Irish Standard
I.S. EN 50411-2-8:2009

Fibre organisers and closures to be used in optical fibre communication systems - Product specifications -- Part 2-8: Microduct connectors, for air blown optical fibres, Type 1

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English version

Fibre organisers and closures to be used in optical fibre communication systems - Product specifications - Part 2-8: Microduct connectors, for air blown optical fibres, Type 1

Organiseurs et boîtiers de fibres à utiliser dans les systèmes de communication par fibres optiques - Spécifications de produits - Partie 2-8: Connecteurs en microconduits de Type 1, destinés aux fibres optiques soufflées à l'air comprimé

LWL-Spleißkassetten und -Muffen für die Anwendung in LWL-Kommunikationssystemen - Produktnormen - Teil 2-8: ABF-Mikrorohrverbinder, Bauart 1

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CENELEC

European Committee for Electrotechnical Standardization
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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 formal vote and was approved by CENELEC as EN 50411-2-8 on 2008-12-01.

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)	2009-12-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-12-01

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

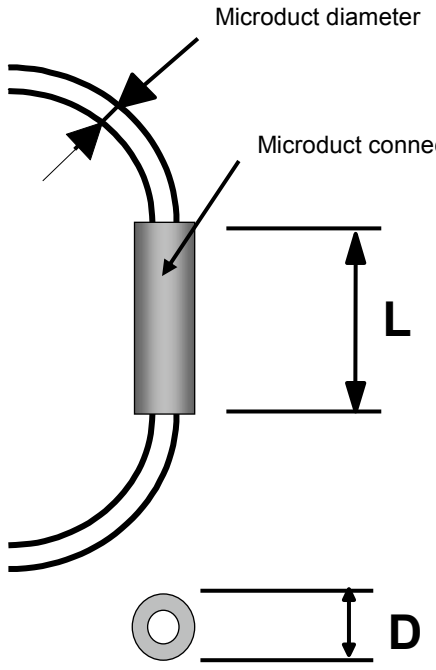
Microduct connectors, for air blown optical fibres, Type 1

Description		Performance	
Construction:	Sealed microduct connector	**Applications:**	Optical fibre cable networks EN 61753-1
Tube seals:	Cold applied		
Connector types:	Straight, Straight bulkhead, Reducer, Close down, Liquid block, Liquid block with barb end, End stop and Stem.		

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)
ETSI EN 300 019 series	Environmental Engineering (EE) – Environmental conditions and environmental tests for telecommunications equipment

Construction:



Examples
'Straight through'

Connector dimensions for non-bulkhead mounting

Nominal microduct outside diameter	Diameter or across corners **D** max. mm	Length **L** max. mm
3 mm	9	23
4 mm	14	32
5 mm	15	40
6 mm	15	38
7 mm	18	42
8 mm	20	46
10 mm	24	50
12 mm	25	54
14 mm	29	62
15 mm	33	70
16 mm		

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1 Scope

1.1 Product identification

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

This product specification covers the following ‘microduct connectors’ to suit a wide range of blown fibre applications, for floating or fixed:

- joining the same size microduct, or different sizes of microduct;
- joining same size protected microduct, to same or different size of microduct or protected microduct;
- disconnection of the connector to gain access, for example, to insert blowing equipment;
- a means to seal the fibre inside the connector to prevent the flow of liquids;
- close off open-ended microducts.

This product specification covers blown fibre microduct connectors for use in ‘sub-ducts or protected micro-duct cable closures’ as specified in EN 50411-2-5 for use in outside environments, and for both sealed and non-sealed closures. The outside environment includes both subterranean (underground) and/or aerial applications.

This document includes reducer/enlarger products. It may not be possible to blow through these devices. Manual feeding may be required because of the pressure gradient step.

This product specification does not apply to microduct connectors for use in direct sunlight.

1.2 Operating environment

The tests selected, combined with the severity and duration, are representative of an outside plant environment for both subterranean and aerial environments defined by

- ETSI EN 300 019 series: class 8.1: underground locations,
- EN 61753-1: all categories.

1.3 Reliability

Whilst the anticipated service life expectancy of the product in these environments 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 Safety labelling – Warning: need for an ‘over pressure device' in sealed closures

All air blown fibre connectors, supplied to this standard, must have a warning on the product or packaging to read as follows:

Where the air blown fibre connector is installed inside a sealed airtight closure or housing, the closure must be able to be fitted with an over pressure safety system that is able to exhaust air to atmospheric pressure.