

DIN EN ISO 6926:2016-08 (E)

Acoustics - Requirements for the performance and calibration of reference sound sources used for the determination of sound power levels (ISO 6926:2016)

| Contents | | Page |
|--------------------------------|--|-------------|
| European foreword | | 4 |
| Foreword | | 5 |
| Introduction | | 6 |
| 1 | Scope | 7 |
| 2 | Normative references | 8 |
| 3 | Terms and definitions | 8 |
| 4 | Reference meteorological conditions | 10 |
| 5 | Performance requirements | 11 |
| 5.1 | General | 11 |
| 5.2 | Temporal steadiness (stability) of sound power output | 11 |
| 5.3 | Total broadband sound power level | 11 |
| 5.4 | Spectral characteristics | 11 |
| 5.5 | Directivity | 12 |
| 5.6 | Recalibration | 12 |
| 6 | Instrumentation | 13 |
| 6.1 | General | 13 |
| 6.2 | Microphone in a hemi-anechoic room | 13 |
| 6.3 | Microphone in a reverberation test room | 13 |
| 6.4 | Microphone frequency response correction | 13 |
| 6.5 | Verification | 14 |
| 6.6 | Microphone calibration check | 14 |
| 7 | Installation and operation of the reference sound source during calibration | 14 |
| 7.1 | General | 14 |
| 7.2 | Requirements in hemi-anechoic rooms | 15 |
| 7.3 | Requirements in reverberation rooms | 15 |
| 8 | Calibration procedure in hemi-anechoic rooms | 15 |
| 8.1 | Test environment | 15 |
| 8.2 | Microphone positions | 15 |
| 8.2.1 | General | 15 |
| 8.2.2 | Meridional paths | 15 |
| 8.2.3 | Spiral path | 15 |
| 8.2.4 | Fixed point array | 15 |
| 8.2.5 | Coaxial circular paths | 15 |
| 8.3 | Measurements | 16 |
| 8.3.1 | General | 16 |
| 8.3.2 | Directivity index | 16 |
| 8.3.3 | Temporal steadiness | 16 |
| 8.4 | Calculations | 17 |
| 9 | Calibration procedure in reverberation test rooms | 18 |
| 9.1 | Test environment | 18 |
| 9.2 | Microphone positions | 18 |
| 9.3 | Measurements | 18 |
| 9.3.1 | General | 18 |
| 9.3.2 | Temporal steadiness | 19 |
| 9.4 | Calculations | 19 |

| | | |
|------------------------------|---|-----------|
| 10 | Alternative calibration procedure at low frequencies | 19 |
| 11 | Measurement uncertainty | 19 |
| 11.1 | General | 19 |
| 11.2 | Typical values of the reproducibility standard deviation | 20 |
| 12 | Information to be recorded | 21 |
| 13 | Information to be reported | 21 |
| Annex A (informative) | Guidance on the determination of C_2 | 22 |
| Annex B (normative) | Alternative calibration procedure at low frequencies | 24 |
| Bibliography | | 25 |