

## X-ND100 Digital Noise Detector

### User Manual

X-ND100 (Digital Noise Detector) is used to detect ambient noise, automatically calculate the noise SPL, and transmit the SPL data to X-DCS3000. It is an important component to fulfill the function of automatic volume control. While broadcasting, the sound is mixed with ambient noise. In order to measure the noise SPL accurately, X-ND100 measures broadcast signal from speaker lines, comparing with the one from microphone to get the actual noise data.

### Features

- Connect to X-DCS3000 by a pair of cables, through which fulfill communication and power supply.
- Max. 5 noise detectors for each channel.
- Currently collect broadcast signal and noise signal.
- Max. transmission distance is 1000m.
- Flush-mounting in ceiling.
- Fire-proof ABS shell.
- Ideal for indoor installation.



### Installation Notes

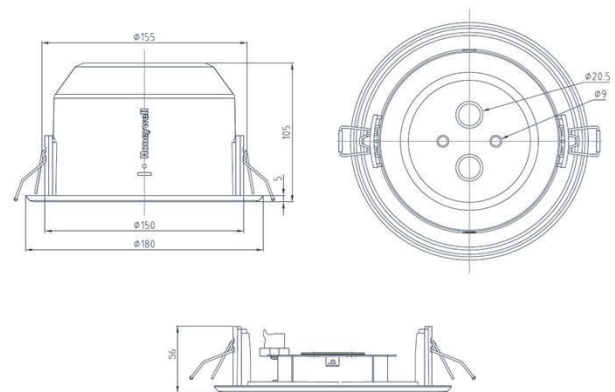
#### 1. Installation

Builders can conveniently install the noise detector into a hole with diameter of 160mm in the ceiling, and fix it with the spring clamps on both sides of shell. Thickness of ceiling is 5~25mm.

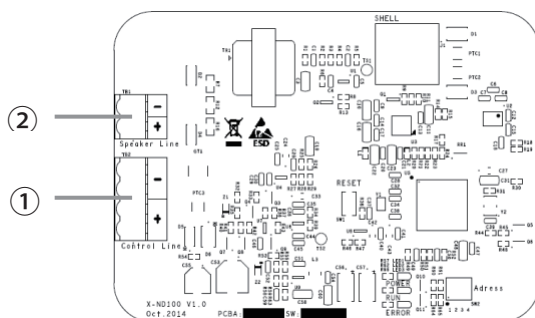
#### 2. Wiring

There are two terminals inside the noise detector. One is used to connect the control line for communication and power supply, and another is used to connect speaker line. The polarity of wires shall conform to the marks beside the terminals. Generally, 0.75mm<sup>2</sup> twisted wires are recommended. If the distance from noise detector to controller is up to 1000m, please use 1mm<sup>2</sup> twisted wires.

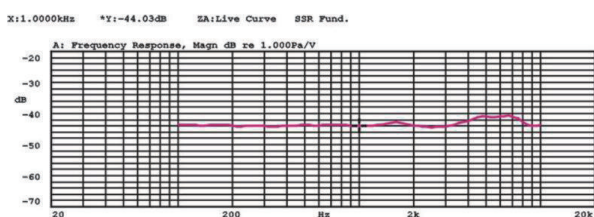
No.	Name	Description
1	Control Line Interface	To connect a DCL port of X-DCS3000
2	Speaker Line Interface	To connect controlled speaker line



Dimensions in mm

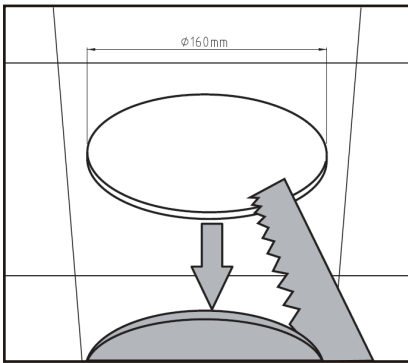


### Frequency Response

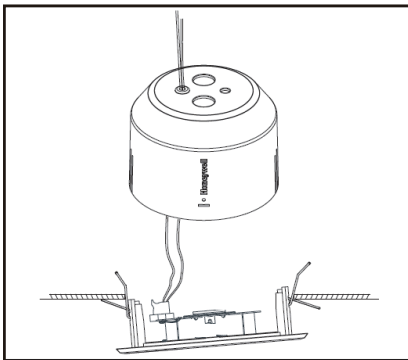


## Installation Instructions

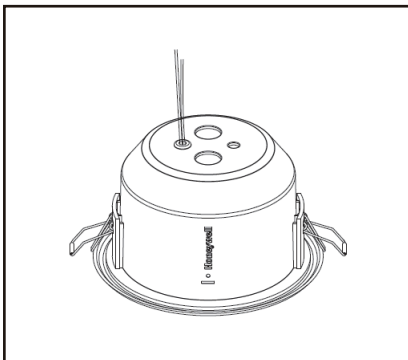
1. Dig a hole with diameter of 160mm in the ceiling;



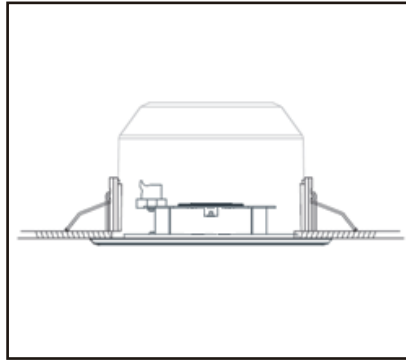
2. Put the cables through the hole of back shell, and then connect them to the terminals inside the noise detector. The polarity of wires shall conform to the marks beside the terminals.



3. Align the slot of the back shell to the right place, and fix it.



4. Make both sides of springs toward to the ceiling hole, and push the noise detector into the hole. The spring then automatically lock the noise detector to the ceiling.



## Installation Notes

Technical Data	Parameter
Broadcast Signal Input	100V
Sensitivity	-44±3dB (0dB=1V/Pa,1KHz)
Frequency Response	100Hz ~ 20KHz
S/N Ratio	≥58dB
Directivity	Omni-directional Directivity
Sound Pressure Level	110dB
Power Supply	By Control Line
Color	White (RAL9003)
Mounting Hole Size	Φ160 mm
Depth of Hole	100mm
Ceiling Thickness	5 to 25 mm
Operating Temperature	-10°C ~ +55°C
Storage Temperature	-25°C ~ +70°C
Relative Humidity	<95%, no condensation
Dimensions	Φ180 x 105 mm
Packing Dimension (W×H×D)	185 x 115 x 185mm
Net Weight	0.315 Kg
Gross Weight	0.446Kg

## Packing List

No.	Components	Qty.
1	X-ND100Main Appliance	1
2	Warranty Card	1
3	Quality Certificate	1
4	User Manual	1

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