

# PROFiTEST<sup>®</sup> DC-II

## Test Instrument for the Suppression of RCCD Tripping and Tripping Tests for AC-DC Sensitive RCCDs

3-348-974-03  
4/8.05

Test instrument for the suppression of pulse-controlled RCCB tripping during measurement of loop resistance with the PROFiTEST<sup>®</sup>0100S-II test instrument, as well as tripping tests for AC-DC sensitive RCCBs with measurement of tripping current and time to trip.

- Suppression of RCCB tripping for loop resistance measurement with the PROFiTEST<sup>®</sup>0100S-II
- Tripping test for AC-DC sensitive RCCBs – for the measurement of tripping current – for the measurement of time to trip
- Tripping test for selective AC-DC sensitive RCDs or short-time-delay RCDs

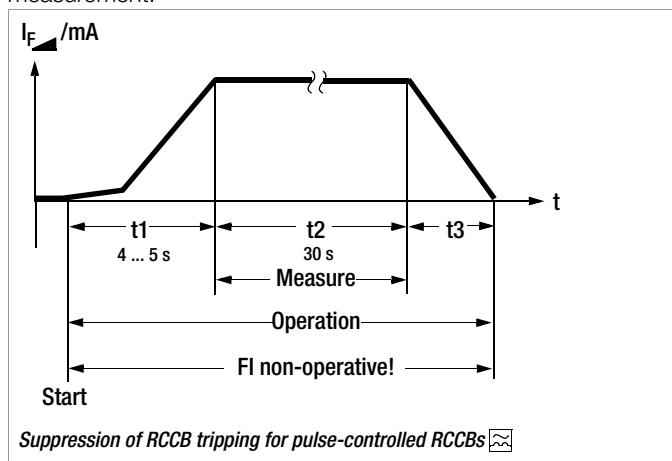


### Description

#### Loop Resistance Measurement Mode with the PROFiTEST<sup>®</sup>0100S-II with Suppression of RCCB Tripping for Pulse-Controlled RCCBs

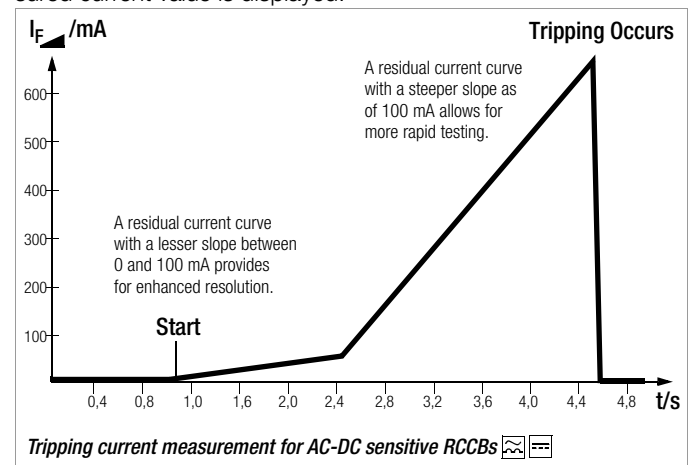
The PROFiTEST<sup>®</sup>DC-II allows for the measurement of loop resistance in TN systems with pulse-controlled RCCBs (10/30/100/300/500 mA nominal residual current).

The instrument generates a DC residual current which saturates the magnetic circuit of the RCCB. A measuring current is then superimposed with the PROFiTEST0100S-II which only demonstrates half-waves of like polarity. The RCCB is unable to recognize this measuring current and thus cannot be tripped during measurement.



#### Tripping test mode for AC-DC sensitive RCCBs with rising DC residual current and tripping current measurement

With the selector switch in the  $I_F$  position, gradually rising direct current is applied to N and PE. The measured current value is continuously displayed. When the RCCB is tripped, the last measured current value is displayed.

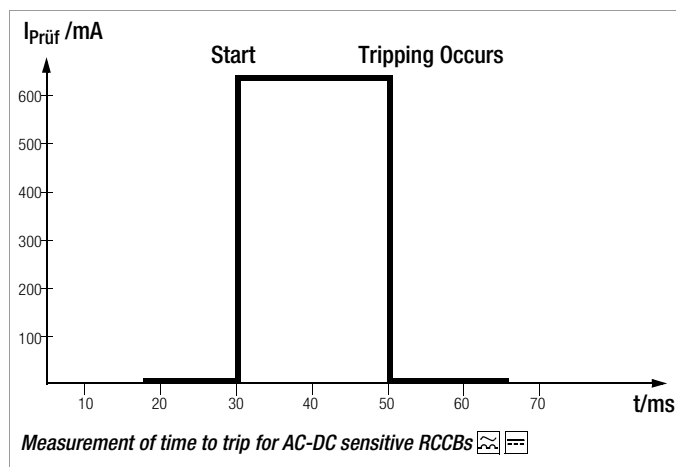


#### Tripping test mode for AC-DC sensitive RCCBs with constant DC residual current and measurement of time to trip

With the selector switch set to the respective nominal residual current, twice the nominal current is applied to N and PE. Time to trip is measured and displayed for the RCCB.

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## Test Instrument for the Suppression of RCCD Tripping and Tripping Tests for AC-DC Sensitive RCCDs



### Applicable Regulations and Standards

IEC 61010-1 EN 61 010-1/ VDE 0411-1	Safety regulations for electrical measuring, control, regulating and laboratory devices – general requirements
IEC/EN 61326-1	Generic standard for interference emission; Electrical equipment for measurement, control and laboratory use
IEC/EN 61326/A1	Generic standard for interference immunity; Electrical equipment for measurement, control and laboratory use
DIN VDE 0470 Part 1	Test instruments and test procedures – Extent of protection provided by enclosures (IP code)

### Technical Data

Mains Voltage 230/400 V (–10%, +25%), 50 Hz  
DC Residual Current for the Suppression of RCCB Tripping DC 1.25 A +30%

Measurement	Measuring Range	Measurement Accuracy	Operating Error
Tripping Current	1 ... 1999 mA*	±(4% rdg. + 5 d)	±(8% rdg. + 5 d)
Time to Trip	2 ... 1999 ms	±(3% rdg. + 5 d)	±(6% rdg. + 5 d)

\* limited by means of max. DC residual current (see above)

Selector Switch Position for Measurement of Time to Trip (nominal residual current)	Test Current
10 mA	20 mA +10%
30 mA	60 mA +10%
100 mA	200 mA +10%
300 mA	600 mA +10%
500 mA	1000 mA +10%

### Display

Measurement Value Numeric value, (unit of measure mA or ms clearly identified by means of switch position and labeling) (nominal residual curr. and “ms” with green background)  
Display Range 0 ... 1999 digits  
Character Height 12 mm

### Temperature Range

Operating Temp. –10 °C ... +50 °C  
Storage Temperature –20 °C ... +60 °C

### Electrical Safety

Protection Class II per IEC 61010-1/EN 61010-1/  
VDE 0411-1  
Operating Voltage 300 V  
Test Voltage 3.7 kV 50 Hz  
Overvoltage Category II  
Contamination Level 2  
Interference Emission IEC/EN 61326-1  
Interference Immunity IEC/EN 61326/A1  
Fuses Melting fuse G  
5 mm x 20 mm: FF 1,6/250 (socket)  
6.35 mm x 32 mm: M 0,25/500 (internal)

### Inputs and Outputs

The mains connection provides for power supply and simultaneously functions as an output for test and magnetizing current.

### Mechanical Design

Protection Housing: IP 40 per DIN VDE 0470  
Dimensions (LxWxD) 205 mm x 120 mm x 100 mm (without power cable)  
Weight 1.5 kg (without power cable)

### Order Information

Designation	Type	ID Number
Test instrument including power cable with earthing contact plug and operating instructions	PROFiTEST®DC-II	M523A
Adapter with 3 test cables for PROFiTEST DC-II in systems without earthing contact outlets	3-Pol-Adapter	Z523A

Edited in Germany • Subject to change without notice • A pdf version is available on the Internet.