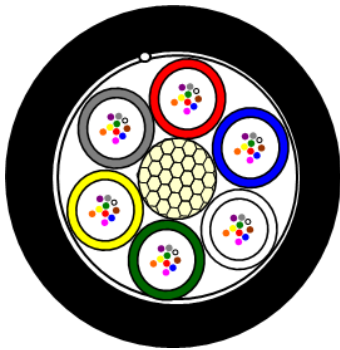


## DUCT OPTICAL MINICABLE

### Cable Design

IEC/EN 60794-3-10



-72F version illustrated not to scale -

- **Central Strength Member (CSM):** glass fibres reinforced plastic material (FRP).
- **Loose Tubes:** thermoplastic material containing up to 12 optical fibres and filled with a suitable water tightness compound.
- **Filler Elements:** thermoplastic rods, where needed.
- **Stranding:** loose tubes, SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable materials (dry core).
- **Outer Sheath:** PE with minimum carbon black content 2.0 %.

This optical cable is designed for duct installation by blowing technique.

### Technical data

No. of Fibres		12	24	48	60	72	96
Design	-	1x12	2x12	4x12	5x12	6x12	8x12
Number of fillers	-	5	4	2	1	-	-
Tube diameter - $\phi$	mm	1.55					
CSM/Enlargement - $\phi$	mm	1.6/-					2.6/-
Sheath thickness, nom	mm	0.5					
Cable nom. diameter - $\phi$	mm	5.7					6.5
Cable weight, nom	Kg/Km	30					42
Min. bending radius	mm	Under Maximum Tension: 15 x Cable- $\phi$			Without Tension: 10 x Cable- $\phi$		
Temperature range	$^{\circ}\text{C}$	Transport & Storage: -40 -> +70		Installation: -15 -> +50		Operation: -40 -> +70	

### Main characteristics

Test	Standard	Value	Requirement*
Tensile strength - Installation	IEC 60794-1-2-E1	1000N	$\Delta\alpha$ reversible
Tensile strength - Operation	IEC 60794-1-2-E1	150N	$\Delta l/l$ fibre $\leq 0.05\%$ , $\Delta\alpha \leq 0.05$ dB during the test
Crush	IEC 60794-1-2-E3	1200N/100mm, max. 15min	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	2 J, 3 impacts, R=300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Repeated Bending	IEC 60794-1-2-E6	R=20 x OD, 100 N, 35 cycles	no damage
Torsion	IEC 60794-1-2-E7	100 N, +/- 180 $^{\circ}$ , 1 m, 5 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Cable Bend	IEC 60794-1-2-E11	R=20xOD, 3 cycles, 4 turns	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-15 -> +60 $^{\circ}\text{C}$ -40 -> +70 $^{\circ}\text{C}$	$\Delta\alpha \leq 0.05$ dB/Km $\Delta\alpha \leq 0.10$ dB/Km, reversible
Water Penetration	IEC 60794-1-2-F5B	3 m sample, 1 m water column	No water penetration in 24 h

\* values for single-mode fibres, all optical measurements performed at 1550nm

### Optical Characteristics

See the attached cabled optical fibre data sheet.

## Identification

### Fibre Colours:

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	red	blue	white	green	yellow	grey	brown	black	violet	orange	aqua	pink

### Tube Colours:

Fibre Count	Elements							
	1	2	3	4	5	6	7	8
12	RD12T	NF	NF	NF	NF	NF	-	-
24	RD12T	BL12T	NF	NF	NF	NF	-	-
36	RD12T	BL12T	WH12T	NF	NF	NF	-	-
48	RD12T	BL12T	WH12T	GN12T	NF	NF	-	-
60	RD12T	BL12T	WH12T	GN12T	YE12T	NF	-	-
72	RD12T	BL12T	WH12T	GN12T	YE12T	GY12T	-	-
96	RD12T	BL12T	WH12T	GN12T	YE12T	GY12T	BN12T	BK12T

Where: RD12T = Red tube with 12 fibres, BL12T = Blue tube with 12 fibres, WH12T = White tube with 12 fibres, GN12T = Green tube with 12 fibres, YE12T = Yellow tube with 12 fibres, GY12T = Grey tube with 12 fibres, BN12T = Brown tube with 12 fibres, BK12T = Black tube with 12 fibres, NF = Natural Filler.

### Sheath Color:

The outer sheath color is black.

### Sheath Marking:

The outer sheath is marked in 1 meter intervals by ink jet method as follows:

**PRYSMIAN (S) MINI nnFO <fiber type> S12 dd/mm/yyyy nnnnnnll zzzzM**

where: dd/mm/yyyy= day/month and year of production, nn= fiber count, nnnnnnll = last six digits from production order + 2 digits which represents length number from production order, zzzzM = Sequential Length Mark, <fiber type> = i.e. G.652D, G.655C, G.657A2, etc

## Logistic

### Packing:

Wooden drums with protection.

**Delivery Lengths:** 2000 ± 100 m, 4000 ± 200 m, 6000 ± 300 m.

Other lengths available upon agreement.

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