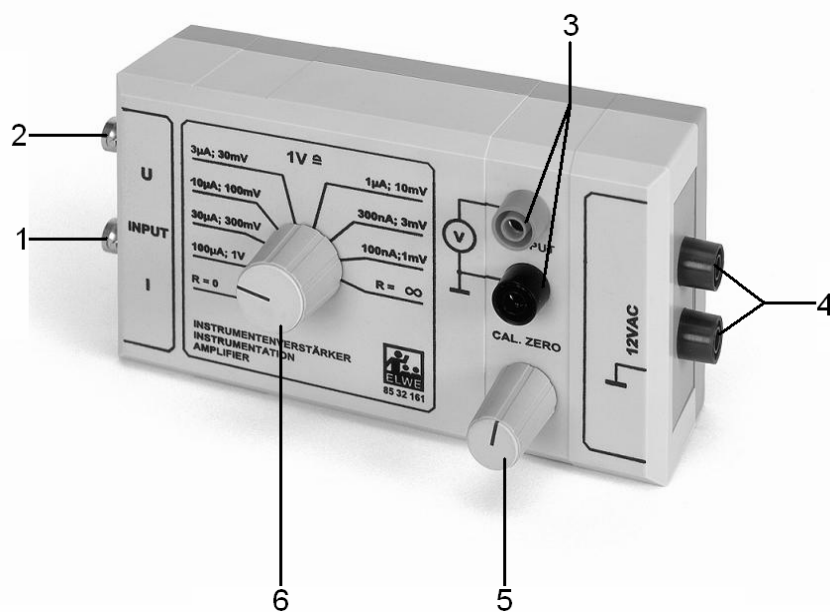


Instrumentation amplifier for student experiments 8532161

Instruction sheet

07/06 SP



- 1 Current measurement input
- 2 Voltage measurement input
- 3 Measurement output
- 4 Supply voltage voltage
- 5 Zero point calibration
- 6 Measuring range selector

1. Description

The instrumentation amplifier for students' experiments is used in conjunction with a simple voltmeter to measure very small voltages and currents.

The device consists of an operational amplifier and a special preamplifier, owing to which a high gain factor (10^6), a low offset voltage and an excellent long-term stability can be achieved. The amplifier is used for both AC/DC voltage and AC/DC current. A conventional voltmeter (measuring range: 1 V DC or 3 V AC) serves as an indicating instrument. Additional calibration of the device is not required.

2. Technical data

Operating voltage:	12 V AC
Input impedance:	10 k Ω
Amplification factor:	10^6
Input connections:	Two BNC connectors
Output connections:	Two 4-mm safety connectors
Primary fuse:	See rear of equipment housing
Dimensions:	175 mm \times 85 mm \times 65 mm
Weight:	250 g approx.

3. Operation

3.1 Voltage amplifier

- Apply the supply voltage (12 V AC).
- Select the maximum measuring range (100 •A, 1 V), in order to avoid overload.
- Connect the voltmeter (1 V DC or 3 V AC).
- Connect the measurement set-up to input U .
- Select the appropriate measuring range.

3.2 Current amplifier

- Apply the supply voltage (12 V AC).
- Select the maximum measuring range (100 •A, 1 V), in order to avoid overload.
- Connect the voltmeter (1 V DC or 3 V AC).
- Connect the measurement set-up to input I .
- Select the appropriate measuring range.