

# Product specification

| Product name             | Neodymium Dia20mmXDia15mmX5mm       |           |           |                   |               |    |
|--------------------------|-------------------------------------|-----------|-----------|-------------------|---------------|----|
| Item                     | Name                                | Symbol    | SI        |                   | CGS           |    |
| Shape                    | Diameter                            | D         | 20        | mm                | 2 cm          |    |
|                          | Internal diameter                   | ID        | 15        | mm                | 1.5 cm        |    |
|                          | Height                              | H         | 5         | mm                | 0.5 cm        |    |
|                          | Dimensional tolerance +/-           | D         | 0.1       | mm                | 0.01          | cm |
|                          |                                     | ID        | 0.1       | mm                | 0.01          | cm |
|                          |                                     | H         | 0.1       | mm                | 0.01          | cm |
|                          | Direction of magnetization          | M         | Assiale   |                   |               |    |
| Surface treatment        | Ni                                  | 12        | $\mu$ m   |                   |               |    |
| Measuring point          | Surface flux density                | B         | 380.2     | mT                | 3802 G        |    |
|                          | Attractive force                    | F         | 5.03      | kgf               | 5033 gf       |    |
|                          | Magnetic flux density on load point | Bd        | 835.9     | mT                | 8359 G        |    |
|                          | Total flux                          | Dia o     | 0.0001149 | Wb                | 11490 Mx      |    |
|                          | Permeance coefficient               | Pc        | 2.45      | Pc                | -             |    |
|                          | Operating temperature range         | Tw        | 95        | deg C             | 203 deg F     |    |
|                          | Operating temperature range         | Tw        | -         | deg C             | - deg F       |    |
| Material characteristics | Material grade                      | Neodymium | 35        |                   |               |    |
|                          | Remanence                           | Br        | 1170-1220 | mT                | 11.7-12.2 kG  |    |
|                          | Coercive forces                     | Hcb       | >868      | kA/m              | >10.9 kOe     |    |
|                          | Intrinsic coercivity                | Hcj       | >955      | kA/m              | >12 kOe       |    |
|                          | Maximum energy product              | BH        | 263-287   | kJ/m <sup>3</sup> | 33-36 MGOe    |    |
|                          | Temperature coefficient             | Br        | -0.12     | %/deg C           | 31.78 %/deg F |    |
|                          |                                     | Hcj       | -0.55     | %/deg C           | 31.01 %/deg F |    |
|                          | Max. operating temperature          | Tw        | <80       | deg C             | <176 deg F    |    |
|                          | Curie temperature                   | Tc        | 310       | deg C             | 590 deg F     |    |
|                          | Density                             | P         | 7.5       | kg/m <sup>3</sup> | -             |    |
| Weight                   | Net                                 | 0.00515   | kg        | 5.15 g            |               |    |
| Remark                   | REACH RoHS Directive                |           |           |                   |               |    |

Information on these magnetic characteristics are approximate and reference values. When using the calculated values for actual magnetic application products and research and development of the application of magnetic products, use these values as reference values. We are not responsible for the results from the reference values. The details can be found by referring to the product specifications. All specifications are subject to change without notice.