

# ELR SERIES EARTH LEAKEGE RELAY

## FEEDER PROTECTION AND CONTROL



### Introduction

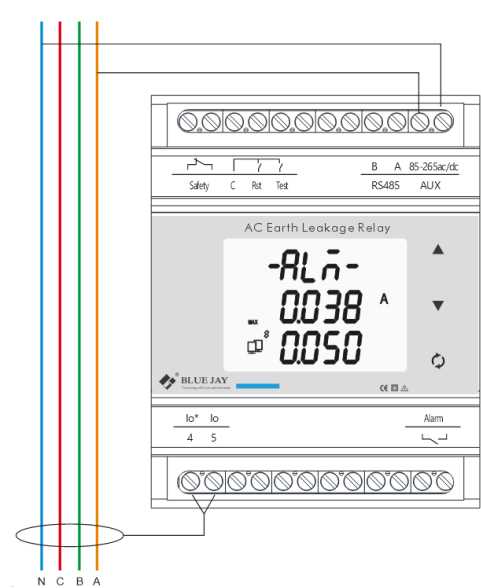
The ELR Earth Leakage Relay enhances electrical safety by continuously monitoring leakage current with advanced residual current transformer. When leakage current exceeds the preset threshold, it instantly triggers an alarm for early fault detection.

Featuring an alarm hold function, it retains the alarm signal until reset, simplifying fault diagnosis. Ideal for preventing equipment damage, reducing downtime, and ensuring personnel safety, the ELR Series provides reliable and efficient protection for your power system.

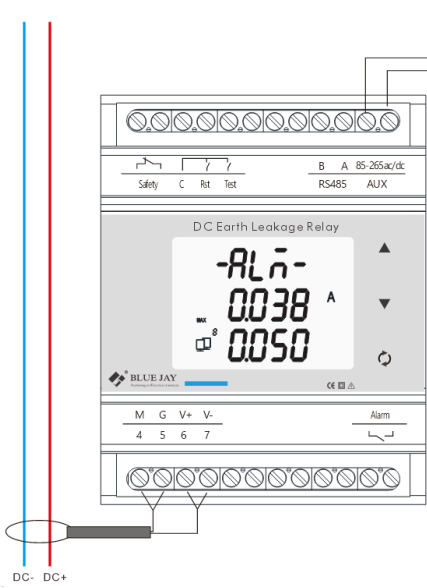
### Ordering Information

Model	Description
ELR-4MA	<ul style="list-style-type: none"> <li>Use for AC measurement</li> <li>Compatible with Residual current transformer</li> <li>Adjustable alarm threshold 5mA-3A.</li> </ul>
ELR-4MD	<ul style="list-style-type: none"> <li>Use for DC measurement</li> <li>Compatible with Hall effect current transformer</li> <li>Adjustable alarm threshold 5mA-3A.</li> </ul>

### Wiring Method



ELR-4MA



ELR-4MD

### Main Features

- Digital measured value display via LCD display;
- Current transformer connection monitoring;
- Internal/external test/reset button;
- One separate alarm output relays;
- Adjustable trip levels and time delay;
- Standard 35mm din rail mounting;
- 5mA-3A adjustable response values;

### Application

- Smart grid system;
- Medium and low voltage systems;
- Commercial and residential buildings;
- Utilities and power distribution systems;
- Motor control panels and switchboards;
- DC system leakage current measurement;
- Industrial control system (PLC, SCADA, DCS).

## Technical Characteristics

Relay parameter	Value
Auxiliary power supply	85-265Vac/dc
Power consumption	≤4VA
Frequency	50/60Hz, Accuracy ±0.01Hz
<b>AC Leakage CT Parameters</b>	
Alarm threshold	5mA-3A, can be set
Response sensitivity	1mA
Trip time delay	50ms-10sec, can set as need.
Operating performance	Type A (acc.to IEC 62020)
Operating frequency	50-400HZ
Rated input	0-1A
Rated output	0-1V or 0-0.5mA
Measurement range	10%IN-130%IN
Dielectric strength	AC2.5KV 1mA/60S
Insulation resistance	DC500V/1000MΩ
Wiring method	Terminal type/shielded stranded wire 1.5M
<b>I/O capacity</b>	
Digital input	2* DI for reset/ test, NC dry contact, Ri<500Ω turns on, Ri>100kΩ turns off
Digital output	1* relay NO for safety; 1* relay NC for alarm; Load capacity: 5A@250VAC
<b>Others</b>	
Communication	RS-485 MODBUS-RTU
Display	LCD with backlit
Withstand voltage	2.5KV 1min
Insulation	Input, output, power supply to shell >5MΩ
Storage environment	-40~70°C
Working environment	-25~55°C Altitude ≤2500m, 0~95%RH, non-condensing, non-corrosive gas