

# RESISTOR SOLUTIONS FOR **INDUSTRIAL APPLICATIONS**



**OHMITE®**

[www.ohmite.com](http://www.ohmite.com)

# OHMITE'S INDUSTRIAL SOLUTIONS




“Industrial” describes a vast mix of electrical devices with varied capabilities and loads. Our industrial product catalog therefore encompasses a comprehensive range of resistors in both design and capacity.

For nearly 100 years, Ohmite has built its reputation on the quality of its engineering, the reliability of its products, and a commitment to solving the problems of our customers.

In addition to our standard products, our engineering team and dedicated facilities are willing and able to create custom resistor solutions and high power load banks to solve unique design problems.

Whether the load is large or small, Ohmite has the parts that fit your project.



*We aim to enable the resistive and thermal engineering community to design end-products that make the world better.*

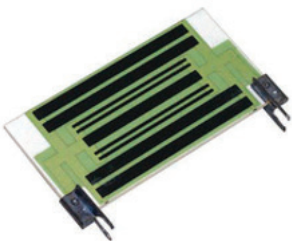


# THICK FILM

Thick film resistors allow for more design freedom in size and shape, while offering several key benefits over other types of resistors.

- High precision
- High power-handling capability
- Compact size
- Durability in harsh outdoor conditions
- Low cost
- High reliability
- Custom designs
- Environmentally friendly: lead-free and RoHS compliant

**See these specific products for more thick-film advantages:**



## TA Series

Ohmite's original power chip resistors feature our thick-film-on-alumina technology. These planar packages yield space-saving 10W-per-cubic-inch power densities that require 50% less board space than other radial packages.



## Slim-Mox Series

Ohmite Slim-Mox provides stable electrical performance at a wide range of resistance values, with voltage ratings up to 25K. This space-saving planar design offers an alternative to traditional high-voltage resistors.



## Tap 800 Series

When used with a liquid or air cooled heatsink system, the Tap 800 dissipates 800 Watts of power. Applications include variable speed drives, power supplies, robotics, motor control, and other power designs.

# WIREWOUND



Wirewound resistors are commonly used for their high power-handling capability and precise resistance value.

- High power rating
- High precision of resistance value
- High stability of resistance value over time
- Low TCR – value stable with changes in temperature
- High pulse withstanding

## Our most popular wirewound products:



### 280 Series

Corrib® fixed and adjustable resistors are ideal for applications with high currents at very low resistance values—as low as  $0.1\Omega$  for a 300-Watt unit.



### ARG Series

ARG from Ohmite features a finned extrusion profile that allows for more thermal efficiency and can be heatsinked for greater power dissipation.



### Metalohm Series

A cold-rolled, steel-encased, heatsinkable, radial terminal resistor with high power capacity, RoHS compliance, and a wide range of form and terminal options.



### **90 Series**

Molded with durable vitreous enamel, 90 Series resistors maintain a hard coating while operating at high temperatures.



### **270 Series**

This all-welded, vitreous enamel component is a good choice for rugged applications requiring wattage ratings from 12 to 1000 watts.



### **HS Series**

Our aluminum housed resistors are designed for direct heatsink mounting and are capable of withstand both high power and high pulse applications. They are available from 15 to 300 watts.

# CERAMIC



Ceramic resistors, also known as ceramic composition resistors, have their own unique benefits:

- High temperature stability
- Low cost
- Small size
- High insulation resistance
- High pulse withstanding
- High frequency stability
- Wide range of values

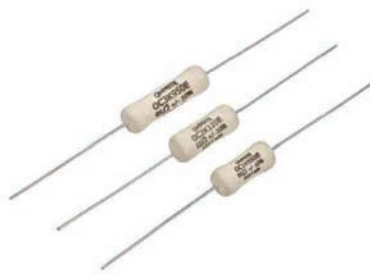
Ceramic resistors are widely used in industrial applications because of their low cost, small size, and wide range of resistance values in addition to several favorable electrical attributes.

**Some of our most popular ceramic resistors:**



**"A" Series**

Ohmite's "A" series of non-inductive, ceramic composite resistors are designed for applications where high energy handling capabilities are crucial. These resistors are ideal for any application which is subject to surges, high peak power, or impulse energy.



**OC Series**

The OC series of resistors can often replace carbon and ceramic composition resistors which can be difficult to source or carry prolonged lead times. The OC series can handle a maximum single energy pulse of 275 joules and are ideal for circuitry associated with surges, high peak power or high energy.



**800 & 1000 Tubular Series**

Tubular resistors provide excellent performance for high peak power or high-energy pulses. Bulk construction advantageously produces an inherently non-inductive resistor. Energy and power are uniformly distributed through the entire ceramic resistor body so there is no film or wire to fail.

# LOAD BANKS



Load banks simulate a load on an electrical power source, such as a generator, power distribution unit (PDU), or an uninterruptible power supply (UPS) and are used to test these power sources and verify that they will operate in the event of power failure. They can also act as a “dump” for circuits that need to discharge a large amount of energy.

Load banks are made from an assembly of several resistors, often installed in a portable rack and equipped with an active cooling system.

**Ohmite engineers can customize portable load banks to meet specifics of a testing scenario and feature:**

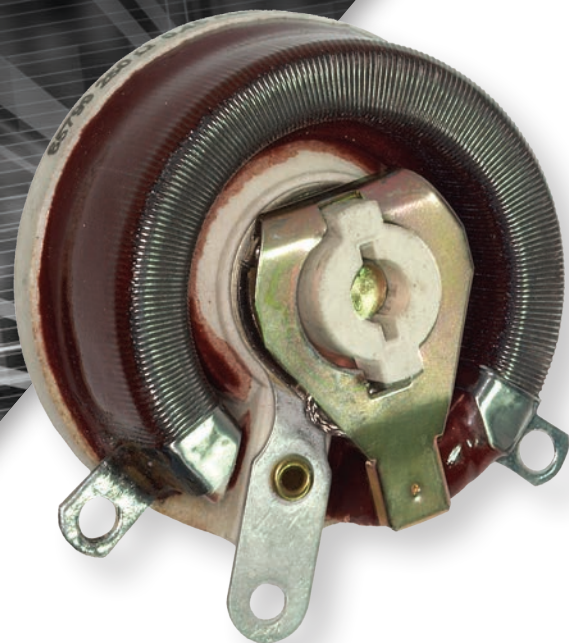
- Corrosion-resistant stainless-steel insulator supports
- Solid nickel terminals
- Special electroless nickel-plated solid copper terminal supports

# RHEOSTATS



Ohmite's high power rheostats have been in use since 1925. The same robust wirewound construction is still used today and continues to find new applications. The use of resistance wire and an adjustable arm creates a variable resistor suitable for both motor and current controls.

- Live circuit control
- UL rating with 11 standard sizes
- Multiple shaft designs
- Full custom solutions





# HEATSINKS AND EMI FILTERS

In addition to our resistor solutions, Ohmite also offers heatsinks and EMI filters. Many designs using our products also include these products, and Ohmite can provide quality, durable, and custom solutions in these areas as well.

## Heatsinks

Ohmite offers many products in high power applications and heatsinks are often needed in these designs. Many of our heatsinks are fitted with a patented clip system, eliminating the use of screws and holes for easy installation.

## EMI Filters

EMI filters subdue undesirable radio frequency that can harmfully impact industrial machinery. Ohmite's EMI filter solutions include Inlet, Single Phase, Three Phase, Dual Stage, and PCB.





**OHMITE®**

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