R02: UC^{FIBRE} I/O CT CST LSHF-FR CI B2$_{ca}$ 3.0KN

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

B2$_{ca}$ CPR

GENERAL INFO

Fibre optic cable with central loose tube filled with gel for structured cabling, it is UV stabilized with corrugated steel tape armoring, longitudinally water blocked, rodent-protected and it uses FireRes® sheath. Use outdoors for duct installation and as a flame-retardant cable indoors, well suited solution for tunnels and galleries and for use in public buildings with high personal risk. High CPR rated and fire resistant solution. DIN/VDE:U-D(ZN)(SR)H

More information on fiber optic cable applications: read more

Latest version of this data sheet is available for download: ProductFamily377131

CERTIFICATIONS AND DESIGN STANDARDS

B2$_{ca}$ CPR

ISO/IEC 11801	Generic telecom cabling for customer premises
EN 50173	Information technology - Generic cabling systems
EN 50575	Cables in construction works subject to reaction to fire
IEC 60794-1-1	Generic Specification Fibre Optic Cables
IEC 60794-1-21	Mechanical Test Methods
IEC 60794-1-22	Environmental Test Procedures
IEC 60794-6-10	Family specification for universal indoor-outdoor cables

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]	-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

Type of tube	Central tube cable with Ø2.8 mm gel-filled loose tube up to 24fo
Longitudinal water blocking cable	Yes*
Armouring/reinforcement	Corrugated Steel, galvanised tape + glass Yarns
Material outer sheath	1.5mm, Low smoke zero halogen, FireRes®
Cable shape	Round
Cable marking example	UCFIBRE I/O CT CST LSHF-FR CI B2ca-s1a-d1-a1 3.0 kN "Fibre count" "Fibre type" "Fibre brand" "Item No" "Factory Code" "Batch Number" "Meter mark" U-D(ZN)(SR)H "Fibre count" "Fibre family" "Mode field diameter"/125 "Transmission Class"

** Longitudinal water blocking test method according to IEC 60794-1-22 F5B and limited to the gell filled cable core.*

IDENTIFICATION

Fiber color code *in accordance with IEC 60794-3 and VDE 0888*	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 Violett	20 Violett 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 Rose	24 Rose w/mark every 70mm

Colour outer sheath	Orange, RAL 2003

MECHANICAL PROPERTIES

Nominal outer diameter		8.5 mm
Cable weight		100 kg/km
Fire load		1,182 MJ/km
Crush test	IEC 60794-1-21 E3	2,200 N/10cm
Torsion test	IEC 60794-1-21 E7	5 cycles ±1turn
Impact test	IEC 60794-1-21 E4	30 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	In accordance with EN/IEC 60754-2
Low smoke	In accordance with EN/IEC 61034-2
Fire resistance *(no fibre break)*	In accordance with IEC 60331-25: fire resistance at 750°C during 120min + 15min cooling down In accordance with EN 50200: fire resistance at 830°C during 120min + mechanical impacts
The reaction to fire according to the EN 50575	B2ca - s1a, d1, a1

ORDERING DETAILS

Product name	Number of fibres	Category (fibre)	Fibre datasheet	DOP number	SAP code
UCFIBRE I/O CT CST LSHF-FR CI B2 6 SM7A1 OR	6	OS2	C17		R02-6SM7A1
UCFIBRE IO CT CST LSHFFR CI B2 8 SM7A1	8	OS2	C17	1016035	60102065
UCFIBRE IO CT CST LSHFFR CI B2 12 SM7A1	12	OS2	C17	1016036	60102066
UCFIBRE I/O CT CST LSHF-FR CI B2 16 SM7A1 OR	16	OS2	C17		R02-16SM7A1
UCFIBRE IO CT CST LSHFFR CI B2 24 SM7A1	24	OS2	C17	1016033	60102000
UCFIBRE IO CT CST LSHFFR CI B2 4 MM61 OR	4	OM1	C02	1019290	60113532
UCFIBRE IO CT CST LSHFFR CI B2 8 MM61 OR	8	OM1	C02	1019097	60113011
UCFIBRE IO CT CST LSHFFR CI B2 4 OM2B OR	4	OM2	C34	1019343	60114415
UCFIBRE I/O CT CST LSHF-FR CI B2 12 OM2B OR	12	OM2	C34		R02-12OM2B
UCFIBRE I/O CT CST LSHF-FR CI B2 24 OM2B OR	24	OM2	C34		R02-24OM2B
UCFIBRE I/O CT CST LSHF-FR CI B2 4 OM3B OR	4	OM3	C31		R02-4OM3B
UCFIBRE IO CT CST LSHFFR CI B2 8 OM3B OR	8	OM3	C31	1016032	60102029
UCFIBRE IO CT CST LSHFFR CI B2 12 OM3B	12	OM3	C31	1016031	60102010
UCFIBRE IO CT CST LSHFFR CI B2 24 OM3B	24	OM3	C31	1016034	60102036
UCFIBRE IO CT CST LSHFFR CI B2 4 OM4B OR	4	OM4	C32	1018981	60111910
UCFIBRE IO CT CST LSHFFR CI B2 8 OM4B OR	8	OM4	C32	1019225	60113758
UCFIBRE IO CT CST LSHFFR CI B2 12 OM4B	12	OM4	C32	1016315	60103718
UCFIBRE I/O CT CST LSHF-FR CI B2 24 OM4B OR	24	OM4	C32		R02-24OM4B
UCFIBRE I/O CT CST LSHF-FR CI B2 4 OM5B OR	4	OM5	C39		R02-4OM5B
UCFIBRE I/O CT CST LSHF-FR CI B2 12 OM5B OR	12	OM5	C39		R02-12OM5B
UCFIBRE I/O CT CST LSHF-FR CI B2 24 OM5B OR	24	OM5	C39		R02-24OM5B
UCFIBRE IO CT CST LSHFFR CI B2 4 A1 OR	4	OS2	C17	1017832	60106322
UCFIBRE I/O CT CST LSHF-FR CI B2 12 MM61 OR	12	OM1	C02		R02-12MM61