

PART NUMBERING SYSTEM

OBO- 12 01 N - B 1 W

For Wire type only (No numbering for pin type)

Numbering for various spec. of marketing or leads length

Numbering for various spec. of frequency, impedance & material

Serial number for various types

A,B,K : for the external drive with sealed type

C,D,F : for the internal drive with sealed type

G,H,J : for the external drive without sealed type

R,N : for the side emission hole design

M : for the bigger emission hold

Y : for the aside emission hold on the top of buzzer

S,T : for the type of SMD buzzer

For the rated voltage

ex. 1.5V numbering by 01 ; 3.0V numbering by 03

Diameter for the buzzer

電磁式蜂鳴器產品編號原則

OBO- 12 01 N - B 1 W

W : 表 Wire type. (pin type則不編碼)

外觀流水號

特性流水碼，區別不同頻率，阻抗，材質

系列碼

A,B,K : 表外部驅動線路式，封膠防水

C,D,F : 表內部驅動線路式，封膠防水

G,H,J : 表外部驅動線路式，無封膠防水

R,N : 表側孔發音

M : 表大孔發音

Y : 表正面偏孔發音

S,T : 表SMD TYPE

設定電壓碼

例 1.5V 以 0.1表示；3.0V 以 03表示

成品直徑

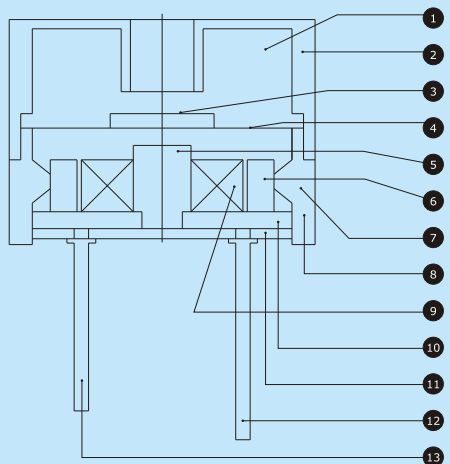
MAGNETIC TRANSDUCER

MODEL NO.	Dimensions (mm)	Rated Voltage (V)	Operating Voltage (V)	Resistance (Ω)	Rated Frequency (Hz)	SPL At 10cm (dBA)	Current Consumption (mA)	Operating Temp. (°C)	Terminal Type	Page NO.
OBO-30AL1	8.5×8.5×3.0	3.0	2~4	16±3	2,300	Min. 83	Max. 100	-30~+70	SMD	37
OBO-30AP1	8.5×8.5×3.0	3.0	2~4	16±3	2,700	Min. 85	Max. 100	-30~+70	SMD	37
OBO-40AL1	8.5×8.5×4.0	3.0	2~4	16±3	2,300	Min. 87	Max. 80	-30~+70	SMD	38
OBO-40AP1	8.5×8.5×4.0	3.0	2~4	16±3	2,700	Min. 90	Max. 80	-30~+70	SMD	38
OBO-40BS1	9.0×4.0	1.5	1~2	5.5±1	2,730	Min. 85	Max. 80	-30~+70	SMD	39
OBO-40BS2	9.0×4.0	3.0	2~4	15±3	2,730	Min. 85	Max. 80	-30~+70	SMD	39
OBO-40BS3	9.0×4.0	5.0	4~6	30±5	2,730	Min. 85	Max. 80	-30~+70	SMD	39
OBO-45AL1	8.5×8.5×4.5	3.0	2~4	16±3	2,300	Min. 87	Max. 80	-30~+70	SMD	40
OBO-45AP1	8.5×8.5×4.5	3.0	2~4	16±3	2,700	Min. 87	Max. 80	-30~+70	SMD	40
OBO-45BP1	9.0×4.5	3.0	2~4	16±3	2,700	Min. 85	Max. 100	-20~+60	SMD	40
OBO-0903S-A2	8.5×8.5×3.0	3.0	2~5	16±4	2,700	Min. 87	Max. 100	-30~+70	SMD	41
OBO-0905S-A2	8.5×8.5×3.0	5.0	4~7	30±4	2,700	Min. 87	Max. 100	-30~+70	SMD	41
OBO-50UP1	9.6×9.6×5	5.0	4~7	-	2,700±300	Min. 85	Max. 30	-20~+70	SMD	42
OBO-65UN1	12.8×12.8×7.0	5.0	4~7	-	2,400±300	Min. 85	Max. 30	-20~+70	SMD	42
OBO-100UN1	12.8×12.8×10.0	12.0	8~16	-	2,400±300	Min. 85	Max. 30	-20~+70	SMD	42
OBO-0901A-A2	9.0×4.0	1.5	1~2	5.5±1	2,730	Min. 85	Max. 80	-20~+60	PIN	43
OBO-0903A-A2	9.0×4.0	3.0	2~4	15±3	2,730	Min. 85	Max. 80	-20~+60	PIN	43
OBO-0905A-A2	9.0×4.0	5.0	4~6	30±5	2,730	Min. 85	Max. 80	-20~+60	PIN	43
OBO-1001R-A2	9.6×5.0	1.5	1~2	5.5±2	2,730	Min. 85	Max. 80	-20~+60	PIN	44
OBO-1003R-A2	9.6×5.0	3.0	2~4	25±3	2,730	Min. 85	Max. 70	-20~+60	PIN	44
OBO-1005R-A2	9.6×5.0	5.0	4~6	30±5	2,730	Min. 85	Max. 100	-20~+60	PIN	44
OBO-1201G-A1	12.0×8.5	1.5	1~2	16±2	2,048	Min. 85	Max. 55	-25~+70	PIN	45
OBO-1201G-B1	12.0×8.5	1.5	1~3	42±6	2,048	Min. 85	Max. 15	-20~+70	PIN	45
OBO-1206G-C1	12.0×8.5	6.0	4~8	73±6	2,048	Min. 82	Max. 30	-20~+70	PIN	45
OBO-1201M-A3	12.0×5.5	1.5	1~3	16±2	2,048	Min. 75	Max. 30	-20~+70	PIN	46
OBO-1201M-B3	12.0×5.5	1.5	1~3	42±6	2,048	Min. 70	Max. 15	-25~+70	PIN	46
OBO-1203M-A3	12.0×5.5	3.0	1~5	16±2	2,048	Min. 85	Max. 70	-20~+60	PIN	47
OBO-1205M-B3	12.0×5.5	5.0	3~8	42±6	2,048	Min. 85	Max. 50	-30~+80	PIN	47
OBO-1205A-D2	12.0×9.0	5.0	3~7	42±5	2,048	Min. 82	Max. 50	-20~+70	PIN	48
OBO-1212A-D2	12.0×9.0	12.0	7~16	140±14	2,400	Min. 85	Max. 40	-20~+70	PIN	48
OBO-1201A-A2	12.0×9.0	1.5	1~2	6.5±1	2,400	Min. 75	Max. 70	-25~+70	PIN	49
OBO-1206A-A2	12.0×9.0	6.0	4~8	45±6	2,400	Min. 85	Max. 50	-20~+70	PIN	49
OBO-1212A-A2	12.0×9.0	12.0	6~15	140±14	2,400	Min. 85	Max. 40	-20~+70	PIN	49
OBO-1201C-A2	12.0×9.5	1.5	1.2~3	-	2,300±400	Min. 75	Max. 20	-20~+70	PIN	50
OBO-1206C-A2	12.0×9.5	6.0	3~8	-	2,300±300	Min. 85	Max. 30	-20~+70	PIN	50
OBO-1212C-A2	12.0×9.5	12.0	8~16	-	2,300±300	Min. 85	Max. 30	-30~+85	PIN	50
OBO-1201D-A2	12.0×7.5	1.5	1.3~3	-	2,300±500	Min. 75	Max. 25	-20~+70	PIN	51
OBO-1203D-A2	12.0×7.5	3.0	2~5	-	2,300±400	Min. 83	Max. 30	-20~+70	PIN	51
OBO-1205D-A2	12.0×7.5	5.0	3~7	-	2,300±400	Min. 83	Max. 30	-25~+70	PIN	51
OBO-1212D-A2	12.0×7.5	12.0	9~15	-	2,300±400	Min. 83	Max. 30	-30~+85	PIN	51

With reference to the below drawing which shows the construction of 9φ, 12φ type magnetic transducers, the operation principle of miniature sound transducers can be explained as follows :

As shown in the drawing, the metal vibrating disk located in between two covers oscillated and makes sound by the magnetic field which attracts the vibrating disk being affected by the imposed magnetic flux.

This movement is generated by the current through the coil which is located in the magnetic circuits consisting of permanent magnetic and iron core.



NO.	Name of Materials Parts	料品名稱
1	Cavity	腔體
2	Cover	上蓋
3	Vibrating weight	質量片
4	Vibrating disk	振動片
5	Pole	
6	Magnet	磁鐵
7	Magnet holder	磁鐵放置區
8	Coil	線圈
9	Yoke plate	Yoke片
10	P.C. board	PC板
11	Pin long	長PIN
12	Pin short	短PIN
13		

CONSTRUCTION VIEW OF 9φ, 12φ TYPE

BASIC POINT FOR ADEQUATE USES (使用特性)

1. Frequency Characteristics 頻率

Magnetic Transducers are driven by an input frequency. The given frequency characteristics can be obtained only when applying square wave (Vo-p). 電磁式產品是輸入頻率做驅動，且頻率曲線會以方波Vo-p表示

The end-users must know the facts that the characteristics of frequency may be quite change in different shapes with the applied various waves, like sine wave, square wave (Vo-p) or the other waves.

客戶於使用時要明白，不同的頻率驅動時頻率曲線表現會改變

2. Rated Voltage 電壓

When other voltage are applied than our recommended one, the characteristics of frequency will be also changed.

To have best performance, the recommended voltage by OBO has better being used always.

當電壓改變時，頻率表現也會改變，建議由客戶提供資料以獲得較好的頻率表現

STANDARD DRIVING CIRCUIT FOR TRANSDUCER (9φ, 12φ 建議路線)

