



## 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 T <sub>K</sub> = Terminal temperature		<0.5 % (T <sub>K</sub> = 110 °C) <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

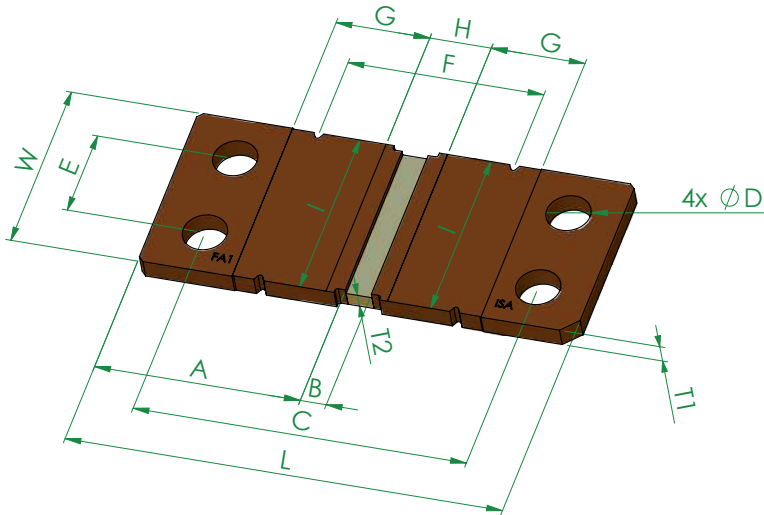
#### Packaging Information

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



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

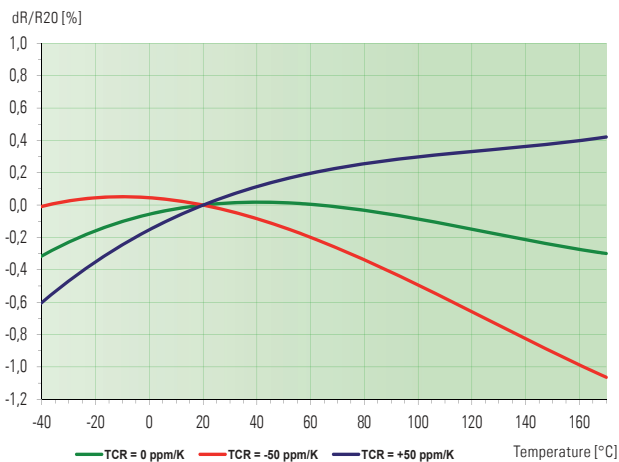


type	A	B	C	D	E	F	G
BAX-M-L020-01-5.0	39.5 ±0.3	5 ±0.2	64 ±0.2	∅8.3 ±0.1	18 ±0.15	37.6 ±0.2	18 ±0.2
BAX-Z-L005-01-5.0	41 ±0.3	2 ±0.1	64 ±0.2	∅8.3 ±0.1	18 ±0.15	37.6 ±0.2	18 ±0.2
type	H	I	L	T1	T2	W	
BAX-M-L020-01-5.0	11.8 ±0.2	35.7 ±0.1	84 ±0.2	4 ±0.05	3 ±0.2	36 ±0.2	
BAX-Z-L005-01-5.0	11.8 ±0.2	35.7 ±0.1	84 ±0.2	4 ±0.05	3 ±0.2	36 ±0.2	

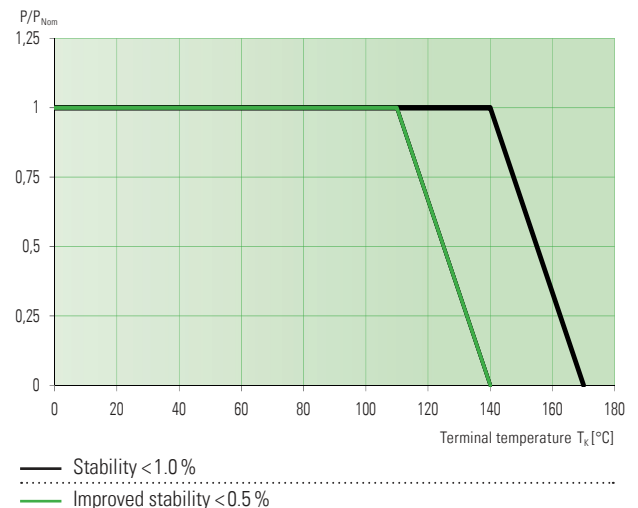
Type	Value [mΩ]	R <sub>thi</sub> [K/W]	TC [ppm/K]	P <sub>140 °C</sub> [W]
BAX-M-L020-01	0.02	0.75	50	40
BAX-Z-L005-01	0.005	0.6	50	50

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

Temperature dependence of the electrical resistance



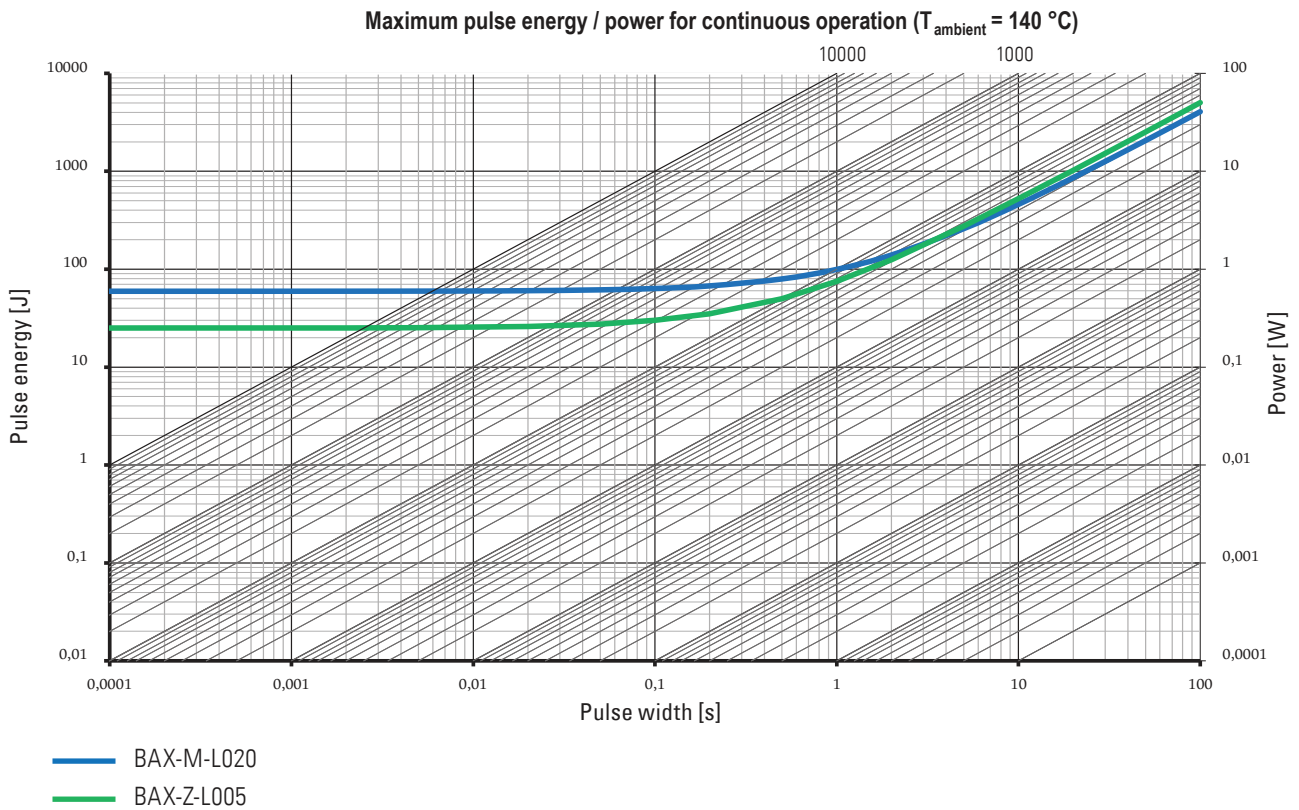
Power derating curve





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Maximum pulse energy respectively pulse power for permanent operation



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