

## 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-C2838(5)52**

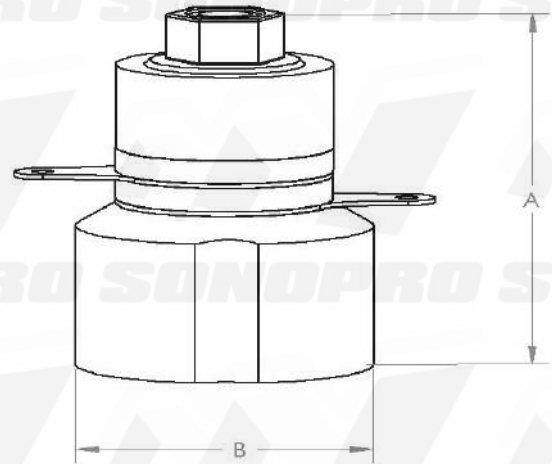
|            |           |              |               |
|------------|-----------|--------------|---------------|
| Trans-C    | 28        | 38 (5)       | 52            |
| Transducer | Frequency | Ceramic dia. | Emitting dia. |

### 3. Dimensions

As per the drawing : A = 74 m/m B= 52 m/m

### 4. Electronical Specification ( By Piece )

- Resonant Frequency  $F_r = 28\text{kHz}\pm 0.5\text{kHz}$
- Resonant Resistance  $Z_r < 20\Omega$
- Capacitance  $\text{CAPA} = 4.84\pm 20\% \text{ nF}$
- $\text{tgD} (\% \text{ KHz}) < 0.5$
- $Q_m > 500$



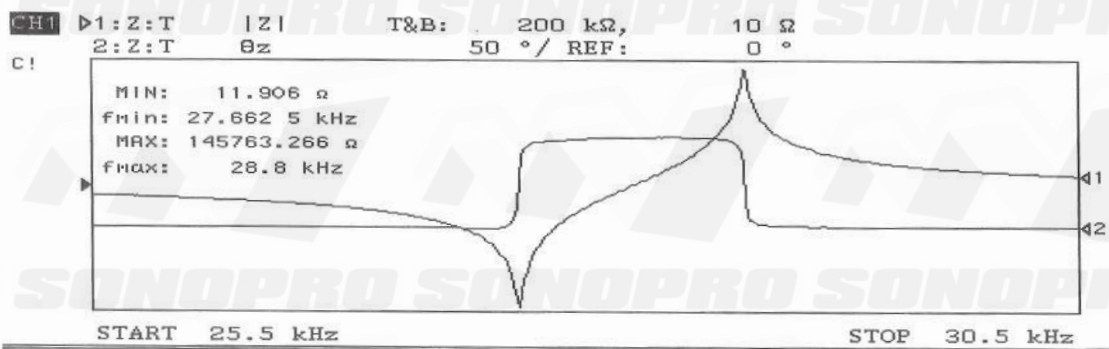
### 5. Mechanical Characteristics ( Periodical in Laboratory )

- Acoustic Power =  $3.7\pm 0.5 \text{ Wcm}^2$
- Amplitude  $> 15\mu\text{m}$  Peak-to-peak in sinusoidal

### 6. Frequency category :

|                    |                    |
|--------------------|--------------------|
| A : 27.50~27.79kHz | B : 27.80~28.04kHz |
| C : 28.05~28.29kHz | D : 28.30~28.50kHz |

### 7. Impedance VS Frequency curve of Trans-C2838(5)52



|          |   |               |
|----------|---|---------------|
| Fr (Hz)  | = | 27659.2187813 |
| Z (Ohm)  | = | 13.1370649338 |
| CO (nF)  | = | 4.49813630932 |
| L1 (mH)  | = | 86.7969291369 |
| R1 (Ohm) | = | 12.3648891449 |
| C1 (nF)  | = | .381443289656 |
| Qm1      | = | 1220.00051996 |