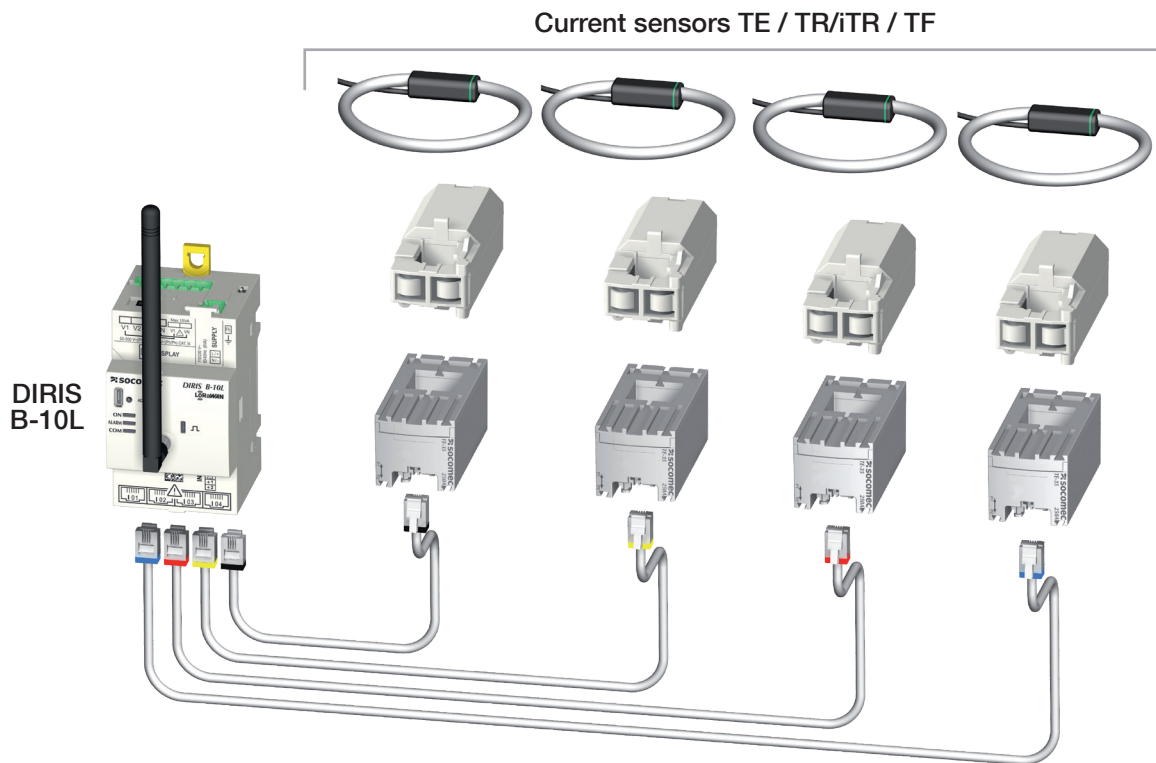


4.4. Presentation of associated current sensors

Various types of current sensors can be connected to the DIRIS B-10L: solid core (TE), split core (TR/iTR) or flexible (TF). This makes the DIRIS B-10L suitable with all types of new or existing installations. A rapid RJ12 connection makes wiring easy and reliable and prevents wiring errors. The DIRIS B-10L automatically recognises the type of sensor used and its current rating.

This guarantees the overall accuracy of the DIRIS B-10L + current sensor measurement chain.



Recommendations:

For connecting the current sensors, use SOCOMEC cables only: RJ12 straight, twisted pair, unshielded, 600 V, -10°C / +70°C as per IEC 61010-1 version 3.0.

It is recommended that all the current sensors be installed in the same direction.

Connection cables for current sensors:

RJ12 connection cables	Cable length (m)									
	0.1	0.2	0.3	0.5	1	2	3	5	10	50 m reel + 100 connectors*
Number of cables	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1	-	-	-	-	-	-	4829 0606	4829 0602	4829 0603	4829 0601
3	4829 0580	4829 0581	4829 0582	4829 0595	4829 0583	4829 0584	-	-	-	-
4				4829 0596	4829 0588	4829 0589	-	-	-	-
6	4829 0590	4829 0591	4829 0592	4829 0597	4829 0593	4829 0594	-	-	-	-





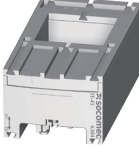
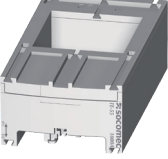
* When producing cables, do not exceed a maximum length of 10 metres.

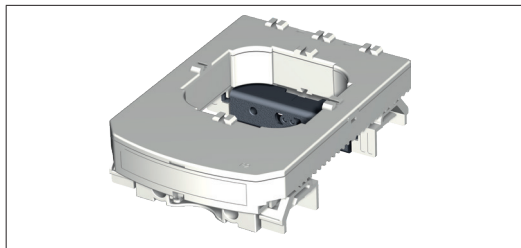
4.4.1. TE solid-core current sensors

The TE solid-core current sensors are used to set up measurement points in a new or existing installation. They are easy to integrate as they are compact and respect the pitch of the circuit breakers. A wide range of accessories are also available for direct fitting on all type of cabling (cable, flexible or rigid busbar) or on a DIN rail support or plate.

Thanks to the specific link, they are recognised by the DIRIS B-30 and the overall accuracy of the measurement chain is guaranteed.

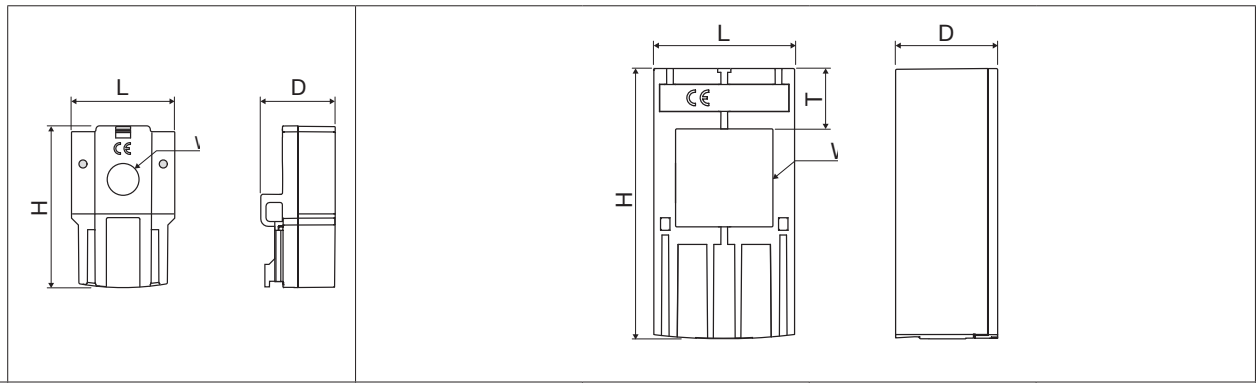
4.4.1.1. Range

						
	TE-18	TE-18	TE-25	TE-35	TE-45	TE-55
Pitch	18 mm	18 mm	25 mm	35 mm	45 mm	55 mm
Nominal current range I_n	5 - 20 A	25 - 63 A	40 - 160 A	63 - 250 A	160 - 630 A	400 - 1000 A
I Max	24 A	75.6 A	192 A	300 A	756 A	1200 A
Reference	4829 0500	4829 0501	4829 0502	4829 0503	4829 0504	4829 0505

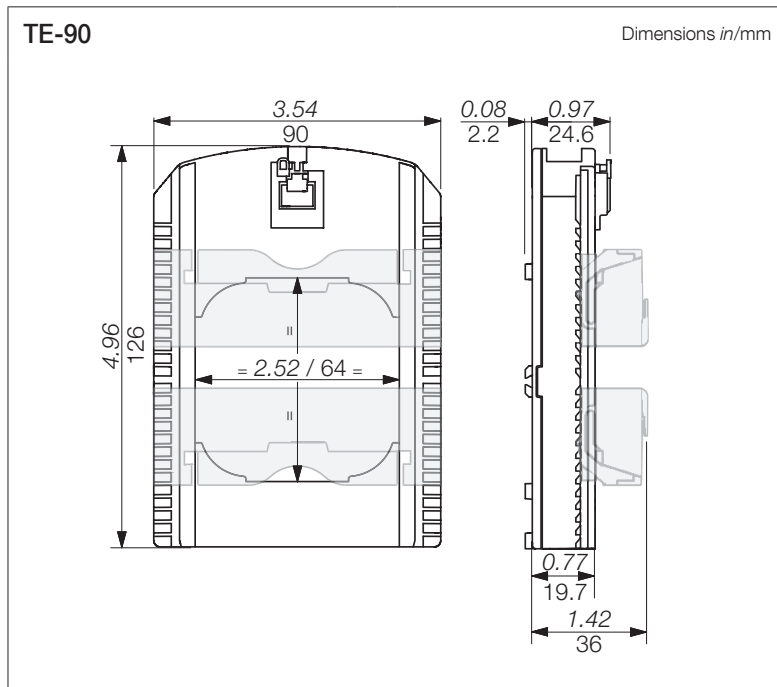


	TE-90
Pitch	90 mm
Nominal current range I_n	600 - 2000 A
I Max	2400 A
Reference	4829 0506

4.4.1.2. Dimensions



Dimensions in/mm	TE-18	TE-25	TE-35	TE-45	TE-55
Pitch	0.71 18 (staggered assembly)	0.98 25	1.37 35	1.77 45	2.16 55
LxHxD	1.10 x 0.79 x 1.77 28 x 20 x 45	0.98 x 1.28 x 2.56 25 x 32.5 x 65	1.37 x 1.28 x 2.79 35 x 32.5 x 71	1.77 x 1.28 x 3.38 45 x 32.5 x 86	2.16 x 1.28 x 3.93 55 x 32.5 x 100
Aperture (W)	∅ 0.39 ∅ 9	0.53 x 0.53 13.5 x 13.5	0.82 x 0.82 21 x 21	1.22 x 1.22 31 x 31	1.61 x 1.61 41 x 41
(T)	-	0.69 17.5	0.69 17.5	0.77 19.5	0.85 21.5

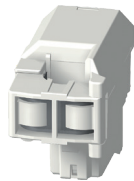

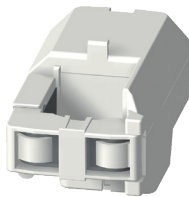
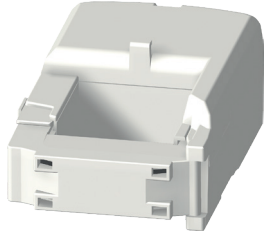


4.4.2. TR split-core current sensors

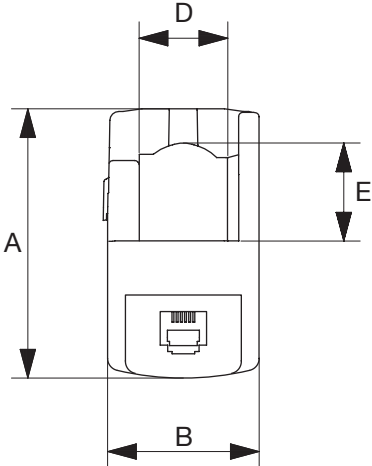
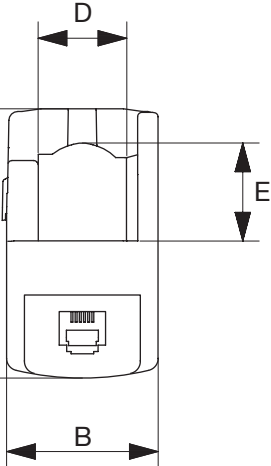
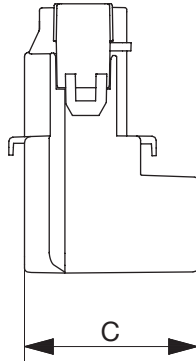
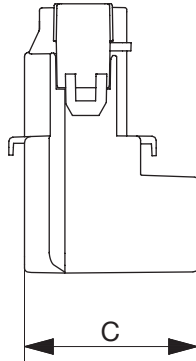
The TR split-core current sensors are used to set up measurement points in a new or existing installation without interfering with its cabling. Thanks to the specific link, they are recognised by the DIRIS B-10L and a high level of overall accuracy for the measurement chain is guaranteed.

4.4.2.1. Range

Four models are available from 25A to 600A to analyse several types of loads.

				
	TR-10 / iTR-10	TR-14 / iTR-14	TR-21 / iTR-21	TR-32 / iTR-32
APERTURE	Ø 10 mm	Ø 14 mm	Ø 21 mm	Ø 32 mm
Nominal current range I _n	25 - 63 A	40 - 160 A	63 - 250 A	160 - 600 A
Recommended cable section	6 mm ² (iTR-10)	10 mm ² (iTR-14)	50 mm ² (iTR-21)	50 mm ² (iTR-32)
I MAX	75.6 A	192 A	300 A	720 A
Part number	4829 0555 / 4829 0655	4829 0556 / 4829 0656	4829 0557 / 4829 0657	4829 0558 / 4829 0658

4.4.2.2. Dimensions

				
Dimensions in/mm	TR-10 / iTR-10	TR-14 / iTR-14	TR-21 / iTR-21	TR-32 / iTR-32
A	1.74 44	2.63 67	2.56 65	3.38 86
B	1.02 26	1.14 29	1.45 37	2.08 53
C	1.10 28	1.10 28	1.69 43	1.85 47
D	-	0.55 14	0.82 21	1.26 32
E	-	0.59 15	0.90 23	1.30 33
Diameter	0.39 10	0.55 14	0.82 21	1.26 32

4.4.3. TF flexible current sensors

The TF flexible current sensors use the Rogowski principle, covering a wide current range without saturation.

Their flexible design and easy opening system enables a quick installation inside electrical panels, making them particularly well suited for adding measuring points in existing electrical installations, especially when space is limited.

The secure lock technology prevents non voluntary openings of the Rogowski rope. Thanks to the specific link, they are recognised by the DIRIS B-10L and a high level of overall accuracy for the measurement chain is guaranteed.

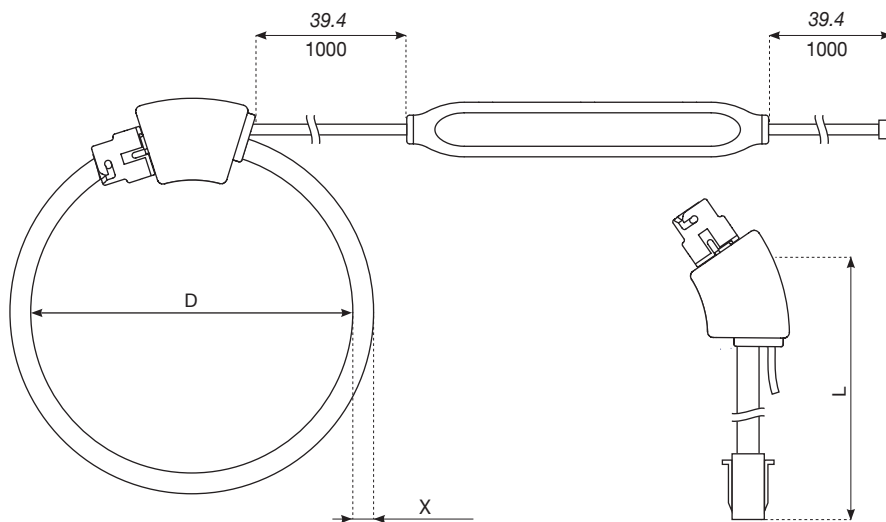
4.4.3.1. Range

Six models are available, covering a large current range up to 6000 A with openings of different shapes and sizes. They include a compact and self-supplied integrator, required to shape the current signal.

	TF-40	TF-80	TF-120	TF-200	TF-300	TF-600
Ø (mm)	40	80	120	200	300	600
I nom. (a.c.)	100 ... 400A	150 ... 600A	400 ... 2000A	600 ... 4000A	1600 ... 6000A	1600 ... 6000A
Part number	4829 0573	4829 0574	4829 0575	4829 0576	4829 0577	4829 0578

4.4.3.2. Dimensions

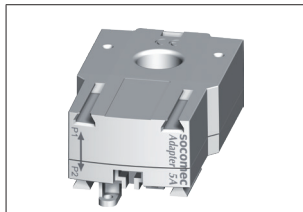
Dimensions in/mm	TF-40	TF-80	TF-120	TF-200	TF-300	TF-600
Diameter D	1.57 40	3.15 80	4.72 120	7.87 200	11.81 300	23.62 600
Perimeter L	4.96 126	9.88 251	14.84 377	24.72 628	37.09 942	74.21 1885
Diameter X	0.28 7					0.33 8.4
Integrator	8.04 x 0.75 x 0.6 128 x 19 x 15					



4.4.4. Adaptor for 5A or 1A current transformers

The adaptor allows you to retrofit an existing 1 A or 5 A secondary current transformer and use it with your DIRIS Digiware system. The overall DIRIS Digiware system accuracy is no longer guaranteed, as it depends on the accuracy of the associated CT (see standard «IEC 61557-12 annex F» for more information). The primary current is maximum 10000 A for a 5 A secondary CT and 2000 A for a 1 A secondary CT.

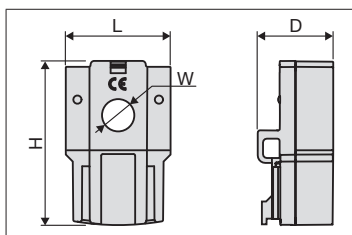
4.4.4.1. Range



5A adaptor

I name.	5 A
I Max.	6 A
Reference	4829 0599

4.4.4.2. Dimensions



Dimensions in/mm

5A adaptor

LxHxD	28 x 20 x 45
Aperture (W)	∅ 9