

TOROIDAL CURRENT TRANSFORMERS TYPE - TO

The Ring CTs type TO are designed for sensitive and accurate detection of Earth Fault current in association with all Microelettrica Scientifica Protection Relays.

Close-core models TO---M and Opening-core models TO---A are available for different cable sizes.

- Standard ratio 100/1 A
- Minimum detectable primary current 10mA
- Test insulation level 10kV-RMS - 1 min.

Models and Dimensions

TYPE	Core	Fig	a	b	c	d	e	f	g	h	i	Weight
TO35M	○	3	35	88	71	80	92	-	36	5.5	27	0.200
TO60M	○	3	60	108	95	104	118	-	48	6.5	27	0.280
TO80M	○	3	80	128	116	122	135	-	58	6.5	27	0.410
TO110M	○	3	110	162	150	156	170	-	76	6.5	27	0.500
TO160M	○	3	160	265	255	265	275	-	130	8.5	45	2.400
TO210M	○	3	210	315	305	310	325	-	155	8.5	45	1.220
TO60MA	●	4	60	125	116	133	140	45	60	6.5	34	0.470
TO110MA	●	4	110	215	205	220	235	70	105	6.5	40	1.510
TO210MA	●	4	210	315	305	310	325	75	155	8.5	45	2.400

- Closed-core
- Opening-core
- Terminals sealed insulating protection (on request)

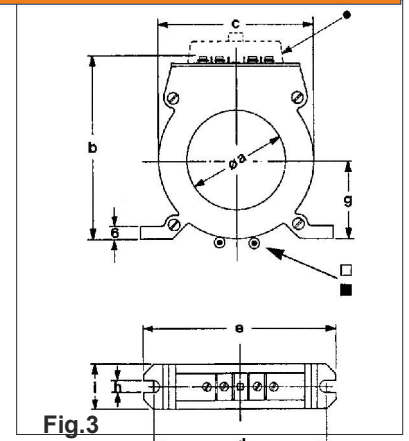


Fig.3

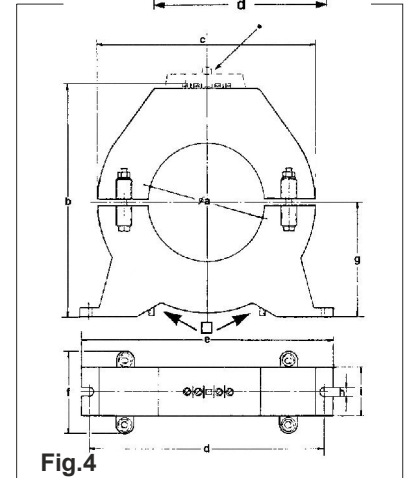


Fig.4

UNIVERSAL ADAPTING TRANSFORMERS TYPE - TAX

Rated primary current I_{NP}	1 or 5A
Input primary current I_p	0.4 - 2 I_{NP}
Primary adjusting step	2.5% I_{NP}
Rated secondary current I_s	1/1: $\sqrt{3}$ or 5/5: $\sqrt{3}$
Continuous overload	2 I_{NP}
Short time overload (1s)	80 I_{NP} x 1s
Burden at I_{NP}	3VA 50/60Hz
Accuracy class	5P20
Self consumption at I_{NP}	2.5VA
Weight	4kg
Input/Output terminals	Screw 4MA

ADJUSTING
$$N_p = \frac{I_{NP}}{I_p} \cdot 100$$

Example:

$$\text{RATIO} = 1.48/1: \sqrt{3} \Rightarrow I_{NP} = 1A; I_p = 1.48A$$

$$I_s = 1: \sqrt{3}A \Rightarrow N_p = \frac{1}{1.48} \cdot 100 \cong 67.5\% \cong 70\% - 2.5\%$$

⇒ P1 Terminal (8), bridge (9-2), P2 Terminal (1)

Terminals	% N_p
1 - 2	2.5
2 - 3	5
3 - 4	7.5
5 - 6	17.5
6 - 7	35
8 - 9	70
9 - 10	140
S1 - S2	$I_s = I_{NP}$
S2 - S3	$I_s = I_{NP} \sqrt{3}$

