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# Communication cables - Specifications for test methods - Part 1-2: Electrical test methods - D.C. resistance

Communication cables - Specifications for test methods - Part 1-2: Electrical test methods - D.C. resistance



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

Käsitlusalar	Scone:
- Dx	
standardiorganisatsioonist.	standardisation organisation.
Standard on kättesaadav Eesti	The standard is available from Estonian
teade Eesti standardiorganisatsiooni ametlikus väljaandes.	official publication of the Estonian national standardisation organisation.
Käesolev dokument on jõustatud 15.10.2002 ja selle kohta on avaldatud	This document is endorsed on 15.10.2002 with the notification being published in the
50289-1-2:2001 ingliskeelset teksti.	European standard EN 50289-1-2:2001.
1-2:2002 sisaldab Euroopa standardi EN	2:2002 consists of the English text of the
Käesolev Eesti standard EVS-EN 50289-	This Estonian standard EVS-EN 50289-1-

Käsitlusala:	Scope:
This Part 1-2 of EN 50289 details the test	This Part 1-2 of EN 50289 details the test
methods to determine the d.c.	methods to determine the d.c.
characteristics of the conductors of cables	characteristics of the conductors of cables
used in analogue and digital	used in analogue and digital
communication systems. These	communication systems. These
characteristics are described by the	characteristics are described by the
conductor resistance, loop resistance and	conductor resistance, loop resistance and
resistance unbalance. It is to be read in	resistance unbalance. It is to be read in
conjunction with Part 1-1 of EN 50289,	conjunction with Part 1-1 of EN 50289,
which contains essential provisions for its	which contains essential provisions for its
application.	application.
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**ICS** 33.120.20

**Võtmesõnad:** analog signals, d.c, definition, definitions, digital, digital signals, direct current, electric cables, electrical engineering, electrical resistance, electrical testing, loop resistance, marking, resistance of conductor, specification, telecommunication, testing

### EUROPEAN STANDARD

## EN 50289-1-2

### NORME EUROPÉENNE

## **EUROPÄISCHE NORM**

May 2001

ICS 33.120.20

English version

### Communication cables -Specifications for test methods Part 1-2: Electrical test methods -DC resistance

Câbles de communication -Spécifications des méthodes d'essai Partie 1-2: Méthodes d'essais électriques -Résistance continue Kommunikationskabel -Spezifikation für Prüfverfahren Teil 1-2: Elektrische Prüfverfahren -Gleichstromwiderstand

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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

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#### Foreword

This European Standard was prepared by SC 46XC, Multicore, Multipair and Quad Data communication cables, of 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 50289-1-2 on 2000-12-01.

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)	2002-01-01
-	latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-01-01

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 1-2 of EN 50289 details the test methods to determine the DC resistance characteristics of the conductors of cables used in analogue and digital communication systems. These characteristics are described by the conductor resistance, loop resistance and resistance unbalance.

It is to be read in conjunction with Part 1-1 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 50289-1-1	2001	Communication cables – Specifications for tests methods Part 1-1: Electrical test methods – General requirements
EN 50290-1-2 <sup>1)</sup>		Communication cables Part 1-2: Definitions

#### 3 Definitions

For the purposes of this European Standard the definitions of EN 50290-1-2 apply in addition to the following ones.

#### 3.1

#### resistance

the resistance describes the electrical DC resistance of a conductor or a screen. In a finished twisted pair additional resistance due to the twisting of the conductors is included

#### 3.2

#### loop resistance

the loop resistance specifies the electrical DC resistance of the two conductors including the additional resistance caused by the twisting of any

#### 3.3

#### resistance unbalance

the resistance unbalance  $R_{ub}$ , in percent, is the difference value of two symmetrically applied conductors

#### 4 Test method

#### 4.1 Equipment

The resistance shall be measured by means of equipment capable of measuring accurately to within  $\pm$  0,5 % of the values to be determined.

<sup>&</sup>lt;sup>1)</sup> At draft stage