totalElement

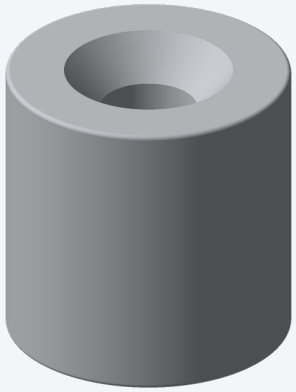
SPECIFICATION SHEET
Part no. DCS12X12N42

Countersunk Disc Magnet

1/2 x 1/2 Inch (12.70 x 12.70 mm)

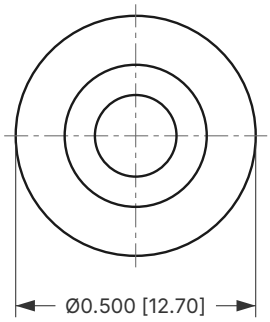
Outer Diameter x Thickness

ISOMETRIC VIEW — Not to scale

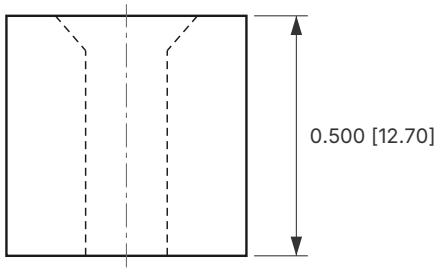


SPECIFICATIONS	
DIAMETER	0.500 Inch [12.70 mm]
THICKNESS	0.500 Inch [12.70 mm]
TOLERANCE	±0.004 Inch [±0.10 mm]
MATERIAL	Sintered Neodymium (NdFeB)
GRADE	N42
COATING	Nickel-Copper-Nickel (Ni-Cu-Ni)
MAGNETIZATION	Axially, through the thickness
COUNTERSINK	Ø0.296 [7.52] × 82°
COUNTERSUNK SIDE	One side, north or south
THROUGH HOLE	Ø0.170 [4.32]
SCREW	#6 flat head
PULL FORCE	11.7 lbs (5.3 kg)

DIMENSIONS Inch [mm] · not to scale

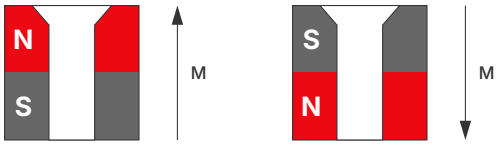


TOP VIEW



FRONT VIEW

MAGNETIZATION



NORTH
Countersink on N face

SOUTH
Countersink on S face

Axially magnetized through the 0.500 [12.70] thickness. One side countersunk. Available in north or south; both versions are shown.

GRADE PROPERTIES · N42

PROPERTY	SI	CGS / IMPERIAL
Remanence (Br)	1.28–1.33 T	12.8–13.3 kG
Coercivity (Hcb)	≥ 915 kA/m	≥ 11.5 kOe
Intrinsic coercivity (Hcj)	≥ 955 kA/m	≥ 12 kOe
Max. energy product (BH)max	318–342 kJ/m³	40–43 MGOe
Max. operating temperature	80 °C	176 °F

Typical values for sintered NdFeB of grade N42 at room temperature, not measured on this part. The highest safe working temperature also depends on the magnet's shape and how it's used.

Handling: neodymium magnets are brittle and can chip, or pinch skin, if they snap together. Keep them away from pacemakers and magnetic media.

VIEW ONLINE

Scan to open this magnet on totalElement.com.

CAD FILES

The technical drawing and 3D model are on the product page.

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