

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

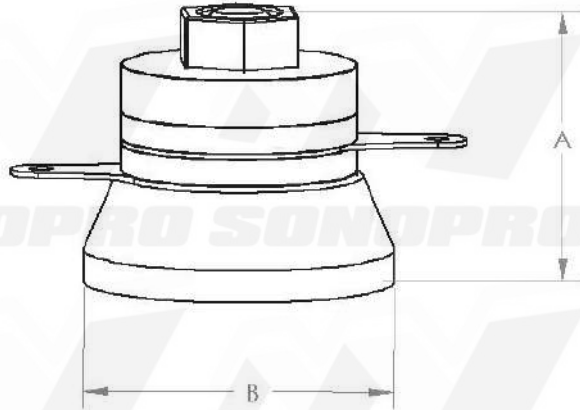
Trans-C	40	38 (5)	50
Transducer	Frequency	Ceramic dia.	Emitting dia.

3. Dimensions

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

4. Electrical Specification (By Piece)

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



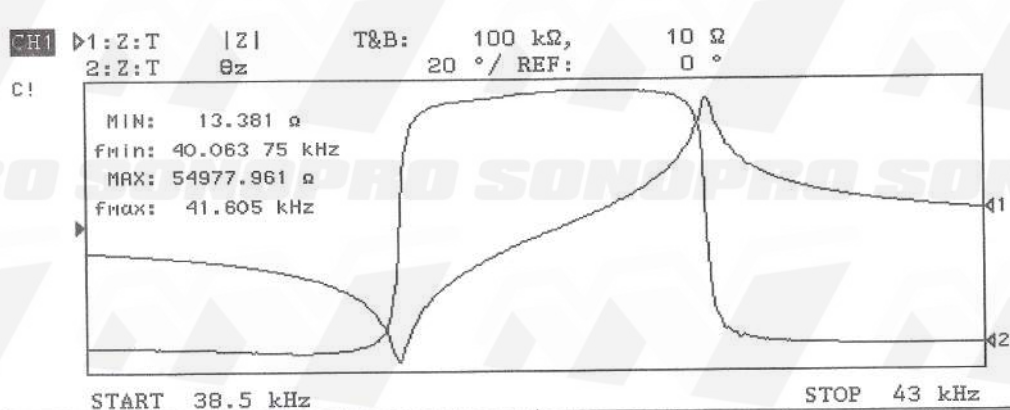
5. Mechanical Characteristics (Periodical in Laboratory)

- a. Acoustic Power = $5\pm 0.5\text{Wcm}^2$ -- By Ohmico Ultrasonic Power Meter UMP- DT-1AV
- b. 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
C0 (nF)	= 4.73980628209
L1 (mH)	= 42.383227448
R1 (Ohm)	= 13.7289247513
C1 (nF)	= .372236821879
Q_{m1}	= 777.2231889