

## How Loud is Loud? Part 1 of 2

The February edition of the Buzz covered the “5 Things You Need to Know to Specify Audible Alarms.” One of the 5 things was “How loud does your alarm need to be?” In part, the answer was that “the sound level selected should be appropriate for the application and the surrounding environment.” But, just what is “appropriate”? We’ll attempt to answer that in this and next month’s issue of the Buzz in a two-part series.

Dan O’Brien, Mallory Vice President of Marketing, says that the question of “How loud of an alarm do I need?” seems easy at first, but it’s not. He points out the following:



First, sound level and distance are intertwined. For example, you can use a quieter voice when talking to someone next to you, compared with needing to shout to someone across the room. Similarly, the rated sound level for an alarm must include a distance. For example, an alarm can be rated at 90 dB @ 10 cm (90 decibels at 10 centimeters). Decibels are the units for sound level and range from 0 dB (threshold of hearing) to 120 dB (threshold of pain). For an alarm rated at 90 dB @ 10 cm, this means that if your ear is 10 centimeters from the alarm, you will hear a 90 decibel level sound, which is pretty loud (comparable to a food blender). Some other common distances for specifying sound level are 30 cm, 2 feet, and 10 feet.

Second, the required alarm sound level depends on the ambient background noise where the alarm will be located. E.g., if you were in a library, you could whisper to the person next to you and still be heard, but if you were standing next to a running dump truck, you might have to yell. Similarly, to be heard over ambient background noise, it is recommended that the alarm be rated at least 10 dB louder than the background noise. If you don’t know the background noise level, you can measure it using a sound meter, or you can work with the alarm supplier to figure out the likely background noise level and how loud an alarm will be needed. ***Mallory’s technical experts (317.612.1000) can help you work through these issues and find the correct alarm for your application.***

In next month’s Buzz, we will discuss additional facets of alarm sound level specifying.

## Mallory Introduces Small, Low-Voltage, Loud Board-Mount Alarms

Mallory’s new MSO206NLR (wires) and MSO206NR (PC pins) alarms are the perfect combination of small size (approx. .9 in. wide x .5 in. high), low voltage (2-6 VDC), and loud sound level (85-95 dB typical @ 2 ft.) in a miniature board-mount alarm. To our knowledge, they are the loudest 2 VDC miniature board mount alarms on the market.