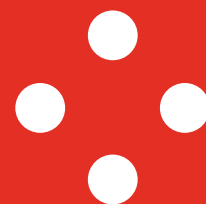


IZVLEČKI V ANGLEŠČINI



Objave SIST • Announcements SIST

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11 | 23

Izvečki iz novih slovenskih nacionalnih standardov v angleškem jeziku

SIST/TC AGO Alternativna goriva iz odpadkov

SIST EN ISO 21911-1:2023

2023-11 (po) (en;fr;de) **20 str. (E)**

Trdna alternativna goriva - Določanje samosegrevanja - 1. del: Izotermalna kalorimetrija (ISO 21911-1:2022)

Solid recovered fuels - Determination of self-heating - Part 1: Isothermal calorimetry (ISO 21911-1:2022)

Osnova: EN ISO 21911-1:2023

ICS: 75.160.10

This document specifies an analytical method for quantification of the spontaneous heat generation from solid recovered fuels using isothermal calorimetry.

This document gives guidance on the applicability and use of the specified analytical method. It further establishes procedures for sampling and sample handling of solid recovered fuels prior to the analysis of spontaneous heat generation.

The test procedure given in this document quantifies the thermal power (heat flow) of the sample during the test. It does not identify the source of self-heating in the test portion analysed.

SIST/TC AKU Akustika

SIST EN 14366-1:2023

SIST EN 14366:2005+A1:2019

2023-11 (po) (en;fr;de) **32 str. (G)**

Laboratorijske meritve zvoka iz servisne opreme, ki se prenaša po zraku in konstrukciji - 1. del: Pravila uporabe pri napravah za odvajanje odpadne vode

Laboratory measurement of airborne and structure-borne sound from service equipment - Part 1:

Application rules for waste water installations

Osnova: EN 14366-1:2023

ICS: 91.140.80, 17.140.20

This document is a revised version of EN 14366:2004+A1:2019 in which waste water or rain water piping systems are characterized as airborne sound source and structure-borne sound source using the same method as the one described in EN 15657 for characterizing building service equipment. It therefore applies to equipment installed in any type of buildings (heavy or lightweight).

This document:

- specifies laboratory measuring methods for determining the input data required for both comparing products and materials, and predicting sound levels in buildings using EN 12354-5. These input quantities are the piping system sound power level for airborne sound and three quantities for structure-borne sound (piping system free velocity, blocked force and mobility), from which the piping system installed power, source input for EN 12354-5, is determined;
- specifies the method for the measurement of the equipment airborne sound power;
- only considers piping systems connected to one supporting building element in a first step;

NOTE Simultaneous structure-borne transmissions to wall and floor are more difficult to handle. In the configurations proposed in this document, the piping system is only connected to one supporting element and mechanically decoupled from the other elements.

- includes configurations of vertical pipes with offset (deviated horizontally) connected to walls and horizontal pipes connected to ceilings, for which the measuring method is the

same as the one defined for straight vertical pipes connected to walls. These complementary configurations are described in (normative) Annex A;

- specifies laboratory test procedures for determining the performance of mitigation measures such as pipe enclosures (technical shaft) and pipe lining. The corresponding specifications are given in (normative) Annex B;

- defines the expression of the results for use in comparing products and materials and for use as input data for prediction;

- indicates a method to transform the quantities measured according to EN 14366:2004+A1:2019, to the quantities used in this document; this method is given in (informative) Annex C.

This document is applicable to waste water piping systems and parts thereof, but not to the actual sources of waste water, e.g. lavatories, toilets and bathtubs or any active units, which are considered separately in EN 12354-5 and shall be characterized separately. It applies to pipes with natural ventilation and made of any common material in commonly used diameters (up to 150 mm).

SIST/TC BBB Beton, armirani beton in prednapeti beton

SIST EN 17678-2:2023

2023-11 (po) (en;fr;de) 8 str. (B)

Vgradnja sistemov za naknadno prednapenjanje konstrukcij - 2. del: Ocenjevanje usposobljenosti osebja

Installation of post-tensioning kits for prestressing of structures - Part 2: Assessment of personnel

Osnova: EN 17678-2:2023

ICS: 91.080.40, 03.100.30

This document indicates the minimum training and registration requirements for post-tensioning personnel involved in the installation of post-tensioning kits in concrete structures using bonded or unbonded tendons in accordance with the relevant execution specifications, product standard and/or European Technical Assessment (ETA) contract specification.

A CEN technical standard does not deal with contracts, but the specification (in this case the execution specification).

This document describes the tasks that the various categories of post-tensioning personnel can undertake.

For the purposes of this document, post-tensioning personnel means: (Site-)Manager, Supervisors, Operatives and Trainees who are directly or indirectly employed on a sub-contract basis.

This document does not cover safety and health aspects.

This document does not cover contractual issues.

Part 2 of this standard deals with the assessment of competence.

Note: It is within the concept of this standard that supplementing requirements can be given in the execution specification or in a national annex.

SIST EN 480-1:2023

SIST EN 480-1:2015

2023-11 (po) (en;fr;de) 10 str. (C)

Kemijski dodatki za beton, malto in injekcijsko maso - Preskusne metode - 1. del: Referenčni beton in referenčna malta za preskušanje

Admixtures for concrete, mortar and grout - Test methods - Part 1: Reference concrete and reference mortar for testing

Osnova: EN 480-1:2023

ICS: 91.100.30, 91.100.10

This document specifies the constituent materials, the composition and the mixing method to produce reference concrete and reference mortar for testing the efficacy and the compatibility of admixtures in accordance with the series EN 934.

SIST/TC ELI Nizkonapetostne in komunikacijske električne inštalacije

SIST HD 60364-4-43:2023

2023-11 (po) (en) 37 str. (H)

Nizkonapetostne električne inštalacije - 4-43. del: Zaščitni ukrepi - Zaščita pred nadtoki (IEC 60364-4-43:2023)

Low-voltage electrical installations - Part 4-43: Protection for safety - Protection against overcurrent (IEC 60364-4-43:2023)

Osnova: HD 60364-4-43:2023

ICS: 91.140.50, 29.120.50

IEC 60364-4-43:2023 provides requirements for:

- protection of live conductors, PEN conductors, PEM conductors, and PEL conductors against the harmful effects caused by overcurrent;
- coordination of measures for protection against overcurrent.

This fourth edition cancels and replaces the third edition published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the standard has been restructured, see Table 1 (Correspondence between IEC 60364-4-43:2008 and this document) below;
- b) the measure "automatic disconnection of supply" has been designated as the preferred measure for protection against overcurrent;
- c) all measures except the measure "automatic disconnection of supply" have been transferred into new normative annexes to indicate that these measures are usable in certain applications and under certain restricted conditions only (see Annex A, Annex B and Annex E);
- d) a new clause "Terms and definitions" has been added;
- e) new requirements have been added for the protection of the neutral or mid-point conductor (with and without triplen harmonics).

SIST-TS CLC/TS 50600-5-1:2023

2023-11 (po) (en) 65 str. (K)

Informacijska tehnologija - Naprave in infrastruktura podatkovnega centra - 5-1. del: Zrelostni model za upravljanje z energijo in okoljsko trajnostjo

Information technology - Data centre facilities and infrastructures - Part 5-1: Maturity Model for Energy Management and Environmental Sustainability

Osnova: CLC/TS 50600-5-1:2023

ICS: 13.020.20, 35.110

This document provides a maturity model addressing the environmental impact (energy management and environmental sustainability) of the facilities, infrastructures and the information and communication technology (ICT) equipment accommodated by the data centre.

SIST/TC EPR Električni pribor

SIST EN 60670-23:2009/A1:2023

2023-11 (po) (en;fr;de) 5 str. (B)

Omarice in ohišja za električno opremo za gospodinjstvo in podobne nepremične električne inštalacije - 23. del: Posebne zahteve za talne omarice in ohišja - Dopolnilo A1

Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 23: Particular requirements for floor boxes and enclosures

Osnova: EN 60670-23:2008/A1:2023

ICS: 29.120.99

Amandma A1:2023 je dodatek k standardu SIST EN 60670-23:2009.

This clause of Part 1 is applicable except as follows: Addition after the fourth paragraph: This standard applies to boxes and enclosures intended to be installed in any kind of floor, and to protect accessories against load up to and including 1 000 N.

SIST EN 60670-23:2009/A11:2023

2023-11 (po) (en;fr;de) **6 str. (B)**

Omarice in ohišja za električno opremo za gospodinjstva in podobne nepremične električne inštalacije - 23. del: Posebne zahteve za talne omarice in ohišja - Dopolnilo A11

Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 23: Particular requirements for floor boxes and enclosures

Osnova: EN 60670-23:2008/A11:2023

ICS: 29.120.99

Amandma A11:2023 je dodatek k standardu SIST EN 60670-23:2009.

This clause of Part 1 is applicable except as follows: Addition after the fourth paragraph: This standard applies to boxes and enclosures intended to be installed in any kind of floor, and to protect accessories against load up to and including 1 000 N.

SIST EN IEC 61543:2023

2023-11 (po) (en;fr;de) **17 str. (E)**

Zaščitne naprave na residualni tok za uporabo v gospodinjstvu in podobne namene - Elektromagnetna združljivost (IEC 61543:2022)

Residual current-operated protective devices (RCDs) for household and similar use - Electromagnetic compatibility (IEC 61543:2022)

Osnova: EN IEC 61543:2023

ICS: 33.100.01, 29.120.50

This document provides specific emission and immunity requirements, tests and performance criteria for residual current-operated protective devices (RCDs), for household and similar use, for rated voltages not exceeding 440 V.

Household and similar use corresponds to the description given in the generic standard IEC 61000-6-1 for residential, commercial, and light-industrial electromagnetic environments.

This document is intended to be referred to by RCD product standards and is not intended to be used as a standalone document.

Residual current-operated protective devices are:

- Residual current operated circuit-breakers without integral overcurrent protection for household and similar use (RCCBs) covered by IEC 61008 series and IEC 62423;
- Residual current operated circuit-breakers with integral overcurrent protection for household and similar use (RCBOs) covered by IEC 61009 series and IEC 62423;
- Residual current devices with or without overcurrent protection for socket-outlets (SRCDs) covered by IEC 62640;
- Portable residual current devices without integral overcurrent protection (PRCDs) covered by IEC 61540;
- Devices with an RCD functionality for household and similar use according product standards following the group safety publications for general safety requirements for RCDs, IEC 60755.

This edition applies if it is referred to as a dated reference in the relevant product standard.

This document is also intended to be used as a guideline in the preparation of EMC requirements and tests for other product standards under the scope of SC 23E. It also specifies generic performance criteria intended to be transformed into specific performance criteria by the relevant product standard.

Note: Examples of other product standards under the scope of SC 23E are:

- IEC 62020-1 "Electrical accessories - Residual current monitors (RCMs) – Part 1: RCMs for household and similar uses";
- IEC 62606 "General requirements for arc fault detection devices";
- IEC 63024 "Requirements for automatic reclosing devices (ARDs) for circuit breakers, RCBOs-RCCBs for household and similar uses";
- IEC 63052 "Power frequency overvoltage protective devices (POPs) for household and similar applications";

- IEC 62752 "In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)";
- IEC 62955 "Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles".

SIST EN IEC 61543:2023/A11:2023

2023-11 (po) (en;fr;de) **8 str. (B)**

Zaščitne naprave na residualni tok za uporabo v gospodinjstvu in podobne namene - Elektromagnetna združljivost - Dopolnilo A11 (EN IEC 61543:2023/A11:2023)

Residual current-operated protective devices (RCDs) for household and similar use - Electromagnetic compatibility

Osnova: EN IEC 61543:2023/A11:2023

ICS: 33.100.01, 29.120.50

Amandma A11:2023 je dodatek k standardu SIST EN IEC 61543:2023.

This document provides specific emission and immunity requirements, tests and performance criteria for residual current-operated protective devices (RCDs), for household and similar use, for rated voltages not exceeding 440 V.

Household and similar use corresponds to the description given in the generic standard IEC 61000-6-1 for residential, commercial, and light-industrial electromagnetic environments.

This document is intended to be referred to by RCD product standards and is not intended to be used as a standalone document.

Residual current-operated protective devices are:

- Residual current operated circuit-breakers without integral overcurrent protection for household and similar use (RCCBs) covered by IEC 61008 series and IEC 62423;
- Residual current operated circuit-breakers with integral overcurrent protection for household and similar use (RCBOs) covered by IEC 61009 series and IEC 62423;
- Residual current devices with or without overcurrent protection for socket-outlets (SRCDs) covered by IEC 62640;
- Portable residual current devices without integral overcurrent protection (PRCDs) covered by IEC 61540;
- Devices with an RCD functionality for household and similar use according product standards following the group safety publications for general safety requirements for RCDs, IEC 60755.

This edition applies if it is referred to as a dated reference in the relevant product standard.

This document is also intended to be used as a guideline in the preparation of EMC requirements and tests for other product standards under the scope of SC 23E. It also specifies generic performance criteria intended to be transformed into specific performance criteria by the relevant product standard.

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- IEC 62606 "General requirements for arc fault detection devices";
- IEC 63024 "Requirements for automatic reclosing devices (ARDs) for circuit breakers, RCBOs-RCCBs for household and similar uses";
- IEC 63052 "Power frequency overvoltage protective devices (POPs) for household and similar applications";
- IEC 62752 "In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)";
- IEC 62955 "Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles".

SIST/TC FGA Funkcionalnost gospodinjskih aparatov

SIST EN 50723:2023

2023-11 (po) (en) 42 str. (I)

Merilna metoda za oceno kompatibilnosti indukcijskih kuhališč in kuhinjske posode
Measurement method for assessing the compatibility of induction hob and cookware

Osnova: EN 50723:2023

ICS: 97.040.20

This document describes a method which determines the electrical parameters for compatibility of cookware and induction hobs for household use. Cookware is an integral part of the cooking system; electrical parameters can affect the cooking process regarding the required power setting, speed of heating up, sufficient power for different cooking processes etc.

For determining the compatibility of a cookware to an induction cooking zone and cooking area, a measurement device and a measurement procedure is specified in this deliverable. It allows measuring the resistivity and/or impedance of the cookware under test (CUT) in a repeatable and reproducible way. The measured electric properties indicate the compatibility characteristics of a cookware on an induction cooking zones and cooking area.

For determination the compatibility of an induction cooking zone or cooking area with a cookware, this document describes the measurement how to determine the power generated by the hob under test in combination with the selected cookware.

NOTE 1 For definitions of induction hob, induction cooking zone and cooking area EN 60350 2 is relevant.

Further performance characteristics of hobs which are of interest to the user, like energy consumption, heating up time or heat distribution are not addressed. This document does not deal with safety requirements.

NOTE 2 Further performance characteristics for hobs are covered in EN 60350 2.

NOTE 3 Further performance characteristics for cookware are covered in EN 12983 1 and EN 12983 2.

NOTE 4 This document does not deal with safety requirements (IEC 60335 2 6 and IEC 60335 2 9).

Appliances covered by this document may be built-in or portable induction hobs. The hob can also be a part of a cooking range.

SIST EN IEC 62885-4:2020/A1:2023

2023-11 (po) (en) 12 str. (C)

Naprave za površinsko čiščenje - 4. del: Brezvrvični vakuumski čistilniki za kemično čiščenje za gospodinjsko ali podobno uporabo - Metode za merjenje učinkovitosti (IEC 62885-4:2020/AMD1:2023) - Dopolnilo A1

Amendment 1 - Surface cleaning appliances - Part 4: Cordless dry vacuum cleaners for household or similar use - Methods for measuring the performance (IEC 62885-4:2020/AMD1:2023)

Osnova: EN IEC 62885-4:2020/A1:2023

ICS: 97.080

Amandma A1:2023 je dodatek k standardu SIST EN IEC 62885-4:2020.

This part of IEC 62885 is applicable to measurements of the performance of cordless dry vacuum cleaners for household use or under conditions similar to those in households. The results obtained under this document are intended to be comparable to the results obtained under IEC 62885-2 for mains-connected vacuums.

The purpose of this document is to specify essential performance characteristics of cordless dry vacuum cleaners which are of interest to users and to describe methods for measuring these characteristics.

NOTE 1 Owing to the influence of environmental conditions, variations in time, origin of test materials and proficiency of the operator, most of the described test methods give more reliable results when applied to comparative testing of a number of appliances at the same time, in the same laboratory and by the same operator.

NOTE 2 This document is not intended for mains-operated vacuum cleaners or cleaning robots.

NOTE 3 Cordless handheld vacuums are excluded, except for 5.7.2 and 5.8.
For safety requirements, reference is made to IEC 60335-1 and IEC 60335-2-2. A recommendation on information for the consumer at the point of sale is given in Annex B of IEC 62885-2.

SIST EN IEC 63086-1:2020/A1:2023

2023-11 (po) (en) **6 str. (B)**

Gospodinjiski in podobni električni aparati za čiščenje zraka - Metode za merjenje zmogljivosti - 1. del: Splošne zahteve (IEC 63086-1:2020/AMD1:2023) - Dopolnilo A1

Amendment 1 - Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 1: General requirements (IEC 63086-1:2020/AMD1:2023)

Osnova: EN IEC 63086-1:2020/A1:2023

ICS: 97.030, 23.120

Amandma A1:2023 je dodatek k standardu SIST EN IEC 63086-1:2020.

This part of IEC 63086 applies to electrically powered household and similar air cleaners intended for use on rated single-phase AC input voltage circuits not exceeding 250 V and DC input voltage circuits not exceeding 48 V.

NOTE 1 See Clause 4 for examples of different technologies and placements of household and similar air cleaners.

NOTE 2 If the test methods in this document are applied to combination products (air conditioners, humidifiers, dehumidifiers, heaters, etc.) with air cleaning function, they are only aimed at their air cleaning function when tested.

NOTE 3 Battery-operated appliances are within the scope of this document. Dual-supply appliances, either mains-supplied or battery-operated, are regarded as battery-operated appliances when operated in the battery mode.

NOTE 4 This document is not applicable to:

- appliances intended exclusively for industrial purposes;
- appliances intended for use in medical treatment locations, such as surgical suites, laboratories, medical treatment rooms, etc.
- household range hoods or cooking fume extractors – see IEC 61591.

SIST/TC GIG Geografske informacije

SIST EN ISO 19123-1:2023

SIST EN ISO 19123:2007

2023-11 (po) (en;fr;de) **89 str. (M)**

Geografske informacije - Shema za geometrijo podatkovnega sloja in funkcije - 1. del: Osnove (ISO 19123-1:2023)

Geographic information - Schema for coverage geometry and functions - Part 1: Fundamentals (ISO 19123-1:2023)

Osnova: EN ISO 19123-1:2023

ICS: 07.040, 35.240.70

This document defines a conceptual schema for coverages. A coverage is a mapping from a spatial, temporal or spatiotemporal domain to attribute values sharing the same attribute type. A coverage domain consists of a collection of direct positions in a coordinate space that can be defined in terms of spatial and/or temporal dimensions, as well as non-spatiotemporal (in ISO 19111:2019, "parametric") dimensions. Examples of coverages include point clouds, grids, meshes, triangulated irregular networks, and polygon sets. Coverages are the prevailing data structures in a number of application areas, such as remote sensing, meteorology and mapping of depth, elevation, soil and vegetation. This document defines the coverage concept including the relationship between the domain of a coverage and its associated attribute range. This document defines the characteristics of the domain. The characteristics of the attribute range are not defined in this document, but are defined in implementation standards. Consequently, the standardization target of this document consists of implementation standards, not concrete implementations themselves.

SIST EN ISO 19123-3:2023**2023-11** (po) (en;fr;de) **86 str. (M)**

Geografske informacije - Shema za geometrijo podatkovnega sloja in funkcije - 3. del: Osnove obdelave (ISO 19123-3:2023)

Geographic information - Schema for coverage geometry and functions - Part 3: Processing fundamentals (ISO 19123-3:2023)

Osnova: EN ISO 19123-3:2023

ICS: 07.040, 35.240.70

This document defines a coverage processing language for server-side extraction, filtering, processing, analytics, and fusion of multi-dimensional geospatial coverages representing, for example, spatio-temporal sensor, image, simulation, or statistics datacubes. Services implementing this language provide access to original or derived sets of coverage information, in forms that are useful for client-side consumption.

This document relies on the ISO 19123-1 abstract coverage model. In this edition, regular and irregular multi-dimensional grids are supported for axes that can carry spatial, temporal or any other semantics. Future editions will additionally support further axis types as well as further coverage types from ISO 19123-1, specifically, point clouds and meshes.

SIST EN ISO 19150-6:2023**2023-11** (po) (en;fr;de) **38 str. (H)**

Geografske informacije - Ontologija - 6. del: Ontološki register storitev (ISO 19150-6:2023)

Geographic information - Ontology - Part 6: Service ontology register (ISO 19150-6:2023)

Osnova: EN ISO 19150-6:2023

ICS: 07.040, 35.240.70

This document establishes a standard registration and maintenance mechanism for the registration of ISO 19150-4-conformant geographic information service ontologies.

This document makes use of ISO 19135-1 whenever appropriate.

This document does not define semantics operators or rules for ontologies, and does not develop any application ontology.

In relation to ISO 19101-1:2014, 6.2, this document defines and formalizes the following purposes of the ISO geographic information reference model:

- geographic information service components and their behaviour for data processing purposes over the Web; and
- OWL ontologies to cast ISO/TC 211 International Standards to benefit from and support the Semantic Web.

In relation to ISO 19101-1:2014, 8.3, this document addresses the Application:Procedural foundation of the ISO geographic information reference model.

SIST/TC IIZS Izolacijski materiali in sistemi**SIST EN IEC 60674-3-3:2023****2023-11** (po) (en) **17 str. (E)**

Plastične folije za električne namene - 3. del: Specifikacije za posamezne materiale - 3. list:

Polikarbonatne (PC) folije, ki se uporabljajo za električno izolacijo (IEC 60674-3-3:2023)

*Plastic films for electrical purposes - Part 3: Specifications for individual materials - Sheet 3:**Polycarbonate (PC) films used for electrical insulation (IEC 60674-3-3:2023)*

Osnova: EN IEC 60674-3-3:2023

ICS: 29.035.20

This sheet of IEC 60674-3 gives the requirements for polycarbonate films used for electrical insulation. Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application can be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

Safety warning: It is the responsibility of the user of the methods contained or referred to in this document to ensure that they are used in a safe manner.

SIST EN IEC 60674-3-7:2023

2023-11 (po) (en) **15 str. (D)**

Plastične folije za električne namene - 3. del: Specifikacije za posamezne materiale - 7. list: Fluoretilen-propilenske (FEP) folije, ki se uporabljajo za električno izolacijo (IEC 60674-3-7:2023)

Plastic films for electrical purposes - Part 3: Specifications for individual materials - Sheet 7:

Fluoroethylene-propylene (FEP) films used for electrical insulation (IEC 60674-3-7:2023)

Osnova: EN IEC 60674-3-7:2023

ICS: 29.035.20

This sheet of IEC 60674-3 gives the requirements for fluoroethylene-propylene (FEP) films used for electrical insulation.

Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application can be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

Safety warning: It is the responsibility of the user of the methods contained or referred to in this document to ensure that they are used in a safe manner

SIST/TC IMKF Magnetne komponente in feritni materiali

SIST EN IEC 62044-3:2023

2023-11 (po) (en) **50 str. (I)**

Jedra iz mehkomagnetnih materialov - Merilne metode - 3. del: Magnetne lastnosti pri močnem vzbujanju

Cores made of soft magnetic materials - Measuring methods - Part 3: Magnetic properties at high excitation level

Osnova: EN IEC 62044-3:2023

ICS: 17.220.20, 29.100.10

This part of IEC 62044 specifies measuring methods for power loss and amplitude permeability of magnetic cores forming the closed magnetic circuits intended for use at high excitation levels in inductors, chokes, transformers and similar devices for power electronics applications.

The methods given in this document can cover the measurement of magnetic properties for frequencies ranging practically from direct current to 10 MHz, and even possibly higher, for the calorimetric and reflection methods. The applicability of the individual methods to specific frequency ranges is dependent on the level of accuracy that is to be obtained.

The methods in this document are basically the most suitable for sine-wave excitations. Other periodic waveforms can also be used; however, adequate accuracy can only be obtained if the measuring circuitry and instruments used are able to handle and process the amplitudes and phases of the signals involved within the frequency spectrum corresponding to the given magnetic flux density and field strength waveforms with only slightly degraded accuracy.

NOTE It can be necessary for some magnetically soft metallic materials to follow specific general principles, customary for these materials, related to the preparation of specimens and specified calculations. These principles are formulated in IEC 60404-8-6.

SIST/TC IMKG Mehanizacija za kmetijstvo in gozdarstvo

SIST EN ISO 25119-1:2023

2023-11 (po) (en;fr;de) 39 str. (H)

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 1. del: Osnovna načela za načrtovanje in razvoj (ISO 25119-1:2018)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 1: General principles for design and development (ISO 25119-1:2018)

Osnova: EN ISO 25119-1:2023

ICS: 65.060.01, 35.240.99

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-1:2023/A1:2023

2023-11 (po) (en;fr;de) 8 str. (B)

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 1. del: Osnovna načela za načrtovanje in razvoj - Dopolnilo A1 (ISO 25119-1:2018/Amd 1:2020)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 1: General principles for design and development - Amendment 1 (ISO 25119-1:2018/Amd 1:2020)

Osnova: EN ISO 25119-1:2023/A1:2023

ICS: 65.060.01, 35.240.99

Amandma A1:2023 je dodatek k standardu SIST EN ISO 25119-1:2023.

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on

machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-2:2023

2023-11 (po) (en;fr;de) **63 str. (K)**

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 2. del: Faza koncepta (ISO 25119-2:2019)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 2: Concept phase (ISO 25119-2:2019)

Osnova: EN ISO 25119-2:2023

ICS: 65.060.01, 35.240.99

This document specifies the concept phase of the development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (such as street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards., unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES

safety-related systems involved in protection measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS's limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS's designed to prevent fire.

Examples not included within the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (such as hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety-related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-3:2023

2023-11 (po) (en;fr;de) 75 str. (L)

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 3. del: Razvoj serije, strojna in programska oprema (ISO 25119-3:2018)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 3: Series development, hardware and software (ISO 25119-3:2018)

Osnova: EN ISO 25119-3:2023

ICS: 65.060.01, 35.240.99

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS's limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS's designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-3:2023/A1:2023

2023-11 (po) (en;fr;de) **9 str. (C)**

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 3. del: Razvoj serije, strojna in programska oprema - Dopolnilo A1 (ISO 25119-3:2018/Amd 1:2020)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 3: Series development, hardware and software - Amendment 1 (ISO 25119-3:2018/Amd 1:2020)

Osnova: EN ISO 25119-3:2023/A1:2023

ICS: 65.060.01, 35.240.99

Amandma A1:2023 je dodatek k standardu SIST EN ISO 25119-3:2023.

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS's limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS's designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-4:2023

2023-11 (po) (en;fr;de) **38 str. (H)**

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 4. del: Proizvodni, obratovalni, spreminjevalni in podporni procesi (ISO 25119-4:2018)

Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 4: Production, operation, modification and supporting processes (ISO 25119-4:2018)

Osnova: EN ISO 25119-4:2023

ICS: 65.060.01, 35.240.99

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;

- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST EN ISO 25119-4:2023/A1:2023

2023-11 (po) (en;fr;de) **9 str. (C)**

Traktorji ter kmetijski in gozdarski stroji - Varnostni deli krmilnih sistemov - 4. del: Proizvodni, obratovalni, spreminjevalni in podporni procesi - Dopolnilo A1 (ISO 25119-4:2018/Amd 1:2020)
Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 4: Production, operation, modification and supporting processes - Amendment 1 (ISO 25119-4:2018/Amd 1:2020)

Osnova: EN ISO 25119-4:2023/A1:2023

ICS: 65.060.01, 35.240.99

Amandma A1:2023 je dodatek k standardu SIST EN ISO 25119-4:2023.

This document sets out general principles for the design and development of safety-related parts of control systems (SRP/CS) on tractors used in agriculture and forestry and on self-propelled ride-on machines and mounted, semi-mounted and trailed machines used in agriculture. It can also be applied to mobile municipal equipment (e.g. street-sweeping machines).

This document is not applicable to:

- aircraft and air-cushion vehicles used in agriculture;
- lawn and garden equipment.

This document specifies the characteristics and categories required of SRP/CS for carrying out their safety-related functions. It does not identify performance levels for specific applications.

NOTE 1 Machine specific type-C standards can specify performance levels (AgPL) for safety-related functions in machines within their scope. Otherwise, the specification of AgPL is the responsibility of the manufacturer.

This document is applicable to the safety-related parts of electrical/electronic/programmable electronic systems (E/E/PES), as these relate to mechatronic systems. It covers the possible hazards caused by malfunctioning behaviour of E/E/PES safety-related systems, including interaction of these systems. It does not address hazards related to electric shock, fire, smoke, heat, radiation, toxicity, flammability, reactivity, corrosion, release of energy, and similar hazards, unless directly caused by malfunctioning behaviour of E/E/PES safety-related systems. It also covers malfunctioning behaviour of E/E/PES safety-related systems involved in protective measures, safeguards, or safety-related functions in response to non-E/E/PES hazards.

Examples included within the scope of this document:

- SRP/CS limiting current flow in electric hybrids to prevent insulation failure/shock hazards;
- electromagnetic interference with the SRP/CS;
- SRP/CS designed to prevent fire.

Examples not included in the scope of this document:

- insulation failure due to friction that leads to electric shock hazards;
- nominal electromagnetic radiation impacting nearby machine control systems;
- corrosion causing electric cables to overheat.

This document is not applicable to non-E/E/PES systems (e.g. hydraulic, mechanic or pneumatic).

NOTE 2 See also ISO 12100 for design principles related to the safety of machinery.

This document is not applicable to safety related parts of control systems manufactured before the date of its publication.

SIST/TC IPKZ Protikorozijska zaščita kovin

SIST EN ISO 14920:2023

2023-11 (po) (en;fr;de) **16 str. (D)**

Vročje brizganje (metalizacija) - Taljenje in brizganje - Vročje nanašanje samotaljivih zlitin (ISO 14920:2023)

Thermal spraying - Spraying and fusing of self-fluxing alloys (ISO 14920:2023)

Osnova: EN ISO 14920:2023

ICS: 25.220.20

This document specifies the procedure for thermal spraying of self-fluxing alloys that are simultaneously or subsequently fused to create a homogeneous, diffusion-bonded coating.

SIST/TC IPMA Polimerni materiali in izdelki

SIST EN ISO 1172:2023

2023-11 (po) (en;fr;de) **16 str. (D)**

S stekleno tkanino ojačani polimerni materiali - Preprege, zmesi za oblikovanje in laminati - Določevanje steklene tkanine in mineralnih polnil z uporabo metode s sežigom (ISO 1172:2023)

Textile-glass-reinforced plastics - Prepregs, moulding compounds and laminates - Determination of the textile-glass and mineral-filler content using calcination methods (ISO 1172:2023)

Osnova: EN ISO 1172:2023

ICS: 83.120

Gives two calcination methods for the determination of the textile-glass and mineral-filler content of glass-reinforced plastics. Method A is used for the determination of the textile-glass content when no mineral fillers are present; method B is used when both components are present. Replaces the first edition.

SIST EN ISO 13927:2023

2023-11 (po) (en;fr;de) **33 str. (H)**

Polimerni materiali - Preprost preskus za ugotavljanje sproščene toplote z uporabo koničnega radiacijskega grelnika in detektorja iz termoelektrične baterije (ISO 13927:2023)

Plastics - Simple heat release test using a conical radiant heater and a thermopile detector (ISO 13927:2023)

Osnova: EN ISO 13927:2023

ICS: 83.080.01

This document specifies a method suitable for the production control or product development purposes for assessing the heat release rate of essentially flat products exposed in the horizontal orientation to controlled levels of radiant heating with an external igniter. The heat release rate is determined by the use of a thermopile instead of the more accurate oxygen consumption techniques. The time to ignition

and sustained flaming are also measured in this test. The mass loss of the test specimen can also be measured optionally.

SIST EN ISO 20200:2023

2023-11 (po) (en;fr;de) **17 str. (E)**

Polimerni materiali - Ugotavljanje razpada polimernih materialov pri kompostiranju v laboratorijskem merilu (ISO 20200:2023)

Plastics - Determination of the degree of disintegration of plastic materials under composting conditions in a laboratory-scale test (ISO 20200:2023)

Osnova: EN ISO 20200:2023

ICS: 83.080.01

This document specifies a method of determining the degree of disintegration of plastic materials when exposed to a laboratory-scale composting environment. The method is not applicable to the determination of the biodegradability of plastic materials under composting conditions. Further testing is necessary to be able to claim compostability.

SIST EN ISO 21368:2023

2023-11 (po) (en;fr;de) **111 str. (N)**

Lepila - Smernice za izdelavo lepljenih konstrukcij in postopki poročanja, primerni za oceno tveganja pri takšnih konstrukcijah (ISO 21368:2022)

Adhesives - Guidelines for the fabrication of adhesively bonded structures and reporting procedures suitable for the risk evaluation of such structures (ISO 21368:2022)

Osnova: EN ISO 21368:2023

ICS: 83.180

This document provides guidelines describing the adhesive bonding quality requirements suitable for use by adhesive user-companies utilizing adhesive bonding as a means of fabrication. In particular, the guidelines define various approaches to meeting quality requirements for fabrication and reporting procedures, both in workshops and on site. These guidelines aim to convey the importance of maintaining quality standards in fabrication and reporting procedures, keeping records and thus enabling documentation to provide the basis for risk evaluation of adhesively bonded structures in service and in use.

These guidelines have been prepared such that:

- a) they are independent of the type of adhesively bonded structure;
- b) they are independent of adhesive user-companies' and suppliers' product recommendations;
- c) they define the quality requirements for adhesive bonding in terms of fabrication and reporting procedures, both in workshops and on site;
- d) they can be used as the basis for risk evaluation of adhesively bonded structures in service and in use;
- e) they can be used as a basis for assessing a fabricator's capability to produce adhesively bonded structures fulfilling specified quality requirements when they are detailed in one or more of the following:
 - a contract between the parties involved;
 - an application standard;
 - a regulatory statement.

The guidelines contained within this document can be adopted in full or selectively chosen by the adhesive user to suit the structure concerned. The guidelines provide a flexible framework for the control of adhesive bonding activities in the following cases.

Case 1

The provision of specific requirements for adhesive bonding in contracts that require the adhesive user to have a quality system other than ISO 9001.

Case 2

The provision of specific requirements for adhesive bonding as guidance to an adhesive user developing a quality system.

Case 3

The provision of specific requirements for references in application standards that uses adhesive bonding as part of its requirements or in a contract between relevant parties.

Case 4

The provision of a framework for fabrication and reporting procedures to a quality standard, suitable in particular as a basis for the risk evaluation of adhesively bonded structures.

SIST EN ISO 7231:2023

2023-11 (po) (en;fr;de) **21 str. (F)**

Polimerni materiali - Penjeni polimeri - Mehke pene - Določanje vrednosti zračnega pretoka pri konstantni razliki tlakov (ISO 7231:2023)

Polymeric materials, cellular, flexible - Determination of air flow value at constant pressure-drop (ISO 7231:2023)

Osnova: EN ISO 7231:2023

ICS: 83.100

This document specifies two methods for determining the air flow value of flexible cellular polymeric materials:

- method A, for conventional types of flexible cellular polymeric material;
- method B, for all types of flexible cellular polymeric material, but especially for materials with a low permeability to air.

For method B, two methods are specified in this document:

- method B1: with manual measurement;
- method B2: with automatic measurement.

NOTE 1 Air flow values can be used to give an indication of the effects of formulation and production variables on the cellular structure.

NOTE 2 In this document, the expression “conventional type of flexible cellular polymeric material” means types which are unsuitable for sealing purposes.

SIST/TC ISEL Strojni elementi

SIST EN ISO 4032:2023

2023-11 (po) (en;fr;de) **17 str. (E)**

Vežni elementi - Šestrobe matice (tip 1) (ISO 4032:2023)

Fasteners - Hexagon regular nuts (style 1) (ISO 4032:2023)

Osnova: EN ISO 4032:2023

ICS: 21.060.20

This document specifies the characteristics of hexagon regular nuts (style 1), in steel and stainless steel, with metric coarse pitch thread M5 to M39, and with product grades A and B.

NOTE For nuts with sizes $D < M5$ and $D > M39$, see Annex A.

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

SIST EN ISO 4033:2023

2023-11 (po) (en;fr;de) **13 str. (D)**

Vežni elementi - Šestrobe visoke matice (tip 2) (ISO 4033:2023)

Fasteners - Hexagon high nuts (style 2) (ISO 4033:2023)

Osnova: EN ISO 4033:2023

ICS: 21.060.20

This document specifies the characteristics of hexagon high nuts (style 2), in steel and stainless steel, with metric coarse pitch thread M5 to M39, and with product grades A and B.

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

SIST EN ISO 4035:2023**2023-11 (po) (en;fr;de) 17 str. (E)**

Vezni elementi - Šestrobe nizke matice (tip 0) (ISO 4035:2023)

Fasteners - Hexagon thin nuts (style 0) (ISO 4035:2023)

Osnova: EN ISO 4035:2023

ICS: 21.060.20

This document specifies the characteristics of hexagon thin nuts (style 0), in steel and stainless steel, with metric coarse pitch thread M1,6 to M64, and with product grades A and B.

Thin nuts used as jam nuts are to be assembled together with a regular or high nut.

WARNING – Thin nuts (style 0) have a reduced loadability compared to regular nuts or high nuts, and are not designed to provide resistance to thread stripping (see ISO 898-2).

If in certain cases other specifications are requested, stainless steel grades and property classes can be selected from ISO 3506-2.

SIST EN ISO 8673:2023**2023-11 (po) (en;fr;de) 16 str. (D)**

Vezni elementi - Šestrobe matice (tip 1), z drobnim metriskim navojem (ISO 8673:2023)

Fasteners - Hexagon regular nuts (style 1), with fine pitch thread (ISO 8673:2023)

Osnova: EN ISO 8673:2023

ICS: 21.040.10, 21.060.20

This document specifies the characteristics of hexagon regular nuts (style 1), in steel and stainless steel, with metric fine pitch thread 8 mm to 39 mm, and with product grades A and B.

NOTE For nuts with sizes D > 39 mm, see Annex A.

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

SIST EN ISO 8674:2023**2023-11 (po) (en;fr;de) 13 str. (D)**

Vezni elementi - Šestrobe visoke matice (tip 2), z drobnim metriskim navojem (ISO 8674:2023)

Fasteners - Hexagon high nuts (style 2), with fine pitch thread (ISO 8674:2023)

Osnova: EN ISO 8674:2023

ICS: 21.040.10, 21.060.20

This document specifies the characteristics of hexagon high nuts (style 2), in steel and stainless steel, with metric fine pitch thread 8 mm to 39 mm, and with product grades A and B.

If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898-2 or ISO 3506-2.

SIST EN ISO 8675:2023**2023-11 (po) (en;fr;de) 16 str. (D)**

Vezni elementi - Šestrobe nizke matice (tip 0), z drobnim navojem (ISO 8675:2023)

Fasteners - Hexagon thin nuts (style 0), with fine pitch thread (ISO 8675:2023)

Osnova: EN ISO 8675:2023

ICS: 21.040.10, 21.060.20

This document specifies the characteristics of hexagon thin nuts (style 0), in steel and stainless steel, with metric fine pitch thread 8 mm to 64 mm, and with product grades A and B.

Thin nuts used as jam nuts are to be assembled together with a regular or high nut.

WARNING – Thin nuts (style 0) have a reduced loadability compared to regular nuts or high nuts, and are not designed to provide resistance to thread stripping (see ISO 898-2).

If in certain cases other specifications are requested, stainless steel grades and property classes can be selected from ISO 3506-2.

SIST/TC ITC Informacijska tehnologija

SIST EN 16062:2023

SIST EN 16062:2015

2023-11 (po) (en;fr;de) 44 str. (I)

Inteligentni transportni sistemi - e-Varnost - Zahteve za visokokakovostni aplikacijski protokol elektronskega klica v sili (HLAP) z uporabo komutiranega omrežja GSM/UMTS

Intelligent transport systems - ESafety - eCall high level application requirements (HLAP) using GSM/UMTS circuit switched networks

Osnova: EN 16062:2023

ICS: 35.240.60, 13.200, 03.220.20

In respect of pan-European eCall (operating requirements defined in EN 16072), this European Standard defines the high level application protocols, procedures and processes required to provide the eCall service using a TS12 emergency call over a mobile communications network.

NOTE 1 The objective of implementing the pan-European in-vehicle emergency call system (eCall) is to automate the notification of a traffic accident, wherever in Europe, with the same technical standards and the same quality of services objectives by using a PLMN (such as ETSI prime medium) which supports the European harmonized 112/E112 emergency number (TS12 ETSI/TS 122 003) and to provide a means of manually triggering the notification of an emergency incident.

NOTE 2 HLAP requirements for third party services supporting eCall can be found in EN 16102, and have been developed in conjunction with the development of this work item, and is consistent in respect of the interface to the PSAP. This deliverable makes reference to those provisions but does not duplicate them.

SIST EN ISO 17117-1:2023

2023-11 (po) (en;fr;de) 38 str. (H)

Zdravstvena informatika - Terminološki viri - 1. del: Značilnosti (ISO 17117-1:2018)

Health informatics - Terminological resources - Part 1: Characteristics (ISO 17117-1:2018)

Osnova: EN ISO 17117-1:2023

ICS: 35.240.80, 01.020

ISO 17117-1:2018 defines universal and specialized characteristics of health terminological resources that make them fit for the purposes required of various applications. It refers only to terminological resources that are primarily designed to be used for clinical concept representation or to those parts of other terminological resources designed to be used for clinical concept representation.

ISO 17117-1:2018 helps users to assess whether a terminology has the characteristics or provides the functions that will support their specified requirements. The focus of this document is to define characteristics and functions of terminological resources in healthcare that can be used to identify different types of them for categorization purposes. Clauses 4 and 5 support categorization according to the characteristics and functions of the terminological resources rather than the name.

NOTE Categorization of healthcare terminological systems according to the name of the system might not be helpful and has caused confusion in the past.

The target groups for this document are:

- a) organizations wishing to select terminological systems for use in healthcare information systems;
- b) developers of terminological systems;
- c) developers of terminology standards;
- d) those undertaking independent evaluations/academic reviews of terminological resources;
- e) terminology Registration Authorities.

ISO 17117-1:2018 contains general characteristics and criteria with which systems can be evaluated.

The following considerations are outside the scope of this document.

- Evaluations of terminological resources.
- Health service requirements for terminological resources and evaluation criteria based on the characteristics and functions.
- The nature and quality of mappings between different terminologies. It is unlikely that a single terminology will meet all the terminology requirements of a healthcare organization: some terminology providers produce mappings to administrative or statistical classifications such as the International

Classification of Diseases (ICD). The presence of such maps would be a consideration in the evaluation of the terminology.

- The nature and quality of mappings between different versions of the same terminology. To support data migration and historical retrieval, terminology providers can provide maps between versions of their terminology. The presence of such maps would be a consideration in the evaluation of the terminology.
- Terminology server requirements and techniques and tools for terminology developers.
- Characteristics for computational biology terminology. Progress in medical science and in terminology science will necessitate updating of this document in due course.

SIST EN ISO 17573-3:2023

SIST-TS CEN ISO/TS 17573-3:2021

2023-11 (po) (en;fr;de) 59 str. (J)

Elektronsko pobiranje pristojbin - Sistemska arhitektura za cestninjenje vozil - 3. del: Podatkovni slovar (ISO 17573-3:2023)

Electronic fee collection - System architecture for vehicle-related tolling - Part 3: Data dictionary (ISO 17573-3:2023)

Osnova: EN ISO 17573-3:2023

ICS: 35.240.60, 03.220.20

This document specifies the syntax and semantics of data objects in the field of electronic fee collection (EFC). The definitions of data types and assignment of values are provided in accordance with the abstract syntax notation one (ASN.1) technique, as specified in ISO/IEC 8824-1. This document defines:

- ASN.1 (data) types within the fields of EFC;
- ASN.1 (data) types of a more general use that are used more specifically in standards related to EFC.

This document does not seek to define ASN.1 (data) types that are primarily related to other fields that operate in conjunction with EFC, such as cooperative intelligent transport systems (C-ITS), the financial sector, etc.

SIST EN ISO/IEC 27001:2023

SIST EN ISO/IEC 27001:2017

2023-11 (po) (en;fr;de) 27 str. (G)

Informacijska varnost, kibernetika varnost in varovanje zasebnosti - Sistemi upravljanja informacijske varnosti - Zahteve (ISO/IEC 27001:2022)

Information security, cybersecurity and privacy protection - Information security management systems - Requirements (ISO/IEC 27001:2022)

Osnova: EN ISO/IEC 27001:2023

ICS: 35.030, 03.100.70

This document specifies the requirements for establishing, implementing, maintaining and continually improving an information security management system within the context of the organization. This document also includes requirements for the assessment and treatment of information security risks tailored to the needs of the organization. The requirements set out in this document are generic and are intended to be applicable to all organizations, regardless of type, size or nature.

SIST EN ISO/IEEE 11073-10419:2023

SIST EN ISO 11073-10419:2016

2023-11 (po) (en;fr;de) 135 str. (O)

Zdravstvena informatika - Komunikacija osebnih medicinskih naprav - 10419. del: Specialne naprave - Inzulinska črpalka (ISO/IEEE 11073-10419:2019)

Health informatics - Personal health device communication - Part 10419: Device specialization - Insulin pump (ISO/IEEE 11073-10419:2019)

Osnova: EN ISO/IEEE 11073-10419:2023

ICS: 11.040.55, 35.240.80

This standard establishes a normative definition of communication between personal telehealth insulin pump devices (agents) and managers (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play interoperability. It leverages work done in other ISO/IEEE 11073 standards including existing terminology, information profiles, application profile standards, and transport standards. It specifies the use of specific term codes, formats, and

behaviors in telehealth environments, restricting optionality in base frameworks in favor of interoperability. This standard defines a common core functionality of personal telehealth insulin pump devices.

In the context of personal health devices (PHDs), an insulin pump is a medical device used for the administration of insulin in the treatment of diabetes mellitus, also known as continuous subcutaneous insulin infusion (CSII) therapy. This standard provides the data modeling according to ISO/IEEE 11073-20601 and does not specify the measurement method.

SIST/TC ITEK Tekstil in tekstilni izdelki

SIST EN ISO 17751-2:2023

2023-11 (po) (en;fr;de) **62 str. (K)**

Tekstilije - Kvantitativna analiza kašmirskih, volnenih, drugih specialnih živalskih vlaken in njihovih mešanic - 2. del: Metoda štetja z elektronskim mikroskopom (ISO 17751-2:2023)

Textiles - Quantitative analysis of cashmere, wool, other specialty animal fibres and their blends - Part 2: Scanning electron microscopy method (ISO 17751-2:2023)

Osnova: EN ISO 17751-2:2023

ICS: 59.060.10

ISO 17751-2:2016 specifies a method for the identification, qualitative, and quantitative analysis of cashmere, wool, other speciality animal fibres, and their blends using scanning electron microscopy (SEM).

ISO 17751-2:2016 is applicable to loose fibres, intermediate products, and final products of cashmere, wool, other speciality animal fibres, and their blends.

SIST EN ISO 5978:2023

2023-11 (po) (en;fr;de) **11 str. (C)**

Gumirane ali plastificirane tekstilije - Ugotavljanje odpornosti proti zlepljenju in luščenju (ISO 5978:2023)

Rubber- or plastics-coated fabrics - Determination of blocking resistance (ISO 5978:2023)

Osnova: EN ISO 5978:2023

ICS: 59.080.40

This document specifies a method for the determination of the resistance of rubber- or plastics-coated fabric sheets to blocking when left in contact for specified temperature, time and pressure.

SIST/TC ITIV Tiskana vezja in ravnanje z okoljem

SIST EN IEC 61189-2-801:2023

2023-11 (po) (en) **13 str. (D)**

Preskusne metode za električne materiale, tiskana vezja in druge povezovalne strukture in sestave - 2-801. del: Preskus toplotne prevodnosti osnovnih materialov

Test methods for electrical materials, printed board and other interconnection structures and assemblies - Part 2-801: Thermal conductivity test for base materials

Osnova: EN IEC 61189-2-801:2023

ICS: 31.180

This International Standard specifies a test method to be followed for Thermal Performance via carbon ink heating. The method employs a screened-on pattern of carbon ink used to determine the thermal performance of a dielectric layer on a metal base plate.

SIST EN IEC 61189-2-803:2023**2023-11 (po) (en) 11 str. (C)**

Preskusne metode za električne materiale, tiskana vezja in druge povezovalne strukture in sestave - 2-803. del: Metode za preskušanje raztezanja po osi Z tankih podložnih materialov

Test methods for electrical materials, printed board and other interconnection structures and assemblies - Part 2-803: Test methods for Z-Axis Expansion of base materials and printed board

Osnova: EN IEC 61189-2-803:2023

ICS: 31.180

This part of IEC 61189 specifies a test method to determine the Z-axis expansion of base materials and printed boards using a thermomechanical analyser (TMA).

SIST/TC IUSN Usnje**SIST EN 17900:2023****2023-11 (po) (en;fr;de) 7 str. (B)**

Usnje - Standardni podatki za izračun gostote usnja

Leather - Standard data for the calculation of leather density

Osnova: EN 17900:2023

ICS: 59.140.30

This document specifies average values of leather density, depending on animal origin and thickness of finished leather, to be used for the calculation of LCA. This document is applicable to bovine, caprine and ovine types of leather, except for vegetable sole leather, which is traded by weight.

SIST/TC IZL Izolatorji**SIST EN IEC 60383-1:2023****2023-11 (po) (en;fr;de) 66 str. (K)**

Izolatorji za nadzemne vode za nazivne napetosti nad 1 kV - 1. del: Keramični ali stekleni izolatorji za izmenične sisteme - Definicije, preskusne metode in prevzemna merila

Insulators for overhead lines with a nominal voltage above 1000 V - Part 1: Ceramic or glass insulator units for a.c. systems - Definitions, test methods and acceptance criteria

Osnova: EN IEC 60383-1:2023

ICS: 29.240.20, 29.080.10, 01.040.29

This part of IEC 60383 applies to insulators of ceramic material or glass for use on a.c. overhead power lines and overhead traction lines with a nominal voltage greater than 1 000 V and a frequency not greater than 100 Hz. It also applies to insulators for use on d.c. overhead electric traction lines.

This part applies to string insulator units, rigid overhead line insulators and to insulators of similar design when used in substations.

It does not apply to insulators forming parts of electrical apparatus or to parts used in their construction or to post insulators which are covered by IEC 60168: Tests on indoor and outdoor post insulators of ceramic material or glass for systems with nominal voltages greater than 1 000 V.

Tests on insulator strings and insulator sets (for example, wet switching impulse voltage) are dealt with in part 2 of IEC 60383.

The object of this part is:

- to define the terms used
- to define insulator characteristics and to prescribe the conditions under which the specified values of these characteristics shall be verified
- to prescribe test methods
- to prescribe acceptance criteria.

This part does not include requirements dealing with the choice of insulators for specific operating conditions.

Specific requirements on the use of coatings on ceramic or glass insulators are described in the informative Annex C.

NOTE A guide for the choice of insulators under polluted conditions has been published, see IEC 60815-1 and -2.

Numerical values for insulator characteristics are specified in IEC 60305, IEC 60433 and IEC 60720.

SIST/TC KAV Kakovost vode

SIST EN ISO 13164-4:2023

SIST EN ISO 13164-4:2020

2023-11 (po) (en;fr;de)

25 str. (F)

Kakovost vode - Radon Rn-222 - 4. del: Preskusna metoda s štetjem z dvofaznim tekočinskim scintilatorjem (ISO 13164-4:2023)

Water quality - Radon-222 - Part 4: Test method using two-phase liquid scintillation counting (ISO 13164-4:2023)

Osnova: EN ISO 13164-4:2023

ICS: 17.240, 13.060.60

ISO 13164-4:2015 describes a test method for the determination of radon-222 (²²²Rn) activity concentration in non-saline waters by extraction and liquid scintillation counting.

The radon-222 activity concentrations, which can be measured by this test method utilizing currently available instruments, are at least above 0,5 Bq l⁻¹ for a 10 ml test sample and a measuring time of 1 h.

This test method can be used successfully with drinking water samples and it is the responsibility of the laboratory to ensure the validity of this test method for water samples of untested matrices.

Annex A gives indication on the necessary counting conditions to meet the required detection limits for drinking water monitoring.

SIST/TC KAZ Kakovost zraka

SIST-TS 4207-2:2023

2023-11 (izv) (sl)

69 str. (SK)

Meritve emisije iz malih kurilnih naprav - 2. del: Meritve na kurilnih napravah na trdna goriva (VDI 4207-2:2016, spremenjen)

Emission measurements at small firing installations - Part 2: Measurements at installations for solid fuel (VDI 4207-2:2016, modified)

Osnova:

ICS: 13.040.40

Ta tehnična specifikacija določa zahteve za prve, občasne in izredne meritve emisije iz malih kurilnih naprav na trdna goriva v skladu s predpisom, ki ureja emisijo snovi v zrak iz malih kurilnih naprav, ter s predpisom, ki ureja preglede, čiščenje in meritve pri malih kurilnih napravah. Tehnična specifikacija se uporablja za ugotavljanje emisije, vključno z meritvami prahu, iz navedenih naprav. Poleg tega so opisane tudi kontrolne aktivnosti, povezane z napravo in obratovanjem, ki morajo biti predhodno izvedene, da se zagotovi ustrezen postopek merjenja emisije.

Dodatek A obravnava posebnosti pri kurilnih napravah na trdna goriva za ogrevanje posameznega prostora, imenovanih enosobne male kurilne naprave.

Dodatek B vsebuje vzorec zapisnika o meritvah emisije na enosobnih malih kurilnih napravah.

Merila za razvrščanje enosobnih malih kurilnih naprav na trdna goriva so navedena v dodatku C.

SIST/TC MEE Oprema za merjenje električne energije in krmiljenje obremenitve

SIST EN 50470-4:2023

2023-11 (po) (en) 32 str. (G)

Oprema za merjenje električne energije - 4. del: Posebne zahteve - Statični števeci za aktivno enosmerno napetost (razred točnosti A, B, C)

Electricity metering equipment - Part 4: Particular requirements - Static meters for DC active energy (class indexes A, B, C)

Osnova: EN 50470-4:2023

ICS: 17.220.20, 91.140.50

This document applies only to static watt-hour meters of accuracy classes A, B and C for the measurement of direct current electrical active energy in DC systems and it applies to their type tests. NOTE 1 For general requirements, such as construction, EMC, safety, dependability etc., see the relevant EN 62052 series or EN 62059 series.

This document applies to electricity metering equipment designed to:

- measure and control electrical energy on DC electrical networks with voltages up to 1 500 V;

NOTE 2 Meters for unearthed DC supplies and meters for three-wire DC networks are within the scope of this document.

- form a complete meter including the legally relevant display of measured values;

NOTE 3 Modular meters as described in WELMEC guide 11.7 are included.

- operate with integrated or detached legally relevant displays;
- optionally, provide additional functions other than those for measurement of electrical energy.

They can be used for measuring DC electrical energy, amongst others, in the following application areas:

- in EV (electrical vehicle) charging stations or in EV charging infrastructure (also called EVSE, electric vehicle supply equipment), if energy is measured on the DC side;
- in solar PV (photovoltaic) systems where DC power generation is measured;
- in low voltage DC networks for residential or commercial areas, if energy is measured on the DC side, including similar applications like information technology (IT) server farms or DC supply points for communication equipment;
- in DC supply points for public transport networks (e.g., for trolleybuses);
- in mobile applications on vehicles for e-road (electric road) systems.

Meters designed for operation with external DC instrument transformers or transducers can be tested for compliance with this document only if such meters and their transformers or transducers are tested together and meet the requirements for directly connected meters. Requirements in this document and in EN IEC 62052-11:2021/A11:2022 applying to meters designed for operation with DC LPITs also apply to meters designed for operation with external instrument transformers or transducers.

NOTE 4 Modern electricity meters typically contain additional functions such as measurement of voltage magnitude, current magnitude, power, etc.; measurement of power quality parameters; load control functions; delivery, time, test, accounting, recording functions; data communication interfaces and associated data security functions. The relevant standards for these functions could apply in addition to the requirements of this document. However, the requirements for such functions are outside the scope of this document.

NOTE 5 Product requirements for power metering and monitoring devices (PMDs) and measurement functions such as voltage magnitude, current magnitude, power, etc., are covered in EN IEC 61557 12:2022. However, devices compliant with EN IEC 61557 12:2022 are not intended to be used as billing meters unless they are also compliant with EN IEC 62052-11:2021/A11:2022 and this document.

NOTE 6 Requirements for DC power quality (PQ) instruments, DC PQ measuring techniques, and DC PQ instrument testing are under discussion and will be specified in other standards.

[...]

SIST/TC MOC Mobilne komunikacije

SIST EN 301 908-23 V15.1.1:2023

2023-11 (po) (en) 246 str. (T)

Celična omrežja IMT - Harmonizirani standard za dostop do radijskega spektra - 23. del: Aktivni antenski sistem (AAS) bazne postaje (BS), izdaja 15

IMT cellular networks - Harmonised Standard for access to radio spectrum - Part 23: Active Antenna System (AAS) Base Station (BS) - Release 15

Osnova: ETSI EN 301 908-23 V15.1.1 (2023-09)

ICS: 33.070.99, 33.060.99

The present document specifies technical characteristics and methods of measurements for types of radio equipment:

- AAS BS supporting Single-RAT UTRA FDD.
- AAS BS supporting Single-RAT E-UTRA.
- AAS BS supporting Multi-Standard Radio (UTRA-FDD, E-UTRA, NR).

In the present document, the term "requirements for single RAT operation" refers to requirements that are derived from

the ETSI TS 125 141 [7] or ETSI TS 136 141 [11] specifications baseline. The term "requirements for MSR operation"

refers to requirements derived from the ETSI TS 137 141 [6] specification baseline (including NR operation as part of MSR).

SIST EN 301 908-24 V15.1.1:2023

2023-11 (po) (en) 141 str. (P)

Celična omrežja IMT - Harmonizirani standard za dostop do radijskega spektra - 24. del: Nove radijske (NR) bazne postaje (BS), izdaja 15

IMT cellular networks - Harmonised Standard for access to radio spectrum - Part 24: New Radio (NR) Base Stations (BS) Release 15

Osnova: ETSI EN 301 908-24 V15.1.1 (2023-09)

ICS: 33.070.99, 33.060.99

The present document specifies technical characteristics and methods of measurements for types of radio equipment:

- Base Stations for New Radio (NR).

SIST/TC MOV Merilna oprema za elektromagnetne veličine

SIST EN 62061:2005/AC:2023

2023-11 (po) (en,fr) 1 str. (AC)

Varnost strojev – Funkcijska varnost na varnost vezanih električnih, elektronskih in programirljivih elektronskih krmilnih sistemov - Popravek

Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems

Osnova: EN 62061:2005/corrigendum Feb. 2010

ICS: 25.040.40, 13.110

Popravek k standardu SIST EN 62061:2005.

This International Standard specifies requirements and makes recommendations for the design, integration and validation of safety-related electrical, electronic and programmable electronic control systems (SRECS) for machines (see Notes 1 and 2). It is applicable to control systems used, either singly or in combination, to carry out safety-related control functions on machines that are not portable by hand while working, including a group of machines working together in a co-ordinated manner.

SIST EN IEC 60534-1:2023**2023-11 (po) (en;fr;de) 18 str. (E)**

Regulacijski ventili za industrijske procese - 1. del: Terminologija za regulacijske ventile in splošni vidiki (IEC 60534-1:2023)

Industrial-process control valves - Part 1: Control valve terminology and general considerations (IEC 60534-1:2023)

Osnova: EN IEC 60534-1:2023

ICS: 25.040.40, 23.060.40

This part of IEC 60534 applies to all types of industrial-process control valves (hereinafter referred to as control valves). This document establishes a partial basic terminology list and provides guidance on the use of all other parts of IEC 60534.

SIST EN IEC 61010-031:2023**2023-11 (po) (en;fr;de) 103 str. (N)**

Varnostne zahteve za električno opremo za meritve, nadzor in laboratorijsko uporabo - 031. del: Varnostne zahteve za sestave ročnih sond za električne meritve in preskušanja (IEC 61010-031:2022)

Safety requirements for electrical equipment for measurement, control and laboratory use - Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test (IEC 61010-031:2022)

Osnova: EN IEC 61010-031:2023

ICS: 71.040.10, 19.080

This part of IEC 61010 specifies safety requirements for hand-held and hand-manipulated probe assemblies for electrical test and measurement, and their related accessories. These probe assemblies are for non-contact or direct electrical connection between a part and electrical test and measurement equipment. They can be fixed to the equipment or be detachable accessories for the equipment.

This group safety publication focusing on safety essential requirements is primarily intended to be used as a product safety standard for the products mentioned in the scope, but is also intended to be used by technical committees in the preparation of publications for products similar to those mentioned in the scope of this group safety publication, in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications and/or group safety publications in the preparation of its publications.

SIST EN IEC 61158-1:2023**2023-11 (po) (en;fr;de) 79 str. (L)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 1. del: Pregled in navodila za skupini IEC 61158 in IEC 61784 (IEC 61158-1:2023)

Industrial communication networks - Fieldbus specifications - Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series (IEC 61158-1:2023)

Osnova: EN IEC 61158-1:2023

ICS: 35.110, 35.100.05, 25.040.40

IEC 61158-1:2023 specifies the generic concept of fieldbuses. This document also presents an overview and guidance for the IEC 61158 series by:

- explaining the structure and content of the IEC 61158 series;
- relating the structure of the IEC 61158 series to the ISO/IEC 7498-1 OSI Basic Reference Model;
- showing the logical structure of the IEC 61784 series;
- showing how to use parts of the IEC 61158 series in combination with the IEC 61784 series;
- providing explanations of some aspects of the IEC 61158 series that are common to the type specific parts of the IEC 61158-5 series including the application layer service description concepts and the generic fieldbus data types.

SIST EN IEC 61158-3-2:2023

2023-11 (po) (en;fr;de) **51 str. (J)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 3-2. del: Definicija opravil na ravni podatkovnih povezav - Elementi tipa 2 (IEC 61158-3-2:2023)

Industrial communication networks - Fieldbus specifications - Part 3-2: Data-link layer service definition - Type 2 elements (IEC 61158-3-2:2023)

Osnova: EN IEC 61158-3-2:2023

ICS: 35.110, 25.040.40, 35.100.20

This part of IEC 61158 provides common elements for basic time-critical messaging communications between devices in an automation environment. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the Type 2 fieldbus data-link layer in terms of:

- the primitive actions and events of the service;
- the parameters associated with each primitive action and event, and the form which they take; and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to:

- the Type 2 fieldbus application layer at the boundary between the application and data-link layers of the fieldbus reference model;
- systems management at the boundary between the data-link layer and systems management of the fieldbus reference model.

Type 2 DL-service provides both a connected and a connectionless subset of those services specified in ISO/IEC 8886.

SIST EN IEC 61158-3-24:2023

SIST EN 61158-3-24:2015

2023-11 (po) (en;fr;de) **43 str. (I)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 3-24. del: Definicija opravil na ravni podatkovnih povezav - Elementi tipa 24 (IEC 61158-3-24:2023)

Industrial communication networks - Fieldbus specifications - Part 3-24: Data-link layer service definition - Type 24 elements (IEC 61158-3-24:2023)

Osnova: EN IEC 61158-3-24:2023

ICS: 35.110, 35.100.20, 25.040.40

This part of IEC 61158 provides common elements for basic time-critical messaging communications between devices in an automation environment. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time-window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the Type 24 fieldbus data-link layer in terms of

- the primitive actions and events of the service;
- the interrelationship between these actions and events, and their valid sequences;
- the parameters associated with each primitive action and event, and the form which they take.

The purpose of this document is to define the services provided to

- the Type 24 fieldbus application layer at the boundary between the application and data-link layers of the fieldbus reference model;
- systems management at the boundary between the data-link layer and systems management of the fieldbus reference model.

SIST EN IEC 61158-3-28:2023**2023-11 (po) (en;fr;de) 60 str. (J)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 3-28. del: Definicija opravil na ravni podatkovnih povezav - Elementi tipa 28 (IEC 61158-3-28:2023)

Industrial communication networks - Fieldbus specifications - Part 3-28: Data-link layer service definition - Type 28 elements (IEC 61158-3-28:2023)

Osnova: EN IEC 61158-3-28:2023

ICS: 35.110, 35.100.20, 25.040.40

This part of IEC 61158 describes basic packet communication services and models in an automation control industrial field environment. The Type 28 data-link layer provides time-critical and non-time-critical communication services. Time-critical refers to the requirement to complete specified functions between devices in a defined time window in an industrial field environment. Failure to complete specified functions within the time window can lead to failure or harm in industrial production.

This document defines in an abstract way the externally visible service provided by the Type 28 fieldbus data-link layer in terms of

- a) function description;
- b) primitive actions and events with primitive sequence diagram;
- c) the form of externally service interface and related parameters.

The purpose of this document is to define the services provided to:

- the Type 28 fieldbus application layer at the boundary between the application and data-link layers of the fieldbus reference model;
- systems management at the boundary between the data-link layer and systems management of the fieldbus reference model.

Type 28 DL-service provides both a connected and a connectionless subset of those services provided by OSI data-link protocols as specified in ISO/IEC 8886.

SIST EN IEC 61158-3-4:2023

SIST EN IEC 61158-3-4:2019

2023-11 (po) (en;fr;de) 29 str. (G)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 3-4. del: Definicija opravil na ravni podatkovnih povezav - Elementi tipa 4 (IEC 61158-3-4:2023)

Industrial communication networks - Fieldbus specifications - Part 3-4: Data-link layer service definition - Type 4 elements (IEC 61158-3-4:2023)

Osnova: EN IEC 61158-3-4:2023

ICS: 35.110, 35.100.20, 25.040.40

IEC 61158-3-4:2023 provides common elements for basic time-critical messaging communications between devices in an automation environment. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible services provided by the Type 4 fieldbus data-link layer in terms of the primitive actions and events of the services; the parameters associated with each primitive action and event, and the form which they take; and the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to the Type 4 fieldbus application layer at the boundary between the application and data-link layers of the fieldbus reference model; systems management at the boundary between the data-link layer and systems management of the fieldbus reference model.

SIST EN IEC 61158-4-2:2023

2023-11 (po) (en;fr;de) **405 str. (2A)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 4-2. del: Specifikacija protokola na ravni podatkovne povezave - Elementi tipa 2 (IEC 61158-4-2:2023)

Industrial communication networks - Fieldbus specifications - Part 4-2: Data-link layer protocol specification - Type 2 elements (IEC 61158-4-2:2023)

Osnova: EN IEC 61158-4-2:2023

ICS: 35.100.20, 35.110, 25.040.40

IEC 61158-4-2:2023 is one of a series produced to facilitate the interconnection of automation system components. It is related to other standards in the set as defined by the "three-layer" fieldbus reference model described in IEC 61158-1.

The data-link protocol provides the data-link service by making use of the services available from the physical layer. The primary aim of this document is to provide a set of rules for communication expressed in terms of the procedures to be carried out by peer data-link entities (DLEs) at the time of communication. These rules for communication are intended to provide a sound basis for development in order to serve a variety of purposes:

- as a guide for implementers and designers;
- for use in the testing and procurement of equipment;
- as part of an agreement for the admittance of systems into the open systems environment;
- as a refinement to the understanding of time-critical communications within OSI.

SIST EN IEC 61158-4-21:2023

SIST EN IEC 61158-4-21:2019

2023-11 (po) (en;fr;de) **112 str. (N)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 4-21. del: Specifikacija protokola na ravni podatkovnih povezav - Elementi tipa 21 (IEC 61158-4-21:2023)

Industrial communication networks - Fieldbus specifications - Part 4-21: Data-link layer protocol specification - Type 21 elements (IEC 61158-4-21:2023)

Osnova: EN IEC 61158-4-21:2023

ICS: 35.110, 35.100.20, 25.040.40

IEC 61158-4-21:2023 describes:

- procedures for the timely transfer of data and control information from one data link user entity to a peer user entity, and among the data link entities forming the distributed data link service provider;
- procedures for giving communication opportunities based on ISO/IEC/IEEE 8802-3 MAC, with provisions for nodes to be added or removed during normal operation;
- structure of the fieldbus data link protocol data units (DLPDUs) used for the transfer of data and control information by the protocol of this document, and their representation as physical interface data units.

SIST EN IEC 61158-4-24:2023

SIST EN IEC 61158-4-24:2019

2023-11 (po) (en;fr;de) **138 str. (O)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 4-24. del: Specifikacija protokola na ravni podatkovnih povezav - Elementi tipa 24 (IEC 61158-4-24:2023)

Industrial communication networks - Fieldbus specifications - Part 4-24: Data-link layer protocol specification - Type 24 elements (IEC 61158-4-24:2023)

Osnova: EN IEC 61158-4-24:2023

ICS: 35.110, 35.100.20, 25.040.40

IEC 61158-4-24:2023 provides procedures for the timely transfer of data and control information from one data-link user entity to a peer user entity, and among the data-link entities forming the distributed datalink service provider;

procedures for giving communications opportunities to all participating DL-entities (DLEs), sequentially and in a cyclic manner for deterministic and synchronized transfer at cyclic intervals up to 64 ms;

procedures for giving communication opportunities available for time-critical data transmission together with non-time-critical data transmission without prejudice to the time-critical data transmission;

procedures for giving cyclic and acyclic communication opportunities for time-critical data transmission with prioritized access;

procedures for giving communication opportunities based on ISO/IEC/IEEE 8802-3 medium access control, with provisions for nodes to be added or removed during normal operation;

the structure of the fieldbus DLPDUs used for the transfer of data and control information by the protocol of this document, and their representation as physical interface data units.

SIST EN IEC 61158-4-28:2023**2023-11 (po) (en;fr;de) 56 str. (J)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 4-28. del: Specifikacija protokola na ravni podatkovnih povezav - Elementi tipa 28 (IEC 61158-4-28:2023)

Industrial communication networks - Fieldbus specifications - Part 4-28: Data-link layer protocol specification - Type 28 elements (IEC 61158-4-28:2023)

Osnova: EN IEC 61158-4-28:2023

ICS: 35.100.20, 35.110, 25.040.40

This document of IEC 61158 describes basic packet communication services and models in an automation control industrial field environment. The Type 28 data-link layer provides time critical and non-time-critical communication services. Time-critical refers to the requirement to complete specified functions between devices in a defined time window in an industrial field environment. Failure to complete specified functions within the time window may lead to failure or harm in industrial production. This document defines in an abstract way the externally visible service provided by the Type 28 fieldbus data-link layer in terms of

- a) function description;
- b) primitive actions and events with primitive sequence diagram;
- c) the form of externally service interface and related parameters.

The purpose of this document is to define the services provided to:

- the Type 28 fieldbus application layer at the boundary between the application and data link layers of the fieldbus reference model;
- systems management at the boundary between the data-link layer and systems management of the fieldbus reference model.

Type 28 DL-service provides both a connected and a connectionless subset of those services provided by OSI data-link protocols as specified in ISO/IEC 8886.

SIST EN IEC 61158-5-10:2023

SIST EN IEC 61158-5-10:2019

2023-11 (po) (en;fr;de) 767 str. (2G)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-10. del: Definicija opravi na aplikacijski ravni - Elementi tipa 10 (IEC 61158-5-10:2023)

Industrial communication networks - Fieldbus specifications - Part 5-10: Application layer service definition - Type 10 elements (IEC 61158-5-10:2023)

Osnova: EN IEC 61158-5-10:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs".

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 10 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the Type 10 fieldbus application layer in terms of:

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service;
- the primitive actions and events of the service;
- the parameters associated with each primitive action and event, and the form which they take; and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to:

- the FAL user at the boundary between the user and the application layer of the fieldbus reference model; and
- Systems Management at the boundary between the application layer and Systems Management of the fieldbus reference model.

This document specifies the structure and services of the Type 10 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented application service elements (ASEs) and a layer management entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-5-2:2023

SIST EN IEC 61158-5-2:2019

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(po)

(en;fr;de)

244 str. (T)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-2. del: Definicija opravi na aplikacijski ravni - Elementi tipa 2 (IEC 61158-5-2:2023)

Industrial communication networks - Fieldbus specifications - Part 5-2: Application layer service definition - Type 2 elements (IEC 61158-5-2:2023)

Osnova: EN IEC 61158-5-2:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 2 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the Type 2 fieldbus application layer in terms of:

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service;
- the primitive actions and events of the service;
- the parameters associated with each primitive action and event, and the form which they take; and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to:

- the FAL user at the boundary between the user and the application layer of the fieldbus reference model; and
- Systems Management at the boundary between the application layer and Systems Management of the fieldbus reference model.

This document specifies the structure and services of the Type 2 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented application service elements (ASEs) and a layer management entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-5-23:2023

SIST EN IEC 61158-5-23:2019

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(po)

(en;fr;de)

123 str. (O)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-23. del: Definicija opravljen na aplikacijski ravni - Elementi tipa 23 (IEC 61158-5-23:2023)

Industrial communication networks - Fieldbus specifications - Part 5-23: Application layer service definition - Type 23 elements (IEC 61158-5-23:2023)

Osnova: EN IEC 61158-5-23:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs".

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 23 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the different Types of the fieldbus Application Layer in terms of a) an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,

b) the primitive actions and events of the service;

c) the parameters associated with each primitive action and event, and the form that they take; and

d) the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to

a) the FAL user at the boundary between the user and the Application Layer of the Fieldbus Reference Model, and

b) Systems Management at the boundary between the Application Layer and Systems Management of the Fieldbus Reference Model.

This document specifies the structure and services of the IEC Fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified;

only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-5-24:2023

SIST EN 61158-5-24:2015

2023-11 (po) (en;fr;de) 105 str. (N)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-24. del: Definicija opravljen na aplikacijski ravni - Elementi tipa 24 (IEC 61158-5-24:2023)

Industrial communication networks - Fieldbus specifications - Part 5-24: Application layer service definition - Type 24 elements (IEC 61158-5-24:2023)

Osnova: EN IEC 61158-5-24:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This document provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 24 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the different Types of fieldbus Application Layer in terms of

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,
- the primitive actions and events of the service,
- the parameters associated with each primitive action and event, and the form which they take, and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this International Standard is to define the services provided to

- the FAL user at the boundary between the user and the Application Layer of the Fieldbus Reference Model, and
- Systems Management at the boundary between the Application Layer and Systems Management of the Fieldbus Reference Model.

This document specifies the structure and services of the IEC fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-5-26:2023**2023-11 (po) (en;fr;de) 120 str. (N)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-26. del: Definicija opravil na aplikacijski ravni - Elementi tipa 26 (IEC 61158-5-26:2023)

Industrial communication networks - Fieldbus specifications - Part 5-26: Application layer service definition - Type 26 elements (IEC 61158-5-26:2023)

Osnova: EN IEC 61158-5-26:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 2 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This International Standard defines in an abstract way the externally visible service provided by the Type 2 fieldbus application layer in terms of:

- a) an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,
- b) the primitive actions and events of the service;
- c) the parameters associated with each primitive action and event, and the form which they take; and
- d) the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to:

- a) the FAL user at the boundary between the user and the application layer of the fieldbus reference model, and
- b) Systems Management at the boundary between the application layer and Systems Management of the fieldbus reference model.

This document specifies the structure and services of the Type 2 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented application service elements (ASEs) and a layer management entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the 318 FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-5-27:2023**2023-11 (po) (en;fr;de) 143 str. (P)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-27. del: Definicija opravil na aplikacijski ravni - Elementi tipa 27 (IEC 61158-5-27:2023)

Industrial communication networks - Fieldbus specifications - Part 5-27: Application layer service definition - Type 27 elements (IEC 61158-5-27:2023)

Osnova: EN IEC 61158-5-27:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 27 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the different Types of fieldbus Application Layer in terms of

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,
- the primitive actions and events of the service,
- the parameters associated with each primitive action and event, and the form which they take, and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to

- the FAL user at the boundary between the user and the Application Layer of the Fieldbus Reference Model, and
- Systems Management at the boundary between the Application Layer and Systems Management of the Fieldbus Reference Model.

This document specifies the structure and services of the IEC fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

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2023-11 **(po)** **(en;fr;de)** **70 str. (K)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-28. del: Definicija opravljenih aplikacijskih ravni - Elementi tipa 28 (IEC 61158-5-28:2023)

Industrial communication networks - Fieldbus specifications - Part 5-28: Application layer service definition - Type 28 elements (IEC 61158-5-28:2023)

Osnova: EN IEC 61158-5-28:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be considered as a window between corresponding application programs.

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 28 fieldbus. The term "time-critical" is used to represent the presence of a time-window, in which one or more specified actions are required to be completed with some defined level of certainty.

This document defines in an abstract way the externally visible service provided by the different Types of the fieldbus Application Layer in terms of

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,

- the primitive actions and events of the service,
- the parameters associated with each primitive action and event, and the form which they take, and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to

- the FAL user at the boundary between the user and the Application Layer of the Fieldbus Reference Model, and
- Systems Management at the boundary between the Application Layer and Systems Management of the Fieldbus Reference Model.

This document specifies the structure and services of the IEC fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how to request and response are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioural aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behaviour. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

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(en;fr;de)

74 str. (L)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 5-4. del: Definicija opravi na aplikacijski ravni - Elementi tipa 4 (IEC 61158-5-4:2023)

Industrial communication networks - Fieldbus specifications - Part 5-4: Application layer service definition - Type 4 elements (IEC 61158-5-4:2023)

Osnova: EN IEC 61158-5-4:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs".

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 4 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible service provided by the Type 4 fieldbus application layer in terms of:

- an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service;
- the primitive actions and events of the service;
- the parameters associated with each primitive action and event, and the form which they take; and
- the interrelationship between these actions and events, and their valid sequences.

The purpose of this document is to define the services provided to:

- the FAL user at the boundary between the user and the application layer of the fieldbus reference model, and
- Systems Management at the boundary between the application layer and Systems Management of the fieldbus reference model.

This document specifies the structure and services of the Type 4 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented application service elements (ASEs) and a layer management entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-6-10:2023

SIST EN IEC 61158-6-10:2019

2023-11 (po) (en;fr;de) 1185 str. (2K)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-10. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 10 (IEC 61158-6-10:2023)

Industrial communication networks - Fieldbus specifications - Part 6-10: Application layer protocol specification - Type 10 elements (IEC 61158-6-10:2023)

Osnova: EN IEC 61158-6-10:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a “window between corresponding application programs”.

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 10 fieldbus. The term “time-critical” is used to represent the presence of a time window, within which one or more specified actions are required to be completed with a defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible behavior provided by the Type 10 fieldbus application layer in terms of:

- the abstract syntax defining the application layer protocol data units conveyed between communicating application entities,
- the transfer syntax defining the application layer protocol data units conveyed between communicating application entities,
- the application context state machine defining the application service behavior visible between communicating application entities, and
- the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to:

- define the wire-representation of the service primitives defined in IEC 61158-5-10 and
- define the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 10 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

SIST EN IEC 61158-6-2:2023

SIST EN IEC 61158-6-2:2019

2023-11 (po) (en;fr;de) 293 str. (U)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-2. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 2 (IEC 61158-6-2:2023)

Industrial communication networks - Fieldbus specifications - Part 6-2: Application layer protocol specification - Type 2 elements (IEC 61158-6-2:2023)

Osnova: EN IEC 61158-6-2:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 2 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document specifies interactions between remote applications and defines the externally visible behavior provided by the Type 2 fieldbus application layer in terms of

- the formal abstract syntax defining the application layer protocol data units conveyed between communicating application entities;
- the transfer syntax defining encoding rules that are applied to the application layer protocol data units;
- the application context state machine defining the application service behavior visible between communicating application entities;
- the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to

- define the wire-representation of the service primitives defined in IEC 61158-5-2, and
- define the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 2 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

SIST EN IEC 61158-6-23:2023

SIST EN IEC 61158-6-23:2019

2023-11

(po)

(en;fr;de)

312 str. (V)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-23. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 23 (IEC 61158-6-23:2023)

Industrial communication networks - Fieldbus specifications - Part 6-23: Application layer protocol specification - Type 23 elements (IEC 61158-6-23:2023)

Osnova: EN IEC 61158-6-23:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs".

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 23 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible behavior provided by the different Types of the fieldbus Application Layer in terms of:

- a) the abstract syntax defining the application layer protocol data units conveyed between communicating application entities,
- b) the transfer syntax defining the application layer protocol data units conveyed between communicating application entities,
- c) the application context state machine defining the application service behavior visible between communicating application entities; and
- d) the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to:

- a) define the wire-representation of the service primitives defined in IEC 61158-5-23, and
- b) define the externally visible behavior associated with their transfer.

This document specifies the protocol of the IEC fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this document to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-6-24:2023

SIST EN 61158-6-24:2015

2023-11 (po) (en;fr;de) 148 str. (P)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-24. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 24 (IEC 61158-6-24:2023)

Industrial communication networks - Fieldbus specifications - Part 6-24: Application layer protocol specification - Type 24 elements (IEC 61158-6-24:2023)

Osnova: EN IEC 61158-6-24:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs".

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 24 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible behavior provided by the Type 24 fieldbus application layer in terms of

- the abstract syntax defining the application layer protocol data units conveyed between communicating application entities,
- the transfer syntax defining the application layer protocol data units conveyed between communicating application entities,
- the application context state machines defining the application service behavior visibly between communicating application entities, and
- the application relationship state machines defining the communication behavior visibly between communicating application entities.

The purpose of this document is to define the protocol provided to

- define the representation-on-wire of the service primitives defined in IEC 61158-5-24, and
- define the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 24 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

SIST EN IEC 61158-6-26:2023

2023-11 (po) (en;fr;de) 210 str. (S)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-26. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 26 (IEC 61158-6-26:2023)

Industrial communication networks - Fieldbus specifications - Part 6-26: Application layer protocol specification - Type 26 elements (IEC 61158-6-26:2023)

Osnova: EN IEC 61158-6-26:2023

ICS: 35.110, 35.100.70, 25.040.40

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 2 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This International Standard specifies interactions between remote applications and defines the externally visible behavior provided by the Type 2 fieldbus application layer in terms of

- a) the formal abstract syntax defining the application layer protocol data units conveyed between communicating application entities;
- b) the transfer syntax defining encoding rules that are applied to the application layer protocol data units;
- c) the application context state machine defining the application service behavior visible between communicating application entities;
- d) the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to

- a) define the wire-representation of the service primitives defined in IEC 61158-5-2, and
- b) define the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 2 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

SIST EN IEC 61158-6-27:2023

2023-11 (po) (en;fr;de) **222 str. (S)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-27. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 27 (IEC 61158-6-27:2023)

Industrial communication networks - Fieldbus Specifications Part 6-27: Application layer protocol specification - Type 27 elements (IEC 61158-6-27:2023)

Osnova: EN IEC 61158-6-27:2023

ICS: 35.100.70, 35.110, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a "window between corresponding application programs."

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 27 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This International Standard defines in an abstract way the externally visible service provided by the different Types of fieldbus Application Layer in terms of

- a) an abstract model for defining application resources (objects) capable of being manipulated by users via the use of the FAL service,
- b) the primitive actions and events of the service,
- c) the parameters associated with each primitive action and event, and the form which they take, and
- d) the interrelationship between these actions and events, and their valid sequences.

The purpose of this International Standard is to define the services provided to

- a) the FAL user at the boundary between the user and the Application Layer of the Fieldbus Reference Model, and
- b) Systems Management at the boundary between the Application Layer and Systems Management of the Fieldbus Reference Model.

This International Standard specifies the structure and services of the IEC fieldbus Application Layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI Application Layer Structure (ISO/IEC 9545).

FAL services and protocols are provided by FAL application-entities (AE) contained within the application processes. The FAL AE is composed of a set of object-oriented Application Service Elements (ASEs) and a Layer Management Entity (LME) that manages the AE. The ASEs provide communication services that operate on a set of related application process object (APO) classes. One of the FAL ASEs is a management ASE that provides a common set of services for the management of the instances of FAL classes.

Although these services specify, from the perspective of applications, how request and responses are issued and delivered, they do not include a specification of what the requesting and responding applications are to do with them. That is, the behavioral aspects of the applications are not specified; only a definition of what requests and responses they can send/receive is specified. This permits greater flexibility to the 289 FAL users in standardizing such object behavior. In addition to these services, some supporting services are also defined in this International Standard to provide access to the FAL to control certain aspects of its operation.

SIST EN IEC 61158-6-28:2023

2023-11 **(po)** **(en;fr;de)** **28 str. (G)**

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-28. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 28 (IEC 61158-6-28:2023)

Industrial communication networks - Fieldbus specifications - Part 6-28: Application layer protocol specification - Type 28 elements (IEC 61158-6-28:2023)

Osnova: EN IEC 61158-6-28:2023

ICS: 35.100.70, 25.040.40, 35.110

The Fieldbus Application Layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be considered as a window between corresponding application programs.

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 28 fieldbus. The term "time-critical" is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window can cause failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document defines in an abstract way the externally visible behavior provided by the Type 28 of the fieldbus Application Layer in terms of:

- the abstract syntax defining the application layer protocol data units conveyed between communicating application entities,
- the transfer syntax defining the application layer protocol data units conveyed between communicating application entities,
- the application context state machine defining the application service behavior visible between communicating application entities; and
- the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to:

- the wire-representation of the service primitives defined in IEC 61158-5-28, and
- the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 28 IEC fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498) and the OSI Application Layer Structure (ISO/IEC 9545).

SIST EN IEC 61158-6-4:2023

SIST EN IEC 61158-6-4:2019

2023-11 (po) (en;fr;de) 44 str. (I)

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-4. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 4 (IEC 61158-6-4:2023)

Industrial communication networks - Fieldbus specifications - Part 6-4: Application layer protocol specification - Type 4 elements (IEC 61158-6-4:2023)

Osnova: EN IEC 61158-6-4:2023

ICS: 35.110, 35.100.70, 25.040.40

The fieldbus application layer (FAL) provides user programs with a means to access the fieldbus communication environment. In this respect, the FAL can be viewed as a “window between corresponding application programs.”

This part of IEC 61158 provides common elements for basic time-critical and non-time-critical messaging communications between application programs in an automation environment and material specific to Type 4 fieldbus. The term “time-critical” is used to represent the presence of a time-window, within which one or more specified actions are required to be completed with some defined level of certainty. Failure to complete specified actions within the time window risks failure of the applications requesting the actions, with attendant risk to equipment, plant and possibly human life.

This document specifies interactions between remote applications and defines the externally visible behavior provided by the Type 4 fieldbus application layer in terms of

- the formal abstract syntax defining the application layer protocol data units conveyed between communicating application entities;
- the transfer syntax defining encoding rules that are applied to the application layer protocol data units;
- the application context state machine defining the application service behavior visible between communicating application entities;
- the application relationship state machines defining the communication behavior visible between communicating application entities.

The purpose of this document is to define the protocol provided to

- define the wire-representation of the service primitives defined in IEC 61158-5-4, and
- define the externally visible behavior associated with their transfer.

This document specifies the protocol of the Type 4 fieldbus application layer, in conformance with the OSI Basic Reference Model (ISO/IEC 7498-1) and the OSI application layer structure (ISO/IEC 9545).

SIST EN IEC 61784-1-0:2023**2023-11 (po) (en;fr;de) 19 str. (E)**

Industrijska omrežja - Profili - 1-0. del: Profili procesnih vodil - Splošni koncept in terminologija (IEC 61784-1-0:2023)

Industrial networks - Profiles - Part 1-0: Fieldbus profiles - General concepts and terminology (IEC 61784-1-0:2023)

Osnova: EN IEC 61784-1-0:2023

ICS: 25.040.40, 35.100.05

The IEC 61784-1 series defines several Communication Profile Families (CPF). Each CPF specifies a set of protocol specific communication profiles (CPs) based primarily on the IEC 61158 series, to be used in the design of devices involved in communications in factory manufacturing and process control.

This part of IEC 61784-1 defines a common terminology for all CPFs and conventions to be used in the specification of the CPs. It also provides a compliance statement and an overview of the structure and contents of the CPFs in the IEC 61784-1 series.

NOTE The added value of the IEC 61784-1 series is explained in Annex A.

SIST EN IEC 61784-1-1:2023**2023-11 (po) (en;fr;de) 109 str. (N)**

Industrijska omrežja - Profili - 1-1. del: Profili procesnih vodil - Komunikacijski profil skupine 1 (IEC 61784-1-1:2023)

Industrial networks - Profiles - Part 1-1: Fieldbus profiles - Communication Profile Family 1 (IEC 61784-1-1:2023)

Osnova: EN IEC 61784-1-1:2023

ICS: 25.040.40, 35.100.05

IEC 61784-1-1:2023 defines Communication Profile Family 1 (CPF 1). CPF 1 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 1, Type 5 and Type 9) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-16:2023

2023-11 (po) (en;fr;de) **19 str. (E)**

Industrijska omrežja - Profili - 1-16. del: Profili procesnih vodil - Komunikacijski profil skupine 16 (IEC 61784-1-16:2023)

Industrial networks - Profiles - Part 1-16: Fieldbus profiles - Communication Profile Family 16 (IEC 61784-1-16:2023)

Osnova: EN IEC 61784-1-16:2023

ICS: 25.040.40, 35.100.05

IEC 61784-1-16:2023 defines Communication Profile Family 16 (CPF 16). CPF 16 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 16 and Type 19) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 16 are specified in IEC 61784-2-16.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-19:2023

SIST EN IEC 61784-1:2019

2023-11 (po) (en;fr;de) **67 str. (K)**

Industrijska omrežja - Profili - 1-19. del: Profili procesnih vodil - Komunikacijski profil skupine 19 (IEC 61784-1-19:2023)

Industrial networks - Profiles - Part 1-19: Fieldbus profiles - Communication Profile Family 19 (IEC 61784-1-19:2023)

Osnova: EN IEC 61784-1-19:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-1 defines Communication Profile Family 19 (CPF 19). CPF 19 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 24 and Type 27) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 19 are specified in IEC 61784-2-19.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-2:2023**2023-11 (po) (en;fr;de) 40 str. (H)**

Industrijska omrežja - Profili - 1-2. del: Profili procesnih vodil - Komunikacijski profil skupine 2 (IEC 61784-1-2:2023)

Industrial networks - Profiles - Part 1-2: Fieldbus profiles - Communication Profile Family 2 (IEC 61784-1-2:2023)

Osnova: EN IEC 61784-1-2:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-1 defines Communication Profile Family 2 (CPF 2). CPF 2 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 2) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 2 are specified in IEC 61784-2-2.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-22:2023**2023-11 (po) (en;fr;de) 16 str. (D)**

Industrijska omrežja - Profili - 1-22. del: Profili procesnih vodil - Komunikacijski profil skupine 22 (IEC 61784-1-22:2023)

Industrial networks - Profiles - Part 1-22: Fieldbus profiles - Communication Profile Family 22 (IEC 61784-1-22:2023)

Osnova: EN IEC 61784-1-22:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-1 defines Communication Profile Family 22 (CPF 22). CPF 22 specifies a protocol specific communication profile (CP) based on the IEC 61158 series (Type 28) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-3:2023**2023-11 (po) (en;fr;de) 119 str. (N)**

Industrijska omrežja - Profili - 1-3. del: Profili procesnih vodil - Komunikacijski profil skupine 3 (IEC 61784-1-3:2023)

Industrial networks - Profiles - Part 1-3: Fieldbus profiles - Communication Profile Family 3 (IEC 61784-1-3:2023)

Osnova: EN IEC 61784-1-3:2023

ICS: 25.040.40, 35.100.05

IEC 61784-1-3:2023 defines Communication Profile Family 3 (CPF 3). CPF 3 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 3 and Type 10) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 3 are specified in IEC 61784-2-3.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-4:2023

2023-11 (po) (en;fr;de) **18 str. (E)**

Industrijska omrežja - Profili - 1-4. del: Profili procesnih vodil - Komunikacijski profil skupine 4 (IEC 61784-1-4:2023)

Industrial networks - Profiles - Part 1-4: Fieldbus profiles - Communication Profile Family 4 (IEC 61784-1-4:2023)

Osnova: EN IEC 61784-1-4:2023

ICS: 35.100.05, 25.040.40

IEC 61784-1-4:2023 defines Communication Profile Family 4 (CPF 4). CPF 4 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 4) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 4 are specified in IEC 61784-2-4.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-5:2023

2023-11 (po) (en;fr;de) **32 str. (G)**

Industrijska omrežja - Profili - 1-5. del: Profili procesnih vodil - Komunikacijski profil skupine 5 (IEC 61784-1-5:2023)

Industrial networks - Profiles - Part 1-5: Fieldbus profiles - Communication Profile Family 5 (IEC 61784-1-5:2023)

Osnova: EN IEC 61784-1-5:2023

ICS: 35.100.05, 25.040.40

IEC 61784-1-5:2023 defines Communication Profile Family 5 (CPF 5). CPF 5 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 7) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-6:2023

2023-11 (po) (en;fr;de) **24 str. (F)**

Industrijska omrežja - Profili - 1-6. del: Profili procesnih vodil - Komunikacijski profil skupine 6 (IEC 61784-1-6:2023)

Industrial networks - Profiles - Part 1-6: Fieldbus profiles - Communication Profile Family 6 (IEC 61784-1-6:2023)

Osnova: EN IEC 61784-1-6:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-1 defines Communication Profile Family 6 (CPF 6). CPF 6 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 8) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 6 are specified in IEC 61784-2-6.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-8:2023

2023-11 (po) (en;fr;de) **29 str. (G)**

Industrijska omrežja - Profili - 1-8. del: Profili procesnih vodil - Komunikacijski profil skupine 8 (IEC 61784-1-8:2023)

Industrial networks - Profiles - Part 1-8: Fieldbus profiles - Communication Profile Family 8 (IEC 61784-1-8:2023)

Osnova: EN IEC 61784-1-8:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-1 defines Communication Profile Family 8 (CPF 8). CPF 8 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 18 and Type 23) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 Some CPs of CPF 8 are specified in IEC 61784-2-8.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-1-9:2023

2023-11 (po) (en;fr;de) **15 str. (D)**

Industrijska omrežja - Profili - 1-9. del: Profili procesnih vodil - Komunikacijski profil skupine 9 (IEC 61784-1-9:2023)

Industrial networks - Profiles - Part 1-9: Fieldbus profiles - Communication Profile Family 9 (IEC 61784-1-9:2023)

Osnova: EN IEC 61784-1-9:2023

ICS: 25.040.40, 35.100.05

This part of IEC 61784-1 defines Communication Profile Family 9 (CPF 9). CPF 9 specifies a set of protocol specific communication profiles (CPs) based on the IEC 61158 series (Type 20) and other standards, to be used in the design of devices involved in communications in factory manufacturing and process control.

NOTE All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

Each CP selects an appropriate consistent and compatible subset of services and protocols from the relevant set that is defined and modelled in the IEC 61158 series. For the selected subset of services and protocols, the profile also describes any possible or necessary constraints in parameter values.

SIST EN IEC 61784-2-0:2023

2023-11 (po) (en;fr;de) **25 str. (F)**

Industrijska omrežja - Profili - 2-0. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC 8802-3 - Splošni koncept in terminologija (IEC 61784-2-0:2023)

Industrial networks - Profiles - Part 2-0: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - General concepts and terminology (IEC 61784-2-0:2023)

Osnova: EN IEC 61784-2-0:2023

ICS: 35.100.05, 25.040.40

The IEC 61784-2 series defines additional Communication Profiles (CPs) for the existing Communication Profile Families (CPFs) of the IEC 61784-1 series and additional CPFs with one or more CPs. These additional CPs are based on the IEC 61158 series, the IEC 61784-1 series, and use provisions from ISO/IEC/IEEE 8802-3 (commonly known as Ethernet) for the lower communication stack layers. These Real-Time Ethernet (RTE) communication profiles provide Real-Time Ethernet communication solutions able to coexist with ISO/IEC/IEEE 8802-3 based applications.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and in some cases amend those standards to obtain RTE features.

This part of IEC 61784-2 defines:

- a common terminology for all CPFs in the IEC 61784-2 series (see 3.1 to 3.3);
- conventions to be used in the specification of the RTE communication profiles (see 3.4);
- how conformance of a device to a CPF or a CP should be stated (see Clause 4).

This document also specifies:

- basic principles of performance indicators expressing RTE performance of a CP (see 5.1);
- how an application-dependent class could be used to find out a suitable CP to meet application requirements (see 5.2);
- characteristics of RTE performance indicators (see 5.3);
- the methodology of a conformance test for an RTE end device for one or more CPs (see Clause 6).

SIST EN IEC 61784-2-10:2023

2023-11 (po) (en;fr;de) **24 str. (F)**

Industrijska omrežja - Profili - 2-10. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 10 (IEC 61784-2-10:2023)

Industrial networks - Profiles - Part 2-10: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 10 (IEC 61784-2-10:2023)

Osnova: EN IEC 61784-2-10:2023

ICS: 25.040.40, 35.100.05

This part of IEC 61784-2 defines Communication Profile Family 10 (CPF 10). CPF 10 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 17), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features

SIST EN IEC 61784-2-11:2023

2023-11 (po) (en;fr;de) **46 str. (I)**

Industrijska omrežja - Profili - 2-11. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 11 (IEC 61784-2-11:2023)

Industrial networks - Profiles - Part 2-11: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 11 (IEC 61784-2-11:2023)

Osnova: EN IEC 61784-2-11:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2-11:2023 defines Communication Profile Family 11 (CPF 11). CPF 11 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 11), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-12:2023

2023-11 (po) (en;fr;de) **32 str. (G)**

Industrijska omrežja - Profili - 2-12. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 12 (IEC 61784-2-12:2023)

Industrial networks - Profiles - Part 2-12: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 12 (IEC 61784-2-12:2023)

Osnova: EN IEC 61784-2-12:2023

ICS: 25.040.40, 35.100.05

IEC 61784-2-12:2023 defines Communication Profile Family 12 (CPF 12). CPF 12 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 12), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-13:2023

2023-11 (po) (en;fr;de) **20 str. (E)**

Industrijska omrežja - Profili - 2-13. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 13 (IEC 61784-2-13:2023)

Industrial networks - Profiles - Part 2-13: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 13 (IEC 61784-2-13:2023)

Osnova: EN IEC 61784-2-13:2023

ICS: 25.040.40, 35.100.05

IEC 61784-2-13:2023 defines Communication Profile Family 13 (CPF 13). CPF 13 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 13), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-14:2023

2023-11 (po) (en;fr;de) **39 str. (H)**

Industrijska omrežja - Profili - 2-14. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 14 (IEC 61784-2-14:2023)

Industrial networks - Profiles - Part 2-14: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 14 (IEC 61784-2-14:2023)

Osnova: EN IEC 61784-2-14:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2-14:2023 defines Communication Profile Family 14 (CPF 14). CPF 14 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 14), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-16:2023

2023-11 (po) (en;fr;de) **22 str. (F)**

Industrijska omrežja - Profili - 2-16. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 16 (IEC 61784-2-16:2023)

Industrial networks - Profiles - Part 2-16: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 16 (IEC 61784-2-16:2023)

Osnova: EN IEC 61784-2-16:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2-16:2023 defines extensions of Communication Profile Family 16 (CPF 16) for Real-Time Ethernet (RTE). CPF 16 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 19), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile uses ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 16 are specified in IEC 61784-1-16.

SIST EN IEC 61784-2-17:2023

2023-11 (po) (en;fr;de) **20 str. (E)**

Industrijska omrežja - Profili - 2-17. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 17 (IEC 61784-2-17:2023)

Industrial networks - Profiles - Part 2-17: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 17 (IEC 61784-2-17:2023)

Osnova: EN IEC 61784-2-17:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2-17:2023 defines Communication Profile Family 17 (CPF 17). CPF 17 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 21), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile uses ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-18:2023**2023-11 (po) (en;fr;de) 28 str. (G)**

Industrijska omrežja - Profili - 2-18. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 18 (IEC 61784-2-18:2023)

Industrial networks - Profiles - Part 2-18: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 18 (IEC 61784-2-18:2023)

Osnova: EN IEC 61784-2-18:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-2 defines Communication Profile Family 18 (CPF 18). CPF 18 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 22), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile(s) use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-19:2023**2023-11 (po) (en;fr;de) 26 str. (F)**

Industrijska omrežja - Profili - 2-19. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 19 (IEC 61784-2-19:2023)

Industrial networks - Profiles - Part 2-19: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 19 (IEC 61784-2-19:2023)

Osnova: EN IEC 61784-2-19:2023

ICS: 35.100.05, 25.040.40

This document defines extensions of Communication Profile Family 19 (CPF 19) for Real-Time Ethernet (RTE). CPF 19 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 27), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or from standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile uses ISO/IEC/IEEE 8802-3 communication networks and its related network components and may in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 19 are specified in IEC 61784-1-19.

SIST EN IEC 61784-2-2:2023**2023-11 (po) (en;fr;de) 31 str. (G)**

Industrijska omrežja - Profili - 2-2. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 2 (IEC 61784-2-2:2023)

Industrial networks - Profiles - Part 2-2: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 2 (IEC 61784-2-2:2023)

Osnova: EN IEC 61784-2-2:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-2 defines extensions of Communication Profile Family 2 (CPF 2) for Real-Time Ethernet (RTE). CPF 2 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 2), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 2 are specified in IEC 61784-1-2.

SIST EN IEC 61784-2-20:2023

2023-11 (po) (en;fr;de) **28 str. (G)**

Industrijska omrežja - Profili - 2-20. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC 8802-3 (IEC 61784-2-20:2023)

Industrial networks - Profiles - Part 2-20: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 20 (IEC 61784-2-20:2023)

Osnova: EN IEC 61784-2-20:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2-20:2023 defines Communication Profile Family 20 (CPF 20). CPF 20 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 25), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

SIST EN IEC 61784-2-21:2023

2023-11 (po) (en;fr;de) **29 str. (G)**

Industrijska omrežja - Profili - 2-21. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 21 (IEC 61784-2-21:2023)

Industrial networks - Profiles - Part 2-21: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 21 (IEC 61784-2-21:2023)

Osnova: EN IEC 61784-2-21:2023

ICS: 35.100.05, 25.040.40

IEC 61784-2 (all parts) defines additional Communication Profiles (CPs) for the existing Communication Profile Families (CPFs) of IEC 61784-1 (all parts) and additional CPFs with one or more CPs. These additional CPs are based on the IEC 61158 series, IEC 61784-1 (all parts) and use provisions from ISO/IEC/IEEE 8802-3 (commonly known as Ethernet) for the lower communication stack layers. These Real-Time Ethernet (RTE) communication profiles provide Real-Time Ethernet communication solutions able to coexist with ISO/IEC/IEEE 8802-3 based applications.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or from standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components or IEC 61588 and may in some cases amend those standards to obtain RTE features.

This document defines:

- a common terminology for all CPFs in IEC 61784-2 (all parts) (see 3.1 to 3.3);
- conventions to be used in the specification of the RTE communication profiles (see 3.4);
- how conformance of a device to a CPF or a CP should be stated (see Clause 4).

This document also specifies:

- basic principles of performance indicators expressing RTE performance of a CP (see 5.1);
- how an application-dependent class could be used to find out a suitable CP to meet application requirements (see 5.2);
- characteristics of RTE performance indicators (see 5.3);

- the methodology of a conformance test for an RTE end device for one or more CPs (see Clause 6).

SIST EN IEC 61784-2-3:2023

2023-11 (po) (en;fr;de) **151 str. (P)**

Industrijska omrežja - Profili - 2-3. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC 8802-3 - CPF 3 (IEC 61784-2-3:2023)

Industrial networks - Profiles - Part 2-3: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 3 (IEC 61784-2-3:2023)

Osnova: EN IEC 61784-2-3:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-2 defines extensions of Communication Profile Family 3 (CPF 3) for Real-Time Ethernet (RTE). CPF 3 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 10), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 3 are specified in IEC 61784-1-3.

SIST EN IEC 61784-2-4:2023

2023-11 (po) (en;fr;de) **27 str. (G)**

Industrijska omrežja - Profili - 2-4. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC 8802-3 (IEC 61784-2-4:2023)

Industrial networks - Profiles - Part 2-4: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 4 (IEC 61784-2-4:2023)

Osnova: EN IEC 61784-2-4:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-2 defines extensions of Communication Profile Family 4 (CPF 4) for Real-Time Ethernet (RTE). CPF 4 specifies a Real-Time Ethernet (RTE) communication profile (CP) and related network components based on the IEC 61158 series (Type 4), ISO/IEC/IEEE 8802-3 and other standards. For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profile uses ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

NOTE 3 A CP of CPF 4 is specified in IEC 61784-1-4.

SIST EN IEC 61784-2-6:2023

2023-11 (po) (en;fr;de) **20 str. (E)**

Industrijska omrežja - Profili - 2-6. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 6 (IEC 61784-2-6:2023)

Industrial networks - Profiles - Part 2-6: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 6 (IEC 61784-2-6:2023)

Osnova: EN IEC 61784-2-6:2023

ICS: 35.100.05, 25.040.40

This part of IEC 61784-2 defines extensions of Communication Profile Family 6 (CPF 6) for Real-Time Ethernet (RTE). CPF 6 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 8 and Type 10), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 6 are specified in IEC 61784-1-6

SIST EN IEC 61784-2-8:2023

2023-11 (po) (en;fr;de) **36 str. (H)**

Industrijska omrežja - Profili - 2-8. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC/IEEE 8802-3 - CPF 8 (IEC 61784-2-8:2023)

Industrial networks - Profiles - Part 2-8: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 8 (IEC 61784-2-8:2023)

Osnova: EN IEC 61784-2-8:2023

ICS: 25.040.40, 35.100.05

This part of IEC 61784-2 defines extensions of Communication Profile Family 8 (CPF 8) for Real-Time Ethernet (RTE). CPF 8 specifies a set of Real-Time Ethernet (RTE) communication profiles (CPs) and related network components based on the IEC 61158 series (Type 23), ISO/IEC/IEEE 8802-3 and other standards.

For each RTE communication profile, this document also specifies the relevant RTE performance indicators and the dependencies between these RTE performance indicators.

NOTE 1 All CPs are based on standards or draft standards or International Standards published by the IEC or on standards or International Standards established by other standards bodies or open standards processes.

NOTE 2 The RTE communication profiles use ISO/IEC/IEEE 8802-3 communication networks and its related network components and in some cases amend those standards to obtain RTE features.

NOTE 3 Some CPs of CPF 8 are specified in IEC 61784-1-8.

SIST EN IEC 62439-2:2022/AC:2023

2023-11 (po) (en;fr;de) **5 str. (AC)**

Industrijska komunikacijska omrežja - Omrežja za avtomatizacijo z visoko razpoložljivostjo - 2. del: Protokol z redundanco medijev (MRP) - Popravek AC (IEC 62439-2:2021/COR1:2023)

Industrial communication networks - High availability automation networks - Part 2: Media Redundancy Protocol (MRP) (IEC 62439-2:2021/COR1:2023)

Osnova: EN IEC 62439-2:2022/AC:2023-05

ICS: 35.110, 25.040.01

Popravek k standardu SIST EN IEC 62439-2:2022.

The IEC 62439 series is applicable to high-availability automation networks based on the ISO/IEC/IEEE 8802-3 (IEEE Std 802.3) (Ethernet) technology.

This part of the IEC 62439 series specifies a recovery protocol based on a ring topology, designed to react deterministically on a single failure of an inter-switch link or switch in the network, under the control of a dedicated media redundancy manager node.

SIST EN IEC 62439-3:2022/AC:2023

2023-11 (po) (en;fr;de) **12 str. (AC)**

Industrijska komunikacijska omrežja - Omrežja za avtomatizacijo z visoko razpoložljivostjo - 3. del: Protokol vzporedne redundance (PRP) in brezprehodna zanka z visoko razpoložljivostjo (HSR) (IEC 62439-3:2021/COR1:2023)

Industrial communication networks - High availability automation networks - Part 3: Parallel Redundancy Protocol (PRP) and High-availability Seamless Redundancy (HSR) (IEC 62439-3:2021/COR1:2023)

Osnova: EN IEC 62439-3:2022/AC:2023-04

ICS: 25.040.01, 35.110

Popravek k standardu SIST EN IEC 62439-3:2022.

The IEC 62439 series is applicable to high-availability automation networks based on the Ethernet technology.

This document:

- specifies PRP and HSR as two related redundancy protocols designed to provide seamless recovery in case of single failure of an inter-bridge link or bridge in the network, which are based on the same scheme: parallel transmission of duplicated information;
- specifies the operation of the precision time protocol (PTP) in networks that implement the two redundancy protocols (Annex A);
- specifies PTP profiles with performance suitable for power utility automation (Annex B) and industrial automation (Annex C);
- includes for better understanding a tutorial (Annex D) on the PTP features effectively used in high-availability automation networks;
- includes a management information base for PTP (Annex E);
- defines a conformance test suite for the above protocols (Annex F).

SIST EN IEC 62769-1:2023

2023-11 (po) (en;fr;de) **33 str. (H)**
 Integracija procesne naprave (FDI®) - 1. del: Pregled (IEC 62769-1:2023)
Field Device Integration (FDI®) - Part 1: Overview (IEC 62769-1:2023)
 Osnova: EN IEC 62769-1:2023
 ICS: 35.240.50, 25.040.40

This part of IEC 62769 describes the concepts and overview of the Field Device Integration (FDI ® 1) specifications. The detailed motivation for the creation of this technology is also described (see 4.1). Reading this document is helpful to understand the other parts of this multi- part standard.

SIST EN IEC 62769-100:2023

2023-11 (po) (en;fr;de) **42 str. (I)**
 Integracija procesne naprave (FDI®) - 100. del: Profili - Splošni protokoli (IEC 62769-100:2023)
Field device integration (FDI®) - Part 100: Profiles - Generic protocols (IEC 62769-100:2023)
 Osnova: EN IEC 62769-100:2023
 ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI ® 1 profile of IEC 62769 for Generic Protocols. That means that all interfaces are defined and a host can add support for more protocols without changing its implementation. Nevertheless, there are some protocol specific definitions (PSD) that need to be specified per protocol using this profile. Annex C specifies what PSD need to be defined per protocol so that FDI ® Device Packages, FDI ® Communication Packages for Gateways and FDI ® Communication Servers, FDI ® Communication Server, Gateways and Devices supporting such a protocol can work together in a host not aware about this specific protocol.

NOTE A host not using FDI ® Communication Server but a proprietary mechanism for communication needs to define its own means to deal with this profile to support several protocols without changing its implementation. This is specific to the proprietary way how the communication driver is bound to the host.

SIST EN IEC 62769-101-1:2023

2023-11 (po) (en;fr;de) **35 str. (H)**
 Integracija procesne naprave (FDI®) - 101-1. del: Profili - Osnovno procesno vodilo H1 (IEC 62769-101-1:2023)
Field device Integration (FDI®) - Part 101-1: Profiles - Foundation Fieldbus H1 (IEC 62769-101-1:2023)
 Osnova: EN IEC 62769-101-1:2023
 ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI ®1 profile of IEC 62769 for IEC 61784-1_CP 1/1 (FOUNDATION™ Fieldbus H1) 2.

SIST EN IEC 62769-101-2:2023

2023-11 (po) (en;fr;de) **31 str. (G)**

Integracija procesne naprave (FDI)® - 101-2. del: Profili - Osnovno procesno vodilo HSE (IEC 62769-101-2:2023)

Field Device Integration (FDI)® - Part 101-2: Profiles - Foundation Fieldbus HSE (IEC 62769-101-2:2023)

Osnova: EN IEC 62769-101-2:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the IEC 62769 profile for IEC 61784-1, CP 1/2 (FOUNDATION™ Fieldbus HSE) 1.

SIST EN IEC 62769-102-2:2023

2023-11 (po) (en;fr;de) **16 str. (D)**

Integracija procesne naprave (FDI)® - 102-2. del: Profili - EtherNet/IP (IEC 62769-102-2:2023)

Field device integration (FDI)® - Part 102-2: Profiles - EtherNet/IP (IEC 62769-102-2:2023)

Osnova: EN IEC 62769-102-2:2023

ICS: 25.040.40, 35.240.50

IEC 62769-102-2:2023 defines the protocol-specific definitions (PSDs) as defined in IEC 62769-100 (annex on generic protocol extensions) for the Ethernet/IP protocol.

SIST EN IEC 62769-103-1:2023

2023-11 (po) (en;fr;de) **37 str. (H)**

Integracija procesne naprave (FDI)® - 103-1. del: Profili - PROFIBUS (IEC 62769-103-1:2023)

Field Device Integration (FDI)® - Part 103-1: Profiles - PROFIBUS (IEC 62769-103-1:2023)

Osnova: EN IEC 62769-103-1:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI®1 profile of IEC 62769 for IEC 61784-1_CP 3/1 (PROFIBUS DP) 2 and IEC 61784-1_CP3/2 (PROFIBUS PA).

SIST EN IEC 62769-103-4:2023

2023-11 (po) (en;fr;de) **40 str. (H)**

Integracija procesne naprave (FDI)® - 103-4. del: Profili - PROFINET (IEC 62769-103-4:2023)

Field Device Integration (FDI)® - Part 103-4: PROFINET (IEC 62769-103-4:2023)

Osnova: EN IEC 62769-103-4:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI®1 profile of IEC 62769 for IEC 61784-2_CP 3/4, IEC 61784-2_CP3/5 and IEC 61784-2_CP3/6 (PROFINET 2).

SIST EN IEC 62769-109-1:2023

2023-11 (po) (en;fr;de) **47 str. (I)**

Integracija procesne naprave (FDI)® - 109-1. del: Profili - HART® in brezžični HART® (IEC 62769-109-1:2023)

Field device integration (FDI)® - Part 109-1: Profiles - HART® and WirelessHART® (IEC 62769-109-1:2023)

Osnova: EN IEC 62769-109-1:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI®1 profile of IEC 62769 for IEC 61784-1_CP 9/1 (HART®) 2 and IEC 61784-1_CP 9/2 (WirelessHART®) 3.

SIST EN IEC 62769-150-1:2023**2023-11 (po) (en;fr;de) 31 str. (G)**Integracija procesne naprave (FDI®) - 150-1. del: Profili - ISA100 (IEC 62769-150-1:2023)
Field device integration (FDI®) - Part 150-1: Profiles - ISA100 (IEC 62769-150-1:2023)

Osnova: EN IEC 62769-150-1:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies an FDI ®1 profile of IEC 62769 for IEC 62734 (ISA100.11a) 2.

SIST EN IEC 62769-151-1:2023**2023-11 (po) (en;fr;de) 20 str. (E)**Integracija procesne naprave (FDI®) - 151-1. del: Profili - OPC UA (IEC 62769-151-1:2023)
Field device integration (FDI®) - Part 151-1: Profiles - OPC UA (IEC 62769-151-1:2023)

Osnova: EN IEC 62769-151-1:2023

ICS: 35.240.50, 25.040.40

IEC 62769-151-1:2023 defines the protocol-specific definitions (PSDs) as defined in IEC 62769-7 for the OPC UA protocol.

SIST EN IEC 62769-2:2023**2023-11 (po) (en;fr;de) 157 str. (P)**Integracija procesne naprave (FDI®) - 2. del: Odjemalec FDI (IEC 62769-2:2023)
Field Device Integration (FDI®) - Part 2: Client (IEC 62769-2:2023)

Osnova: EN IEC 62769-2:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the FDI ® 1 Client. See Annex C for some typical FDI ® Client use cases.

SIST EN IEC 62769-3:2023**2023-11 (po) (en;fr;de) 64 str. (K)**Integracija procesne naprave (FDI®) - 3. del: Strežnik (IEC 62769-3:2023)
Field Device Integration (FDI®) - Part 3: Server (IEC 62769-3:2023)

Osnova: EN IEC 62769-3:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the FDI ® 1 Server.

SIST EN IEC 62769-4:2023**2023-11 (po) (en;fr;de) 93 str. (M)**Integracija procesne naprave (FDI®) - 4. del: Paketi FDI (IEC 62769-4:2023)
Field Device Integration (FDI®) - Part 4: FDI Packages (IEC 62769-4:2023)

Osnova: EN IEC 62769-4:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the FDI ® 1 Packages.

SIST EN IEC 62769-5:2023**2023-11 (po) (en;fr;de) 75 str. (L)**Integracija procesne naprave (FDI®) - 5. del: Informacijski model FDI (IEC 62769-5:2023)
Field Device Integration (FDI®) - Part 5: FDI Information Model (IEC 62769-5:2023)

Osnova: EN IEC 62769-5:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 defines the FDI ® 1 Information Model. One of the main tasks of the Information Model is to reflect the topology of the automation system. Therefore, it represents the devices of the automation system as well as the connecting communication networks including their properties, relationships, and the operations that can be performed on them. The types in the AddressSpace of the FDI ® Server constitute some kind of catalogue, which is built from FDI ® Packages.

The fundamental types for the FDI® Information Model are well defined in OPC UA for Devices (IEC 62541-100). The FDI® Information Model specifies extensions for a few special cases and otherwise explains how these types are used and how the contents are built from elements of DevicePackages. The overall FDI® architecture is illustrated in Figure 1. The architectural components that are within the scope of this document have been highlighted in this illustration.

SIST EN IEC 62769-6:2023

2023-11 (po) (en;fr;de) **10 str. (C)**

Integracija procesne naprave (FDI®) - 6. del: Preslikava tehnologije FDI (IEC 62769-6:2023)

Field Device Integration (FDI®) - Part 6: FDI Technology Mappings (IEC 62769-6:2023)

Osnova: EN IEC 62769-6:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the technology mapping for the concepts described in the Field Device Integration (FDI® 1) standard. The technology mapping focuses on implementation of the components FDI® Client and User Interface Plug-in (UIP) in the specified technologies for the WORKSTATION platform and the MOBILE platform as defined in IEC 62769-4. There are individual subparts for the currently supported technologies .NET and HTML5.

SIST EN IEC 62769-6-100:2023

2023-11 (po) (en;fr;de) **29 str. (G)**

Integracija procesne naprave (FDI®) - 6-100. del: Preslikava tehnologije - .Mreža (IEC 62769-6-100:2023)

Field Device Integration (FDI®) - Part 6-100: Technology Mapping - .Net (IEC 62769-6-100:2023)

Osnova: EN IEC 62769-6-100:2023

ICS: 35.240.50, 25.040.40

IEC 62769-6-100:2023 specifies the technology mapping for the concepts described in the Field Device Integration (FDI®[1]) standard. The technology mapping focuses on implementation regarding the components FDI® Client and User Interface Plug-in (UIP) using the Runtime .NET. This runtime is specific only to the WORKSTATION platform as defined in IEC 62769-4.

SIST EN IEC 62769-6-200:2023

2023-11 (po) (en;fr;de) **28 str. (G)**

Integracija procesne naprave (FDI®) - 6-200. del: Preslikava tehnologije - HTML5 (IEC 62769-6-200:2023)

Field Device Integration (FDI®) - Part 6-200: Technology Mapping - HTML5 (IEC 62769-6-200:2023)

Osnova: EN IEC 62769-6-200:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the technology mapping for the concepts described in the Field Device Integration (FDI® 1) standard. The technology mapping focuses on implementation regarding the components FDI® Client and User Interface Plug-in (UIP) for the Runtime HTML5.

SIST EN IEC 62769-7:2023

2023-11 (po) (en;fr;de) **67 str. (K)**

Integracija procesne naprave (FDI®) - 7. del: Komunikacijske naprave (IEC 62769-7:2023)

Field Device Integration (FDI®) - Part 7: Communication Devices (IEC 62769-7:2023)

Osnova: EN IEC 62769-7:2023

ICS: 35.240.50, 25.040.40

This part of IEC 62769 specifies the elements implementing communication capabilities called Communication Devices.

SIST EN IEC 62769-8:2023**2023-11 (po) (en;fr;de) 55 str. (J)**Integracija procesne naprave (FDI®) - 8. del: Preslikava EDD v OPC-UA (IEC 62769-8:2023)
Field device integration (FDI®) - Part 8: EDD to OPC-UA Mapping (IEC 62769-8:2023)

Osnova: EN IEC 62769-8:2023

ICS: 25.040.40, 35.240.50

IEC 62769-8:2023 specifies how the internal view of a device model represented by the EDD can be transferred into an external view as an OPC-UA information model by mapping EDD constructs to OPC-UA objects.

SIST/TC PKG Preskušanje kovinskih gradiv**SIST EN ISO 204:2023**

SIST EN ISO 204:2018

2023-11 (po) (en;fr;de) 57 str. (J)Kovinski materiali - Preskušanje nesoosnega lezenja pri nategu - Metoda preskušanja (ISO 204:2023)
Metallic materials - Uniaxial creep testing in tension - Method of test (ISO 204:2023)

Osnova: EN ISO 204:2023

ICS: 77.040.10

This document specifies the methods for:

- a) uninterrupted creep tests with continuous monitoring of extension;
- b) interrupted creep tests with periodic measurement of elongation;
- c) stress rupture tests where normally only the time to fracture is measured;
- d) a test to verify that a predetermined time can be exceeded under a given force, with the elongation or extension not necessarily being reported.

NOTE A creep test can be continued until fracture has occurred or it can be stopped before fracture.

SIST/TC POZ Požarna varnost**SIST EN 12259-12:2023****2023-11 (po) (en;fr;de) 15 str. (D)**

Vgrajene naprave za gašenje - Sestavni deli sprinklerskih sistemov in sistemov s pršečo vodo – 12. del: Črpalke

Fixed firefighting systems - Components for sprinkler and water spray systems - Part 12: Pumps

Osnova: EN 12259-12:2023

ICS: 13.220.10

This part of the EN 12259 series specifies requirements for single stage and multi-stage centrifugal pumps with mechanical seal or soft packing for use in automatic sprinkler systems and is for use with EN 12845 and EN 17451.

This document is only applicable for the following pumps, independent of installed orientation (vertical, horizontal or sloped):

- end suction pumps (close coupled or long coupled) of the back pull-out type pump;
- axial horizontal split case pumps;
- ring section pumps;
- inline pumps (vertical line shaft pump with inlet and outlet in line);
- vertical turbine pumps;
- multistage inline pumps;
- multi stage-multi outlet pumps;
- submersible motor borehole pumps.

SIST EN 14972-7:2023

2023-11 (po) (en;fr;de) **17 str. (E)**

Vgrajeni gasilni sistemi - Sistemi s pršečo vodo - 7. del: Protokol preskušanja sistemov s samodejnimi šobami za komercialne prostore z nizko stopnjo nevarnosti

Fixed firefighting systems - Water mist systems - Part 7: Test protocol for commercial low hazard occupancies for automatic nozzle systems

Osnova: EN 14972-7:2023

ICS: 13.220.10

This document specifies fire testing requirements for water mist systems used for fire protection of commercial low hazard occupancies up to 5 m ceiling height.

EXAMPLE Examples for commercial low hazard occupancies are apartments, churches, concealed spaces, gymnasiums, hospitals, hotels, libraries, museums, offices, restaurant seating areas, schools and university class rooms, unused attics.

SIST EN 15287-1:2023

SIST EN 15287-1:2008+A1:2010

2023-11 (po) (en;fr;de) **96 str. (M)**

Dimniki - Projektiranje, vgradnja in pregled - 1. del: Dimniki in povezovalni dimovodi za ogrevalne naprave v nezatesnjenih prostorih

Chimneys - Design, installation and commissioning - Part 1: Chimneys and connecting flue pipes for non-room sealed combustion appliances

Osnova: EN 15287-1:2023

ICS: 91.060.40

This European Standard describes the method of specifying the design, installation criteria for system chimneys, construction of custom built chimneys, and the relining of existing chimneys. It also gives information on commissioning of chimneys.

This European Standard also deals with connecting flue pipes.

This European Standard does not apply to freestanding chimneys covered by EN 13084-1.

This European Standard excludes chimneys designated H (high positive pressure chimneys) and chimneys for room-sealed heating appliances.

For the purpose of this European Standard the term "installation" includes construction.

SIST EN 15287-2:2023

SIST EN 15287-2:2008

2023-11 (po) (en;fr;de) **108 str. (N)**

Dimniki - Projektiranje, vgradnja in pregled - 2. del: Dimniki in povezovalni dimovodi za ogrevalne naprave v zatesnjenih prostorih

Chimneys - Design, installation and commissioning - Part 2: Chimneys and connecting flue pipes for room sealed combustion appliances

Osnova: EN 15287-2:2023

ICS: 91.060.40

This European Standard describes the method of specifying the design, installation and labelling criteria for chimney systems, construction of custom-built chimneys, the relining or converting of existing chimneys, connecting flue pipes and air supply pipes for roomsealed applications. It also gives information on commissioning of an installed chimney.

This European Standard applies to chimneys which are subject to the following limiting conditions (specified in EN 13084-1):

- the horizontal distance between the building and the outer wall of the chimney system not to exceed 1 m,
- the distance between the supports not to exceed 4 m,
- the distance above the last structural attachment not to exceed 3 m.

This standard does not cover:

- chimneys which serve a mixture of fan assisted or forced draught burners or natural draught appliances,
- installations having a configuration of the type C2.

NOTE Roomsealed gas appliances are classified as type C according to EN 1749.

The methods in this part of this European Standard are applicable to chimneys and connecting flue pipes for room sealed combustion appliances. The methods in Part 1 of this European Standard are applicable to chimneys and connecting flue pipes for non-room sealed combustion appliances. For the purpose of this European Standard the term "installation" includes construction.

SIST/TC SKA Stikalni in krmilni aparati

SIST EN IEC 61439-5:2023

2023-11 (po) (en) 41 str. (I)

Sestavi nizkonapetostnih stikalnih in krmilnih naprav - 5. del: Sestavi za distribucijo električne energije v javnih omrežjih (IEC 61439-5:2023)

Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks (IEC 61439-5:2023)

Osnova: EN IEC 61439-5:2023

ICS: 29.240.99, 29.130.20

This document defines the specific requirements for public electricity network distribution assemblies (PENDAs).

PENDAs have the following criteria:

- used for the distribution of electrical energy in three phase systems for which the rated voltage does not exceed 1 000 V AC (see Figure 101 for a typical distribution network) and DC systems not exceeding 1 500 V DC;
- stationary;
- open type assemblies are not covered by this document;
- suitable for installation in places where only skilled persons have access for their use, however, outdoor types can be installed in situations that are accessible to ordinary persons
- intended for use in energy distribution in public power grids;
- indoor use: assemblies for installation inside of electric power substations;
- outdoor use: assemblies containing an enclosure suitable for open air installation.

The object of this document is to state the definitions and to specify the service conditions, construction requirements, technical characteristics and tests for PENDAs. Tests at higher performance level can be applicable with some network parameters.

PENDAs can also include control and or signalling devices associated with the distribution of electrical energy.

NOTE 1 Control and monitoring devices can be used in smart grid applications or the transmission of smart grid data.

This document applies to all PENDAs whether they are designed, manufactured on a one-off basis or fully standardised and manufactured in quantity.

The manufacture and/or assembly can be carried out other than by the original manufacturer (see 3.10.1 of IEC 61439-1:2020).

This document does not apply to individual devices and self-contained components, such as motor starters, fuse switches, electronic equipment, etc. which comply with the relevant product standards.

If the substation is owned or operated by a public distribution system operator (DSO), PENDA's which are used as LV distribution panels in transformer substations are within the scope of this document,

This document does not apply to specific types of assemblies covered by other parts of IEC 61439 series.

NOTE 2 If a PENDA is equipped with additional equipment (for example meters), in such a way that the main function is changed considerably, then other standards can also apply as agreed between user and manufacturer (see 8.5 of IEC 61439-1:2020).

NOTE 3 Where local regulations and practices permit, a PENDA according to this document can be used in other than public networks.

NOTE 4 DSO's can define additional requirements for their PENDA's.

SIST EN IEC 61439-7:2023

2023-11 (po) (en) **40 str. (H)**

Sestavi nizkonapetostnih stikalnih in krmilnih naprav - 7. del: Sestavi za posebno uporabo, na primer za marine, prostore za kampiranje, tržnice, napajalne postaje za električna vozila (IEC 61439-7:2022)
Low-voltage switchgear and controlgear assemblies - Part 7: Assemblies for specific applications such as marinas, camping sites, market squares, electric vehicle charging stations (IEC 61439-7:2022)

Osnova: EN IEC 61439-7:2023

ICS: 29.130.20

Clause 1 of IEC 61439-1:2020 is applicable except as follows.

Replacement:

This part of IEC 61439 defines the specific requirements for Assemblies for the following applications: marinas, camping sites, market squares and electric vehicle charging stations as follows:

- Assemblies for which the rated voltage does not exceed 1 000 V AC or 1 500 V DC;
- Assemblies intended for use in connection with the generation, transmission, distribution and conversion of electric energy, and for the control of electric energy consuming equipment;
- Assemblies operated by ordinary persons (e.g. to plug and unplug of electrical equipment);
- Assemblies intended to be installed and used in market squares, marinas, camping sites and other similar sites accessible to the public including temporary installations;
- Assemblies intended for charging stations for electric vehicles (AEVCS) for Mode 3 and Mode 4. They are designed to integrate the functionality and additional requirements for electric vehicle conductive charging systems according to IEC 61851-1:2017.

NOTE 1 Throughout this document, the terms AMHS (see 3.1.701), ACCS (see 3.1.702), AMPS (see 3.1.703), AEVCS (see 3.1.704) are used for low-voltage switchgear and controlgear assemblies intended for use respectively in marinas and similar locations (AMHS), camping sites and similar locations (ACCS), market squares and other similar external public sites (AMPS) and charging stations (AEVCS). The term assemblies is used for indicating all these boards.

This standard is not applicable to assemblies intended to be installed on board of ships, houseboats, pleasure crafts and similar vessels.

For the correct selection of the switching devices and components, the following standards apply:

- IEC 60364-7-709 (AMHS) or
- IEC 60364-7-708 (ACCS) or
- IEC 60364-7-740 (AMPS) or
- IEC 60364-7-722 (AEVCS).

This document applies to all assemblies whether they are designed, manufactured and verified on a one-off basis or fully standardised and manufactured in quantity.

The manufacturing and/or assembling may be carried out other than by the original manufacturer (see 3.10.1 of IEC 61439-1:2020).

This document does not apply to individual devices and self-contained components such as circuit breakers, fuse switches, electronic equipment, which comply with their relevant product standards.

NOTE 2 Where electrical equipment is directly connected to public low-189 voltage supply system and equipped with an energy meter for billing of the legal provider of the low-voltage supply, additional particular requirements based on national regulations apply, if any.

This document does not apply to boxes and enclosures for electrical accessories for household and similar fixed electrical installations as defined in IEC 60670-24.

SIST EN IEC 62208:2023

2023-11 (po) (en) **34 str. (H)**

Prazna ohišja za sestave nizkonapetostnih stikalnih in krmilnih naprav - Splošne zahteve (IEC 62208:2023)

Empty enclosures for low-voltage switchgear and controlgear assemblies - General requirements (IEC 62208:2023)

Osnova: EN IEC 62208:2023

ICS: 29.130.20

IEC 62208:2023 applies to empty enclosures, as provided by the enclosure manufacturer, prior to the incorporation of switchgear and controlgear components by the assembly manufacturer. This document specifies general definitions, classifications, characteristics and test requirements of

enclosures to be used as part of switchgear and controlgear assemblies (e.g. in accordance with the product standard in the IEC 61439 series), the rated voltage of which does not exceed 1 000 V AC or 1 500 V DC, and suitable for general use for either indoor or outdoor applications. This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- a) consideration of the modifications introduced in IEC 61439-1:2020;
- b) alignment of test procedures with the newest relevant standards.

SIST/TC SPN Storitve in protokoli v omrežjih

SIST-TS ETSI/ TS 102 657 V2.1.1:2023

2023-11 (po) (en) 105 str. (N)

Zakonito prestrezanje (LI) - Ravnanje z zadržanimi podatki - Izročilni vmesnik za zahtevo in izročanje zadržanih podatkov

Lawful Interception (LI) - Retained data handling - Handover interface for the request and delivery of retained data

Osnova: ETSI TS 102 657 V2.1.1 (2023-08)

ICS: 35.200, 33.040.40

The present document is based on requirements from ETSI TS 102 656 [2].

The present document contains handover requirements and a handover specification for the data that is identified in national legislations on Retained Data.

The present document considers both the requesting of retained data and the delivery of the results.

The present document defines an electronic interface. An informative annex describes how this interface may be adapted for manual techniques. Apart from in annex I, the present document does not consider manual techniques.

SIST-TS ETSI/TS 102 232-1 V3.30.1:2023

2023-11 (po) (en) 63 str. (K)

Zakonito prestrezanje (LI) - Izročilni vmesnik in storitveno specifične podrobnosti (SSD) za IP-dostavo vsebin - 1. del: Izročilna specifikacija za IP-dostavo vsebin

Lawful Interception (LI) - Handover Interface and Service-Specific Details (SSD) for IP delivery - Part 1: Handover specification for IP delivery

Osnova: ETSI TS 102 232-1 V3.30.1 (2023-08)

ICS: 35.240.95

The present document specifies the general aspects of HI2 and HI3 interfaces for handover via IP based networks.

The present document:

- specifies the modular approach used for specifying IP based handover interfaces;
- specifies the header(s) to be added to IRI and CC sent over the HI2 and HI3 interfaces respectively;
- specifies protocols for the transfer of IRI and CC across the handover interfaces;
- specifies protocol profiles for the handover interface.

The present document is designed to be used where appropriate in conjunction with other deliverables that define the service-specific IRI data formats (including ETSI TS 102 227 [i.1], ETSI TS 101 909-20-1 [33], ETSI TS 101 909-20-2 [34], ETSI TS 102 232-2 [5], ETSI TS 102 232-3 [6], ETSI TS 102 232-4 [32], ETSI TS 102 232-5 [37], ETSI TS 102 232-6 [36] and ETSI TS 102 232-7 [38]). Where possible, the present document aligns with 3GPP TS 33.108 [9] and ETSI TS 101 671 [4] and supports the requirements and capabilities defined in ETSI TS 101 331 [i.9] and ETSI TR 101 944 [i.4].

For the handover of intercepted data within GSM/UMTS PS and CS domains, the present document does not override or supersede any specifications or requirements in 3GPP TS 33.108 [9] and ETSI TS 101 671 [4].

For the handover of services defined in 3GPP TS 33.128 [46], in the event of conflict between the present document and 3GPP TS 33.128 [46], the terms of 3GPP TS 33.128 [46] apply.

SIST-TS ETSI/TS 103 280 V2.10.1:2023

2023-11 (po) (en) **37 str. (H)**

Zakonito prestrezanje (LI) - Slovar skupnih parametrov

Lawful Interception (LI) - Dictionary for common parameters

Osnova: ETSI TS 103 280 V2.10.1 (2023-08)

ICS: 33.040.35

The present document defines a dictionary of parameters that are commonly used in multiple TC LI specifications.

Aside from defining a dictionary, the present document aims to provide technical means for other specifications to use.

It is encouraged to use the present document in the development of new specifications.

It is foreseen that regular maintenance of the present document is required. As such, release management requirements will be defined.

Before accepting any new common parameter, the present document will provide a set of requirements the parameter has to comply to in order to become a common parameter.

SIST/TC SPO Šport

SIST EN 1176-10:2023

SIST EN 1176-10:2008

2023-11 (po) (en;fr;de) **19 str. (E)**

Oprema in podloge otroških igrišč - 10. del: Dodatne posebne varnostne zahteve in preskusne metode za zaključene igralne enote

Playground equipment and surfacing - Part 10: Additional specific safety requirements and test methods for fully enclosed play equipment

Osnova: EN 1176-10:2023

ICS: 97.200.40

This document is applicable to fully enclosed play equipment intended for installation inside and outside buildings, for children up to 14 years old, see 3.1.

The purpose of this document is to provide additional safety requirements covering particulars of these structures.

SIST EN 15194:2017+A1:2023

SIST EN 15194:2017/kprA1:2022

SIST EN 15194:2017

2023-11 (po) (en;fr;de) **134 str. (O)**

Kolesa - Kolesa z električnim pomožnim pogonom - Kolesa EPAC (vključno z dopolnilom A1)

Cycles - Electrically power assisted cycles - EPAC Bicycles

Osnova: EN 15194:2017+A1:2023

ICS: 43.150, 43.120

This European Standard applies to EPAC bicycles for private and commercial use with exception of EPAC intended for hire from unattended station.

This European Standard is intended to cover all common significant hazards, hazardous situations and events (see Clause 4) of electrically power assisted bicycles, when used as intended and under condition of misuse that are reasonably foreseeable by the manufacturer.

This European Standard is intended to cover electrically power assisted bicycles of a type which have a maximum continuous rated power of 0,25 kW, of which the output is progressively reduced and finally cut off as the EPAC reaches a speed of 25 km/h, or sooner, if the cyclist stops pedalling.

This European Standard specifies requirements and test methods for engine power management systems, electrical circuits including the charging system for the design and assembly of electrically power assisted bicycles and sub-assemblies for systems having a rated voltage up to and including 48 V d.c. or integrated battery charger with a nominal 230 V a.c. input.

This European Standard specifies safety and safety related performance requirements for the design, assembly, and testing of EPAC bicycles and subassemblies intended for use on public roads, and lays down guidelines for instructions on the use and care of such bicycles.

This European Standard applies to EPAC bicycles that have a maximum saddle height of 635 mm or more and that are intended for use on public roads.

This European Standard is not applicable to EPACs which are manufactured before the date of its publication as EN.

SIST EN 17229-2:2023

2023-11 (po) (en;fr;de) 27 str. (G)

Fitnes centri - Zahteve za opremo in delovanje centrov - 2. del: Zahteve za nadzor in osebje

Fitness centres - Requirements for centre amenities and operation - Part 2: Requirements for supervision and staff

Osnova: EN 17229-2:2023

ICS: 97.220.01, 03.080.30

This document sets out requirements for the supervision and staffing, necessary to protect the health, safety and welfare of users, staff and contractors across a wide range of fitness centres as defined in EN 17229:2019.

This document specifies the essential skills required from operational staff and fitness staff who have a responsibility for the supervision of their users, staff and contractors using and working in their fitness centres.

This document applies in conjunction with, and in addition to EN 17229, Fitness centres - Requirements for centre amenities and operation - Operational and managerial requirements. This document cannot be used separately from EN 17229.

SIST EN 17461:2023

2023-11 (po) (en;fr;de) 18 str. (E)

Gimnastična oprema - Individualne in večnamenske švedske skrinje - Varnostne zahteve in preskusne metode

Gymnastic equipment - Individual and multifunctional vaulting boxes - Safety requirements and test methods

Osnova: EN 17461:2023

ICS: 97.220.30

This European Standard specifies functional requirements and specific safety requirements in addition to the general safety standard EN 913 for gymnastic and agility boxes for individual or multifunctional use. The multifunctional boxes include combination with other standardized gymnastic equipment, its connection points and imposed loads.

SIST EN ISO 11243:2023

2023-11 (po) (en;fr;de) 40 str. (H)

Kolesa - Prtljažniki za kolesa - Zahteve in preskusne metode (ISO 11243:2023)

Cycles - Luggage carriers for bicycles - Requirements and test methods (ISO 11243:2023)

Osnova: EN ISO 11243:2023

ICS: 43.150

This document specifies safety and performance requirements for the design and testing of both non cycle specific luggage carriers intended for mounting (with or without tools) and cycle specific luggage carriers mounted on complete cycles. It applies to luggage carriers intended to be positioned above and adjacent to the wheels of cycles. This document lays down guidelines for instructions on the use and care of such luggage carriers.

This document does not apply to removable luggage (for example, handlebar bags or baskets that are not permanently attached).

Toy carrier intended to be mounted on bicycles for young children in the scope of ISO 8098 are not covered by this document.

SIST EN ISO 23537-2:2023

SIST EN ISO 23537-2:2017

2023-11 (po) (en;fr;de) **14 str. (D)**

Zahteve za spalne vreče - 2. del: Lastnosti tkanine in materiala (ISO 23537-2:2023)

Requirements for sleeping bags - Part 2: Fabric and material properties (ISO 23537-2:2023)

Osnova: EN ISO 23537-2:2023

ICS: 97.200.30

This document specifies the fabric and material properties as well as provisions for labelling of adult sized sleeping bags for use in sports and leisure time activities.

This document does not apply to sleeping bags intended for specific purposes such as military use and extreme climate zone expedition. It does not apply to sleeping bags for children or babies.

SIST/TC STZ Zaščita pred delovanjem strele

SIST EN IEC 62561-3:2023

2023-11 (po) (en) **26 str. (F)**

Elementi za zaščito pred strelo (LPSC) - 3. del: Zahteve za izolacijska iskrišča (IEC 62561-3:2023)

Lightning protection system components (LPSC) - Part 3: Requirements for isolating spark gaps (ISG) (IEC 62561-3:2023)

Osnova: EN IEC 62561-3:2023

ICS: 29.080.99, 91.120.40

This part of IEC 62561 specifies the requirements and tests for isolating spark gaps (ISGs) for lightning protection systems.

ISGs can be used to indirectly bond a lightning protection system to other nearby metalwork where a direct bond is not permissible for functional reasons.

Typical applications include the connection to

- earth-termination systems of power installations,
- earth-termination systems of telecommunication systems,
- auxiliary earth electrodes of voltage-operated, earth fault circuit breakers,
- rail earth electrodes of power and DC railways,
- measuring earth electrodes for laboratories,
- installations with cathodic protection and stray current systems,
- service entry masts for low-voltage overhead cables,
- bypassing insulated flanges and insulated couplings of pipelines.

Applications where follow currents occur are not included.

Extra requirements for the components can be necessary for LSCs intended for use in hazardous atmospheres.

NOTE 1 In CENELEC member countries, testing requirements of components for explosive atmospheres are specified in CLC/TS 50703-2.

NOTE 2 Testing of components for an explosive atmosphere (as defined in the IEC 60079-10 series) is not covered by this document.

SIST/TC TLP Tlačne posode

SIST EN 12952-3:2023

SIST EN 12952-3:2012

2023-11 (po) (en;fr;de) **165 str. (P)**

Vodocevni kotli in pomožne napeljave - 3. del: Konstruiranje in izračun tlačno obremenjenih delov kotla
Water-tube boilers and auxiliary installations - Part 3: Design and calculation for pressure parts of the boiler

Osnova: EN 12952-3:2022

ICS: 27.060.30

This document specifies the requirements for the design and calculation of water-tube boilers as defined in EN 12952-1.

The purpose of this document is to ensure that the hazards associated with water-tube boilers are reduced to a minimum by the proper application of the design according to this part of EN 12952.

SIST EN 13445-2:2021+A1:2023

SIST EN 13445-2:2021
SIST EN 13445-2:2021/A1:2023

2023-11 (po) (en;fr;de) **90 str. (M)**

Nekurjene tlačne posode - 2. del: Materiali (vključuje dopolnilo A1)

Unfired pressure vessels - Part 2: Materials

Osnova: EN 13445-2:2021+A1:2023

ICS: 23.020.32

This document specifies the requirements for steel products used for unfired pressure vessels. For some metallic materials other than steel, such as spheroidal graphite cast iron, aluminium, nickel, copper, titanium, requirements are or will be formulated in separate parts of this document. For metallic materials which are not covered by a harmonized material standard and are not likely to be in near future, specific rules are given in this part or the above cited parts of this document.

SIST EN 13445-4:2021+A1:2023

SIST EN 13445-4:2021
SIST EN 13445-4:2021/A1:2023

2023-11 (po) (en;fr;de) **74 str. (L)**

Nekurjene tlačne posode - 4. del: Proizvodnja (vključuje dopolnilo A1)

Unfired pressure vessels - Part 4: Fabrication

Osnova: EN 13445-4:2021+A1:2023

ICS: 23.020.32

This document specifies requirements for the manufacture of unfired pressure vessels and their parts, made of steels, including their connections to non-pressure parts. It specifies requirements for material traceability, manufacturing tolerances, welding requirements, requirements for permanent joints other than welding, production tests, forming requirements, heat treatment, repairs and finishing operations.

SIST EN 13480-3:2018/A5:2023

2023-11 (po) (en;fr;de) **24 str. (F)**

Kovinski industrijski cevovodi - 3. del: Konstruiranje in izračun - Dopolnilo A5

Metallic industrial piping - Part 3: Design and calculation

Osnova: EN 13480-3:2017/A5:2022

ICS: 23.040.10, 77.140.75

Amandma A5:2023 je dodatek k standardu SIST EN 13480-3:2018.

This Part of this European Standard specifies the design and calculation of industrial metallic piping systems, including supports, covered by EN 13480.

SIST EN ISO 11114-1:2020/A1:2023

2023-11 (po) (en;fr;de) **13 str. (D)**

Plinske jeklenke - Združljivost materialov za ventil in jeklenko s plinom - 1. del: Kovinski materiali -

Dopolnilo A1 (ISO 11114-1:2020/Amd 1:2023)

Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 1: Metallic materials - Amendment 1 (ISO 11114-1:2020/Amd 1:2023)

Osnova: EN ISO 11114-1:2020/A1:2023

ICS: 23.060.40, 23.020.35

Amandma A1:2023 je dodatek k standardu SIST EN ISO 11114-1:2020.

This document provides requirements for the selection of safe combinations of metallic cylinder and valve materials and cylinder gas content.

The compatibility data given is related to single gases and to gas mixtures.

Seamless metallic, welded metallic and composite gas cylinders and their valves, used to contain compressed, liquefied and dissolved gases are considered.

NOTE In this document the term "cylinder" refers to transportable pressure receptacles, which also include tubes and pressure drums.

Aspects such as the quality of delivered gas product are not considered.

SIST EN ISO 11363-1:2018/A1:2023

2023-11 (po) (en;fr;de) **7 str. (B)**

Plinske jeklenke - Konična navoja 17E in 25E za priključitev ventila na plinsko jeklenko - 1. del: Specifikacije - Dopolnilo A1 (ISO 11363-1:2018/Amd 1:2023)

Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders - Part 1: Specifications - Amendment 1 (ISO 11363-1:2018/Amd 1:2023)

Osnova: EN ISO 11363-1:2018/A1:2023

ICS: 23.020.35, 21.040.30

Amandma A1:2023 je dodatek k standardu SIST EN ISO 11363-1:2018.

This document specifies dimensions and tolerances for taper screw threads of nominal diameter 17,4 mm (designated as 17E) and 25,8 mm (designated as 25E) used for the connection of valves to gas cylinders.

It does not cover the connection requirements for

- mechanical strength,
- gas tightness, and
- capability of repeated assembly and dismounting operations.

Gauge inspection is covered by ISO 11363-2.

SIST EN ISO 11623:2023

SIST EN ISO 11623:2016

2023-11 (po) (en;fr;de) **48 str. (I)**

Plinske jeklenke - Jeklenke in velike jeklenke iz kompozitnih materialov - Periodični pregledi in preskusi (ISO 11623:2023)

Gas cylinders - Composite cylinders and tubes - Periodic inspection and testing (ISO 11623:2023)

Osnova: EN ISO 11623:2023

ICS: 23.020.35

This document specifies the requirements for periodic inspection and testing to verify the integrity for further service of hoop-wrapped and fully-wrapped composite transportable gas cylinders and tubes, with aluminium-alloy, steel or non-metallic liners or of linerless construction (Types 2, 3, 4, and 5), intended for compressed, liquefied or dissolved gases under pressure, of water capacity from 0,5 l up to 3 000 l.

This document addresses the periodic inspection and testing of composite cylinders and tubes constructed according to ISO 11119-1, ISO 11119-2, ISO 11119-3, ISO 11119-4 or ISO 11515. It can be applied to other composite cylinders and tubes designed to comparable standards when authorized by the competent authority. As far as practicable, this document can also be applied to cylinders of less than 0,5 l water capacity when authorized by the manufacturer.

NOTE Unless noted by exception, the use of the word "cylinder" in this document refers to both cylinders and tubes.

SIST/TC TOP Toplota

SIST EN 15026:2023

SIST EN 15026:2007

2023-11 (po) (en;fr;de) **48 str. (I)**

Higrotermalno obnašanje sestavnih delov stavb in elementov stavb - Ocenjevanje prenosa vlage z numerično simulacijo

Hygrothermal performance of building components and building elements - Assessment of moisture transfer by numerical simulation

Osnova: EN 15026:2023

ICS: 91.120.30

This document specifies the model components to be used in a numerical hygrothermal simulation model for calculating the transient transfer of heat and moisture through building structures.

This document specifies a method to be used for validating a numeric hygrothermal simulation model claiming conformity with this document.

SIST EN 16863:2023

2023-11 (po) (en;fr;de) **58 str. (J)**

Toplotnoizolacijski proizvodi za stavbe - Tovarniško narejeni odsevni izolacijski proizvodi (RI) - Specifikacija

Thermal insulation products for buildings - Factory made reflective insulation (RI) products - Specification

Osnova: EN 16863:2023

ICS: 91.100.60

This European standard specifies characteristics for factory made Reflective Insulation (RI) products, which are used for the thermal insulation of buildings when they are incorporated in building elements like walls, ceilings, floors, or roofs. In addition, it is proposed to assess acoustic characteristics for some applications where relevant.

Reflective insulation products are made from low emissive film(s) associated to infrared semi-transparent material layer(s) or to air cavities, so called spacers, like waddings of synthetic or natural fibres, synthetic foam or plastic filled with air bubbles.

They are manufactured in the form of rolls or semi-rigid boards and are designed to be used in conjunction with adjacent air space(s), which leads in such case to specific setup instructions. The product could also be used without neighbouring air spaces.

Reflective (low emissivity at the appropriate wavelength) surfaces are used to reduce the heat transfer by thermal radiation. This may occur across the product itself when it includes air cavities or a material that is wholly or partially transparent to infrared radiation, or across air gap(s) that is deliberately created between the reflective surface of the product and the structure of the building element.

This standard describes product characteristics and includes procedures for testing, evaluation of conformity, marking and labelling.

This standard does not specify the required level of a given property to be achieved by a product to demonstrate fitness for purpose in a particular application. The levels required for a given application are to be found in regulations or non-conflicting standards.

This standard does not replace procedures for the determination of properties of products already covered by existing harmonised specifications.

This standard does not cover in-situ insulation products and products intended to be used for the insulation of building equipment and industrial installations.

SIST EN ISO 6781-1:2023

SIST EN 13187:2000

2023-11 (po) (en;fr;de) **49 str. (I)**

Značilnosti stavb - Zaznavanje nepravilnosti toplote, zraka in vlage v stavbah z infrardečimi metodami - 1. del: Splošni postopki (ISO 6781-1:2023)

Performance of buildings - Detection of heat, air and moisture irregularities in buildings by infrared methods - Part 1: General procedures (ISO 6781-1:2023)

Osnova: EN ISO 6781-1:2023

ICS: 91.120.10

This document specifies requirements and methodologies for infrared thermographic services for detection of heat, air and moisture irregularities in buildings that help users to specify and understand

- a) the extent of thermographic services required,
- b) the type and condition of equipment available for use,
- c) the qualifications of equipment operators, image analysts, and report authors and those making recommendations, and
- d) the reporting of results.

It provides guidance to understanding and utilizing the final results stemming from provision of the thermographic services.

This document is applicable to the general procedures for infrared thermographic methods as can be applied to residential, commercial, and institutional and special use buildings.

SIST/TC UMI Umetna inteligenca

SIST EN ISO/IEC 22989:2023

2023-11 (po) (en;fr;de) 70 str. (K)

Informacijska tehnologija - Umetna inteligenca - Koncepti in terminologija umetne inteligence (ISO/IEC 22989:2022)

Information technology - Artificial intelligence - Artificial intelligence concepts and terminology (ISO/IEC 22989:2022)

Osnova: EN ISO/IEC 22989:2023

ICS: 35.020, 01.040.35

This document establishes terminology for AI and describes concepts in the field of AI.

This document can be used in the development of other standards and in support of communications among diverse, interested parties or stakeholders.

This document is applicable to all types of organizations (e.g. commercial enterprises, government agencies, not-for-profit organizations).

SIST EN ISO/IEC 23053:2023

2023-11 (po) (en;fr;de) 44 str. (I)

Okvir za sisteme umetne inteligence (UI), ki temeljijo na strojnem učenju (ISO/IEC 23053:2022)

Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML) (ISO/IEC 23053:2022)

Osnova: EN ISO/IEC 23053:2023

ICS: 35.020

This document establishes an Artificial Intelligence (AI) and Machine Learning (ML) framework for describing a generic AI system using ML technology. The framework describes the system components and their functions in the AI ecosystem. This document is applicable to all types and sizes of organizations, including public and private companies, government entities, and not-for-profit organizations, that are implementing or using AI systems.

SIST/TC VAR Varjenje

SIST EN ISO 1089:2023

2023-11 (po) (en;fr;de) 15 str. (D) SIST EN 21089:1998

Oprema za uporovno varjenje - Nastavki elektrod pri opremi za točkovno varjenje - Mere (ISO 1089:2023)

Resistance welding equipment - Electrode taper fits for spot welding equipment - Dimensions (ISO 1089:2023)

Osnova: EN ISO 1089:2023

ICS: 25.160.30

Refers to taper dimensions and tolerances for electrode caps, electrode adaptors, electrode holders and similar parts, where the electrode force F_{max} , given for diameter d_1 in tables 1, 2 and 3 is not exceeded. Establishes dimensions, designation and marking. Cancels and replaces ISO Recommendation R 1089-1969, of which it constitutes a technical revision.

SIST EN ISO 3581:2023

2023-11 (po) (en;fr;de) 38 str. (H) SIST EN ISO 3581:2016

Dodajni in pomožni materiali za varjenje - Oplaščene elektrode za ročno obločno varjenje nerjavnih in toplotno odpornih jekel - Razvrstitev (ISO 3581:2023)

Welding consumables - Covered electrodes for manual metal arc welding of stainless and heat-resisting steels - Classification (ISO 3581:2023)

Osnova: EN ISO 3581:2023

ICS: 25.160.20

ISO 3581:2016 specifies requirements for classification of covered electrodes, based on the all-weld metal chemical composition, the type of electrode covering and other electrode properties, and the all-weld metal mechanical properties, in the as-welded or heat-treated conditions, for manual metal arc welding of stainless and heat-resisting steels.

It is a combined standard providing for classification utilizing a system based upon classification according to nominal composition or utilizing a system based upon classification according to alloy type.

- a) Paragraphs and tables which carry the label "classification according to nominal composition" or "ISO 3581-A" are applicable only to products classified to that system.
- b) Paragraphs and tables which carry the label "classification according to alloy type" or "ISO 3581-B" are applicable only to products classified to that system.
- c) Paragraphs and tables which carry neither label are applicable to products classified according to either or both systems.

SIST EN ISO/ASTM 52902:2023

SIST EN ISO/ASTM 52902:2019

2023-11 (po) (en;fr;de) 48 str. (I)

Aditivna proizvodnja - Preskusna telesa - Geometrijske zmogljivosti aditivnih proizvodnih sistemov (ISO/ASTM 52902:2023)

Additive manufacturing - Test artefacts - Geometric capability assessment of additive manufacturing systems (ISO/ASTM 52902:2023)

Osnova: EN ISO/ASTM 52902:2023

ICS: 25.030

This document covers the general description of benchmarking test piece geometries, i.e. artefacts, along with quantitative and qualitative measurements to be taken on the benchmarking test piece(s) to assess the performance of additive manufacturing (AM) systems.

This performance assessment can serve the following two purposes:

- AM system capability evaluation;
- AM system calibration.

The benchmarking test piece(s) is (are) primarily used to quantitatively assess the geometric performance of an AM system. This document describes a suite of test geometries, each designed to investigate one or more specific performance metrics and several example configurations of these geometries into test build(s). It prescribes quantities and qualities of the test geometries to be measured but does not dictate specific measurement methods. Various user applications can require various grades of performance. This document discusses examples of feature configurations, as well as measurement uncertainty requirements, to demonstrate low- and high-grade examination and performance. This document does not discuss a specific procedure or machine settings for manufacturing a test piece.

SIST EN ISO/ASTM 52924:2023

2023-11 (po) (en;fr;de) 26 str. (F)

Aditivna proizvodnja polimernih izdelkov - Kvalifikacija - Razvrščanje lastnosti polimernih izdelkov (ISO/ASTM 52924:2023)

Additive manufacturing of polymers - Qualification principles - Classification of part properties (ISO/ASTM 52924:2023)

Osnova: EN ISO/ASTM 52924:2023

ICS: 83.080.01, 25.030

This standard is aimed at providers of manufacturing services for polymer parts who use additive manufacturing machines and at the customers for these services. Designers of parts as well as buyers and providers of manufacturing services can specify, in a traceable manner, the required or the achievable level of quality with the aid of this standard. This standard applies to parts that have been manufactured from a thermoplastic polymer by means of laser sintering (LS) or material extrusion (MEX). Its applicability to other processes for polymers shall be checked in the specific case. The quality grades apply to parts that have not been post-processed after unpacking from the build space and the removal of possible support structures.

SIST/TC VAZ Varovanje zdravja

SIST EN ISO 24395:2023

2023-11 (po) (en;fr;de) **11 str. (C)**
Zobozdravstvo - Klasifikacija priprave zobnih obnov (ISO 24395:2023)
Dentistry - Classification of tooth restorations preparation (ISO 24395:2023)
Osnova: EN ISO 24395:2023
ICS: 11.060.01

This document provides a system for designating the loss of dental material and the extension of the restoration in human teeth. The purpose is to describe the application of new filling and restorative materials, in addition to amalgam.

This document provides a common basis for the clinical use of modern filling and restorative materials, as described in the instruction for use of the manufacturer of the restorative materials, by specifying an internationally accepted restoration classification.

SIST EN ISO 3630-4:2023

SIST EN ISO 3630-4:2009

2023-11 (po) (en;fr;de) **26 str. (F)**
Zobozdravstvo - Endodontski instrumenti - 4. del: Pomožni instrumenti (ISO 3630-4:2023)
Dentistry - Endodontic instruments - Part 4: Auxiliary instruments (ISO 3630-4:2023)
Osnova: EN ISO 3630-4:2023
ICS: 11.060.25

This document specifies requirements and test methods for hand-held or mechanically operated auxiliary instruments for performing root canal procedures such as barbed broaches, paste carriers, explorers, cotton broaches and cannulae. This document specifies requirements for size, product designation, safety considerations, instructions and labelling.

SIST/TC VLA Vlaga

SIST EN 12595:2023

SIST EN 12595:2014

2023-11 (po) (en;fr;de) **23 str. (F)**
Bitumen in bitumenska veziva - Določanje kinematične viskoznosti
Bitumen and bituminous binders - Determination of kinematic viscosity
Osnova: EN 12595:2023
ICS: 91.100.50, 75.140

This document specifies a method for the determination of the kinematic viscosity of bituminous binders at 60 °C and 135 °C, in a range from 6 mm²/s to 300 000 mm²/s. Other temperatures are possible if calibration constants are known. Bituminous emulsions are not covered within the scope of this method.

Results for this method can be used to calculate dynamic viscosity when the density of the test material is known or can be determined.

WARNING - The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to identify the hazards and assess the risks involved in performing this test method and to implement sufficient control measures to protect individual operators (and the environment). This includes appropriate safety and health practices and determination of the applicability of regulatory limitations prior to use.

SIST EN 12596:2023

SIST EN 12596:2014

2023-11 (po) (en;fr;de) 20 str. (E)

Bitumen in bitumenska veziva - Določanje dinamične viskoznosti z metodo kapilare z vakuumom
Bitumen and bituminous binders - Determination of dynamic viscosity by vacuum capillary

Osnova: EN 12596:2023

ICS: 91.100.50, 75.140

This document specifies a method for the determination of the dynamic viscosity of bituminous binders by means of a vacuum capillary viscometer at 60 °C in a range between 0,003 6 Pa·s and 580 000 Pa·s. Other temperatures are possible if calibration constants are known. Bituminous emulsions and non-newtonian binders (e.g. some polymer modified bitumen) are not within the scope of this method.

WARNING - The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to identify the hazards and assess the risks involved in performing this test method and to implement sufficient control measures to protect individual operators (and the environment). This includes appropriate safety and health practices and determination of the applicability of regulatory limitations prior to use.

SIST EN 14769:2023

SIST EN 14769:2012

2023-11 (po) (en;fr;de) 13 str. (D)

Bitumen in bitumenska veziva - Pospešeno staranje v tlačni posodi (PAV)
Bitumen and bituminous binders - Accelerated long-term ageing conditioning by a Pressure Ageing Vessel (PAV)

Osnova: EN 14769:2023

ICS: 91.100.50, 75.140

This document specifies an accelerated ageing/conditioning procedure for bituminous binders. The procedure involves ageing trays of binder at elevated temperatures under pressurized conditions in a pressure ageing vessel (PAV).

NOTE For binders to be used in hot asphalt applications, the pre-conditioning of the sample can be performed using one of the methods in the EN 12607 series. For binders to be used in bituminous emulsion and cut-back or fluxed applications, the stabilizing of the sample is such that there are no volatiles remaining.

WARNING – The use of this document can involve hazardous materials, operations and equipment, in particular, the use of a high pressure ageing vessel. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use. If there is the likelihood of volatile components being present in a binder, this procedure is not used.

SIST EN 14770:2023

SIST EN 14770:2012

2023-11 (po) (en;fr;de) 22 str. (F)

Bitumen in bitumenska veziva - Ugotavljanje kompleksnega strižnega modula in faznega kota -
 Dinamični strižni reometer (DSR)

Bitumen and bituminous binders - Determination of complex shear modulus and phase angle - Dynamic Shear Rheometer (DSR)

Osnova: EN 14770:2023

ICS: 91.100.50, 75.140

This document specifies a general method of using a dynamic shear rheometer (DSR) for measuring the rheological properties of bituminous binders. The procedure involves determining the complex shear modulus and phase angle of binders over a range of test frequencies and test temperatures when tested in oscillatory shear.

From the test, the complex shear modulus, $|G^*|$, and its phase angle, δ , at a given temperature and frequency are calculated, as well as the components G' and G'' of the complex shear modulus.

This method is applicable to un-aged, aged and recovered bituminous binders.

WARNING -The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the

responsibility of the user of this document to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

SIST EN 14771:2023

SIST EN 14771:2012

2023-11 (po) (en;fr;de) **19 str. (E)**

Bitumen in bitumenska veziva - Ugotavljanje upogibne togosti - Reometer z nosilcem, obremenjenim na upogib (BBR)

Bitumen and bituminous binders - Determination of the flexural creep stiffness - Bending Beam Rheometer (BBR)

Osnova: EN 14771:2023

ICS: 91.100.50, 75.140

This document specifies a method for the determination of the flexural creep stiffness of bitumen and bituminous binders in the range of 30 MPa to 1 GPa by means of the bending beam rheometer.

The method can be applied to a variety of bitumens, including unmodified as well as modified binders, as fresh (unused) binders, as well as binders after laboratory ageing conditioning (e.g. EN 12607-1, EN 14769), and also binders that have been recovered from asphalt mixtures.

WARNING – The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

SIST/TC VSN Varnost strojev in naprav

SIST-TP CEN ISO/TR 9241-100:2023

2023-11 (po) (en;fr;de) **32 str. (G)**

Ergonomija medsebojnega vplivanja človek-sistem - 100. del: Pregled standardov ISO 9241 za ergonomijo, povezano s programsko opremo (ISO/TR 9241-100:2023)

Ergonomics of human-system interaction - Part 100: Overview of ISO 9241 software ergonomic standards (ISO/TR 9241-100:2023)

Osnova: CEN ISO/TR 9241-100:2023

ICS: 35.180, 13.180

ISO 9241-100:2010 enables users of standards related to software ergonomics to identify ergonomics standards particularly relevant to software development, gain an overview on the content of software-ergonomics standards, understand the role of software-ergonomics standards in specifying user requirements as well as designing and evaluating user interfaces and understand the relationship between the various standards.

The software-ergonomics standards are applicable to all those software components of an interactive system affecting usability, including application software (including web-based applications), operating systems, embedded software, software development tools and assistive technologies.

SIST-TS CEN ISO/TS 9241-430:2023

2023-11 (po) (en;fr;de) **20 str. (E)**

Ergonomija medsebojnega vplivanja človek-sistem - 430. del: Priporočila za načrtovanje brezkontaktnega vnosa s kretnjami za zmanjšanje biomehanske obremenitve (ISO/TS 9241-430:2021)

Ergonomics of human-system interaction - Part 430: Recommendations for the design of non-touch gestural input for the reduction of biomechanical stress (ISO/TS 9241-430:2021)

Osnova: CEN ISO/TS 9241-430:2023

ICS: 35.180, 13.180, 13.100

This document provides guidance on the design, selection and optimization of non-contacting hand and arm gestures for humancomputer interaction. It addresses the assessment of usability and fatigue associated with different gesture set designs and provides recommendations for approaches to

evaluating the design and selection of gestures. This document also provides guidance on the documentation of the process for selecting gesture sets.

This document applies to gestures expressed by humans. It does not consider the technology for detecting gestures or the system response when interpreting a gesture. Non-contacting hand gestures can be used for input in a variety of settings, including the workplace or in public settings and when using fixed screens, mobile, virtual reality, augmented reality or mixed-mode reality devices.

Some limitations of this document are:

- The scope is limited to non-contacting gestures and does not include other forms of inputs. For example, combining gesture with speech, gaze or head position can reduce input error, but these combinations are not considered here.
- The scope is limited to non-contacting arm, hand and finger gestures, either unilateral (one-handed) or bilateral (two-handed).
- The scope assumes that all technological constraints are surmountable. Therefore, there is no consideration of technological limitations with interpreting ultra-rapid gestures, gestures performed by people of different skin tones or wearing different colours or patterns of clothing.
- The scope is limited to UI-based command-and-control human computer interaction (HCI) tasks and does not include gaming scenarios, although the traversal of in-game menus and navigation of UI elements is within scope.
- The scope does not include HCI tasks for which an obviously more optimal input method exists. For example, speech input is superior for inputting text than gesture input.
- The scope includes virtual reality (VR), augmented reality (AR) and mixed reality (MR) and the use of head-mounted displays (HMDs).
- The scope does not include the discoverability of gestures but does include the learnability and memorability of gestures. It is assumed that product documentation and tutorials will adequately educate end users about which gestures are possible. Therefore, assessing gesture discoverability is not a primary goal of the recommendations in this document.

SIST/TC VZD Vzdrževanje in obvladovanje premoženja

SIST EN 17840:2023

2023-11 (po) (en;fr;de) 49 str. (I)

Ocena učinkovitosti in uspešnosti ter stanja stavb in nizkih gradenj - Okvir za ocenjevanje pri obvladovanju fizičnega premoženja

Performance and condition assessment for buildings and civil engineering works - Framework for assessment within physical asset management

Osnova: EN 17840:2023

ICS: 91.010.99

This document specifies and gives guidance on the performance and condition assessment process of existing physical assets in the utilization stage (from commissioning to the end of life).

This document relates to assessment of physical assets within the building and civil engineering sector; however, it can also be used in other sectors where applicable.

This document specifies a generic framework for assessment, specification of requirements, the observation process and gathering of the required information in order to sustain informed asset management decision making.

This document is an umbrella standard and refers to other standards for detailed methods. It does not replace any other standard, but is an addition to provide a system for the assessment work.

NOTE 1 The references to other standards only relate to building and civil engineering works. There are no references for production machinery and equipment, offshore, electrical and mechanical assets, mobile assets and non-tangible assets.

NOTE 2 In this document the physical assets will be referred to as assets, except in the Clause Terms and definitions.

SS EIT Strokovni svet SIST za področja elektrotehnike, informacijske tehnologije in telekomunikacij

SIST EN IEC 60851-3:2023

2023-11 (po) (en) **49 str. (I)**
Navijalne žice - Preskusne metode - 3. del: Mehanske lastnosti (IEC 60851-3:2023)
Winding wires - Test methods - Part 3: Mechanical properties (IEC 60851-3:2023)
Osnova: EN IEC 60851-3:2023
ICS: 29.060.10

This part of IEC 60851 specifies the following test methods for winding wires:

- Test 6: Elongation;
- Test 7: Springiness;
- Test 8: Flexibility and adherence;
- Test 11: Resistance to abrasion;
- Test 18: Heat bonding.

For definitions, general notes on test methods and the complete series of test methods for winding wires, IEC 60851-1 applies. This document also provides recommended friction test methods in Annex B.

SIST EN IEC 60393-3:2023

2023-11 (po) (en) **37 str. (H)**
Potenciometri za elektronsko opremo - 3. del: Področna specifikacija: Natančni rotacijski potenciometri (IEC 60393-3:2023)
Potentiometers for use in electronic equipment - Part 3: Sectional specification: Rotary precision potentiometers (IEC 60393-3:2023)
Osnova: EN IEC 60393-3:2023
ICS: 31.040.20

This part of IEC 60393 applies to rotary precision potentiometers for use in electronic equipment. The object of this document is to prescribe preferred ratings and characteristics and to select from IEC 60393-1, the appropriate quality assessment procedures, tests and measuring methods and to give general performance requirements for this type of potentiometer.

This document gives the minimum performance requirements and test severities.

SIST EN IEC 63281-1:2023

2023-11 (po) (en) **14 str. (D)**
E-Prevozna sredstva - 1. del: Terminologija in razvrstitev (IEC 63281-1:2023)
E-Transporters - Part 1: Terminology and classification (IEC 63281-1:2023)
Osnova: EN IEC 63281-1:2023
ICS: 43.120

This document specifies the terminology and classification of e-Transporters.

This document is applicable to "e-Transporters": electrically powered transport devices for use on public roads or in public spaces. These e-Transporters provide solutions for transporting either passengers or goods, or both. These devices can be manually controlled, have automated functions or be autonomous.

SS SPL Strokovni svet SIST za splošno področje

SIST EN 17885:2023

2023-11 (po) (en;fr;de) **17 str. (E)**
Dodatki za sveče - Specifikacija za oznake za požarno varnost in varnost izdelkov
Candle Accessories - Specification for fire safety and product safety labels
Osnova: EN 17885:2023
ICS: 71.100.99, 13.220.40

This document specifies requirements and test methods for the fire safety of candle accessories, as well as safety information and requirements on how safety information will be displayed.

The safety requirements and test methods specified in this document are intended to cover the most common risks.

This document does not specify requirements or test methods for uncommon risks arising from the unforeseen combination of accessories and candles.

SIST EN 4880:2023

2023-11 (po) (en;fr;de) **9 str. (C)**

Aeronavtika - Splošna tehnična specifikacija za standardizirane dele

Aerospace series - General technical specification for standard parts

Osnova: EN 4880:2023

ICS: 49.035

This document specifies the minimum requirements for the qualification, acceptance, delivery and inspection of standard parts by the aerospace industry and its manufacturers.

This document is valid for standard parts and their assemblies as described in a product standard, if mentioned therein. This specification can also be applied to other parts when specifically invoked by the terms of delivery.

Parts/sections of this document are not applicable in cases where the product standard stipulates requirements that differ from this specification.

SIST EN 6093:2023

2023-11 (po) (en;fr;de) **11 str. (C)**

Aeronavtika - Gibka vtičnica z enojnim ušescem

Aerospace series - Receptacle, floating, single lug

Osnova: EN 6093:2023

ICS: 49.060

This document specifies the dimensions, tolerances, required characteristics and mass of a receptacle for use in fuselage interior equipment and structural applications. This document is intended to be used in conjunction with studs according to EN 6088 or EN 6105.

SIST EN ISO 19238:2023

2023-11 (po) (en;fr;de) **49 str. (I)**

Radiološka zaščita - Merila za delovanje laboratorijev, ki izvajajo biološko dozimetrijo s citogenetiko - Diecentrična analiza (ISO 19238:2023)

Radiological protection - Performance criteria for service laboratories performing biological dosimetry by cytogenetics - Dicentric assay (ISO 19238:2023)

Osnova: EN ISO 19238:2023

ICS: 17.240, 13.280

This document provides criteria for quality assurance and quality control, evaluation of the performance and the accreditation of biological dosimetry by cytogenetic service laboratories using the dicentric assay performed with manual scoring.

This document is applicable to

- a) the confidentiality of personal information, for the requestor and the service laboratory,
- b) the laboratory safety requirements,
- c) the calibration sources and calibration dose ranges useful for establishing the reference dose-response curves that contribute to the dose estimation from unstable chromosome aberration frequency and the detection limit,
- d) the scoring procedure for unstable chromosome aberrations used for biological dosimetry,
- e) the criteria for converting a measured aberration frequency into an estimate of absorbed dose,
- f) the reporting of results,
- g) the quality assurance and quality control, and
- h) informative annexes containing sample instructions for requestor (see Annex A), sample questionnaire (see Annex B), sample report (see Annex C), fitting of the low dose-response curve by the method of maximum likelihood and calculating the error of the dose estimate (see Annex D), odds ratio

method for cases of suspected exposure to a low dose (see Annex E), a method for determining the decision threshold and detection limit (see Annex F) and sample data sheet for recording aberrations (see Annex G).

SIST EN ISO 56007:2023

2023-11 (po) (en;fr;de) **70 str. (K)**

Upravljanje inovacij - Orodja in metode za upravljanje priložnosti in idej - Navodila (ISO 56007:2023)
Innovation management - Tools and methods for managing opportunities and ideas - Guidance (ISO 56007:2023)

Osnova: EN ISO 56007:2023

ICS: 03.100.50, 03.100.40

This document provides guidance on managing opportunities and ideas by:

- explaining the reasons for and the value of managing ideas effectively;
- describing how to prepare for front end innovation activities;
- addressing people and organization issues, including innovation leadership, culture and strategy;
- detailing innovation activities and their interrelationships;
- outlining activity and process evaluation considerations that are important for innovation success.

A sub-set of processes are addressed as described in ISO 56002, i.e. identifying opportunities, creating concepts, and validating them. The activities within these processes, when managed together, bring forward viable innovation concepts for development. Developing these innovation concepts into solutions and deploying these solutions is addressed by ISO 56002 and is outside the scope of this guidance document.

This document provides guidance for any innovation type along the continuum from incremental to radical innovation, as defined in ISO 56000.

This guidance is intended for:

- any user involved in innovation, whether for an organization or individual;
- any organization type or scale;
- any understanding of value creation and realization, whether for profit, social impact, changes in strategic direction, or any other purpose.

This document can help organizations to systematically manage their opportunities and ideas to realize greater value from front end innovation activities to arrive at go/no-go decisions for development.

There is no one method or set of tools for use in all situations. Choice is impacted by a range of related considerations to be addressed in this document.

SIST EN ISO 9519:2023

2023-11 (po) (en;fr;de) **15 str. (D)**

Ladje in pomorska tehnologija - Enojne prečke in prečke pri lestvah za pse (ISO 9519:2023)
Ships and marine technology - Single rungs and rungs for dog-step ladders (ISO 9519:2023)

Osnova: EN ISO 9519:2023

ICS: 47.020.50

This document specifies the types, structure, dimensions, technical requirements, inspection and designation of single rungs and rungs for dog-step ladders, fitted to the vertical panel or masts of ships or other marine structures.

SIST-TS CEN/TS 17959:2023

2023-11 (po) (en;fr;de) **19 str. (E)**

Varnost zabaviščnih atrakcij in naprav: Priporočila za kakovost proizvodnje za strojne komponente
Safety of amusement rides and devices: Manufacturing Quality Recommendations for Machinery Components

Osnova: CEN/TS 17959:2023

ICS: 97.200.99

This document provides a method on how to assign minimum acceptable manufacturing quality requirements to amusement device metallic components which have been classified as machinery components. Bonded assemblies made in plastic composites are excluded from this scope. Quality requirements can be found in EN 13814-1:2019, 5.4.3.7.



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