BOURNS®

NEW PRODUCT RELEASE

RESISTORS



Bourns Releases Four-Terminal Shunt Power Resistors

MSF Series

Riverside, California - October 30, 2026 – The Bourns® MSF Series features a four-terminal Kelvin design that helps minimize measurement errors caused by lead resistance, providing accurate current sensing in power conversion, battery management, motor control, welding equipment, and industrial power systems. Constructed using a Manganin® resistance element welded to OFHC copper terminals and protected by a flame retardant, high-temperature silicone coating, these resistors provide excellent thermal stability and rugged environmental performance.

Model	Power Rating (W)	Maximum Current (A)	Resistance Range (mΩ)	Temperature Coefficient (0 °C to +85 °C) (ppm/°C)	Standard Tolerances (%)	Operating Temperature Range (°C)
MSF-2	5	100	0.5 to 5	±100	±0.5 to ±10	-55 to +275
MSF-2L						

Please visit the Bourns website at www.bourns.com for additional product details and contact Bourns Customer Service/Inside Sales if you have any questions.

Features

- Radial, self-supporting, PC board mounting
- Four-terminal Kelvin measurement design
- Power rating: 5 W
- Maximum current: 100 A
- Operating temp. range: -55 °C to +275 °C
- TCR: ±100 ppm/°C
- Flame-resistant coating
- RoHS compliant*

Applications

- Battery management systems (BMS)
- Power supplies and power conversion equipment
- Industrial motor controls
- Current monitoring circuits
- Welding equipment
- Energy storage systems
- Industrial automation and control systems

Additional Information

DATA SHEET | PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT | FOLLOW

**RoHS Directive 2015/863, Mar 31, 2015 and Annex.*

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