SMARTEC® RCD/Loop/Line MI 2120

EN / IEC 61557-3
EN / IEC 61557-6
DIN / VDE 0413-3
DIN / VDE 0413-6
DIN / VDE 0100
BS 7671, 16th Edition
CEI 64.8
EN / IEC 61010-1

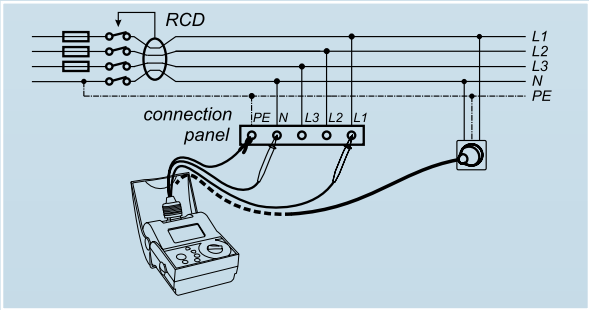
- **Fast testing of all RCD's** (10, 30, 100, 300, 500, 1000 mA) both standard and selective types, AC and A types.
  Test current multipliers of x 0.5, x 1, x 5 for checking of the trip out time on limit current values.
  Selectable phase angle 0° (positive), 180° (negative).
- **RCD trip-out current** (I_Δ) measurement with high resolution test ramp.
- **RCD trip-out time** (t_Δ) measurement at nominal differential current in accordance with the standards.
- **Contact voltage** (Uc) measurement for checking of Earthing System.
- **LOOP (EARTH) resistance** measurement without tripping the RCD.

Fast and accurate measurement of:

- **LINE (EARTH) resistance** with a test current of 2.5 A.
- **LOOP resistance** with a test current of 2.5 A.
- **LINE/LINE resistance** with a test current of 2.5 A.

Displayed sub-results:
- Prospective short circuit current (Ipsc),
- Mains voltage (U_{L-N}, U_{L-L}, U_{L-PE}) and frequency.

- 1000 memory locations and PC Software for print-out of measurement protocol.
- Warning indication of incorrect or out of limit results.
- Socket for external battery charger.
- Auto power-off.



Technical Specification

RCD Test		
Test current	AC, pulse	
RCD type	standard, selective	
Nominal test currents (mA)	10, 30, 100, 300, 500, 1000	
Multiplicator of $I\Delta_N$	½, 1, 5	
Trip out current $I\Delta$ (standard RCDs)		
Measuring range $I\Delta$	type AC (0.2 ÷ 1.1) $I\Delta_N$, type A (0.2 ÷ 1.5) $I\Delta_N$	
Resolution	0.05 $I\Delta_N$	
Accuracy	± 0.1 $I\Delta_N$	
Trip out time (standard or selective RCDs)		
Measuring time (ms)	0 ÷ 300 (500 S), 0 ÷ 40 (150 S)	
Resolution	1	
Accuracy	± 3 ms	
Contact voltage Uc		
Measuring range Uc (V)	0 ÷ 99.9	
Resolution (V)	0.01, 0.1	
Accuracy	-0 / +10 % of reading ± 0.2 V	
Voltage U_{L-N}, U_{L-L}, U_{L-PE}		**Frequency**
Measuring range (V)	0 ÷ 440	45.0 ÷ 65.0 Hz
Resolution (V)	1	0.1
Accuracy	± (3 % of reading + 3 V)	± 0.2 Hz
Nominal frequency range	DC, 45 ÷ 65 Hz	
R Line / R Loop Resistance / Ipsc		
Nominal voltage	100 ÷ 264 (R_{loop}), 100 ÷ 440 (R_{line})	
Measuring range (Ω)	0 ÷ 2000	
Accuracy	± (5 % of reading + 0.05 Ω)	
Display range Ipsc	0.06 A ÷ 42.4 kA / 24.4 kA	
Loop Resistance R_L (no RCD trip out)		
Measuring range (Ω)	0 ÷ 19.99, 20.0 ÷ 199.9, 200 ÷ 1999	
Resolution (Ω)	0.01, 0.1, 1	
Accuracy	Consider accuracy of Uc	

Standard Set — Order No. MI 2120

- Instrument
- Mains measuring cable, 1.5 m
- Universal test cable, 3 x 1.5 m
- Test tip (black)
- Test tip (blue)
- Alligator clip (black), 2 pcs
- Instruction manual
- Declaration of conformity
- Production verification data
- Declaration of warranty

Optional Accessories

– Soft carrying bag – small	**Order No. A 1020**
– Carrying strap	**Order No. A 1007**
– Fast battery charger (230 V and/or 12 V DC) with a set of 4 NiCd batteries	**Order No. A 1045**
– Windows Software "Smart Link" with RS 232 interface cable	**Order No. A 1050**