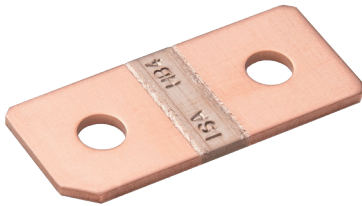




ISA-WELD® // PRECISION RESISTORS FOR HIGH CURRENT APPLICATIONS



KVM



Features

- 10 W power rating
- Continuous current load up to 250 A
- Heavy copper connectors
- Excellent long-term stability
- Low inductance value
- Max. solder temperature up to 350 °C / 30 sec or 250 °C / 10 min
- RoHS 2011/65/EU compliant
- AEC-Q200 qualification

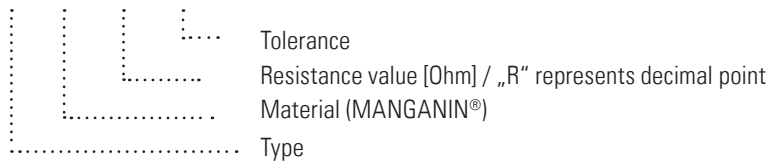


Technical data

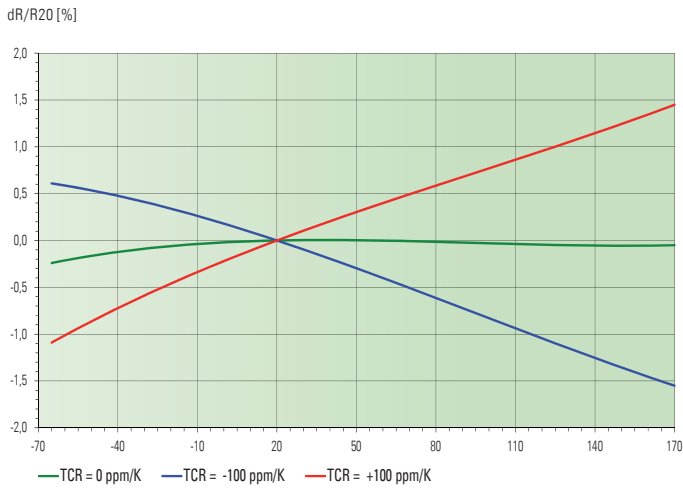
Resistance values	mOhm	0.1	0.05
Material		MANGANIN®	ZERANIN®30
Tolerance	%	5	5
Temperature coefficient (20-60 °C)	ppm/K	<50	<100
Applicable temperature range	°C	-55 to +170	
Power rating P_{70°C}	W	7	10
Power rating P_{120°C}	W	5	7
Internal heat resistance (R _{thi})	K/W	<4	<3
Inductance	nH	<5	<5
Stability (at rated power) deviation after 2000h, T _k = Terminal temperature		<0.5% (T _k =120 °C)	
Packaging		Stack tubes, quantity/tube to be decided. Plastic bag sealed and filled with dry nitrogen.	

Ordering code

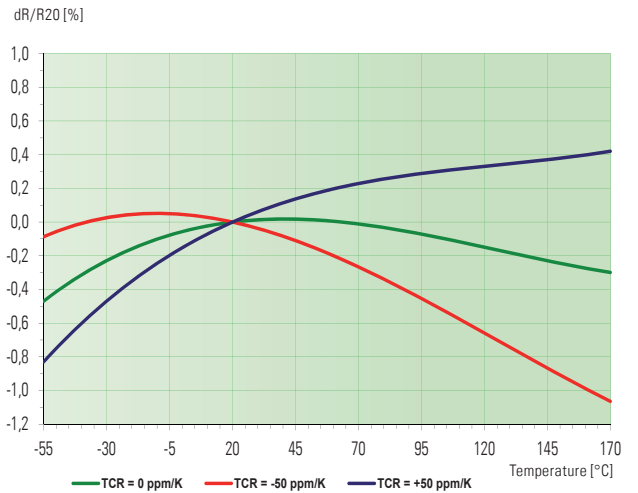
KVM - M - R0001 - 5.0



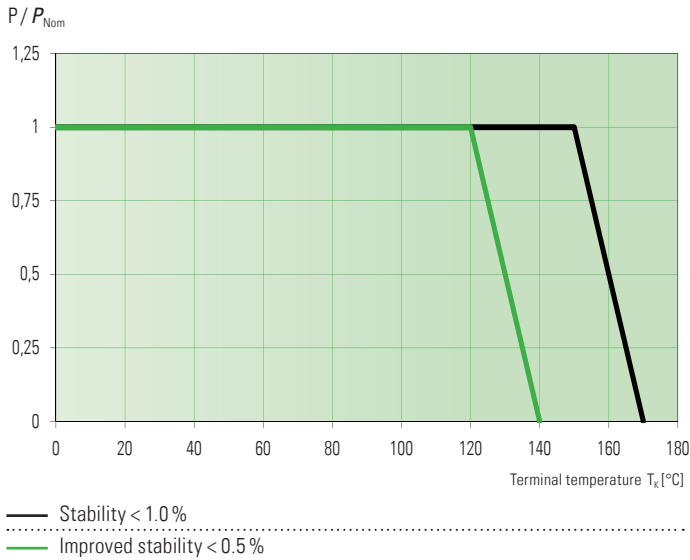
Temperature dependence of the electrical resistance of ZERANIN® resistors



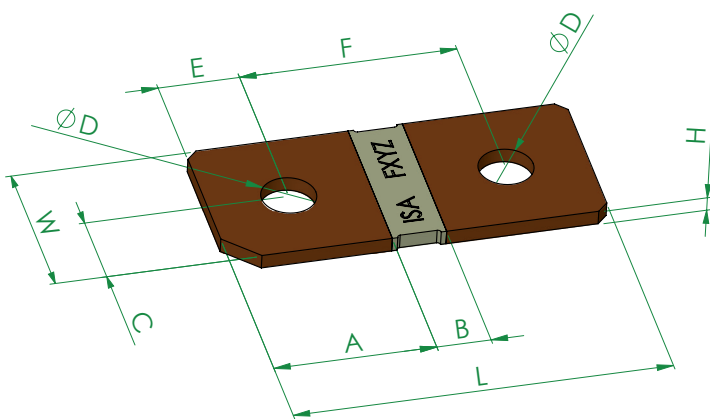
Temperature dependence of the electrical resistance of MANGANIN® resistors



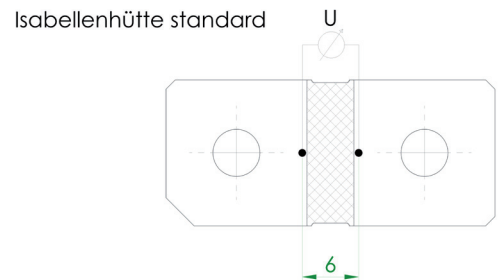
Power derating curve, KVM-M-R0001



Mechanical dimensions [mm]



Position of sense terminals for TC measurement



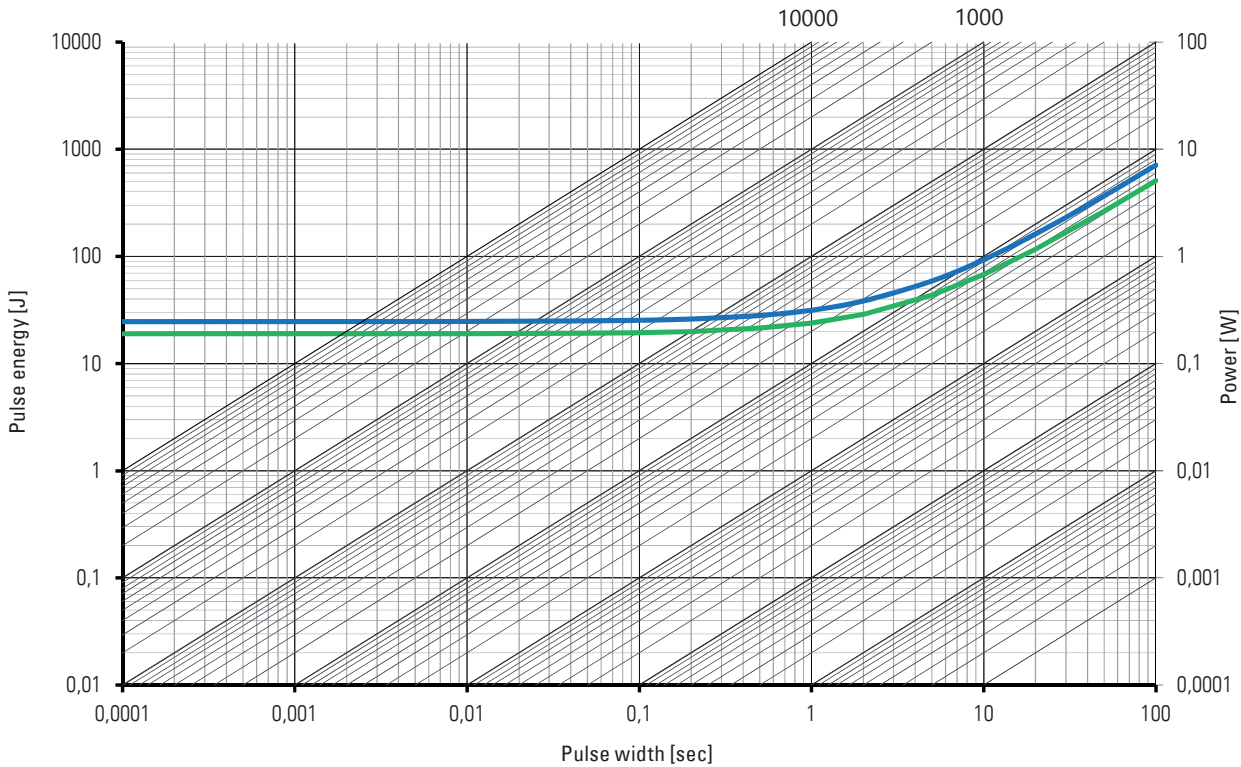
	A	B	C	D	E	F	H	L	W
KVM-Z-R00005-5.0	15.1 ±0.3	4.8 ±0.3	7.75 ±0.1	∅5 ±0.1	7.5 ±0.25	20 ±0.2	2 +0.2/-0.1	35 ±0.15	15.5 ±0.1
KVM-M-R0001-5.0	15 ±0.3	5 ±0.3	7.75 ±0.1	∅5 ±0.1	7.5 ±0.25	20 ±0.2	1.42 +0.2/-0.1	35 ±0.15	15.5 ±0.1



KVM

Maximum pulse energy respectively pulse power for permanent operation

KVM-Z-R00005; KVM-M-R0001
Maximum pulse energy / power continuous operation



Specification

Parameters	Test conditions	Specified values
Temperature Cycling	1000 cycles (-55 °C to +150 °C)	±0.5%
Low Temperature Storage and Operation	-55 °C for 250 h	±0.2%
Resistance to Soldering Heat	235 °C for 10 sec / 4h steam aging	n.a.
Operational Life	2000 h, T _K max at nominal load	±0.5%, T _K = 120 °C
High Temperature Exposure	2000 h / 170 °C	±1.0%
Bias Humidity	+85 °C, 85 r.F., 1000 h	±0.2%

Disclaimer // All products, product specifications and data are subject to change without notice. The product specifications do not expand or otherwise modify Isabellenhütte's terms and conditions of sale, including but not limited to, the warranty expressed therein. Isabellenhütte makes no warranty, representation or guarantee other than as set forth in its terms and conditions of sale. Information provided in datasheets and/or specifications may vary from actual results in different applications. Any statements made by Isabellenhütte regarding the suitability of products for certain types of applications are based on its knowledge of typical requirements that are often placed on its products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in the application intended. No license, express or implied, or otherwise, to any intellectual property rights is granted by this document. Any and all liability arising out of the application or use of any product shall be as set forth in Isabellenhütte's terms and conditions of sale.

