

# N18HP1/4-10

Product Specification For Inductive Differential Mode Nanotech® Cores



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## Mechanical Specification

**Bare Core Dimensions:**

0.98 x 0.79 x 0.39 inch  
(25 x 20 x 10 mm)

**le:** 7.1 cm

**Ae:** 0.20 cm<sup>2</sup>

**Weight:** 0.022 lbs (10 grams)

**Packing:** 63 pc/layer, 6 layers/box

**Box Quantity:** 378 pieces

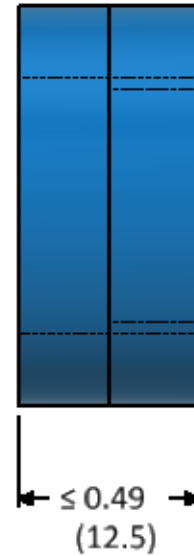
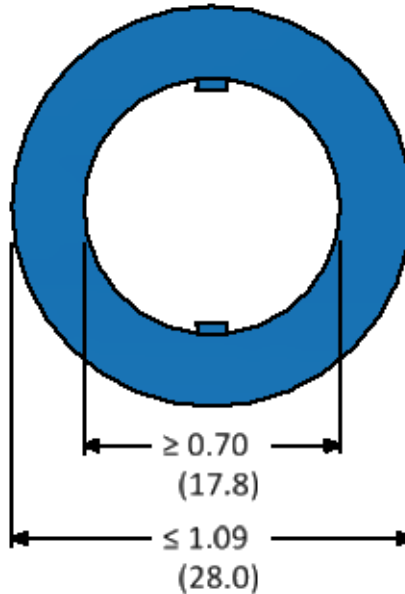
**Core Material:** Nanocrystalline

**Currie Temp:** 1,112°F (600 °C)

**RTI Temp (0.81):** 248°F (120°C)

**Marking:**

**N18HP1/4-10**



Dimensions = inches (mm)

## Electrical Core Performance

Permeability @ frequency = 10 KHz and Hpeak = 3.0 mA/cm ~90,000

Inspection Value	Measured Value	Measurement Limits	Frequency	L <sub>eff</sub> * N (mA*turn)
	A <sub>L</sub> (μH/N <sup>2</sup> )	22.5 - 41.3	10 KHz	15
	A <sub>L</sub> (μH/N <sup>2</sup> )	5.6 min	100 KHz	15

\*Saturation Current (Isat) of nanocrystalline material: Peak value of the exiting current when the initial inductance level is dropped to 10 per cent. Saturation behaviour is dependant on frequency, signal shape and leakage field. The current value is a calculated value for design help only and cannot be guaranteed. Isat is calculated @ B = 1.0 T - μnom - N = 1.

## Core Finishing

Type:	Plastic Case	Case Material Alternatives:	Zytel FR70G25	Rynite FR530	Longlite 4130	PA66-R11G25
Voltage Breakdown:	2,500 VRMS	Case UL file Number:	E41938	E41938	E59481	E484599

## Certification

MH&W International certifies that the manufacturing and the quality process meet all requirements of IEC Part 1: General Specification for "Fixed Inductors For Electromagnetic Interference Suppression", IEC 60938-1:1999 + A1:2006. This International Standard is used in lieu of requirements/documents pertaining to UL, CE, CSA, DIN and other individual agencies. The flame insulation rating meets UL-94V-0.

MH&W International certifies the product described herein is in compliance with the Directive 2011/65/EU of the European Parliament and of the council of 8 June, 2011 on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS2 Directive).

Rev #	Date	Description	Drawing Approval	Drawing Number
4	08/17/17	Initial Issue	Engineering: D. Rollins	N18HP1/4-10 R5
5	04/05/21	Updated to new datasheet format.	Sales: B. Wilson	