

FIBER OPTIC CABLES

Universal. Outdoor. Indoor. FTTH. Specialty.



Universal LSZH

B2ca dry central loose tube



Outdoor backbone

Steel-armoured PE construction



FTTH access

FRP-reinforced aerial messenger drop

Construction drawings. Variant schedules. Technical references.

October 2026 / Revision 01

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Select the installation route, then the cable construction. Each product entry links to its UPCOM technical reference.

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Reading the tables: D is the outside cable diameter. Service and installation tensile limits are separated where the source defines both. Illustrated cable thickness is normalized for presentation; use the dimensional schedule for route planning.

QUICK SELECTION

Universal & outdoor

Compare construction and route requirements before choosing fiber count. The page reference opens the detailed product entry.

Cable designation	Fibers	Jacket	Protection	Page
U-DQ(ZN)BH/B2ca	4-24	LSZH-FR	Dielectric	5
U-DQ(ZN)MT(SR)H	12 / 24	HFFR	Steel tape	6
U-D(ZN)(SR)H	4-24	LSZH-FR	Steel tape	7
U-D(ZN)H Eca	4-24	LSZH-FR	Dielectric	8
U-D(ZN)(SR)2Y FRPE	2-24	FRPE	Steel tape	9
U-D(ZN)BH Eca	4-12	LSZH-FR	Non-metallic	10
A-DQ(BN)2Y-CLT	2-12*	PE	Non-metallic	11
A-DQ(ZN)(SR)2Y	4-24	PE	Steel tape	12
A-DQ(BN)(SR)H-CLT	2-12	LSZH	Steel tape	13
A-DQ(BN)2Y-MLT	96 ref.	PE	Dielectric	14
I-A-DQ(BN)H-MLT	4-192	LSZH	Dielectric	15

SELECTION NOTES

Universal cables cover protected indoor/outdoor transitions. PE-jacketed outdoor cables and LSZH building cables have different jacket requirements. A steel-armoured construction and a dielectric yarn-reinforced construction are separate options.

* Higher-count options require their own dimensional schedule. The 96F MLT dimensions are a reference build, not a dimensional claim for every fiber count.

QUICK SELECTION

Indoor, FTTH & specialty

Compare construction and route requirements before choosing fiber count. The page reference opens the detailed product entry.

Cable designation	Fibers	Jacket	Protection	Page
JV-H Pigtail	1	LSZH	Buffered fiber	16
I-V(ZN)H Mini-Breakout	2-24	LSZH	Dielectric	17
I-V-(ZN)H-H-2x1	2	LSZH	Aramid	18
I-A-V(ZN)H(BN)H	2-24	LSZH	Non-metallic	19
I-V(ZN)HH Break SZ	2-24	FR-LSZH	GRP / aramid	20
J-V(ZN)H 1x1 SX Zip	1	LSZH	Buffered fiber	21
I-V(ZN)H Drop	2-24	LSZH	Aramid	22
A-N(ZM)H-SH / SF	1 / 2 / 4*	LSZH-FR	FRP + steel	23
A-N(ZM)H-SH / SS	1 / 2 / 4*	LSZH-FR	Steel + steel	24
U-V(ZN)11Y	4	Polyurethane	Aramid	25
A-V(ZN)H(SR)2Y	2-12 / 24*	PE / LSZH*	Steel tape	26

SELECTION NOTES

Breakout cables provide individually jacketed sub-units; mini-breakout and distribution cables use a more compact tight-buffer arrangement. Aerial messenger drop cables must be distinguished from round indoor drop cables.

* 4F aerial drop and 24F armoured mini-breakout options require variant confirmation. The steel messenger makes the full aerial assembly a metallic construction.

UNIVERSAL / 4-24 FIBERS / LSZH-FR

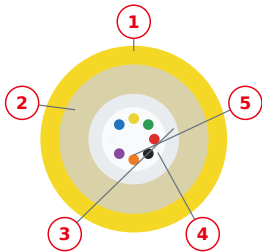
U-DQ(ZN)BH/B2ca

Dry central loose tube, dielectric LSZH

A compact dry loose-tube cable for building backbones, campus links and protected indoor/outdoor transitions where a B2ca construction is specified.



CONSTRUCTION



- 01** UV-stabilized LSZH-FR outer sheath
- 02** Glass yarn strength members
- 03** LSZH central loose tube
- 04** Water-swellable yarn / dry blocking
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fiber count	Tube OD / mm	Cable OD / mm	Weight / kg/km
4 / 6 / 8 / 12	2.50 ±3%	6.1 ±0.2	45 ±10%
24	3.00 ±3%	6.5 ±0.2	50 ±10%

MECHANICAL AND ENVIRONMENTAL DATA

Tensile force

1000 N

Minimum cable bend

50 mm

Crush resistance

200 N/cm max. (E3)

Operating / storage

-20 to +60 / -40 to +70 °C

Installation temperature

0 to +50 °C

Standard drum length

4000 m ±5%

DoP UPCOM-100 identifies the B2ca construction. Example: UP-U-DQ(ZN)BH-GDx12-B2ca-YL. Confirm fiber type, count and sheath colour when ordering.

Product page / technical reference

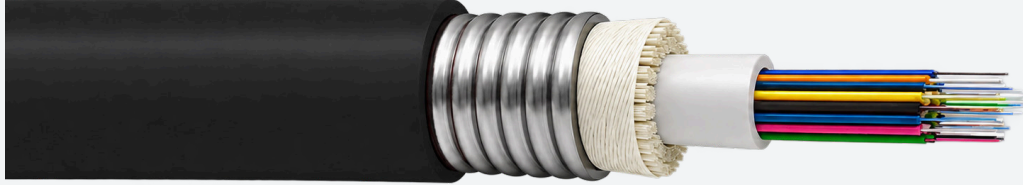
B2ca-s1a,d0,a1

UNIVERSAL / 12 / 24 FIBERS / HFFR

U-DQ(ZN)MT(SR)H

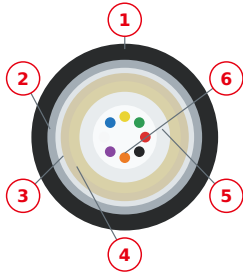
Mica-tape, steel-armoured HFFR cable

Single loose tube with a two-layer mica-tape barrier, glass yarn reinforcement and corrugated steel tape armour. Intended for projects specifying this protected HFFR construction.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-resistant HFFR outer sheath
- 02** Corrugated steel tape armour
- 03** Two helically applied mica-tape layers
- 04** Glass yarn reinforcement
- 05** Gel-filled HFFR PBT loose tube
- 06** G.657.A1 single-mode fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	Tube OD / mm	Cable OD / mm	Weight / kg/km
12	2.8	8.6	110
24	3.0	8.8	113

MECHANICAL AND ENVIRONMENTAL DATA

Tensile strength

1000 N

Crush resistance

2000 N/100 mm, 15 minutes

Armour / jacket wall

255 µm steel tape / 1.8 mm jacket

Operating / storage

-40 to +70 °C

Installation temperature

-30 to +60 °C

Standard reel length

2000 m ±5%

TSE certificate 1783-CPR-1436 covers reaction-to-fire performance. FE180 / PH120 circuit-integrity claims require separate test evidence for the ordered construction.

Product page / technical reference

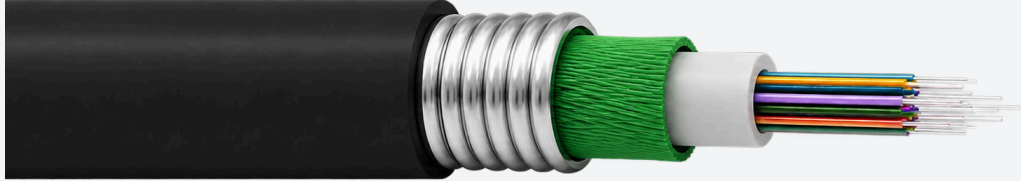
B2ca-s1a,d1,a1

UNIVERSAL / 4-24 FIBERS / LSZH-FR

U-D(ZN)(SR)H

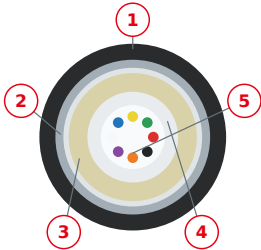
Steel-armoured central loose tube, LSZH

A jelly-filled central-tube cable with corrugated steel tape armour for campus backbones, ducts, conduits and controlled building-entry routes.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-stabilized LSZH-FR outer sheath
- 02** Corrugated steel tape armour
- 03** Glass yarn reinforcement
- 04** PC+PBT central loose tube
- 05** Thixotropic jelly and optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Selection parameter	Published construction
Fiber-count family	4-24 fibers
Loose-tube arrangement	One central PC+PBT tube
Filling	Thixotropic jelly
Metallic protection	Corrugated steel tape

MECHANICAL AND ENVIRONMENTAL DATA

Installation route

Ducts, conduits and protected backbone

Outer jacket

LSZH-FR

Reinforcement

Glass yarn

Dimensional schedule

Specify the selected fiber configuration

Mechanical schedule

Request the ordered variant data

Request the dimensional and mechanical schedule for the chosen fiber count. Confirm diameter, weight, installation tension, bending limits and any required CPR documentation before project approval.

Product page / technical reference

CPR: confirm ordered construction

UNIVERSAL / 4-24 FIBERS / LSZH-FR

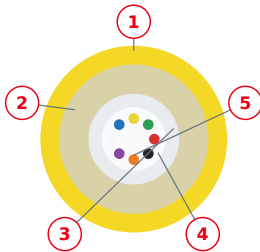
U-D(ZN)H Eca

Dielectric central tube, LSZH

An LSZH central-tube cable with glass yarn reinforcement and a gel-filled PC+PBT tube for indoor links and protected outdoor transitions.



CONSTRUCTION



- 01** UV-stabilized LSZH-FR outer sheath
- 02** Glass yarn reinforcement
- 03** PC+PBT central loose tube
- 04** Thixotropic jelly
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fiber count	Tube OD / mm	Cable OD / mm	Weight / kg/km
4 / 6 / 8 / 12	2.50 ±3%	5.5 ±0.2	34
16 / 24	3.00 ±3%	5.9 ±0.2	38

MECHANICAL AND ENVIRONMENTAL DATA

Minimum cable bend

50 mm

Impact

1.5 Nm

Installation temperature

0 to +50 °C

Crush resistance

200 N/cm max. (E3)

Operating / storage

-20 to +60 / -40 to +70 °C

Standard drum length

4000 m ±5%

DoP UPCOM-103 identifies U-D(ZN)H/Eca. Confirm the permanent and installation tensile ratings in the order-specific schedule. Specify fiber type, sheath colour and delivery length.

[Product page / technical reference](#)

Eca

UNIVERSAL / 2-24 FIBERS / FRPE

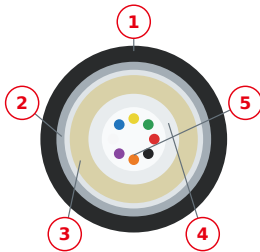
U-D(ZN)(SR)2Y FRPE

Steel-armoured central tube, FRPE

A universal steel-tape-armoured central-tube construction with a flame-retardant PE sheath, glass yarn and a thixotropic-jelly-filled tube.



CONSTRUCTION



- 01** Black PE-FR outer sheath
- 02** Corrugated steel tape armour
- 03** Glass yarn reinforcement
- 04** PBT central loose tube
- 05** Thixotropic jelly and optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fiber-count group	Tube OD / mm	Cable OD / mm	Weight / kg/km
2-12	2.50 ±3%	7.6 ±0.2	60 ±10%
16-24	3.00 ±3%	7.6 ±0.2	60 ±10%

MECHANICAL AND ENVIRONMENTAL DATA

Crush resistance

1500 N/100 mm max. (E3)

Impact

3 Nm

Storage / installation

-30 to +70 °C

Bend radius, loaded / unloaded

20D / 15D

Operating temperature

-40 to +70 °C

Standard drum length

2000 m ±5%

DoP UPCOM-102 identifies the FRPE Eca construction. Confirm fiber-count availability and the permanent/installation tensile schedule before order approval. D = outer cable diameter.

Product page / technical reference

Eca

UNIVERSAL / 4-12 FIBERS / LSZH-FR

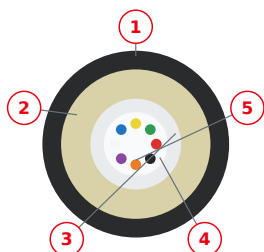
U-D(ZN)BH Eca

Non-metallic reinforced central tube

A compact central-tube cable with non-metallic glass yarn protection and a UV-stabilized LSZH-FR sheath for indoor and protected outdoor routes.



CONSTRUCTION



- 01** UV-stabilized LSZH-FR outer sheath
- 02** Non-metallic glass yarn protection
- 03** PC+PBT central tube, 2.50 mm $\pm$ 3%
- 04** Thixotropic jelly
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Documented fiber counts	Cable OD / mm	Weight / kg/km
4 / 6 / 8 / 12	5.5 $\pm$ 0.2	30

MECHANICAL AND ENVIRONMENTAL DATA

Tensile force

1000 N

Minimum cable bend

50 mm

Crush resistance

200 N/cm max. (E3)

Operating / storage

-20 to +60 / -40 to +70 °C

Installation temperature

0 to +50 °C

Standard drum length

4000 m $\pm$ 5%

The construction table documents 4, 6, 8 and 12 fibers. A 24-fiber option requires separate dimensional confirmation. Request the DoP matching the exact supplied construction.

[Product page / technical reference](#)

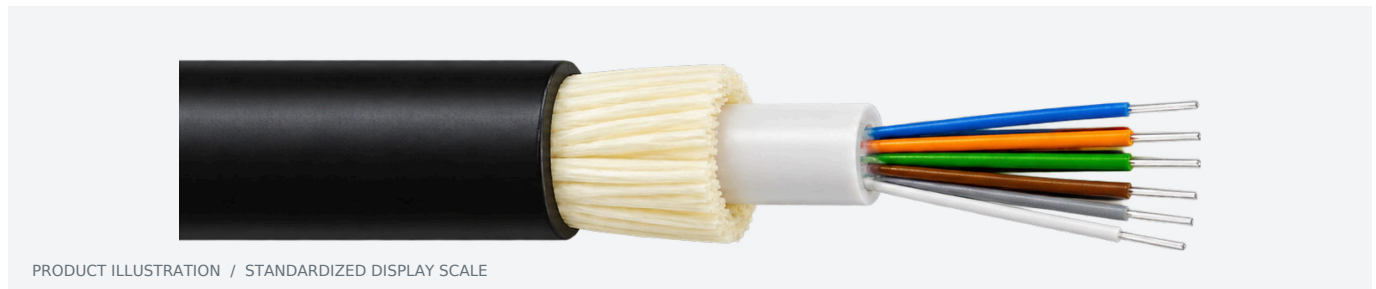
Eca

OUTDOOR / 2-12* FIBERS / PE

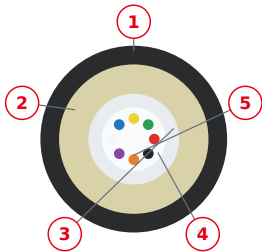
A-DQ(BN)2Y-CLT

Dielectric central loose tube, PE

A gel-filled central loose-tube cable for outdoor access and distribution ducts. Water-blocking glass yarn provides non-metallic reinforcement beneath the PE jacket.



CONSTRUCTION



- 01** UV-resistant PE outer sheath
- 02** Water-blocking glass yarn
- 03** PBT central loose tube, 3.0 mm
- 04** Thixotropic jelly
- 05** Optical fibers / ripcords

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Documented fiber counts	Cable OD / mm	Weight / kg/km
2 / 4 / 6 / 8 / 12	7.0	55

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, service / installation

800 / 1200 N

Crush resistance

1500 N (E3)

Minimum bending radius

20D

Temperature range

-30 to +70 °C

Tube / outer jacket

PBT / PE

Dimensions shown are for the documented 2-12F schedule. Higher counts require a matching approved variant schedule. Mechanical reinforcement is non-metallic; there is no steel-tape armour.

Product page / technical reference

CPR: confirm ordered construction

OUTDOOR / 4-24 FIBERS / PE

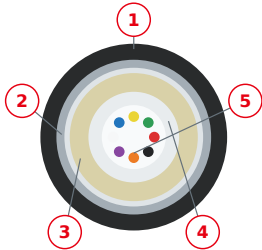
A-DQ(ZN)(SR)2Y

Steel-armoured central loose tube, PE

A black PE outdoor cable with corrugated steel tape armour, water-blocking yarn and a gel-filled PBT central tube for protected backbone and distribution routes.



CONSTRUCTION



- 01** UV-resistant black PE sheath
- 02** Corrugated steel tape armour
- 03** Swellable glass yarn / ripcord
- 04** Gel-filled PBT central loose tube
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fiber count	Tube OD / mm	Cable OD / mm	Weight / kg/km
4 / 6 / 8 / 12	2.50 ±3%	8.0 ±0.2	68 ±10%
24	3.00 ±3%	8.2 ±0.2	76 ±10%

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, installation / service

1000 / 400 N

Crush, short / long term

3000 / 1600 N/dm

Bend, installation / service

20D / 15D

Operating temperature

-30 to +60 °C

Installation / storage

0 to +70 / -20 to +70 °C

DoP UPCOM-101 identifies the Fca construction. Confirm route suitability, fiber type, drum length and the final mechanical schedule for the ordered variant.

Product page / technical reference

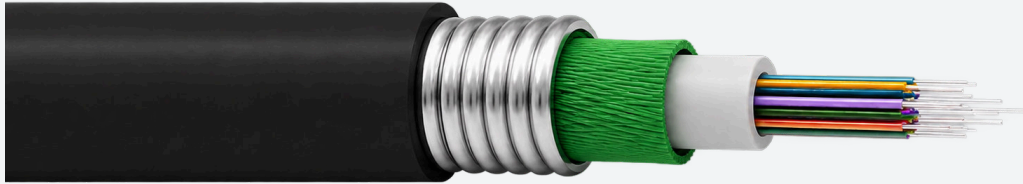
Fca

OUTDOOR / 2-12 FIBERS / LSZH

A-DQ(BN)(SR)H-CLT

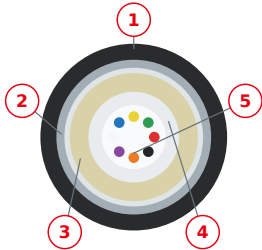
Steel-armoured central loose tube, LSZH

Central loose-tube construction combining metallic armour with an LSZH/HFFR sheath for ducted campus links and indoor/outdoor transition routes.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** LSZH / HFFR outer sheath
- 02** Corrugated steel tape armour
- 03** Water-blocking glass yarn / ripcord
- 04** PBT central loose tube, 2.8 mm
- 05** Thixotropic jelly and optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Documented fiber counts	Cable OD / mm	Weight / kg/km
2 / 4 / 6 / 8 / 12	7.5	90

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, service / installation

800 / 1200 N

Crush resistance

1000 N (E3)

Minimum bending radius

20D

Temperature range

-30 to +70 °C

Outer jacket

LSZH / HFFR

LSZH describes the jacket material. A CPR Euroclass must be established by the documents for the ordered cable; it is not inferred from the material or armour.

Product page / technical reference

CPR: confirm ordered construction

OUTDOOR / 96 REF. FIBERS / PE

A-DQ(BN)2Y-MLT

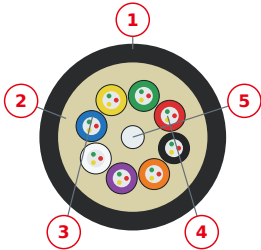
Dielectric multi loose tube, PE

A multi-tube outdoor construction around an FRP central strength member. The published reference build uses eight PBT tubes with twelve fibers per tube.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-resistant black PE outer sheath
- 02** Swellable yarn reinforcement
- 03** Gel-filled coloured PBT loose tubes
- 04** Optical fibers
- 05** FRP central strength member

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Reference build	Tube OD / mm	Cable OD / mm	Weight / kg/km
8 tubes × 12F = 96F	2.3	14.0 ±0.5	135

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, service / installation

1500 / 2700 N

Crush resistance

2000 N (E3)

Minimum bending radius

20D

Temperature range

-30 to +70 °C

G.652.D attenuation, 1310 / 1550 nm

0.35 / 0.22 dB/km max.

All dimensions and mechanical values on this page describe the 96F reference build. Other fiber counts, tube layouts and sheath options require their own configuration schedule.

Product page / technical reference

CPR: confirm ordered construction

OUTDOOR / 4-192 FIBERS / LSZH

I-A-DQ(BN)H-MLT

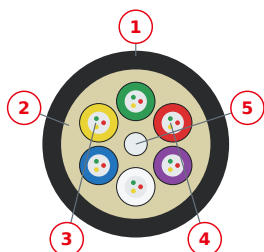
Dielectric multi loose tube, LSZH

A multi loose-tube cable with a dry, water-blocked core and glass yarn reinforcement for indoor backbones and protected outdoor duct transitions.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** LSZH / HFFR outer sheath
- 02** Glass yarn reinforcement
- 03** Water-swellable tape / dry core
- 04** Coloured PBT loose tubes and fibers
- 05** Central strength member

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fiber-count band	Published OD range / mm	Outer sheath
4-24	10-12	LSZH
48-96	12-15	LSZH
144-192	15-18	LSZH

MECHANICAL AND ENVIRONMENTAL DATA

Tensile strength

Up to 4000 N, construction-dependent

Crush resistance

2000 N (E3)

Minimum bending radius

20D

Operating temperature

-30 to +70 °C

Fiber options

G.652.D / G.657.A1; others on request

Diameter ranges are selection values, not a finished-cable dimensional tolerance. Specify the exact fiber count, tube layout, diameter, weight and pulling limit before production.

Product page / technical reference

CPR: confirm ordered construction

INDOOR / 1 FIBER / LSZH

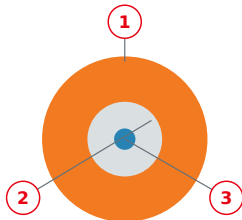
JV-H Pigtail

Single-fiber tight buffer, LSZH

A 900 µm buffered optical fiber for indoor pigtail, jumper and equipment-side connections. Suitable for direct connector assembly when the termination is specified.



CONSTRUCTION



- 01** 900 µm LSZH / HFFR buffer
- 02** 250 µm coated optical fiber
- 03** Optical core and cladding

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	Buffered diameter / mm	Weight / kg/km
1	0.90 ±0.05	0.9

MECHANICAL AND ENVIRONMENTAL DATA

Tensile load

10 N

Minimum bending radius

20D

Temperature range

-10 to +60 °C

Maximum published length

8000 m

Jacket colour

Yellow SM / blue MM50 / orange MM62.5

This entry is the bare buffered cable. If a connectorized pigtail is required, specify connector type, UPC/APC polish, finished length and packing quantity.

Product page / technical reference

CPR: confirm ordered construction

INDOOR / 2-24 FIBERS / LSZH

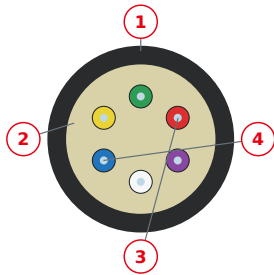
I-V(ZN)H Mini-Breakout

Compact indoor tight-buffer distribution

A compact all-dielectric indoor cable with individually coloured tight-buffered fibers and yarn reinforcement for risers, horizontal routes and direct termination.



CONSTRUCTION



- 01** LSZH outer sheath
- 02** Aramid / glass yarn strength members
- 03** 900 µm LSZH tight buffers
- 04** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	OD / mm	kg/km	Service / N	Install. / N
2	4.5	26	400	600
4	5.5	31	400	600
6	6.0	42	600	1000
8	6.8	48	600	1000
12	7.2	54	800	1200
16	8.0	67	1000	1600
24	8.6	85	1200	2000

MECHANICAL AND ENVIRONMENTAL DATA

Tight buffer diameter

900 ±50 µm

Crush resistance

1000 N (E3)

Minimum bending radius

20D

Temperature range

-20 to +60 °C

Maximum published length

2000 m

Select fiber count first: diameter, weight and permissible pulling load change with count. Fiber family and the G.657 subclass, where required, must be specified in the order.

Product page / technical reference

CPR: confirm ordered construction

INDOOR / 2 FIBERS / LSZH

I-V-(ZN)H-H-2x1

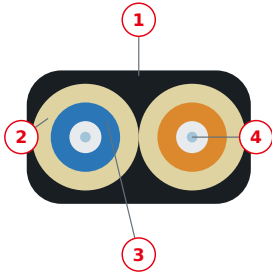
Flat duplex indoor cable

Two individually protected fiber sub-units in an LSZH flat construction for indoor interconnects, terminal equipment and controlled fan-out routing.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** Flat LSZH outer sheath
- 02** Aramid yarn strength members
- 03** Two LSZH sub-unit jackets
- 04** Tight buffers and individual fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Sub-unit / mm	Cable dimensions / mm	kg/km	Service / install. / N
2.0	3.1 × 6.2	24	300 / 500
2.8	3.8 × 6.6	32	400 / 700

MECHANICAL AND ENVIRONMENTAL DATA

Fiber count

2

Crush resistance

600 N/10 cm

Minimum bending radius

20D (published reference)

Temperature range

-20 to +60 °C

Outer / sub-unit jacket

LSZH / LSZH

Specify the sub-unit size, optical fiber type and connectorization requirement. For flat cable bend planning, confirm the applicable bending plane and dimension with the approved installation data.

Product page / technical reference

CPR: confirm ordered construction

INDOOR / 2-24 FIBERS / LSZH

I-A-V(ZN)H(BN)H

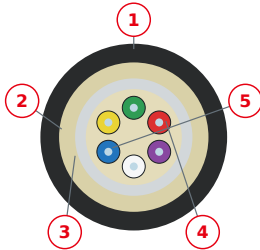
Non-metallic reinforced tight-buffer cable

A dry tight-buffer construction with non-metallic glass yarn protection and inner HFFR bedding for indoor distribution and direct-termination applications.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** LSZH outer sheath
- 02** Non-metallic glass yarn protection
- 03** HFFR inner jacket
- 04** Yarn-reinforced 900 µm tight buffers
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	OD / mm	kg/km	Service / N	Install. / N
2	4.5	26	400	600
4	5.5	31	400	600
6	6.0	42	600	1000
8	6.8	48	600	1000
12	7.2	54	800	1200
16	8.0	67	1000	1600
24	8.6	85	1200	2000

MECHANICAL AND ENVIRONMENTAL DATA

Tight buffer diameter

900 ±50 µm

Crush resistance

1000 N (E3)

Minimum bending radius

20D

Temperature range

-20 to +60 °C

Maximum published length

2000 m

This is a non-metallic construction. The glass yarn protection must not be described as corrugated steel armour. Match the ordered count to the dimensional and tensile schedule above.

Product page / technical reference

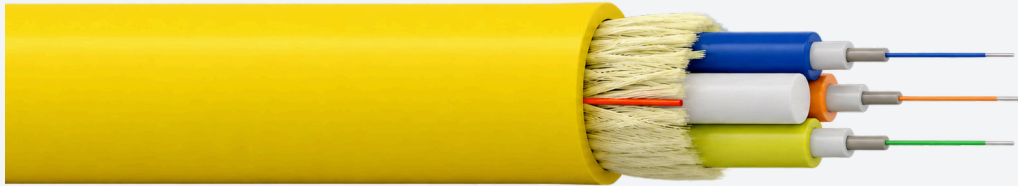
CPR: confirm ordered construction

INDOOR / 2-24 FIBERS / FR-LSZH

I-V(ZN)HH Break SZ

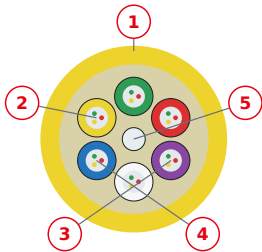
Individually jacketed breakout sub-units

SZ-stranded 2.0 mm breakout elements around a GRP central member. Each element combines a tight buffer, aramid yarn and FR-LSZH jacket for direct field termination.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** FR-LSZH outer sheath / ripcord
- 02** SZ-stranded 2.0 mm sub-units
- 03** Aramid yarn inside each sub-unit
- 04** 900 µm tight buffers and fibers
- 05** GRP central strength member

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	OD / mm	kg/km	Service / N	Install. / N
2	6.8	47	600	1000
4	7.0	54	800	1350
6	9.2	74	1200	2050
8	11.0	96	1600	2700
12	15.0	153	2400	3500
16	14.8	186	3200	3500
24	18.0	210	3500	4500

MECHANICAL AND ENVIRONMENTAL DATA

Sub-unit diameter

2.0 mm

Crush resistance

2000 N (E3)

Minimum bending radius

20D

Temperature range

-20 to +60 °C

Core structure

Dry, all dielectric, GRP + aramid

Sub-unit identification is by colour or number. Specify fiber type, jacket colour, marking, delivery length and whether the cable will be supplied bare or as a terminated assembly.

Product page / technical reference

CPR: confirm ordered construction

INDOOR / 1 FIBER / LSZH

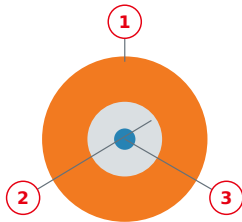
J-V(ZN)H 1x1 SX Zip

Single-fiber indoor tight buffer

A compact single-fiber LSZH buffer for indoor interconnects, pigtail and jumper connections, equipment internals and direct connector assembly.



CONSTRUCTION



- 01** 900 µm LSZH / HFFR buffer
- 02** 250 µm coated optical fiber
- 03** Optical core and cladding

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	Buffered diameter / mm	Weight / kg/km
1	0.90 ±0.05	0.9

MECHANICAL AND ENVIRONMENTAL DATA

Tensile load

10 N

Minimum bending radius

20D

Temperature range

-10 to +60 °C

Maximum published length

8000 m

Jacket colour

Orange MM62.5 / blue MM50 / yellow SM

A 900 µm buffered fiber for dry indoor routing and direct connector assembly. Specify single-mode or multimode grade, buffer colour, finished length and packing requirements.

Product page / technical reference

CPR: confirm ordered construction

FTTH / 2-24 FIBERS / LSZH

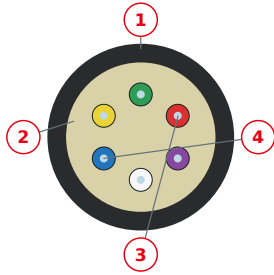
I-V(ZN)H Drop

Round indoor drop / distribution cable

A round, dry, non-metallic LSZH cable with tight-buffered fibers and aramid yarn. Intended for indoor drops, risers, working-area links and direct connector fitting.



CONSTRUCTION



- 01** Round LSZH outer sheath
- 02** Aramid yarn reinforcement
- 03** 900 µm LSZH tight buffers
- 04** Coated optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	OD / mm	kg/km	Service / N	Install. / N
2	4.5	26	400	600
4	5.5	31	400	600
6	6.0	42	600	1000
8	6.8	48	600	1000
12	7.2	54	800	1200
16	8.0	67	1000	1600
24	8.6	85	1200	2000

MECHANICAL AND ENVIRONMENTAL DATA

Tight buffer diameter

900 ±50 µm

Crush resistance

1000 N (E3)

Minimum bending radius

20D

Temperature range

-20 to +60 °C

Maximum published length

2000 m

This round indoor cable is a different construction from the aerial messenger drop cables on the following pages. Select the route and required protection before selecting fiber count.

Product page / technical reference

CPR: confirm ordered construction

FTTH / 1 / 2 / 4* FIBERS / LSZH-FR

A-N(ZM)H-SH / SF

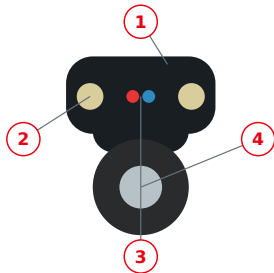
FRP-reinforced aerial messenger drop

A flat aerial drop cable with FRP side strength members and a separate galvanized-steel messenger. The dry, UV-resistant LSZH-FR construction is intended for last-mile aerial access routes.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-resistant LSZH-FR outer jacket
- 02** Two FRP side strength members
- 03** Single-mode G.657.A2 optical fibers
- 04** Separate FeZn steel messenger

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Standard fibers	Cable dimensions / mm	Weight / kg/km
1 / 2; 4 on request	2.0 × 5.2	20 ±10%

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, installation / service

600 / 300 N

Crush, short / long term

4000 / 2000 N/dm

Operation / storage

-30 to +70 °C

Bend, installation / service

20 / 15 mm

Installation temperature

+5 to +50 °C

FRP / messenger diameter

0.5 / 1.0 mm, each ±10%

The steel messenger is conductive; the complete cable is not all dielectric. The SF code distinguishes FRP side reinforcement from the SS steel-reinforced construction. Confirm 4F dimensions before ordering.

Product page / technical reference

CPR: confirm ordered construction

FTTH / 1 / 2 / 4* FIBERS / LSZH-FR

A-N(ZM)H-SH / SS

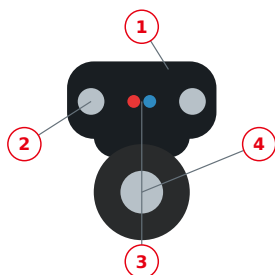
Steel-reinforced aerial messenger drop

A flat aerial drop cable using steel side strength members and a separate steel messenger. The UV-resistant LSZH-FR jacket protects the dry fiber path.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-resistant LSZH-FR outer jacket
- 02** FeZn steel side strength members
- 03** Single-mode G.657.A2 optical fibers
- 04** Separate FeZn steel messenger

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Standard fibers	Cable dimensions / mm	Weight / kg/km
1 / 2; 4 on request	2.0 × 5.2	20 ±10%

MECHANICAL AND ENVIRONMENTAL DATA

Published tensile rating

400 N; confirm loading condition

Crush, short / long term

4000 / 2000 N/dm

Operation / storage

-30 to +70 °C

Bend, installation / service

20 / 15 mm

Installation temperature

+5 to +50 °C

Messenger material

Galvanized steel

SS identifies steel side strength members plus a steel messenger. Confirm the installation/service tensile schedule and the 4F variant before order approval. This construction contains metallic elements.

Product page / technical reference

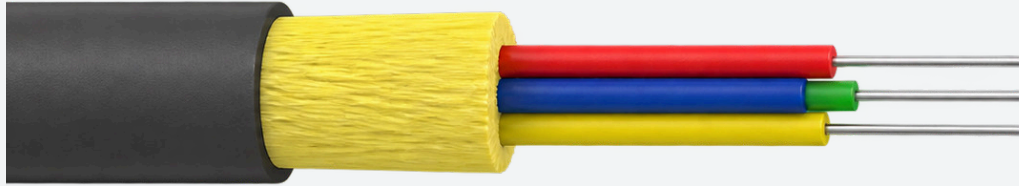
CPR: confirm ordered construction

SPECIALTY / 4 FIBERS / POLYURETHANE

U-V(ZN)11Y

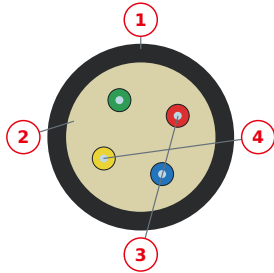
Four-fiber tactical cable

A flexible, dry, all-dielectric tactical cable with individually tight-buffered fibers, aramid strain relief and a polyurethane jacket for temporary and repeated field deployment.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** Black polyurethane outer jacket
- 02** Aramid yarn strain relief
- 03** 900 µm thermoplastic tight buffers
- 04** Four single-mode optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	Cable OD / mm	Weight / kg/km
4	5.8	25 ±2.5

MECHANICAL AND ENVIRONMENTAL DATA

Tensile, installation / service

2000 / 1500 N

Crush, short / long term

4000 / 1000 N/dm

In-service temperature

-40 to +75 °C

Bend, installation / service

90 / 60 mm

Installation temperature

-40 to +85 °C

Attenuation, 1310 / 1550 nm

0.36 / 0.25 dB/km max.

The published data describe the 4F tactical construction. Example coding: U-04-TC-58-T9H-A2-U-BK. Confirm fiber subclass, reel format and deployment conditions for the order.

Product page / technical reference

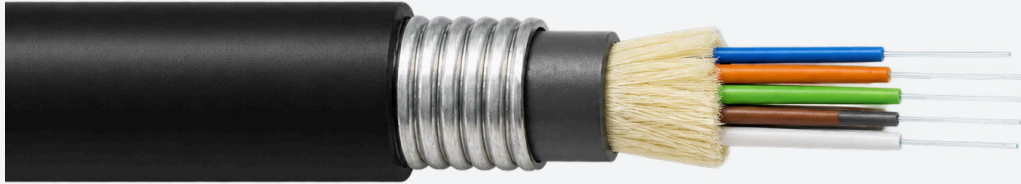
CPR: confirm ordered construction

SPECIALTY / 2-12 / 24* FIBERS / PE / LSZH*

A-V(ZN)H(SR)2Y

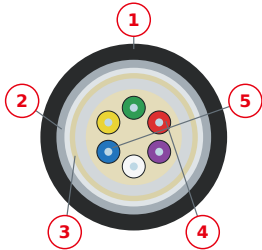
Steel-armoured tight-buffer mini-breakout

A dry, tight-buffered distribution cable with an inner jacket and corrugated steel tape armour. The PE-jacketed construction is intended for protected outdoor and duct applications.



PRODUCT ILLUSTRATION / STANDARDIZED DISPLAY SCALE

CONSTRUCTION



- 01** UV-resistant PE outer sheath
- 02** Corrugated steel tape armour
- 03** Inner jacket / bedding
- 04** Yarn-reinforced 900 µm tight buffers
- 05** Optical fibers

Schematic cross-section; layer sizes and displayed fiber count are illustrative.

CONFIGURATION DATA

Fibers	OD / mm	kg/km	Service / N	Install. / N
2	10.5	140	1000	1800
4	11.0	150	1000	1800
6	11.5	160	1200	2000
8	12.0	175	1200	2000
12	13.3	220	1200	2000

MECHANICAL AND ENVIRONMENTAL DATA

Tight buffer diameter

900 ±50 µm

Crush resistance

2000 N (E3)

Minimum bending radius

20D

Temperature range

-20 to +60 °C

Jacket options

PE outdoor; LSZH by configuration

The dimensional table covers 2-12F. Counts up to 24F and LSZH alternatives require a separate schedule. Confirm inner/outer jacket materials in the order-specific construction drawing.

Product page / technical reference

CPR: confirm ordered construction

TECHNICAL REFERENCE

Optical specification

State the fiber standard and the required optical performance together. Cable construction, fiber type and attenuation limits must match the selected product schedule.

FIBER FAMILIES IN THE CATALOGUE

Fiber designation	Core / cladding	Reference wavelengths	Selection point
G.652.D	9 / 125 µm class	1310 / 1550 nm	Single-mode backbone and access
G.657.A1 / A2	Single-mode, 125 µm cladding	1310 / 1550 nm	Specify the required bend class
OM1	62.5 / 125 µm	850 / 1300 nm	Legacy multimode installations
OM2 / OM3 / OM4	50 / 125 µm	850 / 1300 nm	Specify the multimode grade

SELECTED CABLED SINGLE-MODE ATTENUATION LIMITS

Cable / fiber reference	1310 nm	1550 nm
A-DQ(BN)2Y-MLT, 96F G.652.D	0.35 dB/km	0.22 dB/km
U-DQ(ZN)MT(SR)H, G.657.A1	0.36 dB/km	0.24 dB/km
4F tactical cable, single-mode	0.36 dB/km	0.25 dB/km
Indoor schedule, G.652.D	0.34 dB/km	0.25 dB/km
Indoor schedule, G.657A	0.34 dB/km	0.22 dB/km

MULTIMODE ATTENUATION REFERENCE FROM INDOOR SCHEDULES

Fiber type	850 nm / dB/km max.	1300 nm / dB/km max.
OM1	3.2	1.2
OM2	3.0	1.0
OM3	2.8	0.8
OM4	2.7	0.7

These values belong to the cited cable schedules. They are not universal limits for every cable in this catalogue. Modal bandwidth must be specified separately; nm is a wavelength unit.

TECHNICAL REFERENCE

Fire performance & documents

Match the complete reaction-to-fire class to the exact product construction and its Declaration of Performance. Jacket material, reaction to fire and circuit integrity are separate specification items.

Cable designation	Documented class	Supporting reference
U-DQ(ZN)BH/B2ca	B2ca-s1a,d0,a1	DoP UPCOM-100
U-DQ(ZN)MT(SR)H	B2ca-s1a,d1,a1	TSE 1783-CPR-1436
U-D(ZN)H Eca	Eca	DoP UPCOM-103
U-D(ZN)(SR)2Y FRPE	Eca	DoP UPCOM-102
A-DQ(ZN)(SR)2Y	Fca	DoP UPCOM-101
U-D(ZN)BH Eca	Eca listed on product page	Request variant-specific DoP

LSZH / HFFR

These names describe sheath-material characteristics. They do not establish a CPR Euroclass on their own.

Complete CPR designation

Keep the smoke, droplets and acidity suffixes where stated. B2ca-s1a,d0,a1 and B2ca-s1a,d1,a1 are different declarations.

Circuit integrity

FE180, PH120 and similar survival claims require separate test evidence. A CPR reaction-to-fire certificate does not by itself certify circuit integrity.

Variant matching

Confirm the product designation, construction, fiber-count scope and required declaration before project approval.

Open UPCOM CPR documents

TECHNICAL REFERENCE

Identification & delivery

An approved cable designation, marking string and delivery schedule should describe the same configuration. Include these fields in the quotation and production approval.

CABLE AND DRUM IDENTIFICATION

Field	Specify / verify
Cable construction	Product designation, jacket material and protection type
Optical configuration	Fiber standard, count, tube layout and colour code
Mechanical schedule	Finished diameter, weight, pulling limits and bend radius
Fire performance	Required CPR class and matching DoP / certificate
Jacket printing	UPCOM, product code, fiber count/type, production date and metre marks
Drum label	Order reference, cable designation, length, gross/net weight and drum number

PUBLISHED STANDARD DELIVERY LENGTHS

Cable family	Published standard length
U-DQ(ZN)BH/B2ca; U-D(ZN)H Eca; U-D(ZN)BH Eca	4000 m $\pm 5\%$
U-DQ(ZN)MT(SR)H; U-D(ZN)(SR)2Y FRPE	2000 m $\pm 5\%$
Indoor mini-breakout / reinforced distribution / round drop	Up to 2000 m in the published schedules
JV-H / single-fiber SX buffer	Up to 8000 m in the published schedules

EXAMPLE OF AN EXISTING ORDERING CODE

UP-U-DQ(ZN)BH-GDx12-B2ca-YL

U-DQ(ZN)BH construction / G.652.D single-mode / 12 fibers / B2ca / yellow sheath. This is a product-specific code example, not a new coding rule for all cable families.

Drum dimensions depend on the cable construction and length. Confirm minimum order quantity, cutting tolerance, drum lengths, drum material and packing marks in the quotation.

ORDERING SUPPORT

Prepare a cable enquiry

A complete route and configuration description helps select the correct cable and prevents dimensions from one build being used for another.

Requirement	Include in the enquiry
Installation route	Indoor, protected outdoor, duct, buried, aerial or temporary deployment
Installation method	Pulling, blowing or direct termination; indicate any duct constraints
Fiber specification	G.652.D / specific G.657 subclass / OM grade; required fiber count
Cable construction	Central tube / multi tube / tight buffer / breakout / messenger drop
Protection and sheath	Steel armour or dielectric reinforcement; PE / LSZH / HFFR / polyurethane
Mechanical limits	Maximum OD, installation tension, crush requirement and bend limits
Fire documentation	Required complete CPR class and any separate circuit-integrity evidence
Quantity and packing	Total metres, length per drum, tolerance, packing and marking
Termination, if required	Connector type, polish, finished length and assembly arrangement
Destination and timing	Delivery country, required date and transport / delivery terms

CONFIRM THE INSTALLATION METHOD

A conventional duct cable is not automatically a microduct blowing cable. For air-blown installation, specify the duct OD/ID, cable OD limit and required blowing-compatible construction.

Send an enquiry to info@upcom.com.tr

Open the fiber optic cable range

TECHNICAL REFERENCES

Product & document index

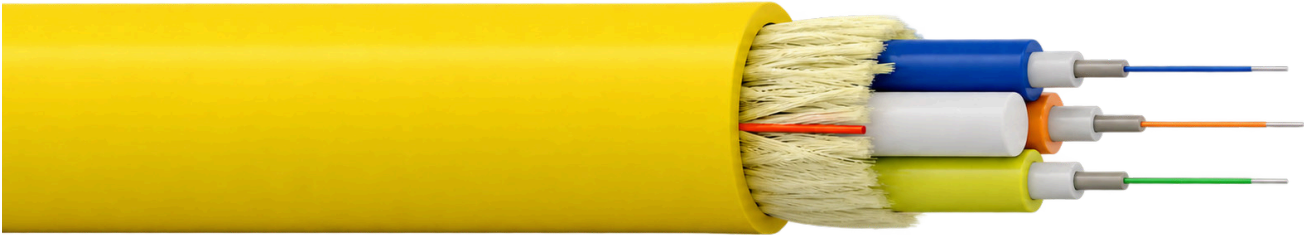
Open the UPCOM product reference or its linked technical file. Documents remain specific to their stated construction and revision.

CABLE DESIGNATION	REFERENCE		PAGE
U-DQ(ZN)BH/B2ca	Product	PDF	5
U-DQ(ZN)MT(SR)H	Product	PDF	6
U-D(ZN)(SR)H	Product	Request data	7
U-D(ZN)H Eca	Product	PDF	8
U-D(ZN)(SR)2Y FRPE	Product	PDF	9
U-D(ZN)BH Eca	Product	PDF	10
A-DQ(BN)2Y-CLT	Product	PDF	11
A-DQ(ZN)(SR)2Y	Product	PDF	12
A-DQ(BN)(SR)H-CLT	Product	PDF	13
A-DQ(BN)2Y-MLT	Product	PDF	14
I-A-DQ(BN)H-MLT	Product	PDF	15
JV-H Pigtail	Product	PDF	16
I-V(ZN)H Mini-Breakout	Product	PDF	17
I-V-(ZN)H-H-2x1	Product	PDF	18
I-A-V(ZN)H(BN)H	Product	PDF	19
I-V(ZN)HH Break SZ	Product	PDF	20
J-V(ZN)H 1x1 SX Zip	Product	PDF	21
I-V(ZN)H Drop	Product	PDF	22
A-N(ZM)H-SH / SF	Product	PDF	23
A-N(ZM)H-SH / SS	Product	PDF	24
U-V(ZN)11Y	Product	PDF	25
A-V(ZN)H(SR)2Y	Product	PDF	26

Catalogue prepared from UPCOM product pages and their linked technical documents, reviewed 23 October 2026. Product links provide the current reference route. Configuration-specific approval documents govern the supplied cable.

Fiber optic cable supply

Construction. Fiber type. Route. Documentation.



TECHNICAL ENQUIRIES

info@upcom.com.tr

www.upcom.com.tr

+90 535 765 1857 / Istanbul, Türkiye

Fiber Optic Cable Technical Catalogue / English / Rev. 01