

## **LEM's new HO 6, 10 and 25-P current transducers offer more flexible mounting in small packaging**

**Key points:**

- **Open-loop Hall-effect ASIC based devices measuring up to 25A DC, AC or pulsed**
- **Over-current detection, fault reporting functions**
- **Operate over -40 to +105°C**
- **PCB-mount design with aperture for the primary conductor**

LEM has added three new members to its HO series of PCB-through-hole mounting current transducers, which provide an aperture of 8 x 8 mm to carry the primary conductor under measurement, extending the options for this form-factor. The new models, for 6, 10 or 25 A nominal measurements of DC, AC, and pulsed signals benefit from the revised LEM Open-loop Hall-effect ASIC (Application Specific Integrated Circuit) introduced several months ago with the launch of the HO 8, 15 and 25-NP & –NSM models.

Using the latest LEM-developed ASIC, combined with Open-loop Hall-effect technology, the new devices meet the demand for high performance and quality at a lower cost.

The HO 6, 10 and 25-P models' offset and gain drift are twice as accurate (over the temperature range -25 to +85°C) as the previous generation. A high level of insulation between primary and measurement circuits, due to the high clearance and creepage distances of more than 8mm and a CTI (comparative tracking index) of 600, allows a test isolation voltage of 4.3 kV<sub>RMS</sub>/50Hz/1min.

In addition, the HO xx-P series delivers better performance in other areas such as response time, power supply and noise, allowing the development of more technically advanced power electronics applications.

The transducers require a PCB mounting area of only 2.88cm<sup>2</sup> and weigh only 10g. They can measure up to 2.5 times the primary nominal current but also incorporate an additional pin providing an over-current detection set at 2.63 x the nominal current  $I_{PN}$  (peak value). The products also provide fault reporting in the case of memory contents being corrupted. LEM's HO xx-P transducers operate from a single supply voltage at 3.3 or 5V.

The new range delivers its output as a scaled analogue voltage; in most systems this will be converted to a digital value by an analogue/digital converter (ADC) which requires a reference voltage. The HO xx-P series can also be configured to make measurements relative to an external reference.



LEM's HO xx-P models are ideal for a range of applications where mounting flexibility offered by the aperture and a small size is needed, such as in 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 transducers are CE marked, conform to the EN 50178 standard and are recognised for industrial applications with a wide operating temperature range of -40 to +105°C. LEM offers a five-year warranty for each transducer.

**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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