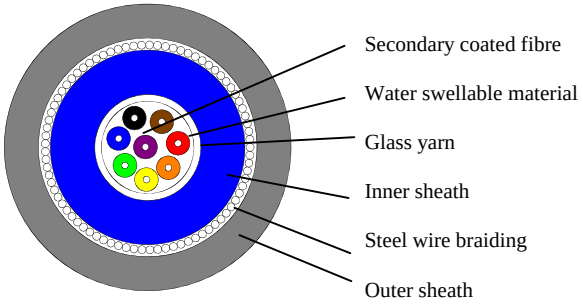
Flame retardant AICI-I/O/RM-W

Armoured industrial cable

AICI-I/O/RM-W

Indoor and outdoor
Flame retardant and halogen free
Steel wire braiding
Tight buffer

Optical cable for industrial environments. The cable is suitable for both indoor and outdoor installation. Continiuous submergence in water is not recommended. Outer sheath is made from black UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-2-1. The cable is reinforced with a steel wire braiding between the two sheaths. Strength elements of glass yarn around the cable core allow easy installation of long lengths. The 0.9 mm tight buffer is easy to strip allowing fast and reliable splicing and connector mounting. Each fibre is colour coded for easy identification. The outer sheath is marked to show fibre type and cable type.



Weight and dimensions

Number of fibres	Secondary coating [mm]	Outer diameter [mm]	Weight [kg/km]	Tensile strength* [Inst./oper.] [N]
4	0.9	8.2	90	700/250
8	0.9	9.4	125	800/350
12	0.9	10.3	145	1200/500
24	0.9	12.0	185	1700/750

Cable properties

***Tensile strength** (IEC 60794-1-2E1)	
Max tensile load during installation	See above
Max tensile load during operation	See above
Crush (IEC 60794-1-2E3)	2000 N/10cm
Impact (IEC 60794-1-2E4)	1 impacts, 25J
Torsion (IEC 60794-1-2E7)	± 1 turn/1m
Cable bending	
Minimum bending diameter	15x outer diameter
Cable bend (IEC 60794-1-2E11)	<0.5 dB/ ± 5 turn
Flexibility (IEC 60794-1-2E8)	1000 cycles

Temperature window	
Operation	-40°C to +70°C
Installation	-10°C to +70°C
Storage	-40°C to +70°C
Water tightness* (IEC 60794-1-2F5B)	< 3 m/24 hours
Fire and smoke classifications	
IEC 60332-1	
IEC 60332-3-22 (Cat. A)	
IEC 60332-3-24 (Cat. C)	
IEC 61034	
IEC 60754-1	
IEC 60754-2	
Chemical reistance	
Mineral oils IRM 902 (IEC60811-2-1)	- 7 days/23°C - 4 hours/70°C
Diesel - IRM 903 (IEC60811-2-1)	- 7 days/23°C - 4 hours/70°C

*) – Steel wire braiding is not watertight.

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Ordering information

9/125 fibre(SMF652D), Black**		50/125 fibre(MMF50HiCap), Black**		62.5/125 fibre(MMF62HiCap), Black**	
Part no.	Cable code	Part no.	Cable code	Part no.	Cable code
695420	G4-9/125 AICI-I/O/RM-W	695422	G4-50/125 AICI-I/O/RM-W	695424	G4-62.5/125 AICI-I/O/RM-W
695440	G8-9/125 AICI-I/O/RM-W	695442	G8-50/125 AICI-I/O/RM-W	695444	G8-62.5/125 AICI-I/O/RM-W
695450	G12-9/125 AICI-I/O/RM-W	695452	G12-50/125 AICI-I/O/RM-W	695454	G12-62.5/125 AICI-I/O/RM-W
695480	G24-9/125 AICI-I/O/RM-W	695482	G24-50/125 AICI-I/O/RM-W	695484	G24-62.5/125 AICI-I/O/RM-W

**)-Standard colour of outer sheath

We reserve the right to alter this specification without notice.

Optical fibres

Fibre type	**9/125**	**HiCap 50/125**	**MaxCap 50/125**	**HiCap 62.5/125**
Reference(DNK)	**SMF652D**	**MMF50HiCap**	**MMF50MaxCap**	**MMF62HiCap**
IEC60793-2-50 category	B.1.3	A1a	A1a.2	A1b
IEC11801 classification	OS1 and OS2	OM2	OM3	OM1
ITU-T type	G652.D	G651	G651	-
Gigabit Ethernet maximum distances SX-serial(850 nm) LX-serial(1310 nm)	 5000m	 750 m 2000 m	 900 m 550 m	 500 m 1000 m
10Gigabit Ethernet maximum distances SX-serial(850 nm) LX-serial(1310 nm)	 10000 m	 110 m	 300 m	 65 m
Core diameter	See mode field diameter	50 ± 2.5 µm	50 ± 2.5 µm	62.5 ± 2.5 µm
Mode field diameter	1310 nm 9.2 ± 0.4 µm 1550 nm 10.3 ± 0.5 µm			
Cladding diam. loose tube	125 ± 0.7 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
Cladding diam. tight buffer	125 ± 0.7 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
Primary coating diameter (nominal)	242 ± 7 µm	250 µm	250 µm	250 µm
Attenuation (Typical values) 850 nm 1300 nm 1310 nm 1550 nm	 0.33 – 0.37 dB/km 0.19 – 0.23dB/km	 ≤ 2.5 dB/km ≤ 0.7 dB/km	 ≤ 2.5 dB/km ≤ 0.7 dB/km	 ≤ 3.0 dB/km ≤ 0.7 dB/km
Attenuation (Maximum values) 850 nm 1300 nm 1310 nm 1550 nm	 ≤ 0.40 dB/km ≤ 0.25 dB/km	 ≤ 2.7 dB/km ≤ 0.8 dB/km	 ≤ 2.7 dB/km ≤ 0.9 dB/km	 ≤ 3.2 dB/km ≤ 1.0 dB/km
Bandwidth(OFL*) 850 nm 1300 nm		 >600 MHz·km >1200 MHz·km	 >1500 MHz·km >500 MHz·km	 >200 MHz·km >600 MHz·km
Chromatic Dispersion 1285-1330 nm 1550 nm	 ≤ 3 ps/nm·km ≤ 18 ps/nm·km			
Polarization Mode Disp. PMD Link Design Value ** Max. Individual Fibre	 ≤ 0.06 √km ≤ 0.1 √km			
Numerical aperture	0.13 (nominal)	0.200 ± 0.015	0.200 ± 0.015	0.275 ± 0.015
Minimum permanent bending diameter	50 mm	50 mm	50 mm	50 mm

* Over Filled Launch methode(OFL). Modal Bandwidth in accordance with IEC60793-1-41. Rev: 09/07

** According to IEC 60794-3, Ed.3 (Q=0.01%)

Other fibre types and qualities are available on request.