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

The CM9BI is recommended for general applications. The CM6PI is recommended when the ambient temperature is expected to be 150℃ or above.

### Magnetic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>CM9BI</th>
<th>CM6PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic powder</td>
<td>Isotropy NdFeB</td>
<td>Isotropy NdFeB</td>
</tr>
<tr>
<td>Resin</td>
<td>PA12</td>
<td>PPS</td>
</tr>
<tr>
<td>Residual magnetic flux density Br</td>
<td>mT</td>
<td>615</td>
</tr>
<tr>
<td>Retention force Hcb</td>
<td>kA/m</td>
<td>410</td>
</tr>
<tr>
<td>Retention force Hcj</td>
<td>kA/m</td>
<td>748</td>
</tr>
<tr>
<td>Maximum energy product BH max</td>
<td>kJ/m³</td>
<td>63</td>
</tr>
</tbody>
</table>

CM9BI Measured value using a dual-form magnet with a Φ13x thickness

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