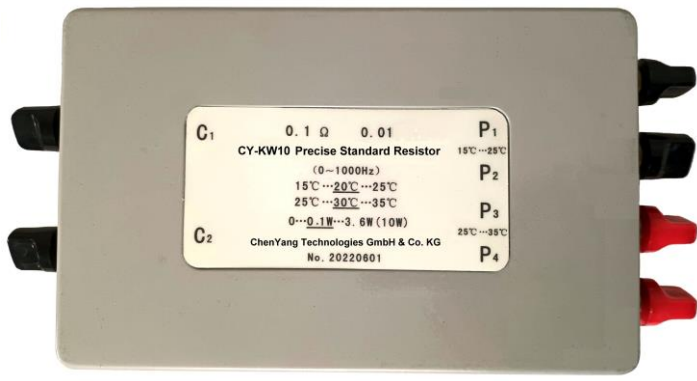


DC Calibration Resistor

CY-KW10

User's Manual



ChenYang Technologies GmbH & Co. KG

Markt Schwabener Str. 8
85464 Finsing, Germany
Tel. +49-(0)8121-2574100
Fax: +49-(0)8121-2574101
Email: info@chenyang.de
<http://www.chenyang.de>

CY-KW10 is DC calibration resistor, which is designed and made according to the Standard JB/T8225-1999 and IEC477 for DC resistors used in laboratory and electrical engineering. By using full closed structure and automatic temperature control it ensures resistor good long-term stability and small temperature coefficient. This DC resistor is very suitable for DC current measurement and calibration of current measuring systems and current sensors. The maximal measuring current is 10A with measuring accuracy of $\pm 0.01\%$

1. Technical Data

Rated resistance:	0.1Ω
Accuracy of resistance:	$\pm 0.01\%$
Measurement uncertainty:	$\pm 0.02\%$
Frequency range:	0 – 1000Hz
Reference testing current:	3A DC
Rated testing current:	6A DC
Maximum testing current:	10A DC
Rated using power:	3.6 W
Maximum using power:	10W
Isolation resistance:	500MΩ
Isolation voltage:	2.0kV, 45~65Hz, 1min

2. General Data

Operation temperature range:	15°C ~ 25°C ~ 35°C
Storage temperature:	15°C ~ 35°C
Relative humidity:	<75%
Dimensions:	230 x 137 x 57mm (without considering connection terminals) 280 x 137 x 57mm (with connector terminals)
Unit weight:	2.7kg
Warranty term:	12 months after shipment date

3. Current Measurement

The calibration resistor CY-KW10 is connected with a current source under test and a precise voltmeter, see the following figure. The current source is connected to the terminal C1-C1 through a suitable power cable, the current capacity of which is 10A at least. The voltmeter is connected to the terminals P1 and P2 when the operating temperature is 15°C ~25°C, see Figure 1, and to the terminals P3 and P4 when the operating temperature is 25°C ~35°C, see Figure 2. The measuring accuracy of the voltmeter should be higher than ±0.01%.

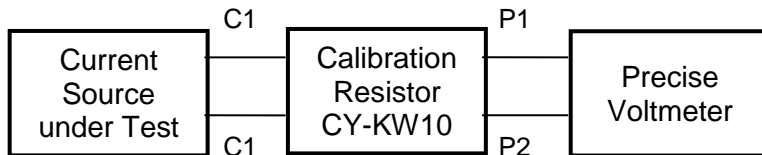
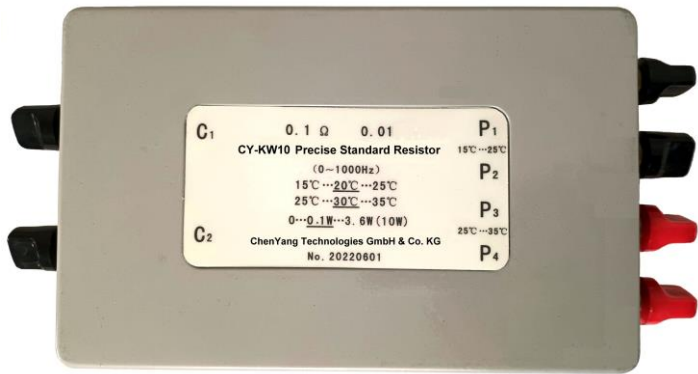


Figure 1 Operating temperature 15°C ~ 25°C



Figure 2 Operating temperature 25°C ~ 35°C

Please pay attention to the measuring current range of this resistor when you start the current measurement. The maximum measuring current of the resistor CY-KW10 is 10A. Measuring current higher than 10A can damage the resistor.

For your safety please check carefully the current power cable connection to avoid any contact with human body.

4. Warranty

ChenYang Technologies GmbH & Co. KG warrants its products against defects in workmanship and materials under normal use and service for a period of 12 Months from the shipping date. All obligations and liabilities under this warranty are limited to repairing or replacing at our option.

The warranty is extended only to the original purchaser. The warranty shall not apply to any products or parts which have been damaged on account of improper installation, improper connections, misuse, neglect, accident or abnormal conditions of operation. Any attempt to tamper with the products as evidenced by disruption of warranty sticker and/or unauthorised repair/modification of the products shall render this warranty null and void.

5. Storage

When using the calibration resistor it must be complied with all rules of using precision instruments. Calibration resistor should be kept at ambient temperature of 15°C~35°C and relative humidity below 75%. Any acidic gases, which cause corrosion, hazardous substances, dust, and so on are not allowed in the storage room.