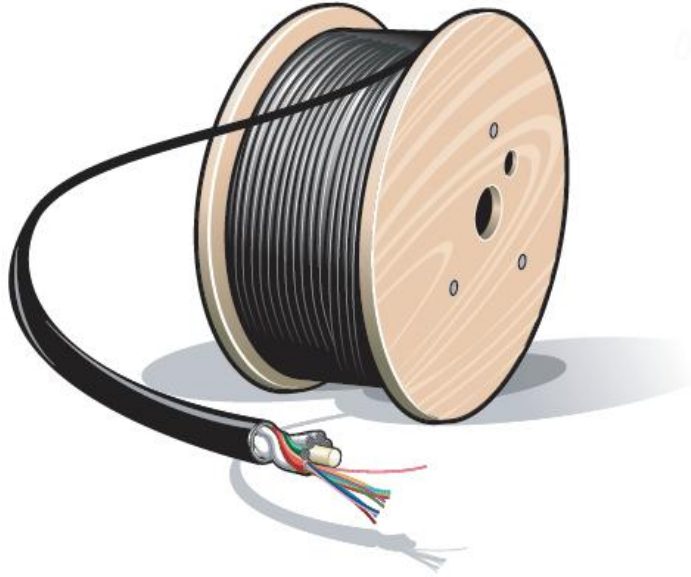


# Fiberoptiskt mikrokabel



## Tekniskt information

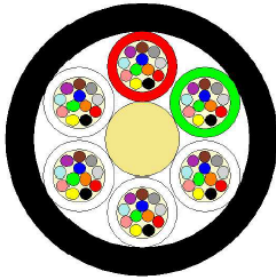
Mikrokabeln är designad för att installeras med hjälp av luft. Installations längderna ligger mellan 800-1500m beroende av storlek på kabeln.

Kabel är designad med tuber som är skyddade med en HDPE mantel, i centrum finns en FRP (*glass fiber reinforced plastic rod*). Kabeln är "loose tube" d.v.s fibern ligger om 12st i en tub som är fylld med en vattentät "gel". Runt tuberna ligger en svälltejp som skyddar emot vatten att gå mellan tuberna (2-12 fiber är 3,9mm, 96 fiber är 6,5mm och 144 fiber är 7,9mm).

### byNet AB

## 24 – 144 fiber \*

### Microduct Nano 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 12 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:** HDPE.

## Configuration

No. of Fibers		12	24	36	48	60	72
Design		6 x 12					
Loose Tube / Filler - Ø	mm	1.5					
CSM – Ø	mm	1.6					
Outer Sheath Thickness	mm	0.6					
Cable Diameter	mm	6.0 (max)					
Cable Weight	kg / km	30					

## Application

Suggested Inner Duct - Ø	mm	8.0 (min)
<b>Temperature Range</b>	Transportation & Storage: - 40 to + 70 °C Installation: - 30 to + 60 °C Operation: - 30 to + 70 °C	<b>Minimum Bending Radius</b> Under Maximum Tension: 20 x Cable-Ø 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	700 N	$\Delta\alpha$ reversible, fiber strain $\leq 0.5\%$
Max. Operation Tension	IEC 60794-1-2-E1	130 N	no fiber strain, $\Delta\alpha \leq 0.05$ dB
Crush	IEC 60794-1-2-E3	700 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 -30 °C to +70 °C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.10$ 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.








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## Identification and Packing

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### Fiber Colors (acc. to EN187105)

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

### 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 black.

### Sheath Marking:

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

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

### Packing:

Plastic or plywood drums with protection.

### Delivery Lengths:

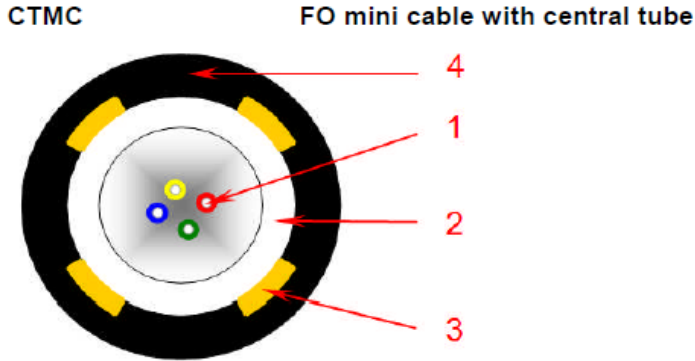
Standard delivery lengths are 2 km, 4 km, 6 km with a tolerance of - 1% / + 3%

\* 96 fiber är 6,5mm och 144 fiber är 7,9mm med 24 fiber i varje tub

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## 2 – 12 fiber



### Description:

- 1 Optical fibres
- 2 Central tube with 4, 6, 8, 12 fibres
- 3 Reinforcement of aramide yarns
- 4 Outer sheath (PP)

Characteristics	Properties	Unit
Product group	Mini/micro Cables	
Series	Glasvezelkabel Single Mode	
Type	CTMC	
Application	Outside	
Cable metal free	Yes	
Installable by blowing	Yes	
Strain relief	Yes	
UV resistant	Yes	
Halogen free (acc. EN 50267-2-2)	Yes	
Type of tube	Loose tube, gel filled	
Fibre Type	Single mode	
Optical fibre standard	ITU-T G.652.D	
Material outer sheath	Polypropylene	
Colour outer sheath	Black	
Installation temperature	-10 / 50	°C
Operation temperature range	-30 / 70	°C
Transportation and storage temperature	-30 / 70	°C
Construction and Colour codes	zie bijlagen	



Partnumber	Construction	Bending radius during installation	Bending radius after installation	Net weight (Kg/km)	Outer diameter approx. (mm)	Tensile load short term (Tm) (N)
74921	2 x Single mode (1 x 2)	55	45	12	3,9	320
74920	4 x Single mode (1 x 4)	55	45	13	3,9	320
74923	6 x Single mode (1 x 6)	55	45	12	3,9	320
74927	8 x Single mode (1 x 8)	55	45	13	3,9	320

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