

MESSRS.

SPECIFICATION FOR APPROVAL**承 認 书**

Product	PIEZO BUZZER
Part No.	HZ-1640E-W17 conform to(RoHS (2.0) environmental requirements (2011/65/EU, 2015/863/EU)
Customer Approval	

Approved By	Checked By	Made By
Niko APR-23-2024	Emily APR-23-2024	LILY APR-23-2024

DRAGONSTATE ELECTRONIC CORPORATION**No. 36 Xinsi Road, Electronic Park, New District, Changzhou City, Jiangsu Province, China****Tel: +86-519-85110078. 86-519-85106698, Fax: +86-519-85101081****EDITION:1.3**

HZ-1640E-W17

Items		Units	Specifications	Conditions
01	Rated Voltage	Vp-p	9	Square Wave
02	Operating Voltage	Vp-p	3-30	
03	Rated Current (Max)	mA	7	at 4KHz / 9Vp-p
04	Min Sound Output	dB	80	at 4KHz / 9Vp-p
05	Resonant Frequency	Hz	4000	
06	Operating Temp.	°C	-20 ~ +60	
07	Storage Temp.	°C	-30 ~ +70	
08	Capacitance at 1KHz	pF	15000 ± 30%	
09	Weight	g	1	

Measurement Condition

Test and measurement will be carried out under normal condition of temperature

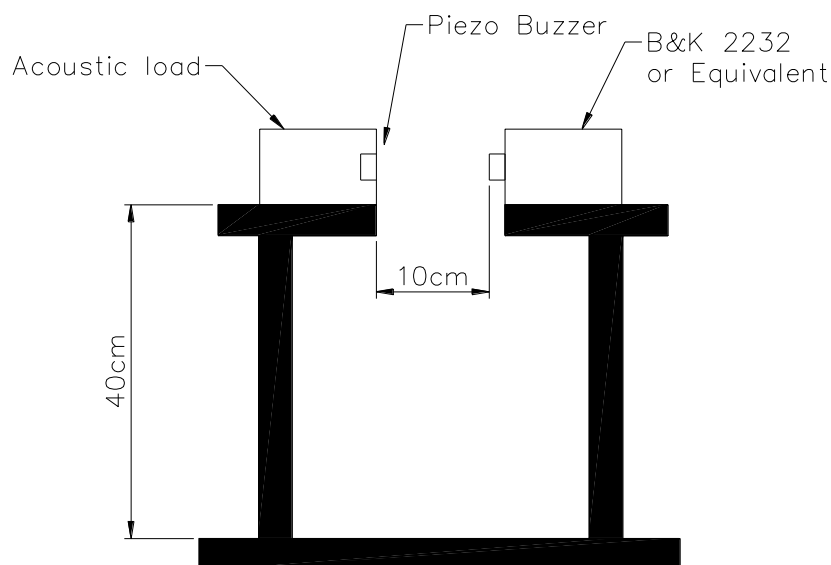
within 5°C to 35°C, relative humidity within 45% to 85% and air pressure of 860mbar to 1060mbar.

Should uncertainly arise in data obtained from the above atmosphere, control of temperature

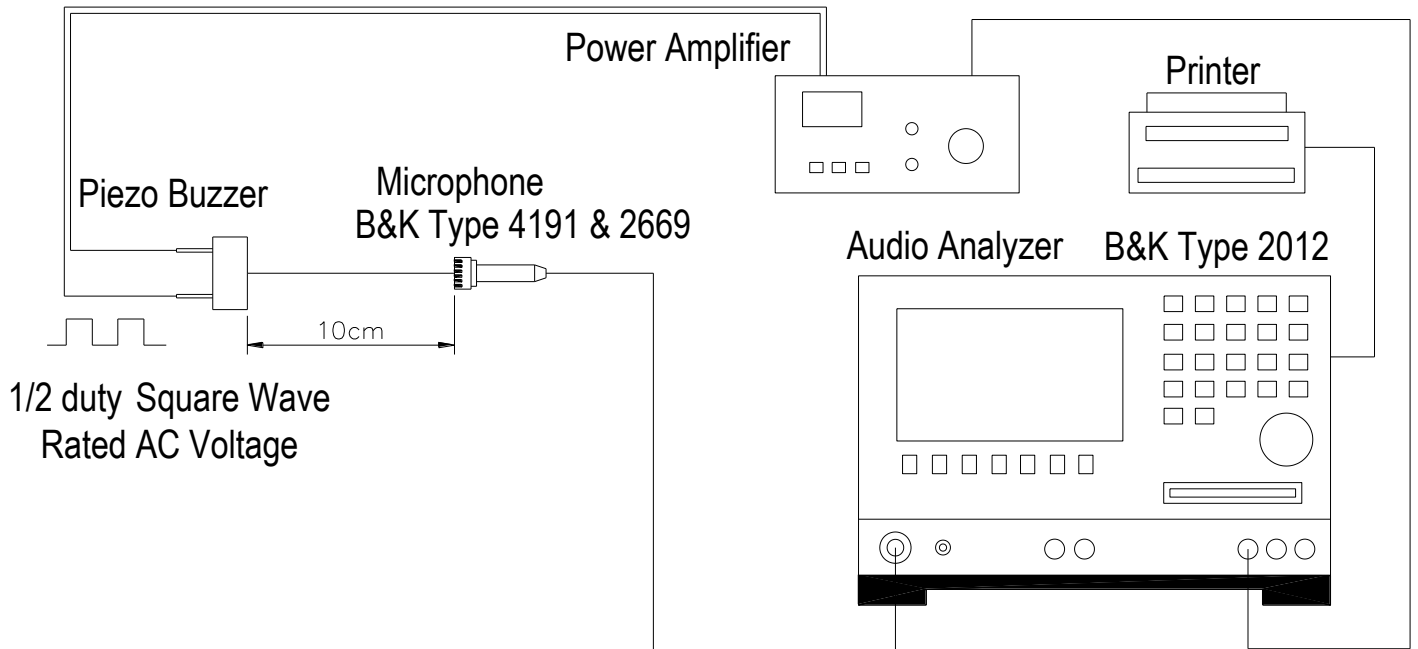
At 20°C±2°C and relative humidity within 60% and 70%, with air pressure remaining unchanged,

To be enforced.

STANDARD TEST FIXTURE

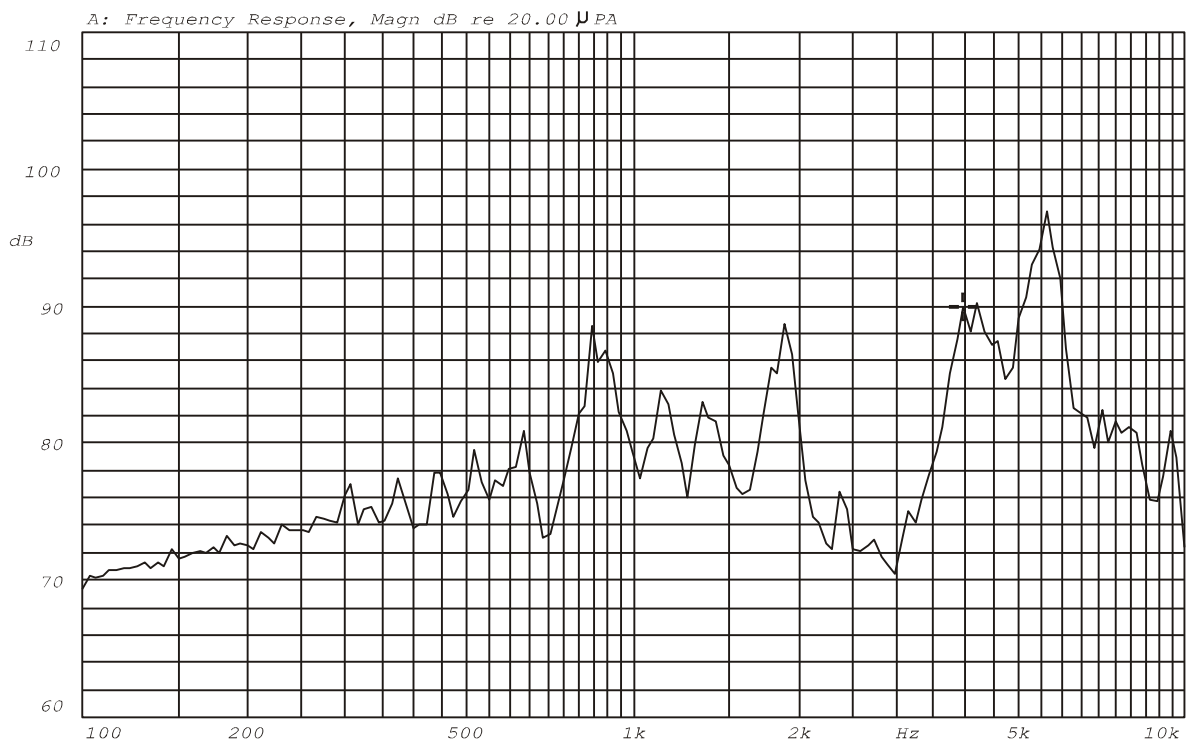


Standard test condition of piezo buzzer

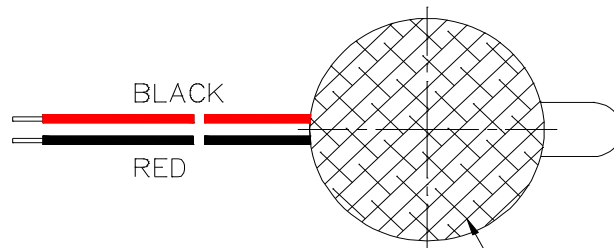
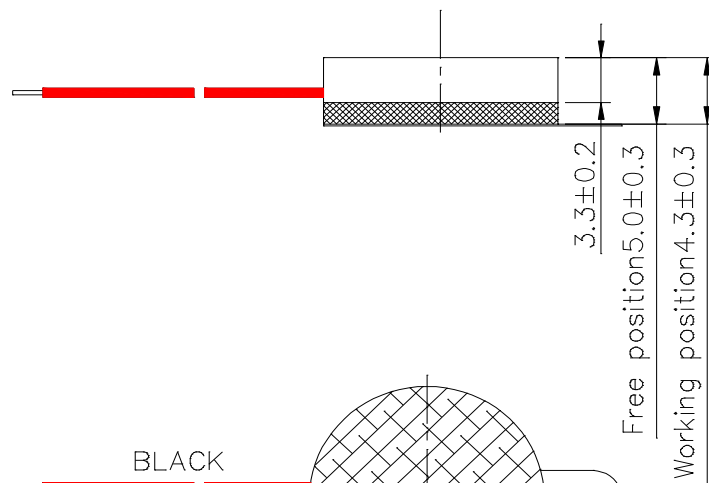
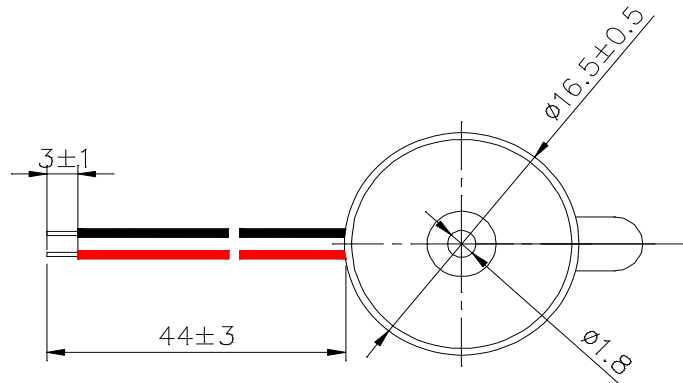


Frequency Response Curve

X:3.9811kHz Y:89.91dB ZA:Live Curve SSR T. RMS



REV NO.	REVISION NOTE	APPROVAL	DATE
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Double-sided adhesive

LEAD WIRES SPEC.: AWG 30

TITLE: <i>PIEZO BUZZER EXTERNAL</i>		DRAWN: Lily	2024/04/23	SCALE: 2:1	SHEET: 1 : 1
PART NO. HZ-1640E-W17	2	DESIGNED: R & D OF D.S.		UNITS: mm	TOLERANCE ± 0.5
DWG NO. DPE-7315		CHECKED: Emily		UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
	REV	APPROVAL: Eric			
		MATERIAL: ABS			



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4.List of Materials

No.	Part name	Material Type	Qty	Origin	Manufacture	Remarks
1	Piezoelectric plate	epoxy	1	ZHENGYOU	SUTAO	
		Ceramic chip	1	ZHENGYOU	SUTAO	
		Brass plate	1	ZHENGYOU	SUTAO	
		Silver paste	1	BAIYE	SUTAO	
2	Wire rod	AWG32	1	ZHUYOU	ZHUYOU	
3	support	Cover plate	1	CHIMEI	JIQIAN	
		shell	1	CHIMEI	JIQIAN	
4	foam	PE	1	MICRO	XINJIATAI	
5	tin		1	WANSHAN	WANSHAN	

Item		Conditions	Evaluation standard
01	Low Temp. Storage Test	A°C±2°C ,240Hr	(S.P.L)Test before numerical ±10dB *wrong (Frequency)Test before numerical ±10% (Current)Test before numerical ±10% (No crake is allowed on the part surface after Free drop test) ● After the test ,the part shall meet the specifications without any degradation in appearance and performance
02	High Temp. Storage Test	B°C±2°C RH50% ,240Hr	
03	Temp./Humidity Storage Test	40°C±2°C , RH90-95% 240Hr	
04	Thermal Shock Test	A°C±2°C(1Hr)→ ,20°C±2°C (1Hr) B°C±2°C(1Hr)→ ,20°C±2°C (1Hr)10 cycle	
05	Vibration Test	10-55Hz/1min amplitude1.5mm,X,Y,Z,3 directions	
06	Mechanical Shock Test	+100G,Sine wave, XYZ , 3 impacts per axis	
07	Free Drop Test	The part shall be dropped freely from a height of 75 cm onto concrete 1 time in 2 axes (total 4 times)	
08	Life Burning Test	The part shall be subjected to 1000 hrs in the room temp with rated voltage applied	
09	Lead Wire / Pin Pull Test	The Part checking standard : Following supplier's Spec. Finished-part checking Standard vertical Pull i)100g MIN 0.05mm Thickness of ceramic ii)300g MIN 0.1mm≤Thickness of ceramic b: Horizontal Pull i)700g MIN	

Remark : "A" means Storage low temp. "B" means Storage high temp