

Compact Geomagnetic Sensor with Wide Dynamic Range



HSCD Series

The industry's widest measurement range and world's smallest size* with an LGA package (1.6 × 1.6 × 0.7mm)



Features

- Dynamic range of $\pm 2.4\text{mT}$ achieved for each axis
- Achieves both low current consumption (1/3 compared to earlier models) and high S/N

Applications

- Navigation functions in small, mobile terminals such as smartphones
- Motion detection such as for game consoles
- Detection of location information using compact equipment like wristwatches or digital cameras

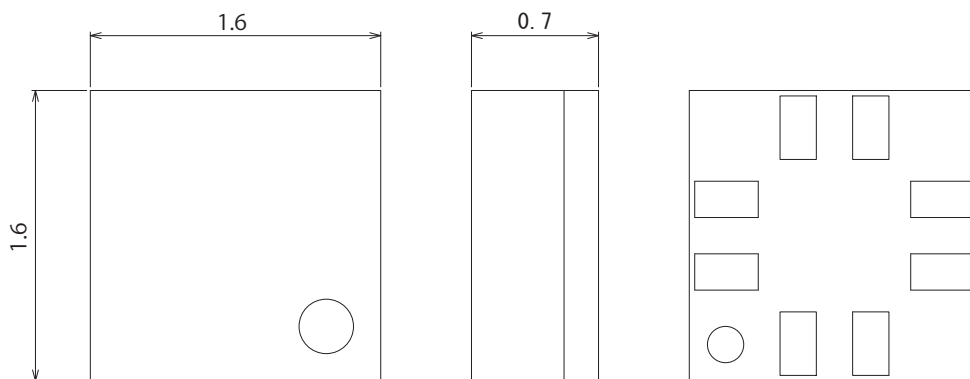
*According to Alps Electric as of February 2013

Typical Specifications

| | |
|-----------------------------|---|
| Dimensions (W × D × H) | 1.6 x 1.6 x 0.7mm |
| Measurement range | $\pm 2.4\text{mT}$ |
| Output resolution | $0.15 \mu\text{T} / \text{LSB}$ |
| Operating temperature | $-40 \sim +85^\circ\text{C}$ |
| Analog supply voltage | $1.8 \sim 3.6\text{V}$ |
| Digital supply voltage | $1.65 \sim \text{AVDD}$ |
| Average current consumption | $60 \mu\text{A typ. (active)} / 3 \mu\text{A typ. (standby)}$ |
| Interface | I ² C slave interface (Standard mode / Fast mode / Fast mode plus / HS mode) |

Dimensions

Unit: mm



Precautions when handling our products

1. For the export of products which are controlled items subject to foreign and domestic export laws and regulations, you must obtain approval and/or follow the formalities of such laws and regulations.
2. Products must not be used for military and/or antisocial purposes such as terrorism, and shall not be supplied to any party intending to use the products for such purposes.
3. Unless provided for otherwise, the products have been designed and manufactured for application in equipment and devices which are sold to end users in the market, including audio-visual (AV) equipment, electrical home appliances, office machines, information and communication equipment, and amusement equipment. The products are not intended for use in, and must not be used for, any application for nuclear equipment, driving equipment for aerospace or any other unauthorized use. With the exception of the abovementioned prohibited applications, please contact an Alps sales representative and/or evaluate the total system regarding applicability for applications involving high levels of safety and liability such as medical equipment, burglar alarm equipment, disaster prevention equipment and undersea equipment. Please also incorporate fail-safe design, protection and redundant circuitry, malfunction protection, and/or fire protection into the complete system to ensure safety and reliability of the total system.
4. Before using products which were not specifically designed for use in automotive applications, please contact an Alps sales representative.

Inquiries about this product

Product Information Center
+81 (3) 5499-8154
Product Information URL
<http://www.alps.com/products/e/>

ALPS ELECTRIC CO., LTD.
1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo, 145-8501, Japan

Cautions for using this catalog

1. The specifications herein are an overview of the specifications. Obtain official specifications before use.
2. The colors of the products in the catalog may slightly differ from those of the actual products.
3. The external appearance, functions and other specifications herein may be changed for improvement and other reasons without prior notice. Furthermore, the products herein may be discontinued without prior notice.
4. SENSORING is a trademark of ALPS ELECTRIC CO., LTD. in Japan.
5. All product names, company names and names of standards described in this catalog are trademarks or registered trademarks of their respective owners.
6. The contents of this catalog are according to Alps Electric as of February 2013.
7. This catalog is valid until the end of December 31, 2013.