

Fiber Optic Universal Cable 4-24F

U-DQ(ZN)BH/B2ca

Central Loose Tube Non-Metallic LSZH Cable

Euroclass route for stricter interior requirements

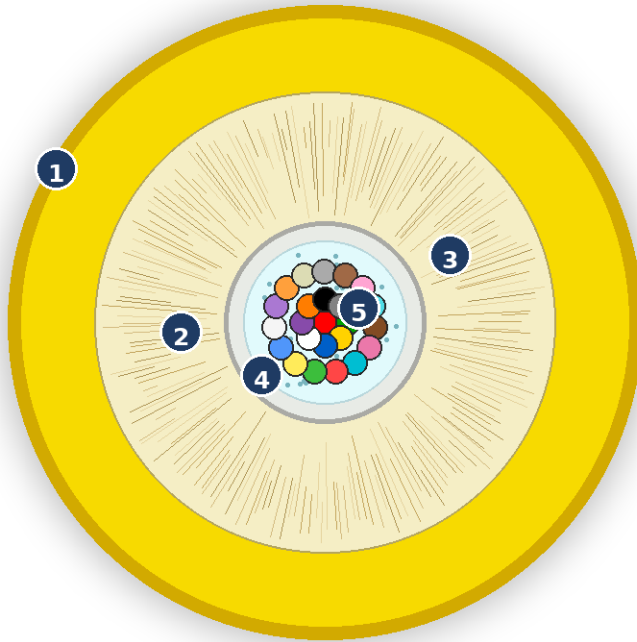


CORE PRODUCT DATA

Cable family	Universal central loose tube cable
Code designation	U-DQ(ZN)BH/B2ca
Fiber count range	4, 6, 8, 12 or 24 fibers
Tube material	LSZH
Strength member	Glass yarn
Outer sheath	UV stabilized LSZH-FR compound
Standard delivery	4 km drum length, $\pm 5\%$ tolerance

Numbered Cable Cross Section

U-DQ(ZN)BH/B2ca - Central Loose Tube Non-Metallic LSZH Cable



Component legend

- 1** LSZH-FR UV resistant outer jacket
Yellow RAL 1018 or black RAL 9005 for SM fibers
- 2** Glass yarn peripheral strength member
Non-metallic tensile strength layer
- 3** Central loose tube - LSZH
Natural tube, 2.50 / 3.00 mm OD depending on fiber count
- 4** Water swellable yarn
Dry water blocking inside the loose tube
- 5** Optical fibers
4-24 single-mode or multi-mode fibers

Layer order
(outside to inside)

1 → 2 → 3 → 4 → 5

Technical construction and performance

The following values are organized from the UPCOM U-DQ(ZN)BH/B2ca datasheet into a redesigned format for easier reading and document use.

Cable construction

Item	4F	6F	8F	12F	24F
Loose tube outer diameter	2.50 mm \pm 3%	2.50 mm \pm 3%	2.50 mm \pm 3%	2.50 mm \pm 3%	3.00 mm \pm 3%
Loose tube material	LSZH	LSZH	LSZH	LSZH	LSZH
Thickness of PC layer	0.250 mm \pm 3%	0.250 mm \pm 3%	0.250 mm \pm 3%	0.250 mm \pm 3%	0.40 mm \pm 3%
Thickness of PB layer	0.100 mm \pm 3%	0.100 mm \pm 3%	0.100 mm \pm 3%	0.100 mm \pm 3%	0.100 mm \pm 3%
Type of filling / blocking material	Water swellable yarn	Water swellable yarn	Water swellable yarn	Water swellable yarn	Water swellable yarn
Peripheral strength member	Glass yarn	Glass yarn	Glass yarn	Glass yarn	Glass yarn
Thickness of glass yarn	0.5 mm \pm 3%	0.5 mm \pm 3%	0.5 mm \pm 3%	0.5 mm \pm 3%	0.45 mm \pm 3%
Outer sheath material	UV stabilized LSZH-FR compound	UV stabilized LSZH-FR compound	UV stabilized LSZH-FR compound	UV stabilized LSZH-FR compound	UV stabilized LSZH-FR compound
Outer sheath thickness	1.30 mm \pm 0.1	1.30 mm \pm 0.1	1.30 mm \pm 0.1	1.30 mm \pm 0.1	1.30 mm \pm 0.1
Cable diameter	6.1 mm \pm 0.2	6.1 mm \pm 0.2	6.1 mm \pm 0.2	6.1 mm \pm 0.2	6.5 mm \pm 0.2
Cable weight	45 \pm 10% kg/km	45 \pm 10% kg/km	45 \pm 10% kg/km	45 \pm 10% kg/km	50 \pm 10% kg/km

Mechanical characteristics

Test	Test standard	Specified value
Tensile force	IEC 60794-1-2-E1	1000 N
Cable bend	IEC 60794-1-2-E11	50 mm
Impact	IEC 60794-1-2-E4	1.5 Nm
Repeated bending	IEC 60794-1-2-E6	R = 30 mm, 100 N load, 1000 cycles
Crush resistance	IEC 60794-1-2-E3	Max. 200 N/cm
Torsion	IEC 60794-1-2-E7	Load = 100 N

Environmental characteristics

Test	Test standard	Operation	Storage	Installation
Temperature cycling	IEC 60794-1-2-F1	-20 to +60 °C	-40 to +70 °C	0 to +50 °C

Identification, colors and delivery

Identification

Field	Specification
Cable marking	1 m \pm 1% intervals in white color with hot foil or ink-jet print.
Standard inscription example	UPCOM FO CABLE UNIVERSAL 8F G652 D SM LSZH B2ca, S1a, d0, a1 41 Meter MM/YY Drum No
Product description	UPCOM FO CABLE UNIVERSAL 8F G652 D SM LSZH B2ca, S1a, d0, a1
Code designation	U-DQ(ZN)BH/B2ca

Colors

Element	Standard color / option
Outer sheath - SM fibers	Yellow RAL 1018 or Black RAL 9005
Outer sheath - 62.5/125 and 50/125 fibers	Orange RAL 2008
Outer sheath - OM3 and OM4 MM fibers	Turquoise RAL 6027
Buffer tube	Natural
Fiber color code	1 Red, 2 Green, 3 Yellow, 4 Blue, 5 White, 6 Violet, 7 Orange, 8 Black, 9 Grey, 10 Brown, 11 Pink, 12 Turquoise, 13 Red I, 14 Green I, 15 Yellow I, 16 Blue I, 17 White I, 18 Violet I, 19 Orange I, 20 Natural I, 21 Grey I, 22 Brown I, 23 Pink I, 24 Turquoise I

Delivery information

Item	4-12F	24F
Drum length / tolerance	4000 m \pm 5%	4000 m \pm 5%
Drum flange diameter	1000 mm	1000 mm
Drum core diameter	580 mm	580 mm
Outside width	780 mm	780 mm
Central hole diameter	85 mm	85 mm

Drum dimensions can change depending on cable length on a drum. Standard delivery length is 4 km. Other delivery lengths are optional.

Transmission characteristics: refer to fiber data.

Ordering codes

Ordering code table for U-DQ(ZN)BH/B2ca universal LSZH central loose tube cable variants.

Fiber type	Fiber count	Part number	Ordering code
G.652D SM	4F	OFMAW04XXX	UP-U-DQ(ZN)BH-GDx4-B2ca-YL
G.652D SM	6F	-	UP-U-DQ(ZN)BH-GDx6-B2ca-YL
G.652D SM	8F	OFMAW08XXX	UP-U-DQ(ZN)BH-GDx8-B2ca-YL
G.652D SM	12F	OFMAW12XXX	UP-U-DQ(ZN)BH-GDx12-B2ca-YL
G.652D SM	24F	OFMAW24XXX	UP-U-DQ(ZN)BH-GDx24-B2ca-YL
G.657.A2 SM	4F	-	UP-U-DQ(ZN)BH-GA2x4-B2ca-YL
G.657.A2 SM	6F	-	UP-U-DQ(ZN)BH-GA2x6-B2ca-YL
G.657.A2 SM	8F	-	UP-U-DQ(ZN)BH-GA2x8-B2ca-YL
G.657.A2 SM	12F	-	UP-U-DQ(ZN)BH-GA2x12-B2ca-YL
G.657.A2 SM	24F	-	UP-U-DQ(ZN)BH-GA2x24-B2ca-YL
OM2 MM	4F	OFM2W04XXX	UP-U-DQ(ZN)BH-OM2x4-B2ca-OR
OM2 MM	6F	-	UP-U-DQ(ZN)BH-OM2x6-B2ca-OR
OM2 MM	8F	OFM2W08XXX	UP-U-DQ(ZN)BH-OM2x8-B2ca-OR
OM2 MM	12F	OFM2W12XXX	UP-U-DQ(ZN)BH-OM2x12-B2ca-OR
OM2 MM	24F	OFM2W24XXX	UP-U-DQ(ZN)BH-OM2x24-B2ca-OR
OM3 MM	4F	OFM3W04XXX	UP-U-DQ(ZN)BH-OM3x4-B2ca-TQ
OM3 MM	6F	-	UP-U-DQ(ZN)BH-OM3x6-B2ca-TQ
OM3 MM	8F	OFM3W08XXX	UP-U-DQ(ZN)BH-OM3x8-B2ca-TQ
OM3 MM	12F	OFM3W12XXX	UP-U-DQ(ZN)BH-OM3x12-B2ca-TQ
OM3 MM	24F	OFM3W24XXX	UP-U-DQ(ZN)BH-OM3x24-B2ca-TQ
OM4 MM	4F	OFM4W04XXX	UP-U-DQ(ZN)BH-OM4x4-B2ca-TQ
OM4 MM	6F	-	UP-U-DQ(ZN)BH-OM4x6-B2ca-TQ
OM4 MM	8F	OFM4W08XXX	UP-U-DQ(ZN)BH-OM4x8-B2ca-TQ
OM4 MM	12F	OFM4W12XXX	UP-U-DQ(ZN)BH-OM4x12-B2ca-TQ
OM4 MM	24F	OFM4W24XXX	UP-U-DQ(ZN)BH-OM4x24-B2ca-TQ

Other tube, fiber and sheath colors are optional. Cable marking can be changed according to request.