

### SLOVENSKI STANDARD SIST EN IEC 61987-32:2024

01-december-2024

Merjenje in nadzor industrijskega procesa - Strukture podatkov in elementi v katalogih procesne opreme - 32. del: Seznam lastnosti za module I/O za elektronsko izmenjavo podatkov

Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 32: Lists of properties (LOP) for I/O modules for electronic data exchange

Industrielle Automatisierungs- und Leittechnik – Datenstrukturen und -elemente in Katalogen der Prozessleittechnik – Teil 32: Eigenschaftslisten (LOP) für E/A-Module für den elektronischen Datenaustausch

Mesure et commande des processus industriels - Structures de données et éléments dans les catalogues d'équipement de processus - Partie 32: Listes des propriétés (LOP) pour les modules d'E/S pour l'échange électronique des données

Ta slovenski standard je istoveten z: EN IEC 61987-32:2024

#### 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 IEC 61987-32:2024 en,fr,de

### iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN IEC 61987-32:2024

https://standards.iteh.ai/catalog/standards/sist/a6d87a4c-54db-4ddf-a8a5-dfb5787025b1/sist-en-iec-61987-32-2024

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN IEC 61987-32** 

July 2024

ICS 25.040.40

#### **English Version**

Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 32: Lists of properties (LOP) for I/O modules for electronic data exchange (IEC 61987-32:2024)

Mesure et commande des processus industriels -Structures de données et éléments dans les catalogues d'équipement de processus - Partie 32: Listes des propriétés (LOP) pour les modules d'E/S pour l'échange électronique des données (IEC 61987-32:2024) Industrielle Automatisierungs- und Leittechnik -Datenstrukturen und -elemente in Katalogen der Prozessleittechnik - Teil 32: Eigenschaftslisten (LOP) für E/A-Module für den elektronischen Datenaustausch (IEC 61987-32:2024)

This European Standard was approved by CENELEC on 2024-07-12. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### EN IEC 61987-32:2024 (E)

### **European foreword**

The text of document 65E/934/CDV, future edition 1 of IEC 61987-32, 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 IEC 61987-32:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-04-12 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-07-12 document have to be withdrawn

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

#### **Endorsement notice**

The text of the International Standard IEC 61987-32:2024 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 standard indicated:

IEC 60079-0	NOTE	Approved as EN IEC 60079-0
IEC 60947-5-6:1999	NOTE	Approved as EN 60947-5-6:2000 (not modified)
IEC 61298-1:2008	NOTE	Approved as EN 61298-1:2008 (not modified)
IEC 61298-2:2008	NOTE	Approved as EN 61298-2:2008 (not modified)
IEC 61298-3:2008	NOTE	Approved as EN 61298-3:2008 (not modified)
IEC 61360 series	NOTE	Approved as EN 61360 series
IEC 61360-1	NOTE	Approved as EN 61360-1
IEC 61360-2	NOTE	Approved as EN 61360-2
IEC 61784-1 series	NOTE	Approved as EN IEC 61784-1 series
IEC 61987 series	NOTE	Approved as EN IEC 61987 series
IEC 61987-1	NOTE	Approved as EN 61987-1
IEC 61987-31:2022	NOTE	Approved as EN IEC 61987-31:2023 (not modified)
IEC 61987-92	NOTE	Approved as EN IEC 61987-92

### Annex ZA (normative)

# Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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.cencenelec.eu.

<u>Publication</u>	<u>Year</u> <u>Title</u>		EN/HD	<u>Year</u>
IEC 61987-10	control - Da process equ List of Prop Process Me	rocess measurement and ta structures and elements in uipment catalogues - Part 10: erties (LOPs) for Industrial- easurement and Control for Data Exchange - Fundamentals	EN 61987-10	2009
-	(https://s		+ AC	2011
IEC 61987-11	control - Da process equ List of prop equipment	rocess measurement and ta structures and elements in uipment catalogues - Part 11: erties (LOPs) of measuring for electronic data exchange -	EN 61987-11	
	stand Generic stru	uctures:-54ab-4aa1-8885-a1b5		

### iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN IEC 61987-32:2024

https://standards.iteh.ai/catalog/standards/sist/a6d87a4c-54db-4ddf-a8a5-dfb5787025b1/sist-en-iec-61987-32-2024



IEC 61987-32

Edition 1.0 2024-06

## INTERNATIONAL STANDARD

### NORME INTERNATIONALE

Industrial- process measurement and control – Data structures and elements in process equipment catalogues –

Part 32: Lists of properties (LOP) for I/O modules for electronic data exchange

Mesure et commande des processus industriels – Structures de données et éléments dans les catalogues d'équipement de processus – Partie 32: Listes des propriétés (LOP) pour les modules d'E/S pour l'échange électronique des données

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 25.040.40 ISBN 978-2-8322-8935-8

Warning! Make sure that you obtained this publication from an authorized distributor.

Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

#### IEC 61987-32:2024 © IEC 2024

#### **CONTENTS**

-2-

FOREWORD	3
INTRODUCTION	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 General	7
4.1 Overview	7
4.2 Examples of DLOP block usage	7
4.2.1 DLOP for I/O modules	7
Annex A (normative) Operating list of properties for I/O modules	10
Annex B (normative) Device lists of properties for I/O modules	11
B.1 I/O module	11
Annex C (normative) Property library	12
Annex D (normative) Block library for considered device types	13
Bibliography	14
Figure 1 – Four-channel binary input module	9
Table 1 – DLOP Example of I/O module with binary inputs	7

### **Document Preview**

SIST EN IEC 61987-32:2024

https://standards.itah.gi/catalog/standards/sist/a6d87a/a.5/dh.4ddf.a8a5.dfh5787075h1/sist.an.ica.61087.32.202

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

### Part 32: Lists of properties (LOP) for I/O modules 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) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61987-32 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
65E/934/CDV	65E/994/RVC

**-4** -

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/publications">www.iec.ch/publications</a>.

The List of Properties (LOPs) given in this standard are published in the Common Data Dictionary of IEC as stated in the appendices A to D. In the event that the LOPs are not yet available in the CDD, they can be found temporarily in the CDD maintenance area (https://std.iec.ch/cdd/iec61987/cdddev.nsf/TreeFrameset?OpenFrameSet).

A list of all parts in the IEC 61987 series, 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 document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or

SIST EN IEC 61987-32:2024

https://sta • la revised.aj/catalog/standards/sist/a6d87a4c-54db-4ddf-a8a5-dfb5787025b1/sist-en-iec-61987-32-2024