



## ISA-WELD® // PRECISION RESISTORS



### BAX // SIZE 8436 (METRIC)

### PRELIMINARY VERSION



#### Features

- Up to 50 W permanent power
- High pulse power rating
- Max. fastening torque 10 Nm



#### Applications

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

#### Technical data

Resistance values	<b>mOhm</b>	0.02 / 0.005
Tolerance	<b>%</b>	5
Temperature coefficient (20-60 °C)	<b>ppm/K</b>	50
Applicable temperature range	<b>°C</b>	-40 to +170
Power rating	<b>W</b>	<b>40</b> (0.02 mΩ) / <b>50</b> (0.005 mΩ)
Internal heat resistance (R <sub>thi</sub> )	<b>K/W</b>	<b>0.75</b> (0.02 mΩ) / <b>0.6</b> (0.005 mΩ)
Thermal EMV (0-100 °C)	<b>µV/K</b>	<b>0.6</b> (MANGANIN®) / <b>1</b> (ZERANIN®30)
Inductance	<b>nH</b>	<3
Stability (Nominal load) deviation after 2,000 h		<0.5 % (T <sub>K</sub> = 110 °C)
T <sub>K</sub> = Terminal temperature		<1.0 % (T <sub>K</sub> = 140 °C)

#### Ordering code example

BAX - M - L020 - 01 - 5.0

.....	Tolerance
.....	Version
.....	Resistance value [mOhm] / „L“ represents decimal point
.....	Material (MANGANIN®)
.....	Type

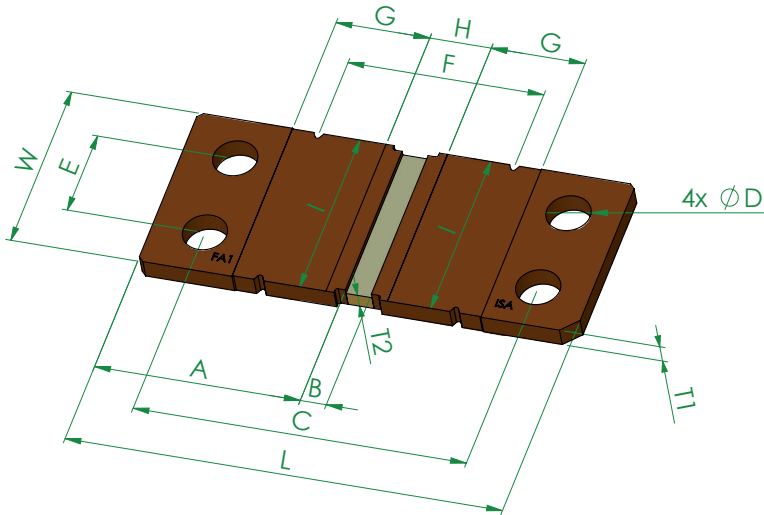
#### Packaging Information

100 pcs. sealed in plastic bags evacuated and refilled with dry nitrogen for non automotive version



BAX // SIZE 8436 (METRIC)

Mechanical dimensions [mm] // Z-YK-856b



type	A	B	C	D	E	F	G
BAX-M-L020-01-5.0	39.5 ±0.3	5 ±0.2	64 ±0.2	∅8.3 ±0.1	18 ±0.15	37.6 ±0.2	18 ±0.2
BAX-Z-L005-01-5.0	41 ±0.3	2 ±0.1	64 ±0.2	∅8.3 ±0.1	18 ±0.15	37.6 ±0.2	18 ±0.2

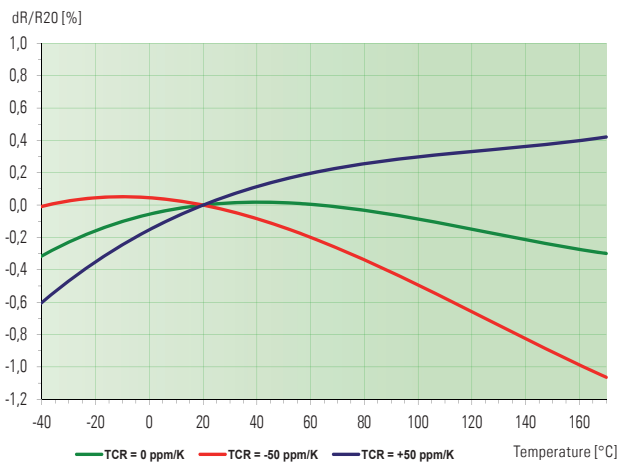
  

type	H	I	L	T1	T2	W
BAX-M-L020-01-5.0	11.8 ±0.2	35.7 ±0.1	84 ±0.2	4 ±0.05	3 ±0.2	36 ±0.2
BAX-Z-L005-01-5.0	11.8 ±0.2	35.7 ±0.1	84 ±0.2	4 ±0.05	3 ±0.2	36 ±0.2

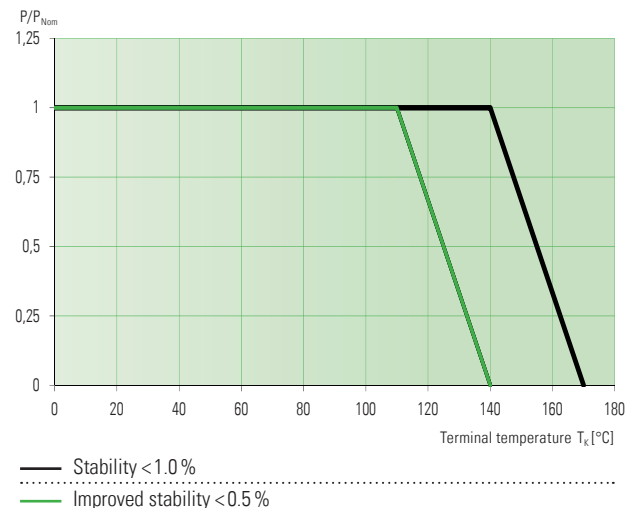
Type	Value [mΩ]	R <sub>thi</sub> [K/W]	TC [ppm/K]	P <sub>140 °C</sub> [W]	Note
BAX-M-L020-01	0.02	0.75	50	40	c-samples available
BAX-Z-L005-01	0.005	0.6	50	50	c-samples available

Abbreviation type: M=MANGANIN®, Z=ZERANIN®30

Temperature dependence of the electrical resistance



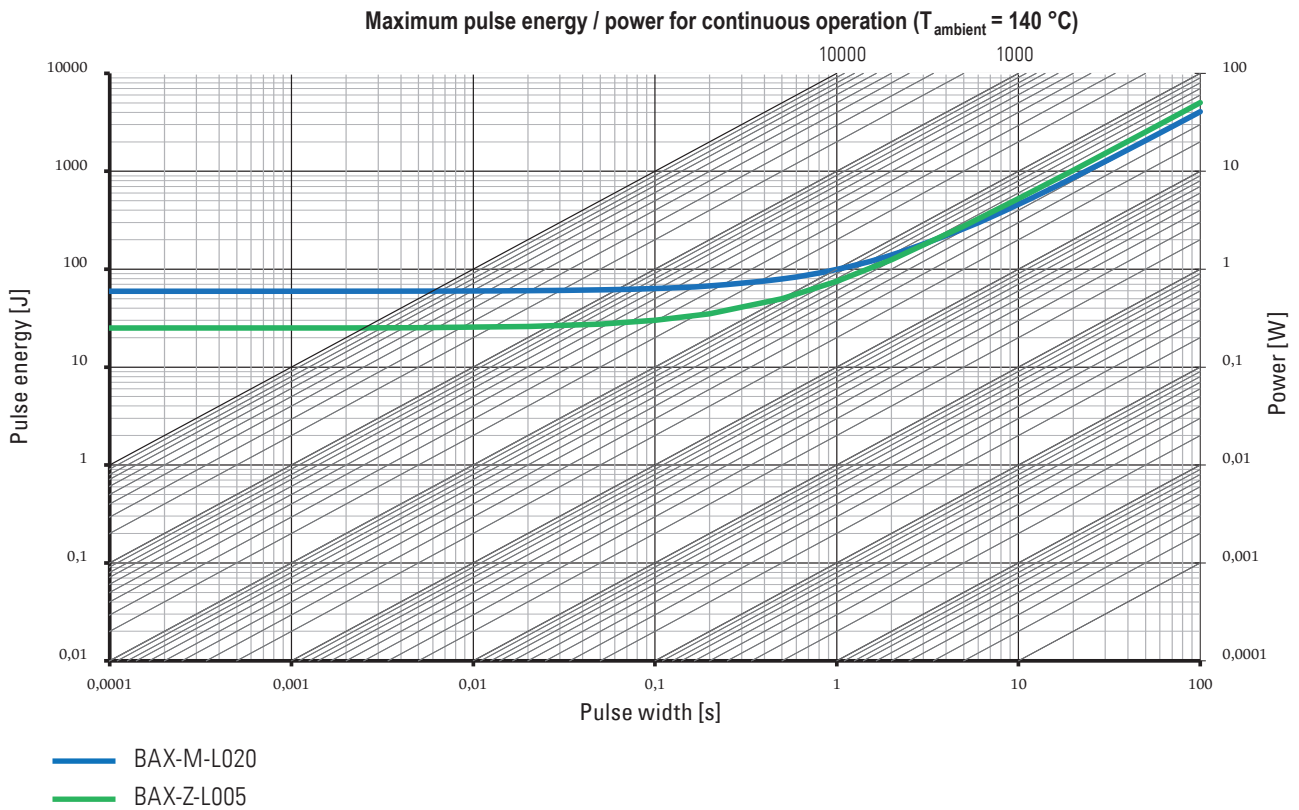
Power derating curve





BAX // SIZE 8436 (METRIC)

Maximum pulse energy respectively pulse power for permanent operation



**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.