

## Dial thermometers

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13190:2002 sisaldab Euroopa standardi EN 13190:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.01.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13190:2002 consists of the English text of the European standard EN 13190:2001.</p> <p>This document is endorsed on 16.01.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This European Standard specifies requirements and testing for dial indicating thermometers using sensing methods of gas expansion (symbol GE), liquid expansion (symbol LE) and bimetallic strip (symbol BM). Nominal sizes are from 40 to 160, and temperature measurement from -100 °C to +700 °C.</p>	<p><b>Scope:</b> This European Standard specifies requirements and testing for dial indicating thermometers using sensing methods of gas expansion (symbol GE), liquid expansion (symbol LE) and bimetallic strip (symbol BM). Nominal sizes are from 40 to 160, and temperature measurement from -100 °C to +700 °C.</p>
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**Võtmesõnad:** liquid expa, long distance pipelines, measuring accuracy, measuring instruments, metrology, mounting, nominal sizes, selection, specification (approval), specifications, temperature-measuring i, temperature-measuring instruments, terminology, testing, thermometers

ICS 17.200.20

English version

## Dial thermometers

Thermomètres à cadran

Zeigerthermometer

This European Standard was approved by CEN on 28 September 2001.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 141 "Pressure gauges - Thermometers - Means of measuring and/or recording temperature in the cold chain", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2002, and conflicting national standards shall be withdrawn at the latest by May 2002.

This document includes a Bibliography.

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies requirements and testing for dial indicating thermometers using sensing methods of gas expansion (symbol **GE**), liquid expansion (symbol **LE**) and bimetallic strip (symbol **BM**). Nominal sizes are from 40 to 160, and temperature measurement from -100 °C to +700 °C.

Thermometers specified have circular scales, and are for industrial use only.

Thermometers of square form are also covered by this standard except for case, scale and pointer dimensions.

Annex A includes recommendations for selection and installation.

This standard does not apply to thermometers for medical use nor to thermometers with electrical limit contact devices.