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Current Transducer Delivers PPM-Class Precision For DC And AC Measurements

[Danisense's](#) high-precision DP12IP series current transducer is designed for isolated dc and ac current measurement in demanding PCB-mounted power electronics applications. Based on Danisense's closed-loop compensated fluxgate technology, the DP12IP series combines ppm-class accuracy with a maximum linearity error of just 10 ppm and exceptional long-term stability in a compact PCB-mount package featuring a form factor of only 32 mm and weighing only 250 g (see the figure).

The small size allows for integration into 1U power supplies and other space-constrained equipment. The transducer supports current measurement up to 18 A and accommodates measurement resistors up to 100 Ω at full scale. It uses fixed excitation frequency and second harmonic zero-flux detection to deliver highly stable and precise current measurement performance.

Typical applications include magnet power supplies for particle accelerators, stable precision power supplies, precision servo drives for motion control, battery test benches, battery emulators, and power measurement and power analysis systems.

"The DP12IP current transducer addresses the increasing demand for highly stable and accurate current measurement in next-generation power conversion and control systems," says Loic Moreau, sales and marketing director at Danisense. "Its combination of fluxgate precision, compact size, high precision and PCB-mount integration makes it ideal for designers working on high-performance power electronics platforms."

For more information about the current transducer, see the DP12IP [page](#).



Figure. With its 32-mm high, 250-g PCB-mount package, the DP12IP series current transducer features a maximum linearity error of just 10 ppm and supports current measurement up to 18 A.