

Data Sheet for Article: HSHAIBH124

FO Universal Cable A/I-DQ(ZN)BH 12x50/ 125µm OM4, LS0H-3, Dca

nonmetallic rodent protection, black, 8mm, 3500N



SCHRACK-Info

FEATURES AND BENEFITS

- FO universal cable, central loose tube, longitudinally waterproof, with metal-free (nonmetallic) rodent protection.
- For indoor- and outdoor- use in structured (data) wiring systems such as industrial backbone, campus backbone, building backbone (riser) and/or horizontal cabling.
- Laying outdoors in conduits, on covered cable trays or directly in the ground (in a sand bed).
- Easy to install in ducts, tunnels and trenches.
- According to fiber quality best suited for all applications according to EN 50173-1 (see Annex "Supported Network Applications").
- These cables are all dielectric and therefore immune to electromagnetic interference (EMC-safe), spark-free and requires no earthing.
- UV-resistant according to ISO 4892-3.
- Predicted lifetime ≥ 30 years.



Technical Data

Technical Data - continued

Net weight (kg)	0,07
Fiber	50/125 OM4 Multimode
Cable jacket	LSOH-3
Colour	Black
Diameter (mm)	8
Min. ambient temperature (°C)	-25
Max. ambient temperature (°C)	60
Euroclass acc. to EN50575	Dca
Smoke production	s2
Droplets	d2
Acidity	a1
Mode-Field / Cladding diameter (µm)	50 ± 2,5 125 ± 1
Fibre count	12
Net diameter (mm)	7,70
Primary coating (µm)	250 ± 15
Suitable	Universal cable
Watertightness	longitudinally watertight
Rodent protection	Yes, nonmetallic
Predicted lifetime	≥ 30 Years
Jacket	LSOH-3, FRNC nach IEC 61034-1/2, EN 50268-1/2 IEC 60754-1/2, EN 50267-1/2 IEC 60332-3-22 Cat.A
Temperature range - Transport/storage (°C)	-25 to +70
Temperature range - Installation (°C)	-5 to +50
Temperature range - Operation (°C)	-25 to +60
Bending radii cable - Operation (longterm) (Ø)	15 x Ø
Bending radii cable - Installation (shortterm) (Ø)	20 x Ø
Tensile strength (N)	3500
Cable Max. Crush Resistance Operation (longterm) (N/m)	15000
Cable Max. Crush Resistance Installation (shortterm) (N/m)	30000
Color code pairs	according to IEC 60304

Specifications Fiber Qualities

Schrack Art.Nnumber	HSIAIBHxx3	HSIAIBHxx4	HSIAIBHxx5	HSIAIBHxx9
Fiber specifications	G50/125	G50/125	G50/125	E9/125
ITU-T	G651.1	G651.1	G651.1	G652.D + G657.A1
Fiber category	OM3	OM4	OM5	OS2
Attenuation coefficient				
dB/km at 850 nm	max. 2.5	max. 2.5	max. 2.5	-
dB/km at 953 nm	-	-	max. 1.8	-
dB/km at 1300 nm	max. 0.7	max. 0.7	max. 0.7	-
dB/km at 1310 nm	-	-	-	max. 0.36
dB/km at 1383 nm	-	-	-	max. 0.36
dB/km at 1550 nm	-	-	-	max. 0.22
dB/km at 1625 nm				max. 0.22
Bandwidth				
MHz x km at 850 nm	min. 1500	min. 3500	min. 3500	-
MHz x km at 953 nm	-	-	min. 1850	-
MHz x km at 1300 nm	min. 500	min. 500	min. 500	-
Laser-Bandwidth				
MHz x km at 850 nm	min. 2000	min. 4700	min. 4700	-
MHz x km at 953 nm	-	-	min. 2470	-
Dispersion				
at 1310 nm	-	-	-	max. 3.5ps/nm x km
at 1550 nm	-	-	-	max. 18ps/nm x km
Zero Dispersion Wavelength	-	-	-	$1302 \leq \lambda_0 \leq 1322$
Zero Dispersion Slope	-	-	-	$\leq 0.092 \text{ ps/nm}^2 \times \text{km}$
PMD				
Fiber	-	-	-	$\leq 0.1 \text{ ps}/\sqrt{\text{km}}$
Link	-	-	-	$\leq 0.06 \text{ ps}/\sqrt{\text{km}}$
Segment length for Gigabit Ethernet				
at 850 nm (1000 BASE SX)	900 m	1000 m	1000 m	-
at 1300 nm (1000 BASE LX)	550 m	550 m	550 m	-
at 1310 nm	-	-	-	5000 m
Segment length for 10 Gigabit Ethernet				
at 850 nm (10G BASE-SR/SW)	300 m	550 m	550 m	-
at 1300 nm (10G BASE-LX4)	300 m	300 m	300 m	-
at 1310 nm	-	-	-	10000 m
at 1550 nm (10G BASE-ER/EW)	-	-	-	40000m
Segment length for 40 Gigabit Ethernet				
at 850 nm 40 GBASE-SR4	100 m	150 m	150 m	-
at 1310 nm 40 GBASE-LR4	-	-	-	10000 m
at 850 nm – 953 nm 40G-SWDM4	240m	350 m	440 m	-
Segment length for 100 Gigabit Ethernet				
at 850 nm 100 GBASE-SR10	100 m	150 m	150 m	-
at 1310 nm 100 GBASE-LR4	-	-	-	10000 m
at 1550 nm 100 GBASE-ER4	-	-	-	40000 m
at 850 nm – 953 nm 100G-SWDM4	75 m	100 m	150 m	-
Numerical aperture				

Nominal value	0.20	0.20	0.20	0.12
Refractive index (nominal value)				
at 850 nm	1.483	1.483	1.483	-
at 1300 nm	1.478	1.478	1.478	-
at 1310 nm	-	-	-	1.467
at 1550 nm	-	-	-	1.467
Prüflast	≥ 100 kpsi	≥ 100 kpsi	≥ 100 kpsi	≥ 100 kpsi
	≥ 8.8N	≥ 8.8N	≥ 8.8N	≥ 8.8N

GUIDE TO INSTALLATION AND HANDLING

When laying and installing optical fibre cables it is vitally important not to exceed the specified values set for pulling tension, bending radius and temperature. The installation must be carried out in compliance with the standards, according to the specified temperature ranges (see technical data).

To ease insertion into tubes by means of compressed air or pulling wire, certified lubricants (e.g. paraffin) may be used. The use of soap or similar substances as lubricants is strictly prohibited!

If a cable needs to be fastened, constrictions > 0.3 mm must be prevented.

The jelly filling inside the tubes can be removed using a tissue soaked in turpentine.

It is advisable to cap the cable-ends during storage.

Article Table

DESCRIPTION	Order No.
FO Universal Cable A/I-DQ(ZN)BH 12x50/125µm OM4, LSOH-3, Dca nonmetallic rodent protection, black, 8mm, 3500N	HSIAIBH124
Optional Accessories	
FO Splicebox, 12 Fibers, LC, 50/125µm OM4, 19", 1U, Class B acc. to IEC 61753-1, RAL7035, sliding, pigtails inserted and prepared ready for splicing, PREMIUM	HSELS124LG
FO Splicebox, 12 Fibers, SC, 50/125µm OM4, 19", 1U, Class B acc. to IEC 61753-1, RAL7035, sliding, pigtails inserted and prepared ready for splicing, PREMIUM	HSELS124CG
Back to back cable tie black 16mm x 4m	Q7KB0416-S
Back to back cable tie blue 16mm x 4m	Q7KB0416-B
Back to back cable tie red 16mm x 4m	Q7KB0416-R
Back to back cable tie yellow 16mm x 4m	Q7KB0416-Y
Back to back cable tie green 16mm x 4m	Q7KB0416-U