



**SLOVENSKI STANDARD**  
**SIST EN 60255-22-1:2008**

01-september-2008

**BUXca Yý U.**  
**SIST EN 60255-22-1:2006**

---

A Yf]b]fY Y] ]b`nUý ]]bU`cdfYa U!`&&!%`XY. `DfYg\_i g]`Y Y\_hf] b]` `a chYb^!`DfYg\_i g]  
cXdcfbcgh]`n]`a di `n]`%A <n`f197 \* \$& ) !&&!%&\$ \$+L

Measuring relays and protection equipment - Part 22-1: Electrical disturbance tests - 1 MHz burst immunity tests

**ITEH STANDARD PREVIEW**

(standards.iteh.ai)

Messrelais und Schutzrichtungen - Teil 22-1: Prüfungen der elektrischen Störfestigkeit - Prüfung der Störfestigkeit gegen 1-MHz-Störgrößen

[SIST EN 60255-22-1:2008](#)

<https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-990e9a911111/sist-en-60255-22-1-2008>

Relais de mesure et dispositifs de protection - Partie 22-1: Essais d'influence électrique - Essais d'immunité à l'onde oscillatoire amortie 1 MHz

**Ta slovenski standard je istoveten z: EN 60255-22-1:2008**

---

**ICS:**

29.120.70      Releji      Relays

**SIST EN 60255-22-1:2008**      en,fr,de

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 60255-22-1:2008](https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008)

<https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60255-22-1**

February 2008

ICS 29.120.70

Supersedes EN 60255-22-1:2005

English version

**Measuring relays and protection equipment -  
Part 22-1: Electrical disturbance tests -  
1 MHz burst immunity tests  
(IEC 60255-22-1:2007)**

Relais de mesure  
et dispositifs de protection -  
Partie 22-1: Essais d'influence électrique -  
Essais d'immunité à l'onde oscillatoire  
amortie 1 MHz  
(CEI 60255-22-1:2007)

Messrelais und Schutzeinrichtungen -  
Teil 22-1: Prüfungen der elektrischen  
Störfestigkeit -  
Prüfung der Störfestigkeit  
gegen 1-MHz-Störgrößen  
(IEC 60255-22-1:2007)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2008-02-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 95/204/CDV, future edition 3 of IEC 60255-22-1, prepared by IEC TC 95, Measuring relays and protection equipment, was submitted to the IEC-CENELEC Parallel Unique Acceptance Procedure and was approved by CENELEC as EN 60255-22-1 on 2008-02-01.

This European Standard supersedes EN 60255-22-1:2005.

The main differences with respect to EN 60255-22-1:2005 are:

- this document is based on EN 61000-4-18;
- a capacitor was added for testing shielded communication lines when earthed at one end only;
- the test procedure for communication ports is clarified;
- the length of the communication cable for testing is fixed at 10 m;
- connection to earth removed in Figure 4 for test generator terminal.

The following dates were fixed:

- |  |       |            |
|--|-------|------------|
| <ul style="list-style-type: none"> <li>– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement</li> </ul> | (dop) | 2008-11-01 |
| <ul style="list-style-type: none"> <li>– latest date by which the national standards conflicting with the EN have to be withdrawn</li> </ul>   | (dow) | 2011-02-01 |

Annex ZA has been added by CENELEC.

[SIST EN 60255-22-1:2008](https://standards.iteh.ai/catalog/standards/sist/208afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008)

<https://standards.iteh.ai/catalog/standards/sist/208afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008>

### Endorsement notice

The text of the International Standard IEC 60255-22-1:2007 was approved by CENELEC as a European Standard without any modification.

---

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60255-6	– <sup>1)</sup>	Electrical relays - Part 6: Measuring relays and protection equipment	EN 60255-6 + corr. February	1994 <sup>2)</sup> 1995
IEC 61000-4-18	2006	Electromagnetic compatibility (EMC) - Part 4-18: Testing and measurement techniques - Damped oscillatory wave immunity test	EN 61000-4-18 + corr. September	2007 2007

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 60255-22-1:2008](https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008)

<https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008>

---

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 60255-22-1:2008

<https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aae79f1/sist-en-60255-22-1-2008>



IEC 60255-22-1

Edition 3.0 2007-10

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Measuring relays and protection equipment –  
Part 22-1: Electrical disturbance tests – 1 MHz burst immunity tests**

**Relais de mesure et dispositifs de protection –  
Partie 22-1: Essais d'influence électrique – Essais d'immunité à l'onde  
oscillatoire amortie 1 MHz**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

M

## CONTENTS

FOREWORD.....	3
1 Scope and object.....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 Test severity levels .....	7
5 Test equipment.....	7
6 Test set-up .....	10
7 Test procedure .....	11
8 Criteria for acceptance.....	12
9 Test report.....	13
Figure 1 – Ports for measuring relays and protection equipment .....	7
Figure 2 – Common mode test between each independent port and earth .....	8
Figure 3 – Common mode test between each independent port and all other independent ports coupled to earth.....	9
Figure 4 – Differential mode test.....	10
Figure 5 – Test set-up for communication ports with shielded and unshielded cables .....	12
Table 1 – Test voltages for the EUT ports.....	7
Table 2 – Criteria for acceptance.....	12

iteh STANDARD PREVIEW  
(standards.iteh.ai)  
SIST EN 60255-22-1:2008  
<https://standards.iteh.ai/catalog/standards/sist/308afd8c-c875-4335-9cb9-59dc9aac79f1/sist-en-60255-22-1-2008>



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MEASURING RELAYS AND PROTECTION EQUIPMENT –****Part 22-1: Electrical disturbance tests –  
1 MHz burst immunity tests**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60255-22-1 has been prepared by IEC technical committee 95: Measuring relays and protection equipment.

This third edition cancels and replaces the second edition published in 2005. This standard constitutes a technical revision. The main differences with respect to the previous edition are:

- this document is based on IEC 61000-4-18;
- a capacitor was added for testing shielded communication lines when earthed at one end only;
- the test procedure for communication ports is clarified;
- the length of the communication cable for testing is fixed at 10 m;
- connection to earth removed in Figure 4 for test generator terminal.