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Health informatics—Point-of-care medical device communication

Part 10102: Nomenclature—Annotated ECG

IEEE Engineering in Medicine and Biology Society

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IEEE 11073™ Standards Committee

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Part 10102: Nomenclature—Annotated ECG

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IEEE Engineering in Medicine and Biology Society

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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.

[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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Part 10102: Nomenclature—Annotated ECG

1. Overview

1.1 Scope

This standard extends the base ISO/IEEE 11073-10101:2004[1] 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.