

RCD METER

MRP-201

CAT IV
300V
IP 67



Wireless data
transmission to a computer.
Radio USB interface included!

- **Testing RCD breakers of AC, A and B types.**
 - testing of general, short delay and selective RCDs for the rated current values $I_{\Delta n}$ = 10, 30, 100, 300 and 500 mA,
 - simultaneous measurement of triggering current I_A and disconnection time t_A , for currents $0,5I_{\Delta n}$, $1I_{\Delta n}$, $2I_{\Delta n}$, $5I_{\Delta n}$,
 - ability to measure touch voltage U_B and earth resistance R_E without triggering,
 - AUTO RCD test function.
- **AC voltage and frequency measurement.**
- **PE lead connection check using a touch electrode.**
- **Built-in memory for up to 990 cells of measurement results.**
- **Wireless radio communication interface.**
- **Professional software for reading data and creating reports.**

Sonel S.A.
ul. Wokulskiego 11
58-100 Świdnica
tel. +48 74 85 83 860
fax +48 74 85 83 809

export@sonel.pl
www.sonel.pl

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RCD trigger test and response time measurement t_A

Measurement range according to IEC 61557: 0ms...the upper limit of the displayed value

Measurement range according to IEC 61337. Units...the upper limit of the displayed value						
RCD type	Rated Current Multiplication Factor	Range	Resolution	Accuracy		
General or short delay	0,5* I _{Δn}	0...300ms	1ms	±2% m.v. + 2 digits ¹⁾		
	1* I _{Δn}					
	2* I _{Δn}	0...150ms				
	5* I _{Δn}	0...40ms				
Selective	0,5* I _{Δn}	0...500ms				
	1* I _{Δn}					
	2* I _{Δn}	0...200ms				
	5* I _{Δn}	0...150ms				

¹⁾ for $I_{\Delta n} = 10\text{mA}$ and 0,5 $I_{\Delta n}$ accuracy is $\pm 2\%$ m.v. + 3 digits

- residual current setting accuracy:
 - for 1 * $I_{\Delta n}$, 2 * $I_{\Delta n}$ and 5 * $I_{\Delta n}$: 0...8%,
 - for 0,5 * $I_{\Delta n}$: -8...0%,
- nominal voltage U_n : 220V, 230V, 240V,
- work voltage range: 180...270V,
- nominal frequency f_n : 50Hz, 60Hz,
- work frequency range: 45Hz...65Hz.

RCD disconnecting current measurement for a sine AC test current (I_A)

Measurement range according to IEC 61557: (0,3...1,0) $I_{\Delta n}$

Selected rated RCD current	Range	Resolution	Measurement current	Accuracy
10mA	3,3...10,0mA	0,1mA	0,3 x I _{Δn} ...1,0 x I _{Δn}	±5% I _{Δn}
30mA	9,0...30,0mA			
100mA	33...100mA	1mA		
300mA	90...300mA			
500mA	150...500mA			

- start of measurement from the positive or negative half sine period of the test current
- test current flow time - max. 7510ms at $f=50\text{Hz}$.

RCD disconnecting current measurement for unidirectional pulsed residual current and unidirectional pulsed current with a 6mA DC offset (I_A)

Measurement range according to IEC61557:

(0,15...1,4) $I_{\Delta n}$ for $I_{\Delta n} \geq 30\text{mA}$ and (0,15...2) $I_{\Delta n}$ for $I_{\Delta n} = 10\text{mA}$

Selected rated RCD current	Range	Resolution	Measurement current	Accuracy
10mA	1,5...20,0mA	0,1mA	$0,15 \times I_{\Delta n}$... $2,0 \times I_{\Delta n}$	$\pm 10\% I_{\Delta n}$
30mA	4,5...42,0mA		$0,15 \times I_{\Delta n}$... $1,4 \times I_{\Delta n}$	$\pm 10\% I_{\Delta n}$
100mA	15...140mA	1mA		
300mA	45...420mA			

- start of the measurement from the positive or negative half sine period of the test current
- test current flow time - max. 14710ms at $f=50\text{Hz}$

RCD response time measurement for the residual DC current (I_A)

Measurement range according to IEC61557: (0,2...2) $I_{\Delta n}$

Measurement range according to IEC 60361 (25mA) _{Δn}				
Selected rated RCD current	Range	Resolution	Measurement current	Accuracy
10mA	2,0...20,0mA	0,1mA	0,2 x I _{Δn} ...2,0 x I _{Δn}	±10% I _{Δn}
30mA	6...60mA	1mA		
100mA	20...200mA			
300mA	60...600mA			

- measurement possible for positive or negative residual current
- test current flow time - max. 4500ms at $f=50\text{Hz}$

Touch voltage measurement referred to the rated residual current (U_0)

Measurement range according to IEC61557: 10,0...99,9V

Range	Resolution	Measurement current	Accuracy
0...9,9V	0,1	0,4 x $I_{\Delta n}$	0...10% $I_{\Delta n}$ m.v. ± 5 digits
10,0...99,9V			0...15% $I_{\Delta n}$ m.v.

Earthing resistance measurement (R_E)

Selected rated RCD current	Range	Resolution	Measurement current	Accuracy
10mA	0,01k Ω ...5,00k Ω	0,01k Ω	4mA	0...+10% m.v. ± 8 digits
30mA	0,01k Ω ...1,66k Ω		12mA	0...+10% m.v. ± 5 digits
100mA	1 Ω ...500 Ω	1 Ω	40mA	0...+5% m.v. ± 5 digits
300mA	1 Ω ...166 Ω		120mA	
500mA	1 Ω ...100 Ω		200mA	

Voltage measurement

Range	Resolution	Accuracy
0,0...299,9V	0,1V	$\pm (2\%$ m.v. + 6 digits)
300...500V	1V	$\pm (2\%$ m.v. + 2 digits)

- frequency range: 45...65Hz

Frequency measurement

Range	Resolution	Accuracy
45,0...65,0 Hz	0,1Hz	$\pm (0,1\%$ m.v. + 1 digit)

- voltage range 50...500V

Electric security:

- type of insulation: double, according to EN 61010-1 and IEC 61557
- measurement category: CAT IV 300V (III 600V) acc. to EN 61010-1
- protection class: IP67

Other technical data:

- power supply: alkaline batteries LR6 (AA) (4 pcs.)

Rated operational conditions:

- operating temperature: -10...+50°C
- storing temp.: -20...70°C
- humidity: 20...80%

Standard accessories of MRP-201 meter:

- Adapter UNI-SCHUKO (WS-05)
- Test lead with banana plug; 1,2m; yellow
- Test lead with banana plug; 1,2m; red
- Test lead with banana plug; 1,2m; blue
- "Crocodile" clip K02; yellow
- Pin probe with banana connector; red
- Pin probe with banana connector; blue
- Carrying case M6
- hanging straps
- Receiver - interface for radio transmission OR-1 (USB)
- handle to suspend the meter
- R6 batteries - 4pcs.
- operation manual
- calibration certificate

Optional accessories of MRP-201 meter:

- Test lead with banana plug 5m; red
- Test lead with banana plug 10m; red
- Test lead with banana plug 20m; red
- Probe with START button with UNI-SCHUKO (WS-01)
- Software for creation of documentation from electrical measurements "SONEL Reports"

WAADAWS05
WAPRZ1X2YEBB
WAPRZ1X2REBB
WAPRZ1X2BUBB
WAKROYE20K02
WASONRE0GB1
WASONBU0GB1
WAFUTM6
WAPQZSZE4
WAADAUSB0R1
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WAADAWS01
WAPROSONPE4