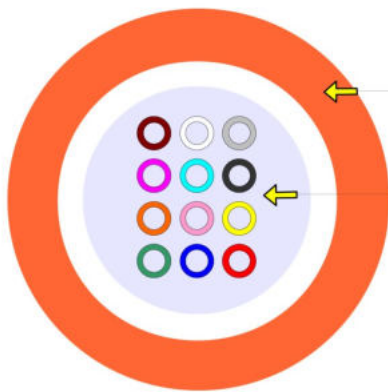


Uni Tube Cable

ID: **Z008**

A-D4Y 2,5 mm

This cable is suitable for outdoor installation.



Orange PA outer jacket
Other jacket colours available on request

Gel filled PBT loose tube with optical fibres

Fibre colour coding

According to IEC 60304

1 Red	7 Brown
2 Green	8 Violet
3 Blue	9 Turquoise
4 Yellow	10 Black
5 White	11 Orange
6 Grey	12 Pink

Other fibre colour sequences available on request

Fibre Type

Single mode fiber 9/125
Multi mode fiber 50/125
Multi mode fiber 62,5/125

See the Fibre Specification sheet

Sheat Marking

Print colour	White
Print method	INK-Jet
Print legend	manufacturer's name, cable type job number, length marking @ 1 m intervals

Other print legends available on request

Order example

2100 m A-D4Y 12E9/125G.652D jacket colour ORG, cable specification Z008

Mechanical and Environmental properties

Max. tensile strength	*E1A	40 N
Crush resistance	*E3	1000 N / 10cm
Impact resistance	*E4	3 impacts (w/5N.m)
Min. bend radius	*E11A	10× cable diameter
	*E11B	15× cable diameter (load)
Moisture resistance	*F5	passed
Compound flow	*E14	30 cm / 24h / 70°C passed
Temperature range	*F1	
	installation	-5 °C to +50 °C
	operation	-20 °C to +70 °C
storage		-20 °C to +70 °C
Cable informative nominal weight (calc.)		6,1 kg/km
Standard put-up length		2100 m
Packaging		Plywood drum
Loose tube diameter		1,7 mm
Outer jacket thickness		0,4 ± 0,1mm
Cable outer diameter		2,5 ± 0,1 mm
		(measured acc..to EN 60811-1-1)

* IEC 60794-1-2

Note: When installing or assembly under temperature below 5°C cable has to be stock in temp of 20°C at least 24h before installation.

Cable life time - minimum 30 years



Fibre specification

Values are valid for cabled fibre.

Multi mode fiber		62,5/125 µm OM1	50/125 µm OM2	50/125 µm OM2	50/125 µm OM2	50/125 µm OM3	50/125 µm OM4
Bandwidth (overfilled launch)							
@ 850 nm	Mhz.km	≥ 220	≥ 500	≥ 600	≥ 600	≥ 1500	≥ 3500
@ 1300 nm		≥ 600	≥ 500	≥ 1200	≥ 1200	≥ 500	≥ 500
Bandwidth (laser EMB ¹³)							
@ 850 nm	Mhz.km	-	-	-	-	≥ 2000	≥ 4700
@ 1300 nm		-	-	-	-	≥ 500	≥ 500
1Gbps Ethernet operation Link Length							
@ 850 nm	(m)	≤ 300	550 ¹¹	≤ 600 ¹¹	≤ 750 ¹¹	-	-
@ 1300 nm		≤ 550	550 ¹²	≤ 600 ¹²	≤ 2000 ¹²	-	-
10 Gigabit Ethernet Link Lengths							
@ 850 nm	(m)	-	-	-	-	≤ 300	550
Attenuation- Loose Tube Cables							
@ 850 nm (typical / maximum)	dB/km	2.6 / 3.2	2.4 / 3.5	2.3 / 3.0	2.3 / 3.0	2.0 / 3.0	2.0 / 3.0
@ 1300 nm (typical / maximum)		0.5 / 1.0	0.7 / 1.5	0.6 / 1.0	0.6 / 1.0	0.5 / 1.0	0.5 / 1.0
Attenuation-Tight Buffer Cables							
@ 850 nm (typical / maximum)	dB/km	2.6 / 3.2	2.0 / 3.5	2.0 / 3.5	2.0 / 3.5	2.1 / 3.5	2.1 / 3.5
@ 1300 nm (typical / maximum)		0.5 / 1.0	0.5 / 1.5	0.5 / 1.5	0.5 / 1.5	0.7 / 1.5	0.7 / 1.5
Numerical Aperture	µm	0.275 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015
Core Diameter	µm	62.5 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Core Non-Circularity		≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Cladding Diameter	µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0
Clad Non-Circularity		≤ 1 %	≤ 1 %	≤ 1 %	≤ 1 %	≤ 1 %	≤ 1 %
Coating Diameter	µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10
Coating Non-Circularity	%	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Core/Clad Concentricity Error	µm	≤ 1.0	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5
Coating-Clad Concentricity Error	µm	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8
Zero Dispersion Wavelength (λ ₀)	nm	1320 – 1365	1295 – 1340	1295 – 1340	1295 – 1340	1295 – 1340	1295 – 1340
Group Refractive Index							
@ 850 nm		1.496	1.483	1.483	1.483	1.483	1.483
@ 1300 nm		1.491	1.479	1.479	1.479	1.479	1.479

1 - serial Laser 1000BASE-SX

2 - serial Laser 1000BASE-LX

3 - Effective Modal Bandwidth per TIA/EIA-492AAAC and draft IEC 60793-2-10 for type A1a.2, ensured by DMD performance specifications for sources meeting launch conditions specified in 10Gbit Ethernet (IEEE 802.3ae), OIF OC-192/STM-64 VSR-4-04, and 10 Gbit Fibre Channel (10GFC).

Single mode fiber		9/125µm OS2 G.652D – ZWP	9/125µm OS2 G.657.A1	9/125µm OS2 G.657.A2	9/125µm OS2 G.657.B3	9/125µm G.655C&D	9/125µm G.655C & E, G.656
Chromatic Dispersion							
@ 1285 - 1330 nm		≤ 3.5	-	-	-	-	-
@ 1550 nm	ps/(nm.km)	≤ 18	-	-	-	-	-
@ 1530 – 1565 nm		-	-	-	-	2.6 – 6.0	5.5 – 8.9
@ 1565 – 1625 nm		-	-	-	-	4.0 – 8.9	6.9 – 11.4
@ 1460 – 1625 nm		-	-	-	-	-1.0 – 8.9	2.0 – 11.4
Attenuation- Loose Tube Cables							
@ 1310 nm (typical / maximum)	dB/km	0.31 / 0.35	0.31 / 0.35	0.31 / 0.35	0.31 / 0.35	-	-
@ 1550 nm (typical / maximum)		0.20 / 0.24	0.20 / 0.24	0.20 / 0.24	0.20 / 0.24	0.25 / 0.30	0.25 / 0.30
@ 1625 nm (typical / maximum)		0.21 / 0.26	0.21 / 0.26	0.21 / 0.26	0.21 / 0.26	0.27 / 0.34	0.27 / 0.34
Attenuation-Tight Buffer Cables							
@ 1310 nm (typical / maximum)	dB/km	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	-	-
@ 1550 nm (typical / maximum)		0.25 / 0.30	0.25 / 0.30	0.25 / 0.30	0.25 / 0.30	0.25 / 0.35	0.25 / 0.35
@ 1625 nm (typical / maximum)		0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.27 / 0.40	0.27 / 0.40
Cable Cut-Off Wavelength (λ _{cc})	µm	≤ 1260	≤ 1260	≤ 1260	≤ 1260	-	-
Mode Field Diameter							
@ 1310 nm	µm	9.2 ± 0.4	8.6 - 9.3	8.8 ± 0.4	6.3 – 9.5	-	-
@ 1550 nm		10.4 ± 0.5	9.5 - 10.5	-	9.2 - 10.4	8.4 ± 0.6	8.6 ± 0.4
Cladding Diameter	µm	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7
Clad Non-Circularity		≤ 1 %	≤ 1 %	≤ 1 %	≤ 1 µm	≤ 0.7 %	≤ 0.7 %
Coating Diameter	µm	235 – 245	235 – 245	235 – 245	245 ± 10	245 ± 5	245 ± 5
Core/Clad Concentricity Error	µm	≤ 0.5	≤ 0.5	≤ 0.5	-	≤ 0.5	≤ 0.5
Coating-Clad Concentricity Error		≤ 12 µm	≤ 12 µm	≤ 5 %	≤ 5 %	≤ 10 µm	≤ 10 µm
Zero Dispersion Wavelength (λ ₀)	nm	1302 – 1322	1302 – 1322	1302 – 1322	1302 – 1324	-	≤ 1405
Group Refractive Index							
@ 1310 nm		1.467	1.467	-	-	1.471	1.471
@ 1550 nm		1.468	1.468	-	1.468	1.470	1.470
Fiber PMD Individual fiber	ps/√km	0.1	0.1	0.1	0.2	0.1	0.1

ZWP – Zero Water Peak

