

Sound Level Meter

Noise caused by traffic

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Noise, no matter what the source of it is, can become a real problem and an issue for many conflicts and discussions. Especially in large cities noise caused by traffic has become a serious problem. From one side, there is a growing desire of the population to be mobile and therefore the number of cars on the road is growing intensively, from the other, there is growing dissatisfaction with the permanent annoying noise. In connection with that not only the number of cars is an issue, but also what measures can be taken to reduce that noise – quality of the roads (material different from the regular pavement), use of the mechanisms and devices that help to minimize the noise (walls that help to absorb and reduce the sound), new strategies in managing traffic (for example, speed control) etc.



It is clear that traffic noise comes from various means and kinds of transport. Either noise comes from the tires- road interaction or from the exhaust pipes and engines - altogether they create sometimes unbearable conditions causing sleep damage and unfavorable environment for people. Some steps have been made in that direction – new types of tires, less noisy engines, better means

of sound isolation on the roads, and that helps to reach the desirable level of 50 dB, which is not perfect, but more or less appropriate. The traffic density makes the solution of the problem more difficult and very often the noise level even in the residential areas reaches 55 and sometimes even 65 dB.

To the highly noise polluted areas also belong the areas situated near the airports, railway stations or railroads. Scientific researches have proved that extreme traffic noise level causes more heart attacks, higher stress level, sleeping disorders and other health problems. The constant taking off and landing of the planes, sounds from working turbines etc have an extremely negative influence on people that live in the near-by areas. The daily exposure to noise equal to 65 dB and more, and at night to 55 dB can be not the main, but definitely the important factor contributing to the deterioration of the health condition. The noise coming from aircrafts is not permanent, it lasts for a few seconds, is transient, but it happens permanently at certain time intervals. The level of the transient noise can and should be measured as well. Sound Level Meters and Analyzers can be applied to measure the level of exposure to the temporary sound.



Very often it is difficult to measure the noise level coming from one particular way of transport, if the area is close to both, airport and the road, or railway. That is why in such situations it is important to conduct measurements from different points, which are maximally close to one particular source of noise. In addition, such factors, as the size of the vehicle (train type, aircraft size), type of fuel used, average speed, distance to the measuring point, frequency and duration of the noise should be taken into consideration. With the help of the measuring equipment and kits, recording, storage of the data and correct calculation it is possible to get the precise results and to see if the Noise Level exceeds the legally admissible limits.