



Selection of connectors for  
the Non-Automotive Transportation  
Market

## FCI, setting the standard for connectors

With operations in 34 countries and sales of 1.3 billion euros in 2007, FCI is a leading manufacturer of connectors.

Our 14,200 employees are committed to providing customers with high-quality, innovative products for a wide range of consumer and industrial applications.

- FCI full range of interconnect solutions provides robust, reliable solutions with applications beyond the traditional passenger car market such as trucks, busses, construction vehicles, agricultural vehicles, motorbikes, ...

- FCI provides a complete range of connectors customized for harsh environment and on-board electronics and designs solutions that withstand the vibrations and shocks encountered in these specific applications.



- In our engineering competence centers, we have dedicated engineers who - in a combined effort - develop interconnect solutions specially adapted to your needs and requirements.

*DRIVE SAFELY WITH FCI ROBUST  
AND RELIABLE CONNECTORS*

This document is non-contractual and is for information purposes only.  
The supply of some products displayed in this brochure might be limited to some customers.  
For more information, please contact your local sales office.

**www.fci.com**

FCI is a world leader in providing cost-effective and innovative wire to wire, wire to device, wire to circuit board, board to board and wire to board and I/O connectors covering applications such as engine compartment, body, chassis, cockpit and multimedia.

### WIRE TO WIRE CONNECTORS

#### Mini Sealed Connectors

**Features**

- The most up-to-date reduced size (0.32 mm pitch) sealed connector family
- Housings suitable for wires from 0.5 mm<sup>2</sup> (20 AWG) up to 2 mm<sup>2</sup> (14 AWG)
- Housings accepting terminals carrying up to 18 A at 23 °C
- High sealing performance ensured by a new seal-and a front interfacial seal
- Easy and quick connection system with GO-NO-GO locking principle and male terminal guiding system
- User friendly with integrated secondary lock device allowing for detection of unscrewed terminal

**Technical characteristics**

	2 ways	3 ways	4 ways	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways
Sealing protection	IP68								
Terminals	1.5 mm <sup>2</sup> to 2 mm <sup>2</sup>								
Temperature range	-40°C to +125°C								
Terminal retention force	≥ 10 N								
Terminal insertion force	≤ 15 N								
Connector mating force	≤ 90 N								
Number of mechanical locking	2								

**Part references**

	Female housing	Male housing
Part references	14/16/18/20/22/24/26/28/30/32/34/36/38/40/42/44/46/48/50/52/54/56/58/60/62/64/66/68/70/72/74/76/78/80/82/84/86/88/90/92/94/96/98/100/102/104/106/108/110/112/114/116/118/120/122/124/126/128/130/132/134/136/138/140/142/144/146/148/150/152/154/156/158/160/162/164/166/168/170/172/174/176/178/180/182/184/186/188/190/192/194/196/198/200/202/204/206/208/210/212/214/216/218/220/222/224/226/228/230/232/234/236/238/240/242/244/246/248/250/252/254/256/258/260/262/264/266/268/270/272/274/276/278/280/282/284/286/288/290/292/294/296/298/300/302/304/306/308/310/312/314/316/318/320/322/324/326/328/330/332/334/336/338/340/342/344/346/348/350/352/354/356/358/360/362/364/366/368/370/372/374/376/378/380/382/384/386/388/390/392/394/396/398/400/402/404/406/408/410/412/414/416/418/420/422/424/426/428/430/432/434/436/438/440/442/444/446/448/450/452/454/456/458/460/462/464/466/468/470/472/474/476/478/480/482/484/486/488/490/492/494/496/498/500/502/504/506/508/510/512/514/516/518/520/522/524/526/528/530/532/534/536/538/540/542/544/546/548/550/552/554/556/558/560/562/564/566/568/570/572/574/576/578/580/582/584/586/588/590/592/594/596/598/600/602/604/606/608/610/612/614/616/618/620/622/624/626/628/630/632/634/636/638/640/642/644/646/648/650/652/654/656/658/660/662/664/666/668/670/672/674/676/678/680/682/684/686/688/690/692/694/696/698/700/702/704/706/708/710/712/714/716/718/720/722/724/726/728/730/732/734/736/738/740/742/744/746/748/750/752/754/756/758/760/762/764/766/768/770/772/774/776/778/780/782/784/786/788/790/792/794/796/798/800/802/804/806/808/810/812/814/816/818/820/822/824/826/828/830/832/834/836/838/840/842/844/846/848/850/852/854/856/858/860/862/864/866/868/870/872/874/876/878/880/882/884/886/888/890/892/894/896/898/900/902/904/906/908/910/912/914/916/918/920/922/924/926/928/930/932/934/936/938/940/942/944/946/948/950/952/954/956/958/960/962/964/966/968/970/972/974/976/978/980/982/984/986/988/990/992/994/996/998/1000/1002/1004/1006/1008/1010/1012/1014/1016/1018/1020/1022/1024/1026/1028/1030/1032/1034/1036/1038/1040/1042/1044/1046/1048/1050/1052/1054/1056/1058/1060/1062/1064/1066/1068/1070/1072/1074/1076/1078/1080/1082/1084/1086/1088/1090/1092/1094/1096/1098/1100/1102/1104/1106/1108/1110/1112/1114/1116/1118/1120/1122/1124/1126/1128/1130/1132/1134/1136/1138/1140/1142/1144/1146/1148/1150/1152/1154/1156/1158/1160/1162/1164/1166/1168/1170/1172/1174/1176/1178/1180/1182/1184/1186/1188/1190/1192/1194/1196/1198/1200/1202/1204/1206/1208/1210/1212/1214/1216/1218/1220/1222/1224/1226/1228/1230/1232/1234/1236/1238/1240/1242/1244/1246/1248/1250/1252/1254/1256/1258/1260/1262/1264/1266/1268/1270/1272/1274/1276/1278/1280/1282/1284/1286/1288/1290/1292/1294/1296/1298/1300/1302/1304/1306/1308/1310/1312/1314/1316/1318/1320/1322/1324/1326/1328/1330/1332/1334/1336/1338/1340/1342/1344/1346/1348/1350/1352/1354/1356/1358/1360/1362/1364/1366/1368/1370/1372/1374/1376/1378/1380/1382/1384/1386/1388/1390/1392/1394/1396/1398/1400/1402/1404/1406/1408/1410/1412/1414/1416/1418/1420/1422/1424/1426/1428/1430/1432/1434/1436/1438/1440/1442/1444/1446/1448/1450/1452/1454/1456/1458/1460/1462/1464/1466/1468/1470/1472/1474/1476/1478/1480/1482/1484/1486/1488/1490/1492/1494/1496/1498/1500/1502/1504/1506/1508/1510/1512/1514/1516/1518/1520/1522/1524/1526/1528/1530/1532/1534/1536/1538/1540/1542/1544/1546/1548/1550/1552/1554/1556/1558/1560/1562/1564/1566/1568/1570/1572/1574/1576/1578/1580/1582/1584/1586/1588/1590/1592/1594/1596/159	

[www.fci.com/nat](http://www.fci.com/nat)

Consult our dedicated on-line motorized vehicle market section. Find your interconnect solution using our interactive catalog for :  Trucks

- Trucks
- Busses
- Agricultural
- Construction



WIRE TO WIRE CONNECTORS

1 Sealed Connectors

Sicma Mini Sealed Connectors	5
Apex 2.8 mm Sealed Connectors	6
Apex 150 Sealed Connectors	7
Sicma Panel Through Sealed Connectors	8

2 Unsealed Connectors

MCS Connectors	9
----------------	---

WIRE TO CIRCUIT BOARD CONNECTORS

Product offering	10
------------------	----

WIRE TO DEVICE CONNECTORS

Power Distribution Components

PCB fuse holders	11
Relay holders	12
Sensor Connectors	13

Lighting Connectors


Lighting Connectors	14
---------------------	----

BOARD TO BOARD/WIRE TO BOARD CONNECTORS


2.00 mm - 2.54 mm board to board and wire to board Connectors	15-16
0.8 mm / 1.0 mm board-Stacking Connectors	17
0.5 mm / 2.54 mm FFC - FPC Connectors	18
Floating board to board Connectors	19

I/O CONNECTORS


Smart card / USB / Flash memory solutions	20
---	----




Chassis




Body



Engine



Cockpit



Multimedia

## Sicma Mini Sealed Connectors

### Features

- The most up-to-date reduced size (3.33 mm pitch) sealed connector family
- Housings suitable for wires from 0.5 mm<sup>2</sup> (20 AWG) up-to 2 mm<sup>2</sup> (14 AWG)
- Housings accepting terminals carrying up-to 19 A at 23°C
- High sealing performance ensured by a rear mat-seal and a front interfacial seal
- Easy and quick connection system with GO-NO-GO locking principle and male terminal guiding system
- User friendly with integrated secondary lock device allowing for detection of unseated terminal



### Technical characteristics

Number of ways		2 ways	3 ways	4 ways	5 ways	6 ways	6 ways hybrid	24 ways
Sealing protection		IP 68						
Terminals	Sicma 1.5 mm	2	3	4	5	6	4	18
	Sicma 2.8 mm	-					2	6
Temperature range		-40°C to +125°C						
Terminal retention force		> 100 N						> 65 N
Terminal insertion force		< 15 N						
Connector mating force		< 80 N						
Number of mechanical coding	Female housings	9	8	3				
	Male housings	7	6	3				

### Part references

Part references	Female housings	211PC022S0049	211PC032S0049	211PC042S4021	211PC052S0081	211PC062S5049	211PC069S0049	211PC249S0033
	Male housings	211PL022S0049	211PL032S0049	211PL042S0011	211PL052S0049	211PL062S5049	211PL069S0049	211PL249S0033

211PC022S0049 stands for 2 ways female **black color coding**  
Other color codings available, please check our website

For terminals, please check following web link

[www.fci.com/1.5SicmaTerminals](http://www.fci.com/1.5SicmaTerminals)

[www.fci.com/2.8SicmaTerminals](http://www.fci.com/2.8SicmaTerminals)





## Apex 2.8 mm Sealed Connectors

### Features

- The most ruggedized sealed connector family withstanding severe environmental conditions
- Housings suitable for wires from 0.35 mm<sup>2</sup> (22 AWG) up-to 4 mm<sup>2</sup> (10 AWG) and carrying up-to 40 A at 23° C
- Mid size housings (5.25 mm pitch - 6.40 mm Rows)
- High sealing performance ensured by a rear mat-seal and a front interfacial seal
- Easy and quick connection system
- 100% safe connection system with integrated Connector Position Assurance (CPA) system
- User friendly with integrated secondary lock device allowing for detection of unseated terminal



### Technical characteristics

Number of ways		2 ways	3 ways	4 ways	6 ways	10 ways	14 ways
Sealing protection		IP 68					
Terminals APEX 2.8 mm		2	3	4	6	10	14
Temperature range		-40°C to +150°C			-40°C to +125°C		
Terminal retention force		> 90 N					
Terminal insertion force		< 30 N					
Connector mating force		< 75 N			< 90 N	< 120 N	< 142 N
Number of mechanical coding	Female housings	4				7	4
	Male housings	2(4)	4			4(1)	4

(X) Capability

### Part references

Part references	Female housings	54MV0206	54MV0308	54MV0409	54MV0608	54MV1009	54MV1411
	Male housings	54MV0210	54MV0312	54MV0413	54MV0612	54MV1016	54MV1415

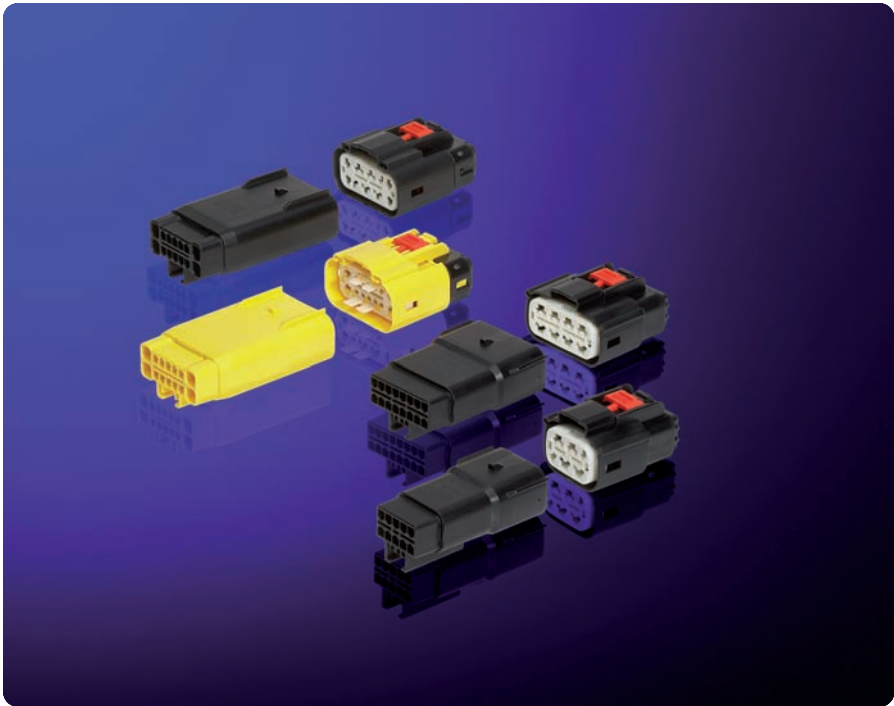
54MV0206 stands for **2 ways** female **black color coding, key coding A**  
Other color codings available, please check our website

For terminals, please check following web link  
[www.fci.com/2.8APEXTerminals](http://www.fci.com/2.8APEXTerminals)

# Apex 150 Sealed Connectors

## Features

- The most ruggedized sealed family withstanding severe environmental conditions
- Housings suitable for wires from 0.35 mm² (22 AWG) up-to 1.0 mm² (16 AWG) and carrying up-to 25 A at 23°C
- Mid size housings (3.5 mm pitch)
- High sealing performance ensured by rear mat-seals and by a front interfacial seal
- Easy and quick connection system with CPA locking principle and male terminal guiding system
- User friendly with integrated secondary lock device allowing detection of unseated terminal



## Technical characteristics

Number of ways		10 ways	14 ways	16 ways
Terminal size		1.5 mm	10x1.5 + 4x2.8 mm	1.5 mm
Sealing protection		IP 68		
Temperature range		-40°C to +125°C		
Terminal retention force		> 90 N		
Terminal insertion force		< 30 N		
Connector mating force		< 75 N		
Number of mechanical coding	Female housings	4	8	4
	Male housings	4	8	4

## Part references

Part references	Female housings	54VM1030/54VM1030N	55VM1400/55VM1400N	54VM1630/54VM1630N
	Male housings	54VM1000	54VM1400	54VM1600

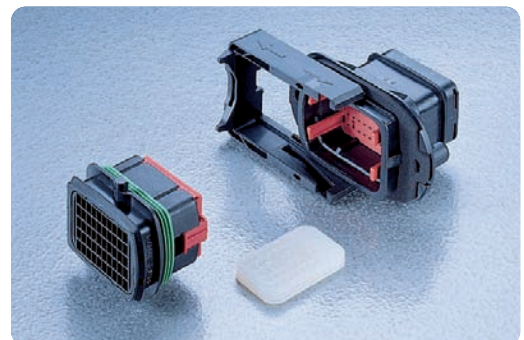
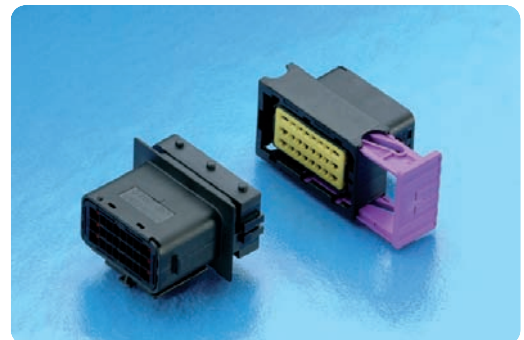
54MV1000 stands for 10 way male **black color coding**  
Other color codings available, please check our website

For terminals, please check following web link  
[www.fci.com/APEX150Terminals](http://www.fci.com/APEX150Terminals)

## Sicma Panel Through Sealed Connectors

### Features

- High density connectors particularly suitable for door to body or engine to cockpit connections
- Suitable for a combination of low and medium current applications
- Mating assistance system with slider to minimize mating force and allowing blind mating
- Male terminals can be protected from hazardous damage thanks to a front grid protection



### Technical characteristics

Number of ways		14 ways	16 ways	24 ways	34 ways	50 ways
Sealing protection		IP 67		IP 68	IP 67	IP 64
Terminals	Sicma 1.5 mm	10	16	18	30	50
	Sicma 2.8 mm	4	-	6	4	-
Temperature range		-40°C to +125°C				
Terminal retention force	Sicma 1.5 mm	> 60 N				> 80 N
	Sicma 2.8 mm	> 75 N				
Terminal insertion force	Sicma 1.5 mm	< 12 N				
	Sicma 2.8 mm	< 17 N				
Connector mating force		< 70 N				< 90 N

### Part references

Part references	Female housings	DTBFHPE14BKSV	SICFHPE16BKSV	211PC249S0031	211PC349S0033*	DTB50GMFH*
	Male housings	DTBMHPE14BKSV	SICMHPE16BKSV	HCCMHPE24BKAFSV	211PL349S0033*	DTB50GMMH*

\* Other color codings available, please check our website

For terminals, please check following web link

[www.fci.com/Sicma1.5Terminals](http://www.fci.com/Sicma1.5Terminals)

[www.fci.com/Sicma2.8Terminals](http://www.fci.com/Sicma2.8Terminals)

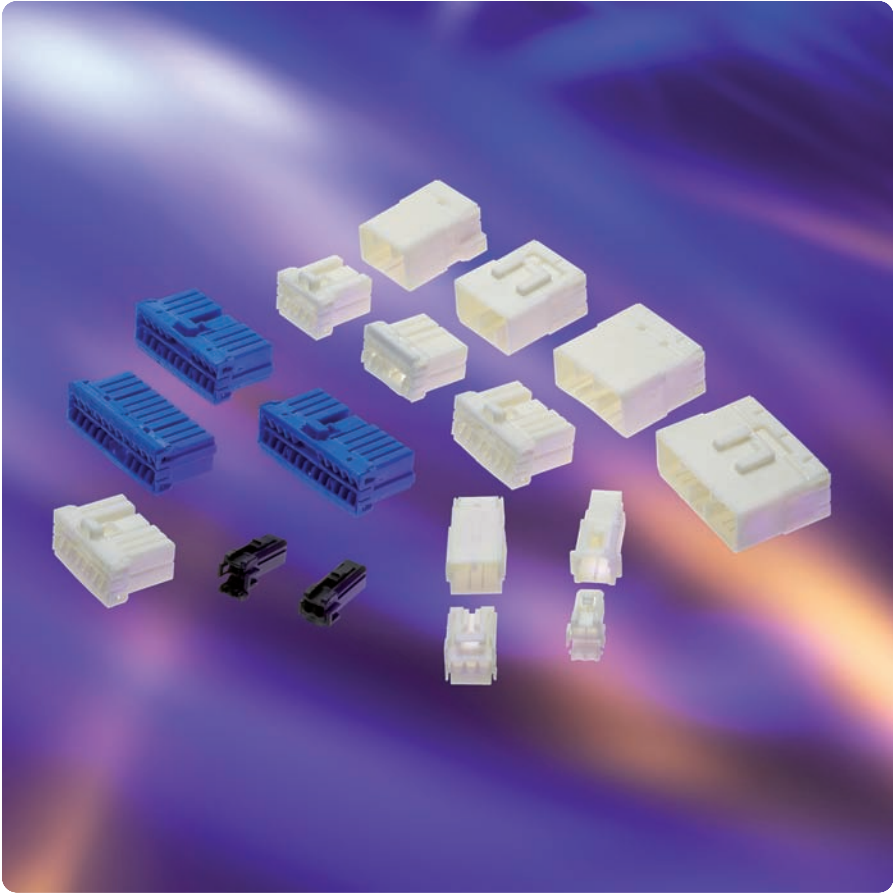




MCS unsealed Connectors

Features

- The most commonly used unsealed connector family
- Housings suitable for wires from 0.35 mm² up-to 1.5 mm² and carrying up-to 14 A at 23°C
- The most cost effective solution for unsealed applications
- User friendly with integrated secondary lock device allowing for detection of unseated terminal
- Easy and quick connection system with latching locking principle



Technical characteristics

Number of ways with MCS		1 way	2 ways	3 ways	4 ways	6 ways	8 ways	10 ways	12 ways	14 ways	18 ways	20 ways
1.8 mm terminals												
Temperature range		-30°C to +105°C										
Terminal retention force		> 80 N										
Terminal insertion force		< 10 N										
Connector mating force		< 35 N				< 65 N				< 120 N		
Number of mechanical coding	Female housings	1	3	2	1	3	2	1	4	1	2	3
	Male housings	1	2	2	0	2	2	1	3	1	2	3

Part references

Part references	Female housings	MCHFHE01BK	MCHFHEExyy									
	Male housings	MCHMHPE01BK	MCHMHPEExyy	/	MCHMHPEExyy							

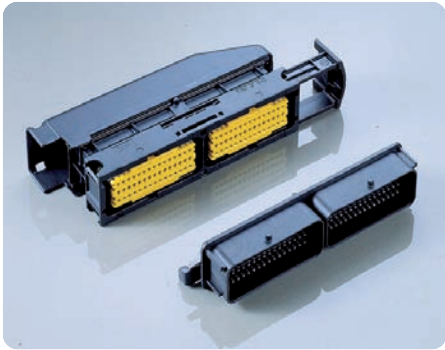
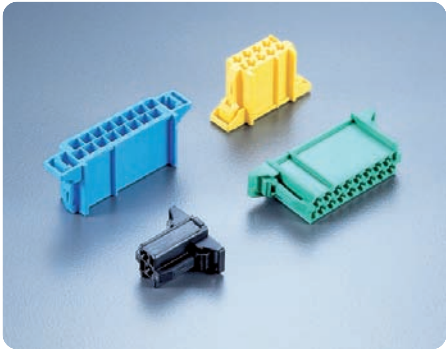
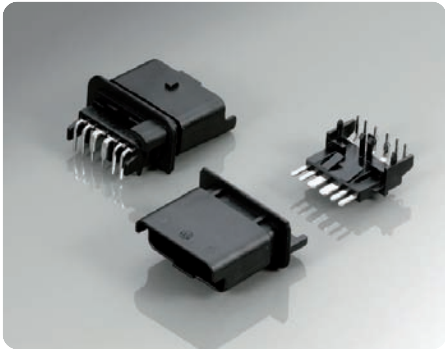
xx stands for number of ways  
yy stands for color coding  
Example : MCHFHE02WH stands for **2 ways** female **white color coding**  
Other color codings available, please check our website

For terminals, please check following web link  
[www.fci.com/1.8MCSTerminals](http://www.fci.com/1.8MCSTerminals)



Features

- Female housings and their mating male housings for PCB mount
- High sealing performance ensured by a rear mat-seal and a front interfacial seal
- Mating assistance system with slider to minimize mating force and allowing blind mating
- User friendly with integrated secondary lock device allowing for detection of unseated terminals



Technical characteristics

Number of ways	6 ways mini sealed	8 & 16 ways DCS-2	24 ways Sicma	56 ways Sicma	90 ways Sicma
Number of rows	1	2	3	2	3
Pitch between rows	-	-	5 mm	6 mm	6 mm
Sealing protection	IP 68	-	IP 68		
1.5 mm Sicma terminal	4	-	18	56	90
1.5 mm Sicma terminal pitch	3.33 mm	-	3.33 mm		
2.8 mm terminal	2 (Sicma)	8/16 (DCS)	6 (Sicma)		
2.8 mm terminal pitch	5 mm		4.15 mm		
Temperature range	-40°C to + 105°C			-40°C to + 125°C	
Male orientation to PCB	90°C	180°	90° & 180°	90°	90° & 180°

Part references

Part references	Female housings	211PC069S0049	Consult us	211PC249S0033*	211PC562S0009	211PC902S0009
	Male housings	211PL069L0084	Consult us	HCCPHPE24BKA90F*	211PL562L0011	211PL902Y0008 (180°) PPI0001336 (90°)

211PC249S0033 stands for 24 ways female **black color coding**  
\* Other color codings available, please check our website

For terminals, please check following web link  
[www.fci.com/1.5SicmaTerminals](http://www.fci.com/1.5SicmaTerminals)  
[www.fci.com/2.8SicmaTerminals](http://www.fci.com/2.8SicmaTerminals)  
[www.fci.com/2.8DCSTerminals](http://www.fci.com/2.8DCSTerminals)

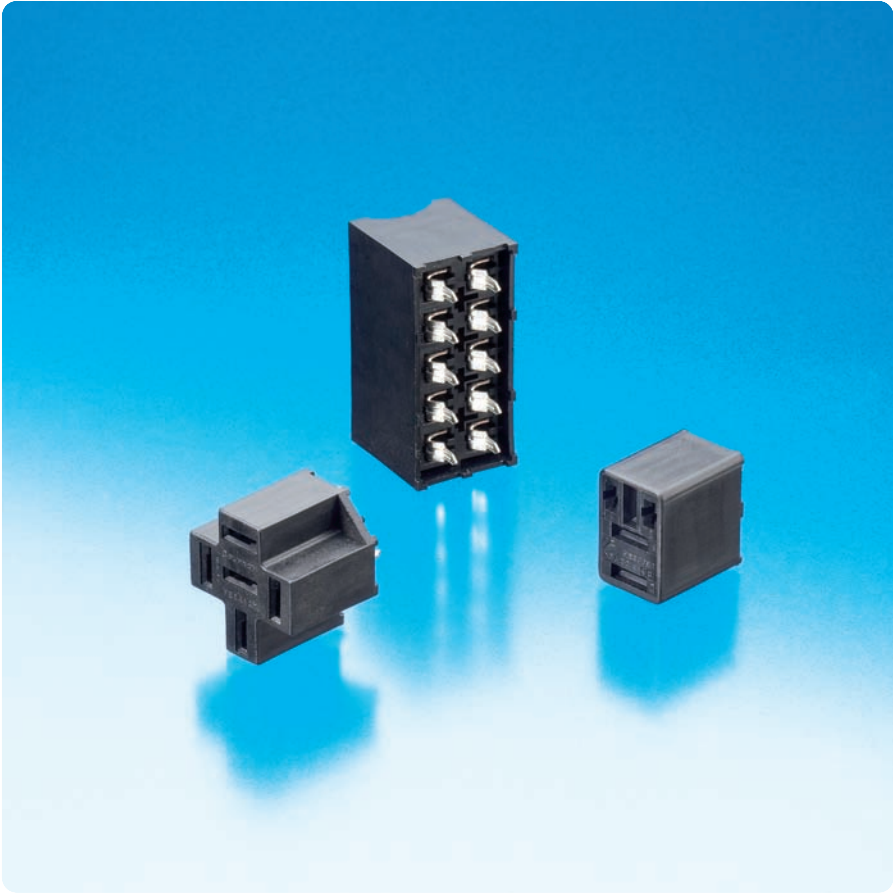


Power Distribution Components

PCB fuse holders

Features

- Block of ATO fuse holders from 1 to 40 A
- Connectors suitable for unsealed environment
- Connectors suitable for PCB soldering process



Technical characteristics

Number of ways	Relay 35 A	Mini relay	Relay 9 ways
Temperature range	-30°C to +105°C		

Part references

Part references	FEC014TSP2	FEC005BKTV1	SH100BK0900T
-----------------	------------	-------------	--------------

Technical characteristics

Number of ways	3 fuses	5 fuses
Temperature range	-30°C to +105°C	

Part references

Part references	FEC011T	FEC111T
-----------------	---------	---------

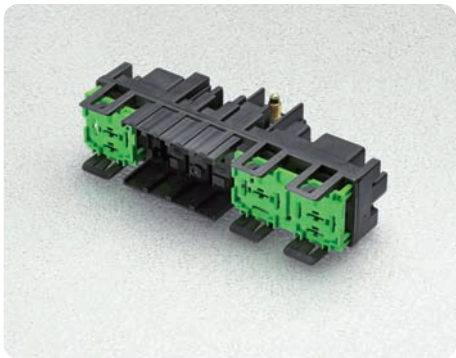
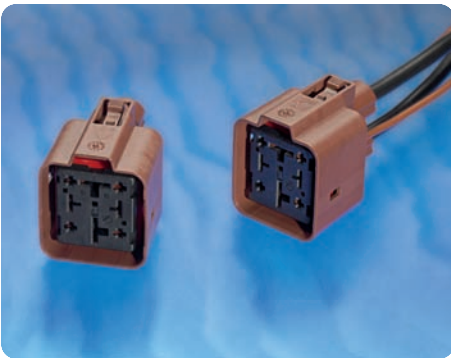
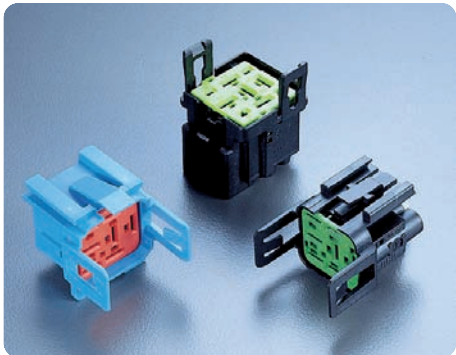
For more details, please contact us

# Power Distribution Components

## Relay holders

### Features

- Sealed and unsealed relay holders
- Multi-relay is a 3 relays holder protected by 4 maxifuses
- Suitable for applications requesting up-to 28 A (2.8 mm terminal), and/or 50 A (6.3 mm terminal) and/or 75 A (9.5 mm terminal)
- Unseated terminal detected by front grid
- Leg relay holders for 35, 25 A relays



### Technical characteristics

Number of ways	4 ways		8 ways			5 ways	13 ways	
Sealing protection	IP67					-	-	
Terminal size (mm)	6.35	9.5	2.8	6.35	9.5	6.35	6.35	8
Number of DCS terminals	2	2	4	2	2	5	11	2
Temperature range	-40°C to +85°C		-40°C to +120°C				-40°C to +85°C	
Terminal retention force	> 200 N	> 180 N	> 80 N				> 100 N	
Terminal insertion force	< 17 N	< 32 N	< 20 N				< 15 N	< 20N
Connector mating force	< 100 N		< 160 N				< 100 N	

### Part references

Part references	60434502	60431011	60430601	230BF139S0002
-----------------	----------	----------	----------	---------------

For more details, please contact us

For terminals, please check following web link

- [www.fci.com/2.8DCSTerminals](http://www.fci.com/2.8DCSTerminals)
- [www.fci.com/6.3DCSTerminals](http://www.fci.com/6.3DCSTerminals)
- [www.fci.com/9.5DCSTerminals](http://www.fci.com/9.5DCSTerminals)



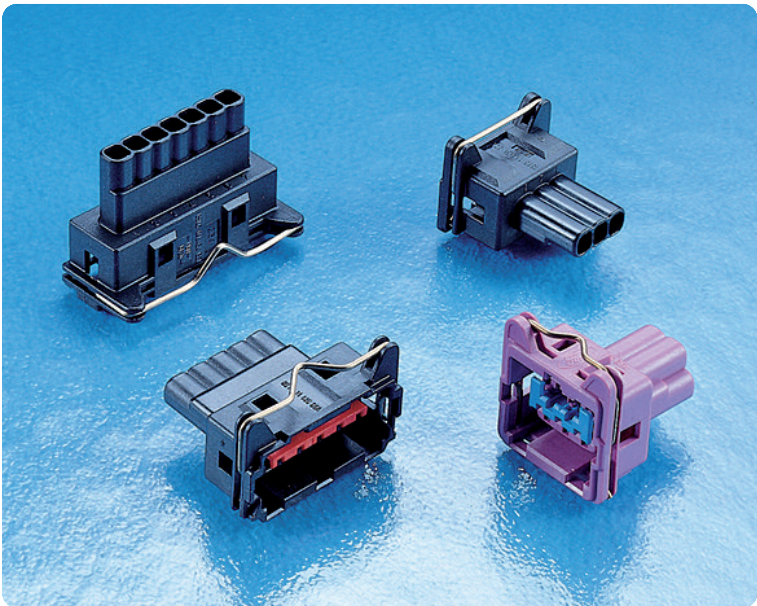
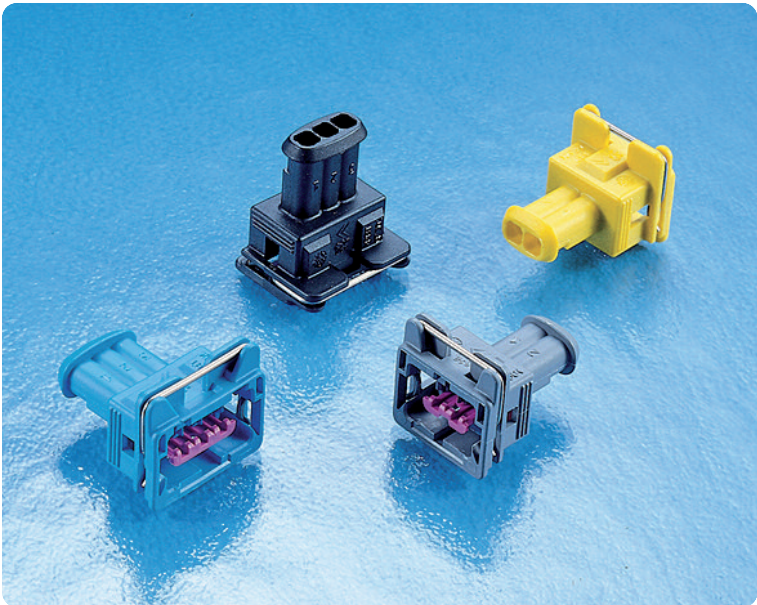


Power Distribution Components

Sensor connectors

Features

- Sealed connectors for sensors or integrated housing
- Suitable for application requesting mid-power up-to 28 A at 23°C
- High level of sealing with Single wire seals and flat seal
- Unseated terminal detected by front grid



Technical characteristics

Number of ways	2 ways	3 ways	4 ways	5 ways	7 ways
Sealing protection	IP 67				
Terminal DCS-1 2.8 mm	2	3	4	5	7
Temperature range	- 40°C to +125°C			-40°C to +120°C	
Terminal retention force	> 80 N				
Terminal insertion force	< 20 N				
Connector mating force	< 50 N			< 90 N	
Number of codings	9	4	3	1	2

Part references

Part references	240PC02S1004	240PC03S0005	240PC04S0007	60400401	60400551
-----------------	--------------	--------------	--------------	----------	----------

240PC03S0004 stands for 3 ways **black color coding**  
Other color codings or part numbers available, please check our website or consult us





## Lighting connectors (PG18.5, PGJ19, PG20, H3, H4)

### Features

#### PGJ 19

- IP69k high pressure spray protected
- Additional terminal locking device on front part of the housing
- Terminal Position Assurance (T.P.A.), two mechanical polarization either H8-H11 or H9
- Go-No-Go housing locking principle
- Suitable for wires from 0.35 mm<sup>2</sup> to 2.5 mm<sup>2</sup>



#### PG 18.5

- Unsealed version
- Easy unmating by rear latch feature
- Go housing locking principle additional terminal locking device on front part of the housing
- Terminal Position Assurance (T.P.A.)
- Suitable for wires from 0.35 mm<sup>2</sup> to 2 mm<sup>2</sup>



#### H4

- Female 3 way 8 mm 90° terminal with hinged back cover
- Suitable for lamp H4 lamps, wire size from 1 to 2.5 mm<sup>2</sup>

### Technical characteristics

	PGJ19	PG18.5	H4
Number of ways	2 ways		3 ways
Lamp	H8-H9-H11	P13W	H3-H4
Sealing protection	IP69K	No	No
Terminal	DCS-2 2.8 mm	GTS-2 1.5 mm	8 mm Finclick
Temperature range	- 40°C to +125°C		
Terminal retention force	> 100 N		
Terminal insertion force	< 15 N	< 5 N	< 15 N
Connector mating force	< 60 N		NA
Number of codings	-	5	12

### Part references

Part references	240PC023S4019 for H8-H11 240PC023S8019 for H9	PPI0001038*	PPI0000813
-----------------	--	-------------	------------

\* Other codings available, please consult us  
Sealed version PG18.5 and PG20, consult us

For terminals, please check following web link  
[www.fci.com/2.8DCSTerminals](http://www.fci.com/2.8DCSTerminals)  
[www.fci.com/1.5GTSTerminals](http://www.fci.com/1.5GTSTerminals)  
[www.fci.com/8FinclickTerminals](http://www.fci.com/8FinclickTerminals)

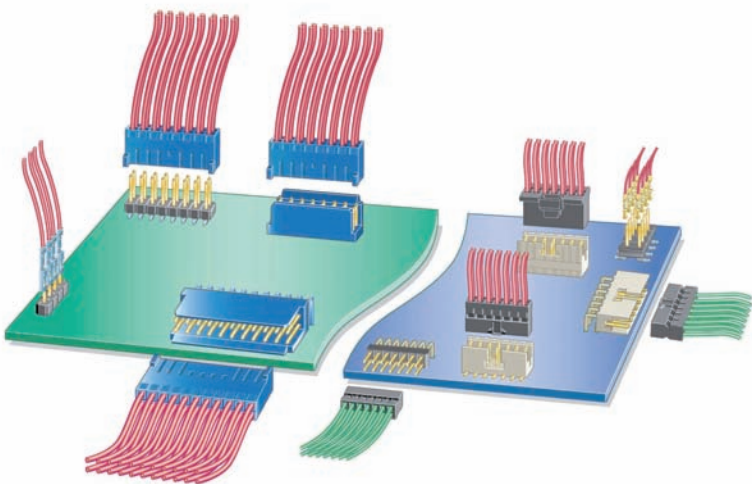
# 2.00 mm - 2.54 mm wire-to-board solutions

## Minitek™ / BergStik® / Dubox™

2.54 mm pitch

Features

- Unique beryllium copper contact maintains perfect conductivity & contact pressure through multiple mating cycles
- Shock and vibration proof
- Choice of retention forces with different spring pressures



2.00 mm

Features

- Optional active latching system
- High reliable electrical performance due to dual beam design
- 4-wall keyed header design prevents mismatching

	BergStik® / Dubox™		Minitek™	
Pitch	2.54 mm		2.00 mm	
Gender	Header	Receptacle	Header	Receptacle
Orientation	Straight, Right angled			Straight
Termination	Through hole or SMT			
Plating	Tin or selective AU			
Packaging	Tubes, tape-on-reel, Contineous reel		Tubes, Tape-on-Reel	

[www.fci.com/minitek](http://www.fci.com/minitek)  
[www.fci.com/bergstik](http://www.fci.com/bergstik)  
[www.fci.com/dubox](http://www.fci.com/dubox)

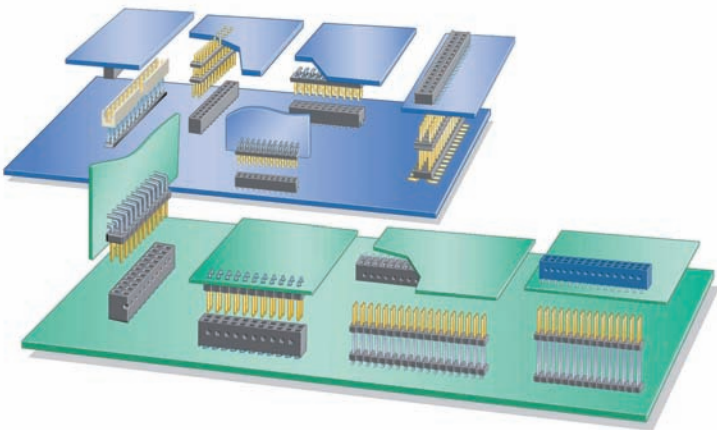
# 2.00 - 2.54 mm board-to-board solutions

## Minitek™ / BergStik® / Dubox™

2.54 mm pitch

Features

- Option of shrouded or unshrouded headers
- Vertical & Right angle systems
- Continuous headers-on-reel option
- Variable board spacings



2.00 mm pitch

Features

- Option of shrouded and unshrouded headers
- Vertical and Right angled systems
- Variable board spacings

	BergStik® / Dubox™		Minitek™	
Pitch	2.54 mm		2.00 mm	
Gender	Header	Receptacle	Header	Receptacle
Orientation	Straight, Right angled			Straight
Termination	Through hole or SMT			
Plating	Tin or selective AU			
Packaging	Tubes, Tape-on-Reel, Contineous reel		Tubes, Tape-on-Reel	
Temperature range	-60° - +125° C		-40° - +125° C	
Terminal size	0.635 mm SQ		0.5 mm SQ	
Ways	4-72		4-50	
Current rating	2-3A		2 A	
Cycles	200		100	
Rows	Single / double		Double	

[www.fci.com/minitek](http://www.fci.com/minitek)  
[www.fci.com/bergstik](http://www.fci.com/bergstik)  
[www.fci.com/dubox](http://www.fci.com/dubox)



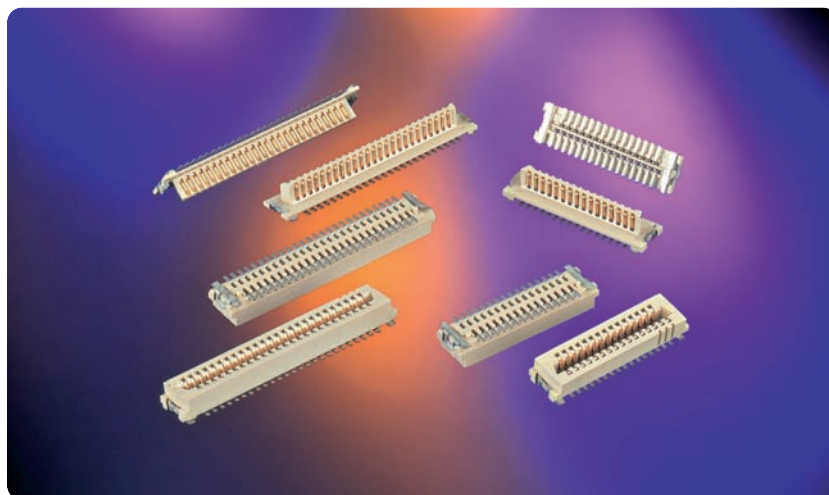
## 0.8 mm / 1.0 mm board-Stacking Connectors BergStak® / Conan®

### Features

- Parallel board-to-board interconnects
- Surface mount
- Blade-on-beam contacts allow “peeling” and prevent “stubbing”
- BergStak® 0.8 mm pitch connectors offer 5 mm-16 mm stack heights and 40-200 contacts (in increments of 20)
- Conan® 1.0 mm pitch connectors offer 4.15 mm-7 mm stack heights with options for 9, 11, 15, 21, 25, 31, 41, 51 or 69 contacts. Snap together for sure mating
- Reliable & economic selective plating
- Tape & reel or tube packing (with or without cap)

### Applications

- Tachographs
- Head-up display
- Electronic Toll Collect systems (ETC)
- Automotive Multimedia Systems like: car audio, navigation, car phone systems



### Technical characteristics

Conan®	
Number of contacts	9-69
Material (Housing)	LCP
Material (Contact)	Copper Alloy, Gold over Nickel plated
Current rating	1 A
Voltage rating	500 volts
Resistance (Insulation)	1000 MΩ
Resistance (Contact)	30 mΩ
Temperature (Range)	-55°C to +130°C
Durability (Mating cycles)	30 cycles

Bergstak®	
Number of contacts	40 - 200
Material (Housing)	LCP
Material (Contact)	Copper Alloy, Gold over Nickel plated
Current rating	0.5 A
Voltage rating	100 volts AC
Resistance (Insulation)	100 MΩ
Resistance (Contact)	50 mΩ
Temperature (Range)	-40°C to +85°C
Durability (Mating cycles)	100 cycles

### Part references

Main products	Receptacle	Header
BergStak® system	61082	61083
Conan® system	91921/91931	91901/91911

[www.fci.com/conan](http://www.fci.com/conan)  
[www.fci.com/bergstak](http://www.fci.com/bergstak)



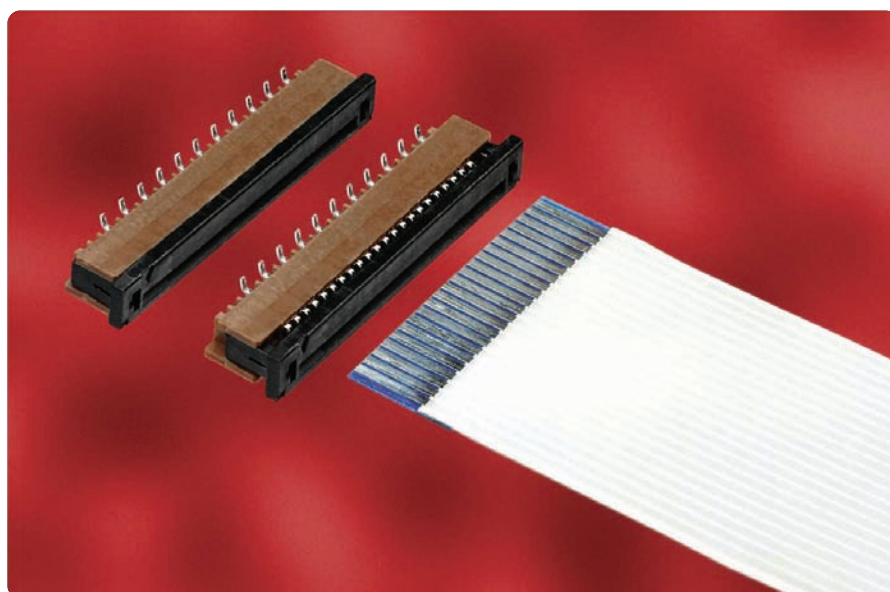
## 0.5 mm / 2.54 mm FFC - FPC Connectors

### Features

- Suitable for FFC / FPC / CIC cable
- 0.50 - 1.00 - 2.54 mm pitch sizes
- Highly reliable Gas Tight High pressure (GTH) contact system
- Zero Insertion Force (ZIF) and Low Insertion Force (LIF) options
- Straight and Right-Angle versions
- Surface Mount and Through Hole

### Applications

- LC Display to Board connections
- Interior Automotive electronics
- DVD / HDD connection
- Tachographs



### Technical characteristics

FFC - FPC	
Number of contacts	4-30
Material (Housing)	Thermoplastic (UL94V-0)
Material (Contact)	Phosphor Bronze, Tin Plated
Current rating	0.5 A (0.5 mm pitch)
Voltage rating	100V AC/DC (0.5 mm pitch)
Resistance (Insulation)	500 MΩ (0.5 mm pitch)
Resistance (Contact)	30 mΩ max
Temperature (Range)	-55°C to +85°C
Durability (Mating cycles)	20 cycles (0.5 mm pitch)

### Part references

Main products	Description	Lower type	Part references
0.50 mm Pitch ZIF SMT	Right angle	SFVL Connector	59453
	Right angle	SFV Connector	SFVxxR
	Straight angle	SFV-S Connector	62674
	Right angle	OPU Connector	62684
	Right angle	SFVA Connector	10014265
	Right angle	VLL Connector Lower type	10051922
	Right angle	VLH Connector Lower type	10042867
1.00 mm Pitch ZIF SMT	Right angle	SFW Connector	SFWxxR
	Straight angle	SFW Connector	SFWxxS
Non-ZIF SMT	Right angle	HFW Connector	HFWxxR
	Straight angle	HFW Connector	HFWxxS
ZIF DIP	Right angle	SLW Connector	SLWxxR
	Straight angle	SLW Connector	SLWxxS
Non-ZIF DIP	Right angle	HLW Connector	HLWxxR
	Straight angle	HLW Connector	HLWxxS
2.54 mm Pitch	Duflex contacts and housings		76785 / 67013 / 66987
	Clincher pre-assembled snap-shut system (mates to PCB headers)		66226 / 65801 / 10027313 / 10022753 / 67516 / 67368
	Shrouded PCB headers for 2.54 mm clincher		95735 / 95736

[www.fci.com/flex](http://www.fci.com/flex)



## Floating board to board BTFW

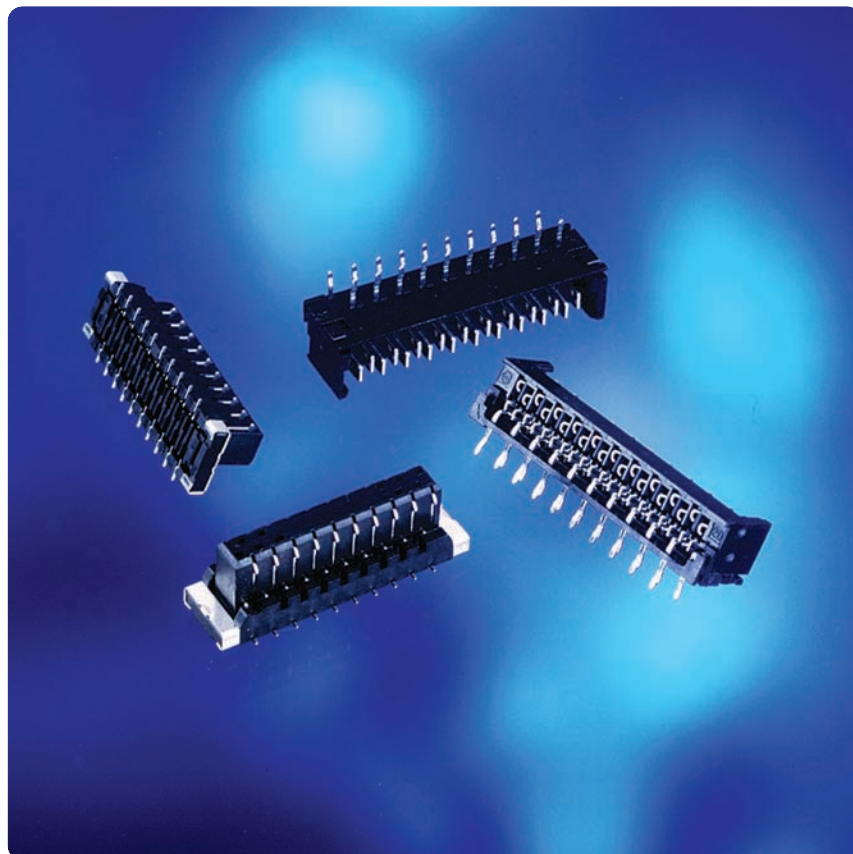
### Features

- BTFW (1.0 mm)
- Surface mount and Through mount versions
- Straight and Right Angle versions
- Reliable mechanical performance due to wide floating allowance (in pitch, width and Z direction)\*
- Easy handling due to rigid guiding design

\*Absorbs design tolerances and vibrations

### Applications

- Automobile AV systems and navigation systems, Automobile CD and MD players
- Fleet Management systems like tachographs
- Electronic Toll Collect Systems (ETC)
- Head-up displays



### Technical characteristics

BTFW	
Number of contacts	10-30
Material (Housing)	Glass Reinforced PBT UL94 V-0
Material (Contact)	Phosphor Bronze, Tin plated
Current rating	1 A
Voltage rating	100 V AC/DC
Resistance (Insulation)	100 MΩ
Resistance (Contact)	70 mΩ max
Temperature (Range)	-55°C to +85°C
Durability (Mating cycles)	20 cycles

### Part references

Main products			Series*
BTFW	Plug	Vertical, SMT	BTFWxxP-3SSTE1LF
	Receptacle	Right Angle, SMT	BTFWxxR-3RSTE1LF
		Right Angle, Through Hole	BTFWxxR-3RD7LF

[www.fci.com/boardmate](http://www.fci.com/boardmate)



## Smart card Connectors

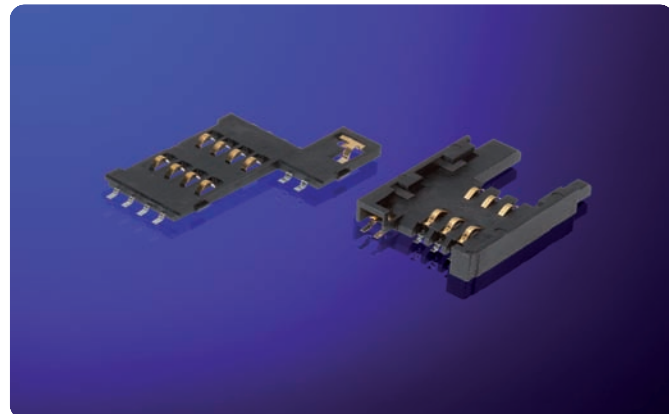
### Features

- SIM, SAM or full size card connectors available
- Suitable for friendly, harsh, portable and AUTOMOTIVE environments
- Sliding or Landing contact technology
- Durability upto 30.000 cycles
- Blade or sealed switch available
- 6,8 or 16 contacts available

### Product Performance

- Upto 15k mating cycle
- Temperature range -40 + 105°C
- Customization available upon request

[www.fci.com/smartcards](http://www.fci.com/smartcards)



## USB - Universal Serial Bus

### Features

- USB 2.0 compliant – speed upto 480 Mb/sec
- Type A (host) receptacles
- - 4 positions - series 73725 / 87583
- SMT & through hole terminations
- Standard or Side mounted
- USB + Power solutions

### Product Performance

- Upto 15k mating cycles
- Temperature range -40 + 85°C

[www.fci.com/usb](http://www.fci.com/usb)



## SD cards

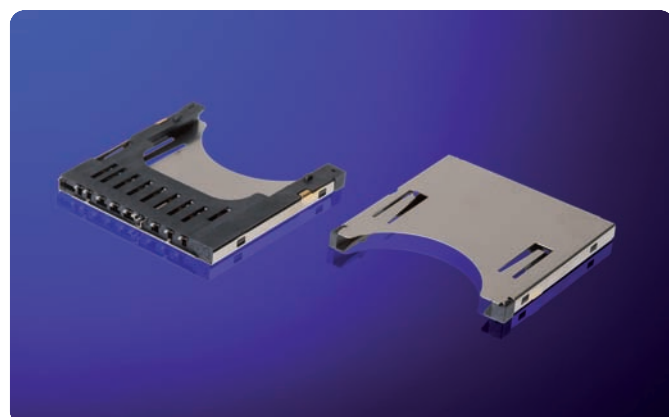
### Features

- Product design:
- Top mount position (optional reverse)
- Push-push locking system
- Shielded
- Switch presence for write protection

### Product Performance

- Upto 15k mating cycles
- Temperature range -40 + 105°C
- Vibration & Shock proof

[www.fci.com/cardsystems](http://www.fci.com/cardsystems)



[illegible]

For more information about e-catalog or FCI  
sales offices, headquarters, agents and local distributors,  
visit [www.fci.com](http://www.fci.com)



**FCI** Headquarters - 145, rue Yves-Le-Coz - 78035 Versailles - France  
Phone: +33 1 39 49 21 83 - Fax: +33 1 39 49 20 00

# AMEYA360

## Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit [www.ameya360.com](http://www.ameya360.com)

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd  
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email [amall@ameya360.com](mailto:amall@ameya360.com)

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email [service@ameya360.com](mailto:service@ameya360.com)

➤ Partnership :

Tel +86 (21) 64016692-8333

Email [mkt@ameya360.com](mailto:mkt@ameya360.com)