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Acoustics — Field measurements of airborne and impact sound insulation and of service equipment sound — Survey method

AMENDMENT 1

*Acoustique — Mesurages in situ de l'isolement aux bruits aériens et de
la transmission des bruits de choc ainsi que du bruit des
équipements — Méthode de contrôle*

AMENDEMENT 1



Reference number
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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
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Foreword

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The wording given in ISO 10052:2004, 6.3.3 could mislead users to make more measurements than necessary. Therefore the text is changed to limit the number of measurements to three. Consequently, the definition in 3.14 is changed.

Page 6, 3.14

Delete the existing subclause and insert the following text.

“3.14

service equipment sound pressure level

average sound pressure level in the room obtained by the procedure described in 6.3.3 and calculated as follows:

$$L_{XY} = 10 \lg \left(\frac{10^{L_{XY,1}/10} + 10^{L_{XY,2}/10} + 10^{L_{XY,3}/10}}{3} \right) \text{ dB} \quad (14)$$

where

$L_{XY,1}$ is the weighted sound pressure level obtained by the measurement at position 1 close to the corner;

$L_{XY,2}, L_{XY,3}$ are the weighted sound pressure levels obtained by the two measurements at position 2 in the reverberant field of the room;

X relates to the frequency weighting used (X can be A or C);

Y characterizes there the temporal weighting (Y can be F, S or equivalent continuous level, L_{eq}).

NOTE The different measures, L_{XY} , are not comparable. Only measurement results obtained with the same measuring parameters can be compared.”

Delete the existing subclause and insert the following text.

“6.3.3 Service equipment sound pressure level

Measure the service equipment sound pressure level in the room. Two fixed microphone positions are required. Position 1 shall be close to the apparently acoustically hardest surfaces, preferably at a distance of 0,5 m from the walls and from the floor or ceiling. Position 2 shall be in the reverberant field of the room (central room area). The distance to any sound source (e.g. ventilation outlets) shall be at least 1,5 m.

In total, three measurements shall be performed. Perform one measurement at position 1 close to the corner and two measurements at position 2. The measurement time interval for each of the three measurements shall cover one full cycle of the service equipment working under normal conditions. For each measurement, a separate operation cycle shall be used. The operation cycles are given in Annex B. Calculate the average sound pressure level according to Equation (14).”