

DIN EN ISO 16283-1:2018-04 (Engli sch)

Acoustics - Field measurement of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation (ISO 16283-1:2014 + Amd 1:2017) (includes Amendment A1:2017)

Contents

Page

European foreword to EN ISO 16283-1:2014	4
■ A1 European foreword to Amendment 1 ■ A1	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Instrumentation	11
4.1 General	11
4.2 Calibration	11
4.3 Verification	11
5 Frequency range	11
6 General	12
7 Default procedure for sound pressure level measurement	13
7.1 General	13
7.2 Generation of sound field	13
7.3 Fixed microphone positions	14
7.4 Mechanized continuously-moving microphone	15
7.5 Manually-scanned microphone	16
7.6 Minimum distances for microphone positions	18
7.7 Averaging times	18
7.8 Calculation of energy-average sound pressure levels	19
8 Low-frequency procedure for sound pressure level measurement	20
8.1 General	20
8.2 Generation of sound field	20
8.3 Microphone positions	20
8.4 Averaging time	21
8.5 Calculation of low-frequency energy-average sound pressure levels	21
9 Background noise (default and low-frequency procedure)	22
9.1 General	22
9.2 Correction to the signal level for background noise	23
10 Reverberation time in the receiving room (default and low-frequency procedure)	23
10.1 General	23
10.2 Generation of sound field	24
10.3 Default procedure	24
10.4 Low-frequency procedure	24
10.5 Interrupted noise method	25
10.6 Integrated impulse response method	25
11 Conversion to octave bands	25

12	Recording results.....	25
13	Uncertainty	26
14	Test report	26
	Annex A (normative) Requirements for loudspeakers	27
	Annex B (informative) Forms for recording results	28
	Annex C (informative) Additional guidance.....	31
	Annex D (informative) Horizontal measurements — Examples of suitable loudspeaker and microphone positions.....	36
	Annex E (informative) Vertical measurements — Examples of suitable loudspeaker and microphone positions	43
	Bibliography	49