SLOVENSKI STANDARD
SIST EN 61987-13:2016

01-december-2016

Merjenje in nadzor industrijskega procesa - Strukture podatkov in elementi v katalogih procesne opreme - 13. del: Seznam lastnosti opreme za merjenje tlaka za elektronsko izmenjavo podatkov (IEC 61987-13:2016)

Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 13: Lists of properties (LOP) for Pressure Measuring Equipment for electronic data exchange (IEC 61987-13:2016)

Industrielle Leittechnik - Datenstrukturen und -elemente in Katalogen der Prozessleittechnik - Teil 13: Merkmalleisten (ML) für Druckmessgeräte für den elektronischen Datenaustausch (IEC 61987-13:2016)

Mesure et commande dans les processus industriels - Éléments et structures de données dans les catalogues d'équipements de processus - Partie 13: Listes des propriétés (LOP) pour les équipements de mesure de pression pour l'échange électronique de données (IEC 61987-13:2016)

Ta slovenski standard je istoveten z: **EN 61987-13:2016**

ICS:

01.110	Tehnična dokumentacija za izdelke	Technical product documentation
25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry

SIST EN 61987-13:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61987-13

June 2016

ICS 25.040.40; 35.100.20

English Version

Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 13: Lists of properties (LOP) for Pressure Measuring Equipment for electronic data exchange (IEC 61987-13:2016)

Mesure et commande dans les processus industriels - Éléments et structures de données dans les catalogues d'équipements de processus - Partie 13: Listes des propriétés (LOP) pour les équipements de mesure de pression pour l'échange électronique de données (IEC 61987-13:2016)

Industrielle Leittechnik - Datenstrukturen und -elemente in Katalogen der Prozessleittechnik - Teil 13: Merkmalleisten (ML) für Druckmessgeräte für den elektronischen Datenaustausch (IEC 61987-13:2016)

This European Standard was approved by CENELEC on 2016-04-27. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 65E/398/CDV, future edition 1 of IEC 61987-13, prepared by SC 65E “Devices and integration in enterprise systems” of IEC/TC 65 “Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61987-13:2016.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2017-01-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-04-27

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61987-13:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60079-0:2011	NOTE	Harmonized as EN 60079-0:2012.
IEC 60947-5-6:1999	NOTE	Harmonized as EN 60947-5-6:2000.
IEC 61298-1:2008	NOTE	Harmonized as EN 61298-1:2008.
IEC 61298-2:2008	NOTE	Harmonized as EN 61298-2:2008.
IEC 61298-3:2008	NOTE	Harmonized as EN 61298-3:2008.
IEC 61360-1	NOTE	Harmonized as EN 61360-1.
IEC 61360-2	NOTE	Harmonized as EN 61360-2.
IEC 61360-5	NOTE	Harmonized as EN 61360-5.
IEC 61784-1:2003	NOTE	Harmonized as EN 61784-1:2004.
IEC 61987-1	NOTE	Harmonized as EN 61987-1.
ISO 5167-2:2003	NOTE	Harmonized as EN ISO 5167-2:2003.

Annex ZA
(normative)
Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61360	series	Standard data elements types with associated classification scheme for electric items	EN 61360	series
IEC 61987-10	2009	Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 10: Lists of Properties (LOPs) for Industrial-Process Measurement and Control for Electronic Data Exchange - Fundamentals	EN 61987-10	2009
-	-		+ AC	2011
IEC 61987-11	2012	Industrial-process measurement and control - Data structures and elements in process equipment catalogues -- Part 11: List of Properties (LOP) of measuring equipment for electronic data exchange - Generic structures	EN 61987-11	2012

IEC 61987-13

Edition 1.0 2016-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Industrial-process measurement and control – Data structures and elements in process equipment catalogues –
Part 13: Lists of properties (LOP) for pressure measuring equipment for electronic data exchange

Mesure et commande dans les processus industriels – Éléments et structures de données dans les catalogues d'équipements de processus –
Partie 13: Listes des propriétés (LOP) pour les équipements de mesure de pression pour l'échange électronique de données

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 25.040.40; 35.100.20

ISBN 978-2-8322-3224-8

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL – DATA STRUCTURES AND ELEMENTS IN PROCESS EQUIPMENT CATALOGUES –

Part 13: Lists of properties (LOP) for pressure measuring equipment for electronic data exchange

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61987-13 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

CDV	Report on voting
65E/398/CDV	65E/471/RVC

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61987, published under the general title *Industrial-process measurement and control – Data structures and elements in process equipment catalogues,* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The exchange of product data between companies, business systems, engineering tools, data systems within companies and, in the future, control systems (electrical, measuring and control technology) can run smoothly only when both the information to be exchanged and the use of this information has been clearly defined.

Prior to this standard, requirements on process control devices and systems were specified by customers in various ways when suppliers or manufacturers were asked to quote for suitable equipment. The suppliers in their turn described the devices according to their own documentation schemes, often using different terms, structures and media (paper, databases, CDs, e-catalogues, etc.). The situation was similar in the planning and development process, with device information frequently being duplicated in a number of different information technology (IT) systems.

Any method that is capable of recording all existing information only once during the planning and ordering process and making it available for further processing, gives all parties involved an opportunity to concentrate on the essentials. A precondition for this is the standardization of both the descriptions of the objects and the exchange of information.

This standard series proposes a method for standardization which will help both suppliers and users of measuring equipment to optimize workflows both within their own companies and in their exchanges with other companies. Depending on their role in the process, engineering firms may be considered here to be either users or suppliers.

The method specifies measuring equipment by means of blocks of properties. These blocks are compiled into lists of properties (LOPs), each of which describes a specific equipment (device) type. This standard series covers both properties that may be used in an inquiry or a proposal and detailed properties required for integration of the equipment in computer systems for other tasks.

IEC 61987-10 defines structure elements for constructing lists of properties for electrical and process control equipment in order to facilitate automatic data exchange between any two computer systems in any possible workflow, for example engineering, maintenance or purchasing workflow and to allow both the customers and the suppliers of the equipment to optimize their processes and workflows. IEC 61987-10 also provides the data model for assembling the LOPs.

IEC 61987-11 specifies the generic structure for operating and device lists of properties (OLOPs and DLOPs). It lays down the framework for further parts of IEC 61987 in which complete LOPs for device types measuring a given physical variable and using a particular measuring principle will be specified. The generic structure may also serve as a basis for the specification of LOPs for other industrial-process control instrument types such as control valves and signal processing equipment.

IEC 61987-13 concerns pressure measuring equipment. It provides one operating LOP for all types of pressure transmitter or pressure gauge which can be used, for example, as a request for various sorts of quotation. The DLOPs for the various pressure transmitter and gauge types provided in this part of IEC 61987 can be used in very different ways in the computer systems of equipment manufacturers and suppliers, in CAE and similar systems of EPC contractors and other engineering companies and especially different plant maintenance systems of the plant owners. The OLOP and the DLOPs provided correspond to the guidelines specified in IEC 61987-10 and IEC 61987-11.

INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL – DATA STRUCTURES AND ELEMENTS IN PROCESS EQUIPMENT CATALOGUES –

Part 13: Lists of properties (LOP) for pressure measuring equipment for electronic data exchange

1 Scope

This part of IEC 61987 provides an

- operating list of properties (OLOP) for the description of the operating parameters and the collection of requirements for a pressure measuring equipment, and
- device lists of properties (DLOP) for a range of pressure measuring equipment types describing them.

The structures of the OLOP and the DLOP correspond with the general structures defined in IEC 61987-11 and agree with the fundamentals for the construction of LOPs defined in IEC 61987-10.

Aspects other than the OLOP, needed in different electronic data exchange processes described in IEC 61987-10, will be published in IEC 61987-921.

Libraries of properties and of blocks used in the concerned LOPs are listed in Annex C and Annex D.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61360-1 (all parts), *Standard data elements types with associated classification scheme for electric items – Part 1: Definitions – Principles and methods*

IEC 61987-10:2009, *Industrial-process measurement and control – Data structures and elements in process equipment catalogues – Part 10: List of Properties (LOPs) for Industrial-Process Measurement and Control for Electronic Data Exchange – Fundamentals*

IEC 61987-11:2012, *Industrial-process measurement and control – Data structures and elements in process equipment catalogues – Part 11: List of Properties (LOP) of measuring equipment for electronic data exchange – Generic structures*

---

1 Under consideration.