SVENSK STANDARD SS-EN 61987-24-3

Fastställd	Utgåva	Sida	Ansvarig kommitté
2018-01-24	1	1 (1+15)	SEK TK 65

Industriell processtyrning – Datastrukturer och dataelement i kataloger över processutrustning – Del 24-3: Egenskapslista för flödesförändrande tillbehör för elektroniskt datautbyte

Industrial-process measurement and control – Data structures and elements in process equipment catalogues – Part 24-3: Lists of properties (LOPs) of flow modification accessories for electronic data exchange

Som svensk standard gäller europastandarden EN 61987-24-3:2017. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61987-24-3:2017.

Nationellt förord

Europastandarden EN 61987-24-3:2017

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

– **IEC 61987-24-3, First edition, 2017 - Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 24-3: Lists of properties (LOPs) of flow modification accessories for electronic data exchange**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 01.110.00; 25.040.40; 35.240.50

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61987-24-3

October 2017

ICS 01.110; 25.040.40; 35.240.50

English Version

Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 24-3: Lists of properties (LOPs) of flow modification accessories for electronic data exchange (IEC 61987-24-3:2017)

Mesure et commande dans les processus industriels - Structures de données et éléments dans les catalogues d'équipements de processus - Partie 24-3: Liste de propriétés (LOP) des accessoires de modification de débit pour l'échange électronique de données (IEC 61987-24-3:2017)

Industrielle Leittechnik - Datenstrukturen und -elemente in Katalogen der Prozessleittechnik - Teil 24-3: Merkmalleisten (ML) für Zubehör zur Durchflussmodifizierung für den elektronischen Datenaustausch (IEC 61987-24-3:2017)

This European Standard was approved by CENELEC on 2017-07-24. 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, Serbia, 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

Ref. No. EN 61987-24-3:2017 E

SEK Svensk Elstandard

European foreword

The text of document 65B/1037/CDV, future edition 1 of IEC 61987-24-3, prepared by SC 65B "Measurement and control devices", of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61987-24-3:2017.

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) 2018-04-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-10-27

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.

Endorsement notice

The text of the International Standard IEC 61987-24-3:2017 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 60534-1	NOTE	Harmonized as EN 60534-1.
IEC 60534-7	NOTE	Harmonized as EN 60534-7.
IEC 61069-5	NOTE	Harmonized as EN 61069-5.
IEC 61987-1	NOTE	Harmonized as EN 61987-1.
IEC 61987-22	NOTE	Harmonized as EN 61987-22.
IEC 62424	NOTE	Harmonized as EN 62424.
ISO 80000-1	NOTE	Harmonized as EN ISO 80000-1.

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 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 element types with associated classification scheme for electric components	EN 61360	series
IEC 61360-4-DB	-	Standard data element types with associated classification scheme for electric components - Part 4: IEC reference collection of standard data element types and component classes	-	-
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	-	Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 11: List of properties (LOPs) of measuring equipment for electronic data exchange - Generic structures	EN 61987-11	-
IEC 61987-21	2015	Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 21: List of Properties (LOP) of automated valves for electronic data exchange - Generic structures	EN 61987-21	2016

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 24-3: Lists of properties (LOPs) of flow modification accessories 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.
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International Standard IEC 61987-24-3 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

CDV	Report on voting
65B/1037/CDV	65B/1066/RVC

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

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

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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document 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 IEC 61987, 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.

IEC 61987 (all parts) propose a method for standardization which will help both suppliers and users of process control 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 can be considered here to be either users or suppliers.

The method specifies process control 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. IEC 61987 (all parts) covers both properties that can be used in an inquiry or a proposal and detailed properties required for integration of the equipment in computer systems for other tasks.

Part 10 of IEC 61987 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. Part 10 also provides the data model for assembling the LOPs.

Part 11 of IEC 61987, while specifying a generic structure for measuring equipment, provides several important detail descriptions, such as the handling of composite devices that are also required for LOPs describing devices of other areas like the automated valves.

Part 21 of IEC 61987 specifies the generic structure for operating and device lists of properties (OLOPs and DLOPs) for automated valves. It lays down the framework for further parts of IEC 61987 in which complete LOPs for final control elements of different construction and functional principle will be specified. The generic structure can also serve as a basis for the specification of LOPs for other industrial-process control instrument types.

This part of IEC 61987 concerns flow modification accessories. It provides operating LOPs which can be used, for example, as a request for quotation for various purposes. The DLOPs for the accessories provided in this document 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 in the various plant maintenance systems of plant owners. The OLOP and the DLOPs provided correspond to the guidelines specified in IEC 61987-10, IEC 61987-11 and IEC 61987-21.

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

Part 24-3: Lists of properties (LOPs) of flow modification accessories 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 flow modification accessories for automated valves, listed in Annex A,
- device lists of properties (DLOPs) for flow modification accessories for automated valves, listed in Annex B.

The structures of the LOPs conform to the general structures defined in IEC 61987-11 and IEC 61987-21 as well as the fundamentals for the construction of LOPs defined in IEC 61987-10. The LOPs conform additionally with terms defined in IEC 60534-7.

Libraries of properties and of blocks used in the LOPs are listed in Annexes C and D respectively.

2 Normative references

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.

IEC 61360 (all parts), *Standard data element types with associated classification scheme for electric components*

IEC 61360-4, *Standard data element types with associated classification scheme for electric components – Part 4: IEC reference collection of standard data element types and component classes* (available at: http://std.iec.ch/iec61360)

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*

IEC 61987-11, *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*

IEC 61987-21:2015, *Industrial-process measurement and control – Data structures and elements in process equipment catalogues – Part 21: List of Properties (LOP) of automated valves for electronic data exchange – Generic structures*