BS EN 50288-5-2:2013

BSI Standards Publication

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

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National foreword

This British Standard is the UK implementation of EN 50288-5-2:2013. It supersedes BS EN 50288-5-2:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/46, Cables, wires and waveguides, radio frequency connectors and accessories for communication and signalling.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Mehradrige metallische Daten- und Kontrollkabel für analoge und digitale Übertragung - Teil 5-2: Rahmenspezifikation für geschirmte Kabel bis 250 MHz - Geräteanschlusskabel und Schaltkabel

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CENELEC

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

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Foreword

This document EN 50288-5-2:2013 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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-03-18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 50288-5-2:2003.

EN 50288-5-2:2013 includes the following significant technical changes with respect to EN 50288-5-2:2003:

- 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 5-2 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).

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1 Scope

EN 50288-5-2 is a sectional specification for screened cables, characterised from 1 MHz up to 250 MHz, to be used as work area cables to connect a telecommunications outlet to the terminal equipment and for patch cord cables to establish connections on a patch panel as defined in EN 50173.

Work area and data centres cables may also be used as patch cord cables in any distributor of a generic building wiring system to interconnect with equipment or to cross-connect between cabling systems.

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

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

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

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3.1.1
screening of cable
a cable is considered screened when the cable core is covered by a continuous conductive layer forming part of the shielding and grounding system

Note 1 to entry: d.c. continuity has to be given and minimum shielding requirements have to be met.

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 or stranded copper and meet the requirements of EN 50288-1, 4.1

The stranded conductor shall consist of seven wires each with a nominal diameter of ≥ 0,10 mm to ≤ 0,21 mm.

The conductor shall be plain or metal coated.

The solid conductor nominal diameter shall be ≥ 0,4 mm to ≤ 0,8 mm.

NOTE Constructions with ‘copper clad’ conductors **do not** meet the requirements

4.2 Insulation

The insulation shall be of a suitable material according to the relevant part of EN 50290-2.

4.3 Cabling elements

The cable element shall be a pair or a quad.

4.4 Identification of cabling elements

Unless otherwise specified, the colour coding for identification is given in IEC 60189-2. The colours shall meet the requirements of EN 50288-1, 4.4

4.5 Screening of cabling elements

Where appropriate, screening of the cabling elements shall be applied in accordance with 4.5 of EN 50288-1. Coverage is defined in EN 50290-2-1.

4.6 Cable make-up

The cable elements shall be laid up in concentric layer(s) or units to form the cable core.

4.7 Filling compound

Not applicable.

4.8 Interstitial fillers

Where fillers are used they shall meet the requirements of EN 50288-1, 4.8

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