

E22: UC^{FIBRE} I/O CT LSHF-FR C_{ca} 3.0kN

3000N, CT up to 24 fibres, glass yarns, FireRes®sheath



GENERAL INFO

This unitube cable can be used for LAN and WAN backbones, telecom access lines, fibre to business and fibre to the building drop connections; as well as fibre to the home drop and access connections.

Non-metallic rodent-proof unitube cable is with gel-filled tubes and water-blocked design making it well suited for installation in ducts and on trays indoor and limited outdoor use in ducts.

With its FireRes® sheathing with very high flame retardant performance, this cable is ideal for indoor installations.

CABLE FEATURES

- FO cable with central loose tube filled with gel for structured cabling.
- The cable is metal-free, longitudinally water blocked, rodent-proof with a tensile strength of 3.0kN.
- The jacket is made of halogen-free, flame-retardant material according to IEC60332-1-2; IEC60332-3-24; IEC60754-2; IEC61034 for use in public buildings with a high personal risk according to Euro fire class Cca s1a d1 a1.
- Use outdoors, both in direct burial (in sand bed) and in ducts, and as a flame-retardant cable indoors.
- The fiber optic cable exceeds the requirements of EN50173-1, ISO/IEC11801 and EN/IEC60794-1.

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

Latest version of this data sheet is available for download: [ProductFamily239136](#)

CERTIFICATIONS AND DESIGN STANDARDS



EN 50399 Class Cca-s1a-d1-a1

IEC 61034-2

IEC 60754-1

IEC 60754-2

IEC 60794-1-22

IEC 60794-1-21

IEC 60794-1-1

EN 50575

IEC 60332-3-24

IEC 60332-1-2

ISO/IEC 11801

EN 50173

Common test methods for cables under fire conditions

Smoke Density

Toxicity

Weighted Values of pH and Conductivity

Environmental Test Procedures

Mechanical Test Methods

Generic Specification Fibre Optic Cables

Cables in construction works subject to reaction to fire

Bundled fire test

Single wire fire test

Generic telecom cabling for customer premises

Information technology - Generic cabling systems

APPLICATION PROPERTIES

Resistant to UV	UV stabilised
Outdoor installation With rodent protection	Yes
Operation temperature (min) [°C]*	-40 and (max) [°C] 70
Installation temperature (min) [°C]	-15 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

Type of tube	Gel-filled loose tube Ø2.8mm for 2fo up to 24fo
Longitudinal water blocking cable and Radial water blocking cable	Yes
Rip cord	Yes
Armouring/reinforcement	Not applicable
Material outer sheath	mm, Low smoke zero halogen,
Cable shape	Round
Cable marking example	Draka UCFIBRE I/O CT LSHF-FR Cca-s1a-d1-a1 3.0 kN 'Fibre count' 'Fibre type' 'Fibre brand' 'Item No' 'Factory Code' 'Batch Number' 'Meter mark' U-DQ(ZN)BH 'Fibre count' '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

Nominal outer diameter		7.5 mm
Cable weight		73 kg/km
Fire load		1,213 MJ/km
Crush test	IEC 60794-1-21 E3	3,000 N/10cm
Torsion test	IEC 60794-1-21 E7	5 cycles ±1turn
Impact test	IEC 60794-1-21 E4	20 N·m
Max. tensile strength during installation	IEC 60794-1-21 E1	3,000 N
Permanent tensile strength	IEC 60794-1-21 E1	1,000 N
Kink test	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	acc. IEC/EN 60754-1/2
Low smoke	acc. IEC/EN 61034-2
Reaction-to-fire class (acc. EN 13501-6)	Cca
Smoke development class (acc. EN 13501-6)	s1a
Euro class flaming droplets/particles (acc. EN 13501-6)	d1
Euro class acidity (acc. EN 13501-6)	a1

ORDERING DETAILS

Product name	Number of fibres	Category (fibre)	Fibre datasheet	DOP number	SAP code
UCFIBRE I/O CT LSHF-FR C 3KN 4 SM7A1 YL	4	OS2	C17		E22-4SM7A1
UCFIBRE I/O CT LSHF-FR C 3KN 6 SM7A1 YL	6	OS2	C17		E22-6SM7A1
UCFIBRE I/O CT LSHF-FR C 3KN 8 SM7A1 YL	8	OS2	C17	1010577	60083169
UCFIBRE I/O CT LSHF-FR C 3KN 12 SM7A1	12	OS2	C17		E22-12SM7A1
UCFIBRE I/O CT LSHF-FR C 3KN 24 SM7A1	24	OS2	C17		E22-24SM7A1
UCFIBRE I/O CT LSHF-FR CCA 3KN 6 SM7B YL	6	OS2	C24	1013050	60093291
UCFIBRE I/O CT LSHF-FR C 12 SM7A1.P YL	12	OS2	C24	1010600	60083120
DR/CD IO CT LSHF-FR C 3KN 12 SM7A1.P YL	12	OS2	C38	1015997	60102370
UCFIBRE I/O CT LSHF-FR C 3KN 8 OM2B OR	8	OM2	C34	1010651	60083173
UCFIBRE I/O CT LSHF-FR C 3KN 12 OM2B OR	12	OM2	C34	1010568	60083118
UCFIBRE I/O CT LSHF-FR C 3KN 24 OM2B OR	24	OM2	C34	1010621	60083129
UCFIBRE I/O CT LSHF-FR C 3.0KN 6 OM3B AQ	6	OM3	C31	1010623	60083133
UCFIBRE I/O CT LSHF-FR C 3KN 8 OM3B AQ	8	OM3	C31	1010579	60083171
UCFIBRE I/O CT LSHF-FR C 3KN 12 OM3B AQ	12	OM3	C31	1010571	60083163
UCFIBRE I/O CT LSHF-FR C 3KN 24 OM3B AQ	24	OM3	C31	1010573	60083165
UCFIBRE I/O CT LSHF-FR C 3KN 4 OM4B EV	4	OM4	C32	1010578	60083170
UCFIBRE I/O CT LSHF-FR C 3KN 8 OM4B EV	8	OM4	C32	1010650	60083172
DR/CD I/O CT LSHF-FR C 3KN 12 OM4B EV	12	OM4	C32	1016063	60102300
UCFIBRE I/O CT LSHF-FR C 3KN 12 OM4B EV	12	OM4	C32	1010569	60083119
UCFIBRE I/O CT LSHF-FR C 24 OM4B EV	24	OM4	C32	1010622	60083130

ORDERING DETAILS

Product name	Number of fibres	Category (fibre)	Fibre datasheet	DOP number	SAP code
UCFIBRE I/O CT LSHF-FR C 3KN 12 OM5	12	OM5	C39		E22-12OEM5
UCFIBRE I/O CT LSHF-FR C 3KN 8 MM61 SL	8	OM1	C02	1010697	60084238
UCFIBRE I/O CT LSHF-FR C 3KN 12 MM61 SL	12	OM1	C02	1010620	60083128
UCFIBRE I/O CT LSHF-FR C 3KN 24 MM61 SL	24	OM1	C02	1010698	60084239

© 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.