

**Analoog- ja digitaalkommunikatsioonis ja -juhtimises kasutatavad mitmeelemendilised metallkaablid. Osa 3-1: Varjestamata, sagedusega kuni 100 MHz iseloomustatavate kaablite liigitus. Horisontaalsed ja ehitiste katuseharjakaablid**

**Multi-element metallic cables used in analogue and digital communication and control - Part 3-1: Sectional specification for unscreened cables characterised up to 100 MHz - Horizontal and building backbone cables**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|                                                                                                                     |                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| See Eesti standard EVS-EN 50288-3-1:2013 sisaldab Euroopa standardi EN 50288-3-1:2013 ingliskeelset teksti.         | This Estonian standard EVS-EN 50288-3-1:2013 consists of the English text of the European standard EN 50288-3-1:2013.              |
| 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. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 24.05.2013. | Date of Availability of the European standard is 24.05.2013.                                                                       |
| Standard on kättesaadav Eesti Standardikeskusest.                                                                   | The standard is available from the Estonian Centre for Standardisation.                                                            |

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English version

**Multi-element metallic cables used in analogue and digital communication  
and control -**

**Part 3-1: Sectional specification for unscreened cables characterised up  
to 100 MHz -**

**Horizontal and building backbone cables**

Câbles métalliques à éléments multiples  
utilisés pour les transmissions et les  
commandes analogiques et numériques -  
Partie 3-1: Spécification intermédiaire  
pour les câbles non blindés pour  
applications jusqu'à 100 MHz -  
Câbles horizontaux et verticaux de  
bâtiment

Mehradrige metallische Daten- und  
Kontrollkabel für analoge und digitale  
Übertragung -  
Teil 3-1: Rahmenspezifikation für  
ungeschirmte Kabel bis 100 MHz -  
Kabel für den Horizontal- und  
Steigbereich

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**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

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## Foreword

This document EN 50288-3-1:2013 has been prepared by CLC/SC 46XC "Multicore, Multipair and Quad Data communication cables", of CLC/TC 46X, "Communication cables".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-03-18
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-03-18

This document supersedes EN 50288-3-1:2003.

EN 50288-3-1:2013 includes the following significant technical changes with respect to EN 50288-3-1:2003:

- the addition of the Blank Detail Specification Annex;
- a number minor corrections and updating of references;
- the re-classification of 'ELFEXT' to 'ACR-F'.

This Part 3-1 is to be read in conjunction to EN 50288-1.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

## 1 Scope

EN 50288-3-1 is a sectional specification for unscreened cables, characterised from 1 MHz up to 100 MHz, to be used in horizontal and building backbone wiring as defined in EN 50173.

This sectional specification contains the electrical, mechanical, transmission and environmental performance characteristics of the cables, when tested in accordance with the referenced test methods.

This sectional specification is to be read in conjunction with EN 50288-1, which contains the essential provisions for its application.

The cables covered in this sectional specification are intended to operate with voltages and currents normally encountered in communication systems. These cables are not intended to be used in conjunction with low impedance sources, for example, the electric power supplies of public utility mains.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

|             |        |                                                                                                                                                            |
|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN 50173    | Series | <i>Information technology - Generic cabling systems</i>                                                                                                    |
| EN 50288-1  |        | <i>Multi-element metallic cables used in analogue and digital communication and control - Part 1: Generic specification</i>                                |
| EN 50289    | Series | <i>Communication cables - Specifications for test methods</i>                                                                                              |
| EN 50290    | Series | <i>Communication cables</i>                                                                                                                                |
| EN 60811    | Series | <i>Electric and optical fibre cables - Test methods for non-metallic materials (IEC 60811 series)</i>                                                      |
| IEC 60189-2 |        | <i>Low-frequency cables and wires with PVC insulation and PVC sheath - Part 2: Cables in pairs, triples, quads and quintuples for inside installations</i> |

## 3 Terms, definitions, symbols and abbreviations

### 3.1 Terms and definitions

For the purposes of this document the terms and definitions of EN 50288-1 apply.

### 3.2 Symbols and abbreviations

For the purposes of this document, the following abbreviations apply.

|     |                                               |
|-----|-----------------------------------------------|
| EX  | Exogenous (derived or originating externally) |
| POE | Power Over Ethernet                           |

## 4 Cable construction

### 4.1 Conductor

The conductor shall be solid copper and meet the requirements of EN 50288-1, 4.1.