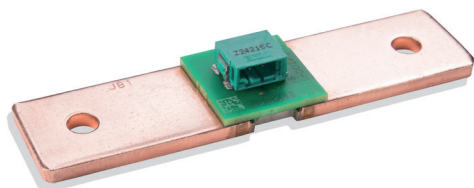


ISA-WELD® // PRECISION RESISTORS



BAC // SIZE 8420 (METRIC)



Features

- Up to 15 W permanent power
- Continuous current load up to 550 A (0.05 mOhm)
- High pulse power rating
- Max. fastening torque 10 Nm
- Shunt available with untinned or Ni-plated terminals
- PC board with connector for voltage sensing



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

	mOhm	0.1	0.05
Resistance values			
Tolerance	%	5	5
Temperature coefficient (20-60 °C)	ppm/K	< 150	< 150
Applicable temperature range	°C	-10 to +125	-10 to +125
Power rating	W	10	15
Internal heat resistance (R_{thi})	K/W	2	1.3
Thermal EMV (0-60 °C)	µV/K	<1	<1
Inductance	nH	<3	<3
Stability (Nominal load) deviation after 2,000 h T_K = Terminal temperature		<0.5 % ($T_K = 105^\circ\text{C}$)	<0.5 % ($T_K = 105^\circ\text{C}$)

Ordering code

BAC - M - R00005 - 5.0 - NI

.....	Nickel-plated
.....	Tolerance
.....	Resistance value [Ohm] / „R“ represents decimal point
.....	Material (MANGANIN®)
.....	Type

Packaging information

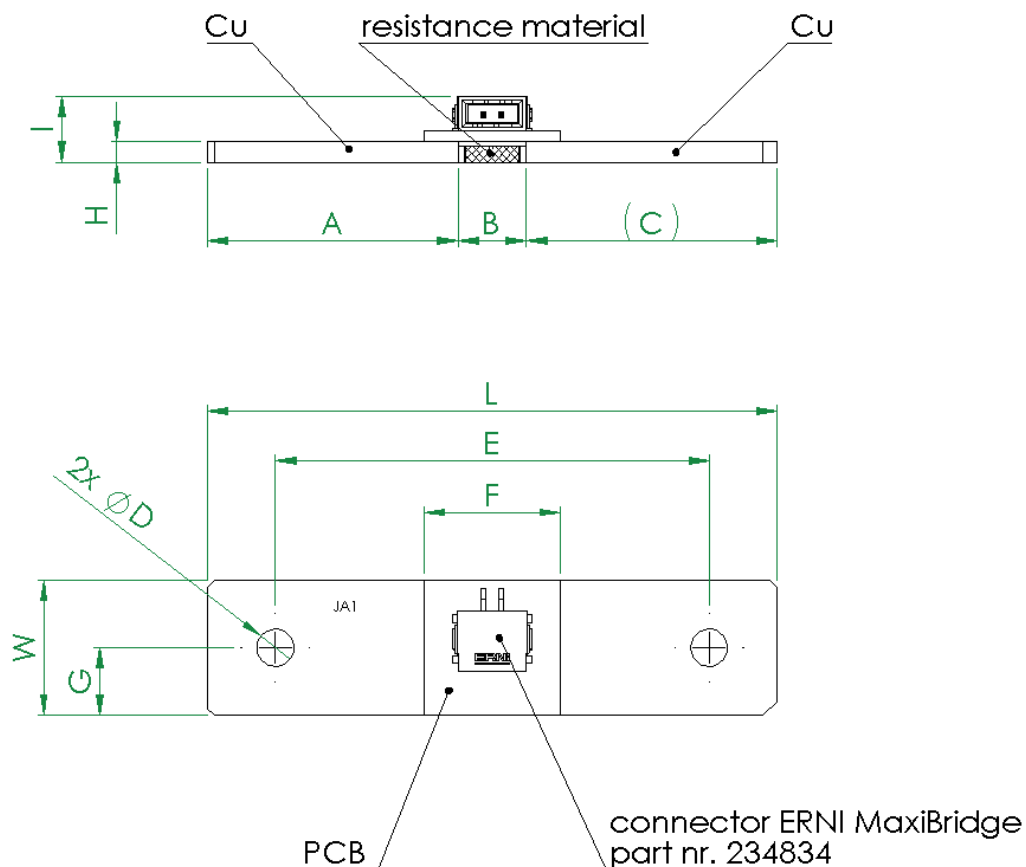
Delivery in plastic trays

30 pcs. per tray, 1,260 pcs. per batch



BAC // SIZE 8420 (METRIC)

Mechanical dimensions [mm] // Drawing no. Z-YK-415b



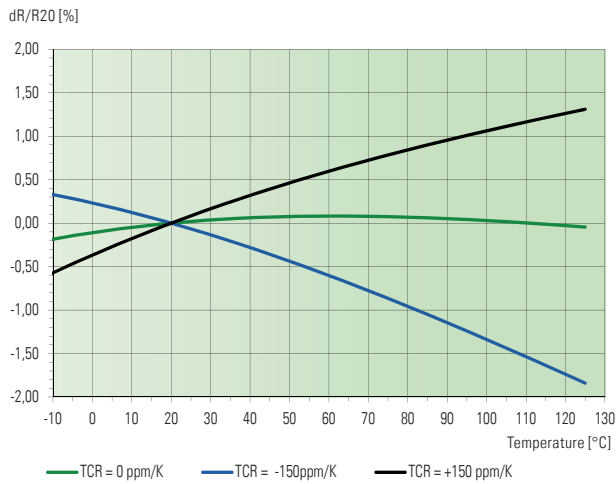
type	A	B	C	D	E	F
BAC-M-R0001-5.0	36.95 ± 0.3	10.1 ± 0.5	(36.95)	Ø5.5 ± 0.1	64 ± 0.2	20 ± 0.2
BAC-M-R00005-5.0	39.4 ± 0.3	5.2 ± 0.3	(39.4)	Ø8.3 ± 0.1	64 ± 0.2	20 ± 0.2
BAC-M-R00005-5.0-NI	39.4 ± 0.3	5.2 ± 0.3	(39.4)	Ø8.3 ± 0.1	64 ± 0.2	20 ± 0.2

type	G	H	I	W	L
BAC-M-R0001-5.0	10 ± 0.2	3 ± 0.1	9.65 ± 0.5	20 ± 0.2	84 ± 0.2
BAC-M-R00005-5.0	10 ± 0.2	3 ± 0.1	9.65 ± 0.5	20 ± 0.2	84 ± 0.2
BAC-M-R00005-5.0-NI	10 ± 0.2	3 ± 0.1	9.65 ± 0.5	20 ± 0.2	84 ± 0.2

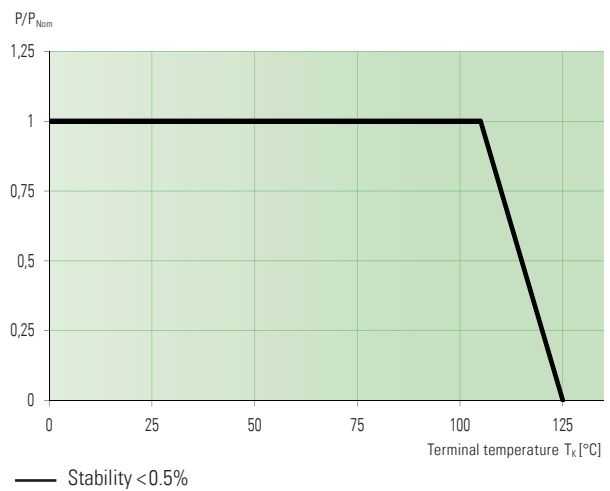


BAC // SIZE 8420 (METRIC)

Temperature dependence of the electrical resistance



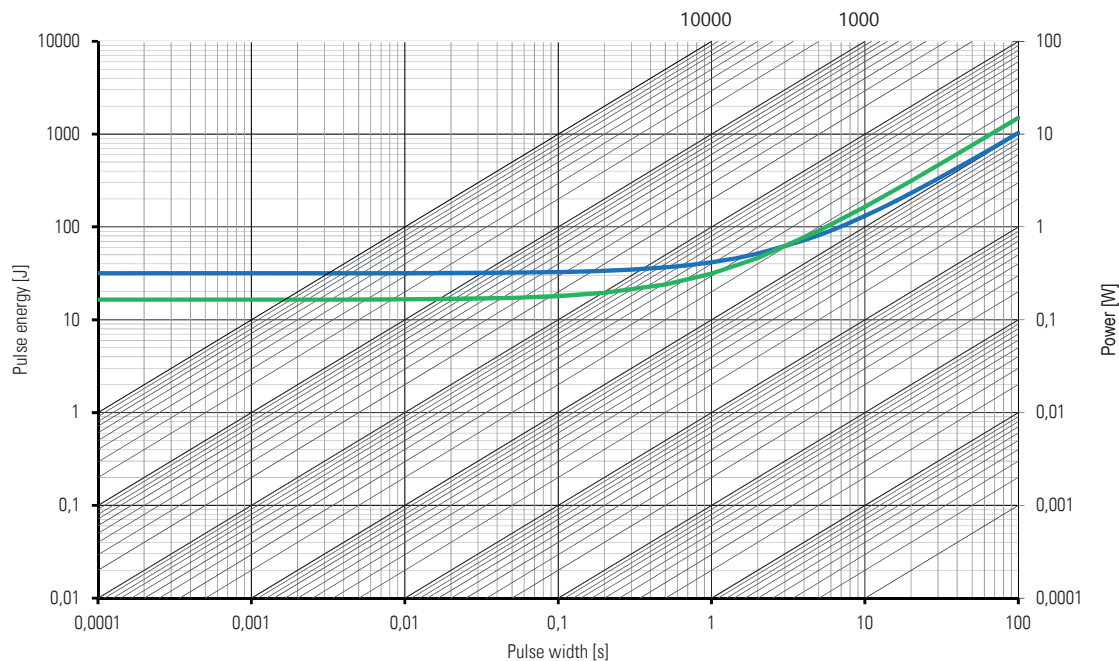
Power derating curve



Maximum pulse energy respectively pulse power for permanent operation

BAC-M-R0001, BAC-M-R00005

Maximum pulse energy / power continuous operation ($T_K = 105\text{ °C}$)



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