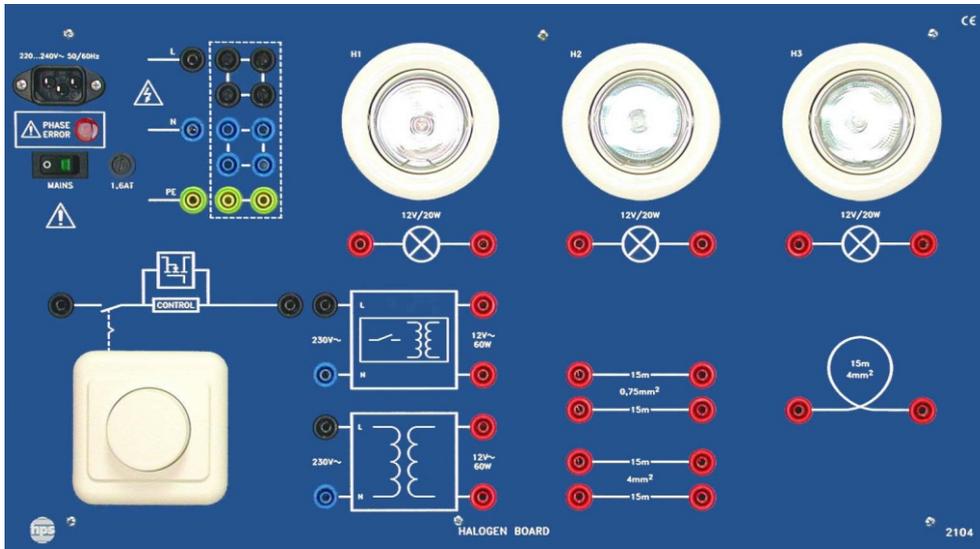


HALOGEN BOARD

Type 2104



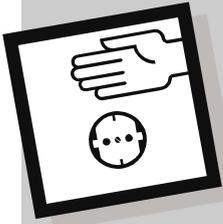
Front view of the HALOGEN BOARD

- This board can be used for conducting all experiments with low-voltage Halogen lamps
- Three built-in, swivel-mounted lamps, one of them with higher efficiency
- With conventional and electronic transformer
- Built-in phase angle control
- Various line simulations for simulating real wirings
- No special lab table required, a mains socket suffices
- Also available in the hps Box

Possible Experiments

Excerpt from the experiment manual: „Lighting Engineering“ (Type V 0111)

- Characteristic values and power ratios of the standard low-voltage halogen lamp
- Characteristic values and power ratios of the low-voltage halogen lamp with higher efficiency
- Transformer power loss
- Dimming of low-voltage halogen lamps
- Influence of the cable cross section and cable length



HALOGEN BOARD

Type 2104

Accessories Recommended

- Set of Accessories (Type 2104.1), consisting of safety leads and plugs (4 mm)
- Experiment manual: „Lighting Engineering“ (Type V 0111)
- Multimeter (RMS)
- Lux meter
- Power meter

Subject to technical modifications.

Installation Technology / Lighting Engineering

Technical Data

Mains connection (with protective contact)

- Mains voltage: 220 ... 240 V AC; 50 ... 60 Hz; approx. 20 ... 70 VA (depending on the wiring)

Built-in components

- 1 patch panel (safety jacks, 4 mm: L / N / PE)
- 2 low-voltage halogen lamps
12 V / 20 W
- 1 low-voltage halogen lamp with higher efficiency due to heat recovery
12 V / 20 W
- 1 phase-shift control
230 V / 20 ... 315 W
- 1 transformer, conventional
230 V AC / 12 V AC, 60 W
- 1 transformer, electronic
230 V AC / 12 V AC, 60 W
- 2 line simulations (resistors)
length: 15 m; cross section: 0.75 mm²
- 2 line simulations (resistors)
length: 15 m; cross section: 4 mm²
- 1 line simulation, wound
length: 15 m; cross section: 4 mm²

Mechanical data

The front panel of the HALOGEN BOARD is made of 5 mm thick laminate, matt blue in colour. The individual components are integrated in the front panel. Circuit symbols are printed in white on the front panel. A grey plastic cover protects the rear of the unit and enables the unit to be placed on a desktop at an ergonomically favourable angle.

Dimensions and weights

- HALOGEN BOARD (Type 2104):
532 x 297 x 130 mm (w x h x d);
weight: approx. 3.8 kg
- Box version, consisting of:
HALOGEN BOARD (Type 2104)
and Box (Type 2104.20): 580 x 450 x 155 mm;
total weight: approx. 7 kg