



DC Current Transformer Series



CT-150
Current or Voltage Output

Closed-loop current transformer technology allows accurate monitoring of DC and AC bipolar currents up to $\pm 150A$.

Galvanic isolation between primary and secondary conductor for simple current sensing at different potential.

Standard current output and voltage output ("V"-version) available.

Features

- Monitoring of DC and AC currents
- Excellent Linearity
- Closed-loop detection
- Galvanically isolated from primary
- Low Temperature Drift
- Current-output or Voltage-output versions
- Wide Bandwidth
- High Accuracy
- LED indicates correct operation
- DB-9 Connector or PCB-mount versions

Applications

- Power Supplies
- Sensing Element in Calibration Systems
- Biomedical Devices
- Nuclear Magnetic Resonance (NMR)

The O-FLUCS (O-FLUX Current Sensor) family is based on a closed loop technology that allows accurate and precise monitoring of DC and AC currents with high bandwidth.

The CT-150 transducers are rated at a maximum bipolar primary current of 150A with a transformation ratio of 1:1000.

Galvanic isolation between the primary and the secondary circuits allows to measure currents at a different potential and simplifies interfacing when using the O-FLUCS as the feedback element of current regulated power supplies.

Output from the CT-150 transducers can be chosen between two different versions: secondary current output or buffered voltage output (low temperature coefficient shunt resistor and low-noise amplifier are embedded in the device).

Also connection type can be chosen

between the "C" option – a male DB-9 Connector – and the "P" option – 6-pin through-hole for PCB mounting.

Main characteristics of the O-FLUCS current transformers are negligible temperature coefficient on the secondary output current, excellent linearity and extremely low noise.

DC current transformers represents the ideal replacement for systems where Hall-effect sensors are used as current sensing elements and better performances are needed.

All CT-150 devices also have different mounting holes in order to be easily installed in different configurations. Both self-threading screws and normal ones can be used.

Main application fields for these current transducers are precise and extremely stable regulated power supplies and power inverters.

About CAENels

CAENels is a dynamic company that provides power supplies and state-of-the-art dedicated electronic systems to the particle accelerator community – e.g. synchrotron light sources and Free Electron Laser (FEL) facilities.

- Magnet Power Supply Systems
- Beamline Electronic Instrumentation
- Precision Current Transducers
- High-Voltage Dedicated Systems

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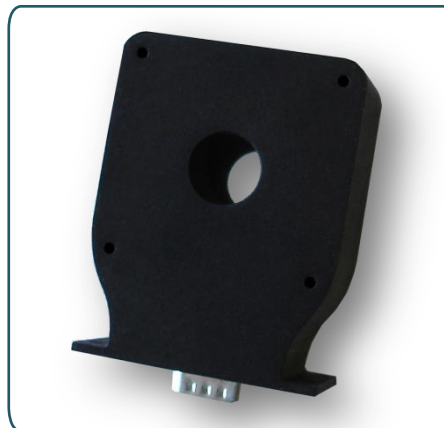
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Due to the excellent characteristics, the CT-150 transducers can be used in a variety of calibration, acceptance testing and quality control applications in industrial, power generation and automotive fields.

Commercially available versions of The CT-150 current transformers are the current-output CT-150-C and CT-150-P with their respective voltage-output versions CT-150V-C and CT-150V-P.

Technical Specifications

	CT-150
Current Transform Ratio - N	1:1000
Maximum DC Primary Current - $I_{P(DC)}$	±150 A
Maximum RMS Primary Current - $I_{P(RMS)}$	106 A
Current Polarity	Bipolar
Maximum DC Secondary Current - $I_{S(DC)}$	±150 mA
Maximum RMS Secondary Current - $I_{S(RMS)}$	106 mA
Small Signal Bandwidth (±1 dB) - BW	> 100 kHz
Noise (DC-10 kHz) – typ.	5 ppm (RMS)
Output Voltage ("V"-version) - V_{OUT}	±10 V
Output Voltage Ratio ("V" version) - $V_{OUT}/I_{P(DC)}$	(1/15) V/A
Maximum Output Current – "V"-version	±15 mA
Temperature Coefficient – TC (typ.)	< 0.5 ppm/K < 2 ppm/K ("V"-version)
Induction into Primary (typ.)	35 µV (RMS)
Protection Signal	Yes - Primary Over-Current
Supply Voltage (± 6%)	±15 V
Connections	DB-9 Connector ("C") or 6-pin type ("P")
Mechanical (Outer) Dimensions	45 × 57 × 75 mm
Primary Conductor Hole Diameter – Ø	16 mm
Maximum Weight	400 g



O-FLUCS – CT-150 Rear View

Ordering Options

WCT150CXAAAA	CT-150-C	150 A Primary Current O-FLUCS , DB-9 connector
WCT150PXAAAA	CT-150-P	150 A Primary Current O-FLUCS , 6-pin type connections
WCT150VCXAAA	CT-150V-C	150 A Primary Current O-FLUCS , DB-9 connector, Voltage-Output
WCT150VPXAAA	CT-150V-P	150 A Primary Current O-FLUCS , 6-pin type connections, Voltage-Output