

• **Compact transformer**

Low level output. Voltage or current

• **Fast opening/closing without tool**

Installation on an existing circuit without interruption.
No secondary open-circuit problem.

• **Available for currents from 5A to 500A**

Passage hole diameter: 8, 12, 17, 24 and 36mm

• **0.5% calibrated output voltage**

alternative (Tio-AC) : 200mV, 333mV, 500mV



The "Tio" split-core current transformer were a low cost solution to monitoring electrical circuits. The unique hinge and locking hook allows to instrument a circuit without interrupting the primary current. Their design allows for output levels up to 1V AC without amplification. The excellent linearity permits measurement of currents as low as 10 mA.

applications:

- Retrofitting existing site without instrumentation.
- Diagnosis, management and energy optimization
- Monitoring and analysis of electrical networks.
- Can be used with conventional 5 A secondary transformer

Electrical meters associated:

- CPL165 : http://www.loreme.fr/fichtech/CPL165_eng.pdf
- CPL105 : http://www.loreme.fr/fichtech/CPL105_eng.pdf

Threshold relay associated:

- single phase, DSL35LCA : http://www.loreme.fr/fichtech/DSL35LCA_eng.pdf
- Tree-phase, RCL105 : http://www.loreme.fr/fichtech/RCL105_eng.pdf

Features:

- transformer encapsulated in isolated plastic housing.
- Closing with safety lock to clip.
- Output connection with twisted cable.
- Protection rating (enclosure): IP40

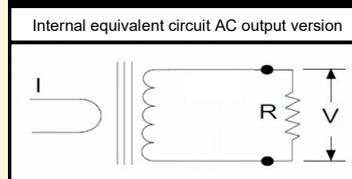
- Available model:

- diameter 8mm (30A maxi)
- diameter 12mm (90A maxi)
- diameter 17mm (160A maxi)
- diameter 24mm (250A maxi)
- diameter 36mm (500A maxi)

Implementation:

- During opening operations the air gap must be maintain cleanliness to preserve the metrological characteristics.
- A large number of opening / closing operations can at term affect the accuracy by decreasing the pressure on the air gap. (life duration of around 200 openings / closings)
- The series connection of secondary is possible to easily realize a summation of the primary currents (in phase), allowing the measure of a set of loads at lower cost.

Block diagram:



Version and order code :

Request a quote

- Tio d8-A-mV** : split-core CT, 8mm hole diameter, voltage output (measuring 30A max)
- Tio d12-A-mV** : split-core CT, 12mm hole diameter, voltage output (measuring 90A max)
- Tio d17-A-mV** : split-core CT, 17mm hole diameter, voltage output (measuring 160A max)
- Tio d24-A-mV** : split-core CT, 24mm hole diameter, voltage output (measuring 250A max)
- Tio d36-A-mV** : split-core CT, 36mm hole diameter, voltage output (measuring 500A max)

- A : Current range (from 5A to 500A Ac)
- mV : Voltage output. must be defined (500mV on standard)

WIRING OPTION:

- IC : Connection over un-pluggable spring terminal (only for Tio with hole diameter of 12mm and 17mm)
- IL (meter) : Default output 1 meter twisted cable. Available up to 30 meters.

Metrology

- Measurable current : 0...5.....500Aac (model dependant)
- Power consumption: < 0.1Watt
- Accuracy : +/- 0.5 % (for 500mV nominal output)
- Linearity : +/- 0.15 % (for 500mV nominal output)
- frequency range: 50Hz....60Hz

OUTPUT (AC version)

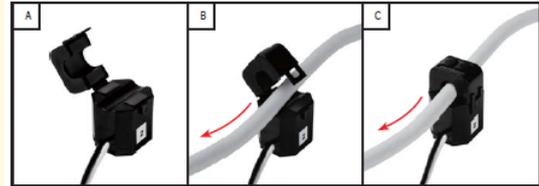
Type	Range	Accuracy
Voltage standard for LOREME devices.	0 ... 500mV	+/- 2.5 mV

Output impedance: 200 ohms to 10Kohms depending of range (0.1% internal shunt)

ENVIRONMENT

- Operating temperature -20 to +60 °C
- Storage temperature -20 to +85 °C
- Relative humidity 85 % (no condensed)
- Weight ~ 180 g
- Dielectric strength 3000 Vrms
- insulating resistance > 100 Mohms at 500V

IMPLEMENTATION



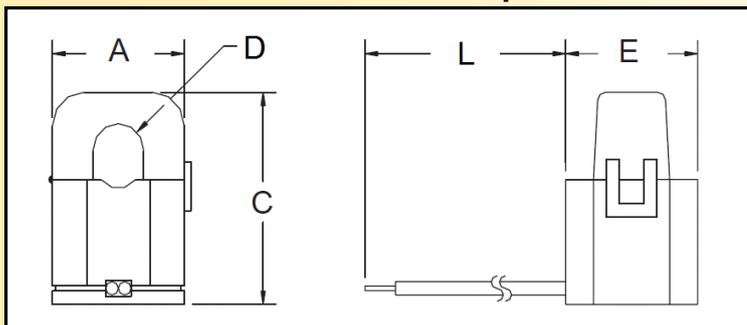
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	

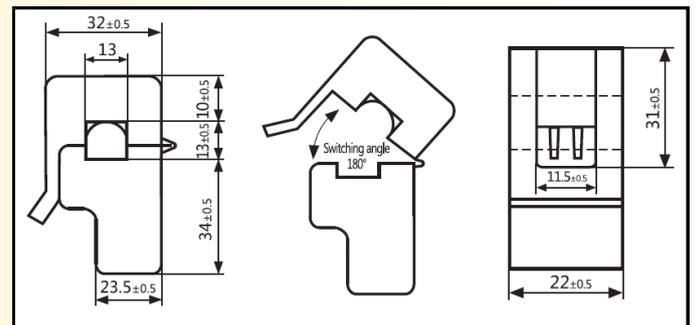


WIRING AND OUTLINE DIMENSIONS:

Tio d17 d24 d36 - AC output



Tio d12



Dimension / Model	A Overall width	C Overall height	D Primary passage hole diameter	L Default cable length
Tio d12			12 mm	1 meter
Tio d17	56 mm	51 mm	17 mm	1 meter
Tio d24	34 mm	64 mm	24 mm	1 meter
Tio d36	38 mm	80 mm	36 mm	1 meter

Tio d8 Ac

