

# **NEWS RELEASE**

PR0707E

# **ALPS Develops Highly Reliable Magnetic Sensor Switching Output Type**

Wide Area and High Reliability Magnetic Field Detection Increases Design Flexibility

Duesseldorf, Germany, March 16, 2007 – ALPS ELECTRIC EUROPA GmbH has completed development of the HGD Series of Highly Reliable Switching Output Type Magnetic Sensors, which detect the opening and closing of the covers of mobile telephones and notebook PCs and other devices.

The mechanism for detecting the opening and closing of mobile telephones or notebook PCs, or the doors or lids of refrigerators or washing machines, can be broadly divided into the switch detection method and the magnetic sensor detection method.

Recently, most mobile telephones are of the folding type, with an increasing trend toward more compact and thin models. In addition, more complex construction designs such as swiveling liquid crystal display screens are being made continuously in an effort to accommodate a diversity of potential applications. The shape and construction of mobile telephones calls for parts that are not just small and compact, but that cater to a high degree of engineering flexibility.

This product uses a magnetic sensor with Highly Reliable Magnetic Elements, which can detect the opening and closing of folding mechanisms as well as doors and lids. These Highly Reliable Magnetic Elements can sense over a wider area and with higher reliability compared to other magnetic elements. By association the field of magnetic sensors is also extended contributing to engineering flexibility in product design.

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In addition, magnetic field sensing is available in three variations: 1) One-way only magnetic field sensing (Single Polarity /Single Output); 2) Two-way magnetic field sensing in either direction, output through one signal type (Dual Polarity /Single Output); 3) bi-polar magnetic field sensing in either direction, each with its own output signal (Dual Polarity/Dual Output). The HGD Series comes in two types: the industry's smallest Mold Allay Package (MAP) type, on which terminals are positioned on the reverse of the component, and; the Small Outline Nonleaded (SON) type, on which terminals extend from the side of the component to realize easier mounting. The versatility provided by these two types can better accommodate a variety of product functions and designs.

Furthermore, our Highly Reliable Magnetic Elements maintain high signal output in comparison with other magnetic elements. As a result, the HGD Series-mounted signal processing circuit can be restricted to an absolute minimum, contributing to reduced current consumption and the effective use of space.

## **Features**

Highly Reliability Magnetic Sensor switching output type HGD series provides a variety of sizes and functions. Features include:

- Highly reliable sensing across wide area magnetic fields.
- Greater engineering flexibility in product design through a diversity of outputs, packages and sensitivities.
- Achieves the industry's highest standard in low current consumption.

## **Principal Applications**

Detecting opening and closing in the folding mechanisms of mobile telephones and notebook PCs., doors and lids of refrigerators, washing machines and other goods.

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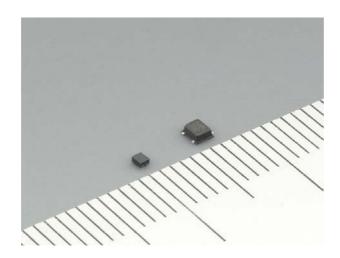


## **Specifications**

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Product name	HGD series					
Specifications	MAP type			SON type		
Dimensions (W x D x H)	1.1mm x 0.9mm x 0.55mm			2.1mm x 2.1mm x 0.75mm		
Functions	Single Polarity / Single Output	Dual Polarity / Single Output	Dual Polarity / Dual Output	Single Polarity / Single Output	Dual Polarity / Single Output	Dual Polarity / Dual Output
Sensitivity	Hon2.0mT *			Hon2.0mT <sup>*</sup>		
	Hon3.0mT <sup>*</sup>			Hon3.0mT <sup>*</sup>		
Supply voltage	2.4 — 5.5V					
Average current consumption	2.0μΑ					

<sup>\*</sup>Hon = Operating magnetic field

This news release and a press photo are available electronically at <a href="http://www.presseagentur.com/alps/en/">http://www.presseagentur.com/alps/en/</a>



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<sup>\*</sup>T= Tesla



### ALPS Electric Co., Ltd.

Since its establishment in 1948 ALPS has grown as a comprehensive manufacturer of electronic components. At present ALPS is creating innovative high-value-added products in its main business segments — Components, Magnetic Devices, Communications, Peripheral Products, and Automotive Electronics — which are contributing to the advance of a digital society. ALPS is a global company that carries out its operations with 22 production bases in 9 countries as well as 57 sales bases in 14 countries. Consolidated net sales in the year ended March 31, 2005 amounted to YEN 644 billion.

**ALPS ELECTRIC EUROPA GmbH**, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 1989, the European Head Office has been located in Düsseldorf, where a team of specialists works in Sales, Marketing, and Product Engineering. The activities of our branch offices in Munich, Paris and Milton Keynes, our sales office in Milan and our European distribution work are co-ordinated from Düsseldorf. ALPS Nordic AB, a 100 percent subsidiary of ALPS ELECTRIC EUROPA GmbH, is based in Sweden and services the Scandinavian market.

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