

FREEDM™ B2 Gel-free Central Tube Indoor Outdoor Cable 1x12 E9/125 SMF-28® Ultra CT 2.5



CORNING

Part Number:
012ZEU-23120D2C

Features and Benefits

Dry, gel-free tube

Minimal cleaning, easy cable preparation

All-dielectric cable construction

Requires no grounding or bonding

Laminated swelling glass yarns

Improved rodent resistance and longitudinal water protection

UV- and microbe-resistant

Can be installed in ducts or conduits

Small diameter and bend radius

Easy installation in space-constrained areas

Fibres colour coding to Telcordia-Bellcore

Easy identification of the individual fibres

Waterblocking technology

OSP (outdoor) applications

Silicon-free outer jacket

Cable jacket is free of components harmful to paint structures

Flame retardant

LSZH™/FRNC

FREEDM™ B2 Gel-free Central Tube Indoor Outdoor Cable 1x12 E9/125 SMF-28® Ultra CT 2.5



Specifications

Mechanical Specifications	
Crush resistance	1500 N/10 cm
Fire load	0.8 MJ/m
Min. bend radius installation	122 mm
Min. bend radius operation	92 mm
Nominal outer diameter	6.1 mm
Weight	42 kg/km

Cable Design	
Cable marking	Metre - Handset - CPR rating - Sine - CORNING - Fibre Optic Cable - Year - U-BQ(ZN)BH 12 E9U CT 2.5 LSZH(TM)/FRNC
Fibre count	12
Number of ripcords	1
Outer jacket colour	Black
Outer jacket material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Tensile strength elements and/or armouring - Layer 1	Water-swellable dielectric strength members
Tensile strength elements and/or armouring - Layer 2	Glass yarn armouring
Number of tube positions	1
Fibre colouring	Blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
Fibres per tube	12

Environmental Conditions	
Temperature range, installation	-10 °C to 60 °C
Temperature range, operation	-30 °C to 70 °C
Temperature range, storage	-30 °C to 70 °C

FREEDM™ B2 Gel-free Central Tube Indoor Outdoor Cable 1x12 E9/125 SMF-28® Ultra CT 2.5



General Specifications

Environment	Indoor / Outdoor, universal
Cable type	Single Tube
Product type	Dielectric armour
Fibre category	SMF-28® Ultra fibre
Flame rating	LSZH™/FRNC
Coding according to EN 60794-1-1 (DIN VDE 0888-100-1)	U-BQ(ZN)BH
Application	Aerial, Duct, Direct Buried, General Purpose Horizontal

Ordering Information

Product Number	012ZEU-23120D2C
Weight	42 kg/km

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Reaction to fire	B2ca, s1a, d0, a1
Waterblocking	IEC 60794-1-2 F5
Flame propagation test	Flame retardant according to IEC 60332-1-2 (single cable)
Reaction to fire requirements	Reaction to fire according to EN 50575 and EN 13501-6
Smoke density	Low Smoke to IEC 61034
Halogen content test	Zero Halogen to IEC 60754-1
Level of corrosion	Non-corrosive according to IEC 60754-2

Optical Characteristics

Cable cutoff wavelength	1260 nm
Fibre code	Z
Fibre name	SMF-28® Ultra TB Cable Optical Fibre
Fibre Type	Single-mode

FREEDM™ B2 Gel-free Central Tube Indoor Outdoor Cable 1x12 E9/125 SMF-28® Ultra CT 2.5

CORNING

Optical Characteristics

Fibre compliance	ITU-T G.652.D and ITU-T G.657.A1
Cladding diameter	125 µm
Dispersion @ 1550 nm	18 nm
Dispersion in the range 1285 to 1330 nm	3.5 nm
Maximum Attenuation	0.38 dB/km / 0.38 dB/km / 0.25 dB/km
Mode-Field Diameter at 1310 nm	9.2 µm
Serial 1 gigabit ethernet	5000 MHz*km / - / -
Serial 10 gigabit ethernet	10000 MHz*km / 40000 MHz*km
Wavelengths	1310 nm / 1383 nm / 1550 nm
PMD Link Design Value	0.04 ps/(nm*km)
PMD (Polarization Mode Dispersion) maximum individual fibre	0.1 ps/(nm*km)
Coating diameter	242 µm



Corning Optical Communications GmbH & Co. KG • Leipzig Strasse 121 • 10117 Berlin, Germany
+00 800 2675 4641 • FAX: +49 30 5303 2335 • www.corning.com/opcomm/emea

A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/emea/trademarks. Corning Optical Communications is ISO 9001 and ISO 14001 certified. © 2021 Corning Optical Communications. All rights reserved.