

# Surge arrester

2-electrode arrester

Ordering code: Series/Type: ES90XP

B88069X5151B502

2019-07-23 Date:

Version: 04

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Surge arrester B88069X5151B502

2-electrode arrester ES90XP

### **Features**

- Very small size
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

## **Applications**

- Modem
- XDSL-splitter
- Data lines
- Tuner
- Antenna

### **Electrical specifications**

Electrical specificati	10115			
DC spark-over voltage	e <sup>1) 2)</sup>		90	V
Tolerance			±20	%
Min.			72	V
Max.			108	V
Impulse spark-over vo				
at 100 V/µs	- for 99% of measured	values	< 450	V
	<ul> <li>typical values of distri</li> </ul>	bution	< 300	V
at 1 kV/µs	- for 99% of measured	values	< 600	V
- typical values of distribution		bution	< 550	V
Service life				
10 operations	S	50 Hz, 1 s	2.5	Α
10 operations		8/20 µs	2.5	kA
1 operation		8/20 µs	5	kA
Insulation resistance	at 50 V <sub>DC</sub>		> 1	GΩ
Capacitance at 1 MHz	Z		< 1	pF
Arc voltage at 1 A			~ 12	V
Glow to arc transition current			< 0.5	Α
Glow voltage			~ 70	V
Weight			~ 0.3	g
Operation and storage temperature			-40 <b>+</b> 125	°C
Climatic category (IEC 60068-1)			40/125/21	
Marking, red positive			EPCOS ES 90 YY O	
			ES - Series	
			90 - Nominal voltage	
			YY - Year of production O - Non radioactive	ווע
Certification			UL 497B (E163070)	<b>71</b> °
			1 , , ,	

<sup>1)</sup> At delivery AQL 0.65 level II, DIN ISO 2859

Terms in accordance with ITU-T Rec. K. 12; IEC 61643-311.

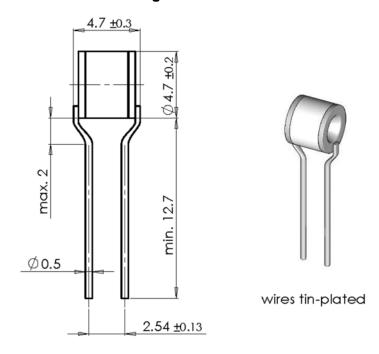
<sup>2)</sup> In ionized mode



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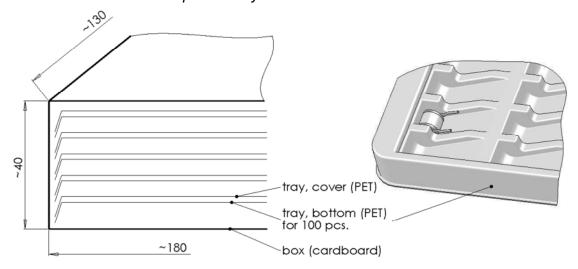
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## Dimensional drawing in mm



## Ordering codes and packing advices

B88069X5151**B502** = 500 pcs. on trays



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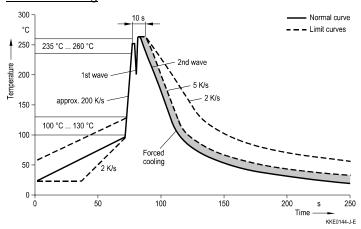


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#### 2-electrode arrester ES90XP

### Soldering parameter

#### Wave soldering



Wave profile features	Pb-free assembly	
Solder	Sn 95.5 / Ag 3.8 / Cu 0.7	
Solder bath temperature	263 (±3) °C	
Dwell time	< 3 s	

Soldering profile applied to a single soldering process.

#### **Cautions and warnings**

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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## Important notes

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Release 2018-10