



Non-intercepting DC current measurement
with less than 3 microamps resolution

To measure:

- Battery leakage current
- Standby systems charging currents
- Return ground currents, DC and AC
- Sum of currents
- Small difference of high currents
- Low current at high voltage
- Power tube electrode currents
- Electrostatic corona discharge
- Electrochemically induced currents

Main features

The LP-IPCT is a DC Current Transformer

Inner aperture 30mm (1.18")

Full scale from ± 1 mA to ± 2 A factory preset

Accuracy independent of primary conductor position

Withstands 100kA 4/10 μ s discharges

100 times more precise than Hall effect sensors

Increased sensitivity with multiple primary turns

Two ± 10 V analog outputs available:

- *Full bandwidth output*
DC to 1 kHz (-3dB) response
- *Limited bandwidth output with reduced output noise*
DC to 200 Hz (-3dB) response

Operating principle

The LP-IPCT is based on the DCCT principle invented at CERN, the European Particle Physics Laboratory.

It mostly works on the Fluxgate principle, also known as second harmonic detector.

DISTRIBUTORS

U.S.A.: GMW Associates
www.gmw.com
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Japan: REPIC Corp.
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India: GEEBEE International
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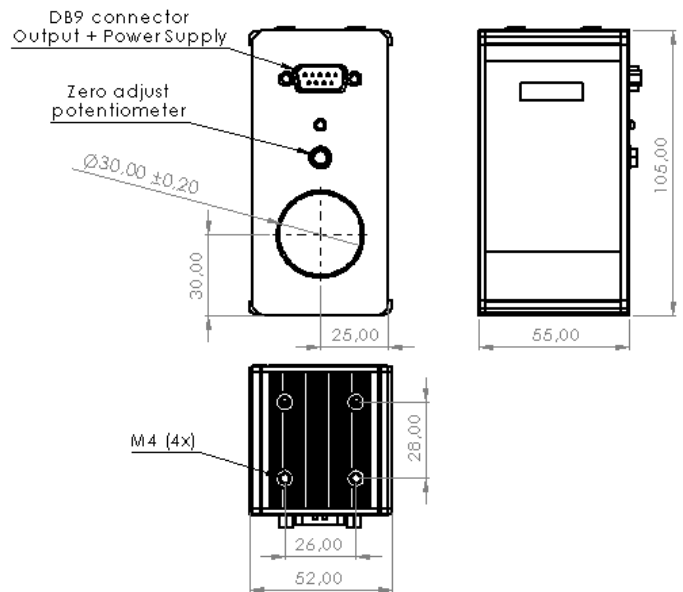
MANUFACTURER

BERGOZ Instrumentation
www.bergoz.com
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01630 Saint Genis Pouilly, France
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Specifications

Full scale range	Any value from ± 1 mA to ± 2 A, factory preset
Over range	120% full scale permanently
Saturation	>120% full scale
Damage level	DC: unlimited Discharge: > 100kA 4/10 μ s (option)
Voltage isolation	5kV current conductor to ground User may add additional insulation
Resolution	See "Resolution" table below
Linearity error	<0.1% FS
Absolute accuracy	$\pm 0.2\%$ FS
Ripple	7kHz and even harmonics See "Ripple" table below
Outputs	Full bandwidth / Limited bandwidth DC to 1kHz / DC to 200Hz See "Bandwidth" table below ± 10 V, buffered, 20 mA max stands permanent short circuit
Zero adjust	20-turn front-panel potentiometer
Power supply	+15V, 100mA
Connection	DB-9 male on front panel
Temperature drift	<5 μ A/K
Stabilization after overload	20ms max.
Magnetic field	50 μ A/Gauss typ. sensitivity
Mass	0.2 Kg

Dimensions



IPCT-PS-BNC (on option): Power supply & BNC output for IPCT



Resolution, bandwidth and ripple

Range	Resolution (1s integr.)	Full bandwidth output		Limited bandwidth output	
		Bandwidth (-3 dB)	Ripple (7kHz)	Bandwidth (-3 dB)	Ripple (7kHz)
+ - 1 mA	1 μ A	> 50 Hz	< 80 mV rms	> 50 Hz	< 80 mV rms
+ - 10 mA	2 μ A	> 500 Hz	< 50 mV rms	> 200 Hz	< 25 mV rms
+ - 100 mA	3 μ A	> 1 kHz	< 20 mV rms	> 200 Hz	< 5 mV rms
+ - 2 A	3 μ A	> 1 kHz	< 20 mV rms	> 200 Hz	< 5 mV rms

Order codes

LP-IPCT-XXXmA	Integrated Parametric Current Transformer. Factory-preset Any range XXXmA up to ± 20 A
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Options

LP-IPCT-0.01%	Linearity error < 0.01% Full Scale
LP-IPCT-CALCERT	IPCT initial certificate of Calibration with test report
LP-IPCT-PS-BNC	90-245Vac power supply & BNC output for IPCT

Connections

Function	Pin
Power supply -15V	4
Power supply +15V	9
Power supply ground	5
Full bandwidth output	2
Output ground	7
Limited bandwidth output	8

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