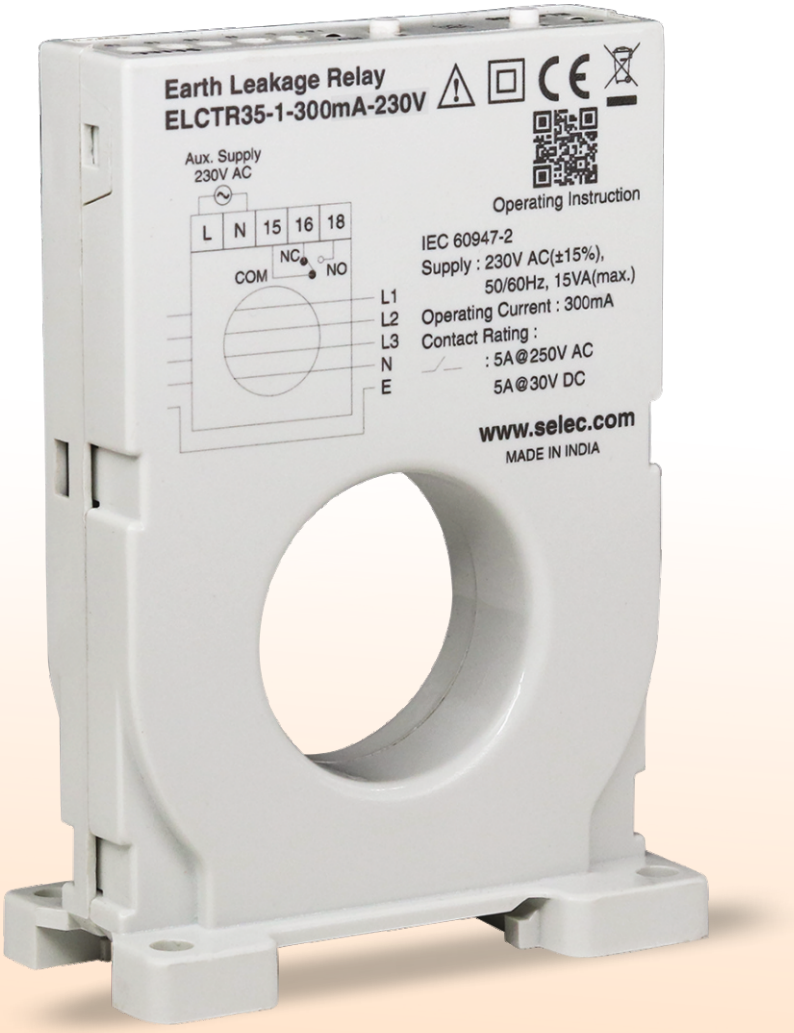
Earth Leakage Relay with Inbuilt CBCT



Operating Instruction

www.selec.com

TABLE OF CONTENT

1. MANUAL OVERVIEW . . . . . `Page No.03

2. SAFETY RECOMMENDATIONS . . . . . Page No.04
   - Warning
   - Wiring guidelines

3. USER GUIDE . . . . . Page No.05

4. SPECIFICATION . . . . . Page No.06
   - Technical specification

5. INSTALLATION . . . . . Page No.07
   - Panel cutout dimensions
   - Terminal connection

6. WARRANTY / LIMITATIONS OF LIABILITY . . . . . Page No.08



96 x 96mm

Salient features

- **Inbuilt core balance current transformer (CBCT)**
- **Monitors true RMS earth fault current**
- **LED indication for presence of power supply and fault current**
- **'Test' and 'Reset' function**
- **1SPDT output protection relay**

Ordering information

Product code	Supply voltage	Certification
ELCTR35-1-30mA 230V-CE-RoHS	230V AC (±15%), 50/60 Hz	CE
ELCTR35-1-300mA 230V-CE-RoHS	230V AC (±15%), 50/60 Hz	CE

All safety related modifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.
If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment. If there is physical damage to the unit then do not use it.
Read complete instructions prior to installation and operation of the unit.

Wiring guidelines

Warning

1. To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
2. Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.

Caution

- To ensure the safe operation of unit, check the wiring and connections.
- It is recommended to test the unit periodically to satisfy the regulations.

NOTE: - For ELCTR35-1-30mA-230V-CE-RoHS
IΔn = 30mA
- For ELCTR35-1-300mA-230V-CE-RoHS
IΔn = 300mA

Significance of the test button:

Test button is used to check the proper functioning of the unit even in the absence of leakage current.
i.e To check the proper functioning of unit when there is no leakage current and CBCT connected to unit press the TST button. On pressing TST button, 'R' LED glows and trip relay energises instantly, showing that the unit is working properly.

Significance of the reset button:

When there is leakage current above 75% of IΔn unit trips ie 'R' LED illuminate. At that time to reset the unit to prior to the fault condition press reset button.

Trip time delay:

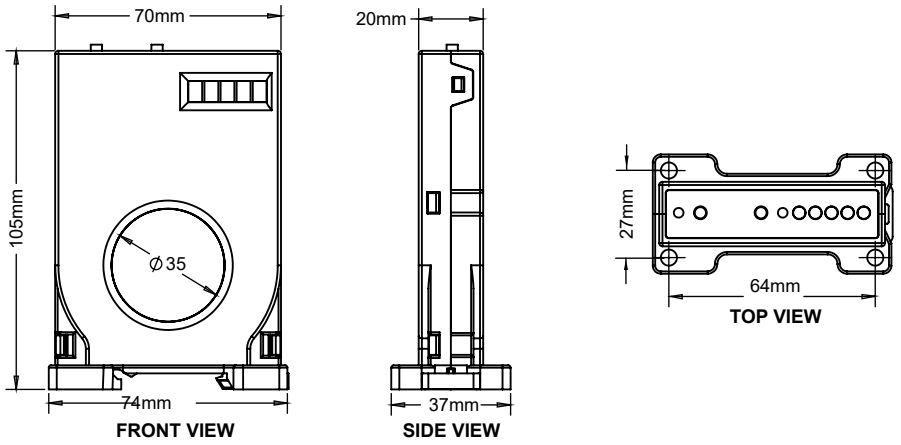
The time taken by unit to trip when fault occurs is called trip time delay.
The time delay should be long enough to avoid nuisance tripping caused by harmless transients, yet fast enough to open the circuit when a hazard exists.

Technical specifications	
Auxiliary supply	230V AC (±15%), 50/60 Hz
Electrical connection	3Ø-3 wire, 3Ø-4 wire, 1Ø-2 wire systems
VA rating	15VA max
Trip condition	75% of IΔn
Reset time	Instantaneous
Response time	<30ms (for 5x IΔn) <50ms (for 1x IΔn)
Hysteresis	8% of IΔn
Accuracy	Current: ±5% of of IΔn Time: ±5% of response time
Output specifications	Relay: 1C/O (SPDT)
Output rating	NO (5A @ 250V AC) NC (5A @ 30V DC)
LED indication	LED1 (red): R1 trip indication) LED2 (red): R2 (for Alarm / Trip indication) LED3 (red): 10x (for high trip indication)
Test / Reset facility	Test/Reset function by application of key on front panel reset on power interruption
Memory	Storage of the leakage fault (fault storage clear by pressing 'Reset' or on power interruption)
Environmental Specifications	- Indoor use - Altitude of up to 2000 meters - Pollution degree 2 - Complies IEC60947-2
Temperature	Operating: 0 to 55 °C Storage: -20 to 70 °C
Humidity	Up to 95% RH, non-condensing
Mechanical specifications	No of push buttons: 02 Mounting: Din rail mount Screw tightening torque: 0.5 N-M
Weight	190gms

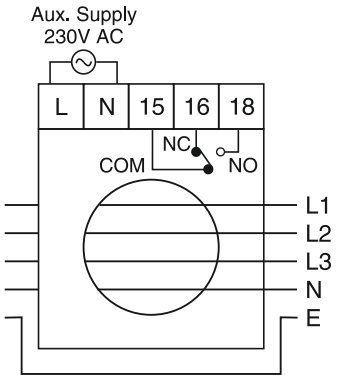
LED indication chart

Various conditions	'ON' LED	'R' LED	Relay
Healthy condition	ON	OFF	De-energized
50% Leakage current of IΔn	ON	Blink	De-energized
75% Leakage current of IΔn	ON	ON	Energized

Dimensions (all dimensions in mm)



Terminal connections



WARRANTY / LIMITATIONS OF LIABILITY

Selec warrants the products to be free from defects in the materials and workmanship for a period of one year (or other period specified, if any) from the date of sale by Selec.

The warranty does not apply to defects resulting from any action of the buyer, including but not limited to improper handling, operating the product outside the specification limits or unauthorized disassembling / altering of the product. The warranty shall be VOID if the product shows evidence of having been tampered or being damaged due to usage in corrosive environment; or current, heat, moisture or vibration; improper specification; wrong usage in an application; misuse or other operating conditions outside of Selec's control.

Selec shall not be responsible for special, indirect or consequential damages, loss of profits or commercial loss in any way connected with the products, whether such claim is based on contract, warranty, negligence or strict liability.

In no event shall the responsibility of Selec for any act exceed the individual price of the product on which liability is asserted.

In no event shall Selec be responsible for warranty or other claims regarding the products unless Selec's analysis confirms that the products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification or repair.

Head Office :

Selec Controls Pvt. Ltd.

EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape, Navi Mumbai 400710, India.

Website : www.selec.com

For Sales & Support,

Mobile No. : +91-9136977315, **Email :** sales@selec.com

For Service,

Tel. No. : +91-7498077172 / +91-7400069545, **Email :** service@selec.com

Selec USA : www.selec.com/us/en | Selec GmbH : www.selec-europe.com | Selec Australia : www.selec.com/au/en

OP559-V02 **www.selec.com**

APR | 2026