

# KAR1-HD

## Ultra-immunised earth leakage system for measurement and signalling with external transformer of the CT/CTA series



Compatible with **CT-1/CTA-1** earth leakage transformers

### Description

Electronic earth leakage protection relay, connected to the external transformers of the **CT-1/ CTA-1** series. Ultra-immunized type relay with high frequency currents filtering and high immunity. Type-A relay with third harmonic filtering (settable). True root mean square (TRMS) measure. Fail safe function for each four relays. **Log tripped** residual current.

- Compact size: 3 modules
- Display of data on the screen
- Two independent programmable outputs (main and pre-alarm)

### 1. Applications

The **KAR1-HD** relays associated with **CT-1/CTA-1** transformers offer smart earth leakage protection. Their design features guarantee maximum security and electrical service continuity, avoiding unwanted tripping. Viewing the instantaneous leakage value on the display, together with the pre-alarm indicators, makes it possible to obtain information on the status of lines to be protected, and to perform adequate preventive maintenance.

In addition, version **KAR1-HD 485** features RS-485 communications, with Modbus RTU protocol, offers centralised supervision in real time, as well as keeping a log of historical data for future analysis.

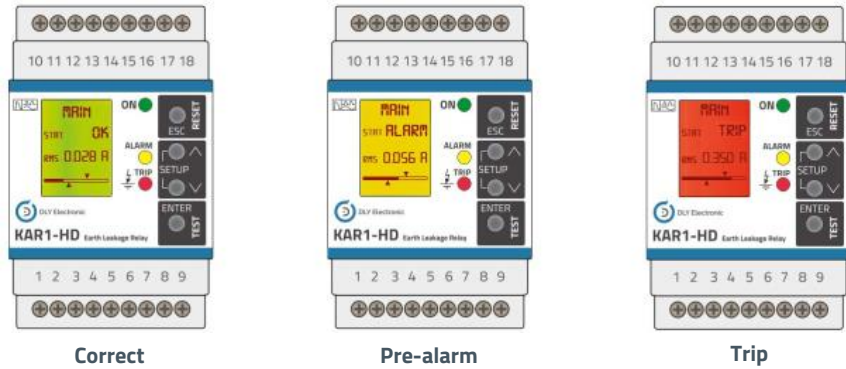
### Technical features

<b>Protection</b>	Tripping type	A
	Measurement	True root mean square (TRMS)
	Tripping set-point (I $\Delta$ )	0,03...30A
	Prealarm set-point	50...90%
	Tripping time (t)	0,02...10s
	Earth leakage transformer	External, <b>CT-1/CTA-1</b> series
	Test and reset	With built-in buttons or remote T & R
	LED indicators	Power supply voltage Leakage trip Pre-alarm
	Display	Trip current (red display when tripped) Pre-alarm (yellow display) Instantaneous level of leakage Parameter programming External transf. disconnected indicator
	<b>Electrical features</b>	Auxiliary voltage
Output contacts		230 VAC / 5 A
Operating temperature		-10 ... +60 °C
<b>Mechanical features</b>	Attachment	DIN rail (IEC 60715)
	Dimensions	3 modules
	Weight	200g
	Protection degree	Front: IP40, IP20 on back panel
<b>Certifications</b>	<b>CE</b>	
<b>Standards</b>	<b>EN 61010, EN 61000-6-2, EN 61000-6-3, IEC/TR 60755 EN 60947-2 Annex M</b>	

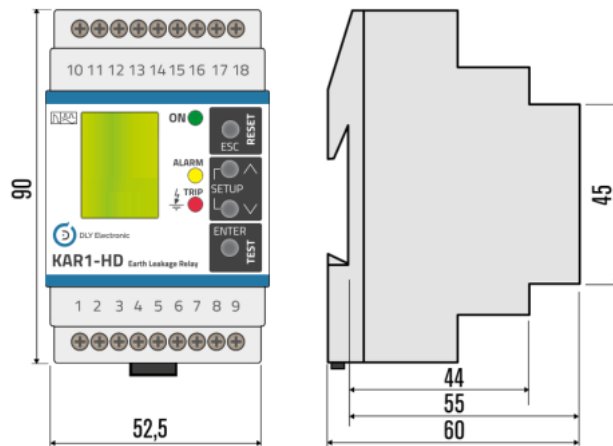
# KAR1-HD

Ultra-immunised earth leakage system for measurement and signalling with external transformer of the CT/CTA series

## Operators and alarms with visual indications



## Dimensions



## Connections

