Electrical safety
Protective measures
The Safety Measures Board is designed for experiments related to the subject of electric protective measures. Safety extra-low voltage ensures optimum safety for the user. Connected to the mains supply with a SCHUKO plug, the device can be used in any room. The Board allows experiments on all the topics listed above and reproducing the earthing systems TN-C, TN-C-S, TN-S TT and IT.

Technical data:
- Operating voltage: 230 V / 50 – 60 Hz
- Experimenting voltage: 23 V, 1.5 A
- $\frac{1}{10}$ of the mains voltage
- RCD: 23 V / 30 mA
- Circuit breaker: C0, 3 A
- Summation current transformer
- Simulation of a human
- Safety extra-low voltage
- Protective isolation
- Simulation of a voltage gradient
Manual „Electrical protection measures“

Contents

„Safety engineering project work with freely programmable safety modules“

- Fundamentals
- Network systems
- Protection against direct and indirect contact
- Fault current protective devices
- Fault current protective devices in networks
- Protective separation
- IT network
- Protection insulation
- Protective extra low-voltage and functional extra - low voltage
- Step voltage

BENEFITS

✔ Carrying out experiments safely by using low voltage 1:10
✔ No special measuring instruments required
✔ Depiction of the protection degrees

Commercial multimeters suffice for experiments
90 600  Multimeter
# ELABO TrainingsSysteme

**Aus- und Weiterbildung GmbH**

Im Hüttental 11  
85125 Kinding / Germany

**Tel.:** +49 (0) 84 67 / 84 04 - 0  
**Fax: +49 (0) 84 67 / 84 04 44**

---

We would like to be contacted:

- [ ] by telephone  
- [□] by e-mail

Please send us an offer:

- [□] by e-mail

---

## Part No. | Description / Title
--- | ---

**Protective Measures**

- □ 43 400 Protective Measures Board
- □ 90 101 Set of connections

**Courseware**

- □ E91 903 Set of media folders including index dividers
- □ E43 410CD Instructor’s Manual, “Protective measures”
- □ E43 411CD Student Manual “Protective measures”
- □ E43 412CD Set of Transparencies “Protective measures”
- □ E43 415 TECHNOCARD® “Protective measures”

**Optional equipment**

- □ 91 801 Experiment case
- □ 90 600 Digital multimeter

__Safety Measures Board mounted in experiment case__