Slide resistor 10 Ω Slide resistor 33 Ω Slide resistor 100 Ω Slide resistor 330 Ω Slide resistor 1000 Ω	06110-03 06112-03 06114-03 06116-03 06118-03

PHYWE Systeme GmbH & Co. KG
Robert-Bosch-Breite 10
D-37079 Göttingen

Telefon +49 (0) 551 604-0
Fax +49 (0) 551 604-107
E-mail info@phywe.de



Fig. 1: Slide resistor, 10 Ω, 33 Ω, 100 Ω, 330 Ω, 1000 Ω

Operating instructions

The unit complies with the applicable EU-guidelines.

TABLE OF CONTENTS

1 SAEFTY PRECAUTIONS

2 PURPOSE AND CHARACTERISTICS

3 FUNCTION AND OPERATING ELEMENTS

4 HANDLING

5 NOTES ON OPERATION

6 TECHNICAL DATA

7 WARRANTY

8 WASTE DISPOSAL

9 EXPLANATION OF THE SYMBOLS

1 SAEFTY PRECAUTIONS

Caution!

- Carefully read these operating instructions completely before operating this instrument. This is necessary to avoid damage to it, as well as for user-safety.
- Do not cover the ventilation slots.
- Take care that no liquids or objects enter in through the ventilation slots.
- Only use the instrument in dry rooms in which there is no risk of explosion.
- Do not start up this instrument in case of visible signs of damage to it or to the line cord.
- Only use the instrument for the purpose for which it was designed.
- Place the unit on a stable and horizontal surface.

Caution!

- If the unit is operated for a longer period of time, it may generate more heat.
- Ensure proper grounding, especially when working with higher voltages.
- Do not exceed the maximum rated current (0.95 A).
- Avoid touching the terminals during operation.
- Before use, make sure that the protective cover is properly installed.

www.phywe.com, © All rights reserved

2 PURPOSE AND CHARACTERISTICS

A slide resistor is a variable resistor with which the current intensity within a circuit can be changed. It is suitable as a series resistor or voltage divider.

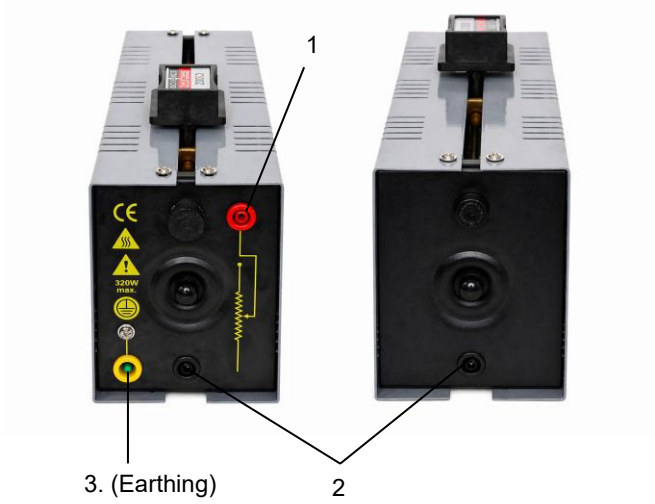
3 FUNCTION AND OPERATING ELEMENTS

The rheostat consists of the following components:

Resistance element:
Oxidized Constantan wire, uniformly wound around a cylindrical tube.

Sliding contact (slider):
A movable contact used to adjust the resistance along the resistive track.

Protective cover:
Ensures user safety and protects the internal components.



Connections:
1.) 1 red socket: Variable terminal (slider/wiper)
2.) 2 black sockets: Fixed terminals at both ends of the resistance track
3.) 1 yellow socket (green tip): Ground / earth connection

Operating Principle
The rheostat works by changing the resistance in a circuit through adjusting the effective length of the resistance path.

How It Works:
When the slider moves along the resistance track, the resistance increases in the direction opposite to the connected black terminal.
This allows smooth and continuous control of the current in the circuit.

Connection Notes
The type of connection depends on the desired resistance function.

Variable resistor
- Connect one terminal to the red terminal (slider).
- Connect the second terminal to one of the black terminals.

The resistance value changes as soon as the slider is moved towards the black terminal.

Fixed resistance
Connect both terminals to the two black terminals.
This ensures that the resistance remains constant across the entire resistor element.

Earthing
The yellow socket with a green tip serves as the earth connection.
When working with high voltages (110 V / 220 V), proper earthing is strongly recommended.

Advantages of earthing:
- Increases operator safety
- Reduces the risk of electric shock
- Minimises electrical hazards

4 HANDLING

The slide resistor is connected to a circuit. The connection is made to the terminal of the slider and to one of the two terminals of the variable resistor. The resistance is changed by moving the slider on the rail.

Step 1
Before operation, make sure that all connections are correctly and securely connected.
Step 2
Switch off the power supply before connecting the rheostat.
Step 3
Connect the rheostat according to the requirements of the circuit.
Step 4
Then switch the power supply back on.
Step 5
Set the desired resistance by moving the slider slowly and evenly.
Avoid sudden or excessively forceful movements.
Step 6
Observe the behavior of the circuit during operation.

5 NOTES ON OPERATION

CE

This high-quality instrument fulfils all of the technical requirements that are compiled in current EC guidelines. The characteristics of this product qualify it for the CE mark. This instrument is only to be put into operation under specialist supervision in research, educational and training facilities (schools, universities, institutes and laboratories).

www.phywe.com, © All rights reserved

6 TECHNICAL DATA

- Touch-proof in ventilated metal housing with four 4-mm safety sockets, one of which is for housing grounding.
- Resistance tolerance +/- 10 %
- Permissible power (continuous operation): 160 W
- short-time load (max. 15 min) 200 W (max. 320 W)
  - 10 Ohm 4 A 40 V
  - 33 Ohm 2.2 A 72.6 V
  - 100 Ohm 1.25 A 125 V
  - 330 Ohm 0.7 A 231 V
  - 1000 Ohm 0.4 A 400 V
- Dimensions (mm): 330 x 90 150
- Weight: 3 kg

7 WARRANTY

We give a warranty of 24 months for units that we have supplied inside the EU, and a warranty of 12 months outside the EU. The following is excluded from the warranty: damage that is due to non-compliance with the operating instructions, improper use or natural wear.

The manufacturer can only be held liable for the function and safety-relevant properties of the unit if the maintenance, service and modifications of the unit are performed by the manufacturer or by an institution that is expressly authorised by the manufacturer.

8 WASTE DISPOSAL

The packaging mainly consists of environmentally-friendly materials that should be returned to the local recycling stations.



Do not dispose of this product with normal household waste. If this unit needs to be disposed of, please return it to the address that is stated below for proper disposal.

PHYWE Systeme GmbH & Co. KG
Customer Service
Robert-Bosch-Breite 10
D–37079 Göttingen
Germany

Telephone +49 (0) 551 604-0
Fax +49 (0) 551 604-107

9 EXPLANATION OF THE SYMBOLS



Important information about the device.
Observe operating instructions.



Caution!
Possibly harmful situation
(damage to property)
General danger area.
Observe operating instructions.



Caution hot!

www.phywe.com, © All rights reserved