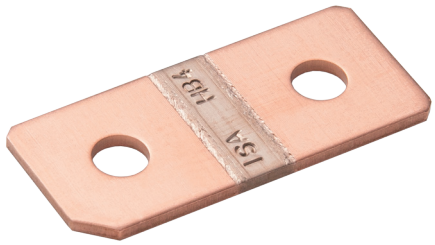
ISABELLENHÜTTE
Innovation by Tradition

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

## KVM



### Features

- 7 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

RoHS

### Technical data

| | | |
|---|---|---|
| Resistance values | **mOhm** | **0.1** |
| Tolerance | **%** | 5 |
| Temperature coefficient (20-60 °C) | **ppm/K** | <50 |
| Applicable temperature range | **°C** | -55 to +170 |
| Power rating $P_{120\,°C}$ | **W** | 5 |
| Power rating $P_{110\,°C}$ | **W** | 7 |
| Internal heat resistance ($R_{thi}$) | **K/W** | <4 |
| Inductance | **nH** | <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

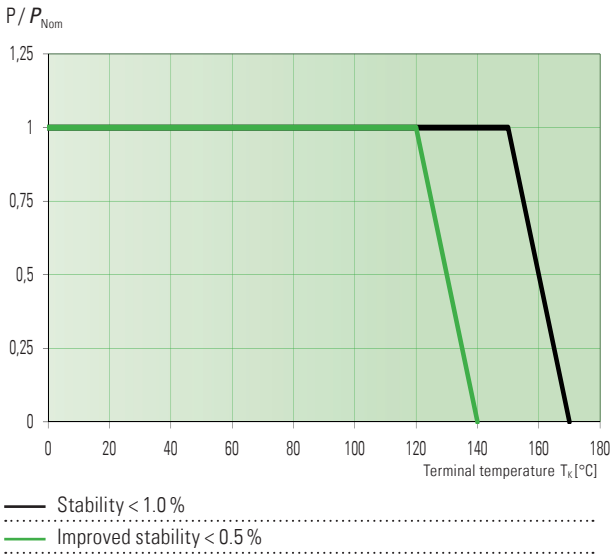
- Tolerance
- Resistance value [Ohm] / „R" represents decimal point
- Material (MANGANIN®)
- Type



Download from alldatasheet.com

# KVM

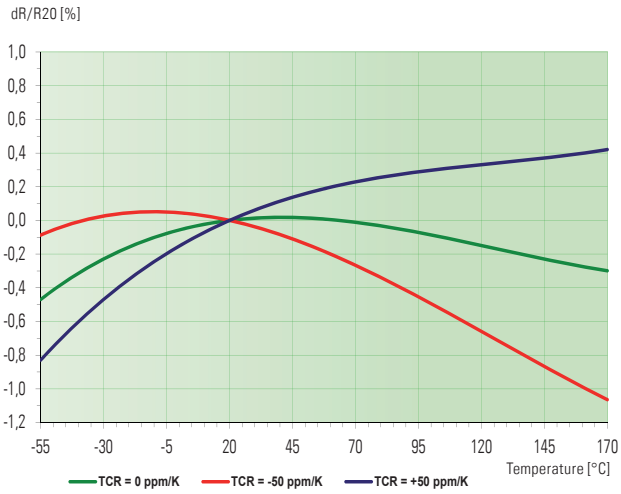
## Power derating curve



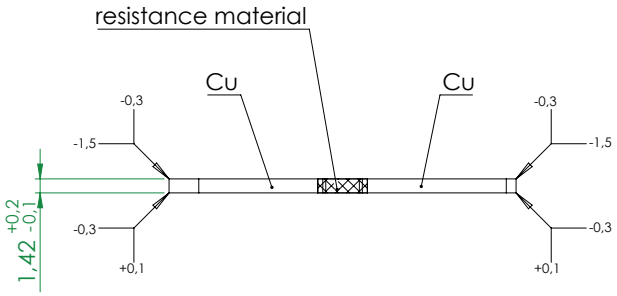

Stability < 1.0 %

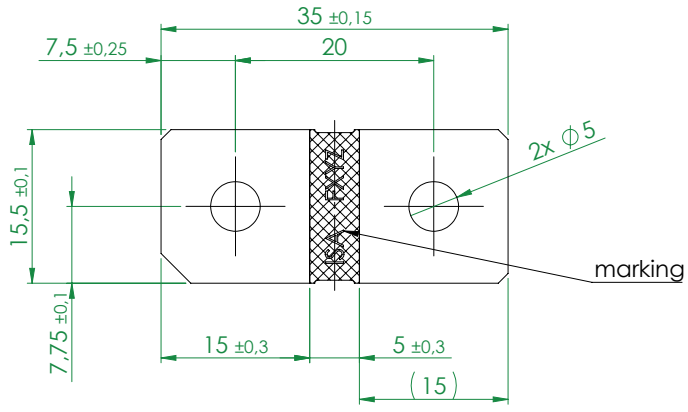
Improved stability < 0.5 %

## Temperature dependence of the electrical resistance of MANGANIN® resistors

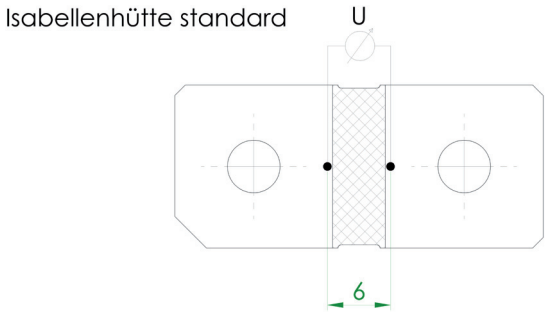



## Mechanical dimensions [mm]




## Position of sense terminals for TC measurement

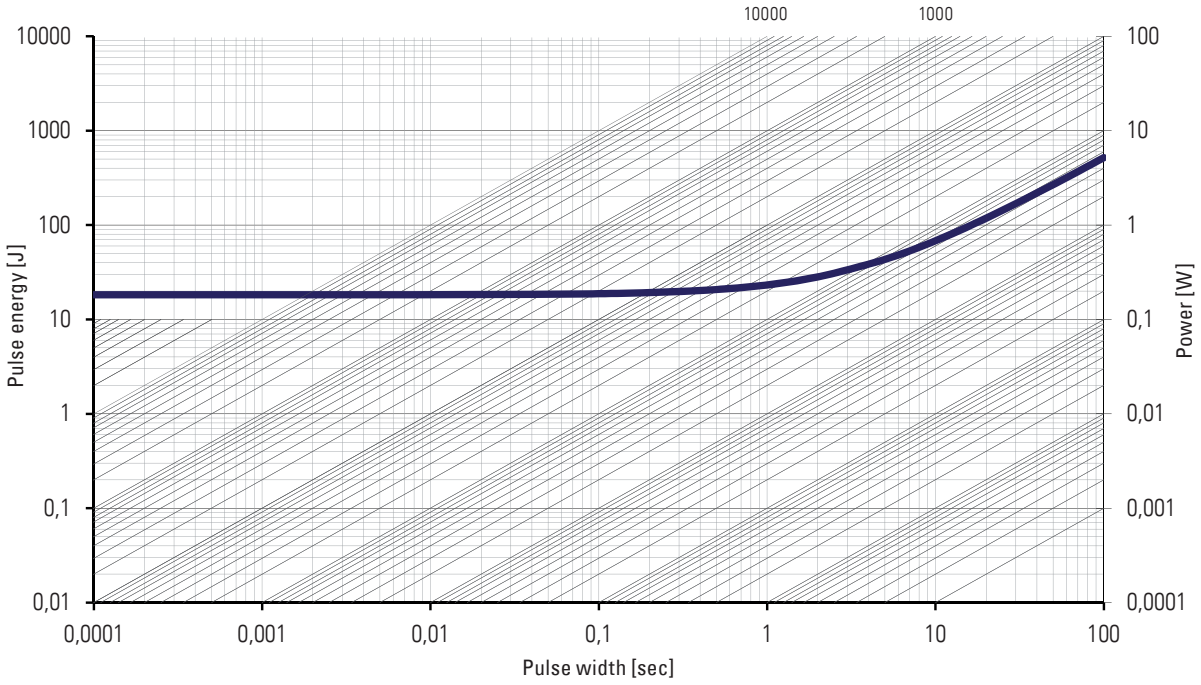





Download from alldatasheet.com

# KVM

### Maximum pulse energy respectively pulse power for permanent 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.



ISABELLENHÜTTE
Download from alldatasheet.com