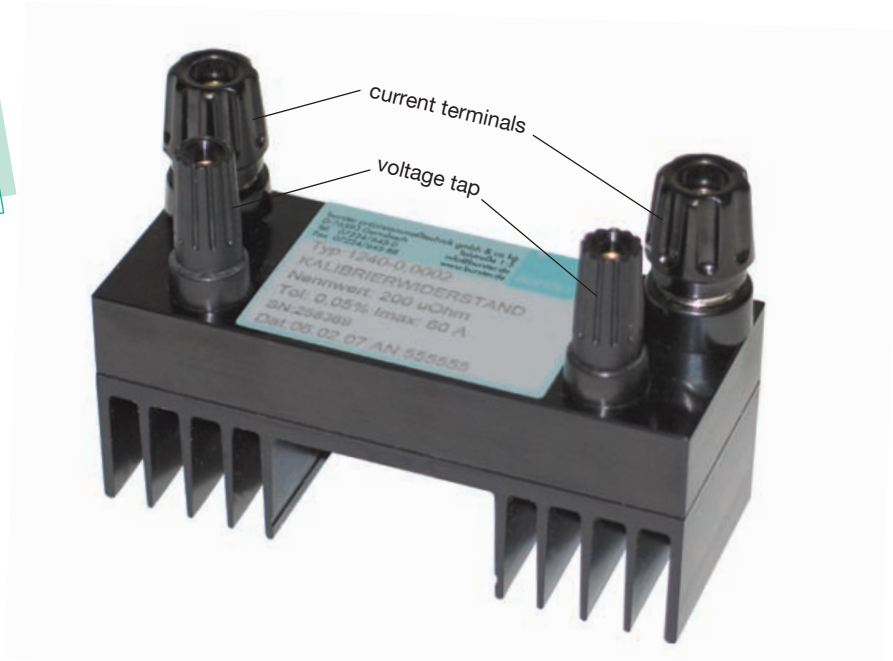


Calibration Resistor

Model 1240

Code:	1240 E
Manufacturer:	burster
Delivery:	ex stock
Warranty:	24 months

With Certificate according ISO 9000



- Low capacitance and low inductance design
- Suitable for direct current and technical frequencies
- High stability $\pm 0.01\%$ over years

1240-E

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 scale
- ▶ for test and calibration of resistance measurement devices
- ▶ for tests on electrical temperature measuring equipment
- ▶ for laboratory setup of a Wheatstone bridge
- ▶ as shunt resistor for current measurement
- ▶ as part of standard equipment in research laboratories
- ▶ for a large part of measurements in calibration laboratory.

A test certificate according to ISO 9000 with detailed technical data is included in the scope of delivery of these high-quality calibration resistors.

DKD Calibration Certificate

burster präzisionsmesstechnik at Gernsbach have set up a calibration centre for electrical quantities, affiliated 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 comparison with state standards of the Federal Republic of Germany and are therefore constant with these. The proof of state control exists in form of the calibration certificate itself and in a calibration mark which is put on the test piece.

The resistor described can be supplied with a DKD Calibration Certificate.

DKD Calibration Certificate for a calibrated resistor series 1240

Order code

12DKD-1240

Manufacturer Calibration Certificate

Please refer to DKD Calibration Certificate but with reduced accuracy. The calibration resistors can also be delivered with a manufacturer calibration certificate. It confirms the traceability of the used secondary voltage and resistance standards to the national standards according to DIN ISO 9000ff and is guaranteed by our certified calibration laboratory (DKD-K-02101)

Order code

12WKS-1240

Technical Data

Design and construction of the resistor as follows:

- ▶ from 100 $\mu\Omega$ to 100 m Ω built of MANGANIN® sheet metal
- ▶ from 200 m Ω up 100 k Ω 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. $\pm 10 \times 10^{-6}/K$
- b.) for ZERANIN® wire approx. $\pm 2 \times 10^{-6}/K$

Thermal resistance: 11 K/W

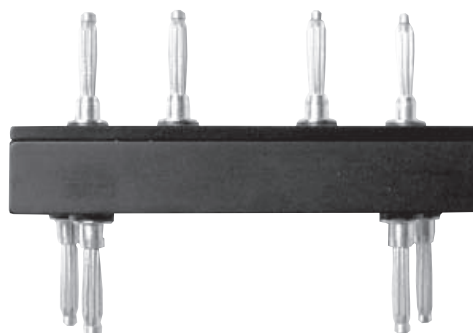
Dimensions:

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

Weight: 250 g

Adapter model 2394

for the check-up of our resistance measurement devices models 2304 and 2316-V000X



Model	Resistance value	Tolerance $\pm \%$	R_L	Resistivity material	Max. current in air	Nominal voltage at voltage taps	Storage stability typ./year
1240-0.0001	100 $\mu\Omega$	0.1	≤ 0.9 m Ω	MANGANIN® metal sheet	60 A	6 mV	$< 4 \times 10^{-4}$
1240-0.0002	200 $\mu\Omega$	0.05	≤ 0.8 m Ω		60 A	12 mV	$< 4 \times 10^{-4}$
1240-0.0005	500 $\mu\Omega$	0.05	≤ 1.5 m Ω		60 A	30 mV	$< 4 \times 10^{-4}$
1240-0.001	1 m Ω	0.05	≤ 3 m Ω	MANGANIN® metal sheet	30 A	30 mV	$< 5 \times 10^{-5}$
1240-0.002	2 m Ω	0.05	≤ 3 m Ω		30 A	60 mV	$< 5 \times 10^{-5}$
1240-0.005	5 m Ω	0.05	≤ 4 m Ω		20 A	100 mV	$< 5 \times 10^{-5}$
1240-0.01	10 m Ω	0.03	≤ 3 m Ω		14 A	140 mV	$< 5 \times 10^{-5}$
1240-0.02	20 m Ω	0.03	≤ 3 m Ω		10 A	200 mV	$< 5 \times 10^{-5}$
1240-0.05	50 m Ω	0.03	≤ 5 m Ω		6 A	300 mV	$< 5 \times 10^{-5}$
1240-0.1	100 m Ω	0.02	≤ 5 m Ω		5 A	500 mV	$< 3 \times 10^{-5}$
1240-0.2	200 m Ω	0.02	≤ 5 m Ω	ZERANIN® wire	3 A	600 mV	$< 2 \times 10^{-5}$
1240-0.5	500 m Ω	0.02	≤ 5 m Ω		2 A	1 V	$< 2 \times 10^{-5}$
1240-1	1 Ω	0.02	≤ 5 m Ω		1.5 A	1.5 V	$< 1 \times 10^{-5}$
1240-2	2 Ω	0.02			1 A	2 V	$< 2 \times 10^{-5}$
1240-5	5 Ω	0.02			0.7 A	3.5 V	$< 2 \times 10^{-5}$
1240-10	10 Ω	0.02			0.5 A	5 V	$< 1 \times 10^{-5}$
1240-20	20 Ω	0.02			0.35 A	7 V	$< 2 \times 10^{-5}$
1240-50	50 Ω	0.02			0.2 A	10 V	$< 2 \times 10^{-5}$
1240-100	100 Ω	0.02			0.15 A	15 V	$< 1 \times 10^{-5}$
1240-200	200 Ω	0.02			0.1 A	20 V	$< 2 \times 10^{-5}$
1240-500	500 Ω	0.02			70 mA	35 V	$< 2 \times 10^{-5}$
1240-1 k	1 k Ω	0.02			45 mA	45 V	$< 1 \times 10^{-5}$
1240-2 k	2 k Ω	0.02		20 mA	40 V	$< 2 \times 10^{-5}$	
1240-5 k	5 k Ω	0.02		14 mA	70 V	$< 2 \times 10^{-5}$	
1240-10 k	10 k Ω	0.02		10 mA	100 V	$< 1 \times 10^{-5}$	
1240-20 k	20 k Ω	0.02		7 mA	140 V	$< 2 \times 10^{-5}$	
1240-50 k	50 k Ω	0.02		4 mA	200 V	$< 3 \times 10^{-5}$	
1240-100 k	100 k Ω	0.02		3 mA	300 V	$< 3 \times 10^{-5}$	

All resistors are incl. test certificate. Intermediate values are possible.

Order Information

5 calibration resistors 100 m Ω
5 DKD Calibration Certificates

Order code 1240-0.1
Order code 12DKD-1240

