

1. Application / Construction

MC03

Identification	Micro A-DQ2Y <n>x12 G.657A1			
Application	Mikrokabel zum Einblasen in Mikrorohre			
Cross Section (not to scale)	24 F 	36 F 	48 F 	72 F 
Recommended for microduct dimension (O/I-Ø in mm)	10/6			
Configuration	- Loose tubes with 4..12 optical fibers, filled with thixotropic compound - Stranded loose tubes; central strength member made of fibre reinforced plastic (FRP) - Cable strand: dry, with water blocking materials - Outer sheath: black HDPE, one ripcord under the sheath			
Temperature Range	Lagerung und Transport -25 bis +60°C		Installation -10 bis +50°C	Betrieb -20 bis +60°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-5			
ZTT Specification	17-80052-C			
Customer Reference	Industriestandard			

2. Dimensions

Number of fibers		24	36	48	72
Loose tubes x fibers		2x12	3x12	4x12	6x12
Filler number		4	3	2	0
Loose tube Ø	mm	1.2			
Central Strength Member	mm	1.2			
Outer sheath thickness	mm	0.4			
Outer diameter (±0.2)	mm	4.4			
Weight (± 20%)	kg	18			

Größen und Werte ohne Toleranzen sind Referenzwerte

3. Mechanical Properties

Max. tensile load	400 N
Crush resistance / 10 cm	300 N
Bending radius (installation)	20x Kabel-Ø
Bending radius (operation)	10x Kabel-Ø

Siehe Punkt 6: Prüfverfahren

4. Marking

Fiber Colors	1 red	2 green	3 yellow	4 blue	5 white	6 violet	7 orange	8 black	9 grey	10 brown	11 pink	12 aqua
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Tube Colors	1 red	2 green	3 white	4 white	5 white	6 white
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Outer Sheath: black, ink jet or laser print, marking in 1 meter intervals as follows:

ZTT OPTICAL CABLE MICRO A-DQ2Y <t>x12 G.657A1 <batch ID> <meter marking >

5. Optical Fiber

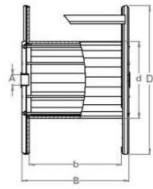
Standard	ITU-T G.657A1			
Optische-	Fibre attenuation .. cabled	@ 1310 nm ≤0.36 dB/km	@ 1550 nm ≤0.21 dB/km	@ 1625 nm ≤0.23 dB/km
	Mode field diameter (MFD)	8.8 ± 0.4 μm	9.9 ± 0.5 μm	
	Zero dispersion wavelength	1300..1324 nm		
	Zero dispersion slope	≤0.092 ps/nm ² · km		
	Polarisation mode dispersion (PMD)	≤0.1 ps/√km		
	Cut-off wavelength	≤1260 nm		
	Macro bending loss .. 10 turns Ø30 mm .. 1 turn Ø20 mm	@1310 nm - -	@1550 nm ≤0.25 dB ≤0.75 dB	@1625 nm ≤1.0 dB ≤1.5 dB
Geometrische-	Outer diameter	200 ± 10 μm		
	Cladding diameter	125 ± 0.7 μm		
	Core/clad concentricity error	≤0.5 μm		
	Cladding non-circularity	≤ 0.7 %		
Mechanische-	Proof stress	≥0.69 Gpa		

6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile strength: see Point 3 Sample length: ≥ 50 m, Test duration: 1 min	- Attenuation change reversible - No damage
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of tests: 3	- Attenuation change reversible - No damage
Impact IEC 60794-1-2 E4	Impact energy: 1 J R = 300 mm, number of places/tests: 3	- Attenuation change reversible - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 25 cycles	- Attenuation change reversible - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m ± 180°, 5 cycles	- Attenuation change reversible - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 4 bends, 3 cycles	- Attenuation change reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-20°C .. +60°C; -25°C .. +70°C 4 hours at each temperature step 2 cycles	- -20°C .. +60°C: Attenuation ≤ 0.05 dB/km - -25°C .. +70°C: Attenuation ≤ 0.10 dB/km and reversible - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m, water column height: 1 m Test duration: 24 h	- No water leakage

All optical measurements at 1550 nm

7. Logistics

Cable type	Length Tolerance	6km -1% / +3%	 D*d*B in cm
Mini A-DQ2Y 2..6x12	Trommeltyp Abmessungen Gewicht	Wooden 105*60*50 218 kg	

Abmessungen mit Verschalung. Richtwerte. Tatsächlich gelieferte Trommelgrößen und -gewichte können hiervon abweichen

Revision History: A 2017-11-06, B 2018-04-09, D 2018-07-21

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