ISO/IEEE 11073-10407:2022-12 (E)

Health informatics - Device interoperability - Part 10407: Personal health device communication - Device specialization - Blood pressure monitor

Contents

Page

1. Overview 12
1.1 Scope 12
1.2 Purpose 12
1.3 Word usage 12
1.4 Context 13

2. Normative references 13

3. Definitions, acronyms, and abbreviations 14
3.1 Definitions 14
3.2 Acronyms and abbreviations 15

4. Introduction to ISO/IEEE 11073 personal health devices 15
4.1 General 15
4.2 Introduction to IEEE 11073-20601 modeling constructs 16
4.3 Compliance with other standards 17

5. Blood pressure monitor device concepts and modalities 17
5.1 General 17
5.2 Systolic and diastolic pressure 18
5.3 Mean arterial pressure 18
5.4 Pulse rate 18
5.5 Blood pressure measurement status 18

6. Blood pressure monitor domain information model 18
6.1 Overview 18
6.2 Class extensions 18
6.3 Object instance diagram 18
6.4 Types of configuration 20
6.5 Medical device system object 20
6.6 Numeric objects 25
6.7 Real-time sample array objects 30
6.8 Enumeration objects 34
6.9 PM-store objects 35
6.10 Scanner objects 35
6.11 Class extension objects 36
6.12 Blood pressure monitor information model extensibility rules 36

7. Blood pressure monitor service model 36
7.1 General 36
7.2 Object access services 36
7.3 Object access event report services 38

8. Blood pressure monitor communication model 38
8.1 Overview 38
8.2 Communication characteristics 38
8.3 Association procedure 39
8.4 Configuring procedure 41
8.5 Operating procedure 43
8.6 Time synchronization 43

9. Test associations 44
9.1 General 44
9.2 Behavior with standard configuration 44
9.3 Behavior with extended configurations 44

10. Conformance 44
10.1 Applicability 44
10.2 Conformance specification 45
10.3 Levels of conformance 45
10.4 Implementation conformance statements 45

Annex A (informative) Bibliography 51

Annex B (normative) Additional ASN.1 definitions 52
B.1 Device and sensor status bit mapping 52

Annex C (normative) Allocation of identifiers 53

Annex D (informative) Message sequence examples 55

Annex E (informative) Protocol data unit examples 57
E.1 General 57
E.2 Association information exchange 57
E.3 Configuration information exchange 60
E.4 GET MDS attributes service 63
E.5 Data reporting 65
E.6 Disassociation 66

Annex F (informative) Revision history 67