



**FEATURES**

- Magnet for precise angle sensing
- Suitable for MagAlpha sensor family
- Optimized for end-of-shaft configurations

**ORDERING INFORMATION**

Part number: MAG10-X M-DD.DD.DD



| Material code | Material          | Br (T) | Hcj (kA/m) | Br Temperature coefficient (%/°C) | Max temperature (°C) | Coating |
|---------------|-------------------|--------|------------|-----------------------------------|----------------------|---------|
| 1             | NdFeB grade N35   | 1.22   | 960        | -0.12                             | 80                   | NiCuNi  |
| 2             | NdFeB grade N35SH | 1.22   | 1595       | -0.12                             | 150                  | NiCuNi  |
| 3             | Hard Ferrite      | 0.4    | 318        | -0.2                              | 200                  |         |

| Shape code | Geometry      | Magnetization direction | Dimension in 0.1 mm | Note  |
|------------|---------------|-------------------------|---------------------|---|
| C          | Cylinder      | Diametrical             | OD.H                | Large air gap range   |
| R          | Ring          | Diametrical             | OD.ID.H             | Large tolerance to radial displacement                                |
| B          | Half cylinder | Axial                   | OD.H                | To be assembled by pairs (with opposite polarity). Low field emission |



### AVAILABLE DIMENSIONS



| Part number              | Magnet characteristics <sup>(1)</sup> |       |         |         |        | Recommended sensor position         |                                      |                               |
|--------------------------|---------------------------------------|-------|---------|---------|--------|-------------------------------------|--------------------------------------|-------------------------------|
|                          | material                              | shape | OD (mm) | ID (mm) | H (mm) | Air gap <sup>(2)</sup> min-max (mm) | Radial tolerance <sup>(3)</sup> (mm) | ideal for                     |
| <b>MAG10-2C-30.25</b>    | N35SH                                 | C     | 3       | -       | 2.5    | 0 - 2.0                             | 0.1                                  |                               |
| <b>MAG10-2C-40.25</b>    | N35SH                                 | C     | 4       | -       | 2.5    | 0 - 2.6                             | 0.2                                  |                               |
| <b>MAG10-2C-50.25</b>    | N35SH                                 | C     | 5       | -       | 2.5    | 0 - 3.1                             | 0.2                                  | Standard size, cost effective |
| <b>MAG10-2C-60.25</b>    | N35SH                                 | C     | 6       | -       | 2.5    | 0 - 3.6                             | 0.3                                  |                               |
| <b>MAG10-2C-80.25</b>    | N35SH                                 | C     | 8       | -       | 2.5    | 0 - 4.5                             | 0.4                                  |                               |
| <b>MAG10-2R-50.12.25</b> | N35SH                                 | R     | 5       | 1.25    | 2.5    | 1.0 - 1.4                           | 0.4                                  |                               |
| <b>MAG10-2R-60.15.25</b> | N35SH                                 | R     | 6       | 1.5     | 2.5    | 1.3 - 1.6                           | 0.6                                  | Accurate application          |
| <b>MAG10-2R-80.20.25</b> | N35SH                                 | R     | 8       | 2.0     | 2.5    | 2.0 - 2.5                           | 0.8                                  |                               |
| <b>MAG10-2B-40.25</b>    | N35SH                                 | B     | 4       | -       | 2.5    | 0 - 2.1                             | <0.1                                 |                               |
| <b>MAG10-2B-50.25</b>    | N35SH                                 | B     | 5       | -       | 2.5    | 0 - 2.7                             | <0.1                                 | For low field emission        |
| <b>MAG10-2B-60.25</b>    | N35SH                                 | B     | 6       | -       | 2.5    | 0 - 3.2                             | <0.1                                 |                               |
| <b>MAG10-2B-80.25</b>    | N35SH                                 | B     | 8       | -       | 2.5    | 0 - 4.2                             | 0.1                                  |                               |

(1) Dimensional tolerances:  $\pm 0.05$  mm for all NdFeB magnets

(2) To achieve a field above 30 mT

(3) To limit the excess error at 0.5 deg. Assuming 5 deg tilt between sensor and magnet/magnetization.