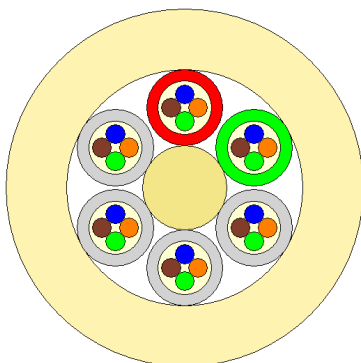


Pico AI-DQH

Cable Design

Acc. to IEC 60794-3-10

Pico Loose Tube Fiber Optic Cable - Dry Core - Single Sheath


- not to scale -

- **Central Strength Member (CSM):** glass fiber reinforced plastic rod (FRP).
- **Loose Tube:** thermoplastic material, containing up to 4 fibers and filled with a suitable water tightness compound.
- **Filler Elements:** thermoplastic rods, where needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **1 Ripcord.**
- **Outer Sheath:** HFFR.

Configuration

No. of Fibers		4	8	12	16	20	24
Design		6 x 4					
Loose Tube / Filler - Ø	mm	1.0					
CSM - Ø	mm	1.1					
Outer Sheath Thickness	mm	0.8					
Cable Diameter	mm	4.8					
Cable Weight	kg / km	23					

Application

Temperature Range	Transportation & Storage:	- 40 to + 70°C	Minimum Bending Radius	
	Installation:	- 30 to + 60°C		Under Maximum Tension: 20 x Cable-Ø
	Operation:	- 20 to + 70°C		Without Tension: 10 x Cable-Ø

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Max. Installation Tension	IEC 60794-1-2-E1	400 N	$\Delta\alpha$ reversible, fiber strain $\leq 0.5\%$
Max. Operation Tension	IEC 60794-1-2-E1	70 N	no fiber strain, $\Delta\alpha \leq 0.05$ dB
Crush	IEC 60794-1-2-E3	300 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB, no damage
Impact	IEC 60794-1-2-E4	1 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794-1-2-E7	100N, +/- 180°, 10 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20x D, 100N, 35 cycles	no damage
Cable Bend	IEC 60794-1-2-E11	R=20x D, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-15°C to +60°C -20°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.1$ dB/km
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m	no water leakage in 24h

All optical measurements at 1550 nm.

Fire Performance

Test	Test Standard	Specified Value	Acceptance Criteria
Halogen Content	IEC 60754-1	halogen content	< 0.5 %
Corrosivity of Smoke Gases	IEC 60754-2	pH-value	≥ 4.3
Conductivity of Smoke Gases	IEC 60754-2	conductivity	> 10 μS

Identification and Packing

Fiber Colors (acc. to EN187105)

No.	1	2	3	4
Color	blue	yellow	red	white

Buffer Tube Colors (acc. to EN187105 – alternative tube identification)

Tube	1	2	3	4	5	6
Color	red	green	white	white	white	white

Filler Elements Colors:

All filler elements are uncolored (natural).

Sheath Color:

The outer sheath color is ivory.

Sheath Marking:

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

DRAKA <year of manufacture> HFFR <number and type of fiber> <length marking in meter>

Packing:

Plastic or plywood drums with protection.

Delivery Lengths:

Standard delivery lengths are 2 km, 4 km, 6 km with a tolerance of - 1% / + 3%