



UC^{FIBRE™} I/O DIN LSHF ES9

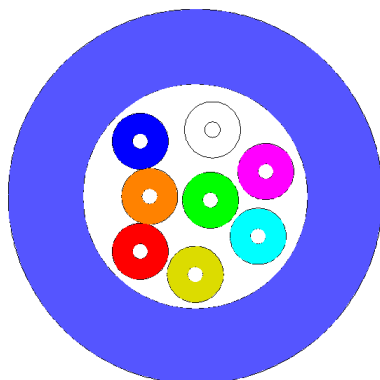
ES9 tight buffer, 2- 24 fibres, Glass yarns, FireBur® sheath

DIN/VDE U-V(ZN) H

NO

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Application and Installation

This distribution or mini-break-out cable can be used for many indoor applications and outdoor applications

The cable features our new and improved **ES9** tight buffer.

Typical cable applications include: LAN and WAN backbones, central office interconnections, backbones in data centres, and many other.

The cable is suited for installation in ducts and on trays.

The cable features an UV stabilised, water and moisture resistant FireBur® sheathing, the cable is thus well suited for outdoor runs; but is not longitudinal waterblocked.

Standards

EN 187 000
IEC 60794-2
IEC 60794-2-20
ISO 11801 2nd edition
EN 50 173-1

Construction

Fibre	2 - 24 ES9 tightly buffered fibres 900 µm ± 50 µm.		
Fibre colour code	1	Red	13 Yellow w/mark every 70 mm
	2	Green	14 White w/mark every 70 mm
	3	Blue	15 Grey w/mark every 70 mm
	4	Yellow	16 Turquoise w/mark every 70 mm
	5	White	17 Orange w/mark every 70 mm
	6	Grey	18 Pink w/mark every 70 mm
	7	Brown	19 Yellow w/mark every 35 mm
	8	Violet	20 White w/mark every 35 mm
	9	Turquoise	21 Grey w/mark every 35 mm
	10	Black	22 Turquoise w/mark every 35 mm
	11	Orange	23 Orange w/mark every 35 mm
	12	Pink	24 Pink w/mark every 35 mm

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Strength member	E- Glass rovings
Sheath	1.1 mm blue FireBur [®] / LSHF fire retardant, UV stabilised, EN 50290-2-27

Fire rating

IEC 60332-1-2	Single vertical wire test
IEC 60754-1	No halogens
IEC 60754-2	No acid matters
IEC 61034-2	No dense smoke

Heat of combustion

2	660 MJ/km	0.18 KWh/m
4	760 MJ/km	0.21 KWh/m
6	845 MJ/km	0.23 KWh/m
8	970 MJ/km	0.29 KWh/m
12	1180 MJ/km	0.33 KWh/m
16	1400 MJ/km	0.39 KWh/m
24	1700 MJ/km	0.47 KWh/m

Physical properties

IEC 60974-1-2

Property	Test method	Value	
Permanent tensile strength	E11	2, 4, 6, 8 and 12 fibres	500 N
		16 fibres	1000 N
		24 fibres	1500 N
Short term tensile strength (some days)	E11	2, 4, 6, 8 and 12 fibres	1000 N
		16 fibres	1400 N
		24 fibres	1600 N
Maximum installation load (a few hours)	-	2, 4, 6, 8 and 12 fibres	1500 N
		16 fibres	2100 N
		24 fibres	2400 N
Impact	E4	20 J	
Crush (compressive strength)	E3	3000 N/ 100 mm	
Torsion	E7	5 cycles ± 1 turn	
Temperature range	F1	Operation and installation	-20 °C to 70 °C
		Storage	-40 °C to 70 °C

Mechanical properties

Fibre count	Nominal diameter	Nominal cable weight	Minimum bending radius Long term/short term
2	6 mm	32 kg/km	100/50 mm
4	6.5 mm	34 kg/km	100/50 mm
6	6.5 mm	36 kg/km	100/50 mm
8	7.0 mm	39 kg/km	100/50 mm
12	7.0 mm	43 kg/km	130/75 mm
16	8.0 mm	52 kg/km	130/75 mm
24	8.5 mm	63 kg/km	230/115 mm



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Product codes – ordering information

Item No.	Fibre count	Product code	Fibre type	Fibre data sheet
1022503	4	UCFIBRE I/O Di N LSHF ES9 4 OM3 BB	OM3 multi mode Bend-Bright	C31_e
1022504	8	UCFIBRE I/O Di N LSHF ES9 8 OM3 BB	OM3 multi mode Bend-Bright	C31_e
1022505	12	UCFIBRE I/O Di N LSHF ES9 12 OM3 BB	OM3 multi mode Bend-Bright	C31_e
1022506	16	UCFIBRE I/O Di N LSHF ES9 16 OM3 BB	OM3 multi mode Bend-Bright	C31_e
1022507	24	UCFIBRE I/O Di N LSHF ES9 24 OM3 BB	OM3 multi mode Bend-Bright	C31_e
1022508	4	UCFIBRE I/O Di N LSHF ES9 4 OM4 BB	OM4 multi mode Bend-Bright	C32_e
1022509	8	UCFIBRE I/O Di N LSHF ES9 8 OM4 BB	OM4 multi mode Bend-Bright	C32_e
1022510	12	UCFIBRE I/O Di N LSHF ES9 12 OM4 BB	OM4 multi mode Bend-Bright	C32_e
1022511	16	UCFIBRE I/O Di N LSHF ES9 16 OM4 BB	OM4 multi mode Bend-Bright	C32_e
1022512	24	UCFIBRE I/O Di N LSHF ES9 24 OM4 BB	OM4 multi mode Bend-Bright	C32_e