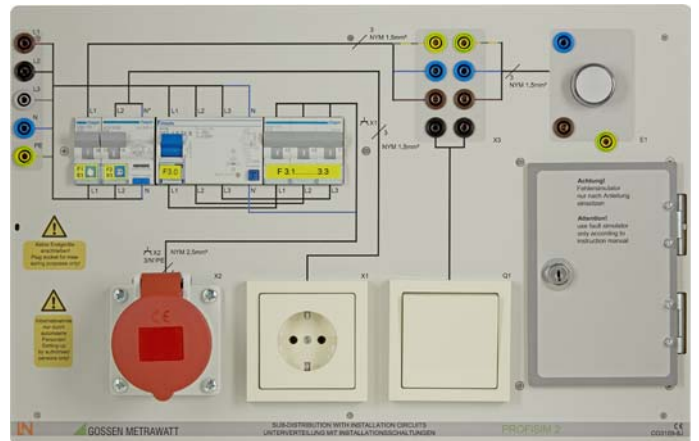


PROFISIM 2

Installation Board: “Sub-Distribution Branch with Installation Circuits” for Fault Simulation for Measurements per IEC 60364-6 (DIN VDE 0100-600) and EN 50110 (DIN VDE 0105-100)

3-349-901-03
2/8.16

- Service line with main grounding busbar
- Simulation of errors via 25 switches
- Single and double error circuit
- Lockable error switching panel
- Console-like housing
- Can be used as a benchtop device or in an experimentation frame



Applications

Target Groups

Training personnel (electricians):

- Teachers
- Trainers
- Instructors
- Laboratory supervisors

Learners:

- Trainees
- Students
- Apprentices

Content

- Simulation of a small sub-distribution branch with 3 electrical circuits
- Testing of various protective devices
- Main grounding busbar with all important equipotential bonding cables and earth strips
- Troubleshooting in installation circuits
- Preparation of test reports in accordance with DIN VDE 0100

Description

The installation board functions as a compact building service line with main grounding busbar for consumer systems including an error simulator.

It's used primarily for training sessions and project work covering all aspects of “testing systems in accordance with DIN VDE 0100-600”.

The board is equipped with all of the necessary modules of a building supply line including an extended main grounding busbar for the implementation of testing and error options.

Applicable Regulations and Standards

IEC 61010-1/ DIN EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
IEC 60364-6 DIN VDE 0100-600	Low-voltage electrical installations – Part 6: Tests
EN 50110 DIN VDE 0105-100	Operation of electrical installations – Part 100: General requirements
EN 60529 VDE 0470-1	Test instruments and test procedures Degrees of protection provided by enclosures (IP code)

PROFISIM 2

Installation Board: "Sub-Distribution Branch with Installation Circuits" for Fault Simulation for Measurements per IEC 60364-6 (DIN VDE 0100-600) and EN 50110 (DIN VDE 0105-100)

Technical Data

Fault Simulation

Fault simulator with 25 fault options via switches



No.	Fault Description	Comment
1	Malfunction at outlet X1	Line interruption L2
2	Malfunction at outlet X1	Line interruption N
3	Malfunction at outlet X1	Line interruption PE
4	Malfunction at outlet X1	Line reversal N-PE
5	Protective conductor resistance / loop impedance X1	R = 5.6 kΩ
6	Line resistance L2 / loop impedance X1	R = 16.5 kΩ
7	Malfunction at lamp circuit E1	Line interruption L1
8	Malfunction at lamp circuit E1	Line interruption N
9	Line resistance L1 / loop impedance E1	R = 5.1 E
10	Protective conductor resistance / loop impedance E1	R = 1.0 E
11	Insulation resistance E1	R L1-PE = 510 kΩ
12	Insulation resistance E1	R L1-PE = 1.0 MΩ
13	Insulation resistance E1	R L1-PE = 1.5 MΩ
14	Insulation resistance E1	R L1-N = 510 kΩ
15	Insulation resistance E1	R L1-N = 1.0 MΩ
16	Insulation resistance E1	R L1-N = 1.5 MΩ
17	Malfunction at outlet X2	Line interruption L1
18	Malfunction at outlet X2	Line interruption L2
19	Malfunction at outlet X2	Line interruption L3
20	Insulation resistance X2	R L3-PE = 1.5 MΩ
21	Insulation resistance X2	R L2-PE = 1.0 MΩ
22	Insulation resistance X2	R L1-PE = 510 kΩ
23	Malfunction at outlet X2	Line reversal L1-N
24	Malfunction at outlet X2	Line reversal L2-N
25	Malfunction at outlet X2	Line reversal L3-N

Connection Values

Mains connection	4 mm safety sockets
Nominal voltage	3 x 230/400 V
Frequency	50/60 Hz
Protection class	I

Circuits

Lamp circuit E1	Disconnection, including LED lamp
Mains outlet circuit	X1
CEE outlet	X2
F1	Circuit breaker B10
F2	RCD/MCB combination, $I_{\Delta N} = 10 \text{ mA}$
F3.0	Residual current circuit breaker, type B, $I_{\Delta N} = 30 \text{ mA}$
F3.1 ... 3.3	Circuit breaker B16

Mechanical Design

Dimensions	297 x 456 x 80 mm
Weight	Approx. 3.2 kg
Inputs/outputs	4 mm safety sockets

Ambient Conditions

Ambient temperature	Max. +35 °C
Relative humidity	Max. 60%, condensation is ruled out

Scope of Delivery

Installation board
Operating instructions
Test specification
Short circuit jumpers
Keys for fault simulator

Order Information

Designation	Type	Article Number
Installation board	PROFISIM 2	M560B
Case for PROFISIM 1/2	PROFISIM case	Z560A

PROFiSIM case with PROFISIM 2



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