

PIEZOCERAMIC ELEMENTS



External Drive (General Type)

Model NO.	Resonant Frequency (KHz)	Resonant Impedance (Ω) max	Static Capacitance (pF) ± 30%	Shape	Dimensions(mm)				Plate Material
					D ± 0.1	φ ± 0.2	T ± 0.05	t ± 0.03	
XZ-12B-14E	16.5 ± 1.0	800	6000	A	12	9	0.45	0.25	Brass
XZ-13BL-13E	13.0 ± 1.0	500	9000	B	24 ± 13	11	0.45	0.25	Brass
XZ-15BH-12E	12.5 ± 1.0	600	9000	C	15(12)	11	0.45	0.25	Brass
XZ-15B-10E	10 ± 1.0	400	9000	A	15	11	0.45	0.25	Brass
XZ-18B-90E	9.0 ± 0.7	300	15000	A	18	15	0.5	0.25	Brass
XZ-18S-95E	9.5 ± 0.7	300	15000	A	18	15	0.5	0.25	SUS
XZ-20B-70E	7.0 ± 0.7	250	15000	A	20	15	0.5	0.25	Brass
XZ-20S-75E	7.5 ± 0.7	250	15000	A	20	15	0.5	0.25	SUS
XZ-27B-30E	3.0 ± 0.5	300	35000	A	27	20	0.38	0.15	Brass
XZ-27B-42E	4.2 ± 0.5	200	25000	A	27	20	0.5	0.25	Brass
XZ-27S-46E	4.6 ± 0.5	200	25000	A	27	20	0.5	0.25	SUS
XZ-30B-29E	2.9 ± 0.5	300	25000	A	30	20	0.5	0.25	Brass
XZ-31B-29E	2.9 ± 0.5	300	25000	A	31	20	0.5	0.25	Brass
XZ-31S-30E	3.0 ± 0.5	300	25000	A	31	20	0.5	0.25	SUS
XZ-35B-20E	2.6 ± 0.5	250	40000	A	35	25	0.5	0.25	Brass
XZ-35S-28E	2.8 ± 0.5	250	40000	A	35	25	0.5	0.25	SUS
XZ-38B-20E	2.0 ± 0.5	500	40000	A	38	25	0.5	0.25	Brass
XZ-41B-15E	1.5 ± 0.5	400	40000	A	41	25	0.5	0.25	Brass
XZ-42B-14E	1.4 ± 0.5	500	40000	A	42	25	0.5	0.25	Brass
XZ-50B-32E	3.2 ± 0.5	200	40000	A	50	25	0.5	0.25	Brass
XZ-50B-13E	1.3 ± 0.5	300	60000	A	50	30	0.5	0.25	Brass
XZ-50BD-14E	1.4 ± 0.5	300	60000	D	50	30	0.50	0.25	Brass

External Drive (General Type)

Model NO.	Resonant Frequency (KHz)	Resonant Impedance (Ω) max	Static Capacitance (pF) $\pm 30\%$	Shape	Dimensions(mm)				Piezo Material
					D ± 0.1	d ± 0.2	T ± 0.05	t ± 0.02	
XZ-12B-85TE	8.5 \pm 0.6	600	13000	A	12	9	0.22	0.1	Brass
XZ-15B-70TE	7.0 \pm 0.5	600	13000	C	15(12)	11	0.22	0.1	Brass
XZ-15B-65TE	6.3 \pm 0.5	600	15000	A	15	11	0.22	0.1	Brass
XZ-20B-39TE	3.9 \pm 0.3	400	25000	A	20	15	0.22	0.1	Brass
XZ-21B-35TE	3.5 \pm 0.3	250	60000	A	21	20	0.22	0.1	Brass
XZ-25B-27TE	2.7 \pm 0.3	300	60000	A	25	20	0.22	0.1	Brass
XZ-27B-26TE	2.6 \pm 0.3	200	60000	A	27	20	0.22	0.1	Brass
XZ-27B-25TE	2.5 \pm 0.3	200	100000	A	27	25	0.22	0.1	Brass
XZ-30B-18TE	1.8 \pm 0.3	500	60000	A	30	20	0.22	0.1	Brass
XZ-30S-19TE	1.9 \pm 0.3	500	60000	A	30	20	0.22	0.1	SUS
XZ-31B-17TE	1.7 \pm 0.3	800	60000	A	31	20	0.22	0.1	Brass
XZ-31S-19TE	1.9 \pm 0.3	800	60000	A	31	20	0.22	0.1	SUS
XZ-31B-23TE	2.3 \pm 0.3	200	100000	A	31	25	0.22	0.1	Brass
XZ-35B-15TE	1.5 \pm 0.3	300	100000	A	35	25	0.22	0.1	Brass
XZ-35S-15TE	1.5 \pm 0.3	300	100000	A	35	25	0.22	0.1	SUS
XZ-38B-15TE	1.5 \pm 0.3	1000	100000	A	38	25	0.22	0.1	Brass
XZ-41B-26TE	2.6 \pm 0.3	300	60000	A	41	20	0.22	0.1	Brass
XZ-41B-13TE	1.3 \pm 0.3	1200	100000	A	41	25	0.22	0.1	Brass
XZ-41S-14TE	1.4 \pm 0.3	1200	100000	A	41	25	0.22	0.1	SUS
XZ-42B-12TE	1.2 \pm 0.3	1200	100000	A	42	25	0.22	0.1	Brass
XZ-45B-11TE	1.1 \pm 0.3	1400	100000	A	45	25	0.22	0.1	Brass
XZ-50B-20TE	2.0 \pm 0.3	500	100000	A	50	25	0.22	0.1	Brass
XZ-50B-14TE	1.4 \pm 0.3	1000	160000	A	50	30	0.22	0.1	Brass

PIEZOCERAMIC ELEMENTS



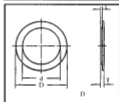
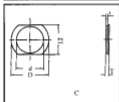
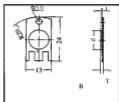
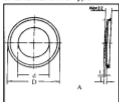
Self-Drive (General Type)

Model NO.	Resonant Frequency (KHz)	Resonant Impedance (Ω) max	Static Capacitance (μF) $\pm 30\%$	Shape	Dimensions(mm)				Plate Material
					D ± 0.1	d ± 0.2	T ± 0.05	t ± 0.03	
XZ-30B-30S	7.0 \pm 0.7	250	15000	EKL	20	15	0.5	0.25	Brass
XZ-22B-48S	4.8 \pm 0.5	800	12000	J	22	16.8	0.38	0.2	Brass
XZ-27B-42S	4.2 \pm 0.5	200	25000	EH	27	20	0.5	0.25	Brass
XZ-27S-46S	4.6 \pm 0.5	200	25000	E	27	20	0.5	0.25	SUS
XZ-27B-30S	3.0 \pm 0.5	300	35000	E	27	20	0.38	0.15	Brass
XZ-35B-26S	2.6 \pm 0.5	250	40000	EPG	35	25	0.5	0.25	Brass
XZ-35S-28S	2.8 \pm 0.5	250	40000	EPG	35	25	0.5	0.25	SUS
XZ-38B-20S	2.0 \pm 0.5	500	40000	E	38	25	0.5	0.25	Brass

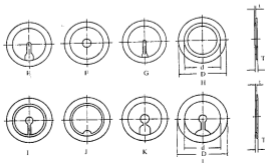
Self-Drive (Thin Type)

Model NO.	Resonant Frequency (KHz)	Resonant Impedance (Ω) max	Static Capacitance (μF) $\pm 30\%$	Shape	Dimensions(mm)				Plate Material
					D ± 0.1	d ± 0.2	T ± 0.05	t ± 0.03	
XZ-12B-30TS	7.0 \pm 0.7	1600	9000	L	12	9	0.17	0.1	Brass
XZ-15B-65TS	6.5 \pm 0.5	600	12000	L	15	11	0.22	0.1	Brass
XZ-18B-38TS	3.8 \pm 0.5	1500	16000	L	18	12	0.22	0.1	Brass
XZ-20B-36TS	3.6 \pm 0.5	400	25000	EL	20	15	0.22	0.1	Brass
XZ-21B-34TS	3.4 \pm 0.5	600	25000	K	21	14.3	0.22	0.1	Brass
XZ-27B-26TS	2.6 \pm 0.5	300	60000	IL	27	20	0.22	0.1	Brass
XZ-35S-16TS	1.6 \pm 0.3	300	100000	E	35	25	0.22	0.1	SUS

Shape for External-Drive Type



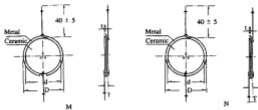
Shape for self-Drive Type



PIEZOCERAMIC ELEMENTS



Dubble Ceramic Plate



Model NO.	Resonant Frequency (KHz)	Resonant Impedance (Ω) max	Static Capacitance (pF) $\pm 30\%$	Shape	Dimensions(mm)				Plate Material
					D ± 0.1	d ± 0.2	T ± 0.05	t ± 0.05	
XZ-15B-64TE	6.4 ± 0.5	150	50000	N	15	14 \times 2	0.33	0.10	Brass
XZ-21B-38TE	3.8 ± 0.3	150	120000	N	21	20 \times 2	0.33	0.10	Brass
XZ-27B-25TE	2.5 ± 0.3	120	200000	MIN	27	25 \times 2	0.33	0.10	Brass
XZ-32B-15TE	1.5 ± 0.3	120	280000	N	32	30 \times 2	0.33	0.10	Brass