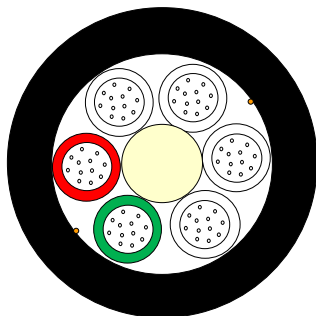


Overblow Duct Optical Mini-Cable

Cable Design

IEC/EN 60794



- not to scale (72F shown) -

- **Optical fibre:** Singlemode 200µm G.657.A2.
- **Central strength member (CSM):** Glass fibre reinforced plastic material (GRP) with or without over-sheathing.
- **Tube:** Thermoplastic material, containing 12 Singlemode optical fibres and filled with a suitable water tightness compound.
- **Stranding:** The required number of elements (tubes or fillers) are SZ stranded around the central strength member.
- **Longitudinal Water Tightness:** Water swellable elements (dry core).
- **Outer Sheath:** HDPE. 2 Ripcords beneath the sheath.

This loose tube optical cable is designed for outdoor installation in occupied ducts by overblow blowing techniques.

Technical data

No. of Fibres		72	96	144
Design	Part No	60073556	60073557	60073558
Layout (tubes x fibres)		6x12	8x12	12x12
Loose Tube / Filler - Ø	mm		1.3	
CSM/sheath diameter	mm	1.4	2.2	3.0/3.9
Sheath thickness	mm		0.5	
Cable Diameter	mm	5.0	5.8	7.5
Cable Weight	kg / km	22	32	53
Max installation tension	N	220	320	530
Min. bending radius	mm	Without Tension 20 x Cable-Ø		Under Maximum Tension 20 x Cable-Ø
Temperature range	°C	Installation -30 -> +45;	Transport. & Storage -40 -> +70;	Operation -40 -> +70;

Please refer to *Overblow Installation Procedure (Contact for info)*, *General Installation (Datasheet Ref:CIG031)* and *Safety & Handling recommendations (Generic Optical cable MSDS - Datasheet Ref:9980-02-1)* before handling.

Main characteristics

Test	Standard	Value	Requirement*
Maximum Tension at installation (short term)	IEC 60794-1-21-E1	1W (see table above)	Fibre strain ≤ 0.6%, Δα reversible
Crush	IEC 60794-1-21-E3A	1000N	Δα ≤ 0.05 dB, cable integrity
Impact	IEC 60794-1-21-E4	2Nm, 3 impacts, r=300mm	Δα ≤ 0.05 dB
Repeated bending	IEC 60794-1-21-E6	R = 20 x cable Ø, 10N, 35 cycles	cable integrity
Torsion	IEC 60794-1-21-E7	100N, ± 360°, 10 cycles, 2m	Δα ≤ 0.05 dB, cable integrity
Kink	IEC 60794-1-21-E10	R = 20 x cable Ø	cable integrity
Cable bend	IEC 60794-1-21-E11	R = 20 x cable Ø	Δα ≤ 0.05 dB, cable integrity
Temperature range	IEC 60794-1-22-F1	-30°C to +70°C	Δα ≤ 0.05 dB/km
	IEC 60794-1-22-F1	-40°C to +70°C	Δα ≤ 0.15 dB/km
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m	No water leakage after 24 hours
Ageing	IEC 60794-1-2-F9	168 hours, 85°C	Δα ≤ 0.25 dB/km; ≤ 0.15 dB/km ave.

*all optical measurements performed at 1550 nm

Optical Characteristics

See Optical Fibre Datasheet Ref: Singlemode 200µm G.657.A2 fibre (HE).

Identification

Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Red	Grey	Yellow	Brown	Violet	Black	White	Pink	Turquoise

Buffer Tube Colours

	Marker	Intermediate	Pilot
Colour	Red	White	Green

Sheath Colour:

The outer sheath colour is black.

Sheath Marking:

The outer sheath is marked in 1 metre intervals as follows:

<length marking in metres>M <ff>F G657A2 PRYSMIAN GROUP
 KARONA OVERBLOW SYSTEM <year of manufacture>

Installation

Duct:

Designed to be installed by blowing into occupied miniduct.

Logistic

Packing:

Plywood or plastic reels.

Delivery Lengths:

Standard delivery length is 4km.
Maximum delivery length is 6km.

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