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### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

See Eesti standard EVS-EN 800:2000 sisaldab Euroopa standardi EN 800:1995 ingliskeelset teksti.	This Estonian standard EVS-EN 800:2000 consists of the English text of the European standard EN 800:1995.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
	Date of Availability of the European standard is 23.08.1995.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <a href="mailto:standardiosakond@evs.ee">standardiosakond@evs.ee</a>.

ICS 35.040

Võtmesõnad: alphanumeric character sets, bar codes, character recognition, characteristics, data processing, graphic characters, optical recognition, symbols,

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### **EUROPEAN STANDARD**

#### **EN 800**

# NORME EUROPÉENNE

# **EUROPÄISCHE NORM**

August 1995

ICS 35.040

**Descriptors:** 

data processing, character recognition, optical recognition, graphic characters, alphanumeric character sets, bar codes, symbols, characteristics

English version

Bar coding - Symbology specifications - "Code 39"

Codes à barres - Spécifications des symbologies - "Code 39"

Strichcodierung - Symbologiespezifikationen - "Code 39"

This European Standard was approved by CEN on 1995-06-22. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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# CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

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#### **Foreword**

This European Standard has been prepared by the Technical Committee CEN/TC 225 "Bar coding" of which the secretariat is held by NNI.

Organisations contributing to the development of the standard include:

- AIM Europe (Automatic Identification Manufacturers)

NOTE: Not all of the symbologies which appear in this document are defined in European Standards; for information on current European Standards contact the CEN Central Secretariat or National Standards Organisations.

This European Standard shall be given the status of a National Standard, either by publication of an identical text or by endorsement, at the latest by February 1996, and conflicting national standards shall be withdrawn at the latest by February 1996.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

### Introduction

The technology of bar coding is based on the recognition of patterns encoded in bars and spaces of defined dimensions. There is a number of methods of encoding information in bar code form, known as symbologies, and the rules defining the translation of characters into bar and space patterns and other essential features are known as the symbology specification. "Code 39" is one such symbology.

Previously, symbology specifications have been developed and published by a number of organisations, resulting in certain instances in conflicting requirements for certain symbologies.

Manufacturers of bar code equipment and users of bar code technology require publicly available standard symbology specifications to which they can refer when developing equipment and application standards.

EN 800:1995

# 1 Scope

### This standard

- specifies the requirements for the bar code symbology known as "Code 39";
- specifies "Code 39" symbology characteristics, data character encodation, dimensions, tolerances, decoding algorithms and application-defined parameters.

### 2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 1556 Bar Coding - Terminology

prEN 1635 Bar coding - Test specifications for bar code symbols

ISO 646:1991 Information technology - ISO 7-bit coded character set for information

interchange

#### 3 Definitions

For the purposes of this European Standard the definitions in prEN 1556 shall apply.

### 4 Requirements

#### 4.1 Symbology characteristics

The characteristics of "Code 39" are:

- a) Encodable character set:
  - 1) Full alphanumeric A to Z and 0 to 9 (ASCII characters 65 to 90 and 48 to 57 inclusive, in accordance with ISO 646);
  - 2) 7 special characters: space \$ % + . / (ASCII characters 32, 36, 37, 43, 45, 46 and 47 respectively, in accordance with ISO 646);
  - 3) 1 start/stop character;
- b) Code type: discrete;
- c) Elements per symbol character: 9, of which 3 wide and 6 narrow, comprising 5 bars and 4 spaces;
- d) Character self-checking: yes;
- e) Data string length encodable: variable;
- f) Bidirectionally decodable: yes;
- g) Symbol check character: one, optional (see Annex A);
- h) Symbol character density: 13 to 16 modules per symbol character, inclusive of minimum intercharacter gap, depending on wide/narrow ratio;
- i) Non-data overhead: equivalent to 2 symbol characters.