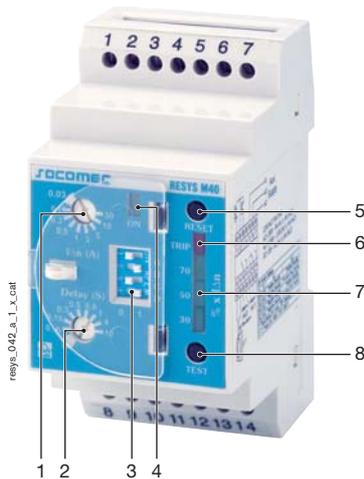


RESYS M40

RESYS B 420
RESYS Type B
▶ RESYS M40
RESYS P40
RESYS M20
Core balance transformers



RESYS M40 (Type AC and A)

1. Setting threshold value $I_{\Delta n}$.
2. Time delay setting.
3. Configuration micro-switches (x4).
4. "ON" LED.
5. "RESET" pushbutton.
6. "TRIP" alarm LED.
7. LED bargraph (% x $I_{\Delta n}$).
8. "TEST" pushbutton.

Functions

Earth leakage protection relay **RESYS Type M40** is associated with a remote trip breaking device (automatic power cut-off), and provides the following functions:

- protection against indirect contacts,
- limitation of leakage currents.

The relay also monitors electrical installations when used directly as signalling relay.

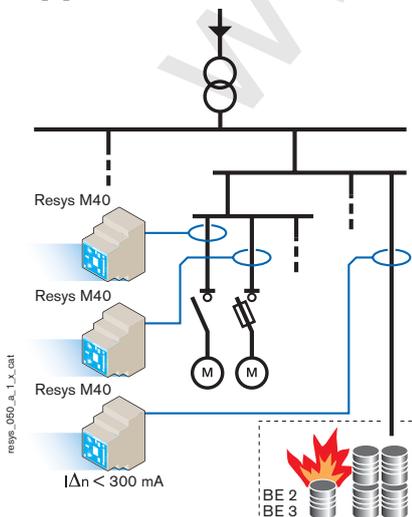
Conformity to standards

- IEC 60755
- IEC 60947-2
- IEC 62020
- IEC 60364

General characteristics

- RESYS M40 relay with 2 alarm relays:
 - either 2 alarm relays,
 - either 1 alarm relays or 1 pre-alarm (50 % $I_{\Delta n}$) relay.
- Adjustment sensitivity 0.03 to 30 A.
- Time delay 0 to 10 s.
- Measurement accuracy by TRMS.
- Automatic instantaneous tripping at 30 mA.
- Positive or negative security configurable by the user.
- Selection of toroid ratio.
- Automatic permanent relay-toroid connection test.
- Sealed cover.

Applications



Rapid recognition of an insulation fault increases the availability of the distribution network by preventing accidental power cuts and the resulting loss of production. TRMS measurement avoids repeated random tripping and the bargraph allows the display of permanent leakage current.

Examples of conventional applications

AC LV networks: TT, TNS, IT. Monitoring pure AC differential currents (type AC) and pulsed (type A) to provide the following functions:

- protection:
 - against indirect contact,
 - against fire risk,
 - against explosion risk,
 - of earth and protection conductors;
- preventive signalling;
- monitoring installations where periodic insulation measurement with power off is impossible;
- used with SOCOMEC "Core balance transformers" (see page B.82).



RESYS M40

References

Auxiliary power supply U_s ⁽¹⁾	References
115 / 230 VAC	4941 2723 ⁽²⁾
400 VAC	4941 2740 ⁽²⁾
12 ... 125 VDC	4941 2602 ⁽²⁾

(1) Other supply voltages: please consult us.

(2) References and characteristics of the "Core balance transformers", see page B.82.

Electrical characteristics

Auxiliary power supply U_s

Frequency	47 ... 63 Hz
AC operating zone	0.8 ... 1.15 U_s
DC operating zone	0.8 ... 1.05 U_s
Max. consumption	6 VA (AC) / 5 W (DC)

Insulation (according to IEC 60664-1 standard)

Rated insulation voltage	250 VAC
Rated impulse voltage	2.5 kV (115 VAC) / 4 kV (230/400 VAC)
Degree of pollution	Class 3

Threshold values

Setting ΔI_n	0.03 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 - 10 - 30 A
Accuracy of tripping	- 20 ... - 10% ΔI_n
Domain of network frequency	15 ... 400 Hz
Specified time setting	0 - 0.06 - 0.15 - 0.30 - 0.50 - 0.80 - 1 - 4 - 10 s
PRE-ALARM relay tripping	50% ΔI_n
Hysteresis of the PRE-ALARM relay	20% ΔI_n

Alarm

Alarm configuration mode	memory / automatic reset
Alarm factory setting	memory
RESET	manual by pushbutton or using the terminals

Output contacts

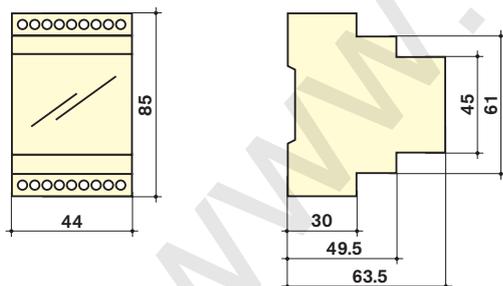
Number of contacts	2
Type of ALARM 1 contact	250 VAC - 8 A - 2000 VA
Type of ALARM 2 or PRE-ALARM contact	250 VAC - 6 A - 1500 VA
ALARM 1 operating mode	positive / negative security
ALARM 2 or PRE-ALARM operating mode	positive / negative security ⁽¹⁾
Factory setting of ALARM 1 operating mode	negative security
Factory setting of ALARM 2 operating mode	positive security

(1) According to configuration described in the technical manual.

Operating conditions

Operating temperature	- 20 ... + 55 °C
Storage temperature	- 30 ... + 70 °C

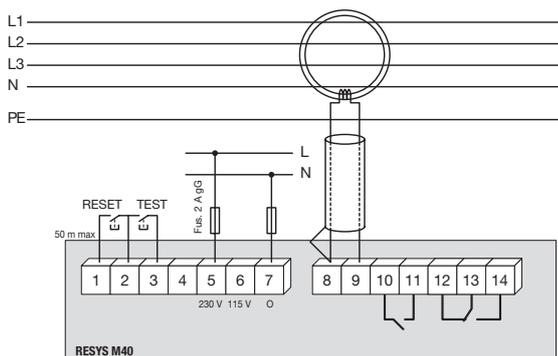
Overall dimensions



resys_086_a_1_x_cat

Type	modular
Number of modules	2.5
Dimensions W x H x D	44 x 85 x 63.5 mm
Case protection rating	IP40
Terminal block protection rating	IP20
Rigid cable connection section	0.2 ... 4 mm ²
Flexible cable connection section	0.2 ... 2.5 mm ²
Weight	190 g

Terminals



resys_054_a_1_x_cat

- 1 - 2 - 3: external pushbuttons
- 5 - 6 - 7: auxiliary power supplies U_s
- 8 - 9: SOCOMEC differential toroid connections
- 10 - 11: alarm relay 2 or pre-alarm outputs
- 12 - 13 - 14: alarm relay 1 outputs

NOTE: The earth must not pass through the C.T.
For single phase applications, only the live and neutral need to be passed through the C.T.
Cabling: for distances > 1 m, use twisted pair cable between the unit and C.T.