Isolating Spark Gaps (ISG) for Equipotential Bonding

Location of use:	**Exposed environments or direct burial**
Protective element:	**GDT**
High surge discharge rating:	**I_{max} = 100kA**
Housing:	**Corrosion resistant enclosure with hermetic environmental seal and flying leads for ease of connection**
Complies with:	**IEC 61643-11, EN 50164-3:2004**

EPZ 100/xxx
EPZ 100/xxx Ex

The EPZ series of isolating spark gaps have been developed to prevent unsafe potential gradients from establishing between adjacent metallic structures or surfaces during lightning discharges. This is achieved by an internal voltage switching component which operates to establish equi-potential equalisation when its predetermined spark-over voltage is reached, thereby preventing damage to equipment or eliminating unsafe conditions to personnel.

The EPZ has been developed for use in applications such as: lightning protection grounding, where for instance circumstances may dictate that a “clean” signal ground can not be directly connected to a “dirty” power system ground. It has also found wide application in the petrochemical industry in the protection of oil and gas pipeline insulating flanges from flash-overs during direct or nearby lightning discharges or when ground faults of nearby power transmission lines can cause large potential gradients across these flanges. The EPZ is available in a hermetically sealed version for direct burial applications. It is also available with Baseefa **Ex approval certificate** for use in hazardous locations.

Surge protection devices for Data/signal lines with Ex certificate are also available. Data sheets are available in catalogue “Surge Protection Devices for Signalling Networks”.

These devices have been developed to meet the requirements EN 50164-3 Lightning Protection Components (LPC) - Requirements for Isolating Spark Gaps, and IEC 62561-3 Ed. 1.0 - Requirements for Lightning Protection Components (LPC) - Part 3: Requirements for isolating spark gaps.

EPZ 100/xxx

- **Location of use:** Exposed environments or direct burial
- **Protective element:** GDT
- **High surge discharge rating:** I_{max} = 100kA
- **Housing:** Corrosion resistant enclosure with hermetic environmental seal and flying leads for ease of connection
- **Complies with:** IEC 61643-11, EN 50164-3:2004

RoHS COMPLIANT CE

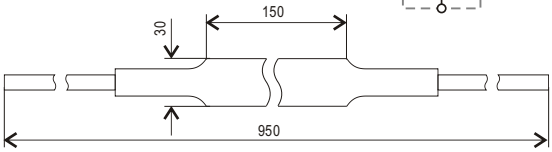
Technical data

Type		EPZ 100/xxx 350	500
Electrical Characteristics			
DC sparkover voltage (100V/s)	U_{dc}	> 280V	> 400V
Impulse sparkover voltage (1.2/50µs, 6kV)	U_p	< 1000V	< 1500V
Max. discharge current (8/20µs)	I_{max}	100kA	
Impulse discharge current (10/350µs)	I_{imp}	25kA	
Capacitance at 1MHz	C	< 10pf	
Insulation resistance at 100V_{DC}	R	> 1GΩ	
Dimensions			
Nom. outer diameter		28mm	
Nom. length		140mm	
Length with cables		1m approx.	
Cable			
Cross sectional area		16mm^2	
Length		450mm approx.	
Number of conductors		≥ 462/0.21	
Insulation		Double insulated	
Environmental protection		UV stabilised, flame retardant	
Resistant		Acids, solvents and oils	
Connection		Suitable for screw or lug termination	
Physicals			
Housing		IP 67	
Application		Below / above grade	
Weight		0.5kg approx.	
Operating temperature		- 40°C ... + 80°C	
LIMITATIONS			
Connections		Electrical connections must be terminated in a suitably certified enclosure or safe area	
Service temperature range		- 30°C ... + 70°C	

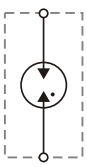
Ordering information

	350	500
Ordering code **EPZ 100/xxx**	**509 509**	**509 511**

Dimensions



Internal configuration



Dimensions, weight and packaging		
EPZ 100/xxx	**350**	**500**
Weight per unit	500g	500g
Packaging dimensions (single unit)	310 x 330 x 160 mm	
Min. packaging quantity	20 pcs.	

ISKRA ZAŠČITE

EPZ 100/xxx Ex

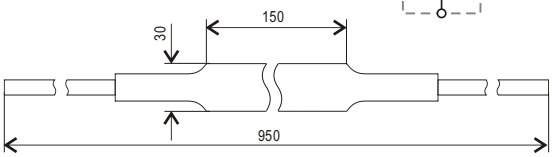
- **Location of use:** Exposed environments or direct burial
- **Protective element:** GDT
- **High surge discharge rating:** I_{max} = 100kA
- **Housing:** Corrosion resistant enclosure with hermetic environmental seal and flying leads for ease of connection
- **Type of protection according to ATEX:** Ex nC: hermetically sealed device
- **Complies with:** IEC 61643-11, EN 50164-3:2004

Type		EPZ 100/xxx Ex 350	500
Electrical Characteristics			
DC sparkover voltage (100V/s)	U_{dc}	> 280V	> 400V
Impulse sparkover voltage (1.2/50µs, 6kV)	U_p	< 1000V	< 1500V
Max. discharge current (8/20µs)	I_{max}	100kA	
Impulse discharge current (10/350µs)	I_{imp}	25kA	
Capacitance at 1MHz	C	< 10pf	
Insulation resistance at 100V_{DC}	R	> 1GΩ	
Dimensions			
Nom. outer diameter		28mm	
Nom. length		140mm	
Length with cables		1m approx.	
Cable			
Cross sectional area		16mm^2	
Length		450mm approx.	
Number of conductors		≥ 462/0.21	
Insulation		Double insulated	
Environmental protection		UV stabilised, flame retardant	
Resistant		Acids, solvents and oils	
Connection		Suitable for screw or lug termination	
Physicals			
Housing		IP 67	
Application		Below / above grade	
Weight		0.5kg approx.	
Operating temperature		- 40°C ... + 80°C	
LIMITATIONS			
Connections		Electrical connections must be terminated in a suitably certified enclosure or safe area	
Service temperature range		- 30°C ... + 70°C	

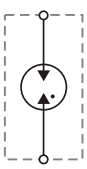
Ordering information

	350	500
Ordering code **EPZ 100/xxx Ex**	**322 973**	**322 975**

Dimensions



Internal configuration



Dimensions, weight and packaging		
EPZ 100/xxx Ex	**350**	**500**
Weight per unit	500g	500g
Packaging dimensions (single unit)	310 x 330 x 160 mm	
Min. packaging quantity	20 pcs.	