STANDARD



First edition 1996-02-01

Linear calibration using reference materials

Étalonnage linéaire utilisant des matériaux de référence



Reference number ISO 11095:1996(E)

Page

Contents

1	Scope	1
2	Normative references	1
3	Definitions	1
4	General principles	2
5	Basic method	2
6	The steps of the basic method	4
7	Control method	10
8	Two alternatives to the basic method	13
9	Example	16
Anı	nexes	
Α	List of symbols and abbreviations	25

	,		
В	Basic method w	when the number of replicates is not constant	27
С	Bibliography		29

© ISO 1996

International Organization for Standardization Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11095 was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 6, *Measurement methods and results*.

Annexes A and B form an integral part of this International Standard. Annex C is for information only.

Introduction

Calibration is an essential part of most measurement procedures. It is a set of operations which establish, under specified conditions, the relationship between values indicated by a measurement system and the corresponding accepted values of some "standards". In this International Standard, the standards are reference materials.

A reference material (RM) is a substance or an artifact for which one or more properties are established sufficiently well to validate a measurement system. There exist several kinds of RMs:

- a) an internal reference material is an RM developed by a user for his/her own internal use;
- b) an external reference material is an RM provided by someone other than the user;
- c) a certified reference material is an RM issued and certified by an organization recognized as competent to do so.

ø