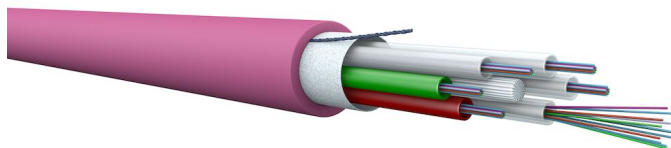


N11a: UC^{FIBRE} I/O ST LSHF-FR B2_{ca} 1.8 KN

1800N, universal, ST, up to 432f, LWB, FireRes® sheath



B2_{ca}
CPR

GENERAL INFO

Universal indoor/outdoor cable metal-free for LAN, MAN and WAN backbones. With its FireRes® LSHF-FR sheathing this cable is ideal for mixed indoor and limited outdoor installation. It is equally suited for installation in ducts and on trays. This innovative cable is Class-B2_{ca} approved, highly flame retardant with gel-filled tubes and water-blocked characteristics, for use in public buildings with a high personal risk.

More information on fiber optic cable applications: [read more](#)

Latest version of this data sheet is available for download: [ProductFamily405149](#)

CERTIFICATIONS AND DESIGN STANDARDS



EN 50399 Class B2ca-s1-d1-a1

ISO/IEC 11801

EN 50173

IEC 60332-1-2

EN 50575

IEC 60794-1-1

IEC 60794-1-21

IEC 60794-1-22

IEC 60754-2

IEC 60794-6-10

IEC 60332-3-24

Common test methods for cables under fire conditions

Generic telecom cabling for customer premises

Information technology - Generic cabling systems

Single wire fire test

Cables in construction works subject to reaction to fire

Generic Specification Fibre Optic Cables

Mechanical Test Methods

Environmental Test Procedures

Weighted Values of pH and Conductivity

Family specification for universal indoor-outdoor cables

Bundled fire test

APPLICATION PROPERTIES

Resistant to UV

Outdoor installation With rodent protection

Operation temperature (min) [°C]*

Installation temperature (min) [°C]

Storage temperature (min) [°C]

Bending radius (rule)

UV stabilised

No

-40 and (max) [°C] 70

-20 and (max) [°C] 60

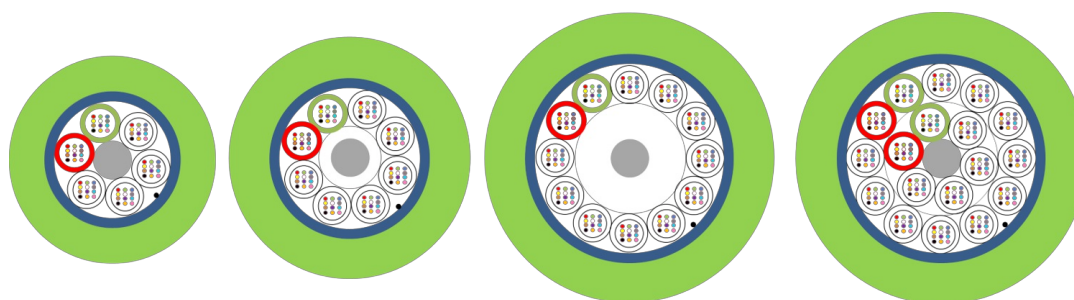
-30 and (max) [°C] 60

During installation (loaded) = 20xOD, Permanent (unloaded) = 10xOD

*Temperature range recommended for cable installation, operation and storage tested according to the IEC 60794-1-22 F1.

CABLE CONSTRUCTION

Type of tube	Stranded loose tube with 12 fibres gel-filled loose tubes of Ø2.3 mm for ≤144fo and 24 fibres gel-filled loose tubes of Ø2.8 mm for >144fo. <i>for lay-up information read more</i>
Longitudinal water blocking cable and Radial water blocking cable	Yes
Rip cord	Yes
Material outer sheath	1.5mm, Low smoke zero halogen, FireRes®
Cable shape	Round
Cable marking example	DRAKA UCFIBRE I/O ST LSHF-FR B2ca-s1-d1-a1 1.8 kN 'Fibre count' 'Fibre type' 'Fibre brand' 'Item No' 'Factory No' 'Batch Number' 'Meter mark' U-DQH 'Number of Elements' x 'Fibre count per element' 'Fibre family' 'Mode field diameter' /125 'Transmission Class'



IDENTIFICATION

Fibre colour code <i>in accordance with IEC 60794-2 and VDE 0888 read more</i>	1 Red	13 Red w/mark every 70mm
	2 Green	14 Green w/mark every 70mm
	3 Blue	15 Blue w/mark every 70mm
	4 Yellow	16 Yellow w/mark every 70mm
	5 White	17 White w/mark every 70mm
	6 Grey	18 Grey w/mark every 70mm
	7 Brown	19 Brown w/mark every 70mm
	8 Violet	20 Violet w/mark every 70mm
	9 Turquoise	21 Turquoise w/mark every 70mm
	10 Black	22 White w/mark every 35mm
	11 Orange	23 Orange w/mark every 70mm
	12 Pink	24 Pink w/mark every 70mm
Sheath color	Cable with SM fibres: BendBrightXSG.657.A2, BendBright G.657.A1 Yellow, RAL 1018	
	Cable with mixed fibre types (hybrid) Blue, RAL 5015	
	Cable with OM1 Grey, RAL 7037	
	Cable with MaxCap-BendBright-OM2 Orange, RAL 2009	
	Cable with MaxCap-BendBright-OM3 Aqua, RAL 6027	
	Cable with MaxCap-BendBright-OM4 Erika-Violet, RAL 4003	
	Cable with BendBright WideCap-OM5 Lime-Green, RAL 6039	

MECHANICAL PROPERTIES

Crush	IEC 60794-1-21 E3	2,000 N/10cm
Max. tensile strength during installation	IEC 60794-1-21 E1	1,800 N
Permanent tensile strength	IEC 60794-1-21 E1	600 N
Impact test	IEC 60794-1-21 E4	20 N·m
Torsion test	IEC 60794-1-21 E7	5 cycles ±1turn
Kink	IEC 60794-1-21 E10	The cables do not form a kink when a loop is drawn together to a diameter 20 times the cable nominal diameter.

FIRE PROPERTIES

Flame retardant	In accordance with EN/IEC 60332-3-24
Halogen free	In accordance with EN/IEC 60754-2
Low smoke*	In accordance with EN/IEC 61034-2
The reaction to fire according to the EN 50575	B2ca - s1, d1, a1

* The measurement of smoke density of cables burning under defined conditions according to the IEC 61034-2 applies only to the 12fo up to 192fo counts.

CABLE DETAILS

Number of fibres	Number of fibres per tube	Nominal outer diameter [mm]	Min. bending radius, fixed [mm]	Min. permitted bending radius, during cable laying [mm]	Cable weight [kg/km]	Fire load [MJ/km]
12	12	10.4	104	208	95	1,445
24	12	10.4	104	208	98	1,331
48	12	10.4	104	208	105	1,461
72	12	10.4	104	208	115	1,591
96	12	11.8	118	236	145	1,970
144	12	15	150	300	240	2,718
288	24	18	180	360	330	4,082
432	24	18.2	182	364	300	5,322

ORDERING DETAILS

Product name	Number of fibres	Category (fibre)	Fibre datasheet	Colour outer sheath	DOP number	SAP code
UCFIBRE I/O ST LSHF-FR B2 1.8kN 48 SM7A1 YL	48	OS2	C17	Yellow	1016346	60103657
UCFIBRE I/O ST LSHF-FR B2 1.8kN 24 SM7A2	24	OS2	C24	Yellow	-	N11a-24SM7A2
UCFIBRE I/O ST LSHF-FR B2 1.8kN 48 SM7A2	48	OS2	C24	Yellow	-	N11a-48SM7A2
UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 SM7A2	96	OS2	C24	Yellow	-	N11a-96SM7A2
UCFIBRE I/O ST LSHF-FR B2 1.8kN 144 SM7A2	144	OS2	C24	Yellow	-	N11a-144SM7A2
UCFIBRE I/O ST LSHF-FR B2 1.8kN 288 SM7A2	288	OS2	C24	Yellow	-	N11a-288SM7A2
UCFIBRE I/O ST LSHF-FR B2 1.8kN 12 SM7A1	12	OS2	C53	Yellow	-	N11a-12SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 24 SM7A1	24	OS2	C53	Yellow	-	N11a-24SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 72 SM7A1	72	OS2	C53	Yellow	-	N11a-72SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 SM7A1	96	OS2	C53	Yellow	-	N11a-96SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 144 SM7A1	144	OS2	C53	Yellow	-	N11a-144SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 288 SM7A1	288	OS2	C53	Yellow	-	N11a-288SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 432 SM7A1	432	OS2	C53	Yellow	-	N11a-432SM7A1
UCFIBRE I/O ST LSHF-FR B2 1.8kN 24 OM3B	24	OM3	C31	Turquoise	-	N11a-24OM3B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 48 OM3B	48	OM3	C31	Turquoise	-	N11a-48OM3B

ORDERING DETAILS

Product name	Number of fibres	Category (fibre)	Fibre datasheet	Colour outer sheath	DOP number	SAP code
UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 OM3B	96	OM3	C31	Turquoise	-	N11a-96OM3B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 144 OM3B	144	OM3	C31	Turquoise	-	N11a-144OM3B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 288 OM3B	288	OM3	C31	Turquoise	-	N11a-288OM3B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 12 OM4B	12	OM4	C32	Erika-violet	-	N11a-12OM4B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 24 OM4B	24	OM4	C32	Erika-violet	-	24OM4B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 OM4B	96	OM4	C32	Erika-violet	-	N11a-96OM4B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 144 OM4B	144	OM4	C32	Erika-violet	-	N11a-144OM4B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 24 OM5B	24	OM5	C39	Lime green	-	N11a-24OM5B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 OM5B	96	OM5	C39	Lime green	-	N11a-96OM5B
UCFIBRE I/O ST LSHF-FR B2 1.8kN 144 OM5B	144	OM5	C39	Lime green	-	N11a-144OM5B

*Items with C17 fibre datasheet available also with SM2D G.652.D/SM7A1 BendBright printing.

*DoP Numbers are per product code and any DoP number proves CPR approval for the cable. DoP files can be downloaded from the website: [DoP](#)

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