

# Marking by inscription for the identification of cores of electric cables

The European Standard EN 50334:2001 has the status of a  
British Standard

ICS 29.060.20

## National foreword

This British Standard is the official English language version of EN 50334:2001.

The UK participation in its preparation was entrusted by Technical Committee GEL/20, Electric cables, to Subcommittee GEL/20/1, Wiring cables, below 1 kV, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 August 2001

### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 6, an inside back cover and a back cover.

The BSI copyright date displayed in this document indicates when the document was last issued.

### Amendments issued since publication

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EUROPEAN STANDARD

**EN 50334**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2001

ICS 29.060.20

Supersedes HD 186 S2:1989 + A1:1992

English version

## **Marking by inscription for the identification of cores of electric cables**

Repérage par inscription des conducteurs  
constitutifs des câbles électriques

Kennzeichnung der Adern von Kabeln  
und Leitungen durch Bedrucken

This European Standard was approved by CENELEC on 2000-04-01. CENELEC 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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# **CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

### Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50334 on 2000-04-01.

This European Standard supersedes HD 186 S2:1989 and its A1:1992.

By comparison with HD 186, the scope of the EN has been extended to cover marking by the inscription of numbers for cables with any number of cores.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2001-10-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2002-04-01

## Contents

	Page
1 Scope	4
2 Normative references	4
3 Definitions	4
4 Inscription	4
5 Spacing and dimensions of marks	5
6 Application and appearance	6

## 1 Scope

This European Standard specifies the requirements to be met when the identification of individual cores in a cable is by inscription of numbers on to the extruded insulation of each core. The requirements apply only when called up by the particular cable standard.

NOTE The requirement to use numbers for identification is often restricted by the particular cable standard to cable types having more than 5 cores.

The procedures laid down in this EN provide a means of achieving a unique identification of each core in a multicore cable.

## 2 Normative references

(Clause not used.)

## 3 Definitions

For the purposes of this European Standard, the following definitions apply.

### 3.1

#### **inscription**

succession of identical marks disposed along the outer surface of the cores for the identification of each core

### 3.2

#### **mark**

the repetitive part of the inscription, consisting of a number accompanied by a dash which indicates the direction in which the number should be read

### 3.3

#### **reference number**

the fundamental part of the mark, consisting of a number identifying a particular core

## 4 Inscription

### 4.1 Composition

The inscription is composed of marks repeated at regular intervals along the whole length of the core.

Each mark comprises:

- a reference number beginning at 1 in arabic numerals;
- a dash which underlines this number and indicates the direction in which the number should be read.

### 4.2 Arrangement of marks

Two consecutive marks shall always be placed upside down in relation to one another. The arrangement of the marks is shown in Figure 1 - axial marks and Figure 2 - transverse marks.

Axial or transverse marks are regarded as completely equivalent in meeting the requirements, and the choice of which to use is entirely at the discretion of the manufacturer.

For axial marks, when the reference consists of a single numeral, the dash is placed under it; if the reference number consists of two numerals, these are disposed one below the other and the dash is placed underneath the lower numeral.

For transverse marks, the dash is placed under the number.

## 5 Spacing and dimensions of marks

### 5.1 Axial marks

The dimensions of the mark and the spacing shall be as given in Table 1, which applies only to Figure 1.

- e* is the minimum width of a mark;
- h* is the minimum height of a numeral;
- i* is the approximate interval within a mark between two consecutive numerals and between numeral and dash;
- d* is the maximum interval between two consecutive marks.

**Table 1 - Axial marks**

Nominal diameter, <i>D</i> , of the core mm	<i>e</i> <sup>1)</sup> mm	<i>h</i> mm	<i>i</i> mm	<i>d</i> mm
$D \leq 2,4$	0,6	2,3	2	50
$2,4 < D \leq 5,0$	1,2	3,2	3	50
$5,0 < D$	1,6	4,6	4	50

<sup>1)</sup> when the numeral is 1, the minimum width is equal to half the dimensions given in this column.

### 5.2 Transverse marks

The dimensions of the mark and the spacing shall be as given in Table 2 which applies only to Figure 2.

- h* is the the minimum height of the mark;
- w* is the minimum width of a numeral;
- i* is the the approximate spacing within a mark between two numerals;
- d* is the maximum interval between two consecutive marks.

**Table 2 - Transverse marks**

Nominal diameter, <i>D</i> , of the core mm	<i>h</i> mm	<i>w</i> <sup>1)</sup> mm	<i>i</i> mm	<i>d</i> mm
$D \leq 2,6$	1,0	0,5	0,25	50
$2,6 < D \leq 3,6$	1,5	0,7	0,35	50
$3,6 < D \leq 5,0$	2,0	1,0	0,5	50
$5,0 < D$	2,5	1,4	0,7	50

<sup>1)</sup> When the numeral is 1, the minimum width is half the dimensions given in this column.

**6 Application and appearance**

**6.1** All cores in the cable shall be marked according to this specification, except that if the cable contains any core coloured green/yellow, it shall not be numbered.

**6.2** The inscription shall be legible and of a colour which clearly contrasts with the base colour of the core on which it is marked.

**6.3** The use of the colours green or yellow as base colours is not permitted.

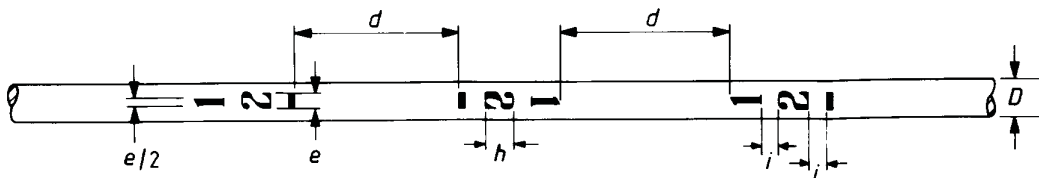
**6.4** In a cable which has 37 cores or less, all cores, except the green/yellow one if included, shall have a uniform base colour of the core and a clearly contrasting uniform colour of the inscription. The numbers shall commence with No. 1 and proceed in sequence up to a maximum of 37.

**6.5** In a cable having more than 37 cores:

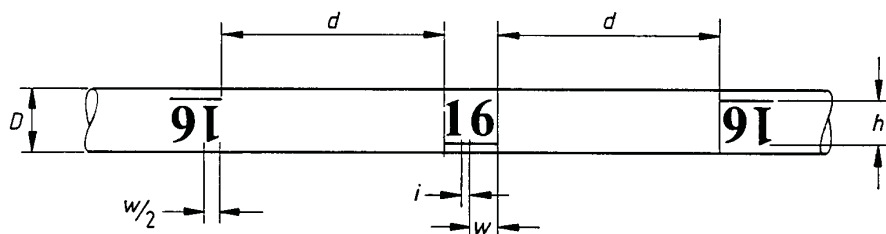
- a) the core number may increase sequentially maintaining the same base colour and the same inscription colour up to a maximum of 99 cores;
- b) the cores may be regarded for the purpose of identification as being divided into two or more sets containing at least 19 and not more than 37 cores.

The sets shall be distinguished from each other by the use of different clearly contrasting combinations of base colour and inscription colour.

The cores in each set shall be numbered sequentially. The colour combination is permitted to change within a given layer of cores.



**Figure 1 - Axial arrangement of marks**



**Figure 2 - Transverse arrangement of marks**



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