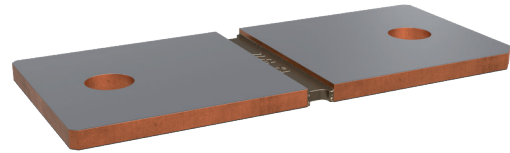


BAN (8436 metric)

ISA-WELD® PRECISION RESISTOR



FEATURES

- Up to 36 W permanent power (25 μOhm)
- Continuous current load up to 1200 A (25 μOhm)
- High pulse power rating
- Available with nickel-tin-plating
- AEC-Q200 qualified
- Shunt with tinned terminals



APPLICATIONS

- Current sensor for EBM (Electronic Battery Management) in motorcars, trucks, hybrid and high voltage electric vehicles
- Current sensing in bus bars
- Current sensing in welding equipments

Technical data

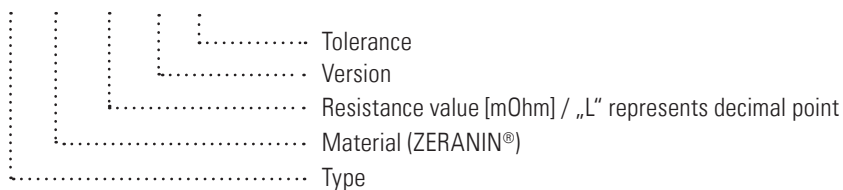
Resistance values	μOhm	25
Resistance tolerance (manufactured)	%	5
Temperature coefficient (20-60 °C)*	ppm/K	$0 \pm 20^{**}$
Applicable temperature range	°C	-40 to +170
Power rating (nominal load, P_{nom})	W	up to 36
Internal heat resistance (R_{thi})	K/W	0.8
Thermal EMF	$\mu\text{V/K}$	<1 (ZERANIN®30)
Maximum resistance drift at P_{nom} after 2,000h of continuous operation at maximum temperature T_{max}	%	<0.5 ($T_{\text{max}} = 140\text{ °C}$) <1.0 ($T_{\text{max}} = 170\text{ °C}$)

*The temperature coefficient is given for the temperature range from 20 to 60 °C, as the R(T) curve corresponds to a non-linear function.

**See table Electrical Specification on page 3.

Ordering code example

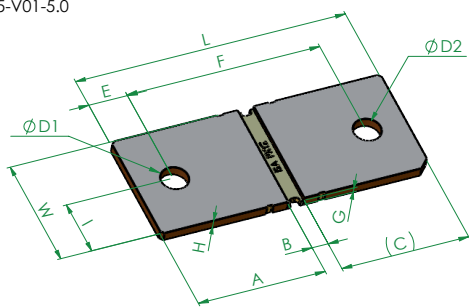
BAN - Z - L025 - V01 - 5.0



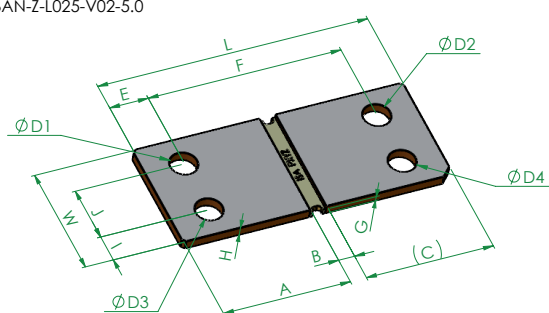
BAN (8436 metric)

Mechanical dimensions [mm]

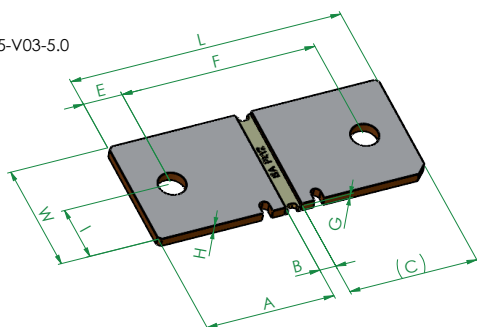
BAN-Z-L025-V01-5.0



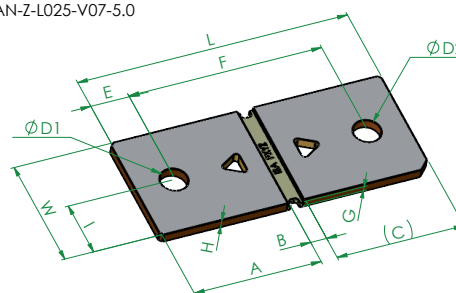
BAN-Z-L025-V02-5.0



BAN-Z-L025-V03-5.0



BAN-Z-L025-V07-5.0



type	A	B	C	D1	D2	D3	D4	E	F	G	H	I	J	L	W
BAN-Z-L025-V01-5.0	39,5	5	39,5	8,3	8,3			12	60	1,8	3	18		84	36
BAN-Z-L025-V02-5.0	39,5	5	39,5	8,3	8,3	8,3	8,3	12	60	1,8	3	9	18	84	36
BAN-Z-L025-V03-5.0	39,5	5	39,5	8,3	8,3			12	60	1,8	3	18		84	36
BAN-Z-L025-V07-5.0	39,5	5	39,5	8,3	8,3			12	60	1,8	3	18		84	36

weight

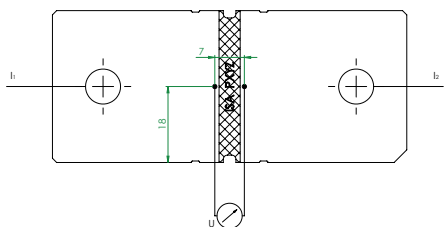
76 g

recommended tightening torque

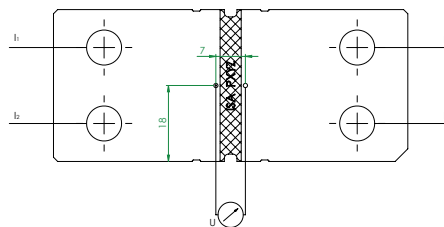
15-25 Nm (attention: choose same value for all screw holes)

Connection diagram

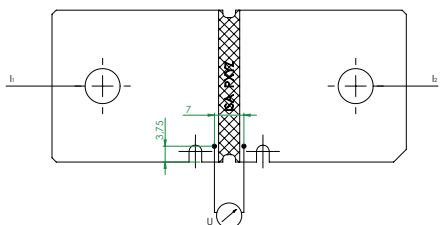
BAN-Z-L025-V01-5.0



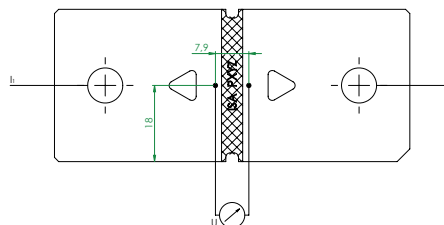
BAN-Z-L025-V02-5.0



BAN-Z-L025-V03-5.0



BAN-Z-L025-V07-5.0



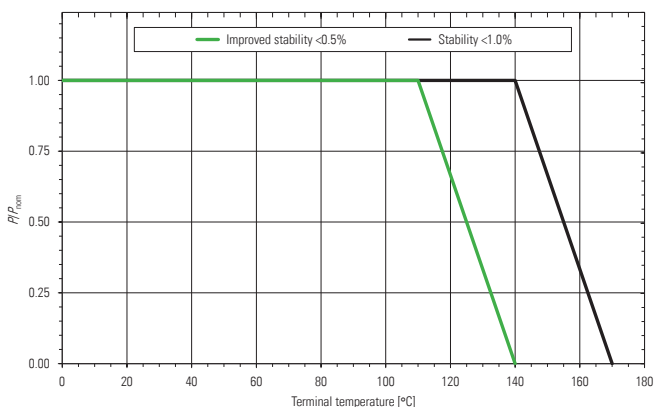
Electrical specification

Type	Value [μOhm]	R_{thi} [K/W]	TCR [ppm/K]*	$P_{140\text{ }^\circ\text{C}}$ [W]	Plating	Partial Plating
BAN-Z-L025-V01-5.0	25	0.8	$50 \pm 50^{**}$	36	Ni+Sn	—
BAN-Z-L025-V02-5.0	25	0.8	0 ± 50	36	Ni+Sn	—
BAN-Z-L025-V07-5.0	25	0.8	0 ± 20	36	—	Ni+Sn

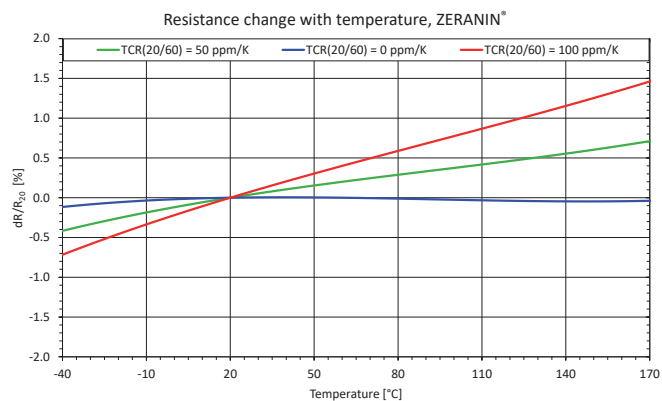
* Boundary condition: Overlap area with connected busbars is 20 mm x W and straight current flow over the busbars.

** Measured from the copper edge.

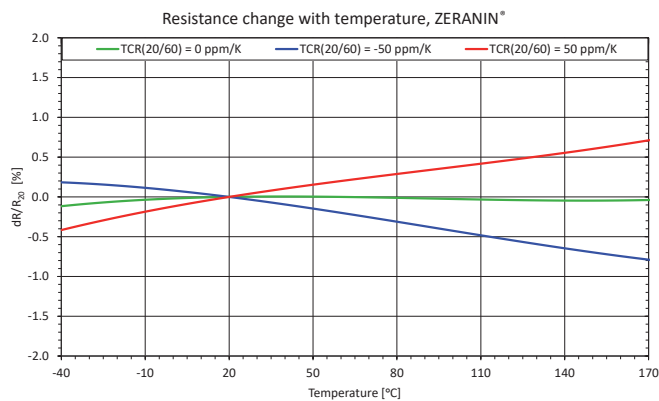
Power derating curve



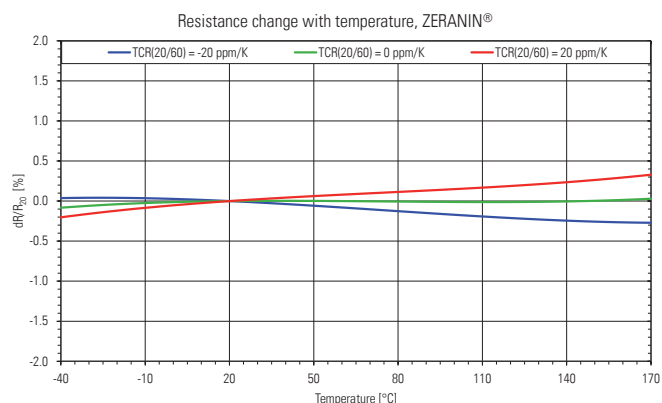
Temperature dependence of the electrical resistance Type V01 // V02



Temperature dependence of the electrical resistance Type V03



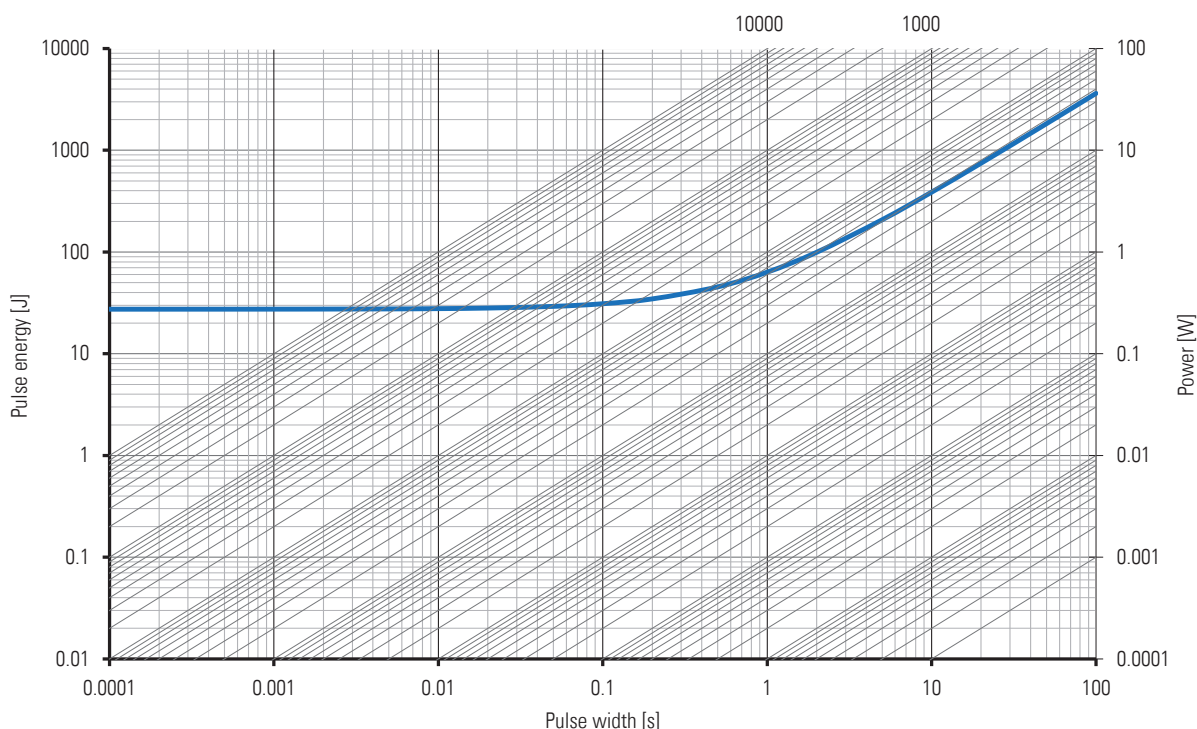
Temperature dependence of the electrical resistance Type V07



Maximum pulse energy respectively pulse power for permanent operation

BAN-Z-L025

Maximum pulse energy / power for continuous operation ($T_k = 140\text{ °C}$)



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.

