

## Press Information

October 2004

### LEM introduces low-cost current transducers operating from single +5 V supply

**Key points:**

- Open-loop technology combined with ASIC
- Unipolar supply voltage
- Access to the internal voltage reference

LEM has introduced the HAIS series of low-cost, PCB-mounted current transducers, designed to operate from a single +5V power supply. The new transducers are available with rms ratings of 50A/100A/150A/200A/400A, with a measuring span of up to  $\pm 3 \times I_{PN}$ . The aperture accepts bus bars as large as 8x15mm, in a very compact design measuring only 33x29x14mm.

The heart of the HAIS series is a LEM ASIC that offers a number of performance improvements, in particular a more extended operating temperature range (-40 to +85°C) compared to traditional discrete technology.

With the standard HAIS, the internal reference voltage of the ASIC is used to provide a fixed output offset of +2.5V. This voltage reference is also made available on an extra pin to enable it to be fed to the reference of an A/D converter or a DSP for example. The user can also apply the system's voltage reference (between 2 and 2.8V) to the extra pin (Ref), to produce an output offset that is equal to the external reference. This mode can be used to cancel the Reference thermal drift.

An optional bus bar (HAIS xx-TP models) is available for nominal ratings of 50A and 100A.

The transducers are CE marked, conform to the EN 50178 standard and are recognised for industrial applications.

LEM Components offers a five-year warranty for each transducer.

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## LEM

LEM is a Swiss company serving markets connected with the transformation and use of electricity, particularly in the field of power electronics. It designs, develops and manufactures high-performance solutions, ranging from active components to the most complex measuring systems.

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Figure: HAIS low cost current transducers for measurements from 50 to 400 A