Magnet for TMR Angle Sensor Use

The optimal magnet for TMR angle sensors

Magnetic field distributions that reduce angular errors can be made by combining it with our TMR angle sensors due to the adoption of an isotropic bonded NdFeB magnet

Features	 Magnetization to minimize the error of angle High robustness against the setting area between magnet and TMR angle sensor High reliability 		
Applications	For EPS angle sensor		
	For control system of wiper motor		
	For other automotive angle sensor		
Characteristics			
 Positional relationship between magnets and sensors 	 The distance between magnets and TMR angle sensors, and the relationship between the magnetic flux density and radius that can attain an angular error of 0.1 degrees or below 		
	CM9BI Measured value usir	ng a dual-form magnet with a $\Phi13x$ thickness	
TMR Angle Sensor	2.0	45	
	ي € 1.8	• R: Radius (mm) with an angular error of 0.1 degrees	
Q Z		or below ▲ Magnetic flux	
Z Z V		density (mT) - 30	
X	1.6 1.6 1.4 1.2 1.0 0.8 0.8	- 30 tig	
SN	E 0.8		
	R: Radius (mm) with an angular 1.4 1.6 1.4 1.6 0.8 0.6 0.4 0.7 0.7 0.7 0.6 0.4 0.7 0.7 0.7 0.6 0.4 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	- 20 Xi - 15 - 10 - 10 - 10 - 5	
		- 10 5	
R	2 0.2	5 ∑	
· · · · ·	0.0	0	
	0.0	2.0 4.0 Gap(mm)	

Magnetic characteristics

		CM9BI	CM6PI
Magnetic powder		Isotropy NdFeB	Isotropy NdFeB
Resin		PA12	PPS
Residual magnetic flux density Br	mT	615	525
Retention force Hcb	kA/m	410	358
Retention force Hcj	kA/m	748	891
Maximum energy produ BH max	^{ıct} kJ/m³	63	47

The CM9BI is recommended for general applications.

The CM6PI is recommended when the ambient temperature is expected to be 150°C or above.

