

### KALIBRATOR FÜR WIDERSTANDSMESSBRÜCKEN RBC 400 A

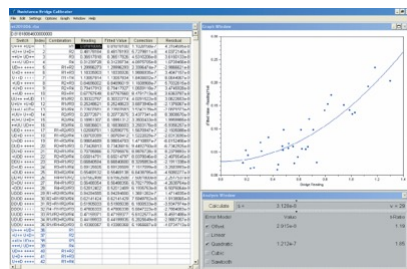
- Automatische Kalibrierung von Wechselstrom und Gleichstrom Messbrücken
- Hohe Genauigkeit - besser 0,01ppm bei 100Ohm
- Patentiertes Design
- Windowsanwendung zur vollständigen Analyse und Zertifikatserstellung

SKU: N/A

Category: [Messbrücken Kalibrator](#)

Tag: [Widerstandsmessbrücke](#)

### GALLERY IMAGES





## BESCHREIBUNG

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**Resistance Bridge Calibrators RBC100A/M & RBC400A/M**

Calibrate thermocouple bridges quickly, simply and in-house

- Calibrate all air and thermocouple bridges
- High accuracy - better than 0.01 percent (0.02 Ohms, RBC 100A)
- Patented design inherited from PLC
- Windows application for full analysis and reporting

**Operating principle**

The problem: Temperature measurement is one of the most demanding applications of resistance measurement. It requires the measurement of resistance ratio to accuracy of 1 part in 10<sup>6</sup> to 10<sup>7</sup> in order to measure standards and accessories available at the time. An accurate standard is generally not. So how can we achieve our bridge accuracy at the time, and then our resistance and temperature measurements are accurate?

**The feasibility check**

One option is to use a resistance bridge to measure a pair of resistors separately, and then measure the two in series. Ideally the series measurement should equal the sum of the two individual measurements. First, check the measurements give us a little bit of information about the series bridge readings. Now that we do not need to know the value of the resistors to make this test, work.

**The comparison check**

Another check is to measure the ratio of two resistors, say R1/R2, then change the bridge and measure the reciprocal ratio or components, R2/R1. Ideally the product of the two measurements should equal 1.0 exactly. If 1.0, the measurements give us more information on the bridge itself. Once again, we do not need to know the value of the resistors to make this test.

**The conventional method**

The RBC offers the same accuracy as the industry and comparison check. It uses a network of four stable four-wire resistors that can be compared in all different series and parallel combinations. By measuring each RBC component in the six different ways, we will get the comparison check to a 10<sup>-6</sup> relative measurement accuracy. Since the RBC is used for other than resistance ratio, we need an RBC measurement uncertainty containing information about the resistance of the bridge resistors.

The conventional calibration method is particularly powerful because it is not necessary to know the actual values of the four resistors, or their frequency dependence. This means we can calibrate any air or bridge in any laboratory setting in the various temperature configurations, and accurate.

The patented RBC Calibration is a result of research carried out by Resbridge at the Measurement Standards Laboratory of New Zealand, which operates under Industrial Research Ltd (IRL), a former Technology Centre, an approved Center from PLC to develop, sell and produce the RBC.

[Datenblatt RBC](#)

**ISOTECH**

**RESISTANCE BRIDGE CALIBRATORS MODELS RBC100M & RBC400M**

User Maintenance Manual/Handbook

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The company is always willing to give technical advice and assistance where appropriate. Equally, because of the programme of continual development and improvement we reserve the right to amend or alter characteristics and design without prior notice. This publication is for information only.

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**ISOTECH**

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Software Version 2

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