Irish Standard
I.S. EN 50411-2:2008

Fibre organisers and closures to be used in optical fibre communication systems - Product specifications -- Part 2: General and guidance for optical fibre cable joint closures, protected microduct closures, and microduct connectors

I.S. EN 50411-2:2008

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EUROPEAN STANDARD

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English version

Fibre organisers and closures to be used in optical fibre communication systems - Product specifications - Part 2: General and guidance for optical fibre cable joint closures, protected microduct closures, and microduct connectors

Organiseurs et boîtiers de fibres destinés à être utilisés dans les systèmes de communication par fibres optiques - Spécifications de produits - Partie 2: Généralités et lignes directrices relatives aux boîtiers communs aux câbles à fibres optiques, aux boîtiers à microconduits protégés, et aux connecteurs de microconduits

LWL-Spleißkassetten und -Muffen für die Anwendung in LWL-Kommunikationssystemen - Produktnormen - Teil 2: Allgemeines und Leitfaden für LWL-Muffen, geschützte Mikrorohrmuffen und Mikrorohrverbinder

This European Standard was approved by CENELEC on 2008-04-01. 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 Central Secretariat 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 Central Secretariat 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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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 86BXA, Fibre optic interconnect, passive and connectorised components.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50411-2 on 2008-04-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2009-04-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-04-01

Fibre organisers and closures to be used in optical fibre communication systems – Product specifications

Part 2: General and guidance for optical fibre cable joint closures, protected microduct closures, and microduct connectors

Construction:

Sealed or non-sealed products covering both

a) optical fibre cable splicing FMS or protected microduct closures MCS

or

b) microduct connectors

Product specification document options:

The closure or connector product specifications must align with one of the following titles; labelled, EN 50411-2-X:

- sealed dome closures with a FMS;
- sealed pan closures with a FMS;
- sealed inline closures with a FMS;
- sealed closures for ABF microducts;
- non-sealed closures for ABF microducts;
- microduct connectors for sealed closures;
- microduct connectors for non-sealed closures.

Closure shape options:

- dome, pan, and inline;
- 'T', 'Y', and 'X'.

ABF microduct connector options:

- straight;
- straight bulkhead;
- ID reducer/enlarger stem;
- ID reducer/enlarger;
- OD reducer/enlarger stem;
- OD reducer/enlarger;
- ID and OD reducer/enlarger stem;
- ID and OD reducer/enlarger;
- close down;
- liquid block;
- liquid block with barb;
- end stop.

Cable seals:

- heat activated;
- cold applied;
- both heat and cold applied.

FMS closure additional requirements:

- future proof – expandable;
- wave length range, 1 260 nm up to 1 650 nm.

Applications:

Optical fibre cable networks for underground and/or aerial

Non-pressurised

Sealed closures (only)

EN 61753-1 category; S (subterranean) and A (aerial)

Environmental protection requirements:

- temperature extremes;
- resistance to solvents and contaminating fluids;
- resistance to water ingress;
- resistance to salt mist.

Mechanical protection requirements:

- vibration;
- closure crush and impact;
- cable entry tension, torsion and bending;
- resistance to shotgun fire (aerial only).

Common base configurations:

- track joint: configuration used on inline cable, with minimum of 2 cable entries;
- spur joint: configuration used on local feeder cable with minimum of 3 cable entries;
- distribution joint: configuration used on customer feed cable with minimum of 8 cable entries.

Fibre Management System options:

SC, SR, SE, ME, MR.

Optical functionality:

Transient losses:

≤ 0,5 dB at 1 550 nm and ≤ 1 dB at 1 625 nm per active circuit during test

Residual losses:

≤ 0,1 dB at 1 550 nm and 1 625 nm per active circuit on test

Related documents:

EN 61300 series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures (IEC 61300 series)
EN 61753-1	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards (IEC 61753-1)
EN 60793-2-50	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres (IEC 60793-2-50)
EN 60794-2	Optical fibre cables - Part 2: Indoor cables - Sectional specification (IEC 60794-2)
EN 60794-3	Optical fibre cables - Part 3: Sectional specification - Outdoor cables (IEC 60794-3)
EN 60794-5	Optical fibre cables - Part 5: Sectional specification - Microduct cabling for installation by blowing (IEC 60794-5)
ETSI EN 300 019 series	Environmental Engineering (EE) - Environmental conditions and environmental tests for telecommunications equipment

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