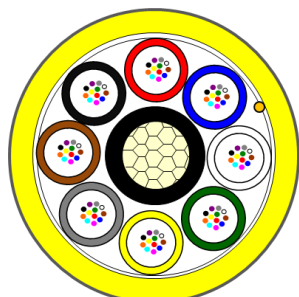


MICRO DUCT OPTICAL CABLE WITH PICO TUBES

Cable Design

IEC/EN 60794-3-10



-96F version illustrated not to scale -

- **Central Strength Member (CSM):** glass fibers reinforced plastic rod (GRP)
- **Tubes:** thermoplastic material containing 12 or 24 optical fibers and filled with a suitable water tightness compound.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable elements (dry core)
- **Outer Sheath:** Yellow HDPE, UV resistant, 1 red ripcord beneath.

This dielectric optical cable is designed for blowing installation technique.

Technical data

No. of Fibers	-	96	192	288	432	552
Design	-	8x12	8x24	12x24	18(8+10+5f) x 24	23(8+15) x 24
Tube diameter - ϕ	mm	1.0	1.3			
CSM/Enlargement - ϕ	mm	1.7/-	2.4/-	2.4/3.9	2.4	
Sheath thickness	mm	0.4				
Cable diameter - ϕ	mm	4.6 \pm 0.2	5.8 \pm 0.2	7.4 \pm 0.2	8.2 \pm 0.2	
Cable weight	Kg/Km	20	35	51	62	
Min. bending radius	mm	Under Maximum Tension: 20xCable- ϕ			Without Tension: 15xCable- ϕ	
Temperature range	$^{\circ}$ C	Transport: -40 -> +70		Installation: -5 -> +40	Operation: -30 -> +60	

Main characteristics

Test	Standard	Value	Requirement*
Max. Installation Tension	IEC 60794-1-2-E1	500N	$\Delta\alpha$ reversible, fiber strain \leq 0.5%
Crush	IEC 60794-1-2-E3	1000 N / 100 mm, max. 5 min	$\Delta\alpha \leq$ 0.1 dB, no damage
Impact	IEC 60794-1-2-E4	2 J, 3 impacts, R=300 mm	$\Delta\alpha \leq$ 0.1 dB after test
Repeated Bending	IEC 60794-1-2-E6	R=20xOD, 100N, 25 cycles	$\Delta\alpha \leq$ 0.1 dB no damage
Torsion	IEC 60794-1-2-E7	+/-180 $^{\circ}$, 2m, 100N	$\Delta\alpha \leq$ 0.1 dB no damage
Cable Bend	IEC 60794-1-2-E11	R=20xOD, 5 turns, 3 cycles	$\Delta\alpha \leq$ 0.05 dB after test
Temperature Cycling	IEC 60794-1-2-F1	-30 $^{\circ}$ C to +60 $^{\circ}$ C	$\Delta\alpha \leq$ 0.1dB/km
Water Penetration	IEC 60794-1-2-F5B	3 m sample, 1 m water column, 24 h	No water penetration

* values for single-mode fibers, all optical measurements performed at @1550nm

Optical Characteristics

See the attached cabled optical fiber **G.657A2 200 μ m** data sheet.

Identification

Fiber Colors:

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

| - one black ring

Tube Colors:

Fibre Count	Elements														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
96	RD12T	BL12T	WH12T	GR12T	YE12T	GY24T	BN12T	BK12T	-	-	-	-	-	-	-
192	RD24T	BL24T	WH24T	GR24T	YE24T	GY24T	BN12T	BK24T	-	-	-	-	-	-	-
288	RD24T	BL24T	WH24T	GR24T	YE24T	GY24T	BN12T	BK24T	VI24T	OR24T	TQ24T	PK24T	-	-	-
432	1 st	RD24T	BL24T	WH24T	NTF	NTF	NTF	NTF	NTF	-	-	-	-	-	-
	2 nd	RD24T	BL24T	WH24T	GR24T	YE24T	GY24T	BN12T	BK24T	VI24T	OR24T	TQ24T	PK24T	RD24T	BL24T
552	1 st	RD24T	BL24T	WH24T	GR24T	YE24T	GY24T	BN12T	BK24T	-	-	-	-	-	-
	2 nd	RD24T	BL24T	WH24T	GR24T	YE24T	GY24T	BN12T	BK24T	VI24T	OR24T	TQ24T	PK24T	RD24T	BL24T

| - black ring

Sheath Color:

The outer sheath color is yellow.

Sheath Marking:

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

**RALA DRAKA(SL) JN-SM-Versa Next Generation XS / GRHLDV <fibre count> x <fibre type> S12 Idno.<cable ID>
<year> <length marking>m**

Logistic

Packing:

Wooden drums with protection.

Delivery Lengths: 2100 ± 50 m, 3150 ± 80 m, 4200 ± 100 m

Other lengths available upon agreement, up to a maximum of 10% of the total number of cable lengths could be shorter than nominal values

© PrysmianGroup 2019, All Rights Reserved

All sizes and values without tolerances are reference values. Specifications are for product as supplied by PrysmianGroup: 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 PrysmianGroup. The information is believed to be correct at the time of issue. PrysmianGroup reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorized by PrysmianGroup.