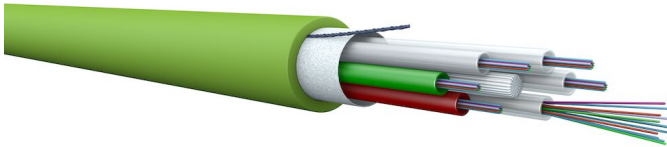


## N10a: UC<sup>FIBRE</sup> I/O ST LSHF-FR C<sub>ca</sub> 1.8KN

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



### 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-Cca 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: [ProductFamily405131](#)

### CERTIFICATIONS AND DESIGN STANDARDS



**ISO/IEC 11801**

**EN 50173**

**EN 50575**

**IEC 60794-1-1**

**IEC 60794-6-10**

Generic telecom cabling for customer premises  
Information technology - Generic cabling systems  
Cables in construction works subject to reaction to fire  
Generic Specification Fibre Optic Cables  
Family specification for universal indoor-outdoor cables

### APPLICATION PROPERTIES

|                                             |                                                                    |
|---------------------------------------------|--------------------------------------------------------------------|
| Resistant to UV                             | UV stabilised                                                      |
| Outdoor installation With rodent protection | Not applicable                                                     |
| Operation temperature (min) [°C]            | -40 and (max) [°C] 70                                              |
| Installation temperature (min) [°C]         | -20 and (max) [°C] 60                                              |
| Storage temperature (min) [°C]              | -30 and (max) [°C] 60                                              |
| Bending radius (rule)                       | During installation (loaded) = 20xOD, Permanent (unloaded) = 10xOD |

### 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. |

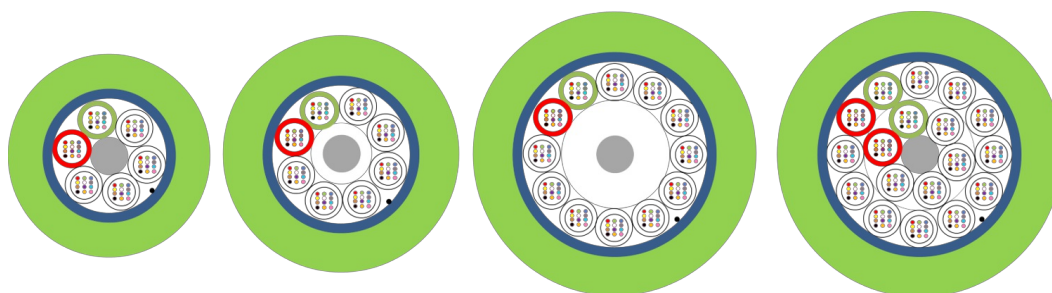
## FIRE PROPERTIES

|                                                |                                          |
|------------------------------------------------|------------------------------------------|
| Flame retardant                                | acc. IEC/EN 60332-1-2, IEC/EN 60332-3-24 |
| Halogen free                                   | acc. IEC/EN 60754-2                      |
| Low smoke                                      | acc. IEC/EN 61034-2                      |
| The reaction to fire according to the EN 50575 | Cca - 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 CONSTRUCTION

|                                   |                                                                                                                                                                                                                                                                    |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of tube                      | Stranded construction with Ø2.3 mm gel-filled loose tubes with 12 fibres each for up 144fo and Ø2.8 mm gel-filled loose tubes with 24 fibres each for over 144fo cables.                                                                                           |
| Longitudinal 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 Cca-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                                                     | 1 Red       | 13 Red w/mark every 70mm       |
| in accordance with IEC 60794-2 and VDE 0888 <a href="#">read more</a> | 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                           |

## 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 C 1.8kN 24 SM7A2  | 24               | OS2              | C24             | Yellow              | -          | N10a-24SM7A2  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 48 SM7A2  | 48               | OS2              | C24             | Yellow              | -          | N10a-48SM7A2  |
| UCFIBRE I/O ST LSHF-FR B2 1.8kN 96 SM7A2 | 96               | OS2              | C24             | Yellow              | -          | N10a-96SM7A2  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 144 SM7A2 | 144              | OS2              | C24             | Yellow              | -          | N10a-144SM7A2 |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 288 SM7A2 | 288              | OS2              | C24             | Yellow              | -          | N10a-288SM7A2 |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 432 SM7A2 | 432              | OS2              | C24             | Yellow              | -          | N10a-432SM7A2 |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 12 SM7A1  | 12               | OS2              | C53             | Yellow              | -          | N10a-12SM7A1  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 24 SM7A1  | 24               | OS2              | C53             | Yellow              | -          | N10a-24SM7A1  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 72 SM7A1  | 72               | OS2              | C53             | Yellow              | -          | N10a-72SM7A1  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 96 SM7A1  | 96               | OS2              | C53             | Yellow              | -          | N10a-96SM7A1  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 288 SM7A1 | 288              | OS2              | C53             | Yellow              | -          | N10a-288SM7A1 |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 432 SM7A1 | 432              | OS2              | C53             | Yellow              | -          | N10a-432SM7A1 |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 24 OM3B   | 24               | OM3              | C31             | Turquoise           | -          | N10a-24OM3B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 48 OM3B   | 48               | OM3              | C31             | Turquoise           | -          | N10a-48OM3B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 96 OM3B   | 96               | OM3              | C31             | Turquoise           | -          | N10a-96OM3B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 144 OM3B  | 144              | OM3              | C31             | Turquoise           | -          | N10a-144OM3B  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 288 OM3B  | 288              | OM3              | C31             | Turquoise           | -          | N10a-288OM3B  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 12 OM4B   | 12               | OM4              | C32             | Erika-violet        | -          | N10a-12OM4B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 24 OM4B   | 24               | OM4              | C32             | Erika-violet        | -          | N10a-24OM4B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 96 OM4B   | 96               | OM4              | C32             | Erika-violet        | -          | N10a-96OM4B   |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 144 OM4B  | 144              | OM4              | C32             | Erika-violet        | -          | N10a-144OM4B  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 24 OM5B   | 24               | OM5              | C39             | Lime green          | -          | N10a-24OM5B   |

## ORDERING DETAILS

| Product name                            | Number of fibres | Category (fibre) | Fibre datasheet | Colour outer sheath | DOP number | SAP code     |
|-----------------------------------------|------------------|------------------|-----------------|---------------------|------------|--------------|
| UCFIBRE I/O ST LSHF-FR C 1.8kN 96 OM5B  | 96               | OM5              | C39             | Lime green          | -          | N10a-96OM5B  |
| UCFIBRE I/O ST LSHF-FR C 1.8kN 144 OM5B | 144              | OM5              | C39             | Lime green          | -          | N10a-144OM5B |

*\*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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