



## Surge arrester

2-electrode arrester

**Series/Type:** EM90X  
**Ordering code:** B88069X0190xxxx <sup>a)</sup>  
**Version/Date:** Issue 07 / 2006-08-31

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Features	Applications
<ul style="list-style-type: none"> <li>▪ Very small size</li> <li>▪ Very fast response time</li> <li>▪ Stable performance over life</li> <li>▪ Extremely low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ RoHS-compatible</li> </ul>	<ul style="list-style-type: none"> <li>▪ Modem</li> <li>▪ XDSL-splitter</li> <li>▪ Data lines</li> <li>▪ Tuner</li> <li>▪ Antenna</li> </ul>

**Electrical specifications**

DC spark-over voltage <sup>1) 2)</sup>	90 ± 20	V %
Impulse spark-over voltage		
at 100 V/μs - for 99 % of measured values	< 400	V
- typical values of distribution	< 330	V
at 1 kV/μs - for 99 % of measured values	< 600	V
- typical values of distribution	< 530	V
Service life		
10 operations      50 Hz, 1 s	2.5	A
10 operations      8/20 μs	2.5	kA
1 operation        10/350 μs	0.5	kA
Insulation resistance at 50 V <sub>dc</sub>	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A	~ 15	V
Glow to arc transition current	~ 0.8	A
Glow voltage	~ 80	V
Weight	~ 1	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, red positive	<b>EPCOSEM 90 YY O</b> EM - Series 90 - Nominal voltage YY - Year of production O - Non radioactive	

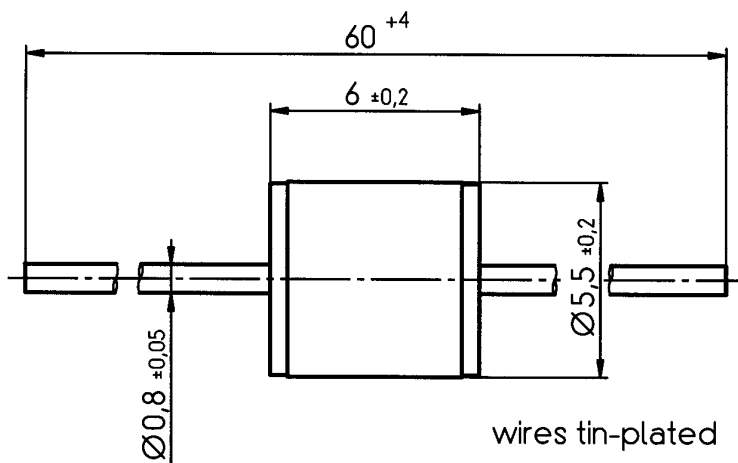
<sup>a)</sup> xxxx = S102 (100 pcs on 5 taped stripes)  
= T502 (500 pcs on tape and reel)

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

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

Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

### Dimensional drawing



*Not to scale*

*Dimensions in mm*

*Non controlled document*

### Cautions and warnings

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

## Important notes

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