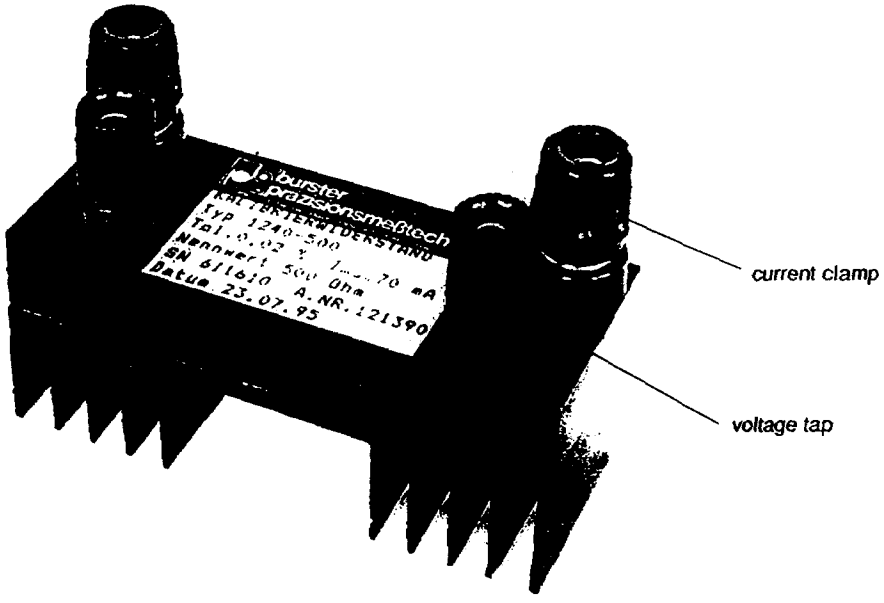
Calibration resistor

Model 1240

with certificate according ISO9000



- Low capacitance and low inductance design
- Suitable for direct current and technical frequencies
- Oil-filled design ensures great stability
  < ± 0.01 % over years

Application

The 0.02 class calibrated resistors excel in their modern design and small mechanical dimensions. Their ruggedness also ensures a long life.

Calibration resistors of the 1240 series are used wherever very constant operating standards are required. Typical main areas of application therefore include:

- when normal resistors prove to be too large
- to test measuring bridges
- for tests on electrical temperature measuring equipment
- for laboratory setup of a Wheatstone bridge
- to setup plate circuits
- for a defined current characteristic at a defined voltage
- as shunt resistor for current measurement
- as part of standard equipment in research laboratories
- for a large part of measurements in calibration workshop.

With the delivery of this calibration resistor you get a test certificate corresponding ISO 9000 with detailed technical datas.

DKD Calibration Certificate

burster präzisionsmeßtechnik at Gernsbach have set up a calibration centre for electrical quantities, connected to the German Calibration Service (DKD). This calibration centre is supervised by the Physikalisch-Technische-Bundesanstalt (PTB) at Braunschweig and is entitled to issue calibration certificates. The measurement results and uncertainties contained in the calibration certificate are obtained by using standards and measurement instruments subject to regular comparision with state standards of the Federal Rebuplic of Germany and are therefore constant with these. The proof of state control exists in the form of the calibration certificate itself and in a calibration mark which is put the test piece.
The resistor described can be supplied with a DKD Centre calibration certificate.

DKD calibration certificate for a calibrated resistor of series 1240.

Order no. 12DKD-1240

Manufacturer Calibration Certificate

Please refer to DKD Calibration Certificate but with reduced uncertainties.
The traceability of the used secondary voltage and resistance standards to the national standards according to DIN ISO 9000ff, is quaranteed by our certified calibration laboratory (K-02101).

Technical Datas

Design and construction of the resistor as follows:

- from 100 µΩ to 100 mΩ built of MANGANIN® sheet metal
- from 200 mΩ up 100 kΩ wire-wound of ZERANIN®

All resistors are designed in four-wire-technics and balanced at 23 °C with < 0.5 W load for their nominal value.

Temperature coefficient:

a.) for MANGANIN®-sheet metal approx. ± 10 x 10^{-6}/°C

b.) for ZERANIN®-wire approx. ± 1 x 10^{-6}/°C

Dimension:

high: 38 mm
width: 97 mm
depth: 41 mm (61 mm with clamps)

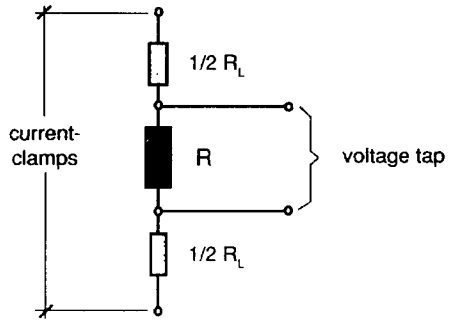
Weight: 250 g

type	amont of resistance	tolerance ± %	R.	resistivity material	max. current in air	nominal voltage at voltage taps	storage stability typ/year
1240-0.0001	100 µΩ	0.1	≤ 0.9 mΩ	MANGANIN® metal sheet	60 A	6 mV	< 4 x 10^{-4}
1240-0.0002	200 µΩ	0.05	≤ 0.8 mΩ		60 A	12 mV	< 4 x 10^{-4}
1240-0.0005	500 µΩ	0.05	≤ 1.5 mΩ		60 A	30 mV	< 4 x 10^{-4}
1240-0.001	1 mΩ	0.05	≤ 3 mΩ	MANGANIN® metal sheet	30 A	30 mV	< 5 x 10^{-5}
1240-0.002	2 mΩ	0.05	≤ 3 mΩ		30 A	60 mV	< 5 x 10^{-5}
1240-0.005	5 mΩ	0.05	≤ 4 mΩ		20 A	100 mV	< 5 x 10^{-5}
1240-0.01	10 mΩ	0.03	≤ 3 mΩ		14 A	140 mV	< 5 x 10^{-5}
1240-0.02	20 mΩ	0.03	≤ 3 mΩ		10 A	200 mV	< 5 x 10^{-5}
1240-0.05	50 mΩ	0.03	≤ 5 mΩ		6 A	300 mV	< 5 x 10^{-5}
1240-0.1	100 mΩ	0.02	≤ 5 mΩ		5 A	500 mV	< 3 x 10^{-5}
1240-0.2	200 mΩ	0.02	≤ 5 mΩ	ZERANIN® -wire	3 A	600 mV	< 2 x 10^{-5}
1240-0.5	500 mΩ	0.02	≤ 5 mΩ		2 A	1 V	< 2 x 10^{-5}
1240-1	1 Ω	0.02	≤ 5 mΩ		1.5 A	1.5 V	< 1 x 10^{-5}
1240-2	2 Ω	0.02			1 A	2 V	< 2 x 10^{-5}
1240-5	5 Ω	0.02			0.7 A	3.5 V	< 2 x 10^{-5}
1240-10	10 Ω	0.02			0.5 A	5 V	< 1 x 10^{-5}
1240-20	20 Ω	0.02			0.35 A	7 V	< 2 x 10^{-5}
1240-50	50 Ω	0.02			0.2 A	10 V	< 2 x 10^{-5}
1240-100	100 Ω	0.02			0.15 A	15 V	< 1 x 10^{-5}
1240-200	200 Ω	0.02			0.1 A	20 V	< 2 x 10^{-5}
1240-500	500 Ω	0.02			70 mA	35 V	< 2 x 10^{-5}
1240-1 k	1 kΩ	0.02			45 mA	45 V	< 1 x 10^{-5}
1240-2 k	2 kΩ	0.02		ZERANIN® -wire	20 mA	40 V	< 2 x 10^{-5}
1240-5 k	5 kΩ	0.02			14 mA	70 V	< 2 x 10^{-5}
1240-10 k	10 kΩ	0.02			10 mA	100 V	< 1 x 10^{-5}
1240-20 k	20 kΩ	0.02		ZERANIN® -wire	7 mA	140 V	< 2 x 10^{-5}
1240-50 k	50 kΩ	0.02			4 mA	200 V	< 3 x 10^{-5}
1240-100 k	100 kΩ	0.02			3 mA	300 V	< 3 x 10^{-5}

How to order

5 calibration resistors 100 mΩ ordering no 1240-0.1

5 DKD calibration certificates ordering no 12 DKD-1240



Technicals changes reserved