Secondary pressure calibration of measurement microphones - DTU Orbit (10/11/2019)

Secondary pressure calibration of measurement microphones

Recent developments are presented in the practical realization of IEC 61094-5 on the pressure calibration of working standard microphones. Particular emphasis is placed on the simultaneous comparison calibration approach, implemented in an open sound field. Limiting factors as well as those having a significant influence on the determination of the pressure sensitivity are discussed. These include the separation between the microphones, the influence of the test environment and location of the sound source, and issues arising from geometric and electroacoustic dissimilarities between the reference microphone and the microphone under test. Finally, recommendations are given for aspects to be considered in a future revision of IEC 61094-5, including contributions to the measurement uncertainty arising from the matters discussed.

General information
Publication status: Published
Organisations: Dansk Fundamental Metrology A/S, National Physical Laboratory
Contributors: Barham, R., Barrera Figueroa, S., Avison, J. E. M.
Pages: 129-138
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Metrologia
Volume: 51
Issue number: 3
ISSN (Print): 0026-1394
Ratings:
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 2.49 SJR 0.997 SNIP 2.071
Web of Science (2014): Impact factor 2.041
Web of Science (2014): Indexed yes
Original language: English
Keywords: Microphone, Calibration, IEC 61094-5
DOIs:
10.1088/0026-1394/51/3/129
Source: FindIt
Source ID: 266828374
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review