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## **Optics and optical instruments — Laboratory procedures for testing surveying and construction instruments —**

### **Part 1: Performance of handheld laser distance meters**

*Optique et instruments d'optique — Méthodes d'essai de laboratoire  
des instruments d'observation et construction —*

*Partie 1: Performance de télémètres laser de poche*



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## 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.

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The main task of technical committees is to prepare International Standards. 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.

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.

ISO 16331-1 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 6, *Geodetic and surveying instruments*.

ISO 16331 consists of the following parts, under the general title *Optics and optical instruments — Laboratory procedures for testing surveying and construction instruments*:

— *Part 1: Performance of handheld laser distance meters*

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## Introduction

Starting in 1993 several companies developed handheld laser distance meters and introduced them into the market. With a growing number of different manufacturers, it became obvious that a standard was needed to establish requirements for device specifications and to describe how to check compliance with the specified performance of accuracy and range.

In comparison with ISO 17123, which specifies methods of checking compliance with the specifications by the user of the instrument without any additional measurement equipment, ISO 16331 specifies the procedures to be applied for checking compliance with the specifications by using additional laboratory equipment which the typical user does not have access to.