

Magnetic Sensor Switching Output Type (Connector Connection Model)

HGDFPA Series



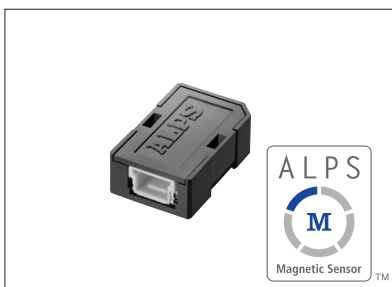
Compact and high precision. More flexible mounting and easy connection by built-in connector.

Magnetic Sensors

Piezo Sensors

Resistive Sensors

Resistive Sensors



Minimum order unit (pcs.): 1,000 pcs.

Typical Specifications

Items	Specifications		
	HGDFPA002A	HGDFPA003A	HGDFPA004A
Drive voltage	Typ. 5V (4.5V min. to 5.5V max.)		Typ. 12V (10.8V min. to 13.2V max.)
Supply current	Typ. 1.7mA		Typ. 5.3mA
Output saturation voltage	max. 0.4V (Output sink current =10mA)		
Output leakage current	max. 1 μ A (sensor OUT "HI")		
Reference detection distance (L)(mm) Magnet20×20×10mm/ Surface magnetic flux430mT	Vertical installation : 80 to 98 Horizontal installation : 60 to 78	Vertical installation : 115 to 175 Horizontal installation : 70 to 95	Vertical installation : 80 to 98 Horizontal installation : 60 to 78
Connector	501568-0307 (MOLEX JAPAN CO.,LTD. HOUSING 501330-0300)		
Output type	Open-collect type		
Operating temperature range	-20°C to +60°C		

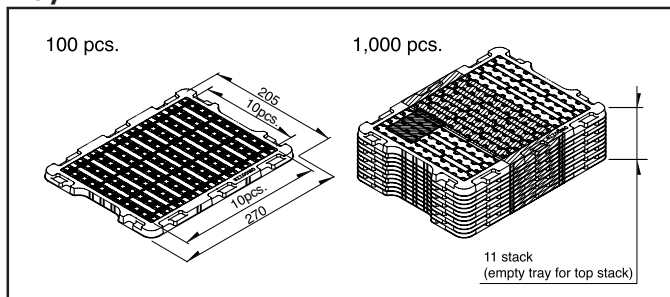
Note

※ Also compatible with high voltage drive. Please contact us for details.

Packing Specifications

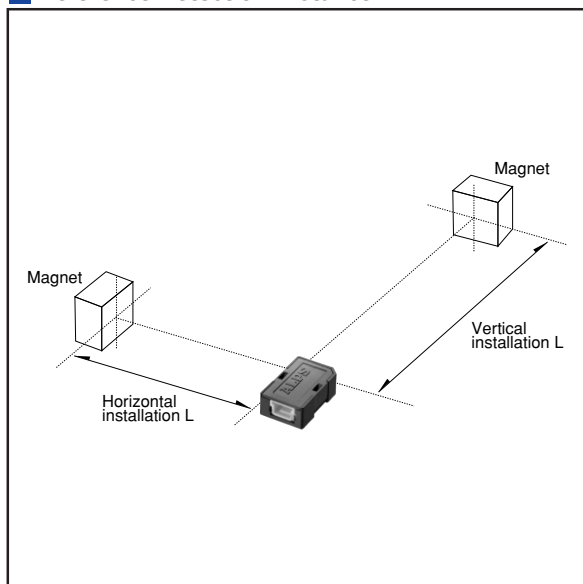
Tray

Unit:mm



Number of packages (pcs.)			Export package measurements (mm)
1 tray	1 case /Japan	1 case /export packing	
100	1,000	2,000	444 × 294 × 98

Reference Detection Distance

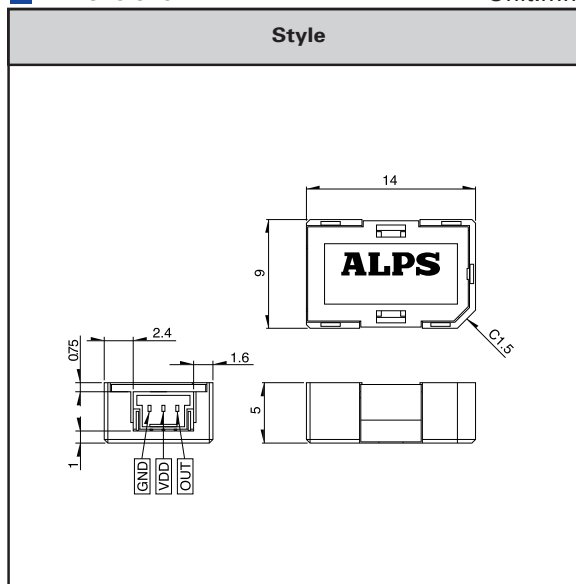


Note

Please place purchase orders per minimum order unit N (integer).

Dimensions

Unit:mm



Index for Functions

Style	Series	Photo	Type	Package / Size		Function	Drive voltage	Operating magnetic field	Automotive use	Page						
Magnetic	HGDE□		Switching output (Detection switch)	MAP	1.3×0.9×0.55mm	Single polarity / Single output	Typ. 1.8V	Hon 2.0mT	—	499						
						Dual polarity / Single output										
				SON	2.1×2.1×0.75mm	Single polarity / Single output										
						Dual polarity / Single output										
				SOT23	2.9×2.8×1.1mm	Single polarity / Single output										
						Dual polarity / Single output										
	HGDF□		Switching output (Detection switch)	SON	2.1×2.1×0.75mm	Single polarity / Single output	Typ. 5V	—	—	—						
						Dual polarity / Single output										
				SOT23	2.9×2.8×1.1mm	Single polarity / Single output										
						Dual polarity / Single output										
HGDFPA□		Switching output (Connector Connection Model)	14×9×5mm	14.15×13.2×5mm	Dual polarity / Single Output (open collector output)	Typ. 5V Typ. 12V	—	—	501							
					Dual polarity / Single output	Typ. 5V				Hon 0.6mT	502					
HGPP□		Latch output type (direction of rotation)	MAP	1.3×0.9×0.55mm	1-phase alternating output Sampling period 1.3msec	Typ. 1.8V	Hon 1mT/ Hoff -1mT	●	—	503						
					SOT23						2.9×2.8×1.1mm	1-phase alternating output Sampling period 35μsec	Typ. 5V			
			HGPD□		Incremental encoding output (direction of rotation/rotation direction)	MAP					2×1×0.55mm	2-phase alternating output Sampling period 1.3msec	Typ. 1.8V	—	—	504
												SOT23				
HGAR□		Linear analog output (Rotation detection)	2×1.5×0.65mm	Output: Typ. ±75mV (rotation angle ±30°)	1.5 to 5.5V	—	—	—	505							
Geomagnetic	HSCD□		Geomagnetic detection	2.5×2.5×0.7mm	Output resolution 0.3 μT / LSB	Ana: 2.4 to 3.6V Digi: 1.7 to 2.3V	±0.6mT	—	—	506						

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Note

●marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.