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Standards

Irish Standard
I.S. EN 50288-11-1:2012

Multi-element metallic cables used in analogue and digital communication and control -- Part 11-1: Sectional specification for un-screened cables characterised up to 500 MHz - Horizontal and building backbone cables

I.S. EN 50288-11-1:2012

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EUROPEAN STANDARD

EN 50288-11-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2012

ICS 33.120.10

English version

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

**Part 11-1: Sectional specification for un-screened cables characterised
up to 500 MHz -**

Horizontal and building backbone cables

Câbles métalliques à éléments multiples
utilisés pour les transmissions et les
commandes analogiques et numériques -
Partie 11-1: Spécification intermédiaire
pour câbles non-blindés, pour applications
jusqu'à 500 MHz -
Câbles horizontaux et verticaux de
bâtiment

Mehradrige metallische Daten- und
Kontrollkabel für analoge und digitale
Übertragung -
Teil 11-1: Rahmenspezifikation für
ungeschirmte Kabel bis 500 MHz -
Kabel für den Horizontal- und
Steigbereich

This European Standard was approved by CENELEC on 2012-11-12. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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CENELEC

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

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Contents

Foreword	3
1 Scope	5
2 Normative references	5
3 Terms, definitions, symbols and abbreviations	6
3.1 Terms and definitions	6
3.2 Symbols and abbreviations	6
4 Cable construction	6
4.1 Conductor	6
4.2 Insulation.....	6
4.3 Cabling elements	6
4.4 Identification of cabling elements.....	6
4.5 Screening of cabling elements.....	6
4.6 Cable make-up	6
4.7 Filling compound.....	6
4.8 Interstitial fillers	6
4.9 Screening of the cable core	7
4.10 Moisture barriers	7
4.11 Wrapping layers	7
4.12 Sheath.....	7
5 Test methods and requirements for completed cables	7
5.1 General	7
5.2 Electrical tests.....	7
5.3 Mechanical tests	10
5.4 Environmental tests	11
5.5 Fire performance tests.....	11
Annex A (informative) Maximum voltage, current and temperature rating for cables used for POE applications	12
Annex B (informative) Blank Detail Specification	13
B.1 General	13
B.2 Document Details	13
B.3 Generic specification EN 50288-1	14

Foreword

This document (EN 50288-11-1:2012) has been prepared by CLC/SC 46XC, "Multicore, multipair and quad data 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) 2013-11-12
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-11-12

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

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

The EN 50288 series is divided into the following parts:

- EN 50288-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 1: Generic specification;*
- EN 50288-2-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 2-1: Sectional specification for screened cables characterised up to 100 MHz — Horizontal and building backbone cables;*
- EN 50288-2-2, *Multi-element metallic cables used in analogue and digital communication and control — Part 2-2: Sectional specification for screened cables characterised up to 100 MHz — Work area and patch cord cables;*
- EN 50288-3-1, *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;*
- EN 50288-3-2, *Multi-element metallic cables used in analogue and digital communication and control — Part 3-2: Sectional specification for unscreened cables characterised up to 100 MHz — Work area and patch cord cables;*
- EN 50288-4-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 4-1: Sectional specification for screened cables characterised up to 600 MHz — Horizontal and building backbone cables;*
- EN 50288-4-2, *Multi-element metallic cables used in analogue and digital communication and control — Part 4-2: Sectional specification for screened cables characterised up to 600 MHz — Work area and patch cord cables;*
- EN 50288-5-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 5-1: Sectional specification for screened cables characterized up to 250 MHz — Horizontal and building backbone cables;*
- EN 50288-5-2, *Multi-element metallic cables used in analogue and digital communication and control — Part 5-2: Sectional specification for screened cables characterized up to 250 MHz — Work area and patch cord cables;*

I.S. EN 50288-11-1:2012

EN 50288-11-1:2012

– 4 –

- EN 50288-6-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 6-1: Sectional specification for unshielded cables characterised up to 250 MHz — Horizontal and building backbone cables*;
- EN 50288-6-2, *Multi-element metallic cables used in analogue and digital communication and control — Part 6-2: Sectional specification for unshielded cables characterised up to 250 MHz — Work area and patch cord cables*;
- EN 50288-7, *Multi-element metallic cables used in analogue and digital communication and control — Part 7: Sectional specification for instrumentation and control cables*;
- EN 50288-8, *Multi-element metallic cables used in analogue and digital communication and control — Part 8: Specification for type 1 cables characterised up to 2 MHz*;
- EN 50288-9-1, *Multi-element metallic cables used in analogue and digital communications and control — Part 9-1: Sectional specification for shielded cables characterized from 1 MHz up to 1 000 MHz — Horizontal and building backbone cables (the present document)*;
- EN 50288-10-1, *Multi-element metallic cables used in analogue and digital communications and control — Part 10-1: Sectional specification for shielded cables characterized from 1 MHz up to 500 MHz — Horizontal and building backbone cables*;
- EN 50288-11-1, *Multi-element metallic cables used in analogue and digital communication and control — Part 11-1: Sectional specification for un-shielded cables characterised from 1 MHz up to 500 MHz — Horizontal and building backbone cables (the present document)*.

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.

1 Scope

EN 50288-11-1 is a sectional specification for un-screened cables, characterised from 1 MHz up to 500 MHz, to be used in horizontal and building backbone wiring for Information Technology generic-cabling systems.

This sectional specification contains the electrical, mechanical, transmission and environmental performance characteristics and requirements 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 communications systems. These cables are not intended to be used in conjunction with low impedance sources, for example the electrical 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 50288-1	<i>Multi-element metallic cables used in analogue and digital communication and control — Part 1: Generic specification</i>
EN 50289-1-4	<i>Communication cables — Specifications for test methods — Part 1-4: Electrical test methods — Insulation resistance</i>
EN 50289-3-2	<i>Communication cables — Specifications for test methods — Part 3-2: Mechanical test methods — Tensile strength and elongation for conductor</i>
EN 50289-3-4	<i>Communication cables — Specifications for test methods — Part 3-4: Mechanical test methods — Tensile strength, elongation and shrinkage of insulation and sheath</i>
EN 50289-3-5	<i>Communication cables — Specifications for test methods — Part 3-5: Mechanical test methods — Crush resistance of the cable</i>
EN 50289-3-6	<i>Communication cables — Specifications for test methods — Part 3-6: Mechanical test methods — Impact resistance of the cable</i>
EN 50289-3-8	<i>Communication cables — Specifications for test methods — Part 3-8: Mechanical test methods — Abrasion resistance of cable sheath markings</i>
EN 50289-3-9:2001	<i>Communication cables — Specifications for test methods — Part 3-9: Mechanical test methods — Bending tests</i>
EN 50289-3-16	<i>Communication cables — Specifications for test methods — Part 3-16: Mechanical test methods — Cable tensile performance</i>
EN 50289-4-6	<i>Communication cables — Specifications for test methods — Part 4-6: Environmental test methods — Temperature cycling</i>
EN 50290-2 (all parts)	<i>Communication cables — Part 2: Common design rules and construction</i>
EN 60708	<i>Low-frequency cables with polyolefin insulation and moisture barrier polyolefin sheath (IEC 60708)</i>

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