

DATASHEET

Model-836

Isotech

Distributed by AKRIBIS



Miniature Fixed Resistor

Model 836

- Wide range of Values
- Oil Filled
- Precise and Stable for Industrial References

Isotech produces a miniature resistor with ultra-low temperature coefficient and ultra-high stability.

This is achieved because the resistors are oil filled and hermetically sealed.

The function of hermetic sealing is to eliminate the ingress of moisture and oxygen both of which play a role in both short and long term degradation of unsealed resistors. A further enhancement in both short and long term stability is achieved by oil filling. The oil also acts as a thermal conductor allowing the device to accept short periods of overload without degradation.

With accuracies of $\pm 0.005\%$ and long term drift of less than 5ppm, these devices are virtually secondary standards that can be carried in sets for daily or periodic calibration of factory systems.

Resistance Values

We keep in stock the following standard values:
10 Ω , 25 Ω , 100 Ω , 1000 Ω , 10,000 Ω

UKAS Calibration

For the highest quality traceability we recommend that the 836 be UKAS Certified.

Measured Quantity Instrument or Gauge Range	Frequency	Best measurement Capability expressed as an Expanded Uncertainty ($k=2$)
DC Resistance		
0.1 Ω to 1000 Ω		$\pm 10\text{ppm}$
1 k Ω to 100 k Ω		$\pm 12\text{ppm}$
AC Resistance		
0.1 Ω to 400 Ω	75 Hz	$\pm 10\text{ppm}$
400 Ω to 1000 Ω	75 Hz	$\pm 12\text{ppm}$

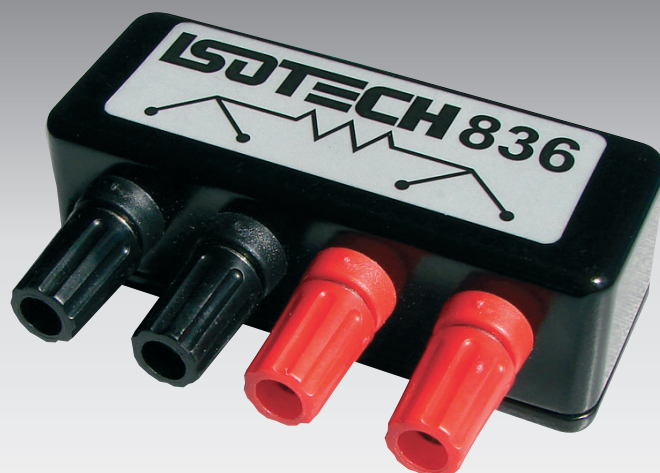
The latest schedule can be found on the
Isotech website or at www.ukas.org.



Please Note:

We offer other Resistor Ranges including the models 456, the SRA and the SRB ranges.

For more information please contact Isotech, or visit our website
www.isotech.co.uk



Model	836 Miniature Fixed Resistor
Power Rating	0.5 watt
Nominal Temperature Coefficient of Resistance	+0.6ppm/ $^{\circ}\text{C}$ (0 $^{\circ}\text{C}$ to +25 $^{\circ}\text{C}$) -0.6ppm/ $^{\circ}\text{C}$ (+25 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$)
Resistance Tolerance	(Initial Resistance Accuracy) $\pm 0.005\%$
Resistance Range	5 ohms to 3.3 megaohms
Current Noise	$< 0.010\mu\text{V}$ (RMS) / Volt of applied voltage
Thermal EMF	0.1 $\mu\text{V}/^{\circ}\text{C}$ maximum 0.05 $\mu\text{V}/^{\circ}\text{C}$ typical
Connections	Screw Terminal Posts
Stability	Typically 1ppm per year at 1mA
Dimensions	Height 30mm Width 89mm Depth 58mm (including terminals)
Weight	90g

How to Order

836 Miniature Fixed Resistor

Please state Ohms Value Required

Please state if UKAS Certification is required