

Fault-locating core balance transformers

Connects to ISOM Digiware F-60 modules



*Core balance transformer **ΔIP-R***



*Core balance transformer **ΔIP***



*Core balance transformer **WR***

The solution for

- Industries
- Energy production
- Naval, military and railway infrastructures
- Healthcare facilities



Strong points

- Complete range
- Number of mounting options (ΔIP and ΔIP-R)
- Patented centring solution (ΔIP and ΔIP-R)
- Quick to install and safe to use (ΔIP-R)

Conformity to standards

- IEC 61869-1

Create your project

- Find the best Digiware configuration: **www.meter-selector.com**

METER SELECTOR DIGITAL TOOL AVAILABLE

Function

You need **core balance transformers** to install fault detection and locating units.
The transformers surround the active conductors to highlight a faulty current to the earth.

Socomec core balance transformers meet measurement sensitivity needs and are suitable for ISOM Digiware locating systems.

Solid (ΔIP, WR and TFR series) or split-core (ΔIP-R series), they are suitable for all cabling configurations.

The ISOM T-15 adapter is needed to connect to the locating core balance transformers on the ISOM Digiware F-60

Advantages

A complete range

All shapes and sizes are available for use with any cable/bar size and configuration.

Number of mounting options (ΔIP and ΔIP-R)

Mounted on DIN rail, backplate or directly on a cable, ΔIP-R core balance transformers can adapt to any installation constraints to make wiring easier and faster.

Patented centring solution (ΔIP and ΔIP-R)

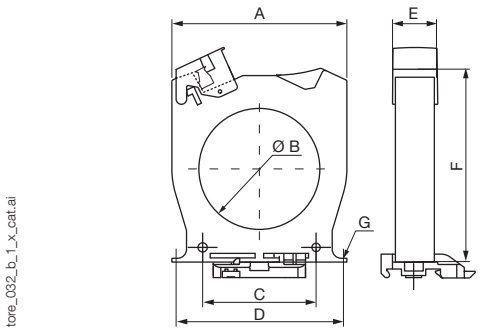
The flexible cable locator is a patented SOCOMEC innovation. With it, you can locate the cable within the core balance transformer to ensure accurate measuring and improve its immunity to disruptions in the mains power.
It also means you can mount the core balance transformer directly on a cable.

Quick to install and safe to use (ΔIP-R)

ΔIPR split core balance transformers are quick and easy to install with their innovative "one-click" open/close system. This system, designed without any additional components, ensures safe installation.

Dimensions (mm)

ΔIP-series closed core balance transformers

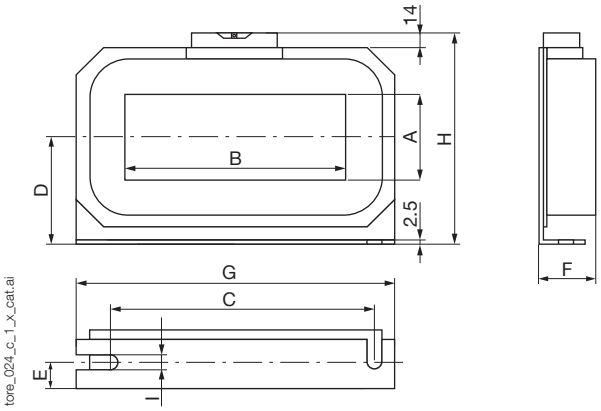


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Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
ΔIP diameter 15	53	17.3	25	50	26	81	M4	0.10
ΔIP diameter 30	92	30	50	85	26	103.5	M4	0.15
ΔIP diameter 50	102.5	50	50	90	26	125	M5	0.27
ΔIP diameter 80	116	80	75	105	26	142.5	M5	0.38
ΔIP diameter 120	163	120	100	150	26	182.5	M6	0.72
ΔIP diameter 200	253	200	150	175 x 41.2	51	274	M6	1.74
ΔIP diameter 300	370	300	200	250 x 41.5	50	390	M6	3.60

A. Width
B. Diameter
C. Spacers
D. Rear bracket spacers
E. Depth
F. Height
G. Diameter of fixing screws

WR-series rectangular closed core balance transformers



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Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Weight (kg)
WR 70 x 175	70	175	225	85	22	46	261	176	7.5	2.9
WR 115 x 305	115	305	360	116	25	55	402	240	8	6.3
WR 150 x 350	150	350	415	140	28	55	460	285	8	8.2

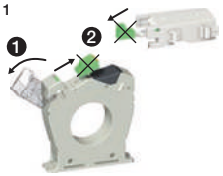
A. Gateway width
B. Gateway length
C. Spacers
D. Half-height
E. Depth of mounting spacers
F. Depth
G. Width
H. Height
I. Width of oblong fixing holes

Accessories for core balance transformers ΔIP and ΔIP-R

T-15 adapter for core balance transformers ΔIP*	Reference
T-15	4729 **0590**
T-15t	4729 **0591**

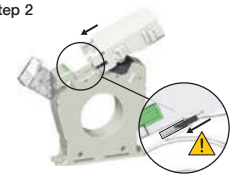
** T-15 and T-15t adapters can be installed on the ΔIP core transformers themselves for diameters Ø ≥ 30 mm.*

Step 1



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Step 2


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Flexible cable locator	Diameter (mm)	Reference
Flexible cable locator	30	4950 **0011**
Flexible cable locator	50	4950 **0012**
Flexible cable locator	80	4950 **0013**
Flexible cable locator	120	4950 **0014**


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tore_040

Metal mounting bracket	Diameter (mm)	Reference
Metal mounting bracket	30	4950 **0001**
Metal mounting bracket	50	4950 **0002**
Metal mounting bracket	80	4950 **0003**
Metal mounting bracket	120	4950 **0003**
Metal mounting bracket	200	4950 **0004**
Metal mounting bracket	300	4950 **0005**


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Screw-in/out terminal block	Reference
Screw-in/out terminal block	4950 **0041**

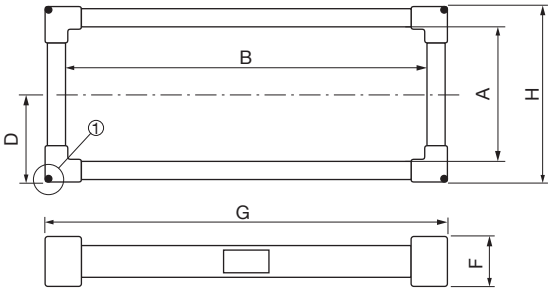

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Fault-locating core balance transformers

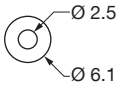
Connects to ISOM Digiware F-60 modules

Dimensions (mm)

TFR-series rectangular closed transformers



① Detail for fastening the core balance transformer

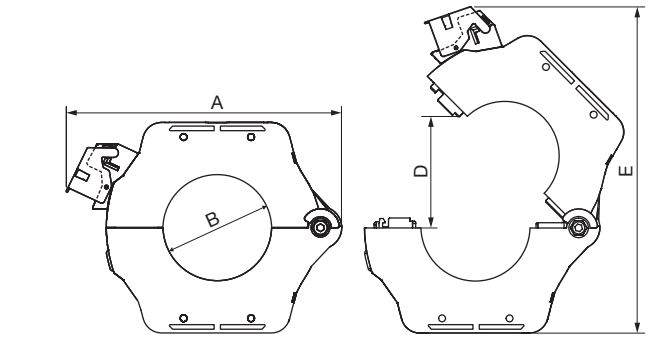


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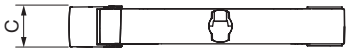
Type	A (mm)	B (mm)	D (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
TFR 200 x 500	200	500	140	62	585	285	7.2

A. Gateway width
B. Gateway length
D. Half-height
F. Depth
G. Width
H. Height

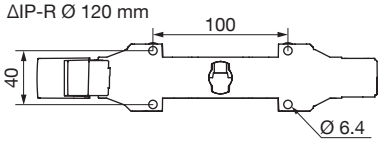
ΔIP-R series open core balance transformers



ΔIP-R Ø 50 mm / 80 mm



ΔIP-R Ø 120 mm



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Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)
ΔIP-R diameter 50	160	49	30	77	20	0.38
ΔIP-R diameter 80	204	79	30	108	260	0.85
ΔIP-R diameter 120	252	119	30	149	328	1.5

A. Width
B. Diameter
C. Depth
D. Aperture
E. Height when open

Characteristics

Electrical specifications	ΔIP	ΔIP-R
Insulation coordination	in accordance with IEC 60664-1	in accordance with IEC 60664-1
Max. operating voltage	720 VAC	720 VAC
Rated shock voltage	8 kV	8 kV
Rated withstand voltage	3 kV	3 kV
Degree of pollution	3	3
Number of turns	600	600
Primary rated current	10 A	10 A
Rated power	0.05 VA	0.05 VA
Max. accuracy class	3	3
Operating temperature	-40 to +80 °C	-40 to +80 °C
Flammability class	UL94V-0	UL94V-0

(1) W-B series: please contact us.

Electrical features for series WR and TFR	
Insulation coordination	in accordance with IEC 60664-1
Insulation voltage	690 VAC
Rated shock voltage	8 kV
Dielectric quality	6 kV
Degree of pollution	3
Number of turns	600
Primary rated current	10 A
Rated power	0.05 VA
Max. accuracy class	5
Operating temperature	-10 to +55 °C
Flammability class	UL94V-0

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References

ΔIP [1] series closed core balance transformers		
Type	**Diameter of the core balance transformer (mm)**	**Reference**
ΔIP diameter 15	15	4750 **6015**
ΔIP diameter 30	30	4750 **6030**
ΔIP diameter 50	50	4750 **6050**
ΔIP diameter 80	80	4750 **6080**
ΔIP diameter 120	120	4750 **6120**
ΔIP diameter 200	200	4750 **6200**
ΔIP diameter 300	300	4750 **6300**

WR and TFR-series rectangular closed transformers		
Type	**Core balance transformer opening (mm)**	**Reference**
WR 70 x 175	70 x 175	4795 **0717**
WR 115 x 305	115 x 305	4795 **1130**
WR 150 x 350	150 x 350	4795 **1535**
TFR 200 x 500	200 x 500	4795 **2050**

ΔIP-R [1] series open core balance transformers		
Type	**Diameter of the core balance transformer (mm)**	**Reference**
ΔIP-R diameter 50	50	4750 **6051**
ΔIP-R diameter 80	80	4750 **6081**
ΔIP-R diameter 120	120	4750 **6121**

(1) Core balance transformers ΔIP and ΔIP-R come with a sealable protective cover, a spring-loaded terminal block (except 15 mm with fixed terminal block and no cap), and a DIN rail attachment accessory for diameters less than 200 mm.