

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

(Not to be reproduced without the permission of BIS or used as an Indian Standard)

मसौदा भारतीय मानक

ध्वनि-विज्ञान, ऑडियोमेट्रिक उपकरणों के अंशांकन के लिए
संदर्भ शून्य - भाग 1: शुद्ध स्वर और सुप्रा-ऑरल इयरफोन के
लिए संदर्भ समतुल्य सीमा ध्वनि दबाव स्तर

(दूसरा संशोधन)

Draft Indian Standard

***Acoustics — Reference zero for the calibration of audiometric
equipment — Part 1: Reference equivalent threshold sound
pressure levels for pure tones and supra-aural earphones***

(Second Revision)

ICS 13.140

©BIS 2024

© ISO 2017

LITD 08 Electronic Measuring Instruments, Systems And Accessories Sectional Committee

NATIONAL FOREWORD

(Formal clauses will be added later)

This Draft Indian Standard (Second Revision) which is identical with ISO 389-1:2017 Acoustics — Reference zero for the calibration of audiometric equipment Part 1: Reference equivalent threshold sound pressure levels for pure tones and supra-aural earphones' issued by the International Organization for Standardization (ISO) *will be* adopted by the Bureau of Indian Standards on the recommendation of Electronic Measuring Instruments, Systems And Accessories Sectional Committee, LITD 08 and approval of the Electronics and Information Technology Division Council.

This standard was originally published in 1968 and was identical with ISO 389. The first revision of this standard was published in 1988 was identical with ISO 389: 1985. The Second revision has been taken to align it with the latest version of ISO 389-1:2017.

The main changes compared to the previous edition are as follows:

- data for additional models of earphone have been introduced;
- wording and definitions have been aligned with the current versions of standards in the field of audiology.

A current list of all parts in the ISO 389 series can be found on the ISO website.

The text of ISO Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appears referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

The technical committee has reviewed the provisions of the following international standards referred in this adopted draft standard and has decided that it is acceptable for use in conjunction with this standard. For dated references, only the edition cited applies. For updated references, the latest edition of the referenced document (including any amendments) applies:

International Standards	Titles
IEC 60318-1:2009	Electroacoustics — Simulators of human head and ear — Part 1: Ear simulator for the measurement of supra-aural and circumaural earphones
IEC 60318-3	Electroacoustics — Simulators of human head and ear — Part 3: Acoustic coupler for the calibration of supra-aural earphones used in audiometry

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be

rounded off in accordance with IS 2:2022 ‘Rules for rounding off numerical values (*Second Revision*)’. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

SCOPE OF ISO 389-1:2017

“This document specifies a standard reference zero for the scale of hearing threshold level applicable to pure-tone air conduction audiometers, to promote agreement and uniformity in the expression of hearing threshold level measurements throughout the world.

It states the information in a form suitable for direct application to the calibration of audiometers, that is, in terms of the reference equivalent threshold sound pressure levels of generic supra-aural earphones specified in 4.2, measured on an ear simulator complying with IEC 60318-1 and in terms of model-specific data given in two additional tables for the IEC 60318-3 acoustic coupler and the IEC 60318-1 ear simulator, respectively.

The data are based on an assessment of the information available from the various standardizing laboratories responsible for audiometric standards and from scientific publications.

Some notes on the application and derivation of the reference levels are given in Annexes A and B.”

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding ISO Standard. For details, please refer to ISO 389-1:2017 or kindly contact.

Head,

Electronics & IT Department
Bureau of Indian Standards
9, B.S. Zafar Marg,
New Delhi-110002
Email: litd@bis.gov.in, litd08@bis.gov.in
Tele: 011-23608401