Impedance of Fault Loop RL

Nominal Range per EN 61557-3 – 27 Ω to 2000 Ω

Meas. Range	Resolution	Intrinsic Uncertainty	Measuring Uncertainty
0 to 2000 Ω	1 Ω	(5%rdg.+3D+0.05V/$I_{\Delta N}$)	(5%rdg.+5D+0.05V/$I_{\Delta N}$)

Measuring current: ≤ ½ $I_{\Delta N}$

The results of the fault loop impedance measurement appear at the display, if nominal residual is set to $I_{\Delta N}$ ≥ 30 mA.

Time to Trip – TIME

Standard Residual Current Circuit Breaker (range per EN 61557-6):

Measuring Range	Resolution	Intrinsic Uncertainty	Meas. Uncertainty
0 to 300 ms (½$I_{\Delta N}$, $I_{\Delta N}$)	1 ms	±3 ms	±4 ms
0 to 150 ms (2x $I_{\Delta N}$)			
0 to 40 ms (5x $I_{\Delta N}$)			

Selective Residual Current Circuit Breaker (range per EN 61557-6):

Measuring Range	Resolution	Intrinsic Uncertainty	Meas. Uncertainty
0 to 500 ms (½$I_{\Delta N}$, $I_{\Delta N}$)	1 ms	±3 ms	±4 ms
0 to 200 ms (2x $I_{\Delta N}$)			
0 to 150 ms (5x $I_{\Delta N}$)			

Tripping Current I ◢ (range per EN 61557-6):

Measuring Range for I_{Δ}	Resolution	Intrinsic Uncertainty	Meas. Uncertainty
0.4 to 1.1 $I_{\Delta N}$ (type AC)	0.1 mA	±0.08 $I_{\Delta N}$	±0.1 $I_{\Delta N}$
0.4 to 1.5 $I_{\Delta N}$ (type A)			

Alternating Voltage (frequency range: 45 to 65 Hz)

Measuring Range	Resolution	Intrinsic Uncertainty	Meas. Uncertainty
190 to 255 V	0.1 V	±(2% rdg. + 2 D)	±(3% rdg. + 3 D)

Key

a) In the case of alternating quantities, the TRMS voltage value is measured.

b) The measuring uncertainties specified here are only valid if line voltage is stable during measurement, the earthing system is free of interference voltage, there are no influences caused by potential from neighboring systems and no leakage current flows through the measured electrical circuit.

c) rdg. means reading, i.e. measured value, D = digits (i.e. number of the decimal place with the least significance)

Reference Conditions

Temperature	23 ± 2 °C
Relative humidity	40 to 60%
Device position	any

Electromagnetic Compatibility (EMC)

Interference emission	EN 61326-1:2006 class B
Interference immunity	EN 61326-1:2006

Operating Conditions

Operating temperature	0 to 40 °C
Relative humidity	max. 85%, no condensation allowed
Device position	any

Storage Conditions

Temperature	–10 to +70 °C
Relative humidity	max. 90% at -10 to +40 °C max. 80% at +40 to +70 °C
Device position	any

Power Supply

Batteries	4 ea. AAA (LR03), 1.5 V alkaline or 1.2V NIMH (with at least 750 mAh)
Number of measurements	with batteries at 800 mAh: approx. 3,000 measurements

Electrical Safety

Measuring category	with safety cap applied to test probe: CAT III 300 V; without safety cap applied to test probe: CAT II 300 V
Pollution degree	2
Protection class	II
Fuse	SIBA ceramic fuse 6.3 mm x 32 mm, F1 A/600 V switching capacity 50 kA at 600 V

Mechanical Design

Display	OLED, multicolored, graphic
Protection	Housing: IP 43
Dimensions	approx. 260 x 70 x 40 mm
Weight	approx. 0.36 kg with batteries

Scope of Delivery

1 Test instrument with mobile test probe incl. 4 batteries (AAA)
1 Pouch
1 Condensed operating instructions
1 CD ROM with operating instructions in available languages
1 Factory calibration certificate

Order Information

Description	Type	Article number
RCD Test Instrument	METRALINE RCD-CHECK	M507B
Broad-range charger for charging optionally available batteries, e.g. Z507B, inserted in the METRALINE ISO-RCD-Z CHECK Input*: 100 to 240 V AC ±10%; Output: 9 V DC, 180 mA	Charger METRALINE CHECK Series	Z507A
4 rechargeable batteries (AAA) for METRALINE ISO-RCD-Z/CHECK	Akku-Set METRALINE CHECK Series	Z507B

* with plug adapter for the following countries: EU, UK, US, AU