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Health informatics — Point-of-care medical device communication —

Part 10102: Nomenclature — Annotated ECG

*Informatique de santé — Communication entre dispositifs médicaux sur
le site des soins*

Partie 10102: Nomenclature — ECG annoté

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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 00103: Overview*
- *Part 10101: (Point-of-care medical device communication) Nomenclature*
- *Part 10102: (Point-of-care medical device communication) Nomenclature — Annotated ECG*
- *Part 10103: (Point-of-care medical device communication) — Nomenclature — Implantable device, cardiac*
- *Part 10201: (Point-of-care medical device communication) Domain information model*
- *Part 10404: Device specialization — Pulse oximeter*

- *Part 10406: Device specialization — Basic electrocardiograph (ECG) (1- to 3-lead ECG)*
- *Part 10407: Device specialization — Blood pressure monitor*
- *Part 10408: Device specialization — Thermometer*
- *Part 10415: Device specialization — Weighing scale*
- *Part 10417: Device specialization — Glucose meter*
- *Part 10418: Device specialization — International Normalized Ratio (INR) monitor*
- *Part 10420: Device specialization — Body composition analyzer*
- *Part 10421: Device specialization — Peak expiratory flow monitor (peak flow)*
- *Part 10441: Device specialization — Cardiovascular fitness and activity monitor*
- *Part 10471: Device specialization — Independent living activity hub*
- *Part 10472: Device specialization — Medication monitor*
- *Part 20101: (Point-of-care medical device communication) Application profiles — Base standard*
- *Part 20601: 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*
- *Part 30400: (Point-of-care medical device communication) Interface profile — Cabled Ethernet*
- *Part 90101: (Point-of-care medical device communication) Analytical instruments — Point-of-care test*
- *Part 91064: (Standard communication protocol) Computer-assisted electrocardiography*
- *Part 92001: (Medical waveform format) — Encoding rules*

Health informatics—Point-of-care medical device communication

Part 10102: Nomenclature—Annotated ECG

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IEEE Engineering in Medicine and Biology Society

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Health informatics—Point-of-care medical device communication

Part 10102: Nomenclature—Annotated ECG

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Approved 5 December 2012

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Abstract: The base IEEE 11073-10101 Nomenclature is extended by this standard to provide support for ECG annotation terminology. It may be used either in conjunction with other IEEE 11073 standards (e.g., ISO/IEEE 11073-10201:2001) or independently with other standards. The major subject areas addressed by the nomenclature include ECG beat annotations, wave component annotations, rhythm annotations, and noise annotations. Additional “global” and “per-lead” numeric observation identifiers, ECG lead systems, and additional ECG lead identifiers also are defined.

Keywords: annotated ECG, annotations, arrhythmias, cardiac rhythm, codes, ECG leads, ECG lead systems, ECG measurements, home monitoring, IEEE 11073-10102™, medical device communication, nomenclature, pacemaker, patient monitoring, remote monitoring, terminology

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Introduction

This introduction is not part of IEEE Std 11073-10102-2012, Health informatics—Point-of-care medical device communication—Nomenclature—Annotated ECG.

This standard extends the base ISO/IEEE 11073-10101:2004^a nomenclature to provide support for electrocardiogram (ECG) annotation terminology. The major subject areas addressed by the nomenclature include ECG beat annotations, wave component annotations, rhythm annotations, and noise annotations. It also defines additional “global” and “per-lead” numeric observation identifiers, ECG lead systems, and additional ECG lead identifiers. The nomenclature extensions may be used in conjunction with other IEEE 11073 standard components (e.g., ISO/IEEE 11073-10201:2004 [B19]^b) or independently with other standards.

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^a Information on references can be found in Clause 2.

^b The numbers in brackets correspond to those in the bibliography in Annex E.

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1. Overview

1.1 Scope

This standard extends the base ISO/IEEE 11073-10101:2004¹ to provide support for ECG annotation terminology. Major subject areas addressed by the nomenclature include ECG beat annotations, wave component annotations, rhythm annotations, and noise annotations. It also defines additional “global” and “per-lead” numeric observation identifiers, ECG lead systems, and additional ECG lead identifiers. The nomenclature extensions may be used in conjunction with other IEEE 11073 standard components (e.g., ISO/IEEE 11073-10201:2004 [B19]²) or independently with other standards.

1.2 Purpose

This standard provides a unified and comprehensive terminology for ECG annotation semantics, making it suitable for medical device data exchange that requires inclusion of ECG annotations. This standard consolidates numerous other standard and nonstandard terminologies that are in current use, resulting in the harmonization of how ECG annotation information is identified, enabling interoperability, and providing information exchange at the application level.

¹ Information on references can be found in Clause 2.

² The numbers in brackets correspond to those of the bibliography in Annex E.