



NSAI
Standards

Irish Standard
I.S. EN 50290-4-1:2014

Communication cables - Part 4-1: General considerations for the use of cables - Environmental conditions and safety aspects

I.S. EN 50290-4-1:2014

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Communication cables - Part 4-1: General considerations for the use of cables - Environmental conditions and safety aspects

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Foreword

This document (EN 50290-4-1:2014) 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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-09-16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 50290-4-1:2001.

EN 50290-4-1:2014 includes the following significant technical changes with respect to EN 50290-4-1:2001:

- Clauses related to fire reaction and fire resistance have been updated to take into account the recent development of supporting standards for the CPR.

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* [the present document];
- *Part 4-2: Guide to use*.

1 Scope

This European Standard gives the environmental conditions and safety aspects of symmetrical, coaxial and optical cables used for the infrastructure of communication and control networks.

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 13501-3, *Fire classification of construction products and building elements — Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers*

EN 13501-6, *Fire classification of construction products and building elements — Part 6: Classification using data from reaction to fire tests on electric cables*

EN 50289-3 (all parts), *Communication cables — Specifications for test methods*

EN 50289-4 (all parts), *Communication cables — Specifications for test methods*

EN 50290-1-2, *Communication cables — Part 1-2: Definitions*

EN 50290-2-2X (all parts), *Communication cables*

EN 50575:2014, *Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements*

EN 60068-2-11, *Environmental testing — Part 2: Tests — Test Ka: Salt mist (IEC 60068-2-11)*

EN 60068-2-14, *Environmental testing — Part 2-14: Tests — Test N: Change of temperature (IEC 60068-2-14)*

EN 60068-2-27, *Environmental testing — Part 2-27: Tests — Test Ea and guidance: Shock (IEC 60068-2-27)*

EN 60068-2-42, *Environmental testing — Part 2-42: Tests — Test Kc: Sulphur dioxide test for contacts and connections (IEC 60068-2-42)*

EN 60068-2-53, *Environmental testing — Part 2-53: Tests and guidance: Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests (IEC 60068-2-53)*

FprEN 60794-1-21¹⁾, *Optical fibre cables — Part 1-21: Generic specification — Basic optical cable test procedures - Mechanical tests methods (IEC 60794-1-21)*

EN 61169-1:2013, *Radio-frequency connectors — Part 1: Generic specification — General requirements and measuring methods (IEC 61169-1:2013)*

IEC 62012-1:2002, *Multicore and symmetrical pair/quad cables for digital communications to be used in harsh environments — Part 1: Generic specification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50290-1-2 apply.

4 Environmental conditions and installation aspects

4.1 General

The reliability of the cables and their expected lifetime depend upon how the environmental conditions (during storage, installation and operation) are taken into account in their design.

1) By the time of publication of the present document, this reference is at Committee Draft stage in the IEC under the reference "6A/1582/CDV".

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