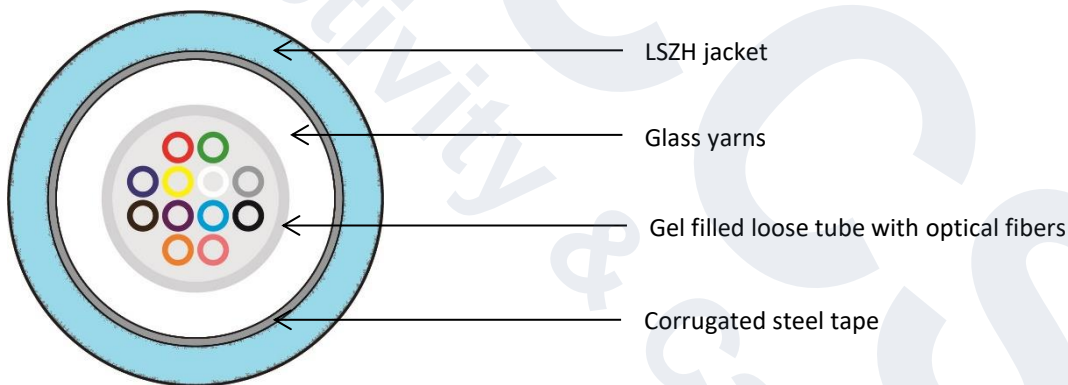


Cable type	<b>U-DQ(BN)(SR)H</b>
Description	<b>Central loose tube cable, 12 OF, metallic armour, LSZH jacket, B2ca</b>



### U-DQ(BN)(SR)H

4 to 24 cores central loose tube optical cable for internal and external use type U-DQ(BN)(SR)H, resistant longitudinally and transversally to the penetration of water, metallic armour with a corrugated steel tape that gives protection against the action of rodents and mechanical stresses, external jacket in LSZH (Low Smoke Zero Halogen) Euroclass B2ca s1a,d1,a1. The optical fibres, with primary coating of 250µm, are contained inside a single thermoplastic tube filled with a water-blocking gel to prevent moisture penetration.



### Constructive characteristics

Tube	Gel-filled Loose tube
Filler protection	Glass yarn
Optical fiber type	Single-mode 9/125; multimode 50/125 OM3 or OM4
Outer jacket material	LSZH (Low Smoke Zero Halogen)
Armour	Corrugated steel tape
Cable outer diameter	10,5 ± 1 mm
Nominal weight	155 Kg/Km
Marking	CCS by Qubix - "product code" – FO Cable U-DQ(BN)(SR)H - "1xn FO" - "fiber type" – corrugated steel tape armoured – LSZH jacket - meters - lot - FID - Euroclass B2ca s1a,d1,a1 - n° DOP

### Mechanical and environmental properties

Use	Indoor/Outdoor
Bend. radius (installation)	20 x outer diameter
Bend. radius (long term)	15 x outer diameter
Max. pull strength	1500 N (150 kg max.)
Crush resistance	from 2000 N/dm
Installation temperature	from -15°C to +50°C
Operating temperature	from -20°C to +60°C

Cable type	<b>U-DQ(BN)(SR)H</b>
Description	<b>Central loose tube cable, 12 OF, metallic 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 Euroclasse B2ca s1a,d1,a1
Fire reaction	EN 60332-1-2; EN 50399
Smoke density	EN 61034-1/2
Acid gases	EN 60754-1/2

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

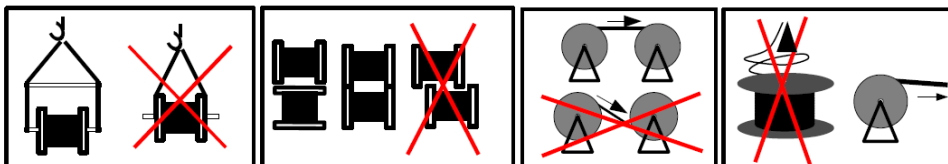
**Packaging**

Drum	2000 o 4000 mt ± 5%
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**Reference codes**

Cores number	9/125 OS2	50/125 OM3	50/125 OM4
1x12 cores	2008423	2008428OM3	2008428OM4

**Recommendations of use**



Cable type	<b>U-DQ(BN)(SR)H</b>
Description	<b>Central loose tube cable, 12 OF, metallic 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**