



# Magnet Specification

## AS5000-MA4X2H-1

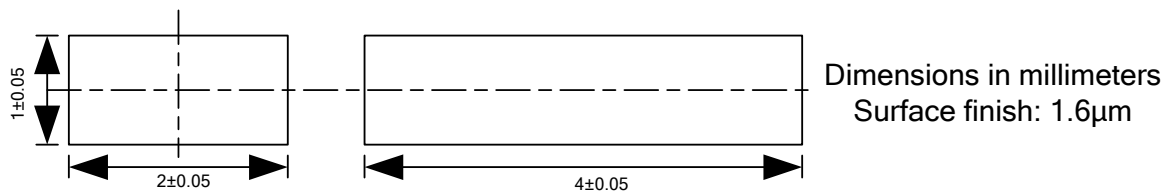
### 1. General Description

The AS5000-4X2H-1 is an axial magnet used with the AS5510 linear encoder, in order to measure small linear displacements.

The magnet is mounted on the top of the AS5510. The airgap depends on the desired resolution and displacement range for the end application.

**Material:** NdFeB sintered magnet, Ni-coated

### 2. Dimensional Specification (mm)



### 3. Magnetic Specification

| Type                         | Min.                      | Nominal | Unit              |
|------------------------------|---------------------------|---------|-------------------|
| Material                     | NdFeB sintered, Ni-coated |         | -                 |
| Property Grade               | BMN-35H                   |         | -                 |
| Remanence Br                 | 1.17                      | 1.21    | T                 |
| Coercive Force HcB           | 860                       | 907     | kA/m              |
| Intrinsic Coercive Force HcJ | 1353                      | -       | kA/m              |
| Max Energy Product (BH) max. | 263                       | 279     | kJ/m <sup>3</sup> |
| Working Temperature          | -                         | 120     | °C                |
| Density                      | 7.5                       |         | g/cm <sup>3</sup> |

## 4. Magnetic Field Representation

Below in Figure 1, an illustration of the magnet and the AS5510 is shown. The curve plot below the sensor chip shows the ideal linear range of the magnet seen by the AS5510. Additionally, a magnet scan of this arrangement can be found in Figure 2 for further reference.

Figure 1:  
Linear Position Sensor AS5510 + Magnet

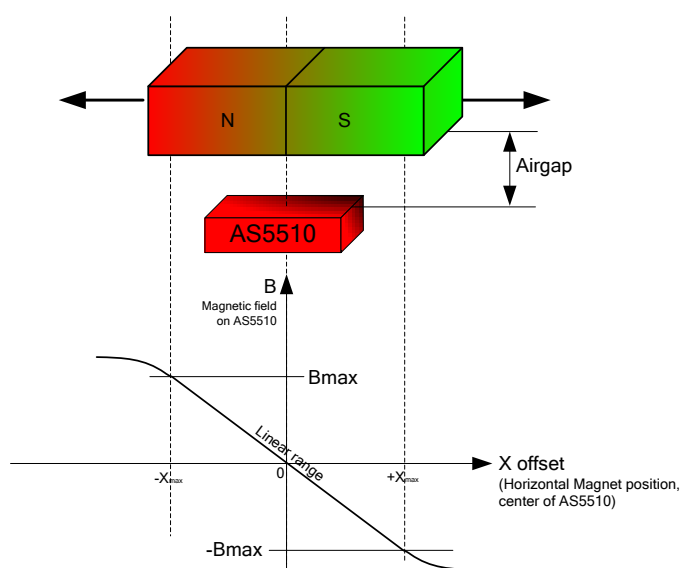
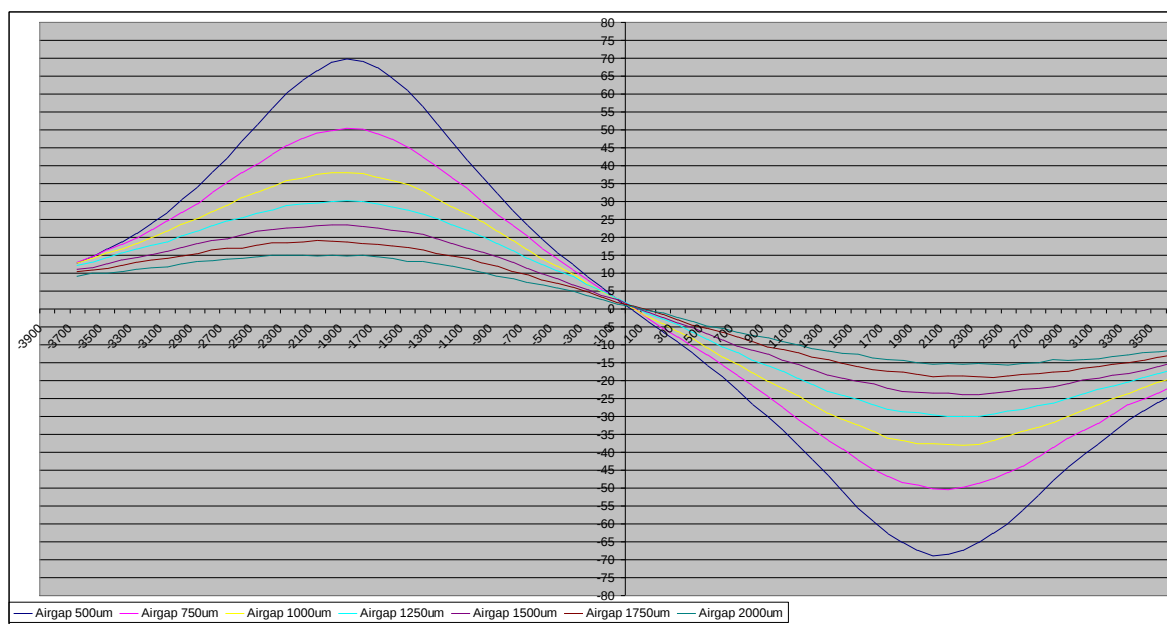


Figure 2:  
Linear Position Sensor AS5510 + Magnet





## 5. Magnet Supplier Information

The magnet supplier for this magnet is BOMATEC AG. Additional information is available online and the contact information is listed in the following.

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