Some instructions on using the Sound Pressure Guide and Symbol

Applicable files

SC-615_M_T.rfa

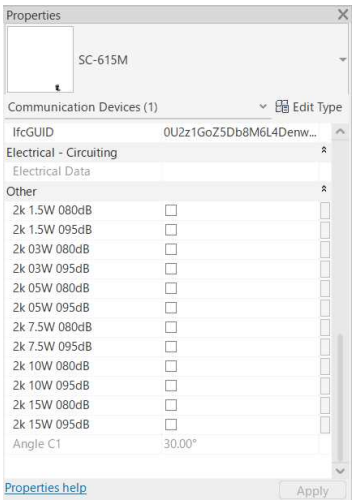
Sound Pressure Guide

These have the ability to display the reach of sound pressures. In this document, the shape representing this reach is conveniently referred to as a "balloon."

The conditions

- This reach range display is simplified based on the actual measurement data.
- The conditions that can be displayed (impedance tap, dBspl) differ depending on the file.
- The input signal can be selected from 1kHz / 4kHz.
- The input signal is assumed to be -5dB smaller than the rated level.
  This assumes of voice and music that are actually used.
- The expected sound pressure level is only on the surface of the balloon, and the sound pressure inside the balloon is higher than that. Simply put, the closer the listening position is to the speakers, the higher the sound pressure level at that location.
- The sound pressure is also distributed outside the balloon and is lower than the sound pressure on the balloon surface. The sound does not disappear outside the balloon's boundaries.

Display method



When you select the relevant speaker family in the project, a check menu like "2k 1.5W 080dB" will appear in Properties. In this example, the range where the output sound is 80dBspl when the speaker tap is 1.5W and 2kHz is input is displayed as a "balloon".



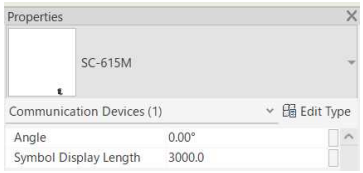


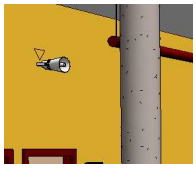
Notes

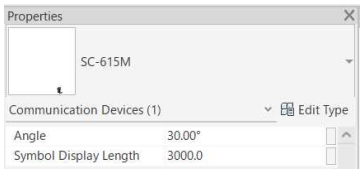
This is simple data created for BIM.

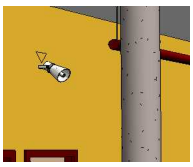
- The actual sound contains various frequencies and is affected by the complex effects that occur on walls and ceilings. This data is not an exact representation of them. Moreover, it is not possible to represent those effects with one data. Use it as a guide to determine the number and position of speakers in the early stages of design.
- The surface of the Balloon is supposed to have the same sound pressure, but not the inside or outside of it. The closer the listening point is to the speaker, the higher the sound pressure, and the farther away from the speaker, the lower the sound pressure.

Angle



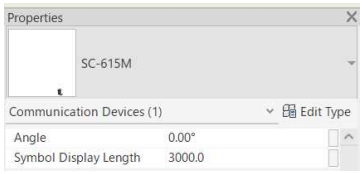






You can change the direction of the speaker by entering the angle in "Angle". At this time, the direction of the "balloon" will also change.

Symbol display on floor plan



These family data are mounted on the ceiling, but symbols can be displayed on the floor plan. By default, the symbol is placed 3,000mm below the speaker body, which allows the floor plan to detect the symbol. If ceilings in your project are high and your floor plan does not allow the symbols to be detected, increase the value(mm) of “Symbol Display Length” shown in the image to the left.

About the View Range

Please refer to the Autodesk website to find out which range of symbols the floor plan detects.

https://help.autodesk.com/view/RVT/2024/ENU/?guid=GUID-58711292-AB78-4C8F-BAA1-0855DDB518BF

Your opinion/request

This data is made by simple consideration so far. We aim to create data that is more convenient for actual operations. If you have any opinions or requests for our data, please let us know. Please submit your opinion using the form of the page : https://www.sound-toa.com/your-opinionrequest.html