Magnet Specification
AS5000-MA4X2H-1

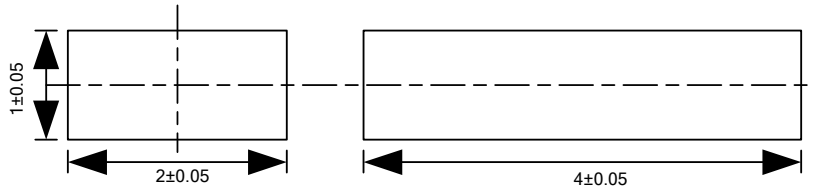
1. General Description

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)



Dimensions in millimeters
Surface finish: 1.6µm

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/m³
Working Temperature	-	120	°C
Density	7.5		g/cm³

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

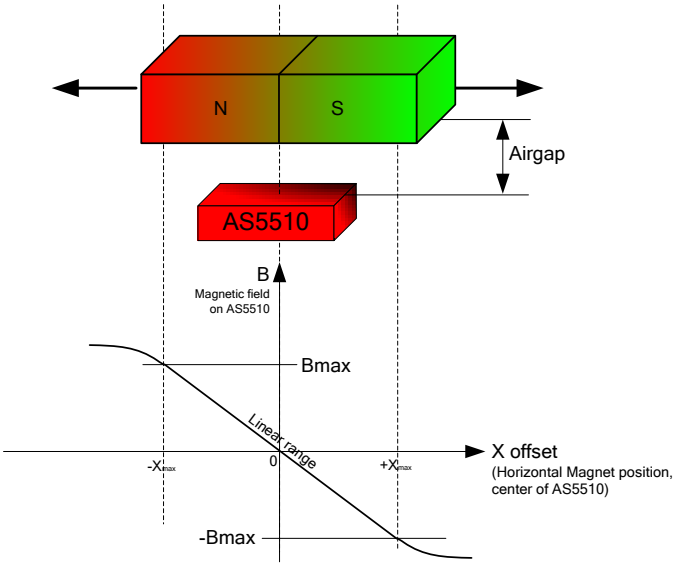
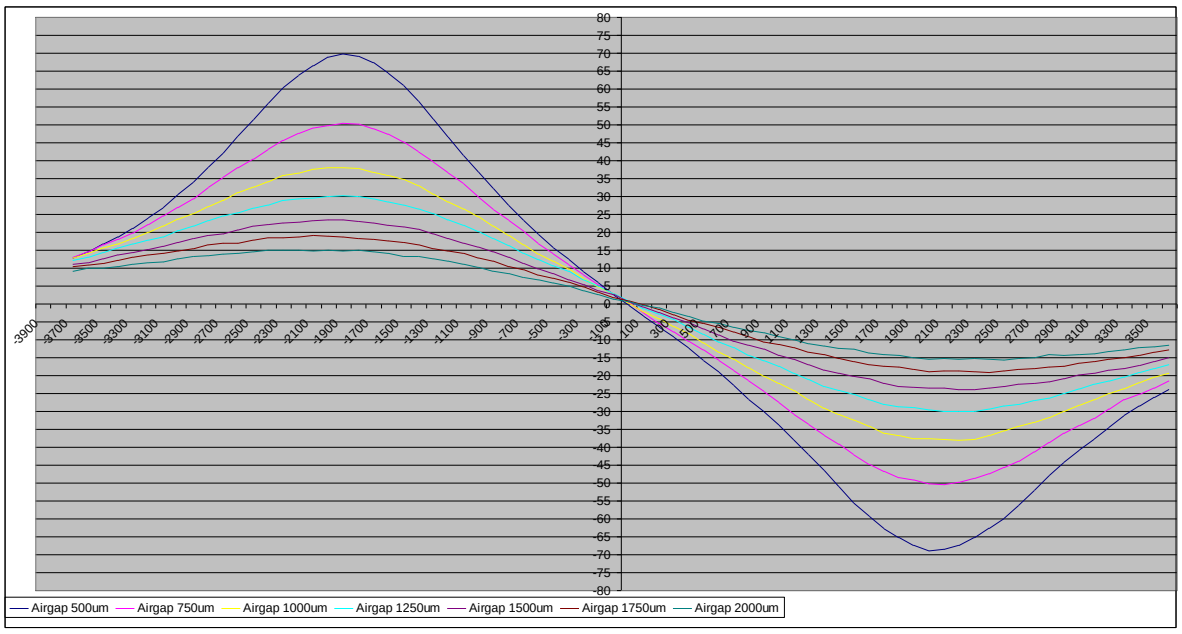


Figure 2:
Linear Position Sensor AS5510 + Magnet



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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