

PCIM 2014 HALL 9-204

May 2014

LEM extends the measurement range up to 250A for HO series high performance current transducers

Key points:

- **Open-loop Hall-effect ASIC-based current transducers measure up to 250A DC, AC or pulsed**
- **Over-current detection and fault reporting**
- **Wide operating temperature range from -40 to +105°C**
- **PCB-mount & panel-mount options with aperture or integrated primary conductor**

LEM announces the addition of three new HO series of high performance current transducers which extend nominal current measurement up to 250A and offer a range of mounting options.

The recent launch of the first devices in the HO series enabled a breakthrough in the trade-off between performance, cost, size and mounting versatility. These three new HO series provide the mounting the user needs: PCB or panel or busbar, integrating the conductor or with an aperture (15 x 8 mm), a range of choices. The mounting options provide customers with the flexibility of up to three interchangeable mounts for the HO xxx-S panel mounted current transducers: one vertically, one horizontally and one on the busbar when used. The mount can be changed by the user for additional versatility.

HO series current transducers measure DC, AC, and pulsed signals using the latest generation of LEM's Open-loop Hall-effect Application Specific Integrated Circuit (ASIC) which was introduced with the launch of the HO 8, 15, 25-NP and -NSM series and the HO 6, 10 and 25-P models.

The new series offer offset and gain drifts which are up to twice as accurate across the temperature range as the previous generation and have a faster response time of 2.5 to 3.5µs.

Operating from a single supply voltage of 3.3V or 5V, the HO series can measure up to x 2.5 the primary nominal current and integrate an additional pin which provides over-current detection set at x 2.93 the nominal current I_{PN} (peak value). They also provide fault reporting in the event of memory corruption.



LEM's ASIC technology enables Open Loop transducer performance to approach that of Closed Loop transducers to improve control and system efficiency at a significantly lower price.

High clearance and creepage distances of more than 8mm and a Comparative Tracking Index (CTI) of 600 mean that, despite small packages of 22.95cm³ to 33.15cm³, there is no compromise on the insulation level provided between the primary and measurement circuits.

Typically, the standard scaled analogue voltage from the HO output is converted into a digital value by an Analogue-to-Digital Converter (ADC) which requires a reference voltage provided by the HO. However, the HO series can also be configured to take measurements relative to an external reference voltage.

The comprehensive range of options offered by HO transducers makes them suitable for a wide selection of applications where high performance and mounting flexibility are required. These applications include solar combiner boxes and solar-power inverters, as well as small smart meters, variable speed drives, uninterruptible and switch-mode power supplies, air conditioning, home appliances, static converters for DC motor drives, and robotics. The wide operating temperature range of -40 to +105°C also makes the HO series suitable for use in any industrial applications.

HO series current transducers are CE marked and conform to the EN 50178 standard as well as being covered by LEM's five-year warranty.

LEM – At the heart of power electronics

LEM is the market leader in providing innovative and high quality solutions for measuring electrical parameters. Its core products - current and voltage transducers - are used in a broad range of applications in drives & welding, renewable energies & power supplies, traction, high precision, conventional and green cars businesses. LEM's strategy is to exploit the intrinsic strengths of its core business, and to develop opportunities in existing and new markets with new applications. LEM is a mid-size, global company. It has production plants in Beijing (China), Geneva (Switzerland), Machida (Japan) and Sofia (Bulgaria). With its regional sales offices close to its clients' locations, the company offers a seamless service around the globe. LEM is listed on the SIX Swiss Exchange since 1986; the company's ticker symbol is LEHN

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