

## SPECIFICATION

### 1. Scope

This specification covers the SONOPRO transducer for cleaning under the atmosphere of  $25\pm 3^{\circ}\text{C}$  40 ~ 70%RH.

### 2. Type

#### Trans-C4038(5)50

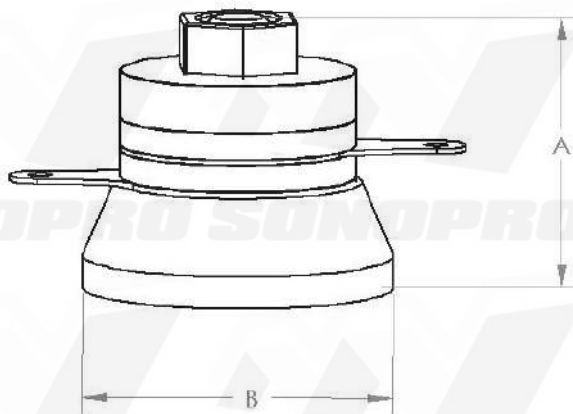
Trans-C	40	38 (5)	50
Transducer	Frequency	Ceramic dia.	Emitting dia.

### 3. Dimensions

As per the drawing : A = 52m/m B = 50m/m

### 4. Electrical Specification ( By Piece )

- Resonant Frequency  $F_r = 40\text{kHz}\pm 0.5\text{kHz}$
- Resonant Resistance  $Z_r < 15\Omega$
- Capacitance  $\text{CAPA} = 4.84\pm 20\% \text{ nF}$
- $\text{tgD} (\% \text{ KHz}) < 0.5$
- $Q_m > 500$



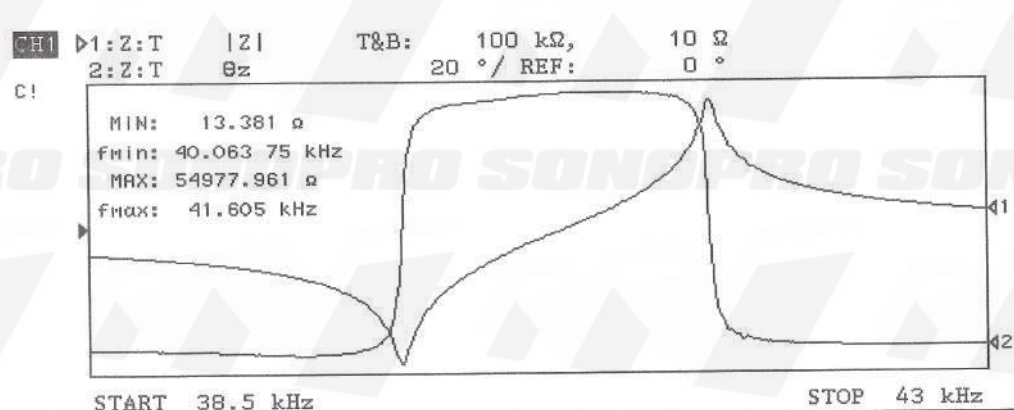
### 5. Mechanical Characteristics ( Periodical in Laboratory )

- Acoustic Power =  $5\pm 0.5\text{Wcm}^2$  -- By Ohmico Ultrasonic Power Meter UMP- DT-1AV
- Amplitude  $> 15\mu\text{m}$  -- Peak-to-peak in sinusoidal

### 6. Frequency category :

- A : 39.50~39.79kHz      B : 39.80~40.04kHz  
 C : 40.05~40.29kHz      D : 40.30~40.50kHz

### 7. Impedance VS Frequency curve of Trans-C4038(5)50



$F_r$ (Hz)	= 40069.9246604
Z (Ohm)	= 13.4126825333
CO (nF)	= 4.73980628209
L1 (mH)	= 42.383227448
R1 (Ohm)	= 13.7289247513
C1 (nF)	= .372236821879
$Q_m$	= 777.2231889