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 it with the broadcast signal from the microphone to get the actual noise data.

INSTALLATION NOTES

1. Installation

Builders can conveniently install the noise detector into a hole with diameter of 160mm in the ceiling, and secure it with the spring clamps on both sides of the shell. Thickness of the 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 the speaker line. The polarity of wires shall conform to the marks beside the terminals. Generally, 0.75mm^2 twisted wires are recommended. If the distance from the noise detector to controller exceeds 1000m, please use 1mm^2 twisted wires.

X-ND100

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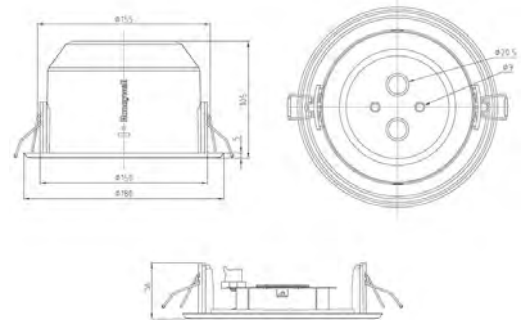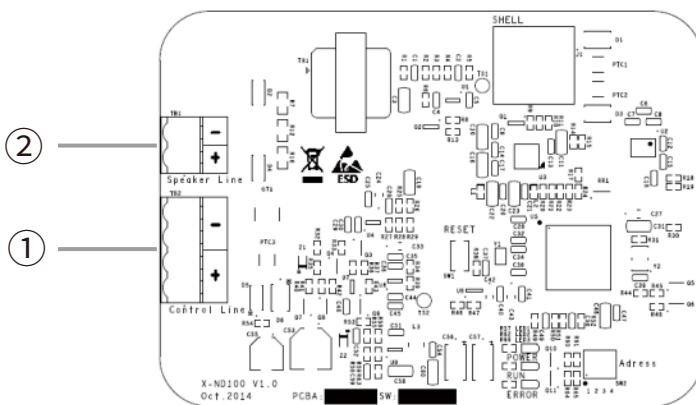
Dimensions in mm

FEATURES AND BENEFITS

- Connect to the X-DCS3000 by a pair of cables, to the communication and power terminals.
- Max. 5 noise detectors for each channel.
- Fire-proof ABS shell.
- Collects broadcast signals and noise signals.
- Max. transmission distance is 1000m.
- Flush-mounting in ceiling.
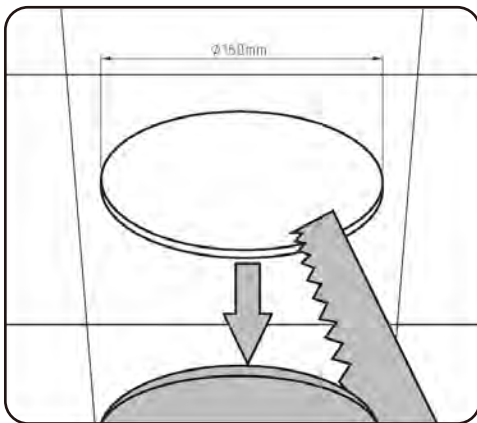- Ideal for indoor installation.
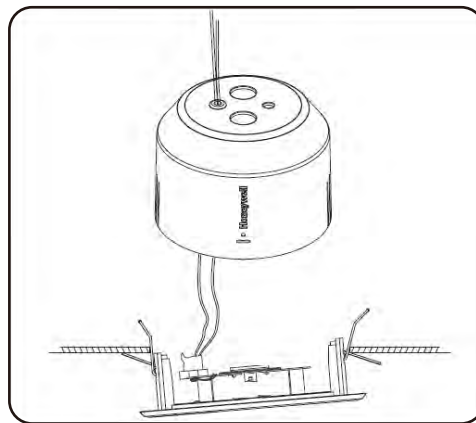
X-ND100

FREQUENCY RESPONSE

X:1.0000kHz   *Y:-44.03dB   ZA:Live Curve   SSR Fund.

A: Frequency Response, Magn dB re 1.000Pa/V
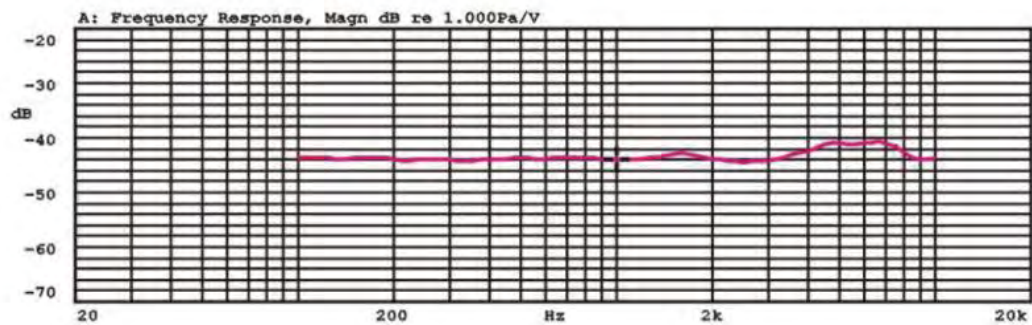
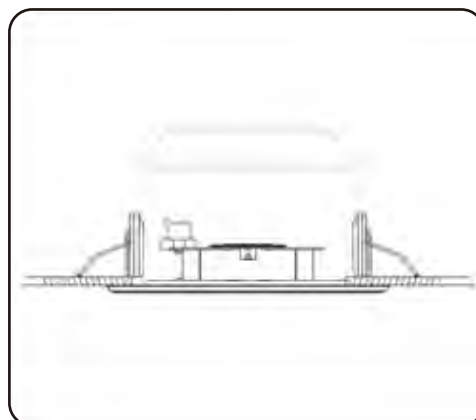## INSTALLATION INSTRUCTIONS

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

2. Put the cables through the hole on 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 in the back shell to the wires and secure it.

4. Face springs toward the ceiling hole,and push the noise detector into the hole. The spring then automatically locks the noise detector to the ceiling.

X-ND100

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 x185mm
Net Weight	0.315 Kg
Gross Weight	0.446Kg

Note: Honeywell reserves the right, without notification, to make changes in product design and/ or specifications.

PACKING LIST

NO.	COMPONENTS	QTY.
1	X-ND100 Main Appliance	1
2	Warranty Card	1
3	Quality Certificate User	1
4	Manual	1

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