

# Specifications

|                     |                                 |           |                 |                     |             |                     |
|---------------------|---------------------------------|-----------|-----------------|---------------------|-------------|---------------------|
| Product Name        | Neodymium $\Phi$ 7mmx2.5mm      |           |                 |                     |             |                     |
| Product Code        | ND0425                          |           |                 |                     |             |                     |
| Content             | Name                            | Symbol    | SI              |                     | CGS         |                     |
| Shape               | Diameter                        | D         | 7               | mm                  | 0.7         | cm                  |
|                     | Height                          | H         | 2.5             | mm                  | 0.25        | cm                  |
|                     | Dimensional tolerance<br>+/-    | D         | 0.1             | mm                  | 0.01        | cm                  |
|                     |                                 | H         | 0.1             | mm                  | 0.01        | cm                  |
|                     | Magnetization direction         | M         | Axial direction |                     |             |                     |
| Surface treatment   | NiCuNi                          | 12        | $\mu$ m         | -                   |             |                     |
| Magnetic Properties | Surface flux density            | B         | 304.9           | mT                  | 3049        | G                   |
|                     | Attractive and Adsorptive Force | F         | 0.737           | kgf                 | 737         | gf                  |
|                     | Operating Point Flux Density    | Bd        | 563             | mT                  | 5630        | G                   |
|                     | Total Flux                      | $\phi$ o  | 0.00002166      | Wb                  | 2166        | Mx                  |
|                     | Permeance Coefficient           | Pc        | 0.93            | Pc                  | -           |                     |
|                     | Operating Temperature Limit     | Tw        | 85              | $^{\circ}$ C        | 185         | $^{\circ}$ F        |
| Material Properties | Material Symbol                 | Neodymium | 35              |                     |             |                     |
|                     | Residual Flux Density           | Br        | 1170-1220       | mT                  | 11.7-12.2   | kG                  |
|                     | Coercive Force                  | Hcb       | $\geq$ 868      | kA/m                | $\geq$ 10.9 | kOe                 |
|                     | Intrinsic coercive force        | Hcj       | $\geq$ 955      | kA/m                | $\geq$ 12   | kOe                 |
|                     | Maximum energy product          | BH        | 263-287         | kJ/m <sup>3</sup>   | 33-36       | MGOe                |
|                     | Temperature coefficient         | Br        | -0.12           | $\%$ / $^{\circ}$ C | 31.78       | $\%$ / $^{\circ}$ C |
|                     |                                 | Hcj       | -0.55           | $\%$ / $^{\circ}$ C | 31.01       | $\%$ / $^{\circ}$ C |
|                     | Heat resistance temperature     | Tw        | $\leq$ 80       | $^{\circ}$ C        | $\leq$ 176  | $^{\circ}$ F        |
|                     | Curie temperature               | Tc        | 310             | $^{\circ}$ C        | 590         | $^{\circ}$ F        |
|                     | Density                         | $\rho$    | 7.5             | kg/m <sup>3</sup>   | -           |                     |
| Weight              | Net                             | 0.000721  | kg              | 0.721               | g           |                     |
| Remarks             | REACH RoHS Directive            |           |                 |                     |             |                     |

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