

# Series AXP-100 B

100 W Power Resistor with four wire terminals, version B for enforced mechanical stability

A Miba Group Company

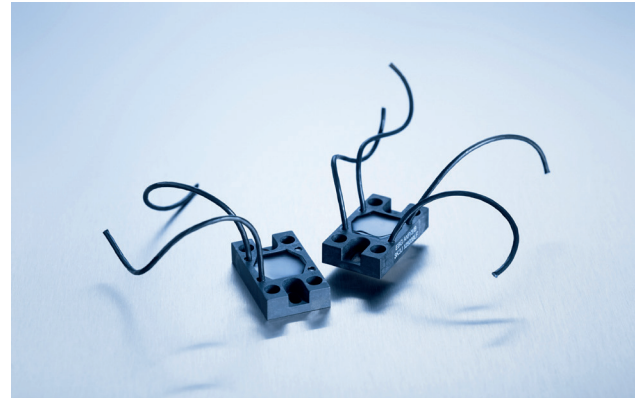
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The new design with its non-inductive thick film Metal Oxide Technology prevents potential problems with clearance and creeping distance from terminal to base plate by means of flexible connecting leads.

This unique design allows you to use this elements in the following areas: variable speed drives, power supplies, control devices, telecommunications, robotics, motor controls and other switching devices.

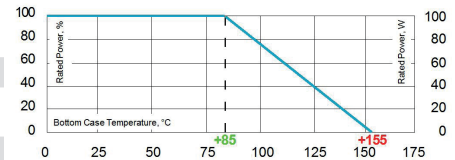
## Features

- 1x 100 W / 2x 38 W / 3x 17 W operating power
- Non-Inductive design
- ROHS compliant
- Materials in accordance with UL 94 V-0



## Technical Specifications

|   |   |
|---|---|
| <b>Resistance value</b>                               | 1 Ω ≤ 1 MΩ  |
| <b>Resistance tolerance</b>                           | ±1 % to ±10 %   |
| <b>Temperature coefficient</b>                        | ±50 ppm/°C to ±250 ppm/°C (at +85°C ref. to +25°C)                            |
| <b>Power rating</b>                                   | up to 100 W at 85°C bottom case temperature (see configurations)              |
| <b>Maximum working voltage</b>                        | 500 V (up to 1,500 V DC on special request = "S"-version)                     |
| <b>Short time overload</b>                            | 1,5x rated power for 10 sec, ΔR = 0.4% max. (for conf. 1, 2 and 3)            |
| <b>Electric strength voltage</b>                      | 5 kV DC (3 kV AC, higher values on special request) between terminal and case |
| <b>Internal electric strength between R1 &amp; R2</b> | 5 kV DC   |
| <b>Working temperature range</b>                      | -55°C to +155°C   |
| <b>Mounting - torque</b>                              | 1.0 Nm to 1.2 Nm  |
| <b>Standard cable length</b>                          | 100 mm (other lengths on special request)                                     |
| <b>Standard cable type</b>                            | PVC 0,75 mm <sup>2</sup> , 20-AWG black                                       |
| <b>Weight</b>   | ~22 g   |



Derating (thermal resist.) AXP-100 B:

1.42 W/K (0.70 K/W) (for conf. 1, 2 and 3)

Best results can be reached by using a thermal transfer compound with a heat conductivity of at least 1 W/mK. The flatness of the cooling plate must be better than 0.05 mm overall. Surface roughness should not exceed 6.4 μm.

## How to make a request

**AXP-Configuration B\_Ohmic Value\_ Tolerance**

**For example:**

AXP-1 B 2K 10% or AXP-4 B 2x50R 5%

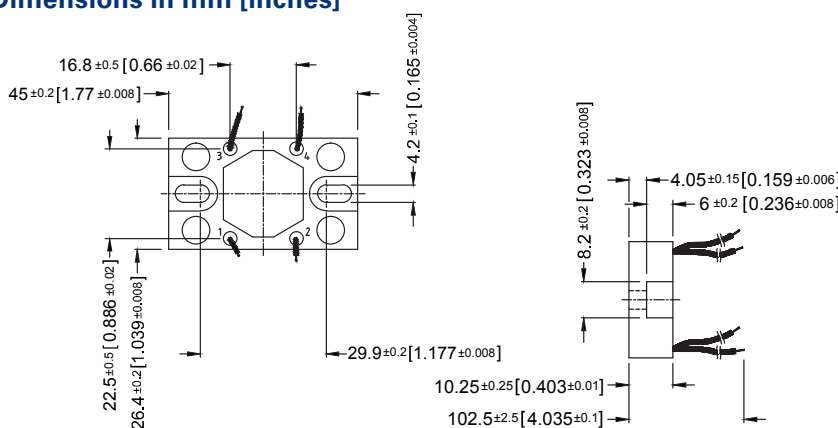
**Example for higher working voltage:**

AXP-1-B-S 55K 5%

## Suggested Mounting Procedure:

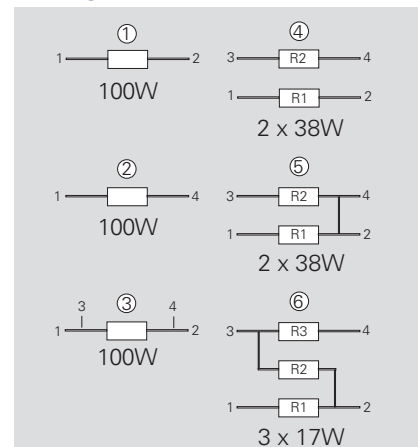
- 1.) Position component and press down by hand
- 2.) Fix both mounting screws (M4) with 0.1 to 0.2 Nm torque
- 3.) Apply final torque to mounting screws of 1.0 to 1.2 Nm

## Dimensions in mm [inches]



Boreholes distance from min. 30.0 mm to max. 37.0 mm

## Configurations (P / package)



Version 5: ohmic value between contact 2 and 4 = 3mΩ

The above spec. sheet features our standard products. For further options please contact our local EBG representative or contact us directly.

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