fischer triax connectors

1051 A004 Series



Edition 4.0

fischer triax connectors

1051 A004 Series New and improved

For more than 25 years, the Fischer Connectors 1051 series Triaxial connectors has been a worldwide standard in high end camera broadcast connections.

In recent years, the move from standard definition (SD) to high definition (HD) and need for cost effective solutions have driven technologies and user requirements in diverse directions. To address these advancements, we are pleased to introduce our totally re-engineered* cable mount connectors that further improve assembly, maintenance and cable installation. Fully compatible with its preceding model, they will enable a seamless upgrade of existing equipment.

* The above changes only apply to SE / KE connectors for cable sizes up to 11.3mm diameter, all other body styles remain unchanged.



New design benefits

Easier and faster termination

- reduced number of internal parts
- crimp or solder
- rapid termination
- no special tooling required

More convenient maintenance

- field repair without re-termination
- inter-changeable gender contact blocks
- Iocking protective caps
- easily replaceable modular protection

Advanced technology and materials

- Improved RF performance
- Ergonomic and robust
- Watertight IP68 (2m/24h)





Contents



Pages

Technical Specifications	2
Connector Styles	3
Cable Plugs: SE	4
Panel Plugs: DS, DSQ	5
Panel Plugs with Cable Clamp: DSR	6
Cable Receptacles: KE	7
Panel Receptacles: DB, DBQ	8
Panel Receptacles with Cable Clamp: DKE	9
In-line Adaptors: SE-SE, KE-KE	10
Panel Feedthroughs: KE-KE, DS-K	11
Panel Plug/Receptacle with SMB Adaptor	12
Cable Clamp Sets	13
Accessories	14
Assembly Tools	16
Spare Parts	18
Cable Assembly Services	19
Panels for OB and Studio Use	20
Optional Lacing Bars	21
Cable Reels	22
Cable Groups Reference	23
Customer Information	24







Mechanical & Environmental Data

Parameter	Typical values	Norm
Mating cycles	5000	
Temperature range - 1051 A004-3 - 1051 A004-4 - 1051 A004-9	-55°C to + 135°C -55°C to + 135°C -40°C to + 85°C	
Vibration	10 to 2000 Hz, 1.5 mm or 20 g, no discontinuity > 1 μs	MIL-STD-1344, Method 2005, Test cond. IV
Protection level SE, KE, DKE	IP68 (2m/24h) when mated or with fitted sealing caps	IEC60529
Corrosion, salt spray	48 h with 5% salt solution at 35°C	MIL-STD-1344, Method 1001, Test cond. B

Material & Surface Treatments

Part	Materials	Finish
Housings - 1051 A004-3 - 1051 A004-4 - 1051 A004-9	Brass Brass Brass, steel, PA	Nickel, chromium Nickel, chromium Nickel
Housing accessories	Brass	Nickel
Inner contact	Bronze	Gold over nickel
Crimp contact	Brass	Gold over nickel
Outer contact	Brass	Gold over nickel
Ground contact	Brass	Nickel
Insulators - 1051 A004-3 - 1051 A004-4 - 1051 A004-9	PTFE, PCFTE, PP-H PTFE, PCFTE, PP-H POM, PP-H, PEI	-
Washers	PEEK, PET	-
O-ring seals	NBR, NBR Low Temp	-
Cable seal and protections	TPE	-
	Our products are RoHS compliant	

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Electrical Data

Parameter	Typical values	Norm
Nominal impedance	75 ohms	
Test voltage at sea level (mated) - Center to outer contact - Outer to ground contact	1.7 kVAC 1.0 kVAC	IEC60512-2, Test 4a, Method c
Current rating per contact	14 A	IEC60512-3, Test 5b
Contact resistance - Center contact - Outer contact - Ground contact	<3 mohms <0.5 mohms <5 mohms	IEC60512-2, Test 2
Insulation resistance	> 10 ¹⁰ ohms	IEC60512-2, Test 3a, Method c
VSWR (Voltage Standing Wave Ratio) - 0 to 250 MHz - 250 to 1300 MHz	< 1.05 < 1.2	

Connector Styles







Cable Plugs

■ For Ø8.5 to Ø11.3mm cables





Cable plug part number	Cable group ¹	Cable clamp part number ²
	1	E3 1051.1/A004-9/1.0/4.5/8.7
SE 1051 A004-9+	2	E3 1051.1/A004-9/1.0/4.5/9.4
SE 1051 A004-9+	2	E3 1051.1/A004-9/1.4/4.5/9.4
	3	E3 1051.1/A004-9/1.4/6.6/11.3

For Ø12.2 to Ø15.2mm cables



Cable plug part number	Cable group ¹	Cable clamp part number
SE 1051 A004-4 1.4/6.6/12.6	4	
SE 1051 A004-4 T1895/13.6	5	Included
SE 1051 A004-4 2.1Ls/10s/15.2	6	





■ For Ø8.5mm cables





Panel plug part number DS 1051 A004-3 1.0/5.0

■ For Ø11.3mm cables, with cable guide







Panel plug part number DS 1051 A004-3 1.4/6.6

■ For Ø8.5mm cables, with square flange







Panel plug part number DSQ 1051 A004-3 1.0/5.0



■ For Ø8.5 to Ø11.3mm cables







Panel plug part number	Cable group ¹	Cable clamp part number ²
	1	E3 1051.1/A004-3/1.0/4.5/8.7
DCD 1051 4004 2	2	E3 1051.1/A004-3/1.0/4.5/9.4
DSR 1051 A004-3+	2	E3 1051.1/A004-3/1.4/4.5/9.4
	3	E3 1051.1/A004-3/1.4/6.6/11.3

■ For Ø12.2 to Ø15.2mm cables





Panel plug part number	Cable group ¹	Cable clamp part number
DSR 1051 A004-4 1.4/6.6/12.6	4	
DSR 1051 A004-4 T1895/13.6	5	Included
DSR 1051 A004-4 2.1Ls/10s/15.2	6	

Cable Receptacles



■ For Ø8.5 to Ø11.3mm cables





Cable receptacle part number	Cable group ¹	Cable clamp part number ²
	1	E3 1051.1/A004-9/1.0/4.5/8.7
KE 1051 4004 0.	2	E3 1051.1/A004-9/1.0/4.5/9.4
KE 1051 A004-9+	2	E3 1051.1/A004-9/1.4/4.5/9.4
	3	E3 1051.1/A004-9/1.4/6.6/11.3

■ For Ø12.2mm to Ø15.2mm cables





Cable receptacle part number	Cable group ¹	Cable clamp part number
KE 1051 A004-4 1.4/6.6/12.6	4	
KE 1051 A004-4 T1895/13.6	5	Included
KE 1051 A004-4 2.1Ls/10s/15.2	6	



Panel Receptacles

■ For Ø8.5mm cables



Receptacle part number DB 1051 A004-3 1.0/5.0

■ For Ø11.3mm cables, with cable guide





Receptacle part number

DB 1051 A004-3 1.4/6.6

For Ø8.5mm cables, with square flange







Panel cut-out

Receptacle part number DBQ 1051 A004-3 1.0/5.0



■ For Ø8.5 to Ø11.3mm cables





Receptacle part number	Cable group ¹	Cable clamp part number ²
	1	E3 1051.1/A004-3/1.0/4.5/8.7
DKE 1051 A004-3+	2	E3 1051.1/A004-3/1.0/4.5/9.4
DRE 1051 A004-3+	2	E3 1051.1/A004-3/1.4/4.5/9.4
	3	E3 1051.1/A004-3/1.4/6.6/11.3

■ For Ø12.2mm to Ø15.2mm cables





Receptacle part number	Cable group ¹	Cable clamp part number
DKE 1051 A004-4 1.4/6.6/12.6	4	
DKE 1051 A004-4 T1895/13.6	5	Included
DKE 1051 A004-4 2.1Ls/10s/15.2	6	



In-line Adaptors

For connection of panel or cable receptacles



For connection of cable or panel plugs





For connection of cable plugs



For connection of cable plugs and cable receptacles





Panel Plug/Receptacle with SMB Adaptor

Panel plug with 75Ω SMB male plug



DS 1051 A004-SMB75/M

Panel receptacle with 75Ω SMB male plug







Panel receptacle part number DB 1051 A004-SMB75/M

Cable Clamp Sets





For DSR and DKE models

	Cable clamp set	
	Cable diameters (mm)	Cable clamp part number ¹
	1.0 / 4.5 / 8.7	E3 1051.1/A004-3/1.0/4.5/8.7
DSR 1051 A004-3 +	1.0 / 4.5 / 9.4	E3 1051.1/A004-3/1.0/4.5/9.4
DKE 1051 A004-3 +	1.4 / 4.5 / 9.4	E3 1051.1/A004-3/1.4/4.5/9.4
	1.4 / 6.6 / 11.3	E3 1051.1/A004-3/1.4/6.6/11.3



Accessories for A004-9 models



Combined sleeve and cap for A004-4 models

Description	Part number	Suitable for
Protective sleeve L1 = 122	1051.875	SE 1051 A004-4 1.4/6.6/12.6 SE 1051 A004-4 T1895/13.6
Protective sleeve L2 = 104	1051.874	SE 1051 A004-4 2.1Ls/10s/15.2
Protective sleeve L1 = 140	1051.876	KE 1051 A004-4 1.4/6.6/12.6 KE 1051 A004-4 T1895/13.6
Protective sleeve L2 = 122	1051.877	KE 1051 A004-4 2.1Ls/10s/15.2

Accessories



Caps for A004-3 and A004-4 models





Assembly Tools

Spanner for inner threaded ring



Part number	Suitable for
ΤΩ00.001	DKE+DSR 1051 A004-3 1.0/4.5/8.7+9.4 DKE+DSR 1051 A004-3 1.4/4.5/9.4 DKE+DSR 1051 A004-3 1.4/6.6/11.3
ΤΩ00.002	SE+KE+DKE+DSR 1051 A004-4 1.4/6.6/12.6 SE+KE+DKE+DSR 1051 A004-4 T1895/13.6 SE+KE+DKE+DSR 1051 A004-4 2.1Ls/10s/15.2

Hook spanner for slotted nuts



Part number	Suitable for
TX00.105	Ø 30-32
TX00.106	Ø 34-36



Shield crimp tool without dies



Part number	Description
TX00.245	Daniels HX4 (M 22520/5-01)

Shield crimp tool dies



Contact crimp tool



Part number	Hexagon width	Hexagon width		
TX00.270	10.9	Daniels Y178 (M 22520/5-61)		
TX00.271	13.51	Daniels Y151 (M 22520/5-27)		

Part number	Description			
TX00.242	Buchanan 615708			

Contact crimp tool positioner



Part number	Suitable for
TX00.315	All connectors corresponding to cable groups 1 to 4 ¹
TX00.317	All connectors corresponding to cable groups 5 to 6 ¹



Crimp ferrules

	Part number	Α	В	Suitable for
	1051.910	11.8	12.5	SE1051 A004-4 T1895/13.6KE1051 A004-4 T1895/13.6DKE1051 A004-4 T1895/13.6DSR1051 A004-4 T1895/13.6
	1051.922	14.3	15.5	SE 1051 A004-4 2.1Ls/10s/15.2 KE 1051 A004-4 2.1Ls/10s/15.2 DKE 1051 A004-4 2.1Ls/10s/15.2 DSR 1051 A004-4 2.1Ls/10s/15.2

Solder lug with claws

Part number	D	Suitable for
1051.311	30	DB
1051.615	34	DS

Hexagon and slotted nuts

			Part number	М	Suitable for
\bigcirc	4	25	105.724	M20x1	DB
\sim	-5 Ø 30	1051.611	M28x1	DS, DSR	
	~		105.865	M25x1	DKE 1051 A004-3
		106.395	M30x1	DKE 1051 A004-4	

Crimp contacts

		Part number	D	Suitable for
	1051.900	1.0	All connectors corresponding to cable groups 1 and 2 ¹ , except: SE 1051 A004-9 1.4/4.5/9.4 KE 1051 A004-9 1.4/4.5/9.4 DKE 1051 A004-3 1.4/4.5/9.4	
		1051.905	1.5	All connectors corresponding to cable groups 3 and 4 ¹ , plus: SE 1051 A004-9 1.4/4.5/9.4 KE 1051 A004-9 1.4/4.5/9.4 DKE 1051 A004-3 1.4/4.5/9.4
		1051.906	2.5	All connectors corresponding to cable groups 5 and 61

Cable Assembly Services



Complete and integrated cable solutions

Based on years of experience in Outside Broadcasting and studios installations, Fischer Connectors® has built a tried and tested value-added cable assembly service. From simple to complex, small to high volume production, we provide turnkey solutions to suit the specific needs of your HD or SD application.

Utilizing the latest machinery and test equipment, our facilities are geared to producing cable assemblies. They operate strict process controls to ensure optimum reliability even in the most arduous environments. Cables are delivered with your choice of connector fitted at either end. Connectors come with protective sleeve and sealing cap as standard, but these can be omitted as on option. Cable lengths are offered according to your request in either 8mm or 11mm diameter cables. Other cable types and variations are available by request.

Services

- Complete and integrated connector and cable system solutions
- Testing process ensures optimum reliability
- Flexible yet strong cables, ideal for harsh environments
- Protective sleeves and sealing caps fitted as standard
- Fast delivery of standard 8 and 11mm cable diameters
- Other cable solutions on request
- Training programs to assemble and repair cable lines on-site







Panels for OB and Studio Use







Optional Lacing Bars





Although not usually required, the lacing bar can offer additional cable support at the rear of the panel if space permits. Lacing bars are supplied with all necessary fittings for quick fitting to the panel. Lacing bar choices are specific to either Angled or Flush panel types.







Cable Reels







Suitable for 8mm and 11mm triaxial cables, these robust reels are manufactured from steel and finished with a black nylon dip. For storage and space saving, the manual rewind handle can be reversed and the reels can be stacked up to 3 units high. A retained drum locking pin prevents drum rotation during transit. Thermoplastic feet provide grip and protection to flooring. The cable reels are RoHS exempt.

Part numbers



Part number		. reel ty¹[m]	Weight ² [kg]	Dimensions [mm]					
	8.5 mm triax	11.5 mm triax		Α	В	С	D	E	F
CR-01	200	125	9.75	520	540	350	150	230	450
CR-02	425	275	11.25	520	540	500	300	230	450
CR-03	630	415	13.00	520	540	650	450	230	450



Recommended triaxial camera cables 75Ω

	Cable			Cable diameters ¹ [mm]					
	Brand	Туре	Reference			Ext.	Suitable connectors ²	Suitable clamp set	
	Bedea	Standard 8 (PUR)	-	1.0	4.5	8.5			
1	Bedea	Superflex 8 (TPE flex)	-	1.0	4.5	8.6			
	Belden	Triax 8	7783A	1.0	4.5	8.4	SE+KE 1051 A004-9+	E3 1051.1/A004-9/1.0/4.5/8.7	
	Draka	Triax 8 (PVC)	CT2765700	1.0	4.5	8.4	DS+DB 1051 A004-3 1.0/5.0	N/A	
	Draka	Triflex 8 (PUR)	CT2767900	1.0	4.5	8.4	DSQ+DBQ 1051 A004-3 1.0/5.0	N/A	
	Intercond	8.5mm (PVC or PUR)	RX 75/55	1.0	4.7	8.5	DSR+DKE 1051 A004-3+	E3 1051.1/A004-3/1.0/4.5/8.7	
	Fujikura	4.8/1.0 EFTXF	-	1.0	4.8	8.6			
	Hirakawa	TRIAX 4.8/1.0-TUFRET	3118-250	1.0	4.8	8.8			
2	Belden	-	9267, 1857A	0.8	3.7	9.2	SE+KE 1051 A004-9+ DS+DB 1051 A004-3 1.0/5.0	E3 1051.1/A004-9/1.0/4.5/9.4 E3 1051.1/A004-9/1.4/4.5/9.4 N/A	
	Draka	Triax 8 (FRNC) Reinforced	CT2853203	1.0	4.5	9.0	DSQ+DBQ 1051 A004-3 1.0/5.0 DSR+DKE 1051 A004-3+	N/A E3 1051.1/A004-3/1.0/4.5/9.4 E3 1051.1/A004-3/1.4/4.5/9.4	
3	Belden	Triax 11	7784AS	1.4	6.5	11.2			
	Intercond	11.0mm (PVC or PUR)	RX 75/56	1.4	6.5	11.0	SE+KE 1051 A004-9+	E3 1051.1/A004-9/1.4/6.6/11.3	
	Bedea	Standard 11 (PUR)	-	1.4	6.5	11.0	DS+DB 1051 A004-3 1.4/6.6	N/A	
	Bedea	Superflex 11 (TPE flex)	-	1.4	6.0	11.3	DSR+DKE 1051 A004-3+	E3 1051.1/A004-3/1.4/6.6/11.3	
	Draka	Triax 11 (PVC)	CT2766400	1.4	6.5	11.0			
	Draka	Triflex 11 (PUR)	CT2768100	1.4	6.5	11.0			
4	Draka	Triax 11/1 (PU) Reinforced	CT2767101	1.4	6.5	12.2	SE+KE 1051 A004-4 1.4/6.6/12.6 DS+DB 1051 A004-3 1.4/6.6 DSR+DKE 1051 A004-4 1.4/6.6/12.6	Included N/A Included	
5	Belden	-	9192, 9232	1.6	8.0	13.2	SE+KE 1051 A004-4 T1895/13.6 DSR+DKE 1051 A004-4 T1895/13.6	Included	
6	Belden	Triax 14	7785A	2.2	9.7	14.5			
	Intercond	14.0mm (PVC or PUR)	RX 75/57	2.2	9.7	14.0			
	Draka	Triax 14 (PVC)	CT2766700	2.2	9.7	14.4	05		
	Draka	Triax 14 (PUR)	CT2767000	2.2	9.7	14.5	SE 1051 A004-4 2.1Ls/10s/15.2 KE 1051 A004-4 2.1Ls/10s/15.2		
	Bedea	Standard 14 (PUR)	-	2.2	9.7	14.4	DSR 1051 A004-4 2.1Ls/10s/15.2	Included	
	Bedea	Superflex 14 (TPE flex)	-	2.2	9.7	14.5	DKE 1051 A004-4 2.1Ls/10s/15.2		
	Fujikura	9.6/2.22 EFTXF	-	2.2	9.6	14.5			
	Hirakawa	TRIAX-1/2.22- TUFRET	3118-290	2.2	9.6	14.5			

Please note that the above list is a guideline only, not all cables available in the marketplace are listed.

¹The cable dimensions listed are reference only, sizes may fluctuate during production. ²Connector types for other cables not listed are by request.



This is the revised edition of Fischer Connectors 1051 series Triaxial connectors and related products. Every effort has been taken to ensure that all details in this catalogue are correct. Fischer Connectors SA reserve the right to make any modification or product update without notice and without obligation to replace or manufacture obsolete parts.

All mechanical and electrical test data given have been measured under normal environmental conditions. This data should not be interpreted for other applications without careful examination of any relevant standards and careful consideration of local operating environments. All connectors shown in this catalogue are intended for applications using both high frequencies and high voltage. Users should ensure that the correct safety procedures are observed during installation and operation.

Certified ISO 9001:2000 and 14001:2004, Fischer Connectors embraces Total Quality through continuous improvement in all processes and procedures. Our company continues to invest in our environment, all of our products are RoHS compliant and we are proud to be incorporated into the global Sony Green Partnership since 2003.

Comprehensive technical information and termination procedures are available for download from our online technical library at *www.fischerconnectors.com/technical*

Please do not hesitate to contact our worldwide customer service and support network for specialist advice or details of any of our other product ranges. Log on to our website to find the contact details of your local office.



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Using state of the art technology, Fischer Connectors[®] designs, manufactures and distributes high-performance connectors.

Known for their reliability, precision, and resistance to extreme environmental conditions, our products are used in fields requiring faultless quality, such as medical equipment, instrumentation, measuring and testing devices, broadcast, telecommunication and military applications.

Selecting the right connector is an important and challenging process. Our specialists are on hand to help you equip your application with the most suitable connector solution. Contact us for more information.





Extreme Environments



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