

DC current sensors

Associated with DIRIS Digiware DC



Solid-core sensors 50 … 600 A



Split-core sensors 50 … 500 A



Solid-core sensors 850 ... 5000 A



Split-core sensors 800 … 2000 A

The solution for

- Data centre
- Telecommunication
- Renewable power
- Transportation



Strong points

- Plug & Play
- Wide selection of ratings
- Simplified installation

Compliance with standards

- IEC 61010-1
- UL

Function

The **DC current sensors** measure the DC load currents of an electrical installation and transmit information to the DIRIS Digiware Idc measurement modules via an RJ12 to Molex cable on the sensor side.

The range comprises solid-core and split-core sensors ranging from 50 to 5000 A in various sizes allowing them to be used in new or existing electrical installations.
Up to 3 different DC sensors can be connected to the same DIRIS Digiware Idc module.

Advantages

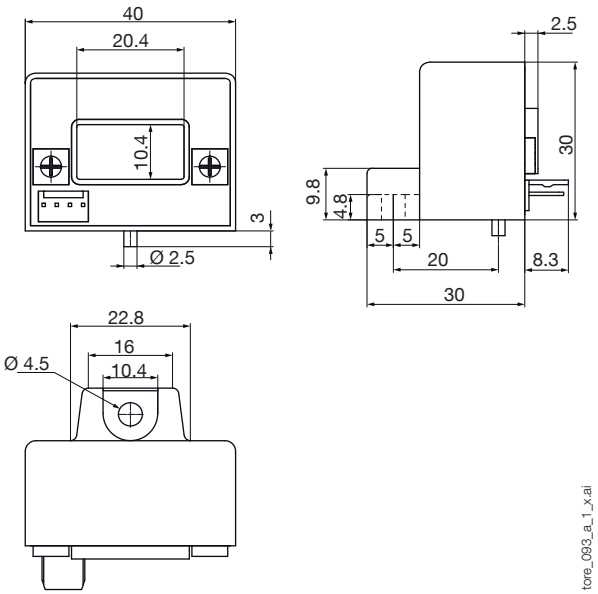
Plug & Play
- A quick RJ12 connection makes wiring easy and reliable.
- Fast configuration of the sensor's rating.

Flexible
- A complete range of solid-core and split-core sensors from 50 to 5000 A designed for new or existing electrical installations.

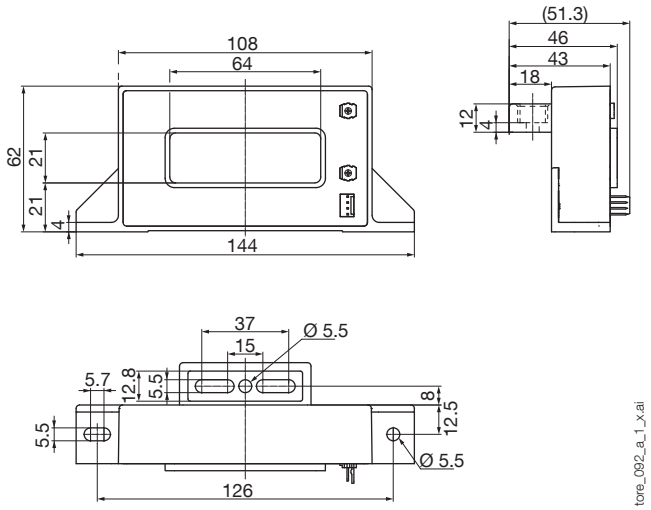
Installation
- Easy to install.
- Ideal for installations with limited space available.
- Only 4 different frame sizes cover a wide measurement range.
- Colour-coded cables for ease of identification, and to prevent wiring errors.

Dimensions (mm)

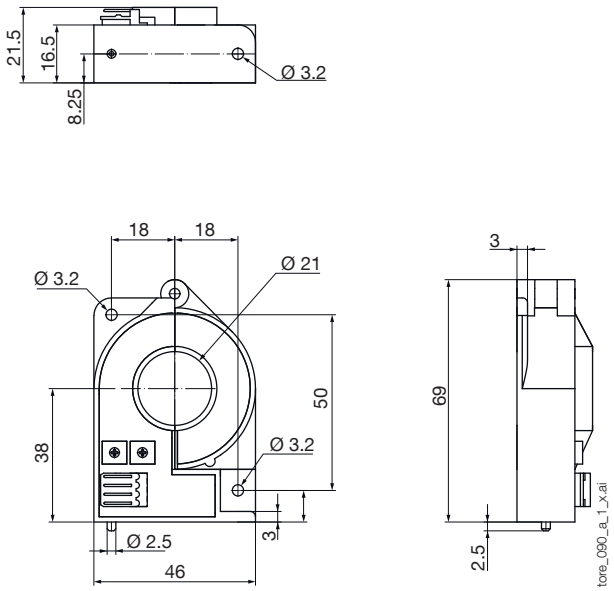
Solid-core sensors 50 … 600 A (frame size 1)



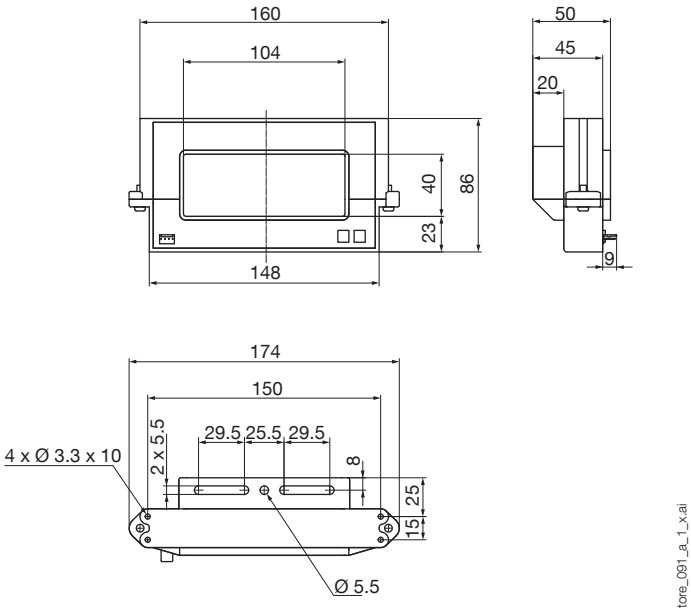
Solid-core sensors 850 … 5000 A (frame size 2)



Split-core sensors 50 … 500 A (frame size 1)



Split-core sensors 800 … 2000 A (frame size 2)

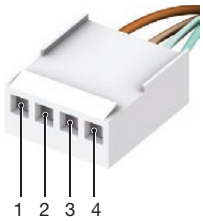


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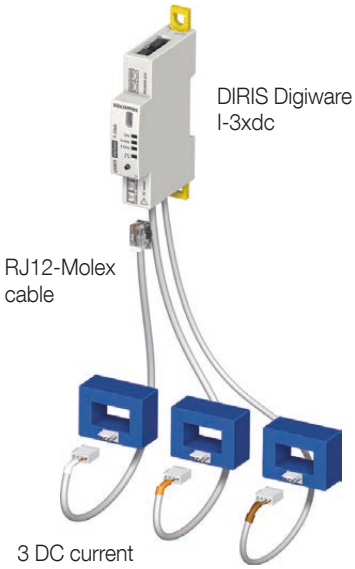
Connections

DC current is measured by external sensors connected to the DIRIS Digiware I-3xdc modules via RJ12-Molex cables. Connection of the current sensors is quick and error-free. A wide range of current sensors is available from Socomec to suit all installations and applications including split-core current sensors for retrofit applications.
The DC current sensors have the following technical characteristics:

- Open-loop Hall effect sensors
- Solid-core or split-core.
- Power supply voltage: ± 15 V.
- Power supply current: ± 25 mA depending on the sensor.
- Output voltage: ± 4 V.
- 4-point male Molex terminal strip.
- Measurement range: 16 to 6000 A.
- Category III overvoltage.



- PIN 1: + 15 V (+ Vc)
- PIN 2: - 15 V (- Vc)
- PIN 3: sensor input (M)
- PIN 4: 0 V sensor (0)



Technical characteristics

Type of current sensor	Open-loop Hall effect
Connection	Specific Socomec cable with RJ12-Molex connectors
Accuracy of current measurement	Solid-core sensors: 50 ... 600 A: < 1% Solid-core sensors: 850 ... 5000 A: < 1% Split-core sensors: 50 ... 500 A: < 2% Split-core sensors: 800 ... 2000 A: < 2%

Weight	Solid-core sensors 50 … 600 A	60 g
	Solid-core sensors 850 … 5000 A	450 g
	Split-core sensors 50 … 500 A	80 g
	Split-core sensors 800 … 2000 A	590 g
Operating temperature	Solid-core sensors 50 … 600 A	-10 ... +80°C
	Solid-core sensors 850 … 5000 A	-25 ... +85°C
	Split-core sensors 50 … 500 A	-10 ... +70°C
	Split-core sensors 800 … 2000 A	-10 ... +70°C
Storage temperature	Solid-core sensors 50 … 600 A	-25 ... +80°C
	Solid-core sensors 850 … 5000 A	-25 ... +85°C
	Split-core sensors 50 ... 500 A	-20 ... +85°C
	Split-core sensors 800 … 2000 A	-25 ... +85°C

References

DC current sensors	Reference
Solid-core sensors (frame size 1)	
50 A	4829 **0700**
100 A	4829 **0701**
200 A	4829 **0702**
300 A	4829 **0703**
400 A	4829 **0704**
500 A	4829 **0705**
600 A	4829 **0706**
Solid-core sensors (frame size 2)	
850 A	4829 **0707**
1000 A	4829 **0708**
1500 A	4829 **0709**
2000 A	4829 **0710**
2500 A	4829 **0711**
5000 A	4829 **0712**
Split-core sensors (frame size 1)	
50 A	4829 **0750**
100 A	4829 **0751**
200 A	4829 **0752**
300 A	4829 **0753**
400 A	4829 **0754**
500 A	4829 **0755**
Split-core sensors (frame size 2)	
800 A	4829 **0756**
1000 A	4829 **0757**
1500 A	4829 **0758**
2000 A	4829 **0759**

RJ12-MOLEX cables		
Number of cables	**Length of cables**	**Reference**
3	0.3 m	4829 **0782**
3	0.5 m	4829 **0783**
3	1 m	4829 **0784**
3	2 m	4829 **0785**
1	5 m	4829 **0786**