ISO/TS 22741-2:2024-06 (E)

Intelligent transport systems - Roadside modules AP-DATEX data interface - Part 2: Generalised field device basic management

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Abbreviated terms **1**

5 Conformance **2**

6 Architecture **2**
6.1 General 2
6.2 Functional view of the interface 2
6.3 Physical view of interface 2
6.4 Communications view of interface 2
6.5 Security and data protection 3

7 User needs **3**
7.1 Monitor the field device 3
7.2 Monitor and control single-value inputs and outputs 3
7.3 Monitor cabinet 4
7.3.1 Monitor cabinet doors 4
7.3.2 Monitor and control cabinet fans 4
7.3.3 Monitor and control cabinet heaters 4
7.3.4 Monitor cabinet humidity 4
7.3.5 Monitor cabinet temperature 4
7.3.6 Monitor cabinet AC power 4
7.3.7 Monitor cabinet battery power 4
7.3.8 Monitor cabinet generator power 4
7.3.9 Monitor cabinet solar power 4
7.3.10 Monitor cabinet wind power 4

8 Requirements **5**
8.1 Field device requirements 5
8.1.1 Field device definition 5
8.1.2 Field device data exchange requirements 5
8.1.3 Field device capabilities 6
8.1.4 Field device design constraints 6
8.2 General-purpose I/O 6
8.2.1 General-purpose I/O definition 6
8.2.2 General-purpose I/O data exchange requirements 7
8.2.3 General-purpose I/O capabilities 7
8.3 Cabinet 8
8.3.1 Cabinet definition 8
8.3.2 Cabinet data exchange requirements 8
8.3.3 Cabinet power capability requirements 8
8.4 Cabinet doors 8
8.4.1 Cabinet door definition 8
8.4.2 Cabinet door data exchange requirements 8
8.4.3 Cabinet door capability requirements 9
8.4.4 Cabinet door design constraints 9

Cabinet door design constraints
8.5 Cabinet fans 9
8.5.1 Cabinet fan definition 9
8.5.2 Cabinet fan data exchange requirements 9
8.5.3 Cabinet fan capability requirements 9
8.5.4 Cabinet fan design constraints 9
8.6 Cabinet heaters 9
8.6.1 Cabinet heater definition 9
8.6.2 Cabinet heater data exchange requirements 9
8.6.3 Cabinet heater capability requirements 9
8.6.4 Cabinet heater design constraints 10
8.7 Cabinet humidity 10
8.7.1 Cabinet humidity definition 10
8.7.2 Cabinet humidity data exchange requirements 10
8.7.3 Cabinet humidity capability requirements 10
8.7.4 Cabinet humidity design constraints 10
8.8 Cabinet temperature 10
8.8.1 Cabinet temperature definition 10
8.8.2 Cabinet temperature data exchange requirements 10
8.8.3 Cabinet temperature capability requirements 10
8.8.4 Cabinet temperature design constraints 10
8.9 Cabinet AC power 11
8.9.1 Cabinet AC power definition 11
8.9.2 Cabinet AC power data exchange requirements 11
8.9.3 Cabinet AC power capability requirements 11
8.9.4 Cabinet AC power design constraints 11
8.10 Cabinet battery 11
8.10.1 Cabinet battery definition 11
8.10.2 Cabinet battery data exchange requirements 11
8.10.3 Cabinet battery capability requirements 11
8.10.4 Cabinet battery design constraints 12
8.11 Cabinet generator 12
8.11.1 Cabinet generator definition 12
8.11.2 Cabinet generator data exchange requirements 12
8.11.3 Cabinet generator capability requirements 12
8.11.4 Cabinet generator design constraints 13
8.12 Cabinet solar power 13
8.12.1 Cabinet solar power definition 13
8.12.2 Cabinet solar power data exchange requirements 13
8.12.3 Cabinet solar power capability requirements 13
8.12.4 Cabinet solar power design constraints 13
8.13 Cabinet wind power 14
8.13.1 Cabinet wind power feature 14
8.13.2 Cabinet wind power data exchange requirements 14
8.13.3 Cabinet wind power capability requirements 14
8.13.4 Cabinet wind power design constraints 14
9 Security vulnerabilities 14
Bibliography 15