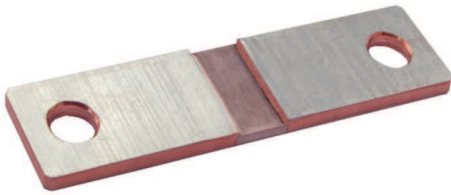




## ISA-WELD® // PRECISION RESISTORS



### BAS // SIZE 8420 (METRIC)



#### Features

- Up to 15 W permanent power
- Continuous current load up to 350 A (0.1 mOhm)
- High pulse power rating
- Max. fastening torque 10 Nm
- Shunt available with tinned or untinned terminals
- Further versions with various dimensions upon request



#### 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

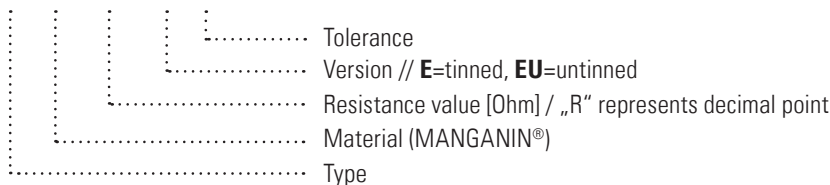
#### Technical data

Resistance values	<b>mOhm</b>	0.1 / 0.2 / 0.5 / 1 <sup>1</sup>
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>	15 (0.1 mOhm) / 8 (0.2 mOhm) / 7 (0.5 mOhm) / 6 (1 mOhm)
Internal heat resistance (R <sub>thi</sub> )	<b>K/W</b>	from 2
Thermal EMV (0-60 °C)	<b>µV/K</b>	0.3
Inductance	<b>nH</b>	<1
Stability (Nominal load) deviation after 2,000 h		<0.5 % (T <sub>K</sub> = 105 °C)
T <sub>K</sub> = Terminal temperature		<1.0 % (T <sub>K</sub> = 140 °C)

<sup>1</sup> Material: Aluchrom

#### Ordering code

BAS - M - R0001 - E - 5.0



#### Packaging Information

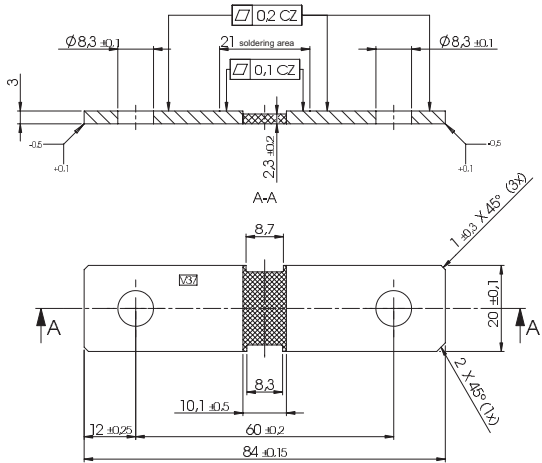
100 pcs. sealed in plastic bags evacuated and refilled with dry nitrogen



BAS // SIZE 8420 (METRIC)

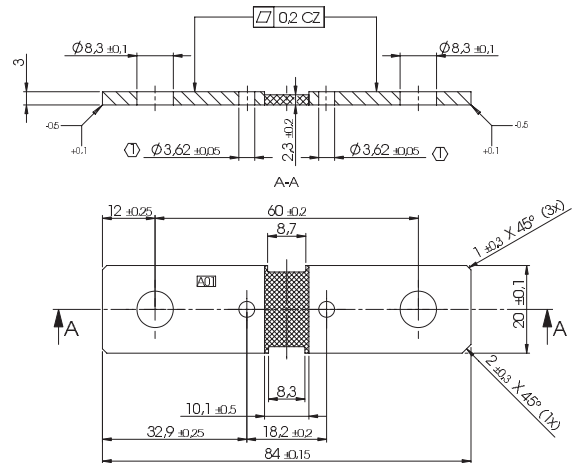
**Mechanical dimensions [mm]**

Standard version **E** with 0.1 mOhm



Z-DR-159C

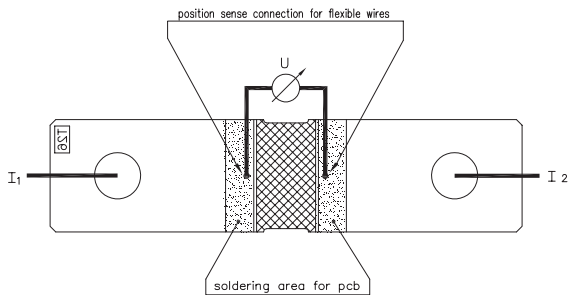
Version **R** with 0.1 mOhm



⊕ only in the clean cut area

Z-DX-342b

**Connection diagram**

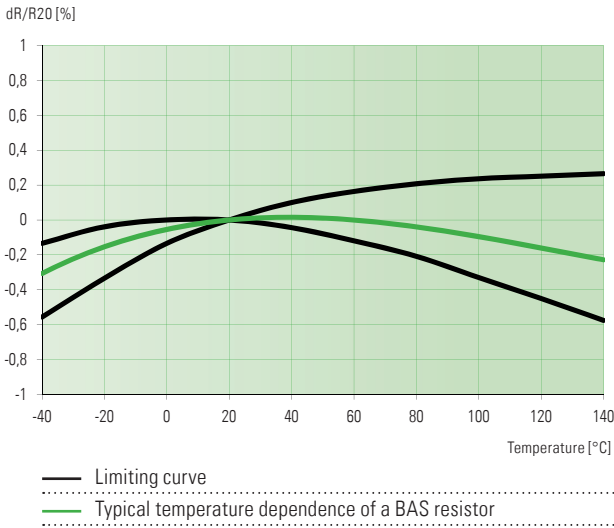


Z-DR-159a

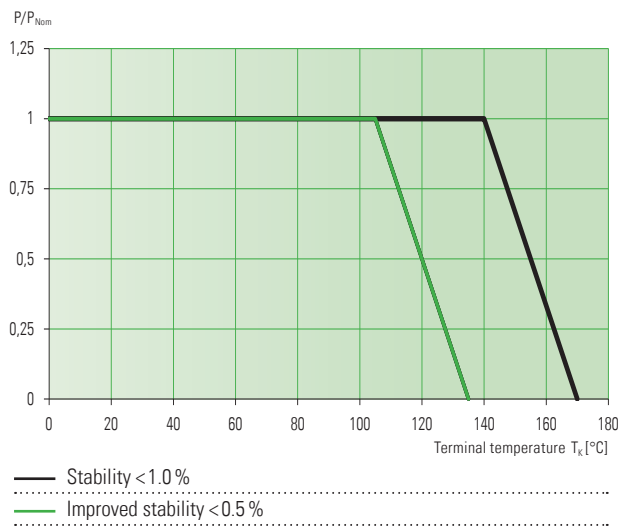


BAS // SIZE 8420 (METRIC)

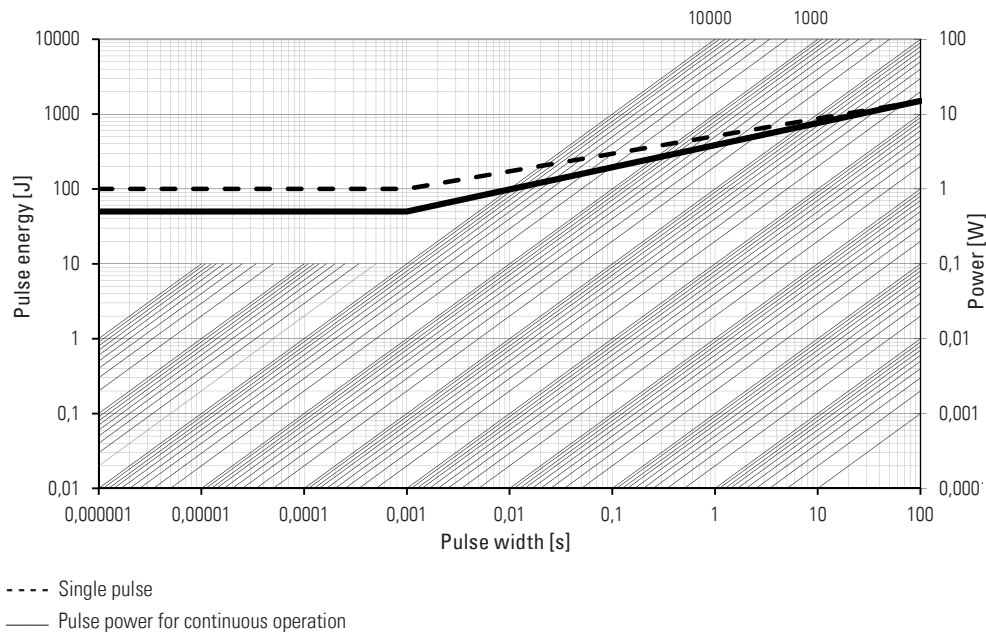
Temperature dependence of the electrical resistance



Power derating curve, R=0.1 mOhm



Maximum pulse energy respectively pulse power for permanent operation



This curve is only valid for the resistance value R0001. The shape of the curve in the range below 0.1 sec will be different for other resistance values. Therefore a separate qualification should be made for pulse power close to the above curve.

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