



**BSI Standards Publication**

## **Health informatics — Device interoperability**

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Part 10407: Personal health device communication —  
Device specialization — Blood pressure monitor

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## National foreword

This British Standard is the UK implementation of EN ISO/IEEE 11073-10407:2022. It is identical to ISO/IEEE 11073-10407:2022. It supersedes BS EN ISO 11073-10407:2011, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee IST/35, Health informatics.

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Published by BSI Standards Limited 2023

ISBN 978 0 539 22600 3

ICS 35.240.80

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2023.

### Amendments/corrigenda issued since publication

Date	Text affected
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## EUROPÄISCHE NORM

December 2022

ICS 35.240.80

Supersedes EN ISO 11073-10407:2011

English Version

### Health informatics - Device interoperability - Part 10407: Personal health device communication - Device specialization - Blood pressure monitor (ISO/IEEE 11073- 10407:2022)

Informatique de santé - Interopérabilité des dispositifs  
- Partie 10407: Communication entre dispositifs de  
santé personnels - Spécialisation des dispositifs -  
Moniteur de pression sanguine (ISO/IEEE 11073-  
10407:2022)

Medizinische Informatik - Kommunikation von Geräten  
für die persönliche Gesundheit - Teil 10407:  
Gerätespezifikation - Blutdruckmonitor (ISO/IEEE  
11073-10407:2022)

This European Standard was approved by CEN on 4 December 2022.

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This document (EN ISO/IEEE 11073-10407:2022) has been prepared by Technical Committee ISO/TC 215 "Health informatics" in collaboration with Technical Committee CEN/TC 251 "Health informatics" the secretariat of which is held by NEN.

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ISO/IEEE 11073-10407 was prepared by the *IEEE 11073 Standards Committee of the IEEE Engineering in Medicine and Biology Society* (as IEEE Std 11073-10407-2020) and drafted in accordance with its editorial rules. It was adopted, under the "fast-track procedure" defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE, by Technical Committee ISO/TC 215, *Health informatics*.

This second edition cancels and replaces the first edition (ISO/IEEE 11073-10407:2010), which has been technically revised.

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(Revision of IEEE Std 11073-10407-2008)

**Health informatics—Personal health device communication**

# **Part 10407: Device specialization— Blood pressure monitor**

Developed by the

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

Approved 30 January 2020

**IEEE SA Standards Board**

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**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 blood pressure monitor 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 blood pressure monitors.

**Keywords:** blood pressure monitor, IEEE 11073-10407™, medical device communication, personal health devices

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PDF: ISBN 978-1-5044-6460-4     STD24062  
Print: ISBN 978-1-5044-6461-1     STDPD24062

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## Introduction

This introduction is not part of IEEE Std 11073-10407-2020, Health informatics—Personal health device communication—Part 10407: Device specialization—Blood pressure monitor.

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™-2019 and describes a specific, interoperable communication approach for blood pressure monitors.<sup>a</sup> These standards align with and draw on the existing clinically focused standards to provide support for communication of data from personal health devices.

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

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## Health informatics—Personal health device communication

# Part 10407: Device specialization— Blood pressure monitor

## 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 blood pressure monitor 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 blood pressure monitors.

### 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 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>1,2</sup>

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<sup>1</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>2</sup> The use of *will* is deprecated and cannot be used when stating mandatory requirements; *will* is used only in statements of fact.