

Customer premises cabling for information technology

Part 1. ISDN basic access

The European Standard EN 50098-1 : 1994 has the status of a
British Standard

UDC 621.395.2:621.395.2/.3:681.3

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the national committees of the following countries:

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Norway
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Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

This British Standard, having been prepared under the direction of the Telecommunications Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 August 1994

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The following BSI references relate to the work on this standard:
Committee reference TCT/7
Draft for comment 92/94231 DC

ISBN 0 580 23402 9

Amendments issued since publication

Amd. No.	Date	Text affected

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National foreword

This British Standard has been prepared under the direction of the Telecommunications Standards Policy Committee (TCT/-) and is the English language version of EN 50098-1 : 1994.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

UDC 621.395.2:621.395.2/.3:681.3

Descriptors: Cabling topology, cabling qualification, design requirements, ISDN basic access, ISDN S-bus, requirements for cabling components

English version

Customer premises cabling for information technology Part 1: ISDN basic access

Câblages dans les locaux des usagers pour les
technologies de l'information
Partie 1: Accès de base RNIS

Informationstechnische Verkabelung von
Gebäudekomplexen
Teil 1: ISDN-Basisanschluß

This European Standard was approved by CENELEC on 1993-12-08. 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, 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

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Ref. No. EN 50098-1 : 1994 E

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Foreword

This European Standard has been prepared by CENELEC TC 115, Electrotechnical aspects of telecommunication equipment. It has been developed with the cooperation of CENELEC TC 46X, Communication Cables and ETSI TM3 Architecture, Functional Requirements and Interfaces of Transmission Networks.

It was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 50098-1 on 1993-12-08.

The following dates were fixed:

- latest date of publication
of an identical national
standard (dop) 1994-09-01
- latest date of withdrawal
of conflicting national
standards (dow) 1994-09-01

This standard is the first of a series of European Standards for customer premises cabling.

EN 50098-1 (this standard) covers customer premises cabling for connection of basic access ISDN equipment.

EN 50098-2 will cover customer premises cabling for connection of primary access ISDN equipment.

Other subjects that will be covered by TC 115 are, e.g.:

- Recommendations for installation practices
- Performance requirements of structured cabling schemes
- Compatibility between different transmission systems in a single cable

The requirements in this standard have been derived from ETS 300 012, EN 28877, EN 60603-7 and ITU-T¹⁾ Recommendation 1.430 (Blue Book). The reader is referred to EN 60950 and ETS 300 047-1 to ETS 300 047-5 for general safety requirements and to ENV 55102-1 and ENV 55102-2 for EMC requirements (see annex A).

¹⁾ International Telecommunication Union - Telecommunications Standardization Sector (formerly CCITT).

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Introduction

This standard is intended for use by those designing, planning or procuring cabling for ISDN basic access within a customer's premises. The configurations in this standard are designed to be effective when either implemented with cabling having the recommended characteristics, or implemented with the components specified in clause 7.

1 Scope

This standard defines the requirements for the design and configuration of customer premises cabling for the connection of basic access ISDN equipment.

It defines

- design requirements for ISDN basic access with point-to-point and point-to-multipoint cabling configurations;
- minimum cabling requirements for the installation of new cabling;
- criteria for the use of existing cabling.

The standard applies to the customer premises cabling. It describes the cabling requirements, needed to transmit ISDN basic access signals as defined by ITU-T Recommendation I.430. The requirements placed on the customer premises cabling are solely those necessary to enable terminal equipment conforming to ETS 300 012 to operate into the Network Termination (NT) via configurations defined in this standard.

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.

EN 28877	Information processing systems; Interface connector and contact assignments for ISDN basic access interface, located at reference points S and T
EN 60603-7	Connectors for frequencies below 3 MHz for use with printed boards; Part 7: Detail specification for connectors, 8-way, including fixed and free connectors with common mating features (IEC 603-7:1990)
ITU-T Rec I.430 (Blue Book)	ISDN user-network interface; Layer 1 recommendations

3 Definitions

The meaning of the term *round trip delay* can be found in ITU-T Recommendation I.430 (Blue Book), A.2.

Furthermore, for the purposes of this standard, the following definitions apply:

3.1 cabling: The assembly of all cables, connections, patch panels and other passive components which comprise the telecommunications infrastructure.

3.2 network termination: The functional group on the network side of a user-network interface.

NOTE: A network termination always comprises a transmission part NT1 and optionally a switching part NT2.

3.3 power feeding: The function which provides for the capability to transfer power across the interface of the NT.

3.4 terminal equipment: The functional group on the user side of a user-network interface.

NOTE: Terminal equipment includes terminal(s), terminal adapter(s) and, if any, NT2 functional group.

4 Abbreviations and symbols

4.1 Abbreviations

IEC	International Electrotechnical Commission
ISDN	Integrated services digital network
ISO	International Organisation for Standardization
NEXT	Near end crosstalk
NT1	Network termination 1
NT2	Network termination 2
S	S reference point
S ₀	S ₀ interface
T	T reference point
TE	Terminal equipment
TR	Terminating resistor

NOTE: The meanings of the abbreviations S, S₀ and T conform to ITU-T Recommendation I.430.