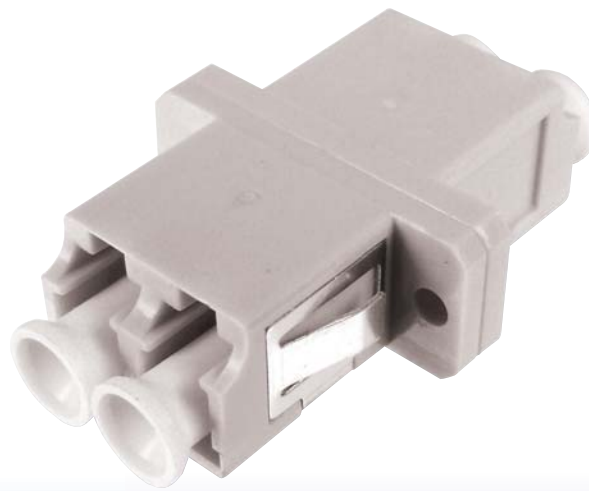


FIBER-OPTIC



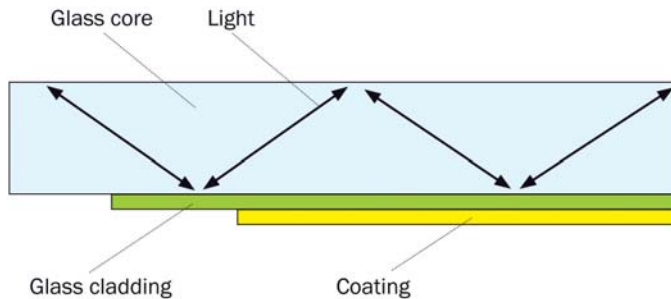
WNSVAV



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Construction of a glass fiber cable

A glass fiber cable consists mainly of three parts: The glass fiber core, carrying the light signal, the glass jacket which reflects the light and a plastic cladding which protects the glass fiber cable from external influences and makes it flexible. .



The glass fiber core

There are various thicknesses of the glass fiber core which are described with their cross section: The single mode fiber cable with a cross section of $9\mu\text{m}$ and multi-mode fiber cables with cross sections of $50\mu\text{m}$ and $62.5\mu\text{m}$.

Single mode fiber cables are more costly than multi-mode fiber cables because of difficulties in the manufacture of an extremely thin cable with a cross section of $9\mu\text{m}$, but they have a greater range.

Additional designations are used to describe them in terms of their quality: OS1 and OS2 for single mode fiber cables, where OS2 is the best quality and OM1, OM2 and OM3 for multi-mode cables where OM3 is the best quality.

The difference between single mode and multi mode

The light is reflected in a zigzag pattern in the core of thicker multi-mode fiber cables. This results in higher attenuation, the range of the signal reduces, in other words. The light does not refract so frequently in single mode fiber cables and guarantees an enormous range.



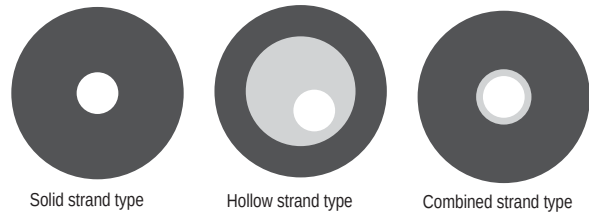
Multimode



Singlemode

Cladding

There are several forms of cladding for glass fiber cables.



The solid strand type surrounds the fiber directly. This has a disadvantageous effect when there is high strain and with temperature differences.

Unlike the solid strand type, the hollow strand type does not surround the fiber directly. There is a hollow space between the cladding and the fiber which reduces the disadvantageous effects of strain load and temperature differences.

The combined strand type represents an intermediate form of the solid core type and the hollow core type. The hollow space of the cladding is filled here with a gel or similar.

Use of the individual glass fiber cables

Multi fire cables are usually found in cabling in buildings and in short and medium distance runs. OM2 fiber cables are used the most. OM3 fibers of better quality are used more and more frequently and replace OM2 fiber cables over the long run. Single mode fiber cables are used because of their good signal properties in long distance cabling.

LWL plugs

The widest distributed LWL plugs are ST-, SC- and LC plugs. The LC plugs gain an ever increasing share of the market for glass fiber plugs because of the compact size and their use with mini GBIC modules in switches or media converters.

Pigtails

Pigtails are cables equipped with an LWL plug on one side and a plain glass fiber cable on the other side. They are used at the end points of laid cables and are spliced with each other.

Splicing

Splicing is understood to be the connection of two glass fiber cables. These are adjusted at their end points and permanently fused together.

Fiber-Optic Patch Cable - ST/ST, duplex



Material:

ST/ST Connectors
 Halogen free cable I-VH 2G-XXX (Multimode)
 I-VH 2E-XXX (Singlemode)
 OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
 Connector with ceramic ferrule
 Two color Boot (Multimode cable)
 Single packed, with test report

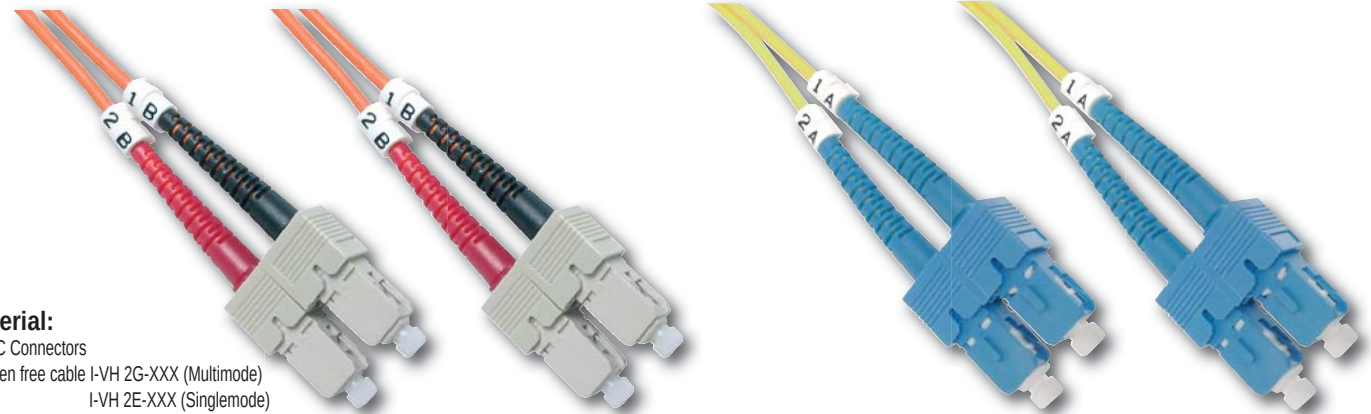


Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125μ"		Multimode OM1 - 62.5/125μ"		Multimode OM3 - 50/125μ"		Singlemode 9/125μ"	
DK-2511-01	1.0	DK-2611-01	1.0	DK-2511-01/3	1.0	DK-2911-01	1.0
DK-2511-02	2.0	DK-2611-02	2.0	DK-2511-02/3	2.0	DK-2911-02	2.0
DK-2511-03	3.0	DK-2611-03	3.0	DK-2511-03/3	3.0	DK-2911-03	3.0
DK-2511-05	5.0	DK-2611-05	5.0	DK-2511-05/3	5.0	DK-2911-05	5.0
DK-2511-07	7.0	DK-2611-07	7.0	DK-2511-07/3	7.0	DK-2911-07	7.0
DK-2511-10	10.0	DK-2611-10	10.0	DK-2511-10/3	10.0	DK-2911-10	10.0

Fiber-Optic Patch Cable - SC/SC, duplex



Material:

SC/SC Connectors
 Halogen free cable I-VH 2G-XXX (Multimode)
 I-VH 2E-XXX (Singlemode)
 OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
 Connector with ceramic ferrule
 Two color Boot (Multimode cable)
 Single packed, with test report



Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125μ"		Multimode OM1 - 62.5/125μ"		Multimode OM3 - 50/125μ"		Singlemode 9/125μ"	
DK-2522-01	1.0	DK-2622-01	1.0	DK-2522-01/3	1.0	DK-2922-01	1.0
DK-2522-02	2.0	DK-2622-02	2.0	DK-2522-02/3	2.0	DK-2922-02	2.0
DK-2522-03	3.0	DK-2622-03	3.0	DK-2522-03/3	3.0	DK-2922-03	3.0
DK-2522-05	5.0	DK-2622-05	5.0	DK-2522-05/3	5.0	DK-2922-05	5.0
DK-2522-07	7.0	DK-2622-07	7.0	DK-2522-07/3	7.0	DK-2922-07	7.0
DK-2522-10	10.0	DK-2622-10	10.0	DK-2522-10/3	10.0	DK-2922-10	10.0

Fiber-Optic Patch Cable - LC/LC, duplex

USB & IEEE
IDC &
Flat Ribbon
IC, PLCC, Pin
& Jumpers
DSUB &
Centronics

Waterproof
DVI & HDMI
Modular

Fiber-Optic

Power Cords
Wire to Board

SATA &
eSATA

FFC/FFPC

MinidIN &
Audio

KVM Cables

Material:

LC/LC Connectors
Halogen free cable I-VH 2G-XXX (Multimode)
I-VH 2E-XXX (Singlemode)
OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
Connector with ceramic ferrule
Single packed, with test report



Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125μ"		Multimode OM1 - 62.5/125μ"		Multimode OM3 - 50/125μ"		Singlemode 9/125μ"	
DK-2533-01	1.0	DK-2633-01	1.0	DK-2533-01/3	1.0	DK-2933-01	1.0
DK-2533-02	2.0	DK-2633-02	2.0	DK-2533-02/3	2.0	DK-2933-02	2.0
DK-2533-03	3.0	DK-2633-03	3.0	DK-2533-03/3	3.0	DK-2933-03	3.0
DK-2533-05	5.0	DK-2633-05	5.0	DK-2533-05/3	5.0	DK-2933-05	5.0
DK-2533-07	7.0	DK-2633-07	7.0	DK-2533-07/3	7.0	DK-2933-07	7.0
DK-2533-10	10.0	DK-2633-10	10.0	DK-2533-10/3	10.0	DK-2933-10	10.0

Fiber-Optic Patch Cable - ST/SC, duplex

Material:

ST/SC Connectors
Halogen free cable I-VH 2G-XXX (Multimode)
I-VH 2E-XXX (Singlemode)
OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
Connector with ceramic ferrule
Two color Boot (Multimode cable)
Single packed, with test report



Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125μ"		Multimode OM1 - 62.5/125μ"		Multimode OM3 - 50/125μ"		Singlemode 9/125μ"	
DK-2512-01	1.0	DK-2612-01	1.0	DK-2512-01/3	1.0	DK-2912-01	1.0
DK-2512-02	2.0	DK-2612-02	2.0	DK-2512-02/3	2.0	DK-2912-02	2.0
DK-2512-03	3.0	DK-2612-03	3.0	DK-2512-03/3	3.0	DK-2912-03	3.0
DK-2512-05	5.0	DK-2612-05	5.0	DK-2512-05/3	5.0	DK-2912-05	5.0
DK-2512-07	7.0	DK-2612-07	7.0	DK-2512-07/3	7.0	DK-2912-07	7.0
DK-2512-10	10.0	DK-2612-10	10.0	DK-2512-10/3	10.0	DK-2912-10	10.0

Fiber-Optic Patch Cable - LC/ST, duplex



Material:

LC/ST Connectors
 Halogen free cable I-VH 2G-XXX (Multimode)
 I-VH 2E-XXX (Singlemode)
 OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
 Connector with ceramic ferrule
 Two color Boot (Multimode cable)
 Single packed, with test report

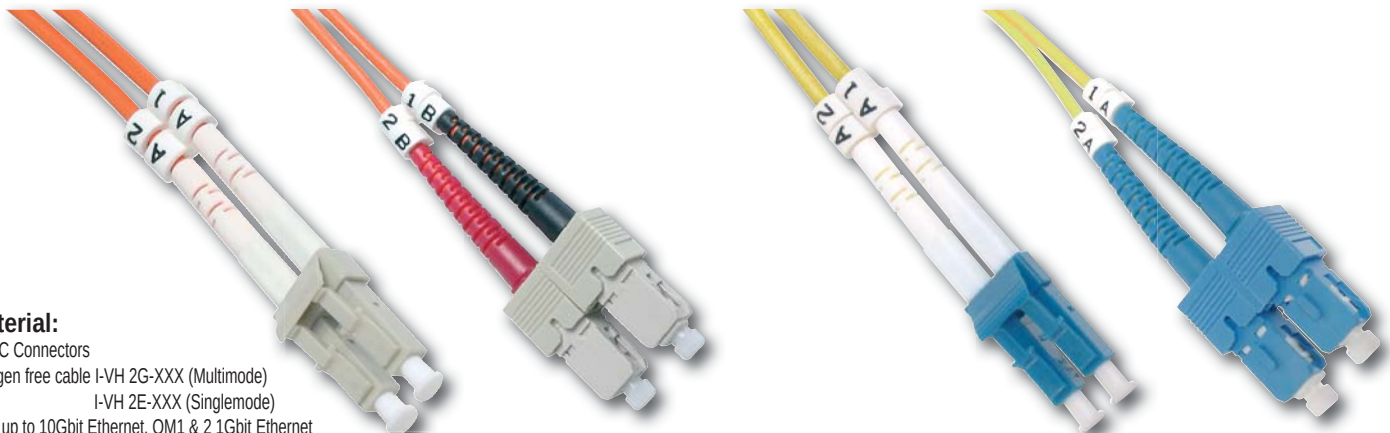


Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125µ"		Multimode OM1 - 62.5/125µ"		Multimode OM3 - 50/125µ"		Singlemode 9/125µ"	
DK-2531-01	1.0	DK-2631-01	1.0	DK-2531-01/3	1.0	DK-2931-01	1.0
DK-2531-02	2.0	DK-2631-02	2.0	DK-2531-02/3	2.0	DK-2931-02	2.0
DK-2531-03	3.0	DK-2631-03	3.0	DK-2531-03/3	3.0	DK-2931-03	3.0
DK-2531-05	5.0	DK-2631-05	5.0	DK-2531-05/3	5.0	DK-2931-05	5.0
DK-2531-07	7.0	DK-2631-07	7.0	DK-2531-07/3	7.0	DK-2931-07	7.0
DK-2531-10	10.0	DK-2631-10	10.0	DK-2531-10/3	10.0	DK-2931-10	10.0

Fiber-Optic Patch Cable - LC/SC, duplex



Material:

LC/SC Connectors
 Halogen free cable I-VH 2G-XXX (Multimode)
 I-VH 2E-XXX (Singlemode)
 OM3 up to 10Gbit Ethernet, OM1 & 2 1Gbit Ethernet
 Connector with ceramic ferrule
 Two color Boot (Multimode cable)
 Single packed, with test report



Multimode

Singlemode

Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)	Assmann Part Number (Standard Stocking Item)	Length (Meters)
Multimode OM2 - 50/125µ"		Multimode OM1 - 62.5/125µ"		Multimode OM3 - 50/125µ"		Singlemode 9/125µ"	
DK-2532-01	1.0	DK-2632-01	1.0	DK-2532-01/3	1.0	DK-2932-01	1.0
DK-2532-02	2.0	DK-2632-02	2.0	DK-2532-02/3	2.0	DK-2932-02	2.0
DK-2532-03	3.0	DK-2632-03	3.0	DK-2532-03/3	3.0	DK-2932-03	3.0
DK-2532-05	5.0	DK-2632-05	5.0	DK-2532-05/3	5.0	DK-2932-05	5.0
DK-2532-07	7.0	DK-2632-07	7.0	DK-2532-07/3	7.0	DK-2932-07	7.0
DK-2532-10	10.0	DK-2632-10	10.0	DK-2532-10/3	10.0	DK-2932-10	10.0

USB & IEEE
IDC &
Flat Ribbon
IC, PLCC, Pin
& Jumpers
Centronics
DSUB &
Waterproof
DVI & HDMI
Modular
Fiber-Optic
Power Cords
Wire to Board
SATA &
eSATA
FFC/FFC
MiniDIN &
Audio
KVM Cables

Fiber-Optic Pigtails - SC, OM2 50/125µ", colored



Material:

Simplex type
Semi tight buffer
Colored buffer, according to IEC 302 in: white, violet, turquoise, black, red, pink, orange grey, green, yellow, brown, blue
Set of 12 pcs
Included test report



Assmann Part Number (Standard Stocking Item)	Length (Meters)
DK-25221-02	2.0

Fiber-Optic Pigtails - ST, OM2 50/125µ", colored



Material:

Simplex type
Semi tight buffer
Colored buffer, according to IEC 302 in: white, violet, turquoise, black, red, pink, orange grey, green, yellow, brown, blue
Set of 12 pcs
Included test report



Assmann Part Number (Standard Stocking Item)	Length (Meters)
DK-25112-02	2.0

Fiber-Optic Pigtail - ST



Material:

Simplex type
Tight buffer
Single packed with test report

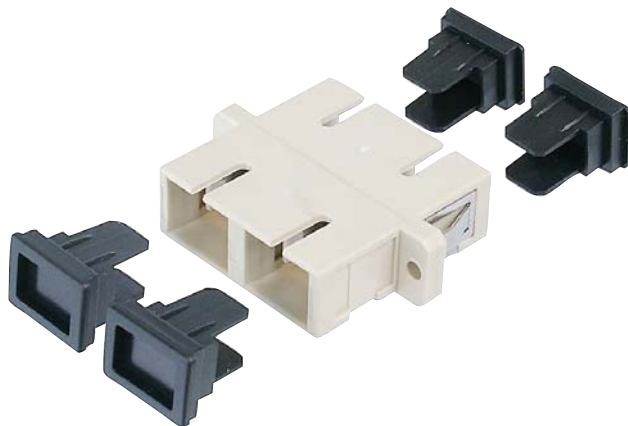


Assmann Part Number (Standard Stocking Item)	Length (Meters)
AL-5FPST-021	2.0

LC/LC Coupler, duplex

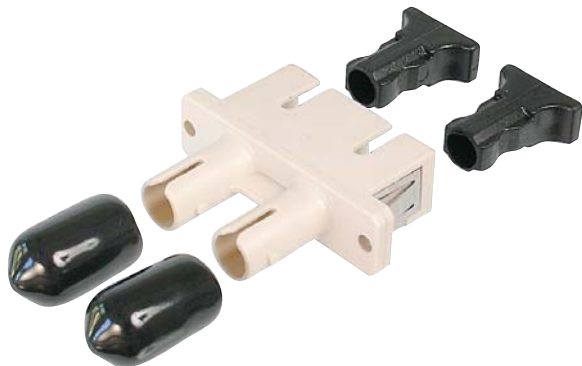


SC/SC Coupler, duplex



Assmann Part Number (Standard Stocking Item)	Sleeve	Assmann Part Number (Standard Stocking Item)	Sleeve
ALWL-LC1D	Phosphor Bronze	ALWL-SCK1D	Phosphor Bronze
		ALWL-SCK2D	Zirconia

ST/SC Coupler, duplex



ST/ST Coupler, simplex



Assmann Part Number (Standard Stocking Item)	Sleeve	Assmann Part Number (Standard Stocking Item)	Sleeve
ALWL-STSC1D	Phosphor Bronze	ALWL-STK1	Phosphor Bronze
		ALWL-STK2	Zirconia

USB & IEEE
IDC & Flat Ribbon
IC, PLCC, Pin & Jumpers
DSUB & Centronics
Waterproof
DVI & HDMI
Modular
Fiber-Optic
Power Cords
Wire to Board
SATA & eSATA
FFC/FFC
MiniDIN & Audio
KVM Cables

Notes

- USB & IEEE
- IDC & Flat Ribbon
- IC, PLCC, Pin & Jumpers
- DSUB & Centronics
- Waterproof
- DVI & HDMI
- Modular
- Fiber-Optic
- Power Cords
- Wire to Board
- SATA & eSATA
- FFC/FPC
- MiniDIN & Audio
- KVM Cables