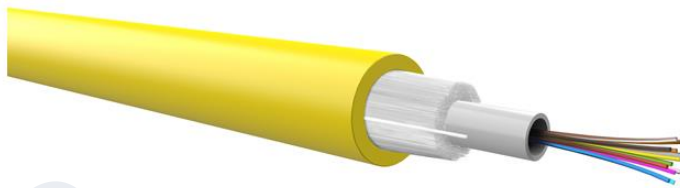
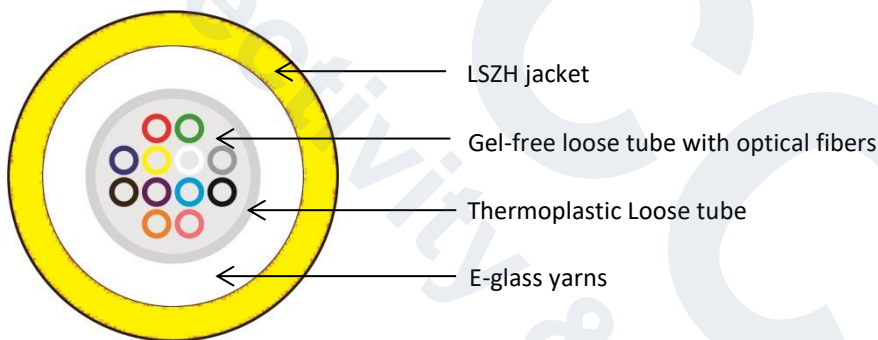


Cable type	<b>I-B(ZN)BH</b>
Description	<b>Central loose tube cable, 6-24 OF, dielectric armour, LSZH jacket, B2ca</b>



### **I-B(ZN)BH**

6 to 24 cores central Loose tube optical cable for indoor use type I-B(ZN)BH, dielectric protection against the action of rodents, external jacket in LSZH (Low Smoke Zero Halogen), Euroclass B2ca s1a,d0,a1. The optical fibres, with 250µm primary coating, are contained inside a single dry-core thermoplastic tube without buffering gel.



### **Constructive characteristics**

Tube	Gel-free Loose tube
Filler protection	E-glass yarns
Optical fiber type	Single-mode 9/125; multimode 50/125 OM3, OM4
Outer jacket material	LSZH (Low Smoke Zero Halogen)
Armour	Dielectric
Cable outer diameter	From 6,5 to 7 mm
Nominal weight	From 46 to 51 Kg/Km
Marking	CCS by Qubix - "product code" - FO Cable I-B(ZN)BH - "1xn FO" "fiber type" - dielectric armoured FR-LSZH jacket - meters - lot - FID - Euroclass B2ca s1a,d0,a1 - n° DOP

### **Mechanical and environmental properties**

Use	Indoor
Bend. radius (installation)	20 x outside diameter
Bend. radius (long term)	15 x outside diameter
Max. pull strength	1500 N (150 kg max.)
Crush resistance	1500 N/dm
Installation temperature	from -5°C to +50°C
Operating temperature	from -25°C to +60°C

Cable type	<b>I-B(ZN)BH</b>
Description	<b>Central loose tube cable, 6-24 OF, dielectric armour, LSZH jacket, B2ca</b>

**Reference standards**

Cables and optical fibers	EN 60793 EN 60794-1
Structured cabling	EN 50173-1 ISO/IEC 11801 ANSI/TIA 568.3-D

**Fire behavior**

CRP regulation	EN 50575 EN 13501-6 Euroclass B2ca s1a,d0,a1
Fire reaction	IEC 60332-1-2; IEC 60332-3-24; EN 50399
Smoke density	IEC 61034
Acid gas emission	IEC 60754-2

Optical cables suitable for single or bundle installations in areas with major risk in case of fire (where the use of cables in Euroclass Cca s1b,d1,a1 or higher is required).

**Outer jacket color**

9/125 OS2	Yellow
50/125 OM3	Aqua
50/125 OM4	Erika Violet

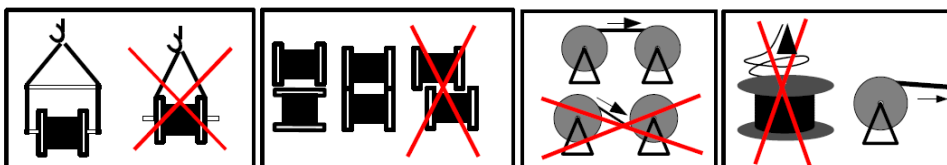
**Packaging**

Drum	2100 mt ± 5%
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**Reference codes**

Cores number	9/125 OS2	50/125 OM3	50/125 OM4
1x6 fibers	2008432	2008436OM3	2008436OM4
1x12 fibers	2008434	2008438OM3	2008438OM4
1x24 fibers	2008435	2008439OM3	2008439OM4

**Recommendations of use**



Cable type	<b>I-B(ZN)BH</b>
Description	<b>Central loose tube cable, 6-24 OF, dielectric armour, LSZH jacket, B2ca</b>

## MULTIMODE OPTICAL FIBER SPECIFICATIONS

Optical fiber type	50/125 OM2	50/125 OM3	50/125 OM4	62,5/125 OM1
Core diameter	50 ± 2,5 µm	50 ± 2,5 µm	50 ± 2,5 µm	62,550 ± 2,5 µm
Cladding diameter	125 ± 1 µm	125 ± 1 µm	125 ± 1 µm	125 ± 1 µm
Primary coating diameter	242 ± 5 µm	242 ± 5 µm	242 ± 5 µm	242 ± 5 µm
Cladding Non-Circularity	≤ 0,7%	≤ 0,7%	≤ 0,7%	≤ 0,7%
Core Non-Circularity	≤ 5%	≤ 5%	≤ 5%	≤ 5%
Concentricity error core/cladding	≤ 1 µm	≤ 1 µm	≤ 1 µm	≤ 1 µm
Concentricity error cladding/coating	≤ 10 µm	≤ 10 µm	≤ 10 µm	≤ 10 µm
Atten. typical/max λ=850 nm	2,0 – 3,5 dB/Km	2,0 – 3,5 dB/Km	2,0 – 3,5 dB/Km	2,6 – 3,5 dB/Km
Atten. typical/max λ=1300 nm	0,5 – 1,5 dB/Km	0,5 – 1,5 dB/Km	0,5 – 1,5 dB/Km	0,5 – 1,5 dB/Km
Bandwidth λ=850 nm	500 MHz·Km	1500 MHz·Km	3500 MHz·Km	220 MHz·Km
Bandwidth λ=1300 nm	500 MHz·Km	500 MHz·Km	500 MHz·Km	500 MHz·Km
Group Index @ 850 nm	1,482	1,482	1,482	1,496
Group Index @ 1300 nm	1,477	1,477	1,477	1,491
Numerical aperture	0,200 ± 0,015	0,200 ± 0,015	0,200 ± 0,015	0,275 ± 0,015

## SINGLE-MODE OPTICAL FIBER SPECIFICATIONS

Optical fiber type	9/125 OS2 (ITU G.652D)
Core diameter	9,0 ± 0,4 µm @1310 nm 10,1 ± 0,5 µm @ 1550 nm
Cladding diameter	125 ± 0,7 µm
Primary coating diameter	242 ± 7 µm
Cladding Non-Circularity	≤ 0,7%
Concentricity error core/cladding	≤ 0,5 µm
Concentricity error cladding/coating	≤ 12 µm
Attenuation typical/max λ=1310 nm	0,31 – 0,35 dB/Km
Attenuation typical/max λ=1550 nm	0,20 – 0,24 dB/Km
Attenuation typical/max λ=1625 nm	0,21 – 0,26 dB/Km
Group Index @ 1310 nm	1,4676
Group Index @ 1550 nm	1,4682
Chromatic @ 1550 nm	≤ 18 ps/(nm·Km)
Chromatic @ 1625 nm	≤ 22 ps/(nm·Km)
Cable cut-off wavelength	λ <sub>cc</sub> ≤ 1260 nm
Zero-dispersion wavelength λ <sub>o</sub>	1304-1324 nm
Slope at λ <sub>o</sub>	S <sub>o</sub> ≤ 0,092 ps/(nm <sup>2</sup> ·Km)
PMD	≤ 0,1 ps/√Km

Optical fibers are fully compliant with IEC/EN 60793-1, IEC/EN 60793-2, EN 50173 and ISO/IEC 11801