

## HVR Series High Voltage Resistors

Sizes: HVR 25, HVR 30, HVR 40, HVR 50



### Features:

- High Voltage Resistors in thick film technology
- Radial leads, variable lead spacing by bending
- Climatic protection by silicone coating
- Chip version available (without coating)
- Special versions possible
- Resistance values up to 10 Tera-Ohm
- Low values of TCR and VCR



### Dimensions:

Baugröße	L	B	D	R	d
HVR 25	25.0 (1")	9.0	1.4	22.9 (0.9")	0.40 $\pm 0.05$
HVR 30	30.0	6.0	1.4	27.5	0.40 $\pm 0.05$
HVR 40	40.0	6.0	1.4	37.8	0.40 $\pm 0.05$
HVR 50	50.0	12.5	1.4	47.8	0.40 $\pm 0.05$

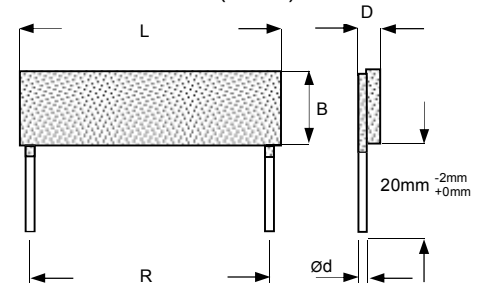
L = length, B = width, D = thickness (Tolerance of dimensions:  $\pm 0.5$  mm)

R = standard lead spacing (other spacing possible by bending)

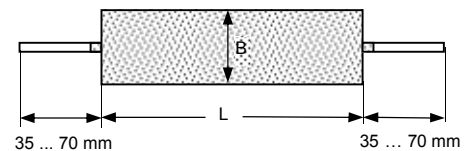
d = wire diameter (in mm), other diameters possible (changes D) Special Version (axial)

Axial versions, versions with formed leads and versions with lead frames are available on request.

Standard Version (radial)



Special Version (axial)



### Packaging:

Bulk in plastic bags or boxes

Minimum quantity: 10 pieces per value

The labeling is made at the packing unit only.

The components are not marked (only on request at individual cases).

### Ordering data:

Type – value – tolerance – TCR

Example: HVR 30 10G  $\pm 10\%$  TCR 100

If no requirement for TCR is given, the standard value (highest value in table) will be supplied.

Standard measuring voltage is 10V (50V for values  $> 1G$ ). Different voltages on request and agreement (specify explicitly).



**HVR Series**  
**High Voltage Resistors**  
**Sizes: HVR 25, HVR 30, HVR 40, HVR 50**

**Technical data – depending on size:**

Size	HVR 25	HVR 30	HVR 40	HVR 50
Power rating P <sub>70</sub> (W) (P <sub>125</sub> = 0W)	1.0	1.0	1.2	3.0
Working voltage U <sub>-</sub> , U <sub>eff</sub> (V)	15 KV	10 KV	20 KV	30 KV

Ranges / Tolerances / TCR <sup>1)</sup> / VCR <sup>2)</sup>				
1M – 100M	0.25/.../10% TC 25/50/100 1 ppm/V	0.25/.../10% TC 25/50/100 2 ppm/V	0.25/.../10% TC 25/50/100 1 ppm/V	0.25/.../10% TC 25/50/100 1 ppm/V
>100M – 1G	1/2/5/10/20% TC 50/100/250 2 ppm/V	1/2/5/10/20% TC 50/100/250 5 ppm/V	1/2/5/10/20% TC 50/100/250 2 ppm/V	1/2/5/10/20% TC 25/50/100 1 ppm/V
>1G – 100G	5/10/20/30% TC 250/500 10 ppm/V	5/10/20/30% TC 250/500 20 ppm/V	5/10/20/30% TC 250/500 10 ppm/V	5/10/20/30% TC 100/250 5 ppm/V
>100G – 1T	5/10/20/30% TC 500/1000 50 ppm/V	5/10/20/30% TC 500/1000 100 ppm/V	5/10/20/30% TC 500/1000 50 ppm/V	5/10/20/30% TC 250/500 25 ppm/V
>1T – 10T	–	–	–	10/20/30% TC/VCR on request

<sup>1)</sup> TCR: in ppm/K; Temp.range + 25°C...+ 125°C; TCR25/50 and values above 1G: Temp.range +25°C...+85°C

<sup>2)</sup> VCR: typical values

<sup>3)</sup> Continuous operating voltage:  $U = \sqrt{P \cdot R}$

Closer values of tolerance, TCR and VCR, other dimensions as well as voltage dividers on request and agreement

**General technical data:**

Operating temperature range	-55°C ... +125°C
Climatic category to EN 60068-1	55/125/56
Humidity- / contact protection	Lacquer coating <sup>4)</sup>

Long term stability	≤10G	>10G
Storage 125°C/1000h	<1%	<2%
Max. voltage/1000h	<1%	<2%

<sup>4)</sup> Resistant to most solvents. For cleaning the use of isopropyl alcohol (IPA) is recommended.  
 The use of acetone and methylene chloride is **not** allowed. Mechanical stress to coating should be avoided.