

fischer connectors

*Fiber Optic Connectors
and Cable Systems*



Edition 1.1

fischer[®]
CONNECTORS

Examples of Fiber Optic Applications



Audio Transmission,
Concerts



TV Transmission,
Operas

Data
Transmission



Medical
Applications



TV Broadcast,
Formula 1



TV Broadcast,
Ski Jumping

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This catalogue covers Fischer Connectors many years of fiber optic (FO) connectors experience. It clearly reviews, not only most varieties of body styles and pole configurations, but also specific, well-tested cabling options. It also explains testing and cleaning procedures, as well as suggesting suitable tools.

Similarly, there are a whole range of cables available, which we usually develop into complete cable systems according to the client's specification. In this way we ensure the highest reliability and spare the user the considerable costs associated with installation and measuring equipment.

We offer a replacement service for the entire lifetime of the cable system and extremely fast response times – also on site – with made-to-measure service contracts, such as those now successfully operating with well-known radio and television organisations.

Multiway Fiber Optic Connectors differ from standard electrical connectors in their operational design and specific operational requirements.

Operational design characteristics:

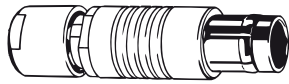
- FO elements positioning and contact
- Cable connection technique
- Push Pull locking
- Precautionary measures against contamination
- Accessibility for cleaning and measuring techniques

Operational requirements:

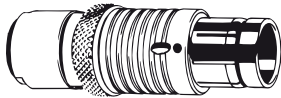
- Robust shell construction design
- Simple handling even under extreme environmental conditions
- Impervious cable strain relief
- Extremely secure cable attachment
- Cable systems are easily accessible and are interchangeable

Specific FO components, which had been tested previously to the highest reliability levels in broadcasting service (e.g. sport event transmission such as winter sports and Formula 1 racing) were added to tried and tested structural standard connector shapes.

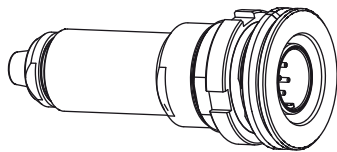
Plug



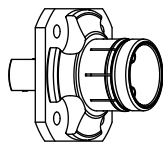
SE
Cable mounted plug



SVE
Cable mounted
tamperproof plug

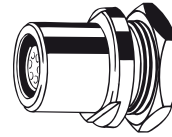


DSBE
Panel mounted plug

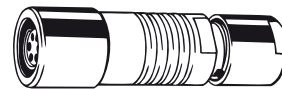


DSQ
Panel mounted plug

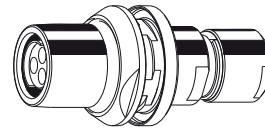
Receptacle



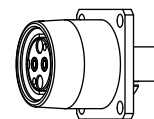
DBE
Panel mounted receptacle



KE
Cable mounted receptacle



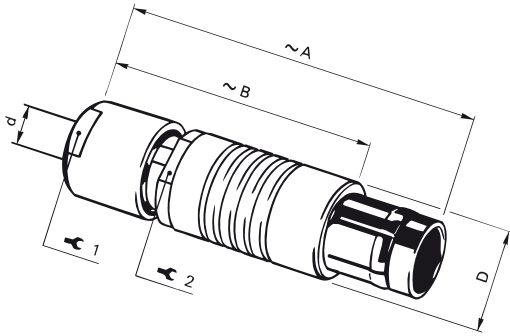
DKBE
Panel mounted receptacle



DBQ
Panel mounted receptacle

The choice of body styles is limited for Push-Pull Multiway FO connectors. All the designs shown above are sealed. DSBE and KE are mostly used in the 105, 1051 and 107 series. SE, SVE and DBE are mostly limited to the 104 and 106 series. The DSQ and DBQ body styles are only available in the 1053 series. See special catalogue 1053.

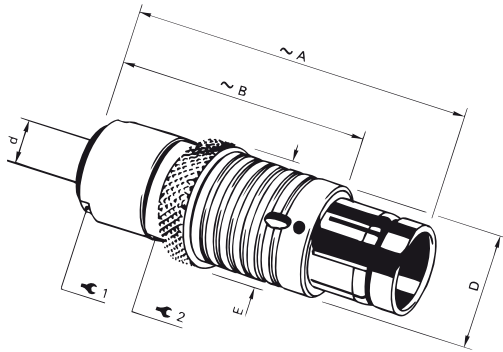
S Locking plug



Self locking cable mounted plug

Series	A	B	D	Cable \varnothing	Υ_1	Υ_2
104	50	38	15.0	5.0-7.7	12	13
105	62	47	18.0	4.0-9.0	15	16
1051	80	65	22.5	5.0-10.0	17	20
1053	100	85	22.5	5.0-10.0	17	20
106	80	55	28.0	6.0-14.0	15	16

SV Tamperproof plug

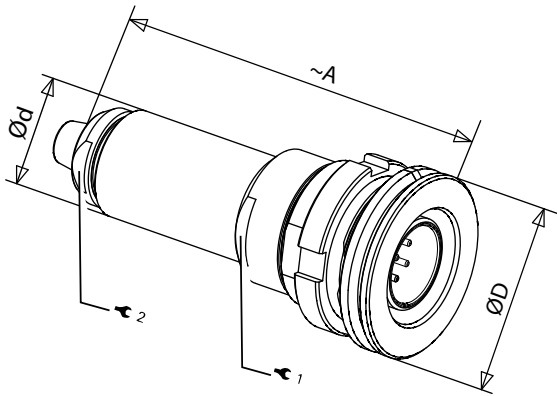


Tamper-proof cable mounted plug

A knurled locking ring with a set screw prevents unauthorized or unintentional disengagement.

Series	A	B	D	E	Cable \varnothing	Υ_1	Υ_2
104	50	38	15	20	4.0-7.7	12	13
105	62	47	18	22	4.0-9.0	15	16
106	80	55	30	35	6.0-14.0	22	-

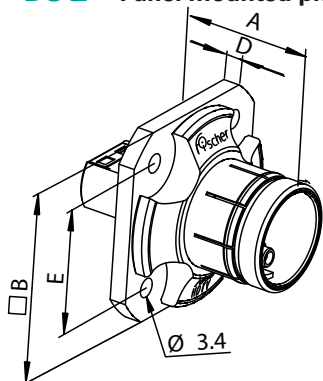
DSBE Panel mounted plug



Panel and cable mounted self locking plug

Series	A	d	D	Cable \varnothing	Υ_1	Υ_2
104	upon request					
105	64	18	34	4.0-9.0	15	16
1051	80	22	38	5.0-10.0	24	17
1053	100	22	38	9.2	24	17
107	117	34	55	6.0-22.0	36	32

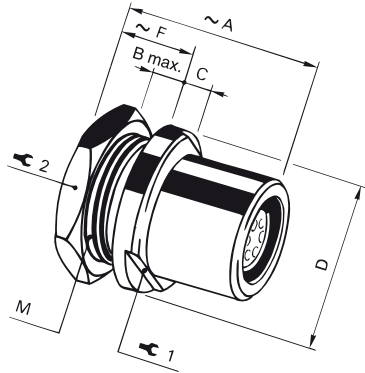
DSQ Panel mounted plug



Panel mounted self locking plug

Series	A	B	D	E	Cable \varnothing	Υ_1	Υ_2
1053	23.6	35	3.1	23	single wires	-	-

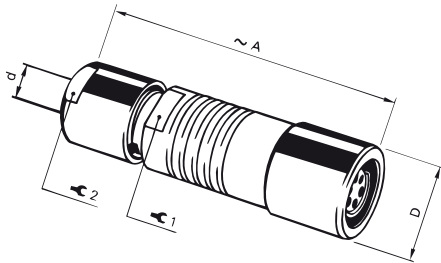
DBE Panel mounted receptacle



Panel mounted receptacle

Series	A	B _{max}	C	D	F	Cable Ø	Y ₁	Y ₂
104	30	3.5	4	22	9	–	17	19
105	32	5.0	4	27	13	–	22	22
106	50	6.5	7	45	24	–	–	TX00.106

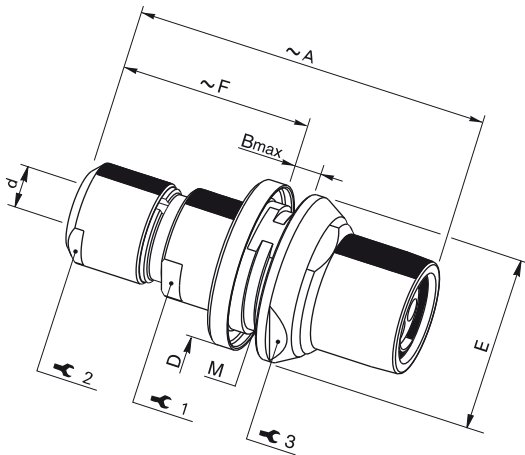
KE Cable mounted receptacle



Cable mounted receptacle

Series	A	d	D	Cable Ø	Y ₁	Y ₂
104	upon request					
105	60	–	19.0	4.0-9.0	16	15
1051	81	–	23.5	5.0-10.0	20	17
1053	81	–	23.5	5.0-10.0	20	17
106	79	–	33.0	6.0-14.0	25	25
107	105	–	36.0	8.0-17.0	32	32

DKBE Panel mounted receptacle

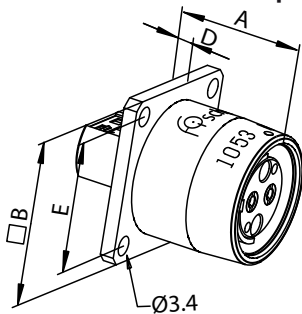


Panel and cable mounted receptacle

Series	A	B _{max}	D	F	Cable Ø	Y ₁	Y ₂	Y ₃
104	50	8	22.0	34	4.0-7.7	12	13	–
105	61	9	27.0	42	5.0-9.0	15	16	–
1053	79	10	33.8	71	9.2*	21	17	27
106	101	6.5	41.0	69	6.0-14.0	25	25	36

* only for use with SMPTE 311 M cable

DBQ Panel mounted receptacle



Panel mounted receptacle

Series	A	B	D	E	Cable Ø	Y ₁	Y ₂
1053	22.1	29	2.5	23	single wires	–	–

The following pole configurations are differentiated by series (size and consequently the maximum number of FO elements it can be equipped with), as well as the option of combining FO inserts with electrical contacts. The number of FO inserts and electrical contacts can be combined as required. For example, a 1051 connector series can be equipped with up to 8 FO inserts, or less when combined with electrical contacts.

- FO inserts are available with a similar design in Multimode 50/125, 62,5/125 or in Singlemode 9/125. See data page 17 (Contact Inserts).
- 50/75 Ohm coaxial elements can also be used instead of FO inserts. See data page 17 (Contact Inserts).
- For full information on the possible combinations of pole configurations and connector designs, refer to the section Cable System Examples, on page 11.
- The data concerning relative pole configurations depends upon the contact bearer, socket or receptacle as shown hereafter – view from the socket side!


The current-carrying capacity of the individual contacts and the wire diameter in mm² and in AWG is also provided with electrical contacts, in addition to the contact size. All body styles that can be combined with the relative pole configurations are in plugged condition or closed with protective caps, sealed according to IP67.










Please note! Unlike electrical connectors, the possibilities for combining FO connectors body styles are limited.









Push-pull automatic locking system

The Fischer Connectors automatic locking system (push-pull) provides unparalleled retention reliability. Its advantage is that any strain on the attached cable further tightens the locking mechanism, which avoids connection interferences and guarantees the continuity of the transmission. The connector is then locked securely, even when under considerable cable strain.

The FO inserts have the same effect through their contact spring pressure within the connector, even when these forces are relatively small. With a series 107 connection and a maximum of 16 FO elements, these forces combine to make loosening the connector very difficult. We therefore introduced the DSBE/KE combination, which eliminates this effect. We normally offer this combination with more than 2 FO elements in a connector.

 Visual angle	Series Reference Number	Number of FO inserts	Number of power contacts	Number of signal contacts	Description
	104 A112	2	0	0	Fiber optic connector with a maximum of 2 FO inserts in Multimode or Singlemode. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE.
	104 A108	3	0	0	Fiber optic connector with 3 FO inserts in Multimode or Singlemode. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE.
	104 A110	1	0	2	Fiber optic connector with 1 FO insert in Multimode or Singlemode +2 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	104 A111	1	0	3	Fiber optic connector with 1 FO insert in Multimode or Singlemode +3 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	104 A109	1	0	6	Fiber optic connector with 1 FO insert in Multimode or Singlemode +6 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	104 A115	2	0	3	Fiber optic connector with 2 FO inserts in Multimode or Singlemode +3 contacts 0.9 AWG 22 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	105 A105	4	0	0	Fiber optic connector with 4 FO inserts in Multimode or Singlemode. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	105 A117	2	0	4	Fiber optic connector with 2 FO inserts in Multimode or Singlemode +4 contacts 0.7 AWG 26. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DSBE. Other models upon request.

 Visual angle	Series Reference Number	Number of FO inserts	Number of power contacts	Number of signal contacts	Description
	105 A121	3	0	5	Fiber optic connector with 3 FO inserts in Multimode or Singlemode +5 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DSBE. Other models upon request.
	105 A128	3	0	6	Fiber optic connector with 3 FO inserts in Multimode or Singlemode +6 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DSBE. Other models upon request.
	1051 A023	8	0	0	Fiber optic connector with a maximum of 8 FO inserts in Multimode or Singlemode. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	1051 A024	4	0	4	Fiber optic connector with 4 FO inserts in Multimode or Singlemode +4 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	1051 A025	4	4	4	Fiber optic connector with 4 FO inserts in Multimode or Singlemode +4 contacts 0.9 AWG 22 + 4 contacts 1.3 AWG 18. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	1051 A028	5	0	6	Fiber optic connector with 5 FO inserts in Multimode or Singlemode +6 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	1051 A029	6	0	0	Fiber optic connector with 6 FO inserts in Multimode or Singlemode +1 liquid/gas conduit. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	1051 A100	2	4	2	Fiber optic connector with 2 FO inserts in Multimode or Singlemode +2 contacts 0.9 AWG 22 + 4 HT-contacts 1.3 AWG 18. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, DSBE, KE. Other models upon request.

 Visual angle	Series Reference Number	Number of FO inserts	Number of power contacts	Number of signal contacts	Description
	1051 A230	4	3	0	Fiber optic connector with 4 FO inserts in Multimode or Singlemode +3 HT-contacts 1.3 AWG18. Available shell models: SE, DSBE, KE. Other models upon request.
	1053 HDTV	2	2	2	HDTV Camera Connector with 2 FO Corning® contacts Singlemode +2 power contacts + 2 signal contact, fitting SMPTE cable 311 M. Available shell models: SE, DSQ, KE, DBQ, DKBE, DSBE. See 1053 catalogue for more details.
	106 A037	8	0	12	Fiber optic connector with 8 FO inserts in Multimode or Singlemode + 12 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	106 A043	2	0	16	Fiber optic connector with 2 FO inserts in Multimode or Singlemode + 16 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: SE, KE, DBE. Other models upon request.
	107 A090	12	0	0	Fiber optic connector with a maximum of 12 FO inserts in Multimode or Singlemode. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	107 A091	4	0	16	Fiber optic connector with 4 FO inserts in Multimode or Singlemode + 16 contacts 0.9 AWG 22. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.
	107 A093	16	3	0	Fiber optic connector with a maximum of 16 FO inserts in Multimode or Singlemode + 3 power contacts 1.6 400 V, 10 A, checked according to VDE/IEC 61984 f.e. 50/75 Ohm coax-elements can be used optionally instead of FO inserts. Available shell models: DSBE, KE. Other models upon request.

The cable strain relief is individually adjusted to the cable employed. High reliability ensures that the cable cannot be pulled from the plug before its breaking force has been reached. Fischer Connectors also offer a selection of cables suited for various pole configurations. The strain relief unit also ensures that the cable and plug interface are sealed reliably. It also stays watertight and attached to the cable for long periods, so that no water can penetrate the connector should the cable sheath be damaged.

Picture 1 shows such a unit completely assembled. Precise components, careful mounting and the correct tools are the most important prerequisites here.



Picture 1

Our service of complete cable system mounting is highly appreciated by our clients. Investments in the necessary equipment are only justified for high volumes. This applies in particular to the following mounting operations:

- Treatment of the individual fibers
- Mounting FO inserts
- Polishing FO inserts
- Construction of the entire connector
- Measurement and qualification of the complete cable system

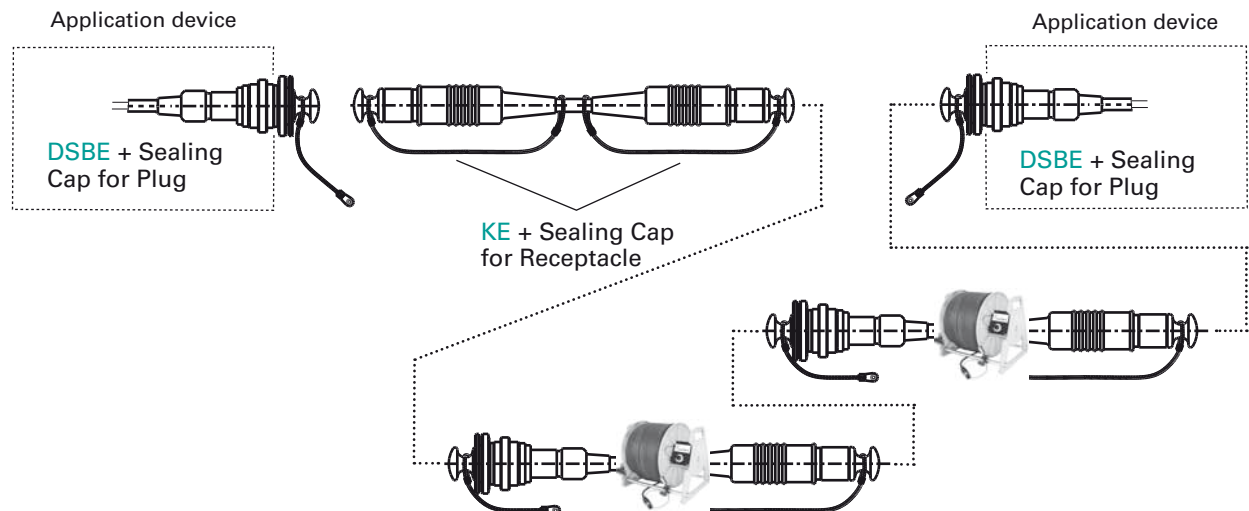
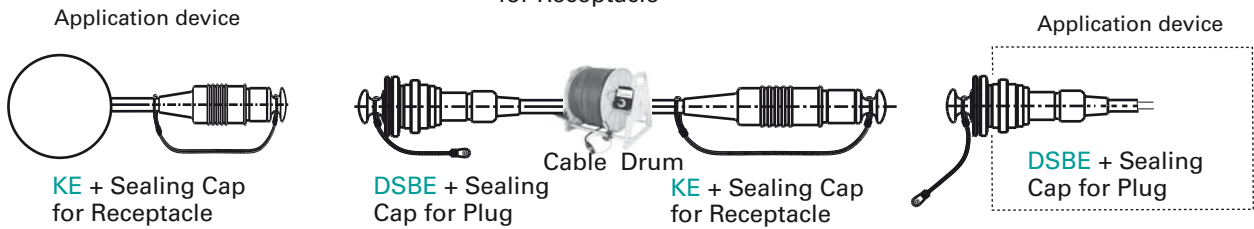
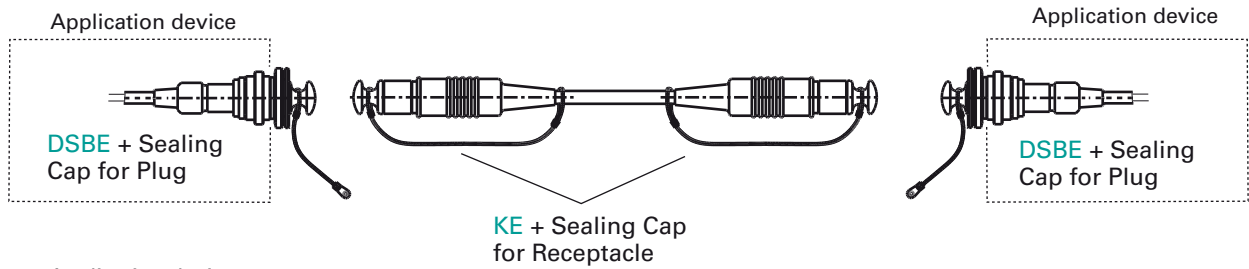
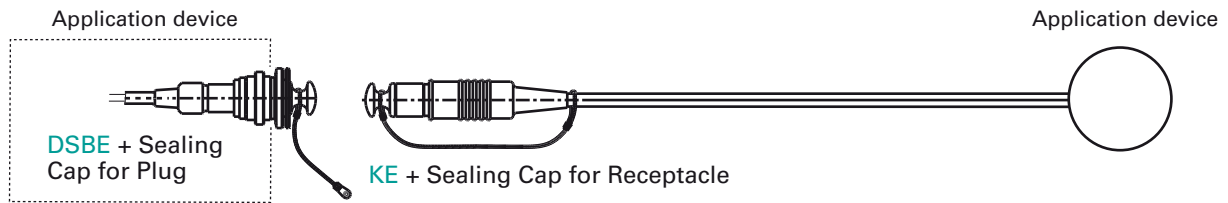
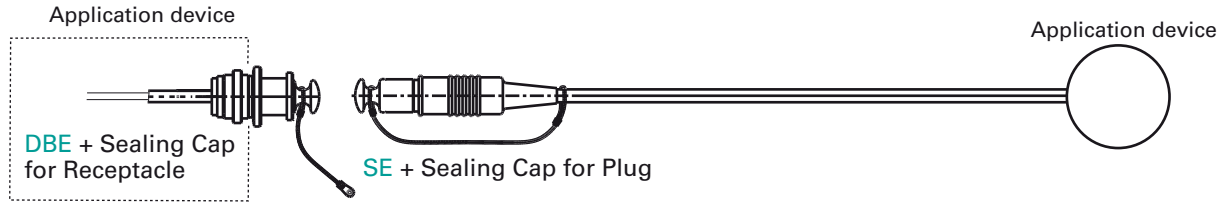
Thanks to our extensive installation experience and the appropriate equipment, we can react quickly and flexibly to our client's wide ranging requirements. With our flexible system we can offer the best possible solutions for the most diverse applications.



Picture 2

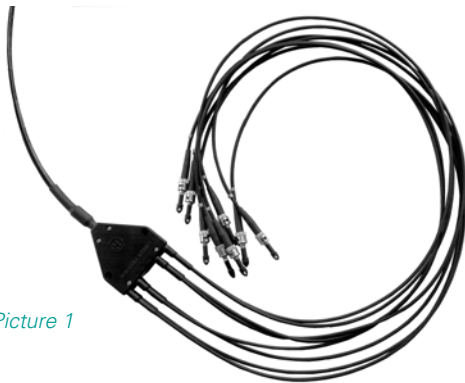
For example, we developed the 107 A093 connector for broadcasting use under the most severe conditions (shown without a connector shell in picture 2). Tested according to VDE/IEC, this connector has been in constant use for years under the harshest conditions, for sports transmissions ranging from ski jumping to Formula 1. 16 FO lines and the complete power supply up to 400 V operational voltage, 3 x 10 amps are carried out over a cable of only 12mm external diameter.

1. Cable System Examples



2. Connection Option Examples

The following section describes how the cable end can be detached from single connectors. In both designs, the individual optical fibers threads are optimally protected by a non-tensioned double tube with aramid filling.



Picture 1

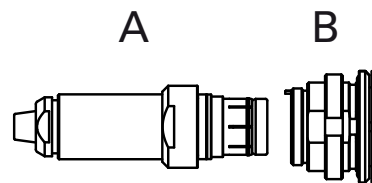
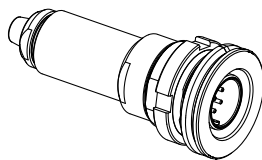
Picture 1 shows how optical fibers can be detached from the single connector (ST body style). All available connectors can be equipped, even in a mixed sequence depending upon individual customer requirements.



Picture 2

Picture 2 shows how optical fibers and electric cables can be detached from a single connector (SC body style). All available connectors can be equipped, even in a mixed sequence depending upon individual customer requirements. The electrical cabling is also assembled according to instructions.

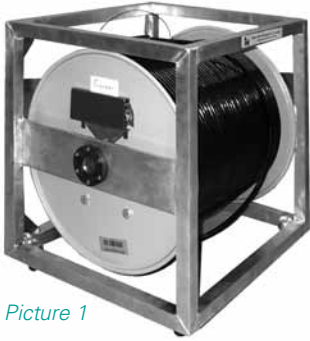
3. Installation of the cable with DSBE single connector



Assembling the complete mounted cable with a built-in DSBE body style plug is very straight forward within a front panel from the rear side by releasing the cable mounting ring (B) and inserting it separately into the front panel. The cable (attached to part A) nevertheless remains sealed and is then later attached to part B.

4. Cable drums for outdoor use

For outdoor applications, such as broadcast transmissions, the cable is best wound onto a cable drum. Fischer Connectors have made some major contributions to such drum designs:



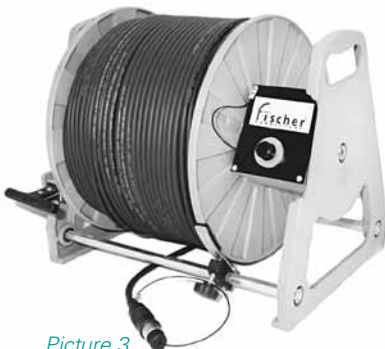
Picture 1

Picture 1 shows a cable drum, suitable for 16-fold FO Cable + 400V 10A power / VDE tested. The cable beginning with built-in DSBE plug is securely mounted in the drum and protected by a protection cap. The KE coupling is on the free end and equipped with a sheath and a protective cap which in turn seals the unconnecting drum entirely from dirt and water.

Picture 2 shows how an open protection cap is protected automatically against twisting. The protective caps of the built-in plug and the plugged-in coupling are also connected to one another, therefore protecting the inner areas against contamination.



Picture 2



Picture 3

Picture 3 shows a cable drum, e.g. suitable for 200 meter 4-way FO cable in a compact design with cable-pulled roller appliance. The cable on this drum is also designed to be dust and waterproof.

Similarly, the various cable systems are also permanently installed in built-in drums and operable by hand or motor driven (OB VAN) (pictures 4 and 5). An essential feature of this design is the rapid exchangeability of the cable. In every case, it has proved to be of great benefit to permanently install a DSBE mounting and to provide the free end of the cable with a KE coupling. This allows male to female 'daisy chain' connections, whilst retaining strong mechanical and environmental protection.



Picture 4:
Plug connection
on motor-driven
cable drum

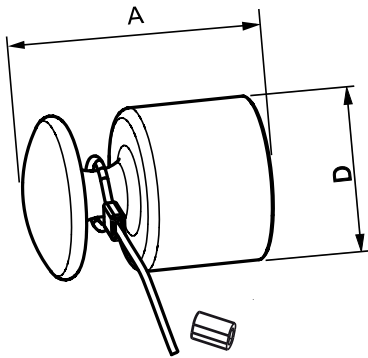


Picture 5:
Plug connection on
permanently built-in
cable drum

Fischer Connectors also supplies complete cable assemblies on the appropriate drums according to the client's requirements, including any required options.

Our metal sealing caps are fitted with an O-ring seal. They protect and seal the mating face of the plugs or receptacles.

Sealing Caps for Plugs

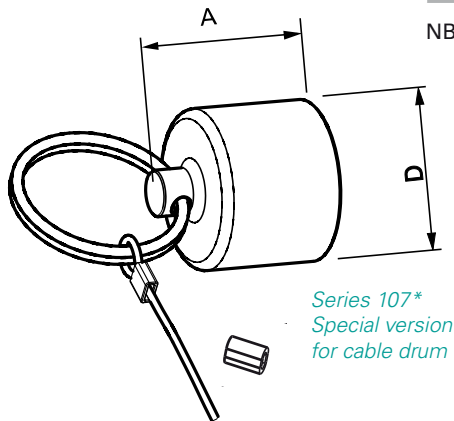


Material - Aluminium (natural or) anodised black

Series	Part number		O-ring material	A	D	Stainless steel cable			Crimp ferrule
	① Natural matt plated	② Black plated				∅	Length	Covering material	
104	on request	ZFG0.577	NBR	21	15.6	1.0	150	FEP	300.922
105	on request	ZFG0.422	NBR	32	19.0	1.0	150	FEP	300.637
1051	on request	ZFG0.421	NBR	37	23.0	1.0	150	FEP	300.637
1053	on request	ZFG0.421	NBR	37	23.0	1.0	150	FEP	300.637
107	on request	ZFG0.414	NBR	51	36.0	1.6	300	FEP	300.285
107*	on request	ZFG0.474	NBR	37	36.0	1.6	300	FEP	300.285

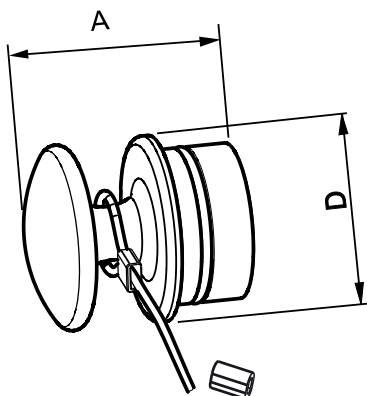
NBR - Nitrile®

FEP - TEFLON®



Series 107*
Special version
for cable drum

Sealing Caps for Receptacles



Material - Aluminium (natural or) anodised black

Series	Part number		O-ring material	A	D	Stainless steel cable			Crimp ferrule
	① Natural matt plated	② Black plated				∅	Length	Covering material	
104	on request	ZFG0.578	NBR	21	15.6	1.0	150	FEP	300.922
105	on request	ZFG0.423	NBR	27	19.0	1.0	150	FEP	300.637
1051	on request	ZFG0.420	NBR	29	23.0	1.0	150	FEP	300.637
1053	on request	ZFG0.420	NBR	29	23.0	1.0	150	FEP	300.637
107	on request	ZFG0.415	NBR	41	36.0	1.6	300	FEP	300.285

NBR - Nitrile®

FEP - TEFLON®

To attach the ferrule or the crimp lug to the stainless-steel cable, use a crimp tool, a vice or a pair of pliers with parallel jaws.

① Assembled with natural plastic covered stainless steel cable.

② Assembled with black plastic covered stainless steel cable.

Cable type	Description	Fibers	Wires	AWG	Cable screen	Cable jacket	Outer Ø	Design
D02-050C□□□/900-MIL	D-Series Distribution Military Tactical Cables	2	-	-	-	PUR	5.0	Fig.1
D04-055C□□□/900-MIL	D-Series Distribution Military Tactical Cables	4	-	-	-	PUR	5.5	Fig.1
D06-060C□□□/900-MIL	D-Series Distribution Military Tactical Cables	6	-	-	-	PUR	6.0	Fig.1
D08-065C□□□/900-MIL	D-Series Distribution Military Tactical Cables	8	-	-	-	PUR	6.5	Fig.1
D10-065C□□□/900-MIL	D-Series Distribution Military Tactical Cables	10	-	-	-	PUR	6.5	Fig.1
D12-065C□□□/900-MIL	D-Series Distribution Military Tactical Cables	12	-	-	-	PUR	6.5	Fig.1
D18-075C□□□/900-MIL	D-Series Distribution Military Tactical Cables	18	-	-	-	PUR	7.5	Fig.1
B02-065C□□□/900-MIL	B-Series Breakout Military Tactical Cables	2	-	-	-	PUR	6.5	Fig.2
B04-075C□□□/900-MIL	B-Series Breakout Military Tactical Cables	4	-	-	-	PUR	7.5	Fig.2
B06-085C□□□/900-MIL	B-Series Breakout Military Tactical Cables	6	-	-	-	PUR	8.5	Fig.2
B08-100C□□□/900-MIL	B-Series Breakout Military Tactical Cables	8	-	-	-	PUR	10.0	Fig.2
B10-115C□□□/900-MIL	B-Series Breakout Military Tactical Cables	10	-	-	-	PUR	11.5	Fig.2
B12-110C□□□/900-MIL	B-Series Breakout Military Tactical Cables	12	-	-	-	PUR	11.0	Fig.2
B14-135C□□□/900-MIL	B-Series Breakout Military Tactical Cables	18	-	-	-	PUR	13.5	Fig.2
ZFE0.034	4-Way Breakout Cables 62.5/125	4	-	-	-	PUR	7.6	Fig.3
ZFE0.056	18-Way Hybrid Fiber Optic Cables 62.5/125 3 Wire	18	3	15	YES	PEE	11.4	Fig.4
ZFE0.160	18-Way Hybrid Fiber Optic Cables 9/125 3 Wire	18	3	15	YES	PEE	11.4	Fig.4

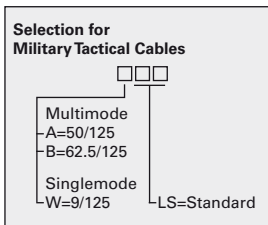


Fig.1 Tactical Cables - Distribution

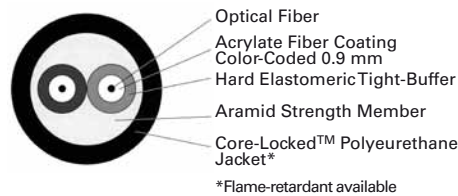


Fig.2 Tactical Cables - Breakout

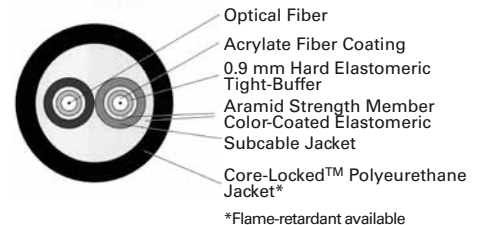


Fig.3 4-Way Breakout Cables

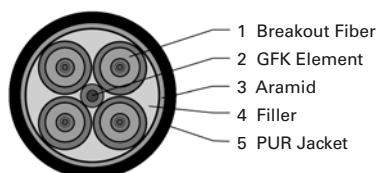
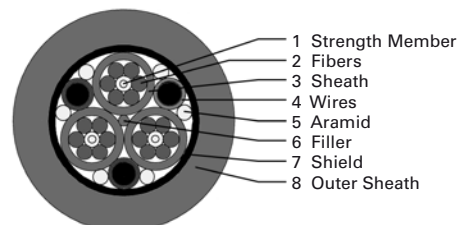
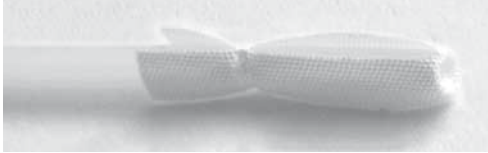


Fig.4 Hybrid Fiber Optic Cables



Cleaning the individual fiber elements in the connector

The Fiber Optic cable system with our sealed body styled connector is dust and waterproof. Nevertheless, with intensive plug-in frequency, contamination of the polished inserts cannot be completely avoided. We therefore supply cleaning tools that are both simple and effective to use.

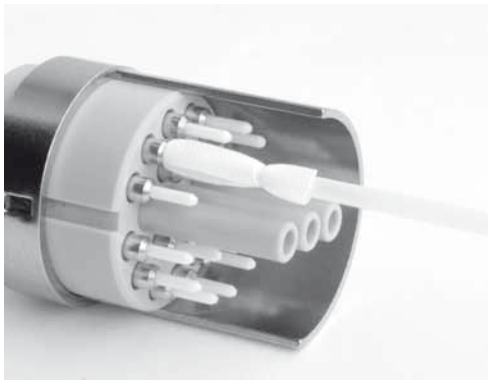


Picture 1



Picture 2

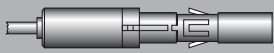
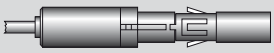


Small rods are used to clean, without dismantling, the individual fibers with high packing density. The rod shown on picture 1 is suitable for pin inserts, while the rod on picture 2 is for cleaning the socket inserts. The following pictures show the cleaning procedure for a plug (with pin inserts) and for a socket (with socket inserts).



Please note! Cleaning is always required if the transmission is affected by the contamination of a fiber. This does not, however, only depend on the degree of contamination, but also on the available loss budget. If, for example, the threshold of the transmission performance is set low, and if, for example, at 3dB there is still sufficient transmission performance, the total budget in this case will amount to 20dB or more. In consequence, there may be considerable contamination present before this big difference is consumed. In this case, the transmission loss including the contamination may amount to - 7dB before an interruption occurs. But even then, we advise regular cleaning as contamination over longer periods can also impair performance.

For long term smooth operation – especially with a high plug-in frequency – a regular service should be carried out. See maintenance and service on page 18.

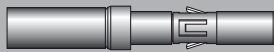

1. Fiber Optic Inserts

Singlemode	Multimode
 E22.200.74	 E22.200.70
 E22.200.73	 E22.200.69

Specifications	Singlemode	Multimode
Fiber diameter (µm)	9/125	50/125 or 62.5/125
Insertion loss (dB) at 1300 nm	0.5	<1.0
Return loss (dB) at 1300 nm	>30	
Mating cycles (durability)	>500	>500
Operating temperature (°C)	-40 to +80	-40 to +80
Fiber retention method	adhesive	adhesive
Fiber polishing	spherical	flat
Fiber assembly done by	Fischer Connectors	Fischer Connectors

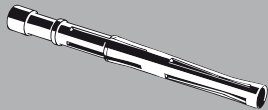
Inserts for larger fibers (e.g. 1 mm diameter plastic fibers) are also available upon request.

2. Coax Inserts

Coax			
			
Cables ①	E22.200.49	Cables ①	E22.200.48
Cables ②	E22.200.56	Cables ②	E22.200.55

Specifications	Coax
Contact resistance (milliOhms)	Inner conductor ≤ 10 Outer conductor ≤ 3
Max. current at 20°C (mA)	500
Operating voltage (V)	500
Impedance (Ohms)	50 or 75
Frequency range (GHz)	0-10
VSWR (at 50 Ohms)	0-1 GHz: 1.08 maximum 1-3 GHz: 1.12 maximum 3-6 GHz: 1.35 maximum
Attenuation (dB)	0.2 typical
Mating cycles (durability)	>500
Recommended cables	50 Ohms ① : RG-178 B/U, RG-196 A/U 50 Ohms ② : RG-174 A/U, RG-188 A/U, RG 316/U 75 Ohms ② : RG-179 B/U

3. Electrical Crimp Contacts

Crimp contacts	Contact Size	Max. wire (AWG)
	0.9	22
	1.3	20
	1.6	14

1. Order inquiry

Fischer Connectors specialises in manufacturing and supplying FO cable systems that are optimally adjusted to our customers' requirements/applications. We are committed to offer the optimal solution in relation to function and price/performance.

The precondition for this is a careful agreement with our clients. Our sales department will be pleased to prepare a tailor-made proposal for you. For a quotation or a request, you can log on to www.fischerconnectors.com and complete a request form in the Contact us section. In order to provide you with an accurate quotation, we require detailed information about the specifications of your application. Alternatively, you can call your local Fischer Connectors office.

2. Service and Maintenance

Our service offers much more than the provision of a high quality Fiber Optic cable system.

With special maintenance contracts, we offer the highest possible cable system reliability during the whole period of deployment. For many years now, for example, we have performed on-the-spot maintenance and the shortest possible repair times for broadcast applications. Especially when operating under difficult environmental conditions, such as winter sport and Formula 1, where comprehensive cabling is required under extreme time pressure and, high reliability is the most important precondition. Systematic control and maintenance – from simple fiber cleaning to redressing the fiber inserts after the appropriate period of use – is carried out according to a schedule. Especially in the frequently rough environment of news transmission, damage cannot be excluded. The relevant back-ups should therefore be in place. A maintenance contract guarantees the fastest possible restoration of the damaged components.

3. Quality

Our parent firm and our subsidiaries who manufacture the Fiber Optic cable systems are suitably equipped with the latest quality management systems and are certified according to ISO 9001:2000 and ISO 14001:2004.



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