

<b>STN</b>	<b>Zdravotnícka informatika Interoperabilita prístroja Časť 10415: Komunikácia s osobným zdravotným prístrojom Špecializácia prístroja Váhový rozsah (ISO/IEEE 11073-10415: 2022)</b>	<b>STN EN ISO/IEEE 11073-10415</b>  84 8107
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Health informatics - Device interoperability - Part 10415: Personal health device communication - Device specialization - Weighing scale (ISO/IEEE 11073-10415:2022)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

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**EN ISO/IEEE 11073-  
10415**

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Supersedes EN ISO 11073-10415:2011

English Version

**Health informatics - Device interoperability - Part 10415:  
Personal health device communication - Device  
specialization - Weighing scale (ISO/IEEE 11073-  
10415:2022)**

Informatique de santé - Interopérabilité des dispositifs  
- Partie 10415: Communication entre dispositifs de  
santé personnels - Spécialisation des dispositifs -  
Plateau de balance (ISO/IEEE 11073-10415:2022)

Medizinische Informatik - Kommunikation von Geräten  
für die persönliche Gesundheit - Teil 10415:  
Gerätespezifikation - Waage (ISO/IEEE 11073-  
10415:2022)

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**EN ISO/IEEE 11073-10415:2022 (E)**

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# INTERNATIONAL ISO/IEEE STANDARD 11073-10415

Second edition  
2022-12

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## Health informatics — Device interoperability —

### Part 10415: Personal health device communication — Device specialization — Weighing scale

*Informatique de santé — Interopérabilité des dispositifs —*

*Partie 10415: Communication entre dispositifs de santé personnels —  
Spécialisation des dispositifs — Plateau de balance*



Reference number  
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**IEEE Std 11073-10415™-2019**  
(Revision of IEEE Std 11073-10415-2008)

**Health informatics—Personal health device communication**

**Part 10415: Device specialization—  
Weighing scale**

Developed by the

**IEEE 11073™ Standards Committee**  
of the  
**IEEE Engineering in Medicine and Biology Society**

Approved 7 November 2019

**IEEE SA Standards Board**

**ISO/IEEE 11073-10415:2022(E)**

**Abstract:** Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of communication between personal telehealth weighing scale devices and compute engines (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, information models, 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 of communication functionality for personal telehealth weighing scales.

**Keywords:** IEEE 11073-10415™, medical device communication, personal health devices, weighing scale

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## Introduction

This introduction is not part of IEEE Std 11073-10415-2019, Health informatics—Personal health device communication—Part 10415: Device specialization—Weighing scale.

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 weighing scales. These standards align with, and draw on the existing clinically focused standards to provide support for communication of data from clinical or personal health devices.

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<sup>a</sup> Information on normative references can be found in Clause 2.

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**ISO/IEEE 11073-10415:2022(E)****Health informatics—Personal health device communication****Part 10415: Device specialization—  
Weighing scale****1. Overview****1.1 Scope**

Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of communication between personal telehealth weighing scale devices and compute engines (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, information models, 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 of communication functionality for personal telehealth weighing scales.

**1.2 Purpose**

This standard addresses a need for an openly defined, independent standard for controlling information exchange to and from personal health devices and compute engines (e.g., cell phones, personal computers, personal health appliances, and set top boxes). Interoperability is the key to growing the potential market for these devices and to enabling people to be better informed participants in the management of their health.

**1.3 Context**

See IEEE Std 11073-20601™ for an overview of the environment within which this standard is written.<sup>1</sup>

This document, IEEE Std 11073-10415, defines the device specialization for the weighing scale, being a specific agent type, and it provides a description of the device concepts, its capabilities, and its implementation according to this standard.

This standard is based on IEEE Std 11073-20601, which in turn draws information from both ISO/IEEE 11073-10201:2004 [B7] and ISO/IEEE 11073-20101:2004 [B8].<sup>2</sup> The medical device encoding rules (MDER) used within this standard are fully described in IEEE Std 11073-20601.

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<sup>1</sup> Information on normative references can be found in Clause 2.

<sup>2</sup> The numbers in brackets correspond to the numbers of the bibliography in Annex A.

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Health Informatics—Personal health device communication  
Part 10415: Device specialization—Weighing scale

This standard defines specialized nomenclature codes that will be collected in future versions of IEEE Std 11073-10101. Between this standard, IEEE Std 11073-10101, IEEE Std 11073-20601, and IEEE Std 11073-104zz, all required nomenclature codes for implementation are documented. New codes may be defined in newer versions/revisions of each of these documents. In the case of a conflict, where one term code has been assigned to two separate semantic concepts with different RefIDs, in general the oldest definition that is in actual use should take precedence. The same policy applies when one RefID has two different code values assigned in different specifications. The resolution of such conflicts will be determined through joint action by the responsible working groups and other stakeholders, and any corrective action published as corrigenda.

NOTE— In this standard, the term *IEEE Std 11073-104zz* is used to refer to the collection of device specialization standards that utilize IEEE Std 11073-20601, where *zz* can be any number from 01 to 99, inclusive.<sup>3</sup>

## 1.4 Word usage

The word *shall* indicates mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (shall equals is required to).<sup>4,5</sup>

The word *should* indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required (should equals is recommended that).

The word *may* is used to indicate a course of action permissible within the limits of the standard (may equals is permitted to).

The word *can* is used for statements of possibility and capability, whether material, physical, or causal (can equals is able to).

## 2. Normative references

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so that each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

IEEE Std 11073-20601™, Health informatics—Personal health device communication—Part 20601: Application profile—Optimized Exchange Protocol.<sup>6,7</sup>

IEEE Std 11073-10101™, Health informatics—Point-of-care medical device communication—Part 10101: Nomenclature.

See Annex A for all informative material referenced by this standard.

<sup>3</sup> Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

<sup>4</sup> The use of the word *must* is deprecated and cannot be used when stating mandatory requirements; *must* is used only to describe unavoidable situations.

<sup>5</sup> The use of *will* is deprecated and cannot be used when stating mandatory requirements; *will* is used only in statements of fact.

<sup>6</sup> The IEEE standards or products referred to in this clause are trademarks of The Institute of Electrical and Electronics Engineers, Inc.

<sup>7</sup> IEEE publications are available from The Institute of Electrical and Electronics Engineers (<http://standards.ieee.org/>).