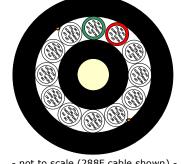




Overblow Duct Optical Mini-Cable

Cable Design

IEC/EN 60794



- **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 24 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.

- not to scale (288F cable shown) -

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

Technical data

No. of Fibres		144	192	288		
Design	Part No	60073558	60073560	60073561		
Layout (tubes x fibres)	ayout (tubes x fibres)		8x24	12x24		
Loose Tube / Filler - Ø	mm	1.9				
CSM/sheath diameter	mm	2.0	3.5 / 6.0			
Sheath thickness	mm	0.5				
Cable Diameter	mm	6.8 8.1		10.8		
Cable Weight	kg / km	40	58	100		
Max installation tension	N	400	580	1000		
Min. bending radius	mm	Without TensionUnder Maximum Tensi20 x Cable-Ø20 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 \leq 0.6%, $\Delta \alpha$ reversible
Crush	IEC 60794-1-21-E3A	1000N	$\Delta\alpha \leq$ 0.05 dB, cable integrity
Impact	IEC 60794-1-21-E4	2Nm, 3 impacts, r=300mm	$\Delta \alpha \leq 0.05 \text{ dB}$
Repeated bending	IEC 60794-1-21-E6	R = 20 x cable Ø, 100N, 35 cycles	cable integrity
Torsion	IEC 60794-1-21-E7	100N, ± 360°, 10 cycles, 2m	$\Delta\alpha \leq$ 0.05 dB, cable integrity
Kink	IEC 60794-1-21-E10	R = 20 x Cable Ø	$\Delta \alpha \leq$ 0.05 dB, cable integrity
Cable bend	IEC 60794-1-21-E11	R = 20 x Cable Ø	$\Delta \alpha \leq$ 0.05 dB, cable integrity
Temperature range	IEC 60794-1-22-F1	-30°C to +70°C	$\Delta \alpha \leq 0.05 \text{ dB/km}$
		-40°C to +70°C	$\Delta \alpha \leq 0.15 \text{ dB/km}$
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water head=1m	No water leakage after 24 hours
Ageing	IEC 60794-1-2-F9	168 hours, 85°C	$\Delta\alpha \leq$ 0.25 dB/km; \leq 0.10 dB/km ave.

*all optical measurements performed at 1550 nm.







Optical Characteristics

See Optical Fibre Datasheet Ref: 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

No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Orange	Green	Red	White	Yellow	Pink	Orange	Green	Red	White	Yellow	Pink
Colour	1 Ring	2 Rings										
					1			11		11	11	11

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 in="" marking="" metres="">M 🛛 🔒 🗩 🚗</length>	<ff>F G657A2 PRYSMIAN GROUP</ff>
KARONA OVERBLOW SYSTEM	<year manufacture="" of=""></year>

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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