



**SLOVENSKI STANDARD**  
**SIST EN ISO 11073-10404:2011**  
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**Zdravstvena informatika - Komunikacija osebnih medicinskih naprav - 10404. del:  
Specialne naprave - Pulzni oksimeter (ISO/IEEE 11073-10404:2010)**

Health informatics - Personal health device communication - Part 10404: Device  
specialization - Pulse oximeter (ISO/IEEE 11073-10404:2010)

Medizinische Informatik - Kommunikation von Geräten für die persönliche Gesundheit -  
Teil 10404: Gerätespezifikation - Pulsoximeter (ISO/IEEE 11073-10404:2010)

Informatique de santé - Communication entre dispositifs de santé personnels - Partie  
10404: Spécialisation des dispositifs - Oxymètre de pouls  
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11.040.55	Diagnostična oprema	Diagnostic equipment
35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology

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**Health informatics - Personal health device communication -  
Part 10404: Device specialization - Pulse oximeter (ISO/IEEE  
11073-10404:2010)**

Informatique de santé - Communication entre dispositifs de  
santé personnels - Partie 10404: Spécialisation des  
dispositifs - Oxymètre de pouls (ISO/IEEE 11073-  
10404:2010)

Medizinische Informatik - Kommunikation von Geräten für  
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The text of ISO/IEEE 11073-10404:2010 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 11073-10404:2011 by Technical Committee CEN/TC 251 "Health informatics" the secretariat of which is held by NEN.

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**Health informatics — Personal health  
device communication —**

**Part 10404:**

**Device specialization — Pulse oximeter**

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

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*Partie 10404: Spécialisation des dispositifs — Oxymètre de pouls*

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## Foreword

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ISO/IEEE 11073 consists of the following parts, under the general title *Health informatics — Personal health device communication (text in parentheses gives a variant of subtitle)*:

- *Part 10101: (Point-of-care medical device communication) Nomenclature*
- *Part 10201: Domain information model*
- *Part 10404: Device specialization — Pulse oximeter*
- *Part 10407: Device specialization — Blood pressure monitor*

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- *Part 10408: (Point-of-care medical device communication) Device specialization — Thermometer*
- *Part 10415: (Point-of-care medical device communication) Device specialization — Weighing scale*
- *Part 10417: Device specialization — Glucose meter*
- *Part 10471: (Point-of-care medical device communication) Device specialization — Independant living activity hub*
- *Part 20101: (Point-of-care medical device communication) Application profiles — Base standard*
- *Part 20601: (Point-of-care medical device communication) Application profile — Optimized exchange protocol*
- *Part 30200: (Point-of-care medical device communication) Transport profile — Cable connected*
- *Part 30300: (Point-of-care medical device communication) Transport profile — Infrared wireless*

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## Introduction

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. This standard uses the optimized framework created in IEEE Std 11073-20601™-2008<sup>a</sup> and describes a specific, interoperable communication approach for pulse oximeters. These standards align with, and draw upon, 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> For information on references, see Clause 2.

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# Health informatics—Personal health device communication—

## Part 10404: Device specialization—Pulse oximeter

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### 1. Overview

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#### 1.1 Scope

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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 pulse oximeter devices and compute engines (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play (PnP) 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 pulse oximeters.

#### 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, set top boxes). Interoperability is key to growing the potential market for these devices and enabling people to be better informed participants in the management of their health.