily designed for railway systems where it provides effective protection for persons who may come into contact with inanimate parts of metallic structures in the event of lightning strikes or catenary failures.
- High power gas discharge tubes are able to discharge the highest lightning impulse currents, which ranks them in the class H – for heavy loads.

Type		HGS 100
Certified for explosive areas		No
Class according to EN 62561-3, IEC 62561-3		H (for heavy loads)
DC ignition voltage		400 ÷ 750 V
Nominal discharge current (8/20)	$I_n$	100 kA
Rated AC withstand voltage of mains frequency	$U_{WAC}$	285 V
Rated DC withstand voltage	$U_{WDC}$	350 V
Rated impulse sparkover voltage	$U_{r imp}$	< 1 400 V
Impulse discharge current (10/350)	$I_{imp}$	100 kA
Charge	Q	50 As
Specific energy	W/R	2 500 kJ/Ω
Insulation resistance at 100 V DC	$R_i$	> 1 GΩ
Capacitance at 1 MHz	C	< 25 pF
Housing material		Aluminium
Casing		Polyurethane resin
Degree of protection		IP66
Operating temperature	θ	-40 ÷ 70 °C
Operating position		Any
Installation		By cable, On the flange
Lifetime		> 100 000 h
<b>Designed according to standards</b>		
Lightning protection system components (LPSC) – Requirements for isolating spark gaps (ISG)		IEC 62561-3:2017
<b>Application standards</b>		
Protection against lightning		IEC 62305:2010

## Ordering, packaging and additional data

Mass	m	320 g
Mass (including the packaging)	m	402 g
Packaging dimensions (H x W x D)		87 x 260 x 154 mm
Packaging value	V	3.48 dm <sup>3</sup>
ETIM group		EG000021
ETIM class		EC000510
Customs tariff no.		85363010
EAN code		8590681100059
<b>Art. number</b>		<b>10 005</b>

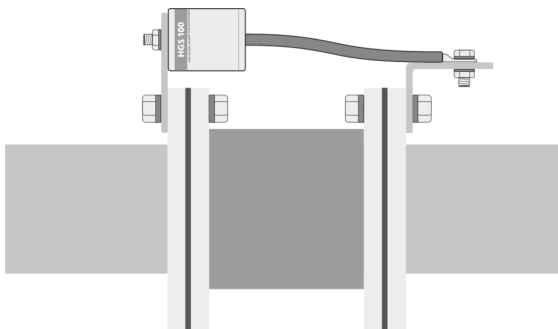


The link in the QR code leads to the online presentation of the HGS 100.

There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit [www.hakel.com](http://www.hakel.com)



## Application wiring diagram (installation)



## Internal diagram

