



SLOVENSKI STANDARD

SIST EN 61733-1:2001

01-september-2001

Measuring relays and protection equipment - Protection communication interfacing - Part 1: General

Measuring relays and protection equipment - Protection communication interfacing -- Part 1: General

Meßrelais und Schutzeinrichtungen - Schutz-Kommunikations-Schnittstelle -- Teil 1: Allgemeines

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Relais de mesure et dispositifs de protection - Interface de communication des protections -- Partie 1: Généralités

[SIST EN 61733-1:2001](#)

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Ta slovenski standard je istoveten z: EN 61733-1:1996

ICS:

29.120.70	Releji	Relays
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

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en

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EUROPEAN STANDARD

EN 61733-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 1996

ICS 29.120.70; 35.200

Descriptors: Measuring relays, protection equipment, communication interfacing

English version

Measuring relays and protection equipment
Protection communication interfacing
Part 1: General
(IEC 1733-1:1995)

Relais de mesure et dispositifs
de protection
Interface de communication
des protections
Partie 1: Généralités
(CEI 1733-1:1995)

Meßrelais und Schutzeinrichtungen
Schutz-Kommunikations-Schnittstelle
Teil 1: Allgemeines
(IEC 1733-1:1995)

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This European Standard was approved by CENELEC on 1995-11-28. 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

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

Foreword

The text of document 95/17/FDIS, future edition 1 of IEC 1733-1, prepared by IEC TC 95, Measuring relays and protection equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61733-1 on 1995-11-28.

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) 1996-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-09-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1733-1:1995 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

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

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).

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 255-1	1975	Electrical relays	-	-
ISO 7498	1984	Information processing systems Open systems interconnection Basic reference model	-	-

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
1733-1**

Première édition
First edition
1995-12

**Relais de mesure et dispositifs de protection –
Interface de communication des protections –**

**Partie 1:
Généralités**

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**Measuring relays and protection equipment –
Protection communication interfacing –**

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**Part 1:
General**

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MEASURING RELAYS AND PROTECTION EQUIPMENT –
PROTECTION COMMUNICATION INTERFACING –

Part 1: General

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 1733-1 has been prepared by IEC technical committee 95: Measuring relays and protection equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
95/17/FDIS	95/24/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

INTRODUCTION

This International Standard is Part 1 of a series of standards covering protection communication interfacing.

This standard presents the general overview of the structure of communication-based, hierarchical control and monitoring systems in electrical installations. The overview outlines the architectures, protocol profiles, and other design features presented in prospective additional parts.

Today the availability of low-cost microprocessors, with increased capability, supports the concept of electrical installations in which distributed devices, built by different manufacturers, can be used in an open system. In an open system the microprocessor provides the base element of distributed functional units that allows the exchange of information inside the system via communication links.

The above concept will only be achieved in practice after an IEC standard is made available that clearly defines the communication criteria among distributed and centralised devices, the interoperability rules and the responsibility of different digital devices (protection, monitoring and control) that operate together in the same open system.

The following subjects have been included in this part of IEC 1733:

- a) typical hierarchical structure of an electrical installation;
- b) typical information interchange in an electrical installation;
- c) needs for communication between digital protection equipment and related monitoring and control devices;
- d) the transmission media.

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The main links between other IEC committees and TC 95 are shown in the following block diagram.

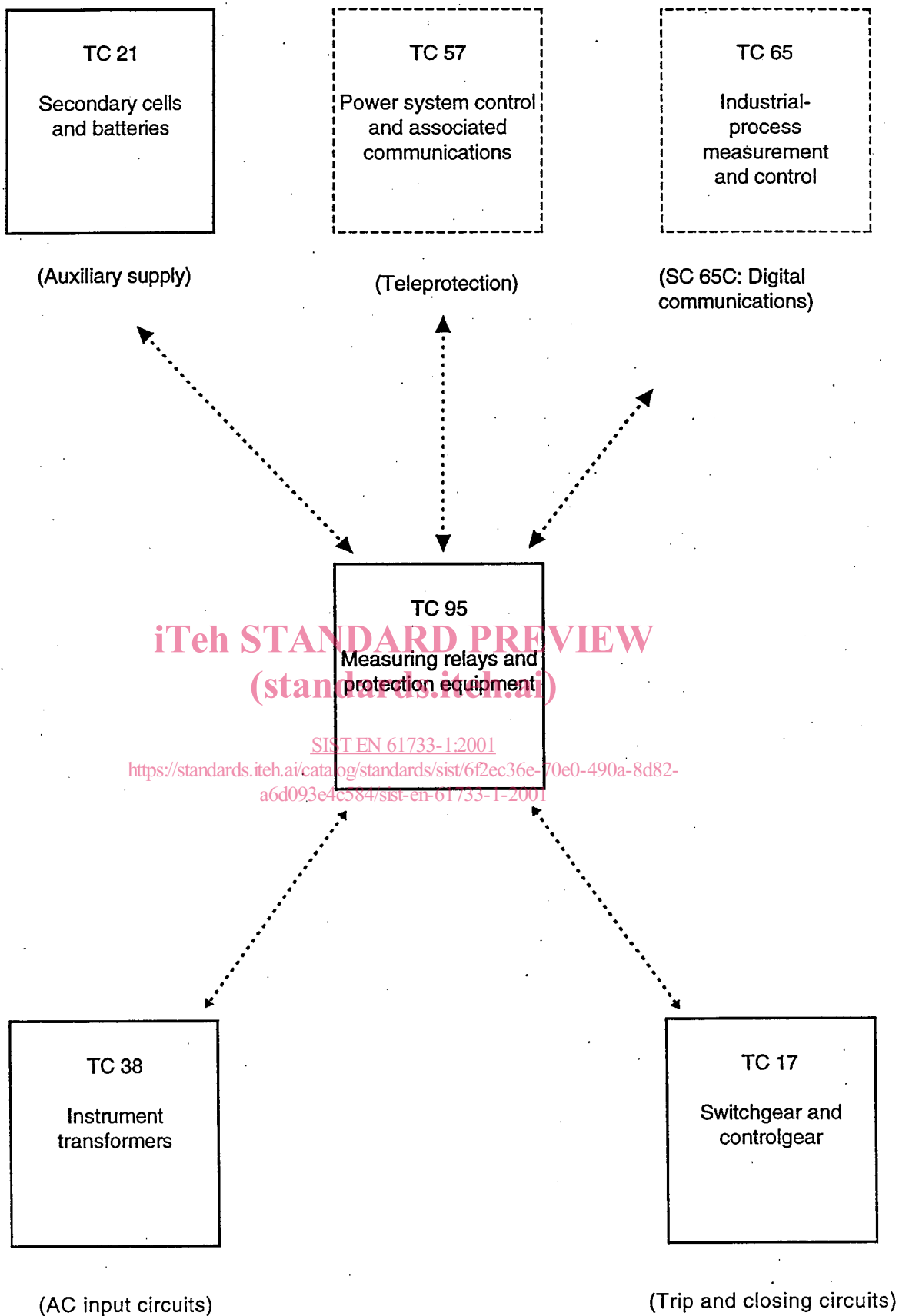


Figure 1 - Block diagram of main links of TC 95 with other IEC committees