



NSAI
Standards

Irish Standard
I.S. EN 50411-2-4:2012

Fibre organisers and closures to be used in optical fibre communication systems - Product specifications -- Part 2-4: Sealed dome fibre splice closures Type 1, for category S & A

I.S. EN 50411-2-4:2012

Incorporating amendments/corrigenda issued since publication:

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

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

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English version

**Fibre organisers and closures to be used in optical fibre communication systems -
Product specifications -
Part 2-4: Sealed dome fibre splice closures Type 1, for category S & A**

Organiseurs et boîtiers de fibres à utiliser dans les systèmes de communication par fibres optiques -
Spécifications de produits -
Partie 2-4: Boîtiers à épissure de fibres sous dôme scellés Type 1, pour catégories S & A

LWL-Spleißkassetten und -Muffen für die Anwendung in LWL-Kommunikationssystemen -
Produktnormen -
Teil 2-4: LWL-Muffen Bauart 1 mit abgedichteter Haube für die Kategorien S und A

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CENELEC

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

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Contents

Page

Foreword	3
1 Scope	5
1.1 Product definition.....	5
1.2 Operating environment.....	5
1.3 Reliability.....	5
1.4 Quality assurance.....	5
1.5 Allowed fibre and cable types.....	5
2 Normative references	5
3 Description	6
3.1 Closure housing.....	6
3.2 Closure overpressure safety.....	7
3.3 Cable seals.....	7
3.4 Organiser system.....	8
3.5 Materials.....	8
3.6 Colour and marking.....	9
4 Variants	9
5 Dimensional requirements	14
5.1 Dimensions of closures for Multiple Element and Multiple Ribbon fibres.....	14
5.2 Dimensions of closures for Single Circuit, Single Element and Single Ribbon.....	15
6 Tests	16
6.1 Sample size.....	16
6.2 Test sample preparation.....	16
6.3 Test and measurement methods.....	17
6.4 Test sequence.....	17
6.5 Pass/fail criteria.....	17
7 Test report	18
8 Performance requirements	18
8.1 Dimensional and marking requirements.....	18
8.2 Sealing, optical and appearance performance criteria.....	18
8.3 Mechanical sealing performance requirements.....	20
8.4 Environmental sealing performance requirements.....	24
8.5 Mechanical optical performance requirements.....	26
8.6 Environmental optical performance requirements.....	27
Annex A (informative) Fibre for test sample details	28
Annex B (informative) Sample size and product sourcing requirements	29
Annex C (informative) Families of organiser systems covered in this standard	30
Annex D (informative) Dimensions of organisers for Multiple Element and Multiple Ribbon fibres	32
Annex E (informative) Dimensions of S organisers for Single Circuit, Single Element and Single Ribbon	33
Bibliography	35

Foreword

This document (EN 50411-2-4:2012) has been prepared by CLC/TC 86BXA, "Fibre optic interconnect, passive and connectorised components".

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) 2012-12-21
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2012-12-21

This document supersedes EN 50411-2-4:2006.

EN 50411-2-4:2012 includes the following significant technical changes with respect to EN 50411-2-4:2007:

- the variant XX2 additional distribution closures with more cable entrance ports were defined (new versions D2, D3 and D4 were added);
- no other technical changes were made to the document.

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.

EN 50411-2-4:2012 (E)

Fibre organisers and closures to be used in optical fibre communication systems – Product specifications						
Part 2-4: Sealed dome fibre splice closures Type 1, for category S & A						
Description		Performance				
Construction:	Sealed dome ended	Applications:				
Cable seals:	Heat activated and or cold applied	Optical fibre cable networks				
Fibre management:	Single Circuit, Single Element, Multiple Element and/or Single/Multiple Ribbon	for underground;	EN 61753-1 category S			
		for aerial;	EN 61753-1 category A			
Related documents:						
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 61753-1 ¹⁾	Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standard (IEC 61753-1)					
EN 61300 series	Fibre optic interconnecting devices and passive components – Basic test and measurement procedures (IEC 61300 series)					
ETS 300 019	Environmental Engineering (EE) - Environmental conditions and environmental tests for telecommunications equipment					
Construction and splice capacity:		Variant: Number fibre splices - Maximum capacity & fibre management system – SC, SE, SR, ME and MR				
		S organiser		M organiser		
		Single Circuit (SC)	Single Element (SE)	Single Ribbon (SR)	Multiple Element (ME)	Multiple Ribbon (MR)
		A	B	C	A	
		12 splices	72 splices	36 splices	72 splices	
		B	C	D	B	
		24 splices	144 splices	72 splices	96 splices	
		D	D	D	D	
		48 splices	288 splices	144 splices	576 splices	
		E	E	E		
		84 splices	216 splices	144 splices		
		F	F	F		
		144 splices	432 splices	288 splices		
		G	G	G		G
		192 splices	624 splices	384 splices		288 splices
		H	H	H		H
		240 splices	864 splices	432 splices		1 152 splices

¹⁾ At draft stage.

1 Scope

1.1 Product definition

This specification contains the initial, start of life dimensional, optical, mechanical and environmental performance requirements of a fully installed splice closure in order for it to be categorised as an EN standard product.

1.2 Operating environment

The tests selected combined with the severity and duration are representative of an outside plant for subterranean and/or aerial environments defined by:

ETSI EN 300 019 class 8.1: underground locations (without earthquake requirement)

EN 61753-1 category S: subterranean environment

category A: aerial environment

1.3 Reliability

Whilst the anticipated service life expectancy of the product in this environment is 20 years, compliance with this specification does not guarantee the reliability of the product. This should be predicted using a recognised reliability assessment programme.

1.4 Quality assurance

Compliance with this specification does not guarantee the manufacturing consistency of the product. This should be maintained using a recognised quality assurance programme.

1.5 Allowed fibre and cable types

Although the performance tests are carried out on test samples with dispersion unshifted single mode fibre (see Annex A), the closure, once tested according to this product specification, will be also suited for other fibre types like dispersion shifted, non-zero dispersion shifted and multi-mode fibres.

This closure standard allows both singlemode and multimode fibre to be used and covers all IEC standard optical fibre cables with their various fibre capacities, types and designs. This includes, but is not limited to, optical fibre cable standards EN 60794-2 (indoor), EN 60794-3 (outdoor).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60793-2-50, *Optical fibres — Part 2-50: Product specifications — Sectional specification for class B single-mode fibres (IEC 60793-2-50)*

EN 61300 (all parts), *Fibre optic interconnecting devices and passive components — Basic test and measurement procedures (IEC 61300 all parts)*

EN 61300-2-1, *Fibre optic interconnecting devices and passive components — Basic test and measurement procedures — Part 2-1: Tests — Vibration (sinusoidal) (EN 61300-2-1)*

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