Product key

GOUDSMIT MAGNETICS

Permanent magnets

M – S – N42SH – B1 – R75xr20x12<180 – NN

Product	… *For explanation: see page 2*
M	Magnet
MC	Magnet, Customer-specific
MA	Magnet, Customer-specific acc. AS9100
MT	Magnet, Customer-specific acc. IATF16949
MZ	Special magnet (when one of characters below = 'Z')

Shape

A	Axle (L > 1,5 x D)	G	Globe/Sphere	R	Ring	Z	Special
B	Block (Rectangle)	H	Horseshoe	S	Segment (part of a disc or ring)		
D	Disc	P	Point	T	Trapezium/Triangle		

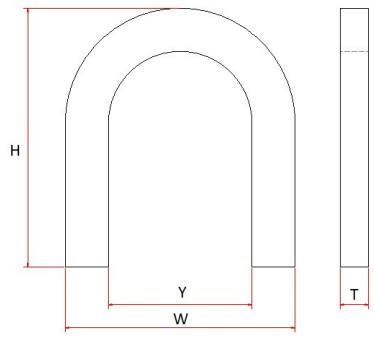
Magnet material	… *For magnet material explanation: see page 3*		
A ...	Aluminium-nickel-cobalt (AlNiCo)	N ...	Neodymium (NdFeB)
B	Aluminium-nickel-cobalt (AlNiCo) Polymer	P…	Neodymium (NdFeB) Polymer
F ...	Ferrite (SrFe)	Q ...	Neodymium (NdFeB) Stabilized
G	Ferrite (SrFe) Polymer	I	Iron-containing material
S ...	Samarium-Cobalt (SmCo)	Z	Special
T	Samarium-Cobalt (SmCo) Polymer	… Z	Special (in case of A/F/N/P/Q/S)

Magnetization direction + pole pairs	… *For magnetization explanation: see page 4*		
A...	Axial (single or alternating poles)	J...	Segment radial
B...	Through the height	K...	Segment diametric
D...	Radial	L...	Lateral (in lines on surface)
E...	Diametric	Z…	Special (e.g. horseshoe)
G...	Multi-poled on outer contour	...N	NOT magnetized
H…	Multi-poled on inner contour	...x	x = Number of pole pairs (9 = max. multipole)
I...	One-sided multi-poled		

Size [mm]

L = Length, W = Width, H = Height, D = Diameter, R = Radius, T = Thickness, A = Angle [°]
See examples. No 'leading zeros'. Separator is point (not comma).

Notation:	Shape:	Example:	Remark:
L x W x H*	Block	123x12x12.3	H* = magn. direction - LxW in decreasing order
DD x H	Disk	D123.4x123	
DD	Globe	D123.4	
H x W x T x Y	Horseshoe	123x123x12x123	Y=distance between legs, see sketch:
L x W x H <A	Point	123x12x12<123	
DD x **d**d x H	Ring	D1234xd123x123	
RR x **r**r x H <A	Segment	R12xr12x12<123	
L x W/W x H	Trapezium	123x21/12x12	
L x W x H	Triangle	123x12x12	
L x L x L	Special shape	1234x123x123	dimensions in decreasing order



Coating (Code/Coating/Thickness [µm])

B	Basic (no coating)	n/a	HD	HDPE	> 300	NX	NiCu epoxy	15 – 40
AB	ABS	> 300	LL	LLDPE	> 300	NY	NiCuNi epoxy	15 – 50
AI	PVD Ai	> 300	PA	Passivated	1 – 7	NN	NiCuNi	10 – 25
CI	Zinc	4 – 10	PL	Parylene	2 – 20	NS	NiCuNi bright	10 – 25
CB	Zinc blue	4 – 20	PT	PTFE (teflon)	5 – 20	NA	NiCuNi+Au	10 – 25
CY	Yellow zinc Cr3+	4 – 20	TN	Tin	5 – 15	NU	NiCuSn	5 – 20
EP	Epoxy	10 – 50	NI	Ni	4 – 20	NP	NiP (chemical nickel)	3 – 10
EV	Everlube	10 – 30	NC	NiCu	5 – 20	Z	Special coating	T.b.d.

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Magnet type Standard or special in relation to IP: who owns the IP (Intellectual Property)

Product	
M	Magnet
MC	Magnet, Customer-specific
MA	Magnet, Customer-specific acc. AS9100
MT	Magnet, Customer-specific acc. IATF16949
MZ	Special magnet (when one of characters below = 'Z')

M	Standard magnet, the original design of which was made by Goudsmit. The intellectual property (IP) does not belong to the customer. The magnet has no special shape, dimensions and no exceptional coating. Edge finishing and tolerance specifications are common and not extreme.
MC	Customer specific magnets for all kind of industries that comply with ISO9001 regulations. The specifications and designs of the customer are leading and the intellectual property of the product rests with the customer.
MA	Magnets for the Aerospace and Hightech industry that comply with AS9100 regulations. This industry puts safety and reliability first and requires manageable production processes of products that are traceable from origin to end of life. The specifications and designs of the customer are leading and the intellectual property of the product rests with the customer.
MT	Magnets for the automotive industry that comply with IATF16949 regulations. This sector sets high quality requirements, whereby deviations are prevented by a mandatory APQP (Advanced Product Quality Planning) process approach. The specifications and designs of the customer are leading and the intellectual property of the product rests with the customer.
MZ	Special magnet, the original design of which was made by Goudsmit. The intellectual property (IP) does not belong to the customer. The specifications with regard to shape, Quality, dimensions and finish are exceptional and deviate from the usual standard designs.

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Magnet material

A … : Aluminium-nickel-cobalt (AlNiCo)			
Cast:		Sintered:	
A5A	GSA-5A	AS5	GSAS-5
A5B	GSA-5B	AS6	GSAS-6
A6	GSA-6	AS8	GSAS-8
A7	GSA-7		
A8A	GSA-8A		
A8B	GSA-8B		
A9A	GSA-9A		
A9B	GSA-9B		

F … Ferrite (SrFe)	
F10	GSF-10 (isotropic)
F25	GSF-25 (anisotropic)
F30	GSF-30 (anisotropic)
F33	GSF-33 (anisotropic)
F34	GSF-34 (anisotropic)
F40	GSF-40 (anisotropic)
F42	GSF-42 (anisotropic)
F44	GSF-44 (anisotropic)
F45	GSF-45 (anisotropic)
F47	GSF-47 (anisotropic)

S … : Samarium-Cobalt (SmCo)	
S20	GSS-20
S22	GSS-22
S24	GSS-24
S26	GSS-26
S28	GSS-28
S30	GSS-30
S32	GSS-32

N … : Neodymium (NdFeB)	
N35	GSN-35
N38	GSN-38
N40	GSN-40
N42	GSN-42
N45	GSN-45
N48	GSN-48
N50	GSN-50
N52	GSN-52
N54	GSN-54
N35M	GSN-35M
N38M	GSN-38M
N40M	GSN-40M
N42M	GSN-42M
N45M	GSN-45M
N48M	GSN-48M
N50M	GSN-50M
N52M	GSN-52M
N35H	GSN-35H
N38H	GSN-38H
N40H	GSN-40H
N42H	GSN-42H
N45H	GSN-45H
N48H	GSN-48H
N50H	GSN-50H
N52H	GSN-52H
N33SH	GSN-33SH
N35SH	GSN-35SH
N38SH	GSN-38SH
N40SH	GSN-40SH
N42SH	GSN-42SH
N45SH	GSN-45SH
N48SH	GSN-48SH
N50SH	GSN-50SH
N52SH	GSN-52SH
N30UH	GSN-30UH
N33UH	GSN-33UH
N35UH	GSN-35UH
N38UH	GSN-38UH
N40UH	GSN-40UH
N42UH	GSN-42UH
N45UH	GSN-45UH
N48UH	GSN-48UH
N50UH	GSN-50UH

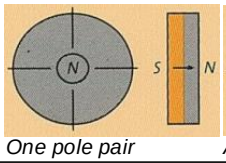
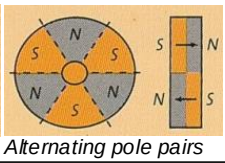
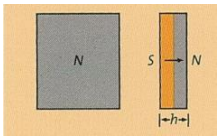
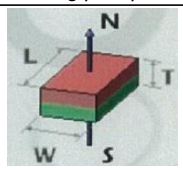
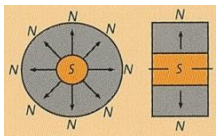
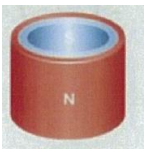
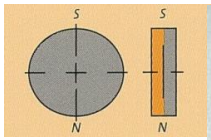
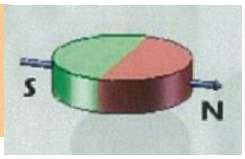
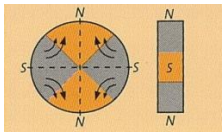
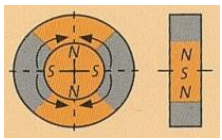
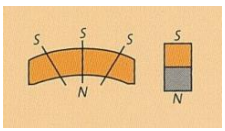
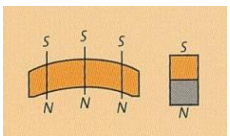
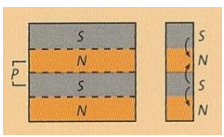
N30EH	GSN-30EH
N33EH	GSN-33EH
N35EH	GSN-35EH
N38EH	GSN-38EH
N40EH	GSN-40EH
N42EH	GSN-42EH
N45EH	GSN-45EH
N28AH	GSN-28AH
N30AH	GSN-30AH
N33AH	GSN-33AH
N35AH	GSN-35AH
N38AH	GSN-38AH
N40AH	GSN-40AH
N42AH	GSN-42AH
N28VH	GSN-28VH
N30VH	GSN-30VH
N33VH	GSN-33VH
N35VH	GSN-35VH
N38VH	GSN-38VH

P … : Neodymium (NdFeB) Polymer			
Compression:		Injection:	
6C	GSNB-6C	3I	GSNB-3I
8AC	GSNB-8AC	4I	GSNB-4I
8C	GSNB-8C	5I	GSNB-5I
8BC	GSNB-8BC	5AI	GSNB-5AI
8CC	GSNB-8CC	6I	GSNB-6I
9C	GSNB-9C	6AI	GSNB-6AI
10C	GSNB-10C	7I	GSNB-7I
11C	GSNB-11C		
11AC	GSNB-11AC		
12AC	GSNB-12AC		

Q … : Neodymium (NdFeB) Stabilized	
Q53N	GSNS53N
Q50M	GSNS50M
Q35EH	GSNS35EH
Q30AH	GSNS30AH
Q33AH	GSNS33AH

Issue date: 24-3-2023

Permanent magnets

Magnetization direction					
Code	Description	Schematic	Isotropic	Anisotropic	Examples
A...	Axial (single / alternating poles)	 *One pole pair*  *Alternating pole pairs*	I	A	One pole pair: Speakers, holding devices, magnetic switches, insert gas switches Alternating poles: Synchronous motors, disc coupling
B...	Through the height (thickness)	 	I	A	Filtering systems Clamping devices Magnetic chokes Switches
D...	Radial	 	I		Holding magnets Couplings (limited sizes available)
E...	Diametric	 	I		Synchronous motors
G...	Multi-poled on outer contour		I		Dynamos Motors Concentric ring Couplings
H...	Multi-poled on inner contour		I		Motors Concentric ring Couplings
I...	One-sided multi-poled		I		Memo magnets & flexible
J...	Segment radial		I	A	Motors
K...	Segment diametric		I	A	Motors
L...	Lateral (in lines on surface)		I		Holding devices Magnetic chokes