

# **SLOVENSKI STANDARD**

## **SIST EN ISO 11073-10442:2017**

**01-september-2017**

---

**Zdravstvena informatika - Komunikacija osebnih medicinskih naprav - 10442. del:  
Specialne naprave - Fitnes oprema za trening moči (ISO/IEEE 11073-10442:2015,  
popravljen različica 2017-11-01)**

Health informatics - Personal health device communication - Part 10442: Device  
specialization - Strength fitness equipment (ISO/IEEE 11073-10442:2015, Corrected  
version 2017-11-01)

Medizinische Informatik - Kommunikation von Geräten für die persönliche Gesundheit -  
Teil 10442: Gerätespezifikation - (Fitnessgeräte für das Krafttraining (ISO/IEEE 11073-  
10442:2015)

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edf8ed-97d1-48b2-9e0e-96812f3c1eb/sist-en-iso-11073-10442-2017)

Informatique de santé - Communication entre dispositifs médicaux sur le site des soins -  
Partie 10442: Spécialisation des dispositifs - Equipement de mise en forme musculaire  
(ISO/IEEE 11073-10442:2015)

**Ta slovenski standard je istoveten z: EN ISO 11073-10442:2017**

---

**ICS:**

35.240.80

Uporabniške rešitve IT v  
zdravstveni tehniki

IT applications in health care  
technology

**SIST EN ISO 11073-10442:2017**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017)

<https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 11073-10442**

February 2017

ICS 35.240.80

English Version

**Health informatics - Personal health device  
communication - Part 10442: Device specialization -  
Strength fitness equipment (ISO/IEEE 11073-10442:2015,  
Corrected version 2017-11-01)**

Informatique de santé - Communication entre  
dispositifs de santé personnels - Partie 10442:  
Spécialisation des dispositifs - Équipement de mise en  
forme musculaire (ISO/IEEE 11073-10442:2015,  
Version corrigée 2017-11-01)

Medizinische Informatik - Kommunikation von Geräten  
für die persönliche Gesundheit - Teil 10442:  
Gerätespezifikation - Fitnessgeräte für das  
Krafttraining (ISO/IEEE 11073-10442:2015,  
korrigierte Fassung 2017-11-01)

This European Standard was approved by CEN on 16 January 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents	Page
European foreword.....	3

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017)  
<https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>

## European foreword

The text of ISO/IEEE 11073-10442:2015, Corrected version 2017-11-01 has been prepared by Technical Committee ISO/TC 215 “Health informatics” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11073-10442:2017 by Technical Committee CEN/TC 251 “Health informatics” the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

### Endorsement notice

The text of ISO/IEEE 11073-10442:2015, Corrected version 2017-11-01 has been approved by CEN as EN ISO 11073-10442:2017 without any modification.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017)

<https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>

# INTERNATIONAL STANDARD

# ISO/IEEE 11073-10442

First edition  
2015-03-01

Corrected version  
2017-11

---

---

## Health informatics — Personal health device communication —

### Part 10442: Device specialization — Strength fitness equipment

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

*Informatique de santé — Communication entre dispositifs de santé  
personnels —*

*Partie 10442: Spécialisation des dispositifs — Équipement de mise en  
forme musculaire*

SIST EN ISO 11073-10442:2017

<https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>



**IEEE**

Reference number  
ISO/IEEE 11073-10442:2015(E)

© IEEE 2015

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017)

<https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>



### **COPYRIGHT PROTECTED DOCUMENT**

© IEEE 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO or IEEE at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

Institute of Electrical and Electronics Engineers, Inc  
3 Park Avenue, New York  
NY 10016-5997, USA

stds.ipr@ieee.org  
www.ieee.org



## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information or the soundness of any judgments contained in its standards.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is called to the possibility that implementation of this standard may require the use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims for which a license may be required, for conducting inquiries into the legal validity or scope of patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association.

ISO/IEEE 11073-10442 was prepared by the IEEE 11073 Standards Committee of the IEEE Engineering in Medicine and Biology Society (as IEEE Std 11073-10442-2008). It was adopted by Technical Committee ISO/TC 215, *Health informatics*, in parallel with its approval by the ISO member bodies, under the “fast-track procedure” defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE. IEEE is responsible for the maintenance of this document with participation and input from ISO member bodies.

This corrected version of ISO/IEEE 11073-10442:2015 incorporates the following corrections:  
— replacement of front page footer and deletion of watermark.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017)

<https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-48b2-9e0e-968f2f23e1eb/sist-en-iso-11073-10442-2017>

**Health informatics—Personal health device communication**

**Part 10442: Device specialization—  
Strength fitness equipment**

Sponsor

**IEEE 11073™ Standard Committee**

of the

**IEEE Engineering in Medicine and Biology Society**

**iTeh STANDARD PREVIEW**  
**(standards.itih.ai)**

Approved 26 September 2008 [SIST EN ISO 11073-10442:2017](https://standards.itih.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-58f23e1eb/sist-en-iso-11073-10442-2017)  
**IEEE-SA Standards Board**

## ISO/IEEE 11073-10442:2015(E)

**Abstract:** Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of the communication between personal strength fitness devices and managers (e.g., cell phones, personal computers, personal health appliances, and set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards including ISO/IEEE 11073 terminology and information models. 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 of communication functionality for personal telehealth strength fitness devices. In this context, strength fitness devices are being used broadly to cover strength fitness devices that measure musculo-skeletal strength-conditioning activities.

**Keywords:** medical device communication, personal health devices, strength fitness equipment

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11073-10442:2017](https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f23e1eb/sist-en-iso-11073-10442-2017)

<https://standards.iteh.ai/catalog/standards/sist/a7edfcd-97d1-48b2-9e0e-968f23e1eb/sist-en-iso-11073-10442-2017>

---

The Institute of Electrical and Electronics Engineers, Inc.  
3 Park Avenue, New York, NY 10016-5997, USA

Copyright © 2009 by the Institute of Electrical and Electronics Engineers, Inc.  
All rights reserved. Published 9 January 2009. Printed in the United States of America.

IEEE is a registered trademark in the U.S. Patent & Trademark Office, owned by The Institute of Electrical and Electronics Engineers, Incorporated.

PDF: ISBN 978-0-7381-5822-8 STD95840  
Print: ISBN 978-0-7381-5823-5 STDPD95840

*No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.*

**IEEE Standards** documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

Use of an IEEE Standard is wholly voluntary. The IEEE disclaims liability for any personal injury, property or other damage, of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this, or any other IEEE Standard document.

The IEEE does not warrant or represent the accuracy or content of the material contained herein, and expressly disclaims any express or implied warranty, including any implied warranty of merchantability or fitness for a specific purpose, or that the use of the material contained herein is free from patent infringement. IEEE Standards documents are supplied “AS IS.”

The existence of an IEEE Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE Standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard. Every IEEE Standard is subjected to review at least every five years for revision or reaffirmation. When a document is more than five years old and has not been reaffirmed, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE Standard.

In publishing and making this document available, the IEEE is not suggesting or rendering professional or other services for, or on behalf of, any person or entity. Nor is the IEEE undertaking to perform any duty owed by any other person or entity to another. Any person utilizing this, and any other IEEE Standards document, should rely upon the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

Interpretations: Occasionally questions may arise regarding the meaning of portions of standards as they relate to specific applications. When the need for interpretations is brought to the attention of IEEE, the Institute will initiate action to prepare appropriate responses. Since IEEE Standards represent a consensus of concerned interests, it is important to ensure that any interpretation has also received the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to interpretation requests except in those cases where the matter has previously received formal consideration. At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position, explanation, or interpretation of the IEEE.

Comments for revision of IEEE Standards are welcome from any interested party, regardless of membership affiliation with IEEE. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Comments on standards and requests for interpretations should be addressed to:

Secretary, IEEE-SA Standards Board  
445 Hoes Lane  
Piscataway, NJ 08854  
USA

Authorization to photocopy portions of any individual standard for internal or personal use is granted by the Institute of Electrical and Electronics Engineers, Inc., provided that the appropriate fee is paid to Copyright Clearance Center. To arrange for payment of licensing fee, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; +1 978 750 8400. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

## ISO/IEEE 11073-10442:2015(E)

## Introduction

This introduction is not part of IEEE Std 11073-10442-2008, Health informatics—Personal health device communication—Part 10442: Device specialization—Strength fitness equipment.

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. This document uses the optimized framework created in IEEE Std 11073-20601<sup>a</sup> and describes a specific, interoperable communication approach for strength fitness equipment. These standards align with and draw on the existing clinically focused standards to provide easy management of data from either clinical or personal health devices.

## Notice to users

## Laws and regulations

Users of these documents should consult all applicable laws and regulations. Compliance with the provisions of this standard does not imply compliance to any applicable regulatory requirements. Implementers of the standard are responsible for observing or referring to the applicable regulatory requirements. IEEE does not, by the publication of its standards, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

## Copyrights

This document is copyrighted by the IEEE. It is made available for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of engineering practices and methods. By making this document available for use and adoption by public authorities and private users, the IEEE does not waive any rights in copyright to this document.

## Updating of IEEE documents

Users of IEEE standards should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of amendments, corrigenda, or errata. An official IEEE document at any point in time consists of the current edition of the document together with any amendments, corrigenda, or errata then in effect. In order to determine whether a given document is the current edition and whether it has been amended through the issuance of amendments, corrigenda, or errata, visit the IEEE Standards Association Web site at <http://ieeexplore.ieee.org/xpl/standards.jsp>, or contact the IEEE at the address listed previously.

For more information about the IEEE Standards Association or the IEEE standards development process, visit the IEEE-SA Web site at <http://standards.ieee.org>.

## Errata

Errata, if any, for this and all other standards can be accessed at the following URL: <http://standards.ieee.org/reading/ieee/updates/errata/>. Users are encouraged to check this URL for errata periodically.

## Interpretations

Current interpretations can be accessed at the following URL: <http://standards.ieee.org/reading/ieee/interp/>.

## Patents

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. A patent holder or patent applicant has filed a statement of assurance that it will grant licenses under these rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses. Other Essential Patent Claims may exist for which a statement of assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions are reasonable or non-discriminatory. Further information may be obtained from the IEEE Standards Association.

<sup>a</sup> For information on references, see Clause 2.

## Participants

At the time this standard was completed, the Personal Health Devices Working Group had the following membership:

**Douglas P. Bogia**, *Chair*

**Eric White**, *Vice Chair*

Karsten Aalders  
Charles R. Abbruscato  
Maher Abuzaid  
Manfred Aigner  
Murtaza Ali  
Deepak Ayyagari  
Merat Bagha  
Doug Baird  
David Baker  
Terry Bartlett  
David Bean  
Rudy Belliardi  
Denis Bettini  
Ola Björnsne  
Thomas Blackadar  
Marc Blanchet  
Douglas P. Bogia  
Terry Bourk  
Bernard Burg  
Lyle G. Bullock, Jr.  
Chris Burns  
Anthony Butt  
Carole C. Carey  
Randy Carroll  
Casper Chen  
James Cheng  
Silviu Chiricescu  
Rick A. Cnossen  
Moshe Cohen  
John T. Collins  
Cory Condek  
Todd Cooper  
Jim DelloStritto  
Matthew d'Entremont  
Kent Dicks  
Jakob Ehrensvar  
Roger M. Ellingson  
Michihiro Enokida  
Mika Erkkilä  
Javier Escayola Calvo  
Leonardo Estevez  
Laurent Falconieri  
Gear Fisher  
Julie N. Fleischer  
Joseph W. Forler  
Eric Freudenthal  
Miguel Galarra  
John Garguilo  
Igor Gejdos  
Chris Gough  
Channa Gowda  
Niclas Granqvist  
Jeff Guttmacher  
Christian Habermann  
Michael Hagerty  
Rickey L. Hampton  
Sten Hanke

Jack Harrington  
Kai Hassing  
Hiroshi Hayashi  
Torstein Heggebo  
Ron Hegli  
Rose Higgins  
Kaoru Hiramatsu  
Allen Hobbs  
Alex Holland  
Kirsten Howard  
Robert Hoy  
Robert D. Hughes  
Nick Hunn  
Yutaka Ikeda  
Philip Isaacson  
Ho-In Jeon  
Chris Johnson  
Krishna Jonnalagadda  
Akiyoshi Kabe  
Steve Kahle  
Tomio Kamioka  
Kyung Hee Kang  
Ulf Karlsson  
Andy Kaschi  
Junzo Kashiwara  
Kohichi Kashiwagi  
Ralph Kent  
Kurt Kermes  
Ikuo Keshi  
John Keys  
Alfred Kloos  
Jeongmee Koh  
Alexander Kraus  
Falko Kuester  
Nandu Kushalnagar  
Daniel Lager  
Pierre Landau  
Sungkee Lee  
Yonghee Lee  
Kathryn A. Lesh  
Qiong Li  
Wei-Jung Lo  
Sandra Martinez  
Miguel Martínez de Espronceda  
Cámara  
Jim McCain  
Richard McPartland  
Jinsei Miyazaki  
Brian Møller  
Darr Moore  
Joe Morrissey  
Yoshihiko Motohashi  
Alex Neefus  
Michael E. Nidd  
Hiroaki Niwamoto  
Thomas Norgall  
Yoshiteru Nozoe  
Mikey Paradis

Jayant Parthasarathy  
Phillip E. Pash  
Thomas Plasa  
Arif Rahman  
Robert E. Ranslam  
Barry Reinhold  
Melvin I. Reynolds  
Jeffrey S. Robbins  
Timothy Robertson  
Michael B. Robkin  
Bill Saltzstein  
Stefan Sauermann  
Naveen Saxena  
Paul S. Schluter  
Lars Schmitt  
Mark Schnell  
Richard A. Schrenker  
Aravind Seshagiri  
Marco Sgroi  
Mazen Shihabi  
Robert Smith  
Motoki Sone  
Emily Sopenky  
Ryan Spring  
Nick Steblay  
Lars Steubesand  
John (Ivo) Stivorice  
Ravi Swami  
Xiaorong Tai  
Kunihiro Takiuchi  
Francis Tam  
Haruyuyki Tatsumi  
Randy Thomas  
Brad Tipler  
Bob Tripp  
Gary Tschautscher  
Masato Tsuchid  
Ken Tubman  
Yoshihiro Uchida  
Sunil Unadkat  
Alpo Värri  
Mark Walters  
Jerry P. Wang  
Jeff Warner  
Toru Watsuji  
Jeff Webber  
Eric White  
David L. Whitlinger  
Vernon C. Williams  
Paul Williamson  
Jan Wittenber  
Ariton Xhafa  
Ricky Yang  
Done-Sik Yoo  
Thomas Zhao  
Daidi Zhong  
Szymon Zysko

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/a7edfced-97d1-4822-b060-9682f23610/sist-en-iso-11073-10442-2017>