

Magnetic Sensor Analog Linear Output Type

HGAR□ Series



This high output analog output sensor is suited for high resolution detection of absolute angle and position.



Magnetic Sensors

Piezo Sensors

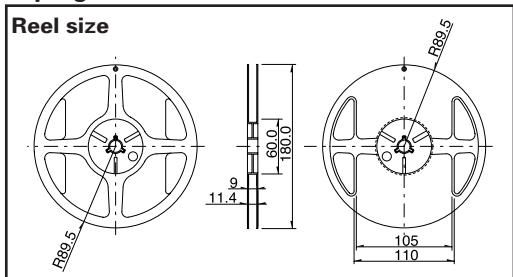
Resistive Sensors

Typical Specifications

Items	Specifications
	HGARAM001A
Supply voltage	1.5 to 5.5V
Output voltage	Typ. $\pm 75\text{mV}$ (3V applied voltage, rotation angle $\pm 30^\circ$)
Average current consumption	0.3mA (3V applied voltage, Duty100%)
Operating temperature range	-40°C to $+85^\circ\text{C}$

Packing Specifications

Taping



Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case /Japan	1 case /export packing		
3,000	3,000	45,000	8	210×210×230

Dimensions




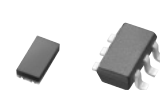


Unit:mm

Style



Automotive Use

Index for Functions

Style	Series	Photo	Type	Package / Size	Function	Drive voltage	Operating magnetic field	Page	
Magnetic	HGDE□		Switching output (Detection switch)	MAP	1.3×0.9×0.55mm	Single Polarity / Single Output	Typ. 1.8V	Hon 2.0/3.0mT	507
						Dual Polarity / Single Output			
						Dual Polarity / Dual Output			
				SON	2.1×2.1×0.75mm	Single Polarity / Single Output			
						Dual Polarity / Single Output			
						Dual Polarity / Dual Output			
	SOT23	2.9×2.8×1.1mm	Single Polarity / Single Output						
			Dual Polarity / Single Output						
	HGDF□	SON	2.1×2.1×0.75mm	Single Polarity / Single Output	Typ. 5V	—	509		
				Dual Polarity / Single Output					
		Dual Polarity / Dual 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	Dual Polarity / Single Output (open collector output)	—	509			
HGP□P	MAP		Latch output type (direction of rotation)	1.3×0.9×0.55mm	1-phase alternating output Sampling period 1.3msec	Typ. 1.8V	Hon 1mT/ Hoff -1mT	510	
									1-phase alternating output Sampling period 35μsec
			1-phase alternating output Sampling period 35μsec						
	SOT23	2.9×2.8×1.1mm			1-phase alternating output Sampling period 35μsec				
			1-phase alternating output Sampling period 35μsec						
HGP□D	MAP		Incremental encoding output (direction of rotation/rotation direction)	2×1×0.55mm	2-phase alternating output Sampling period 1.3msec	Typ. 1.8V	511		
								2-phase alternating output Sampling period 35μsec	
			2-phase alternating output Sampling period 35μsec						
	SOT23	2.9×2.8×1.1mm			2-phase alternating output Sampling period 35μsec				
			2-phase alternating output Sampling period 35μsec						
HGAR□		Linear analog output (Rotation detection)	2×1.5×0.65mm	Output: Typ. ±75mV (rotation angle ±30°)	1.5 ~ 5.5V	—	512		
Geomagnetic	HSCD□		Geomagnetic detection	2.5×2.5×0.7mm	Output resolution 0.5 μT/LSB	Ana: 2.4 ~ 3.6V Digi: 1.7 ~ 2.3V	±0.6mT	513	

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