TUBULAR HIGH-VOLTAGE RESISTOR 968 HPR

This ceramic-based high-voltage resistor perfectly meets all requirements for low-induction, stable and robust passive components.
The body carrier is a ceramic rod.

This product is available in a wide variety of configurations. You specify the desired power, dimensions, and resistance value, and we will design the appropriate resistor element based on your specifications.

Advantages
– Extremely high accuracy
– Good long-term stability
– Low inductance
– Excellent mechanical stability

Application Examples
– High-voltage measurement and testing technology
– Measurement resistance in X-ray generators
– Radiation detectors
– Transducers

Electrical Data	
Resistance Value	Freely selectable, see table
Tolerances	±0.1 %, ±0.25 %, ±0.5 %, ±1 %, ±2 % , ±5 % , ±10 % Further values on request
Temperature Coefficient	±50 ppm/°C, ±100 ppm/°C, ±200 ppm/°C Further values on request
Insulation Resistance	>10,000 MΩ (500 V, 25 °C, 75 % RH)
Dielectric Strength of the Insulation	>1,000 VDC (25 °C, 75 % RH)
Overload Capacity	1.5 x P_{nom} (W), 5 sec
Long-term Stability	1,000 h at 125 °C and P_{nom}, ΔR ±0.2 %

Mechanical Data	
Dimensions	See table
Diameter of the resistor	Ø 8 mm / 0,31 inches

Environmental Data	
Operating Temperature	-50 °C up to +175 °C, max. 220 °C
Storage Temperature	0 °C up to +85 °C at 80 % RH max. for min. 12 months
Thermal Shock	MIL-Std-202, Method 107, Cond C, ΔR 0.4 % max.
Moisture Resistance	MIL-Std-202, Method 106, Cond C, ΔR 0.25 % max.

Produkt Overview

	Power at 40° C	Operating Voltage DC in Air	Operating Voltage DC in Oil	Resistance Values		Voltage Coefficient	Length with wire caps	Length with screw caps	Approx. Weight with wire caps	Approx. Weight with screw caps
Series and sizes	W	kV	kV	Min. Ω	Max. Ω	VCR, ppm/V	mm / inches	mm / inches	g	g
HPR 968.2	2.6	12	15	2k	2G	< 0.75	26 / 1.0	37 / 1.4	4.5	7.9
HPR 968.3	3.0	18	22	4k	3G	< 0.4	36 / 1.4	47 / 1.8	6.0	9.5
HPR 968.5	5.0	24	30	4k	4G	< 0.3	51 / 2.0	62 / 2.4	8.1	11.6
HPR 968.7	6.5	36	48	5k	5G	< 0.15	76 / 3.0	87 / 3.4	11.8	15.5
HPR 968.10	8.0	60	72	10k	5G	< 0.12	101 / 4.0	112 / 4.4	14.6	18.9
HPR 968.12	10.0	75	90	10k	5G	< 0.1	121 / 4.8	132 / 5.2	18.8	22.1
HPR 968.15	12.0	90	110	10k	5G	< 0.08	151 / 5.9	162 / 6.4	23.2	26.7

Mechanical Tolerance max. ±2 mm

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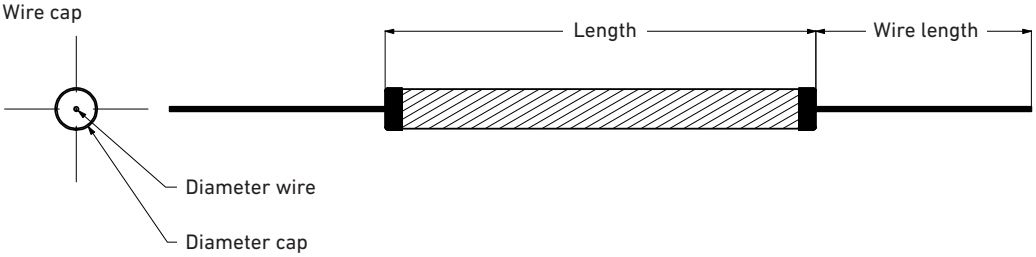
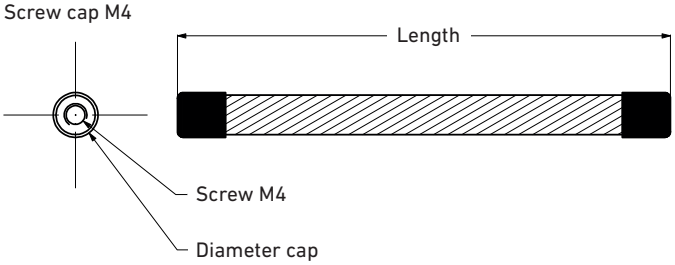
Connection: Wire cap



Connection: Screw cap M4



Electrical connection

Brass wire cap (0.8 x 38 mm / 0.03 x 1.46 inches)
Brass screw cap M4

Other connections and lengths on request

Protective Coatings

	Order No.	Usable in air	Usable in Insulating oil	Usable in Insulating gas SF6	Silicone potting	Epoxy potting	Temperature resistance
Polymer Coating	B	•		•	•	•	175 °C
Polymer Coating	D		•				175 °C
Glass	G	•	•	•	•		250 °C
Silicone Cement*	U	•		•	•	•	250 °C
Without Protective Coating	0	•	•	•	•		

*The color of the silicone cement may vary, but it does not affect the functionality of the resistor.

Order Information

For an order, we need the following information:

Series	Size	Connection left	Connection right	Protective Coating 1. layer	Protective Coating 2. layer	Resistance Value	Tolerance	Temperature Coefficient	Product Labeling
HPR	968.2	A	A	G	B	Please specify	±0.1 % (B)	±50 ppm/°C (F)	P Standard
	968.3	C	C	0	D		±0.25 % (C)	±100 ppm/°C (S)	0
	968.5	0	0		U		±0.5 % (D)	±200 ppm/°C (L)	X
	968.7	X	X		0		±1 % (F)		
	968.10				X		±2 % (G)		
	968.12						±5 % (J)		
	968.15						±10 % (K)		

A = Wire cap C = Screw cap X = Customer specific 0 = Without

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).