NEWS RELEASE

PR0514E

ALPS Develops and Commences Mass Production of “HSHCAL Series” Capacitive Digital Humidity Sensor

The World’s Smallest Mounting Area

Munich, Germany, April 28, 2014 – ALPS ELECTRIC EUROPE GmbH has developed the “HSHCAL Series” Digital Humidity Sensor, ideal for embedding in smartphones and other mobile devices. Mass production commenced in April 2014.

Today’s mobile devices and home appliances contain a large number of sensors. Used, for example, to detect the status of doors and lids, as well as environmental characteristics such as direction, illumination, air pressure and humidity, sensors enhance device functionality and performance and create comfortable and convenient operating environments for users.

Given that a wide range of sensing data has to be processed by ICs within the end device, manufacturers are looking for sensors that provide digital output. Components that are to be integrated into the devices must also make efficient use of space to support ongoing size reductions and greater multifunctionality.

Recognizing these market needs, ALPS has developed the HSHCAL Series capacitive digital humidity sensor, which delivers digital output and has the world’s smallest mounting area. Mass production is already underway.

The world’s smallest mounting area of 2.0mm × 2.0mm was realized by applying ALPS original IC design technology to reduce the size of the IC embedded in the sensor. And as with the existing analog HSHCA Series product, the HSHCAL Series employs proprietary sensing film for the sensor part, drawing on experi-

ence and achievements so far in the MEMS sensor market. This ensures excellent linearity over a broad relative humidity range (0 to 100%) and superior sensing precision.

In addition, an original sensor configuration enables temperature compensation within the sensor device. This helps to reduce the customer's design workload as compensation by the main unit is not required.

Features

Capacitive digital humidity sensor with the world's smallest mounting area

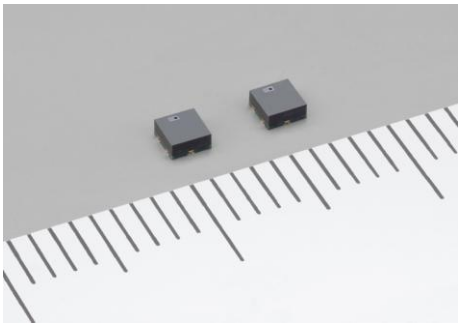
- The world's smallest mounting area
- Employs capacitive sensing, enabling measurement in 0 to 100% RH
- Built-in temperature output function enables temperature compensation within the sensor device

Principal Applications

- Smartphones, other mobile devices and wearable electronics
- Air-conditioning systems, air purifiers, refrigerators and other home appliances
- Printers, digital cameras and other electronic equipment

Specifications

Model	HSHCAL Series
Dimensions (W × D × H)	2.0 × 2.0 × 1.0mm
Output	Digital
Operating temperature range	-20 to +85°C
Operating humidity range	0 – 100% RH
Supply voltage	1.71 – 1.89V
Humidity sensitivity	64LSB/% RH
Temperature sensitivity	50LSB/°C
Accuracy	±1.5% RH (@ 25°C/50% RH)



For more information on the new the product please visit
http://www.alps.com/products/e/npv_product/140425_HSHCAL/HSHCAL_E.PDF

ALPS Electric Co., Ltd.
ALPS Electric (Tokyo: 6770) is a leading global manufacturer of high-quality electronic components for mobile devices, home electronics, vehicles and industrial equipment. With the philosophy of “Perfecting the Art of Electronics” ALPS Electric supplies over 40,000 different components to about 2,000 companies all over the world. For more information, visit www.alps.com.

ALPS ELECTRIC EUROPE GmbH, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 2013 the European Head Office has been located in Munich and as such co-ordinates the Sales, Marketing and Product Engineering activities of our branch offices in Munich, Düsseldorf, Paris, Milton Keynes, Gothenburg as well as our sales office in Milan.

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