

型号 (Type) : HY 40 A 16 TR 10 - 1

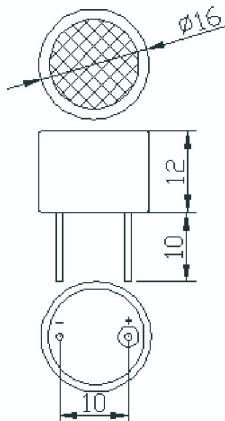
1 华宇电子	1	2	3	4	5	6	7
2 标称频率							
3 外壳材质							
4 外壳直径							
5 功能							
6 产品高度							
7 结构							



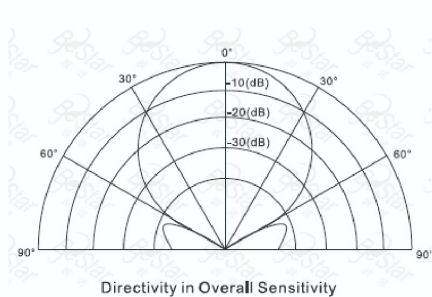
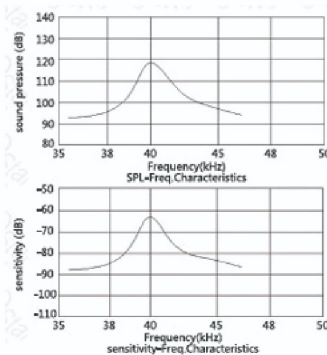
电气规格(ELECTRICAL SPECIFICATION)

- 功能 (Function) : Dual use (双用途)
- 结构 (structure) : Open Structure (开放式)
- 外壳材质 (Housing Material) : Aluminum (铝)
- 中心频率 (Center Frequency) : 40 ± 1.5 KHz
- 静态电容 (Free Capacitance) : $2200\text{Pf} \pm 20\%$
- 声压 (Sound Pressure Level) : 112dB min. (0dB=0.02mPa)
- 灵敏度 (Sensitive) : -68dB Min (0dB=1V/ μ bar)
- 发射角度 (-6 dB Directivity (deg) : $60^\circ \pm 15^\circ$
- 使用温度 (Operating Temperature) : $-30^\circ\text{C} \sim +70^\circ\text{C}$
- 最大允许电压 (Maximum allowable voltage) : 80Vp-p
- 储存温度 (Storage Temperature) : $-40^\circ\text{C} \sim +80^\circ\text{C}$
- 余震 (Ringing) : 2.0ms MAX
- 重量 (Weight) : 2.5g

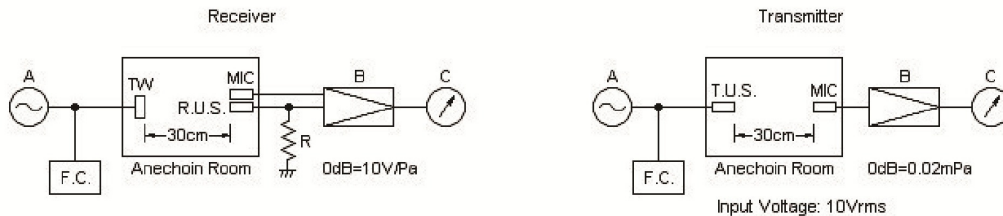
外观及尺寸 (Appearance and size)



性能参数 (graphics for performance parameters)



测试电路 (Test circuit)



A: Oscillator B: Amplifier C: Voltmeter R: 3.9K MIC: Microphone TW: Tweeter
R.U.S.: Receiver Ultrasonic Sensor T.U.S.: Transmitter Ultrasonic Sensor F.C.: Frequency Counter

可靠性试验 (RELIABILITY TEST)

- 1 High temp test
After being placed in a chamber at 120°C for 24 hours
 - 2 Low temp test
After being placed in a chamber at -30°C for 96 hours
 - 3 Humidity Test
After being placed in a chamber +50°C and 90±5% relative Humidity for 96 hours
 - 4 Vibration
Sensor shall be measured after being applied vibration of Amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours
 - 5 Drop test
The part only shall be dropped from a height of 100cm onto a 10mm thick wooden board 3 times in 3 axes(X, Y, Z). (a total of 9 times).
 - 6 Terminal Mechanical strength
The force 10 seconds of 9.8N(1.0Kg) is applied to each terminal in axial direction
No damage and cutting off
 - 7 After the test the part shall meet specifications with-out any Degradation in appearance and performance except SPL after 4 hours at 25°C. The SPL should be in±10dB compared wit initial one.
- 1 高温试验
120度放置24小时
 - 2 低温试验
-30度放置96小时
 - 3 湿度测试
50度 90±5%，96小时。
 - 4 振动
10-55hz 1min 1.5mm 3轴 (x, y, z) 2hours/direction
 - 5 跌落试验
100CM高下跌到10mm厚的木板上3次一个循环(共做9次)。
 - 6 接线的机械强度
用力10秒9.8n (1.0kg) 施加到终端，在轴向方向无损坏切断。
 - 7 试验结束后，在25°C4小时后，传感器的外观和性能均应符合规定。声压级应在±10db相比初始。

包装规范 (Package Specification)

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|--------------------------|----------------------------------|
| 1 每只泡沫盒 50 只产品。 | Each foam box has 50 products |
| 2 每箱 40 只泡沫盒。 | 40 foam boxes in each case |
| 3 每箱 2000 只产品。 | 2000 products per carton |
| 4 包装箱尺寸 505X420X280 (mm) | Packing case size 505X420X280 mm |

