

# Earth leakage relays WITHOUT BUILT-IN toroidal transformer

## RELAY WITH ADJUSTABLE DELAY TIME AND SENSITIVITY

- **Electronic relays with adjustable delay time and sensitivity.**
- **Suitable for direct pulse current.**
- **Immune to external disturbances.**
- To be used with CT-1 transformers.
- Modular size. DIN rail mounting.
- Sealable front cover.

## ELR-B



## MULTIRANGE RELAY

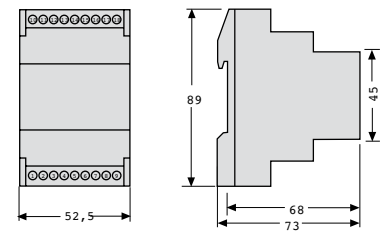
- **Electronic relays with adjustable delay time and sensitivity.**
- **Suitable for direct pulse current.**
- **Immune to external disturbances.**
- To be used with CT-1 transformers.
- Modular size. DIN rail mounting.
- Sealable front cover.

## ELR-3C



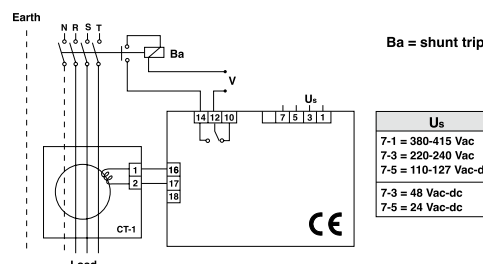
MODELS	ELR-B		ELR-3C	
Sensitivity	0,3 A or 0,5 A		Adjustable from 0,025 A to 25 A	
Trip time delay	0,02 s or 0,5 s		Adjustable from 0,02 s to 5 s	
Aux. voltage supply 50/60 Hz	24-48 Vdc, ac	115 Vdc, ac 230-400 Vac	24-48 Vdc, ac	115 Vdc, ac 230-400 Vac
Code	<b>41012</b>	<b>41010</b>	<b>41005</b>	<b>41000</b>

## DIMENSIONS (mm)



CHARACTERISTICS	
Toroidal transformer	In combination with CT-1
Max. length between relay and transformer	20 m with cables twisted
Reset mode	Automatic, manual and remote (in manual mode disconnect the aux. supply during 1s)
Signalling LED's	2 LED's: ON + Trip
Output contacts mode	Normally de-energized
Output contacts	1 change over NO-NC
Switching power (resistive load)	5A - 250V
Maximum terminal section	2,5 mm <sup>2</sup>
Maximum consumption	3 VA
Modular size	3 modules x 17,5 mm = 52,5 mm
Frequency	50/60 Hz
Protection degree / weight	IP-20 / 0,2 kg
Storage / operation temperature	-10°C +60°C
Standards	IEC 41-1, IEC 255, VDE 0664, EN 50081-1, EN 50082-2

## WIRING DIAGRAM (mm)



# Earth leakage relays WITHOUT BUILT- IN toroidal transformer

## SUPERIMMUNIZED MULTIRANGE RELAY 22,5 mm

- **Electronic relays with adjustable delay time and sensitivity.**
- **Suitable for direct pulse current.**
- **Immune to external disturbances.**
- Very high level of immunity.
- 22,5 mm wide. Saving space in the distribution board.
- DIN rail mounting.
- To be used with CT-1 transformers.
- Suitable for Motor Control Centres (MCC) and electrical distribution boards in general.

## D 30



## SUPERIMMUNIZED MULTIRANGE RELAY

- **Electronic relays with adjustable delay time and sensitivity.**
- **Suitable for direct pulse current.**
- **Immune to external disturbances.**
- Very high level of immunity.
- Modular size. DIN rail mounting.
- To be used with CT-1 transformers.
- Suitable for electrical distribution boards in general.
- Sealable front cover

## DM30

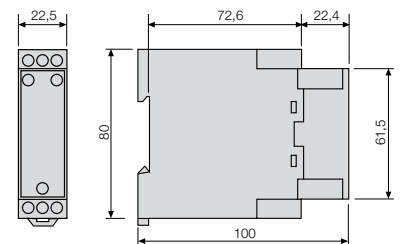


MODELS	D 30		DM30	
Sensitivity	Adjustable from 0,03 A to 30 A		Adjustable from 0,03 A to 30 A	
Trip time delay	Adjustable from 0,02 s to 5 s		Adjustable from 0,02 s to 5 s	
Aux. voltage supply 50/60 Hz	120 Vac	230 Vac	120 Vac	230 Vac
Code	<b>41021</b>	<b>41020</b>	<b>41023</b>	<b>41022</b>

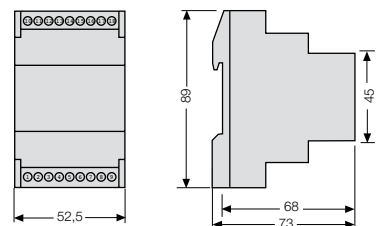
CHARACTERISTICS				
Toroidal transformer	In combination with CT-1			
Max. length between relay and transformer	20 m with cables twisted			
	Cable section mm <sup>2</sup>			
	0,22 mm <sup>2</sup>	0,75 mm <sup>2</sup>	1 mm <sup>2</sup>	1,5 mm <sup>2</sup>
	Max. length m			
	15 m	55 m	75 m	110 m
Reset mode	Automatic, manual and remote (in manual mode disconnect the aux. supply during 1s)			
Signalling LED's	2 LED's: ON + $\frac{1}{2}$ (trip)			
Output contacts mode	Selectable: normally de-energized (N) / or energized (P)			
Output contacts	1 change over NO-NC			
Switching power (resistive load)	I <sub>th</sub> : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A			
Maximum terminal section	2,5 mm <sup>2</sup>			
Maximum consumption	7 VA - 230 V		2,5 VA (120 - 230 V)	
Modular size	No. 22,5 mm wide		3 modules x 17,5 mm = 52,5 mm	
Frequency	50/60 Hz			
Protection degree / weight	IP-20 / 0,2 kg			
Storage / operation temperature	-10°C +60°C			
Standards	EN 60947-2, EN 50263, EN 61543 (A11), EN 60255-5, VDE 0664			

## DIMENSIONS (mm)

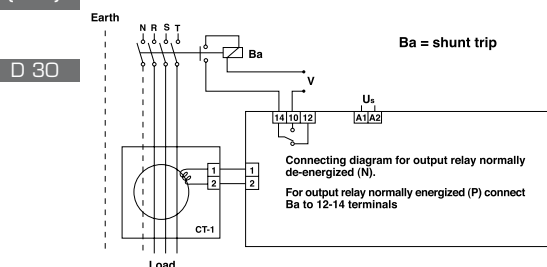
### D 30



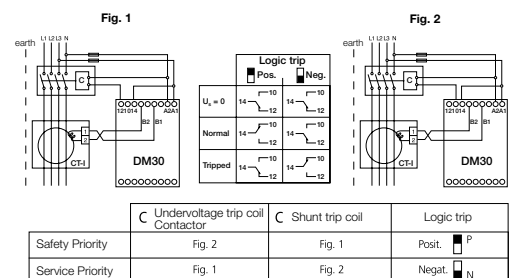
### DM30



## WIRING DIAGRAM (mm)



## DM30



**SUPERIMMUNIZED MULTIRANGE RELAY WITH AUTOMATIC RECLOSING**

- **Electronic relays with automatic reclosing up to 3 attempts with defined (1 m) or adjustable (1 to 60 s) time.**
- **Adjustable delay time and sensitivity.**
- **Suitable for direct pulse current.**
- **Immune to external disturbances.**
- Very high level of immunity.
- Modular size. DIN rail mounting.
- To be used with CT-1 transformers.
- Suitable for electrical distribution boards in general.
- Sealable front cover.

**DR30F**



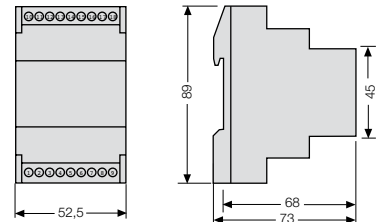
**DR30A**



MODELS	DR30F			DR30A		
Reclosing time	60 s			Adjustable from 1 s to 60 s		
Sensitivity	Adjustable from 0,03 A to 30 A					
Trip time delay	Adjustable from 0,02 s to 5 s					
Aux. voltage supply 50/60 Hz	120 Vac	230 Vac	24 Vdc	120 Vac	230 Vac	24 Vdc
Code	<b>41026</b>	<b>41024</b>	<b>41027</b>	<b>41028</b>	<b>41019</b>	<b>41029</b>

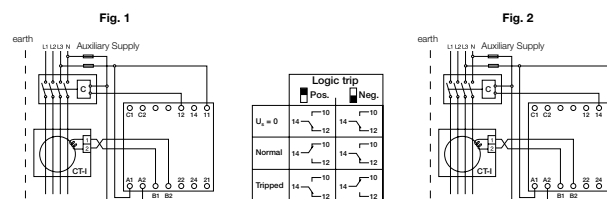
**DIMENSIONS (mm)**

**DR30**



CHARACTERISTICS				
Toroidal transformer	In combination with CT-1			
Max. length between relay and transformer	20 m with cables twisted			
	Cable section mm <sup>2</sup>			
	0,22 mm <sup>2</sup>	0,75 mm <sup>2</sup>	1 mm <sup>2</sup>	1,5 mm <sup>2</sup>
	Max. length m			
	15 m	55 m	75 m	110 m
Reset mode	Automatic, manual and remote (in manual mode disconnect the aux. Supply during 1s)			
Signalling LED's	2 LED's: ON + ⚡ (trip) / 2 LED's: Numbers of reclosing / 4 LED's: % measurement			
Output contacts mode	Selectable: normally de-energized (N) / or energized (P)			
Output contacts	2 change over NO-NC			
Switching power (resistive load)	I <sub>th</sub> : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A			
Maximum terminal section	2,5 mm <sup>2</sup>			
Maximum consumption	2,5 VA - 230 V			
Modular size	3 modules x 17,5 mm = 52,5 mm			
Frequency	50/60 Hz			
Protection degree / weight	IP-20 / 0,2 kg			
Storage / operation temperature	-10°C +60°C			
Standards	EN 60947-2, EN 50263, EN 61543 (A11), EN 60255-5, VDE 0664			

**WIRING DIAGRAM (mm)**



	C Undervoltage trip coil Contactor	C Shunt trip coil	Logic trip
Safety Priority	Fig. 2	Fig. 1	Posit. <input type="checkbox"/> P
Service Priority	Fig. 1	Fig. 2	Negat. <input type="checkbox"/> N