

Glow igniters

Basic values:

Parameter	Value
Dimensions	60 x 8.0 x 2.5 mm
Heated area	30 x 8.0 x 2.5 mm
T _{max}	1 000 °C

Details of Standard, left:

Description

The glow igniters of the type IPB make it possible to achieve (ignition) temperatures of up to 1 000 °C with a very compactly built heating element with a rated. The two available versions, differ in the orientation of the electrical contacts. The small glow igniters can be used not only as igniters - for example of wood pellets - but can also be used for contact heating of various substrates as well as for the ignition of process gases.

- position of the contact pad: left
- surface as fired

Parameter	Value
Article no.	GLZ 100 113
Nominal power (hot)	130 W ±30 W
Nominal voltage	110 V

Basic Material

Parameter	Scale unit	Si ₃ N ₄
max. temperature (T _{max})	°C	1 000
thermal conductivity (l)	W/mK	40
temperature shock resistance (ΔT)	K	500
emissivity (1 100 °C) (ε)	-	0.96
Young's modulus (E)	GPa	320
bending strength (δ _{BB})	MPa	400
compressive strength (δ _D)	MPa	2 000
coefficient of thermal expansion (α)	10 ⁻⁶ K ⁻¹	3
density (g)	g/cm ³	3.21
specific heat (c _p)	J/kgK	750
porosity (100 - % t.D.)	%	0
critical stress intensity factor (K _{IC})	MPa m ^{1/2}	6
Weibull - modulus (m)	-	7.9

The thermal shock resistance depends on the geometric shape of the heater.

Electrical parameters

Parameter	Scale unit	Si ₃ N ₄
resistivity	Ω cm	5 · 10 ⁻³ - 5 · 10 ⁻¹
isolation resistivity	Ω mm (20 °C)	10 ¹³
dielectric strength	kV/mm	25

Emission spectrum

Fully ceramic heating elements are long-wave infrared heaters with a maximum emission of 5 to 10 μm and a radiation coefficient of ε > 0.9.





