



NSAI
Standards

Irish Standard
I.S. EN 50290-4-2:2014

Communication cables - Part 4-2: General considerations for the use of cables - Guide to use

I.S. EN 50290-4-2:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Communication cables - Part 4-2: General considerations for the use of cables - Guide to use

Kommunikationskabel - Teil 4-2: Allgemeine Betrachtungen für die Anwendung der Kabel - Leitfaden für die Verwendung

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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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Foreword

This document (EN 50290-4-2:2014) has been prepared by 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) 2015-06-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-09-16

This document supersedes EN 50290-4-2:2008.

EN 50290-4-2:2014 includes the following significant technical change with respect to EN 50290-4-2:2008:

- Subclause 5.3 was revised.

This standard should be read in conjunction with EN 50290-1-1 and is completed by generic, sectional, family and detail specifications, as appropriate, to describe in a detailed manner each type of cable with its specific characteristics.

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 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).

EN 50290-4, *Communication cables — General considerations for the use of cables*, is divided into the following sub-parts:

- *Part 4-1: Environmental conditions and safety aspects;*
 - *Part 4-2: Guide to use* [the present document].
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1 Scope

The scope of this European Standard is to help installers and cabling designers to understand the range of communication metallic cables available. To help this choice the fundamental and practical rules on how to use these cables are established.

The related cables are specified in the documents issued by CLC/TC 46X and its sub-committees.

These cables are:

- telecom cables used in access network,
- data communication twisted pairs cables,
- coaxial cables used in CATV.

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 50083 (all parts), *Cable networks for television signals, sound signals and interactive services*

EN 50090 (all parts), *Home and Building Electronic Systems (HBES)*

EN 50117 (all parts), *Coaxial cables*

EN 50173 (all parts), *Information technology — Generic cabling systems*

EN 50174 (all parts), *Information technology — Cabling installation*

EN 50200, *Method of test for resistance to fire of unprotected small cables for use in emergency circuits*

EN 50288 (all parts), *Multi-element metallic cables used in analogue and digital communication and control*

EN 50289-1-3, *Communication cables — Specifications for test methods — Part 1-3: Electrical test methods — Dielectric strength*

EN 50289-3-9, *Communication cables — Specifications for test methods — Part 3-9: Mechanical test methods — Bending tests*

EN 50289-4-16, *Communication cables — Specifications for test methods — Part 4-16: Environmental test methods — Circuit integrity under fire conditions*

EN 50290 (all parts), *Communication cables*

EN 50406 (all parts), *End user multi-pair cables used in high bit rate telecommunication networks*

EN 50407 (all parts), *Multi-pair cables used in high bit rate digital access telecommunication networks*

EN 50441 (all parts), *Cables for indoor residential telecommunication installations*

EN 50575, *Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements*

3 Communication cable basics

Communication cables are the highways and arteries that provide a path for telecommunications devices. There is a general tendency to say that one transmission medium is better than another. In fact, each transmission medium has its place in the design of any communication system. Each has

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