

DIN EN 17071:2019-05 (E)

Information technology - Automatic identification and data capture techniques - Electronic identification plate

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Concepts	7
4.1	Principles	7
4.2	Type plate format	7
4.3	Interoperability on Data Level	7
4.4	Unique Identification	8
4.5	Data Attributes	8
4.6	Data Carriers	8
4.7	Data Structures	9
4.8	Detailed Application Standards	9
5	Data	9
5.1	General aspects	9
5.2	Data Quality Dimensions	9
5.3	Data Protection	10
5.4	Data Security	10
5.5	Privacy	10
5.6	Digital Signature	11
5.7	Reference based Data Access	11
5.7.1	Data Access Concepts	11
5.7.2	Requirements for Reference-Only Data Access	11
5.8	Unique Identification	11
5.8.1	Monomorphic and Combined Unique Identification	11
5.8.2	Unique ID with Application Identifiers	12
5.8.3	Unique ID with Data Identifiers	15
5.9	Data on Object	15
5.9.1	Mandatory Data	15
5.9.2	Basic Data	15
5.9.3	Additional Data	17
5.9.4	Variable Data	17
5.9.5	Order of the Data Elements	17
5.9.6	Access to Data via the Internet	18
6	Data Carriers	18
6.1	Overview	18
6.2	Human Readable Text	20
6.2.1	Physical	20
6.2.2	Semantical	20
6.3	Optical Readable Symbols	20
6.3.1	Common Aspects	20
6.3.2	GS1 DataMatrix	20
6.3.3	DataMatrix with Data Identifiers	21

6.3.4	GS1 QR Code	22
6.3.5	QR Code with Data Identifiers	23
6.4	RFID	24
6.4.1	Common Aspects	24
6.4.2	GS1 HF with ISO/IEC 18000-3 Mode 3	24
6.4.3	HF with Data Identifiers with ISO/IEC 18000-3 Mode 3	25
6.4.4	HF with Data Identifiers in ISO/IEC 18000-3 Mode 1	25
6.4.5	NFC with NDEF records	25
6.4.6	UHF with GS1 Compliant Content	26
6.4.7	UHF with Data Identifiers	26
7	Layout of Electronic Type Plates	27
8	Detailed Application Standards	29
Annex A (informative) Example with simple data and several compression methods		30
Annex B (informative) Data Identifier "F" for Hierarchical Structure		35
Annex C (informative) Data Extensions for Events		36
C.1	Data Extensions for Events	36
C.2	Tree structure for events	36
Annex D (informative) Access to External Data Records via Internet		40
D.1	Use Cases	40
D.2	With Data Identifiers	40
D.3	Example for Internet Access via P2P Data Identifier "34L"	40
D.4	With Application Identifiers	41
D.5	Example for Internet Access	41
Annex E (informative) Logic to Parse Out the Unique Identification When Data Identifiers are used		42
Bibliography		43