

RESYS B40

Type B differential relays

From 0.03 to 3 A of residual current



IMG_RESYS-B40.eps

Function

A type B residual current device (RCD) - compliant with IEC 60947-2 - Annexe M detects and interrupts both alternating and direct leakage currents. It provides protection against complex residual current faults, including those from loads with DC components. This ensures enhanced safety in modern electrical installations with sensitive equipment.

Advantages

TRMS Triggering Accuracy

- TRMS technology ensures the precise detection of complex current leaks, preventing false tripping and ensuring reliable protection.

Rapid Root Cause Analysis

- The customisation of harmonics is crucial thanks to configurable harmonic filters. The source of leakage current can be detected rapidly by analysing specific harmonics.

Fully Configurable

- Easily configure the time delay (0.02 to 10 s), leakage current (30 mA to 10 A), relay position (open or closed), and harmonic filters up to the 21st order.

Communication

- Remotely monitor parameters via Modbus communication.

The solution for

- Data centres
- Healthcare buildings
- Infrastructure and transport
- Industry

Strong points

- TRMS Triggering Accuracy
- Fully configurable
- Fast identification of malfunction causes
- Communication

Conformity to standards

- EN 60947-2:2017-10 (Annexe M)
- IEC 60755
- CEM 61326- 1 & 2



Associated with

- ΔB40 CTB-xxx

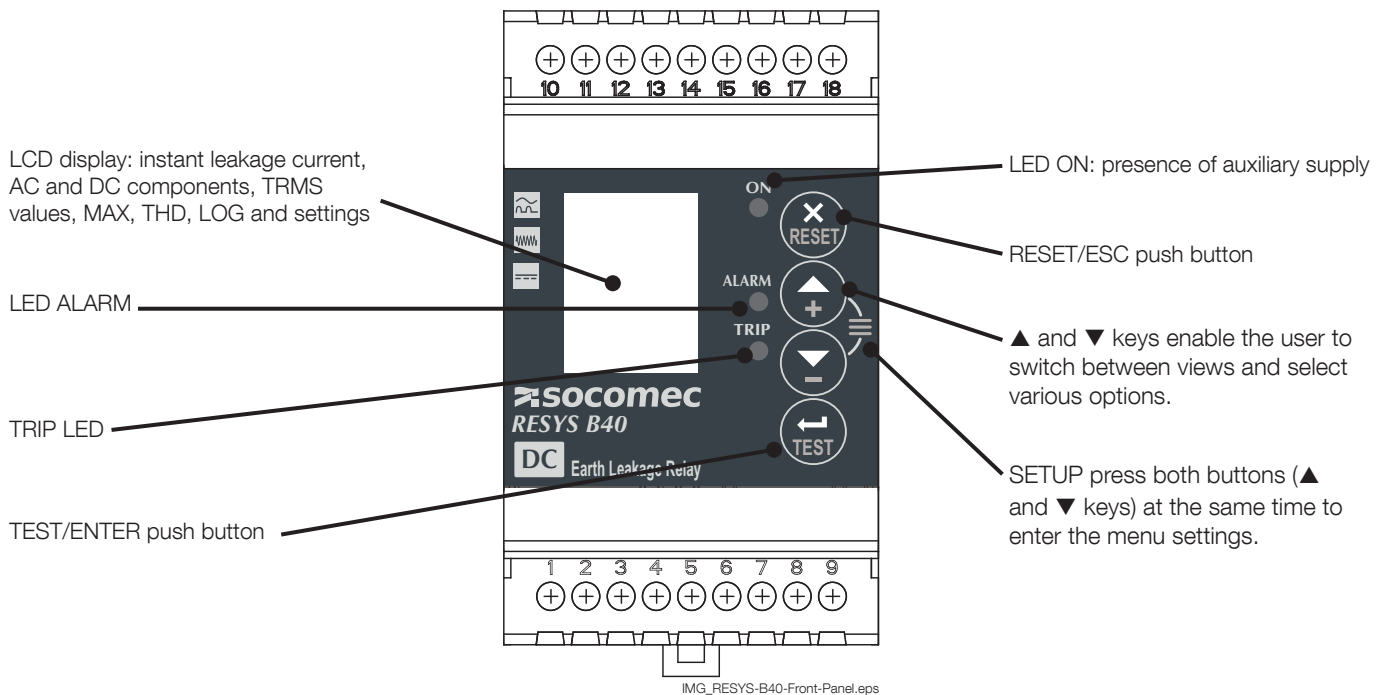


General product overview

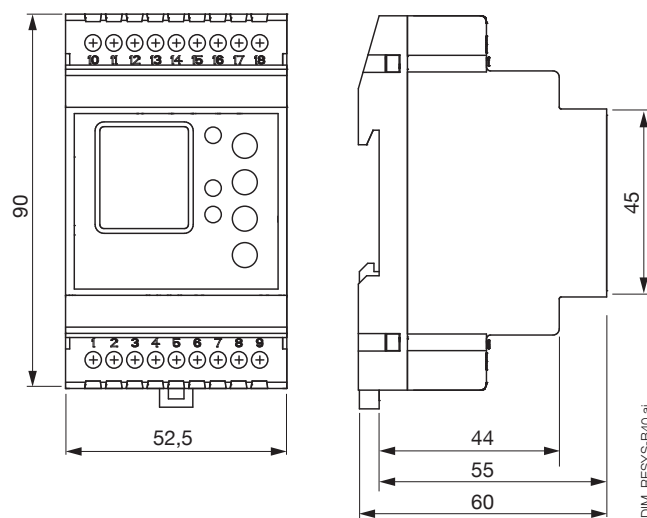
Type B earth leakage relay

- Measuring in true effective value (TRMS)
- Modular DIN-rail housing, 3 modules
- External residual current transformer DeltaCTB series
- Visualisation of instant leakage values, AC component value and DC component value
- Backlit LCD display (green, yellow, red)
- TEST and RESET via front button or remote contact
- 2 output relays
- Fail-safe function for each relay (settable)
- Log-tripped residual current
- RS-485 communication Modbus RTU protocol (optional)

Front face



Dimensions (mm)



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Type B differential relays

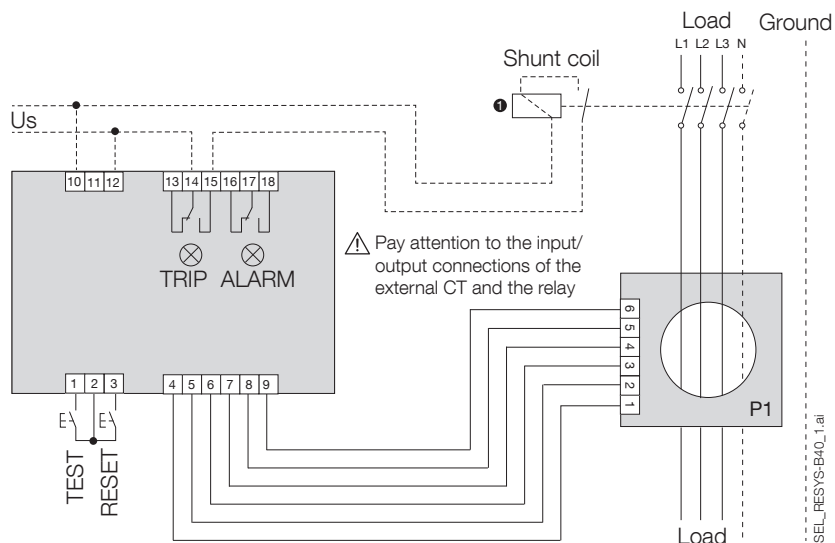
From 0.03 to 3 A of residual current

Characteristics

Control circuit	
Tripping type	Type B
Associated sensors	CTB40
Tripping set-point (I_{Δ})	0.03 to 10 A
Tripping time (t)	0.02 to 10 s
Resetting	Manual by push button on front or remote
Output relay	
Number of outputs	2
State	Configurable - normally de-energised or energised
Rated operating voltage	250 VAC
Rated current	5 A
Digital inputs	
Number of inputs	2 (TEST and RESET)
Input type	Free contact
RS485 serial interface (optional)	
Protocol	Modbus-RTU
Baud-rate	Programmable 4800 – 115200 bps
Auxiliary supply	
Auxiliary voltage	90 to 250 VAC/120 to 250 VDC
Rated frequency	50/60 Hz
Max. power consumption	4 VA
Housing	
Version	3 module DIN
Degree of protection	IP20 terminals/IP40 on front
Weight	200 g
Certifications and compliance	
Reference standards	EN 61326-1 & 2, EN 60947-2 (Annexe M), EN 61543/A2, CEI EN 61543/A11 & A12
Operating temperature	-10 to +60°C
Storage temperature	-20 to +80°C
Relative humidity	5 to 95%

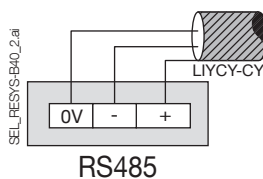
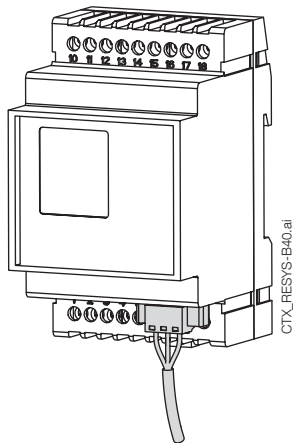
Wiring connection

N°	Description
1	External TEST
2	Digital input (COMMON)
3	External RESET
4 - 9	Inputs toroidal current transformer
10	Auxiliary supply (neutral or phase)
11	Not used
12	Auxiliary supply (neutral or phase)
13	Output relay TRIP (NC)
14	Output relay TRIP (COMMON)
15	Output relay TRIP (NO)
16	Output relay ALARM (NC)
17	Output relay ALARM (COMMON)
18	Output relay ALARM (NO)



RS485 connection (optional)

Modbus connection via front panel



References

Power supply	Tripping set-point (IΔ)	Modbus version	Resys B40
90 to 250 VAC/120 to 250 VDC	0.03 to 10 A	No	49313601
90 to 250 VAC/120 to 250 VDC	0.03 to 10 A	Yes	49313602