



CTB-1/***



ELR-3B**

UK Technical Data 11

CTB-1/*** Type B

residual current transformer for use with ELR-3B & ELR-3B10

Function

CTB-1 / Type B residual current transformers are designed for use with ELR-3B and ELR-3B10 Type B relays. Selection is based on the diameter of the CT aperture to accommodate the cross sectional area of the current carrying conductors. The diameter of the CT determines the minimum level of current that can be detected - see details given in the data sheet

Features



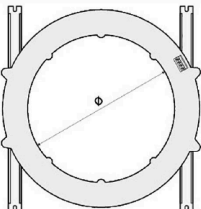
Suitable for detecting type B residual currents, remote mounting with connection by twisted pair or screened cable, internal CT diameters available in 22, 35, 60, 80, 110, 160 mm. Special versions available on special request based on quantity and specification.

Mounting

Mount inside the panel on a secure back plate. To maintain detection accuracy the monitored cables must be positioned centrally within the CT aperture. Line & Neutral cable if applicable must pass through the CT and be positioned centrally. The PE earth conductor and any metal protection screen must not pass through the CT.

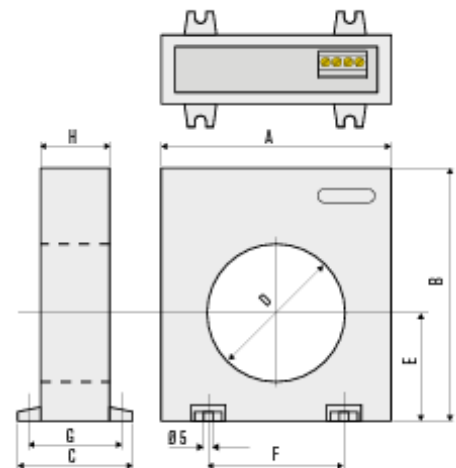
The cable (twisted pair) connecting the CT to the ELR-3B must be kept as short as possible and must not be run near power cables (sufficient distance based on the load to ensure, currents are not induced into the twisted pair). If there is a risk of induced currents, use screened cable. The control circuit pair must be separated from CT pair - they must not be run together.

Selection

Type	Ø (mm)	Split	Min. Measured Current	Transformation Ratio
 CTB-1/22	22	NO	25 mA	500/1
	CTB-1/35	NO	25 mA	500/1
	CTB-1/60	NO	25 mA	
	CTB-1/80	NO	100 mA	
	CTB-1/110	NO	100 mA	
	CTB-1/160	NO	100 mA	
	CTB-1/210	NO	100 mA	500/1

Minimum I _{dn} with CTB- sensor	
30 mA	1/22, 1/35
>= 300 mA	1/60, 1/80, 1/110
>= 500 mA	1/160, 1/210

	A	B	C	D	E	F	G	H
CTB-1/22	52	65	26	22	56	27	-	-
CTB-1/28	52,5	85,5	45	28	44	58	54	-
CTB-1/35	100	110	50	35	47	60	43	30
CTB-1/60	100	110	50	60	47	60	43	30
CTB-1/80	150	160	50	80	70	110	43	30
CTB-1/110	150	160	50	110	70	110	43	30
CTB-1/160	220	236	64	160	110	156	50	34



Technical Data

Technical Data	CTB-1/***
Measuring CT	
Toroidal transformer	Dimensions see Page 1
Permanent overload	1000 A
Short circuit withstand	40 kA for 1 second
Withstand voltage	2.5 kV for 1 minute
Frequency range response	Refer to Technical Data Sheet 10_EL R-3B and 3B10 0421 v1 en.pdf Page 2
CT Ratio	500 / 1
Operating temperature	-10 °C ... 70 °C
Storage temperature	-20 °C ... 80 °C
Terminal Capacity	2.5 mm sq. cable
Degree of protection	IP20
Certification	
Standards	IEC / EN 50081-2, IEC / EN50082-2, IEC41.1, IEC / EN 60255, IEC 60755 (Type B)
Design requirements (OEM)	IEC / EN 60947-2 "ANNEX M"

Wiring example with Shunt-trip and Remote reset

