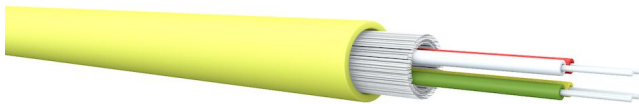


## D15a: UC<sup>FIBRE</sup> I/O DI LSHF-FR D<sub>ca</sub> ES9

I/O distribution cable, 2-24f, glass yarns, FireRes® sheath



Dca  
CPR

### GENERAL INFO

This distribution or mini-break-out cable can be used for many indoor and limited outdoor applications. Typical cable applications include: LAN and WAN backbones, central office interconnections, backbones in data centres, and many other. Glass yarns provide a degree of rodent protection. The cable is well suited for installation in ducts and on trays. The cable features UV stabilised FireRes® sheathing, water-blocked. This cable features Draka's ES9 easy strippable tight buffer.

### CABLE FEATURES

- Fiber optic cable as mini breakout design for structured cabling.
- The cable is metal-free and longitudinally water blocked.
- It features Draka's ES9 easy strippable tight buffer.
- The jacket is made of halogen-free, flame-retardant material according to IEC 60332-1-2 and Euro fire class Dca,s2-d2-a1.
- Use outdoors for underground installation in ducts and as a flame-retardant cable indoors.
- The fiber optic cable exceeds the requirements of EN50173-1, ISO/IEC11801 and EN/IEC60794-2.

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

Latest version of this data sheet is available for download: [ProductFamily238963](#)

### CERTIFICATIONS AND DESIGN STANDARDS

ISO/IEC 11801	Generic telecom cabling for customer premises
EN 50173	Information technology - Generic cabling systems
IEC 60794-1-1	Generic Specification Fibre Optic Cables
IEC 60794-1-21	Mechanical Test Methods
IEC 60794-1-22	Environmental Test Procedures
EN 50575	Cables in construction works subject to reaction to fire

### APPLICATION PROPERTIES

Resistant to UV	UV stabilised
Outdoor installation With rodent protection	No
Operation temperature (min) [°C]*	-30 and (max) [°C] 60
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

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

## CABLE CONSTRUCTION

Cable marking example	Draka UCFIBRE I/O DI LSHF-FR Dca-s2-d2-a1 ES9 'Fibre count' 'Fibre type' 'Fibre brand' 'Material Code' 'Factory No' 'Batch Number' 'Meter mark' U-VQ(ZN)H 'Fibre count' 'Fibre family' 'Mode field diameter' /125 'Transmission Class'
Longitudinal water blocking cable	Yes
Radial water blocking cable	Yes
Rip cord	Yes
Material outer sheath	Low smoke zero halogen
Type of tube	Tight
Buffer type	ES9
Cable shape	Round

## IDENTIFICATION

Tight buffer colour code	1 Red	13 Red w/mark every 70mm
<i>in accordance with IEC 60794-3 and VDE 0888 <a href="#">read more</a></i>	2 Green	14 Green w/mark every 70mm
<i>* Fibre is uncoloured.</i>	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: BendBrightXS G.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
--------------	---

## FIRE PROPERTIES

Flame retardant	Yes
Reaction-to-fire class (acc. EN 13501-6)	Dca
Smoke development class (acc. EN 13501-6)	s2
Euro class flaming droplets/particles (acc. EN 13501-6)	d2
Euro class acidity (acc. EN 13501-6)	a1

## MECHANICAL PROPERTIES

Crush	IEC 60794-1-21 E3	2,000
Impact test	IEC 60794-1-21 E4	10
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.

## 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]	Permanent tensile strength [N]	Max. tensile strength during installation [kN]	Cable weight [kg/km]	Fire load [MJ/km]
2	2	4.6	46	92	160	0.325	22.8	399
4	4	5.2	52	104	220	0.44	30.6	527
6	6	5.6	56	112	220	0.44	34.5	591
8	8	6	60	120	340	0.68	38.2	694
12	12	7	70	140	900	0.9	51.7	926
24	24	8.5	85	170	700	1.4	73.9	1,318

## ORDERING DETAILS

Product name	Colour outer sheath	Number of fibres	Category (fibre)	Fibre datasheet	DOP number	SAP code
UCFIBRE I/O DI LSHF-FR ES9 2 SM7B YL	Yellow	2	OS2	C24	1007210	60033369
UCFIBRE I/O DI LSHF-FR ES9 4 SM7B YL	Yellow	4	OS2	C24	1004231	60019343
UCFIBRE I/O DI D LSHF-FR ES9 6 SM7B	Yellow	6	OS2	C24		60019349
UCFIBRE I/O DI LSHF-FR ES9 12 SM7B YL	Yellow	12	OS2	C24	1004246	60026678
UCFIBRE I/O DI LSHF-FR ES9 24 SM7B YL	Yellow	24	OS2	C24	1004276	60029663
UCFIBRE I/O DI LSHF-FR ES9 4 OM2B OR	Orange	4	OM2	C34	1004230	60019340
UCFIBRE I/O DI LSHF-FR ES9 6 OM2B OR	Orange	6	OM2	C34	1004758	60019344
UCFIBRE I/O DI LSHF-FR ES9 12 OM2B OR	Orange	12	OM2	C34	1004759	60019352
UCFIBRE I/O DI LSHF-FR ES9 24 OM2B OR	Orange	24	OM2	C34	1005751	60062918
UCFIBRE I/O DI LSHF-FR ES9 4 OM3B AQ	Turquoise	4	OM3	C31	1004234	60019437
UCFIBRE I/O DI D LSHF-FR ES9 6 OM3B	Turquoise	6	OM3	C31	1008231	60019346
UCFIBRE I/O DI LSHF-FR ES9 8 OM3B AQ	Turquoise	8	OM3	C31	1004233	60019351
UCFIBRE I/O DI LSHF-FR ES9 12 OM3B AQ	Turquoise	12	OM3	C31	1004764	60019438
UCFIBRE I/O DI LSHF-FR ES9 4 MM61 SL	Grey	4	OM1	C02	1006665	60019341
UCFIBRE I/O DI D LSHF-FR ES9 6 MM61	Turquoise	6	OM1	C02		60019347
UCFIBRE I/O DI D LSHF-FR ES9 8 MM51	Grey	8	OM1	C02		60019350

\*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](#)

© PRYSMIAN GROUP 2022, all rights reserved. All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorized by Prysmian Group.