SLOVENSKI STANDARD
SIST EN 50290-1-1:2002

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Communication cables - Part 1-1: General

Communication cables -- Part 1-1: General

Kommunikationskabel -- Teil 1-1: Allgemeines

Câbles de communication -- Partie 1-1: Généralités

Ta slovenski standard je istoveten z: **EN 50290-1-1:2001**

ICS:

33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

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EUROPEAN STANDARD **EN 50290-1-1**

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English version

Communication cables
Part 1-1: General

Câbles de communication
Partie 1-1: Généralités

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This European Standard was approved by CENELEC on 2001-05-01. 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.

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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

Ref. No. EN 50290-1-1:2001 E

Foreword

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

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50290-1-1 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- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-04-01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.

Table of contents

1 Scope

Part 1-1 and Part 1-2 of EN 50290 give directly or by reference all common requirements for communication cables.

They are completed by generic, sectional, family and detail specifications, as appropriate, to describe in a detailed manner each type of cables with its specific characteristics.

EN 50290 consists of the following parts:

- Part 1-1 General
- Part 1-2 Definitions
- Part 2-1 Common design rules and construction - General
- Part 2-2X series Common design rules and construction - Materials
- Part 3 Quality assessment
- Part 4-1 General considerations for the use of cables - Environmental conditions and safety aspects
- Part 4-2 General considerations for the use of cables - Guide for use

The test methods are described in EN 50289, Communication cables - Specifications for test methods, which consists of the following parts:

- Part 1-X series Electrical test methods
- Part 2-X series Transmission and optical test methods
- Part 3-X series Mechanical test methods
- Part 4-X series Environmental test methods.

This Part 1-1 harmonizes the standardisation of symmetrical, coaxial and optical cables used for the infrastructure of communication, multimedia and control networks. Most of the cables covered by this Part 1-1 are primarily intended to be used in IT networks. However they can also be used for other applications with the exception of those which presume a direct connection to the mains electricity supply.

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 50289-1-X series Communication cables - Specifications for test methods - Part 1-X: Electrical test methods

EN 50289-2-X[1)]		Communication cables - Specifications for test methods - Part 2-X: Transmission and optical test methods
EN 50289-3-X	series	Communication cables - Specifications for test methods - Part 3-X: Mechanical test methods
EN 50289-4-X	series	Communication cables - Specifications for test methods - Part 4-X: Environmental test methods
EN 50290-1-2[1)]		Communication cables - Part 1-2: Definitions
EN 50290-2-X	series	Communication cables - Specifications for test method - Part 2-X : Common design rules and construction
EN 50290-3[1)]		Communication cables - Part 3: Quality assessment
EN 50290-4-1	2001	Communication cables - Part 4-1: General considerations for the use of cables - Environmental conditions and safety aspects
EN 60811	series	Insulating and sheathing materials of electric and optical fibre cables – Common test methods

3 Definitions

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

4 Common design rules and construction

Unless otherwise specified in the detail specification, design rules and construction shall be according to EN 50290-2 as requested in the sectional specification.

5 Quality assessment

EN 50290-3 details quality systems to be used to assess the quality of communication cables.

6 Environmental conditions, installation and safety aspects

EN 50290-4 details environmental conditions and installation and safety aspects for communication cables. This part addresses the relationship with the applicable EC directives concerning the environmental and safety aspect.

7 Tests

7.1 General

Conditions for testing are given in the relevant part of EN 50289.

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1) At draft stage.

7.2 Visual inspection

Visual inspection shall be detailed in the relevant generic or sectional specification.

7.3 Dimensional inspection

Dimensional inspection shall be detailed in the relevant generic or sectional specification.

7.4 Electrical tests (metallic conductors)

Unless otherwise specified in the detail specification, electrical tests shall be conducted according to EN 50289-1 as indicated in the sectional specification.

7.5 Transmission and optical tests (optical fibres)

Unless otherwise specified in the detail specification, transmission and optical tests shall be conducted according to EN 50289-2 as indicated in the sectional specification.

7.6 Mechanical tests

Unless otherwise specified in the detail specification, mechanical tests shall be conducted according to EN 50289-3 as indicated in the sectional specification.

7.7 Environmental tests

Environmental conditions and safety aspects are addressed in EN 50290-4-1.

Unless otherwise specified in the detail specification, environmental tests shall be conducted according to EN 50289-4 as indicated in the sectional specification.

7.8 Tests on materials

Materials are specified in EN 50290-2-2X series.

Unless otherwise specified in the detail specification, tests on materials shall be conducted according to EN 60811 as indicated in the sectional specification.

7.9 Fire and smoke tests

Fire safety aspects are addressed in EN 50290-4-1 which includes requirements for cables subject to the CPD EC directives.

Unless otherwise specified in the detail specification, fire and smoke tests shall be conducted according to those given in 3.2.3 of EN 50290-4-1 as indicated in the sectional specification.

8 Specifications

8.1 Multi-element metallic cables

When this standard was published the specifications for multi-element metallic cables used in analogue and digital communication and control were as given in Table 1.

Table 1 - Specifications for multi-element metallic cables

EN 50288-1	Multi-element metallic cables used in analogue band digital communication and control - Part 1: Generic specification
EN 50288-2-1	Part 2-1: Sectional specification for screened cables characterized up to 100 MHz - Horizontal and building backbone cables
EN 50288-2-2	Part 2-2: Sectional specification for screened cables characterized up to 100 MHz - Work area and patch cord cables
EN 50288-2-3	Part 2-3: Sectional specification for screened cables characterized up to 100 MHz - Campus backbone cables
EN 50288-3-1	Part 3-1: Sectional specification for unscreened cables characterized up to 100 MHz - Horizontal and building backbone cables
EN 50288-3-2	Part 3-2: Sectional specification for unscreened cables characterized up to 100 MHz - Work area and patch cord cables
EN 50288-3-3	Part 3-3: Sectional specification for unscreened cables characterized up to 100 MHz - Campus backbone cables
EN 50288-4-1	Part 4-1: Sectional specification for screened cables characterized up to 600 MHz - Horizontal and building backbone cables
EN 50288-4-2	Part 4-2: Sectional specification for screened cables characterized up to 600 MHz - Work area and patch cord cables
EN 50288-4-3	Part 4-3: Sectional specification for screened cables characterized up to 600 MHz - Campus backbone cables
EN 50288-5-1	Part 5-1: Sectional specification for screened cables characterized up to 250 MHz - Horizontal and building backbone cables
EN 50288-5-2	Part 5-2: Sectional specification for screened cables characterized up to 250 MHz - Work area and patch cord cables
EN 50288-5-3	Part 5-3: Sectional specification for screened cables characterized up to 250 MHz - Campus backbone cables
EN 50288-6-1	Part 6-1: Sectional specification for unscreened cables characterized up to 250 MHz - Horizontal and building backbone cables
EN 50288-6-2	Part 6-2: Sectional specification for unscreened cables characterized up to 250 MHz - Work area and patch cord cables
EN 50288-6-3	Part 6-3: Sectional specification for unscreened cables characterized up to 250 MHz - Campus backbone cables
EN 50288-7	Part 7: Sectional specification for instrumentation and control cables
EN 50288-8	Part 8: Under consideration
EN 50288-9	Part 9: Under consideration