



NSAI
Standards

Irish Standard
I.S. EN 50288-1:2013

Multi-element metallic cables used in analogue and digital communication and control -- Part 1: Generic specification

I.S. EN 50288-1:2013

Incorporating amendments/corrigenda issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i> EN 50288-1:2003	<i>This document is based on:</i> EN 50288-1:2013 EN 50288-1:2003	<i>Published:</i> 24 May, 2013 5 December, 2003
This document was published under the authority of the NSAI and comes into effect on: 29 May, 2013		ICS number: 33.120.10
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

EUROPEAN STANDARD

EN 50288-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2013

ICS 33.120.10

Supersedes EN 50288-1:2003

English version

**Multi-element metallic cables used in analogue and digital communication
and control -
Part 1: Generic specification**

Câbles métalliques à éléments multiples
utilisés pour les transmissions et les
commandes analogiques et numériques -
Partie 1: Spécification générique

Mehradrige metallische Daten- und
Kontrollkabel für analoge und digitale
Übertragung -
Teil 1: Fachgrundspezifikation

This European Standard was approved by CENELEC on 2013-03-18. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

	Page
Foreword	3
1 Scope.....	4
2 Normative references	4
3 Terms and Definitions.....	4
4 Requirements for cable construction	6
4.1 Conductors.....	6
4.2 Insulation	6
4.3 Cable elements	6
4.4 Identification of cabling elements.....	7
4.5 Screening of cabling elements	7
4.7 Filling compounds	7
4.8 Interstitial fillers.....	8
4.9 Screening of the cable core	8
4.10 Moisture barriers	8
4.11 Protective wrappings	8
4.12 Sheath	8
4.13 Bedding layers for metallic protection	8
4.14 Metallic protection	8
4.15 Integral suspension strand.....	9
4.16 Oversheath	9
4.17 Fauna protection	9
4.18 Chemical and /or environmental protection	9
5 Test methods for completed cables	9
5.1 Electrical test methods	10
5.2 Mechanical test methods	11
5.3 Environmental test methods	12
5.4 Fire performance test methods	12
Annex A (informative) ELFEXT re-classification to ACR-F	16
Annex B (informative) MICE Table	14

Foreword

This document (EN 50288-1:2013) 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 50288-1:2003.

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

- the addition of the MICE table;
- a number minor corrections and updating of references;
- the re-classification of 'ELFEXT' to 'ACR-F'.

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).

I.S. EN 50288-1:2013

EN 50288-1:2013

- 4 -

1 Scope

When used together with EN 50290 and EN 50289, this European Standard covers cables for instrumentation, inter-connection of equipment and information technology cabling applications.

Cables for information technology cabling systems, covered by this and the sectional specification standards in the EN 50288 series are suitable for use in digital and analogue data systems meeting the requirements, for example, of EN 50090-2-1, EN 50090-3-1, EN 50098-1, EN 50098-2 and EN 50173.

Unless otherwise specified, all cables covered by this European Standard may be subjected to voltages greater than 50 V a.c. or 75 V d.c. but not more than 300 V a.c. or 450 V d.c. and shall meet the essential requirements of the low voltage directive. Due to current limitation related to the conductor cross sectional area, they are not intended for direct connection to mains electricity supply. The maximum current rating per conductor is as stipulated in Table B.1 unless otherwise specified in the relevant sectional specification. IDCs are only designed for copper or metal coated copper.

Cabling elements as defined in 4.3 of this European Standard may be incorporated in hybrid construction cables together with coaxial or optical fibre cabling elements.

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 50289 series	<i>Communication Cables — Specifications for tests methods</i>
EN 50290-1-2	<i>Communication cables — Part 1-2: Definitions</i>
EN 50290-2 series	<i>Communication cables — Part 2: Common design rules and construction</i>
EN 50290-4-1	<i>Communication cables — Part 4-1: General considerations for the use of cables – Environmental conditions and safety aspects</i>
EN 60811 series	<i>Electrical and optical fibre cables — Test methods for non-metallic materials.</i>
EN ISO 6892-1	<i>Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)</i>
HD 402 S2	<i>Standard colours for insulation for low-frequency cables and wires (IEC 60304)</i>
IEC 60028	<i>International standard of resistance for copper</i>

3 Terms and Definitions

For the purposes of this document, the terms and definitions given in EN 50290-1-2 and EN 50173 series and the following apply:

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-