

Digital Earth Leakage Relay for Circuit Protection

This earth leakage relay enhances electrical safety by monitoring leakage current using a residual current transformer. When the current exceeds the threshold, it triggers an alarm for fault detection and features an alarm hold function to retain the alarm signal until reset.



ADDITIONAL IMAGES



Product Overview

Advanced Circuit Protection

This digital earth leakage relay provides continuous monitoring of leakage current to enhance electrical safety and prevent equipment damage. It features an advanced residual current transformer that instantly triggers alarms upon exceeding preset thresholds, with an alarm hold function for simplified fault diagnosis. Designed for versatility, the unit supports both AC and DC systems, making it an essential component for power distribution, industrial control, and smart grid applications.

Key Features

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LCD Digital Display, Adjustable Trip Levels, Adjustable Time Delay, DIN Rail Mounting, RS-485 Communication, Test/Reset Function

Electrical Specifications

Relay parameter	Value
Auxiliary power supply	85-265VAC/DC
Power consumption	4VA
Frequency	50/60Hz, Accuracy ±0.01%
AC Leakage CT Parameters	
Alarm threshold	5mA-3A, can be set
Response sensitivity	1mA
Trip time delay	50ms-10sec, can set as need
Opening performance	Type A (acc to IEC 60255)
Operating frequency	50-400Hz
Rated input	0-1A
Rated output	0-10 or 0.5-5mA
Measurement range	15%Un-130%Un
Dielectric strength	AC2.5KV 1mA/50S
Insulation resistance	DC500V/100MΩ
Wiring method	Terminal type/field-wired standard wire 1.0M
I/O capacity	
Digital input	2* DI for reset/test, NC dry contact, 10-500Ω turns on, 20-100Ω turns off
Digital output	1* relay NO for safety, 1* relay NC for alarm Load capacity: 5A@250VAC
Others	
Communication	RS-485 MODBUS-RTU
Display	LED with keypad
Withstand voltage	2.5KV, 1mA
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

Detailed technical parameters including electrical ratings and environmental specifications.

Auxiliary Power Supply	85-265V AC/DC
Power Consumption	4 VA
Operating Frequency	50-400Hz
Alarm Threshold Range	5mA - 3A
Trip Time Delay	50ms - 10sec

I/O and Communication

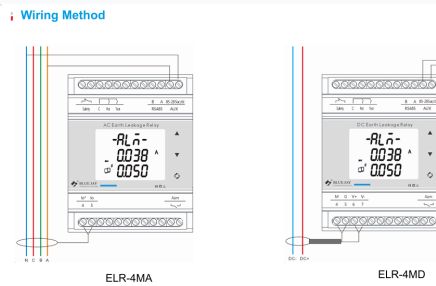


Diagram demonstrating wiring methods and interface connections for AC and DC models.

Input/Output Configuration

Type	Description
Digital Inputs	2x (Reset/Test function)
Safety Relay	1x NO contact
Alarm Relay	1x NC contact
Relay Load Capacity	5A @ 250VAC

Communication	RS-485 MODBUS-RTU
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Environmental Ratings

Operating Temperature	-25 to 55°C
Storage Temperature	-40 to 70°C
Maximum Altitude	2500 m

Applications

Suitable Applications

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