

Outdoor microduct optical fibre cable

TV05021



-552f, not to scale-

Cable Design

According to IEC/EN 60794

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

Cable Application

These outdoor Sirocco^{HD} microduct optical fibre cables are optimized for installation by blowing into microducts and protected microducts. Please contact your sales representative for ordering guides and installation information.

Technical Data

No. of Fibres		96	144	192	288	552
Ordering Code	-	60090225	60090458	60095983	60087908	60093645
Design	-	8 x 12	12 x 12	8 x 24	12 x 24	8 x 24 + 15 x 24
Tube Diameter – Ø	-	1.1		1.4		
CSM / Enlargement – Ø	mm	1.7 / -	2.0 / 3.0	2.4 / -	2.4 / 3.9	2.3
Sheath Thickness	mm	0.4				
Cable Diameter – Ø	mm	4.7 ±0.2	5.9 ±0.2	6.0 ±0.2	7.5 ±0.2	8.7 ±0.2
Cable Weight	kg / km	20	30	35	51	72
Minimum Bending Radius	mm	Under Maximum Tension: 20 x Cable Ø		Without Tension: 15 x Cable Ø		
Temperature Range	°C	Transport & Storage: -40 → +70		Installation: -10 → +50	Operation: -30 → +60	

Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
Tensile Performance	IEC 60794-1-21-E1	500 N	Δl/l fibre ≤ 0.5 %, Δα reversible
Crush	IEC 60794-1-21-E3	1000 N / 100 mm, 5 min	Δα reversible, no damage
Impact	IEC 60794-1-21-E4	2 J, 3 impacts, R = 300 mm	Δα ≤ 0.1 dB after test
Repeated Bending	IEC 60794-1-21-E6	R = 20 x OD, 25 cycles, 100 N	Δα ≤ 0.1 dB no damage
Torsion	IEC 60794-1-21-E7	±180°, 2 m, 100 N	Δα ≤ 0.1 dB no damage
Bend	IEC 60794-1-21-E11	R = 20 x OD, 5 turns, 3 cycles	Δα ≤ 0.05 dB after test
Temperature Cycling	IEC 60794-1-22-F1	-30 °C to +60 °C	Δα ≤ 0.1 dB/km
Water Penetration	IEC 60794-1-22-F5B	3 m sample, 1 m water, 24 h	no water penetration

(1) values for single-mode fibres, all optical measurements performed at 1550 nm.

Optical Characteristics

See the attached 200 µm cabled optical fibre data sheet.

Identification

Fibre Colours:

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	red	green	blue	yellow	white	grey	brown	violet	turquoise	black	orange	pink
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	red	green	blue	yellow	white	grey	brown	violet	turquoise	white	orange	pink

Tube Colours:

Layer 1	1	2	3	4	5	6	7	8	9	10	11	12			
Colour	red	green	blue	yellow	white	grey	brown	violet	turquoise	black	orange	pink			
Layer 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Colour	red	green	blue	yellow	white	grey	brown	violet	turquoise	black	orange	pink	red	green	blue

Sheath Colour:

The outer sheath colour is black.

Sheath Marking:

The outer sheath is marked in 1-meter intervals as follows:



Logistic

Packing:	Wooden drums with protection.
Standard Delivery Length⁽²⁾:	2000 ± 100 m and 4000 ± 200 m.

(2) Other delivery lengths available upon agreement.