



SLOVENSKI STANDARD SIST EN 50289-3-12:2002

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Communication cables - Specifications for test methods - Part 3-12: Mechanical test methods - Shot gun damage

Communication cables - Specifications for test methods -- Part 3-12: Mechanical test methods - Shot gun damage

Kommunikationskabel - Spezifikationen für Prüfverfahren -- Teil 3-12: Mechanische Prüfverfahren - Beschädigung durch Schrotkugelbeschuss

Câbles de communication - Spécifications des méthodes d'essai -- Partie 3-12: Méthodes d'essais mécaniques - Dommages par les coups de fusil

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ICS:

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en

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EUROPEAN STANDARD

EN 50289-3-12

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2001

ICS 33.120.10

English version

**Communication cables -
Specifications for test methods
Part 3-12: Mechanical test methods -
Shot gun damage**

Câbles de communication -
Spécifications des méthodes d'essai
Partie 3-12: Méthodes d'essais
mécaniques -
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Kommunikationskabel -
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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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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

This European Standard was prepared by the Technical Committee CENELEC TC 46X, Communication cables.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50289-3-12 on 2001-05-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-04-01

This European Standard has been prepared under the European Mandate M/212 given to CENELEC by the European Commission and the European Free Trade Association.

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1 Scope

This Part 3-12 of EN 50289 details the method of test to determine the ability of a cable used in analogue and digital communication systems to withstand shot-gun damage.

It is to be read in conjunction with Part 3-1 of EN 50289, which contains essential provisions for its application.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 50289-3-1	2001	Communication cables - Specifications for test methods -- Part 3-1: Mechanical test methods - General requirements
EN 50290-1-2 ¹⁾		Communication cables - Part 1-2: Definitions

3 Definitions

For the purposes of this European Standard the definitions of EN 50290-1-2 apply.

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4 Test method

[SIST EN 50289-3-12:2002](#)

4.1 Sample

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A length of cable (typically 3 m in length).

4.2 Equipment

The apparatus consists of :

- a) a shot-gun, as specified in the Detail Specification;

NOTE 1 The type of gun is likely to vary from country to country.

- b) a frame for holding the cable sample. It is important that the sample is free to move and the test set-up should also take into account that the shot may scatter in an elliptical manner depending on the gun used;

- c) gun shot :

- size 4 or 7 or as specified in the Detail Specification ;

NOTE 2 The shot size is likely to vary from country to country, and should represent the hazard particular to the installation.

- the shot type shall be specified in the Detail Specification ;

NOTE 3 Typically lead or steel is used, depending on the country. Lead shot deforms on impact and is less damaging than steel shot.

- the cartridge type shall be specified in the Detail Specification.

¹⁾ At draft stage.

4.3 Procedure

The cable sample shall be mounted on the frame and shot at from the distance specified in the Detail Specification. A typical distance is 20 m.

The number of shots with visible impact should be low, typically three or less, in order to give a reproducible test. If more than three shots hit the cable, then the test may be repeated if any of the requirements are not met.

4.4 Details to be specified

The detail specification shall include :

- a) gun type,
- b) shot size,
- c) shot type,
- d) cartridge type,
- e) distance between gun and sample.

5 Requirements

The acceptance criteria for the test shall be stated in the relevant Detail Specification. Typical failure modes include damage to the cable core elements and cable sheath (e.g. piercing of loose tubes) and loss of continuity.

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6 Test report

The test report shall include:

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- temperature;
- sample length;
- details of test configuration, including cable orientation;
- report of damage inflicted, including fibre and conductor continuity;
- report of damages on sheath and screens;
- number of tests carried out, to achieve minimum visible impacts;
- pass/fail criteria.