

**CTB-2/\*\*\***

**ELR-3BN**

## UK Technical Data 13

**CTB-2/\*\*\* Type B**  
residual current transformer for use with ELR-3BN

### Function

CTB-2 / Type B residual current transformers are designed for use with ELR-3BN 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, 210 mm. Note: 22mm & 160mm; two CTs required.

### 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.

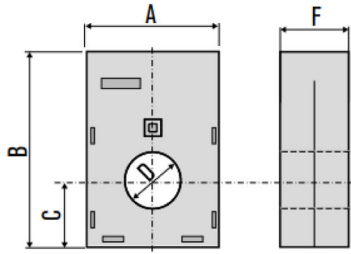
The cable (twisted pair) connecting the CT to the ELR-3BN must be kept as short as possible and must not be run near power cables (sufficient distance based on the load to ensure, currents are not induced into the twisted pair). If there is a risk of induced currents, use screened cable. The control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

### Technical Data

Technical Data	CTB-2/***
<b>Measuring CT</b>	
Toroidal transformer	Dimensions see Page 2
Permanent overload	1000 A
Short circuit withstand	40 kA for 1 second
Withstand voltage	2.5 kV for 1 minute
Accuracy	10-15%
Operating temperature	-10 °C ... 60 °C
Storage temperature	-20 °C ... 80 °C
Terminal Capacity	2.5 mm sq. cable
Degree of protection	IP20 (Terminals)
<b>Certification</b>	
Standards	IEC 62020, IEC 60947-2-M, IEC 61869-2, IEC 60755 (Type B)
Design requirements (OEM)	IEC / EN 60947-2 "ANNEX M"

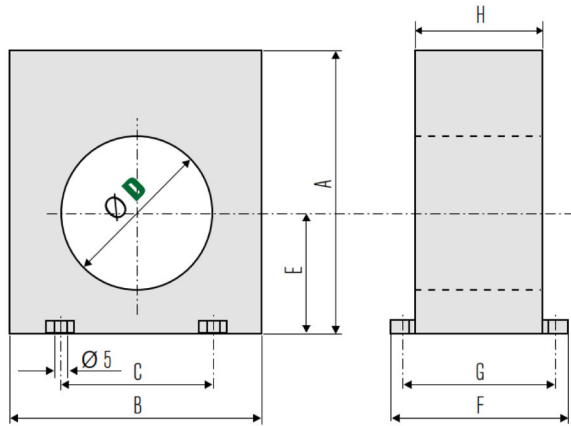
**Mechanical dimensions (mm)**

CTB-2/22A, CTB-2/22B



TIPO/TYPE	A	B	C	D	F
CTB-2/22A	52	65	26	22	27
CTB-2/22B	52	65	26	22	27

CTB-2/35, CTB-2/60, CTB-2/80, CTB-2/110, CTB-2/160A, CTB-2/160B

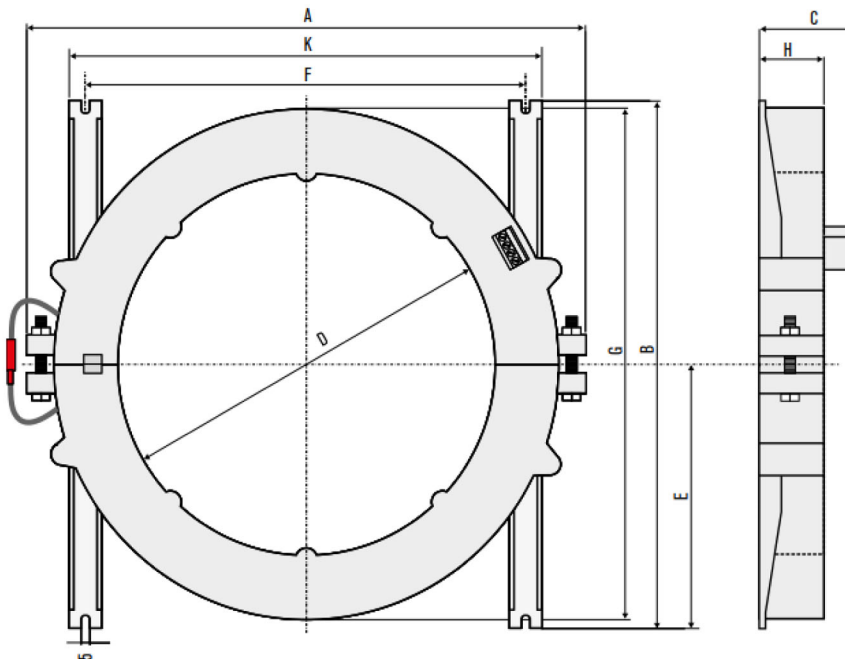


**Toroidal current transformer type according to current**

Current	Toroidal transformer
30mA	CTB-2/22A, CTB-2/22B, CTB-2/35, CTB-2/60
>= 100mA	CTB-2/80, CTB-2/110
>= 500mA	CTB-2/160A, CTB-2/160B, CTB-2/210

TIPO/TYPE	A	B	C	D	E	F	G	H
CTB-2/35	100	110	50	35	47	60	43	30
CTB-2/60	100	110	50	60	47	60	43	30
CTB-2/80	150	160	50	80	70	110	43	30
CTB-2/110	150	160	50	110	70	110	43	30
CTB-2/160A	220	236	64	160	110	156	50	34
CTB-2/160B	220	236	64	160	110	156	50	34

CTB-2/210



TIPO/TYPE	A	B	C	D	E	F	G	H	K
CTB-2/210	310	290	54	210	145	240	280	36	258