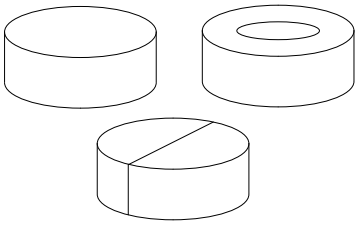
MAG10

Magnet for end-of-shaft angle sensing

NOT RECOMMENDED FOR NEW DESIGNS



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

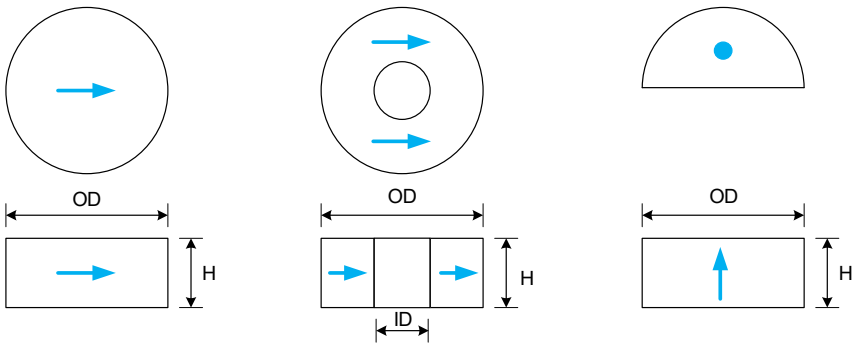
Dimensions in 0.1 mm: outer diameter. inner diameter (if any). height

Shape code: M = C,R,B

Material code: X = 1,2,3

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



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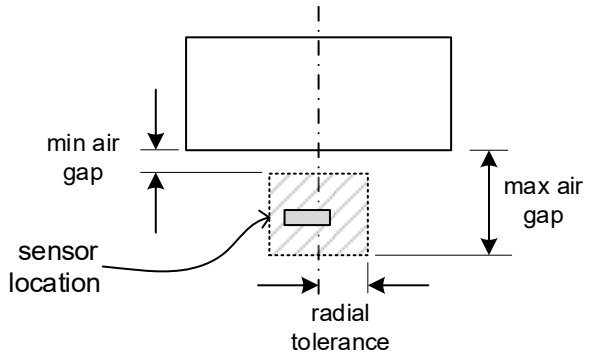
C R B

AVAILABLE DIMENSIONS



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

(1) Dimensional tolerances: ±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.

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