

DIN EN ISO/IEEE 11073-10419:2023-11 (E)

Health informatics - Personal health device communication - Part 10419: Device specialization - Insulin pump (ISO/IEEE 11073-10419:2019); English version EN ISO/IEEE 11073-10419:2023

Contents

Page

- 1. Overview 12
 - 1.1 Scope 12
 - 1.2 Purpose 12
 - 1.3 Context 12
- 2. Normative references..... 13
- 3. Definitions, acronyms, and abbreviations 13
 - 3.1 Definitions 13
 - 3.2 Acronyms and abbreviations 15
- 4. Introduction to ISO/IEEE 11073 personal health devices (PHDs)..... 16
 - 4.1 General 16
 - 4.2 Introduction to ISO/IEEE 11073-20601 modeling constructs..... 16
 - 4.3 Compliance with other standards..... 17
- 5. Insulin pump device concepts and modalities 17
 - 5.1 General 17
 - 5.2 Device types 18
 - 5.3 Collected data 19
 - 5.4 Stored data 24
 - 5.5 Scheduled data..... 24
- 6. Insulin pump domain information model (DIM)..... 24
 - 6.1 Overview 24
 - 6.2 Class extensions..... 24
 - 6.3 Object instance diagram 25
 - 6.4 Types of configuration..... 26
 - 6.5 Profiles..... 27
 - 6.6 MDS object..... 27
 - 6.7 Numeric objects..... 30
 - 6.8 Real-time sample array objects..... 45
 - 6.9 Enumeration objects 46
 - 6.10 PM-store objects 51
 - 6.11 Schedule-store objects 56
 - 6.12 Scanner objects..... 65
 - 6.13 Class extension objects 65
 - 6.14 Insulin pump information model extensibility rules 65
- 7. Insulin pump service model..... 65
 - 7.1 General 65
 - 7.2 Object access services..... 65
 - 7.3 Object access event report services 69
- 8. Insulin pump communication model 69
 - 8.1 Overview 69
 - 8.2 Communications characteristics 69
 - 8.3 Association procedure 70
 - 8.4 Configuring procedure..... 71
 - 8.5 Operating procedure 73
 - 8.6 Time synchronization 74

9. Test associations.....	74
9.1 Behavior with standard configuration.....	74
9.2 Behavior with extended configurations.....	74
10. Conformance.....	74
10.1 Applicability.....	74
10.2 Conformance specification.....	75
10.3 Levels of conformance.....	75
10.4 Implementation conformance statements (ICSs).....	76
Annex A (informative) Bibliography.....	81
Annex B (normative) Any additional ASN.1 definitions.....	82
B.1 Device status and insulin pump status bit mapping.....	82
B.2 Capability-mask.....	83
B.3 State-flag.....	84
Annex C (normative) Allocation of identifiers.....	86
10.5 General.....	86
10.6 Definitions of terms and codes.....	86
10.7 Systematic derivations of terms and codes.....	88
Annex D (informative) Message sequence examples.....	97
Annex E (normative) Schedule-store class.....	99
E.1 Schedule-store class.....	99
E.2 Schedule-segment class.....	103
Annex F (normative) Schedule class ASN.1 definitions.....	107
F.1 ACTION-method-related data types.....	107
F.2 Data types for new object attributes and object services.....	107
F.3 Data protocol definitions.....	110
Annex G (informative) The schedule-store concept.....	111
G.1 General.....	111
G.2 Schedule-store object hierarchy.....	112
Annex H (informative) Scedule communication model.....	115
H.1 Operating procedure.....	115
Annex I (informative) Protocol data unit (PDU) examples.....	119
I.1 General.....	119
I.2 Association information exchange.....	119
I.3 Configuration information exchange.....	122
I.4 GET MDS attributes service.....	126
I.5 Data reporting.....	128
I.6 Disassociation.....	128
Annex J (informative) Revision history.....	129