
**Methods for the calibration of
vibration and shock transducers —**

**Part 17:
Primary calibration by centrifuge**

*Méthodes pour l'étalonnage des transducteurs de vibrations et de
chocs —*

Partie 17: Étalonnage primaire par centrifugeur

Sample Document

get full document from standards.iteh.ai



Reference number
ISO 16063-17:2016(E)

© ISO 2016

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Requirements for apparatus and environmental conditions	1
4.1 Calibration environment.....	1
4.2 Balanced table or arm (rotational table).....	1
4.3 Rotational frequency measuring instrumentation.....	2
4.4 Voltage-measuring instrumentation.....	3
5 Preferred values	3
6 Method 1 (with measurement of the radius of rotation)	3
6.1 Test procedure.....	3
6.2 Expression of results.....	3
7 Method 2 (without measurement of the radius of rotation)	4
7.1 Test procedure.....	4
7.2 Expression of results.....	4
Annex A (informative) Expression of uncertainty of measurement in calibration	5
Bibliography	7

Sample Document

get full document from standards.iteh.ai

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 3, *Use and calibration of vibration and shock measuring instruments*.

This first edition of ISO 16063-17 cancels and replaces ISO 5347-7:1993, which has been technically revised.

ISO 16063 consists of the following parts, under the general title *Methods for the calibration of vibration and shock transducers*:

- *Part 1: Basic concepts*
- *Part 11: Primary vibration calibration by laser interferometry*
- *Part 12: Primary vibration calibration by the reciprocity method*
- *Part 13: Primary shock calibration using laser interferometry*
- *Part 15: Primary angular vibration calibration by laser interferometry*
- *Part 16: Calibration by Earth's gravitation*
- *Part 17: Primary calibration by centrifuge*
- *Part 21: Vibration calibration by comparison to a reference transducer*
- *Part 22: Shock calibration by comparison to a reference transducer*
- *Part 31: Testing of transverse vibration sensitivity*
- *Part 32: Resonance testing — Testing the frequency and the phase response of accelerometers by means of shock excitation*
- *Part 41: Calibration of laser vibrometers*
- *Part 42: Calibration of seismometers with high accuracy using acceleration of gravity*

— *Part 43: Calibration of accelerometers by model-based parameter identification*

The following parts are under preparation:

— *Part 33: Testing of magnetic field sensitivity*

Sample Document

get full document from standards.iteh.ai