

ISO 9612:2025-05 (E)

Acoustics - Determination of occupational noise exposure - Methodology

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	3
5	Instrumentation	5
5.1	Sound level meters and personal sound exposure meters	5
5.2	Calibrator	5
5.3	Periodic verification	6
6	Methodology - Chronological steps	6
6.1	Step 1: Work analysis	6
6.2	Step 2: Selection of the measurement strategy	6
6.3	Step 3: Measurements	6
6.4	Step 4: Error handling and uncertainties	6
6.5	Step 5: Calculation and presentation of results and uncertainty	6
7	Work analysis	6
7.1	General	6
7.2	Defining homogeneous noise exposure groups (HEG)	7
7.3	Determination of a nominal day	7
8	Selection of measurement strategies	8
8.1	General	8
8.2	Measurement strategies	8
9	Strategy 1 - Task-based measurement	8
9.1	Dividing the nominal day into tasks	8
9.2	Duration of tasks	8
9.3	Measurement of L_p , T_m , A_{eq} for tasks	
9.3.1	General	9
9.3.2	Number of measurements	9
9.3.3	Time and duration of measurements	10
9.3.4	Calculation of the A-weighted equivalent continuous sound pressure level	10
9.4	Calculation of contribution from each task to daily noise exposure level	10
9.5	Determination of daily noise exposure level	11
10	Strategy 2 - Job-based measurement	12
10.1	General	12
10.2	Measurement plan - Number, duration and distribution of measurements	12
10.3	Measurements	12
10.4	Determination of daily noise exposure levels for workers in a homogeneous noise exposure group	13
11	Strategy 3 -- Full-day measurement	13

11.1	General	13
11.2	Observing work activities and monitoring measurements	14
11.3	Measurements	14
11.4	Determination of daily noise exposure level	15
12	Measurements	15
12.1	Selection of instrumentation	15
12.2	Field calibration	15
12.3	Instrument worn by the worker	15
12.4	Integrating-averaging sound level meter	16
13	Sources of uncertainty and errors	17
13.1	General	17
13.2	Mechanical impacts on microphone	17
13.3	Wind and airflows	18
13.4	Relevance of sound contributions	18
14	Calculation of measurement uncertainties and presentation of the final results	18
15	Information to be reported	18
Annex A (informative) Example of a checklist to ensure that significant noise events are detected during the work analysis		21
Annex B (informative) Guidance to the selection of measurement strategy		22
Annex C (normative) Evaluation of measurement uncertainties		25
Annex D (informative) Example showing calculation of daily noise exposure level using task-based measurements		34
Annex E (informative) Example showing calculation of daily noise exposure level using job-based measurements		39
Annex F (informative) Sample calculation of daily noise exposure level using full-day measurements		42
Annex G (informative) Example calculation of daily noise exposure level for flexible workers		45
Annex H (normative) Uncertainty calculation for peak sound pressure levels		49
Bibliography		53