

Transducer ultrasonic HNC-4AH-3540N 40Khz 50W cleaning



Overview

Quick Details

Place of Origin: China

Brand Name: hainertec

Model Number: HNC-4AH-3540-N

Output: Switching Transducer

Theory: Ultrasonic Sensor

Usage: VIBRATION SENSOR

Product name: Ultrasonic Transducer

Application: Wide Range

Type: Customized

Material: Stainless Steel

1. Scope

This specification covers the ultrasonic transducer for cleaning.

2. Model

HNC-4AH-3540N

3. Electrical Specification

3.2.1 Resonant Frequency (fr)

$$fr = 40 \pm 1.0 \text{ kHz}$$

3.2.2 Resonant Resistance (Zr)

$$Zr \leq 25 \Omega$$

3.2.3 Capacitance (Cp)

$$Cp = 4000 \text{ pF} \pm 10\%$$

3.2.4 Mechanical Factor (Qm)

$$Qm \geq 500$$

3.2.5 Bandwidth ($\Delta f = f_p - f_r$)

$$\Delta f \geq 2.0 \text{ KHz}$$

3.2.6 Insulation Resistance (Rv)

$R_v \geq 100M\Omega(2000V DC)$

4. Input Power

4.1 $P_{max}:70W$ (For one pc)

4.2 $P_{max}:60W$ (For 2 pcs Parallel)

4.3 $P_{max}:50W$ (For more than 3pcs parallel connected)

4.4 Maximum Voltage $V_{P-P}: 1000V$.

5. Temperature

5.1 $T_{max} \leq 80^{\circ}C$ (Maximum Operating Temperature)

5.2 $T \leq 60^{\circ}C$ (Recommended Operating Temperature)

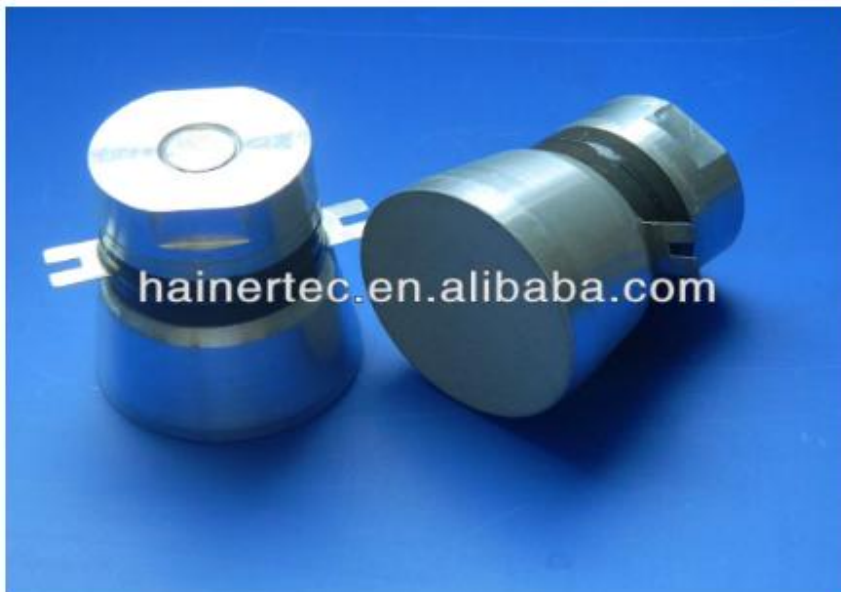
6. Materials

6.1 Front Matching: Aluminum Alloy

6.2 Back Matching: Steel Alloy

6.3 Piezo-ceramic: PZT-4 (PZT-4)

6.4 Electrode Nickel



7 Ultrasonic Generators

Type	Frequency	Power	L*W*H,mm	Function	Noted
HNE-FP-AC	20~60KHz	≤200W	157*88*50	Auto-excitation, scalable small-signal control and power adjustable function	Auto excitaiton type PCB
HNE-FP-SS	20~60KHz	≤200W	150*108*36	Separated excited generator with frequency sweep, small-signal remote control, over temperature and over current protection, power and frequency adjustable.	Separated excitation type PCB
HNE-FP-II	28-50KHz	≤1200W	402*324*136	Separately-excited generator with sweep frequency, small-signal remote control, over temperature and over current protection, power and frequency adjustable, optional timer. Using CMOS power transistor amplification.	High power generator

Model	Frequency	Power	Size (L*W*H),mm	Input Voltage	Application
HNE-FP-SS1-12	20~60KHz	≤60W	196*107*50	12VDC	Used in instruments, meters and other modular ultrasound systems, such as ultrasonic cleaning, ultrasonic vibration, ultrasonic burst fat, etc.
HNE-FP-SS1-24	20-60KHz	≤100W	196*107*50	24VDC	
HNE-FP-SS1-220	20-60KHz	≤200W	196*107*50	220Vac	