Connectors - Signal & Data

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Value 'D' Range

Economy D-Sub

Solder Bucket

Current Rating	3A	DWV	1000V AC for 1 Min
Contact Resistance	30mΩ Max at DC 100mA	Contacts	Copper alloy nickelGold plated
Temperature range	-40°C85°C to +	Insulator	PBT and glass fibre UL94V-0
Insulation Resistance	1000MΩ Min	Housing	Steel - Nickel plated

240392

No. of Ways	Order Code	Price Each
Plugs		
9	108-4672●	
15	108-4673●	
25	108-4674●	
37	108-4675●	
50	108-4676●	
Sockets		
9	108-4678●	
15	108-4679●	
25	108-4681●	
37	108-4682●	
50	108-4683●	

Economy D-Sub

Straight PCB - Formed Pin

Current Rating	5A	Insulation Resistance	1000MΩ Min
Contact Resistance	5MΩ Max at 1A	DWV	500V AC for 1 Min
Temperature range	-40°C100°C to +	Contacts	Brass Gold plated

240398

No. of Ways	Order Code	Price Each
Plugs		
9	108-4684●	
15	108-4686●	
25	108-4687●	
37	108-4688●	
50	108-4691●	
Sockets		
9	108-4692●	
15	108-4693●	
25	108-4694●	
37	108-4695●	
50	108-4696●	

Economy D-Sub - Formed Pin

90⁰ PCB with Boardlocks

Current Rating	5A	Insulation Resistance	1000MΩ Min
Contact Resistance	30MΩ Max at 1A	DWV	1000V AC for 1 Min
Temperature range	-55°C105°C to +	Contacts	Brass Selective Gold plated

240399

No. of Ways	Order Code	Price Each
Plugs		
9	108-4697●	
15	108-4698●	
25	108-4699●	
37	108-4700●	
Sockets		
9	108-4701●	
15	108-4702●	
25	108-4703●	
37	108-4704●	

Value 'D' Range - continued

Economy D-Sub - Formed Pin

multicomp

90° PCB with Boardlocks and Screw Lock

Current Rating	5A	Insulation Resistance	1000MΩ Min
Contact Resistance	30MΩ Max at 1A	DWV	1000V AC for 1 Min
Temperature range	-55°C105°C to +	Contacts	Brass Selective Gold plated

240403

No. of Ways	Order Code	Price Each
Plugs		
9	108-4705●	
15	108-4706●	
25	108-4708●	
37	108-4709●	
Sockets		
9	108-4710●	
15	108-4711●	
25	108-4712●	
37	108-4713●	

Commercial 'D' Range

Original 'D' Series

ITT *Engineered for life*

Plug, Solder Cup

Socket, Solder Cup

Plug, PCB, Straight

Socket, PCB, Straight

Plug, PCB, R/A

Socket, PCB, R/A

- High perfirmance commercial class connectors
- DIN 41652
- Solder cup / solder Termination
- Machined contacts

New

Specifications:-

Contact Material	Copper Alloy	Contact Plating	Gold
Current Rating	5A	Withstanding Voltage	1250VAC
Shell Material	Steel	Shell Plating	Tin
Contact Resistance	10mohm	No. of Mating Cycles	200
Insulator Material	Thermoplastic	Flammability Rating	UL94V-0
Operating Temp.	-55°C to 125°C		

601849

No. of Ways	Shell Size	Mftrs. List No.	Order Code	Price Each
Plugs, Solder Cup Termination				
9	DE	DE-9P-K87	176-0323●	
15	DA	DA-15P-K87	176-0325●	
25	DB	DB-25P-K87	176-0326●	
37	DC	DC-37P-K87	176-0327●	
50	DD	DD-50P-K87	176-0328●	
Sockets, Solder Cup Termination				
9	DE	DE-9S-A197	176-0329●	
15	DA	DA-15S-A197	176-0330●	
25	DB	DB-25S-A197	176-0331●	
37	DC	DC-37S-A197	176-0332●	
50	DD	DD-50S-A197	176-0333●	
Plugs, PCB, Straight, Solder Termination				
9	DE	DE-9P-OL2-K87	176-0334●	
15	DA	DA-15P-OL2-K87	176-0335●	
25	DB	DB-25P-OL2-K87	176-0337●	
37	DC	DC-37P-OL2-K87	176-0338●	
50	DD	DD-50P-OL2-K87	176-0339●	
Sockets, PCB, Straight, Solder Termination				
9	DE	DE-9S-OL2-A197	176-0340●	
15	DA	DA-15S-OL2-A197	176-0341●	
25	DB	DB-25S-OL2-A197	176-0342●	
37	DC	DC-37S-OL2-A197	176-0343●	
50	DD	DD-50S-OL2-A197	176-0344●	
Plugs, PCB, R/A, Solder Termination				
9	DE	DE-9P-1A7N-K87	176-0345●	
15	DA	DA-15P-1A7,N-K87	176-0346●	
25	DB	DB-25P-1A7N-K87	176-0347●	
37	DC	DC-37P-1A7N-K87	176-0349●	
50	DD	DD-50P-1A7N-K87	176-0351●	
Sockets, PCB, R/A, Solder Termination				
9	DE	DE-9S-1A7N-A197	176-0352●	
15	DA	DA-15S-1A7N-A197	176-0353●	
25	DB	DB-25S-1A7N-A197	176-0354●	
37	DC	DC-37S-1A7N-A197	176-0355●	
50	DD	DD-50S-1A7N-A197	176-0356●	

Commercial 'D' (Formed Pin)

ITW McMurdo Connectors

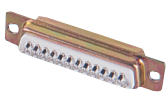
- Solder bucket, right angled and PCB termination styles
- Solder bucket and 90° contacts are stamped and formed
- 90° style features a 2.54mm spacing between contact rows and screwlocks
- Suitable for applications in instrumentation, computer interfacing, process control and professional electrical equipment

Contact rating	5A @70 °C	Housing	Steel, yellow passive over Zinc plating
Contact resistance	15mΩmax	Insulator	White or Black two piece polyester UL94V-0
Working voltage	300V dc/ac peak		
Temperature range	-55°C to +105°C	Contacts	Formed Copper Alloy
Mating cycles	100	Terminations	Solder Bucket - Tinned PCB - gold plated

209912

Solder Bucket

ITW McMurdo Connectors



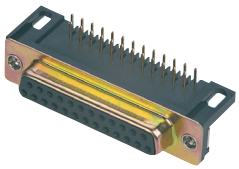
Mftrs. List No. SDE9P = 150-808, SDE9S = 150-812, SDA15P = 150-809, SDA15P = 150-809, SDC37P = 150-811, SDC37S = 150-815

209923

No of Ways	Order Code	Price Each
Plugs		
9	150-808●	
15	150-809●	
25	150-810●	
37	150-811●	
Sockets		
9	150-812●	
15	150-813●	
25	150-814●	
37	150-815●	

90° PCB

ITW McMurdo Connectors



Mftrs. List No. SDE9PN=150-816, SDE9SN=150-820, SDA15PN=150-817, SDA15SN=150-821, SDB25PN=150-818, SDC37SN=150-823

209934

No of Ways	Order Code	Price Each
Plugs		
9	107-5281●	
15	107-5282●	
25	107-5283●	
37	107-5284●	
Sockets		
9	107-5285●	
15	107-5286●	
25	107-5288●	
37	107-5289●	

Over 500 000 products available online QGO

90° PCB with Screwlocks

ITW McMurdo Connectors

Mftrs. List No. SDES9PN = 107-5243 SDES9PN = 107-5244 SDBS25PN = 107-5245
SDCS37PN = 107-5246 SDES9SN = 107-5247 SDAS15SN = 107-5248
SDBS25SN = 107-5249 SDCS37SN = 107-5250

209947

No of Ways	Order Code	Price Each
Plugs		
9	**107-5243**●	
15	**107-5244**●	
25	**107-5245**●	
37	**107-5246**●	
Sockets		
9	**107-5247**●	
15	**107-5248**●	
25	**107-5249**●	
37	**107-5250**●	

ZD Connectors

Solder Cup & PCB

ITT *Engineered for life*

Solder Cup PCB

- Secure Blind mating
- Compatible with all other D sub-miniature series
- Glass filled thermoplastic insulator, UL94V-0
- Class 3

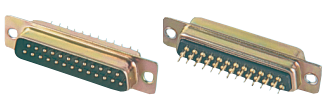
Contact Rating	5A 60°C	Housing	Steel, tin plating
Contact Resistance	20mW Max.	Insulator	Glass Filled Black Thermoplastic, UL94V-0
Working Voltage	350V dc/ac peak	Male Contacts	Brass
Temperature Range	-55°C to +105°C	Female Contacts	Phosphor Bronze
Mating Cycles	50	Contact Plating	Gold over Nickel

475165

No. of Ways	Mftrs. List No.	Order Code	Price Each
Solder Cup Plugs			
9	ZDE9P	**134-8011**●	
15	ZDA15P	**134-8013**●	
25	ZDB25P	**134-8014**●	
37	ZDC37P	**134-8015**●	
Solder Cup Sockets			
9	ZDE9S	**134-8016**●	
15	ZDA15S	**134-8017**●	
25	ZDB25S	**134-8018**●	
37	ZDC37S	**134-8019**●	
90°C PCB Plugs			
9	ZDE9P1AKN-146	**134-8020**●	
15	ZDA15P1AKN-146	**134-8021**●	
25	ZDB25P1AKN-146	**134-8022**●	
37	ZDC37P1AKN-146	**134-8023**●	
90°C PCB Sockets			
9	ZDE9S1AKN-146	**134-8025**●	
15	ZDA15S1AKN-146	**134-8026**●	
25	ZDB25S1AKN-146	**134-8027**●	
37	ZDC37S1AKN-146	**134-8028**●	

Straight PCB (Turned Pin)

ITW McMurdo Connectors



Mftrs. List No. SDE9POL = 1340811, SDA15POL = 1340812, SDB25POL = 1340813,
SDC37POL = 1340814, SDE9POL = 1210827, SDA15SOL = 1340816,
SDBS25SOL = 1075155, SDC37SOL = 1075156,

209958

No of Ways	Order Code	Price Each
Plugs		
9	**134-0811**●	
15	**134-0812**●	
25	**134-0813**●	
37	**134-0814**●	
Sockets		
9	**121-0827**●	
15	**134-0816**●	
25	**107-5155**●	
37	**107-5156**●	

TDE Series

Tyco Electronics

Straight PCB D-Sub Connectors with Boardlocks

A new range of economical D-Sub connectors with a high level of performance and standard features.

- Boardlocks as standard
- Gold plated contacts
- Choice of 4-40 Threaded inserts or 4-40 female screwlocks
- Front shell Tin plated steel
- **UL** Listed

Contact material - Plug	Brass	Temprature range	°C-55°C105 To +
Contact material - Socket	Phosphor Bronze	Dielectric withstand voltage	500V
Contact plating	Gold	Housing	Black Thermoplastic
Insulation resistance	1000Mohm		

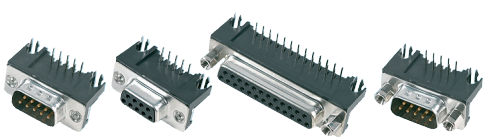
338945

No. of Ways	Order Code	Price Each
Plugs with boardlocks		
With Threaded Inserts		
9	**508-1932**●	
15	**508-1944**●	
25	**508-1956**●	
With Female Screwlocks		
9	**508-1970**●	
15	**508-1981**●	
25	**508-1993**●	
37	**508-2006**●	
Sockets with Boardlocks		
With Threaded Inserts		
9	**508-2018**●	
15	**508-2020**●	
25	**508-2031**●	
With Female Screwlocks		
9	**508-2055**●	
15	**508-2067**●	
25	**508-2079**●	
37	**508-2080**●	

TDE Series European Footprint

Tyco Electronics

90 ° PCB D-Sub Connectors with Boardlocks



- European standard PCB footprint in accordance with DIN 41652 variant 2
- Choice of 4-40 threaded inserts or female screwlocks
- Board locks included as standard
- **UL** Recognised

Current Rating	5A	Contacts	Brass, Gold plated
Dielectric Strength	500V DC for 2 Min	Front Shell	Steel, Tin plated
Insulation Resistance	1000MΩ Min	Housing	Black Thermoplastic
Temperature Range	-55°C105°C to +	Flammability	UL94V-0

383301

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plugs with boardlocks			
With Threaded Inserts			
1-1634580-2	9	**839-1246**●	
1-1634581-2	15	**839-1254**●	
1-1634582-2	25	**839-1262**●	
1-1634583-2	37	**839-1270**●	
With Female Screwlocks			
3-1634580-2	9	**839-1327**●	
3-1634581-2	15	**839-1335**●	
3-1634582-2	25	**839-1343**●	
3-1634583-2	37	**839-1351**●	
Sockets with Boardlocks			
With Threaded Inserts			
1-1634584-2	9	**839-1289**●	
1-1634585-2	15	**839-1297**●	
1-1634586-2	25	**839-1300**●	
1-1634587-2	37	**839-1319**●	

Commercial 'D' Range - continued

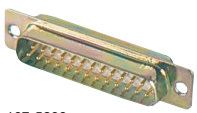
TDE Series European Footprint - continued

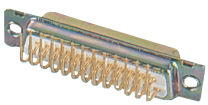
90 ° PCB D-Sub Connectors with Boardlocks - continued

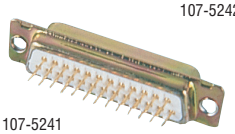
Mftrs. List No.	No. of Ways	Order Code	Price Each
Plugs with boardlocks			
With Female Screwlocks			
3-1634584-2	9	**839-1360●**	
3-1634585-2	15	**839-1378●**	
3-1634586-2	25	**839-1386●**	
3-1634587-2	37	**839-1394●**	

Turned Pin

ITW McMurdo Connectors


107-5239


107-5242


107-5241

Quality turned pin connectors at very competitive prices. Fully mateable and suitable for use with all the standard 'D' range connectors and accessories.

Contact rating	6.5A @ 70°C	Working voltage	500V dc/ac peak
Contact resistance	10mΩmax		

219862

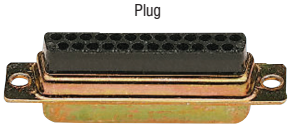
No of Ways	Order Code	Price Each
Solder Bucket Plugs		
9	**107-5224●**	
15	**107-5225●**	
25	**107-5239●**	
37	**107-5227●**	
Solder Bucket Sockets		
9	**107-5228●**	
15	**107-5229●**	
25	**107-5241●**	
37	**107-5230●**	
90°PCB Plugs		
9	**107-5232●**	
15	**107-5233●**	
25	**107-5150●**	
37	**107-5234●**	
90°PCB Sockets		
9	**107-5235●**	
15	**107-5236●**	
25	**107-5242●**	
37	**107-5237●**	
Straight PCB Plugs		
9	**107-1799●**	
15	**107-1800●**	
25	**107-1805●**	
37	**107-1801●**	
Straight PCB Sockets		
9	**107-1802●**	
15	**107-1803●**	
25	**147-972▲**	
37	**105-698▲**	

D*U Series with Crimp Style Removable Contacts

ITT Engineered for life

New

Plug


Socket

- Choice of either machined contacts or stamped with insulation support contacts
- Insulation support contacts fully recessed in insulation after assembly
- Flame retardant insulators
- D*U connectors operate in temperatures up to 120°C
- Fully intermateable with all Cannon D connectors

Specifications:-

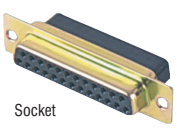
Contact Material	Phosphor Bronze (Stamped) Copper Alloy (Machined)	Contact Plating	Gold over Nickel (Stamped) Gold over Nickel (Machined)
Current Rating	5A	Withstanding Voltage	1500VAC
Shell Material	Steel	Shell Plating	Zinc with Yellow Chromate
Insulator Material	Thermoplastic	Flammability Rating	UL94V-0

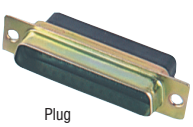
602166

No. of Ways	Shell Size	Mftrs. List No.	Order Code	Price Each
Plugs				
9	DE	DEU-9P-K87-FO	**176-0357●**	
15	DA	DAU-15P-K87-FO	**176-0358●**	
25	DB	DBU-25P-K87-FO	**176-0359●**	
37	DC	DCU-37P-K87-FO	**176-0360●**	
50	DD	DDU-50P-K87-FO	**176-0362●**	
Sockets				
9	DE	DEU-9S-A197-FO	**176-0363●**	
15	DA	DAU-15S-A197-FO	**176-0364●**	
25	DB	DBU-25S-A197-FO	**176-0365●**	
37	DC	DCU-37S-A197-FO	**176-0366●**	
50	DD	DDU-50S-A197-FO	**176-0367●**	
Stamped Crimp Contacts, with insulation support				
Pin	26-28 AWG	330-7635-010	**176-0368●**	
Socket	26-28 AWG	330-7636-010	**176-0369●**	
Machined Crimp Contact				
Pin	20-24 AWG	030-1952-000	**176-0370●**	
Crimp Tools				
Stamped Contact Tool		CCT-D*U-5-GB	**176-0371●**	
Machined Contact Tool		M22520-2-01	**176-0372●**	
Locator Plate for machined contacts				
		L3198-20HDL/614958	**176-0374●**	

Crimp 'D' (Formed Pin)

ITW McMurdo Connectors


Socket


Plug

Contacts

- A range of crimp connectors with rear insert contacts
- Connectors and contacts are ordered separately
- Suitable for applications where partial loading is required.

Contact rating	4A @70 °C	Mating cycles	100
Contact resistance	10mΩmax	Housing	Steel yellow passive over zinc plating
Working voltage	500V dc/ac peak	Insulator	Black two piece thermoplastic, UL94V-0
Temperature range	-55°C to +105°C	Contacts	Formed Copper Alloy

Suitable wire sizes:
24/28AWG, 0.08-0.22^2,7/0.2 or 10/0.1
/24AWG, 0.08-0.52^2,7/0.2 or 16/0.2

Mftrs. List No. DEC9P = 151-228, MP650-16 = 1206625 DBS25S = 151-234, MP649-06 = 1206623, DAC15P = 151-229, DEC9S = 151-232, DCC37S = 151-235 MP648-16 = 1206624 DB25P = 151-230, DAC15S = 151-233, MP647-06 = 1206622,

210010

No of Ways	Order Code	Price Each
Plug Housings		
9	**107-5190●**	
15	**151-229●**	
25	**151-230●**	
37	**107-5302●**	
Socket Housings		
9	**107-5191●**	
15	**151-233●**	
25	**151-234●**	
37	**151-235●**	

		Price Per Pack
Crimp Contacts (50 Per Pack)		
24/28 AWG Pin	**120-6622●**	
20/24 AWG Pin	**120-6623●**	
24/28 AWG Socket	**120-6624●**	
20/24 AWG Socket	**120-6625●**	

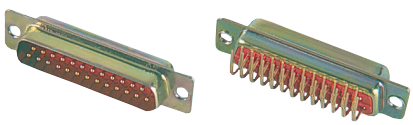
Tooling for Crimp 'D'

Mftrs. List No. MP600HD= 151-266

224273

	Order Code	Price Each
Crimp Tool	**151-226**	

Turned Pin



- McMurdo Basic 'D' is fully interchangeable with all standard 'D' range
- Suitable for use with all standard accessories.

Contact rating	6.5A @ 70°C	Mating cycles	300
Contact resistance	10mohm max.	Housing	Steel, Zinc plating
Working voltage	500V dc/ac peak	Insulator	Red two piece polyester, UL94V-0
Temperature range	-55°C to +105°C	Contacts	Turned Copper Alloy

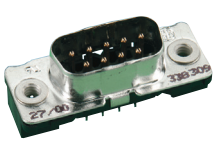
210104

No. of Ways	Order Code	Price Each
Solder Bucket plugs		
9	**107-5307●**	
15	**107-5308●**	
25	**107-5309●**	
37	**107-5310●**	
Solder Bucket Sockets		
9	**107-5311●**	
15	**107-5312●**	
25	**107-1817●**	
37	**107-5313●**	
Straight PCB Plugs		
25	**107-5192●**	
Straight PCB Sockets		
25	**107-5314●**	
90° PCB Plugs		
25	**107-5315●**	
90° PCB Sockets		
25	**107-5316●**	

Industrial 'D' Range

Amplimite PCB Mount Vertical

Industrial



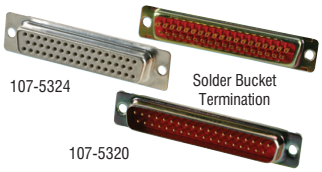
- Intermateable with industry standard products
- PCB boardlocks

Current Rating	6A
Housing	Glass Filled Polyester, Black, UL94V-0
Shell	Steel, Tin plated
Contacts	Phosphor Bronze, Gold plated

451150

No. of Ways	Mftrs. List No.	Order Code	Price Each
Straight Plug with 4-40 Threaded Inserts			
9	1-338309-2	**341-6847●**	
15	1-338310-2	**341-6860●**	
37	1-338312-2	**128-4327●**	
Straight Plug with 4-40 Female Screwlocks			
9	3-338309-2	**341-6859●**	
15	3-338310-2	**128-4328●**	
25	3-338311-2	**341-6896●**	
37	3-338312-2	**128-4329●**	
Straight Socket with 4-40 Threaded Inserts			
9	1-338313-2	**341-6902●**	
15	1-338314-2	**128-4330●**	
25	1-338315-2	**341-6951●**	
37	1-338316-2	**128-4331●**	
Straight Socket with 4-40 Female Screwlocks			
9	3-338313-2	**341-6914●**	
15	3-338314-2	**341-6938●**	
25	3-338315-2	**341-6963●**	
37	3-338316-2	**128-4333●**	

Turned Pin



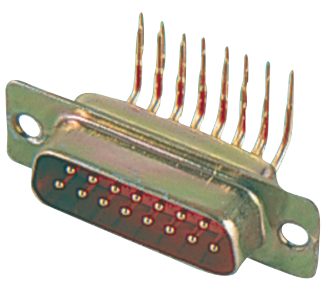
Note: 50 way plug and socket have white insulator

Contact rating	6.5A @70 °C	Housing	Steel, yellow passivate over zinc plating
Contact resistance	5mΩmax	Insulator	Red two piece polyester, UL94V-0
Working voltage	500V dc/ac peak	Contacts	Turned Copper Alloy
Breakdown voltage	2100V dc		
Temperature range	-55°C to +105°C		
Environmental	55/105/21 plus industrial atmosphere specifications to **BTD23099A**		
Mating cycles	500		

210105

No of Ways	Mftrs. List No.	Order Code	Price Each
Solder Bucket Plugs			
9	DE9P	**107-5318●**	
15	DA15P	**107-5319●**	
25	DB25P	**315-497●**	
37	DC37P	**107-5320●**	
Solder Bucket Sockets			
9	DE9S	**107-5321●**	
15	DA15S	**107-5322●**	
25	DB25S	**107-5323●**	
37	DC37S	**107-5193●**	
50	DD50S	**107-5324●**	

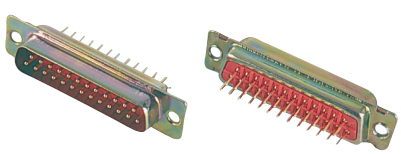
Turned Pin 90° PCB



219868

No of Ways	Mftrs. List No.	Order Code	Price Each
PCB Plugs			
9	DE9PN	**107-5325●**	
15	DA15PN	**107-5326●**	
25	DB25PN	**107-1818●**	
37	DC37PN	**107-5194●**	
PCB Sockets			
9	DE9SN	**107-5327●**	
15	DA15SN	**107-5328●**	
25	DB25SN	**107-5195●**	
37	DC37SN	**107-5331●**	

Turned Pin Straight PCB



FOR SUITABLE EXTENDED SCREW LOCK & PCB SPACER SEE 109-9007 & 107-5200.

Industrial 'D' Range - continued

Turned Pin Straight PCB - continued

224274

No of Ways	Mftrs. List No.	Order Code	Price Each
PCB Plugs			
9	DE9POL	**107-5332●**	
15	DA15POL	**107-5333●**	
25	DB25POL	**107-5334●**	
37	DC37POL	**107-5197●**	
PCB Sockets			
9	DE9SOL	**107-5198●**	
15	DA15SOL	**107-5199●**	
25	DB25SOL	**315-734▲**	
37	DC37SOL	**315-746▲**	

Original 'D' Solder Bucket

ITT
Engineered for life

Mftrs. List No. DE9P - A191 = 134-2705 DD50P-A191 = 134-2711 DC37S-A191 = 134-2692
DA15P-A191 = 134-2706 DE9S-A191 = 134-2688 DD50S-A191 = 134-2693
DB25P-A191 = 134-2707 DA15S-A191 = 134-2689
DC37P-A191 = 134-2709 DB25S-A191 = 134-2690

210108

No of Ways	Order Code	Price Each
Solder Bucket Plugs		
9	**134-2705●**	
15	**134-2706●**	
25	**134-2707●**	
37	**134-2709●**	
50	**134-2711●**	
Solder Bucket Sockets		
9	**134-2688●**	
15	**134-2689●**	
25	**134-2690●**	
37	**134-2692●**	
50	**134-2693●**	

D*A Range (Crimp Contacts)

ITT
Engineered for life

- D range connectors with rear release crimp snap in contacts
- Connector housing supplied without contacts loaded
- Highly reliable socket contact, sleeveless, spring finger contact that is inserted/extracted from the rear of insulator
- Ideal for selective loaded contacts application

Contact rating	A5 5	Temperature range	-55°C to +120°C
Contact resistance	8mohm max	Mating cycles	500 (performance Class 2 DIN41652)
Working Voltage	350V	Housing	Steel
Breakdown Voltage	1500V DC	Insulator	Black, two piece ployester, UL94V-0

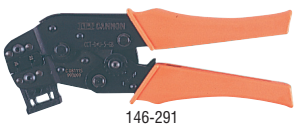
Plug Housings	Mftrs. List no.	Order Code	Socket Housings	Mftrs. List no.	Order Code
9 Pole	DEA9PK87F0.	134-2694	9 Pole	DEA9SA197F0	134-2695
15 Pole	DAA15P-K87-F0	134-2696	15 Pole	DAA15S-A197-F0	134-2697
25 Pole	DBA25PK87F0	134-2698	25 Pole	DBA25SA197F0.	134-2699
37 Pole	DCA37P-K87-F0	134-2701	37 Pole	DCA37SA197F0	134-2702
50 Pole	DDA50P-K87-F0	134-2703	50 Pole	DDA50SA197F0	134-2704

Open Crimps	Mftrs. List No.	Order Code
Pin contact 0.08-0.22mm^2 (26-28 AWG)-pack of 100	980-2000-925	156-0031
Socket contact 0.08-0.22mm^2 (26-28 AWG)-pack of 100	980-2000-926	156-0033
Barrel Crimps		
Pin crimp 0.6-0.22mm^2 (20-24AWG)-pack of 25	980-2000-924	156-0032
Socket crimp 0.6-0.23mm^2 (20-24AWG)-pack of 25	980-2000-923	156-0034

209665

No of Ways	Order Code	Price Each / Per Pack
Plug Housings		
9	**134-2694●**	
15	**134-2696●**	
25	**134-2698●**	
37	**134-2701●**	
50	**134-2703●**	
Socket Housings		
9	**134-2695●**	
15	**134-2697●**	
25	**134-2699●**	
37	**134-2702●**	
50	**134-2704●**	
Open Crimp (100 Per Pack)		
Pin	**156-0031●**	
Socket	**156-0033●**	
Barrel Crimp (25 Per Pack)		
Pin	**156-0032●**	
Socket	**156-0034●**	

Tooling


146-291

105-837

Mftrs. List No. CCT-D*U5GB= 146-291, CIET-20-HD= 146-292
M22520-02-01= 105-837, L22520-HDL= 105-838, SK2/2= 561-447

Note: Order Codes 105-837 and 105-838 must be purchased as a pair to enable a crimp operation.

209666

	Order Code	Price Each
Open crimp tool	**146-291**	
Insertion/Extraction tool	**146-292**	
Barrel crimp tool	**105-837**	
Locator plate	**105-838**	
Crimp positioner	**561-447**	

Mixed Signal 'D' Connectors

Mixed Power DW Series

FCI

109-7934 109-7940 309-0176

- Developed for industrial and telecomms applications
- Solder contacts
- Solder bucket connectors supplied pre-loaded with signal contacts and holes for power or coax contacts
- Right angled PCB connectors supplied pre-loaded with signal and power contacts
- Right angled PCB coax contacts available
- 20A and 40A power contacts available

Shell	Tin Plate	Dielectric voltage	1 KV rms
Insulation	Thermoplastic, UL94V-0	Contact resistance	≤7.3Ω
Contacts	Copper Alloy, Tin and Gold over Nickel	Mating cycles	500min
Current rating	Signal contacts 7.5 power contacts 20A/40A		

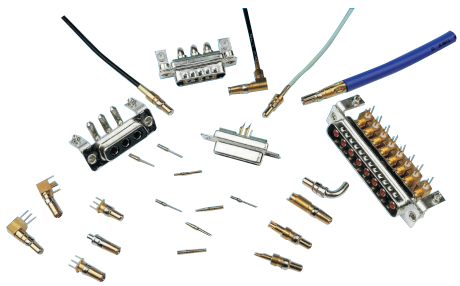
210055

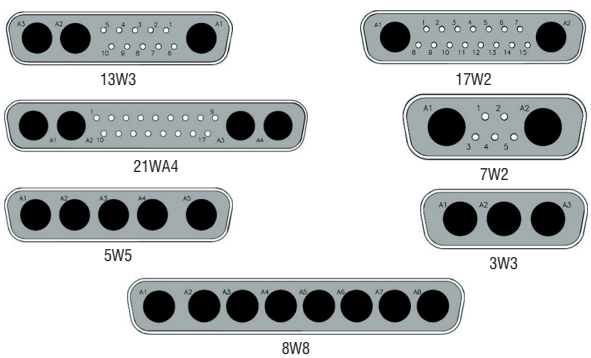
Pack Quantity=1 No. of Ways	Order Code	Price Each
Mixed Power D Plug, Solder		
3	**109-7930●**	
7	**109-7931●**	
13	**109-7932●**	
15	**109-7934●**	
8	**109-7935●**	
Mixed Power D Socket, Solder		
3	**109-7937●**	
7	**109-7938●**	
13	**109-7939●**	
17	**109-7940●**	
8	**109-7941●**	

Pack Quantity=1		Price Each
No. of Ways	Order Code	
Power Contacts		
Pin12AWG	**109-7943**●	
Socket12AWG	**109-7944**●	
Pin8AWG	**109-7946**●	
Socket8AWG	**109-7947**●	

Mixed Signal D-Sub

HARTING
Pushing Performance





HARTING's mixed D-Sub range brings the advantage of an industry standard I/O interconnect product with the possibility to customise for any application. The range is designed around the standard D-Sub shell sizes with the possibility to have a blend of contacts such as signals with coaxial, power or high voltage contacts. Due to its construction, the product is fully shielded and helps reducing the EMI/RFI leakage.
The structure of the connector's identification is so that the left side digits give the total number of contacts and the right side digits the number of special contacts which can be either power, coaxial or high voltage style. Example: 13W3 stands for 13 contacts in total with 10 signal contacts and 3 special contacts.

Housing Material	Steel
Insulation	Termoplastic resin, glassfibre filled: UL94V-0
Contact Material	Copper Alloy, Gold Plated
Temperature Range	-55°C to +125°C
Current Rating:	5A (Signal Contacts); 20/30/40A (High Current Contacts); 2A (Coaxial Contacts)
Test Voltage (Coaxial Contacts)	750V
Contact Resistance	mΩ (High Current Contacts) 2.7mΩ (Coaxial Contacts)
Mating Cycles	≥500

333362

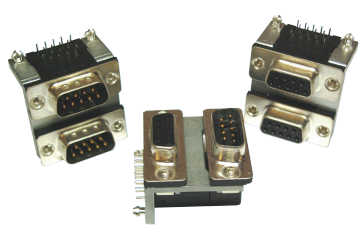
Connector Identification	Mftrs. List No.	Order Code	Price Each
5-36 Way - solder bucket termination for signal contacts			
Plugs			
5W1	09 69 111 5051	**170-7665**●	
7W2	09 69 211 5072	**120-7582**●	
9W4	09 69 311 5094	**170-7671**●	
11W1	09 69 211 5111	**170-7667**●	
13W3	09 69 311 5133	**120-7584**●	
13W6	09 69 411 5136	**170-7675**●	
17W2	09 69 311 5172	**120-7586**●	
21WA4	09 69 411 5214	**120-7588**●	
24W7	09 69 511 5247	**170-7679**●	
25W3	09 69 411 5253	**170-7677**●	
36W4	09 69 511 5364	**170-7682**●	
Sockets			
5W1	09 69 101 5051	**170-7666**●	
7W2	09 69 201 5072	**120-7583**●	
9W4	09 69 301 5094	**170-7672**●	
11W1	09 69 201 5111	**170-7669**●	
13W3	09 69 301 5133	**120-7585**●	
13W6	09 69 401 5136	**170-7676**●	
17W2	09 69 301 5172	**120-7587**●	
21WA4	09 69 401 5214	**120-7589**●	
24W7	09 69 501 5247	**170-7680**●	
25W3	09 69 401 5253	**170-7678**●	
36W4	09 69 501 5364	**170-7683**●	
7-21 Way - 90° PCB mounted			
Plugs, with 40A High Current Contacts			
7W2	09 69 200 9049	**120-0465**●	
13W3	09 69 300 9018	**120-0467**●	
21WA4	09 69 400 9021	**120-0472**●	
Sockets, with 40A High Current Contacts			
7W2	09 69 200 9050	**120-0466**●	
21WA4	09 69 400 9022	**120-0473**●	
3-8 Way Housings - without signal contacts			
Plug			
3W3	09 69 210 0033	**120-7590**●	
5W5	09 69 310 0055	**120-7592**●	
7W7	09 69 410 0077	**170-7673**●	
8W8	09 69 410 0088	**120-7594**●	
Socket			
3W3	09 69 200 0033	**120-7591**●	
5W5	09 69 300 0055	**120-0474**●	
7W7	09 69 400 0077	**170-7674**●	
8W8	09 69 400 0088	**120-7595**●	
2 Way Housings with Coded Shell - without signal contacts			
Plug			
2W2	09 69 110 0022	**170-7663**●	
Socket			
2W2	09 69 100 0022	**170-7664**●	
High Current Contacts - solder termination			
Pin			
10A	09 69 281 7420	**170-7684**●	
20A	09 69 281 7421	**120-0475**●	
30A	09 69 281 7422	**120-0477**●	
40A	09 69 281 7423	**120-0479**●	
Socket			
10A	09 69 181 7420	**170-7685**●	
20A	09 69 181 7421	**120-0476**●	
30A	09 69 181 7422	**120-0478**●	
40A	09 69 181 7423	**120-0480**●	
High Current Contacts - solder termination			
Pin			
2A DC, ≤3kV	09 69 281 2550	**170-7686**●	
Socket			
2A DC, ≤3kV	09691812550	**170-7687**●	
Coaxial Contacts - crimp/solder termination			
Male			
RG174U, 188AU, 316U	09 69 281 7140	**120-0482**●	
RG178BU, 196AU, 404U	09 69 281 7141	**120-0485**●	
RG179BU, 187AU	09692817230	**120-0487**●	
Female			
RG174U, 188AU, 316U	09 69 181 7140	**120-0481**●	
RG178BU, 196AU, 404U	09 69 181 7141	**120-0484**●	

Stackable 'D' Connectors

Stackable D Subs

Tyco Electronics

90° PCB Mount



- Plug/plug, Socket/socket & plug/socket combinations
- 4-40 UNC threaded inserts
- Intermateable with other D-sub connectors
- 9, 15, 25 and 37 way versions available
- Housing: UL94V-0 rated thermoplastic
- Boardlock retention

Stackable 'D' Connectors - continued

Stackable D Subs - continued

90° PCB Mount - continued

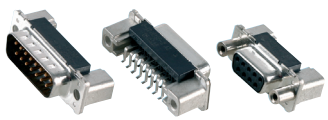
446975

No. of Ways	Mftrs. List No.	Order Code	Price Each
Stacked Plug / Plug			
2 x 9	1734279-3	**122-5684**	
Stacked Socket / Socket			
2 x 9	1734285-3	**122-5689**	
2 x 15	1-1734285-3	**122-5690**	
2 x 25	2-1734285-3	**122-5691**	
Stacked Plug / Socket			
2 x 9	1734282-3	**122-5693**	

Surface Mount 'D' Connectors

Surface Mount PCB D-Sub Connectors

Tyco Electronics



The next generation of D-Sub connectors for surface mount assembly from Tyco Electonics . Utilising key design features to ensure efficient and reliable processing, surface mounting of this industry standard interface connector becomes a reality for an increasingly wide range of applications. Available in 9-37 position plug and socket variants.

- Controlled centre of gravity for secure positioning during processing
- Large mounting bracket improves grounding and mechanical stability
- Mounting options are 4-40 UNC and M3 threaded inserts or screwlocks or 3mm plain hole
- **UL** recognised
- RoHS compliant

Contacts	Gold plated	Housing	Black Thermoplastic
Front Shell	Steel, Tin plated	Flammability	UL94V-0

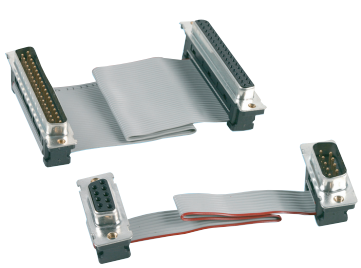
417473

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plugs			
With 3mm Plain Hole			
1740195-2	9	**998-0253**	
1740197-2	15	**998-0288**	
With Screwlocks			
3-1740195-2	9	**998-0270**	
3-1740197-2	15	**998-0300**	
3-1740199-2	25	**132-4207**	
3-1740201-2	37	**132-4208**	
With Threaded Insert			
1-1740195-2	9	**998-0261**	
1-1740199-2	25	**132-4205**	
1-1740201-2	37	**132-4206**	
Sockets			
With 3mm Plain Hole			
1740194-2	9	**998-0318**	
1740196-2	15	**998-0342**	
With Screwlocks			
3-1740194-2	9	**998-0334**	
3-1740196-2	15	**998-0369**	
3-1740198-2	25	**132-4203**	
3-1740200-2	37	**132-4204**	
With Threaded Inserts			
1-1740194-2	9	**998-0326**	
1-1740198-2	25	**132-4200**	
1-1740200-2	37	**132-4201**	

'D' Connector Cable Assemblies

D-Sub Cable Assemblies

Tyco Electronics



- Prefabricated D-Sub cable assemblies
- Female to male ribbon cable connector style
- Pin 1 to pin 1 termination
- 9, 15, 25 and 37 way versions available
- 152mm cable length

386345

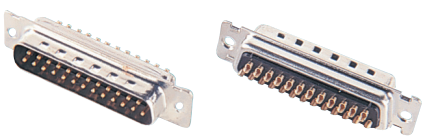
No. of Ways	Mftrs. List No.	Order Code	Price Each
9	1537731-1	**869-6411**	
15	1537732-1	**869-6420**	
25	1537733-1	**869-6438**	
37	1537734-1	**869-6446**	

EMI/RFI Shielded 'D' Connectors

Solder Bucket (Formed Contacts)

multicomp

Tin and Dimple 'D'



- Tin & Dimple Shells
- Nickel plated solder buckets
- Gold plated formed contacts
- Glass filled P.B.T insulators

Contact rating	5A @25 °C	Working resistance	250V rms
Contact resistance	15mΩ max	Breakdown voltage	V dc

209848

No.of Ways	Order Code	Price Each
Plugs		
9	**109-9046**	
15	**109-9047**	
25	**109-9049**	
37	**109-9051**	
Sockets		
9	**109-9052**	
15	**109-9053**	
25	**109-9054**	
37	**109-9055**	

Economy 'D' Tin and Dimple (Formed Pin)

ITW McMurdo Connectors

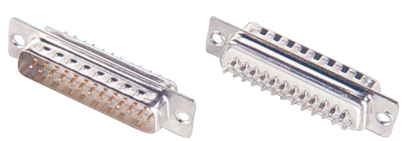
- Available in solder bucket or right angled and straight PCB termination
- Tinned shells and featuring dimpled plugs for enhanced electrical continuity
- Ideal for EMI/RFI applications
- Solder bucket and 90° contacts are stamped and formed for extra economy
- 90° features a 2.54mm spacing between contact rows
- Available with screwlocks and/or barb action boardlocks

210084

Contact rating	3A @70°C	Housing	Steel, tin plating
Contact resistance	15mΩ max	Insulator	White or black two piece polyester
Working voltage	350V dc/ac peak	Contacts	Formed Copper Alloy
Temperature range	-55°C to +105°C	Terminations	Solder Bucket - Tinned
Mating cycles	100		PCB - gold plated

Solder Bucket

ITW McMurdo Connectors



Mftrs. List No.	SDE9PTD = 150-726,	SDB25PTD = 150-728,	SDC37PTD = 150-729,
	SDD50PTD = 150-834,	SDE92ST = 150-730	SDA15ST = 150-731,
	SDA15PTS = 150-727,	SDD50ST = 150-835	SDB25ST = 150-732,

210085

No. of Ways Plugs	Order Code	Price Each
Order Multiple=5		
9	**150-726**	
15	**150-727**	
25	**150-728**	
37	**150-729**	
50	**107-5189**	

No. of Ways Sockets	Order Code	Price Each
Order Multiple=5		
9	**150-730●**	
15	**150-731▲**	
25	**129-7953●**	
Order Multiple=1		
37	**150-733▲**	
50	**150-835▲**	

90° D-Sub Connectors

multicomp

PCB Mount

A range of 90° D-Sub connectors with metal front shell, screwlocks and boardlocks

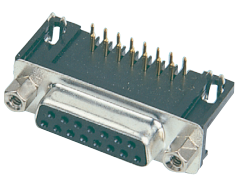
Contact material	Brass	Temprature range	°C-55°C105 To +
Contact plating	Gold Flash over Nickel	Dielectric withstand voltage	1000V
Contact resistance	15mohm		
Insulation resistance	5000Mohm	Insulator material	PBT & glass fibre reinforced UL94V-0

239319

No. of Ways	Order Code	Price Each
Plugs		
9	**109-9289●**	
15	**109-9290●**	
25	**109-9291●**	
37	**109-9293●**	
Sockets		
9	**109-9294●**	
15	**109-9295●**	
25	**109-9296●**	
37	**109-9297●**	

90° PCB - with Screwlocks and Boardlocks

ITW McMurdo Connectors



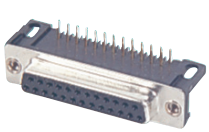
Mftrs. List No. SDEX9PNTD = 107-1806 SDAX15PNTD = 107-5266 SDBX25PNTD = 107-5267
SDCX37PNTD = 107-5268 SDEX9SNT = 107-5161 SDAX15SNT = 107-5269
SDBX25SNT = 107-5270 SDCX37SNT = 107-5271

210086

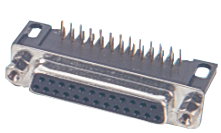
No. of Ways	Order Code	Price Each
Plugs		
9	**107-1806●**	
15	**107-5266●**	
25	**107-5267●**	
37	**107-5268●**	
Sockets		
9	**107-5161●**	
15	**107-5269●**	
25	**107-5270●**	
37	**107-5271●**	

90° PCB - Available with or without Screwlocks

ITW McMurdo Connectors



With threaded rivets



With screwlocks

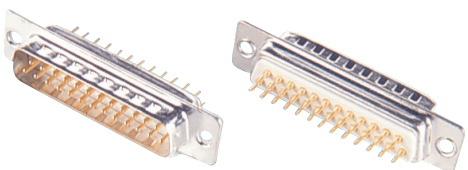
Mftrs. List No. SDE9PNTD = 107-5252 SDA15PNTD = 107-5253 SDB25PNTD = 107-5254
SDC37PNTD = 107-5255 SDE9SNT = 107-5256 SDA15SNT = 107-5257
SDB25SNT = 107-5258 SDC37SNT = 107-5259 SDES9PNTD = 107-5260
SDAS15PNTD = 107-5261 SDBS25PNTD = 107-5262 SDCS37PNTD = 107-5264
SDAS15SNT = 107-5265 SDBS25SNT = 107-5157 SDCS37SNT = 107-5158

210087

No. of Ways	Order Code	Price Each
Without Screwlocks		
Plugs		
9	**107-5252●**	
15	**107-5253●**	
25	**107-5254●**	
37	**107-5255●**	
Sockets		
9	**107-5256●**	
15	**107-5257●**	
25	**107-5258●**	
37	**107-5259●**	
With Screwlocks		
Plugs		
9	**107-5260●**	
15	**107-5261●**	
25	**107-5262●**	
37	**150-745**	
37	**107-5264●**	
Sockets		
9	**150-746▲**	
15	**107-5265●**	
25	**107-5157●**	
37	**107-5158●**	

Straight PCB (Turned Pin)

ITW McMurdo Connectors



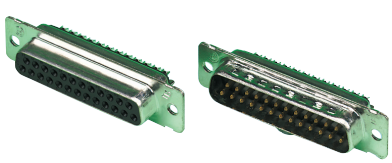
Mftrs. List No. SDB25POLTD = 150-783
SDA15SOLT = 150-786

210088

No. of Ways	Order Code	Price Each
Plugs		
9	**107-5272●**	
15	**107-5273●**	
25	**107-5274●**	
37	**107-5276●**	
Sockets		
9	**107-5277●**	
15	**107-5278●**	
25	**107-5279●**	
37	**107-5280●**	

HDP-20 Solder Cup

Tyco Electronics



- Preloaded, duplex plated solder cup contacts
- Tin plated shell finish
- Full EMI shielding
- Plug has grounding indents

209980

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plugs			
9	5-747904-2	**113-8240●**	
15	5-747908-2	**113-4839●**	
25	5-0747912-2	**113-4842●**	
37	5-747916-2	**113-8241●**	
Sockets			
9	5-747905-2	**113-4837●**	
15	5-747909-2	**113-4841●**	
25	5-747913-2	**113-4843●**	
37	5-747917-2	**158-0098●**	

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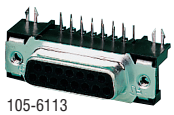
EMI/RFI Shielded 'D' Connectors - continued

AMPLIMITE '2000'

Tyco Electronics

90° PCB - with boardlock and threaded inserts (4-40)

105-6111



105-6113

- An economy subminiature 'D' connector
- Front metal shell design, compatible with full metal shell connectors
- Circuit board footprint 0.318 [8.08]
- Flame retardant housing **UL94V-0**
- **UL** Recognised and **CSA** Approved

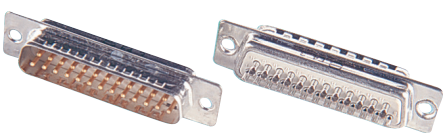
209937

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plugs			
9	1734352-1	**126-2138**●	
Sockets			
9	1734348-1	**122-8088**●	
15	1734355-1	**126-2139**●	
25	1734350-1	**126-2140**●	

Bargain 'D' Tin and Dimple (Formed Pin)

HARTING

Pushing Performance



- A quality range of tin and dimple 'D' connectors offering
- Excellent EMI/RFI screening via shell continuity dimples
- The pins and sockets are formed contact style.

Contact rating	6.5A @70°C	Housing	Steel, tin plating
Contact resistance	10mΩmax	Insulator	Two piece thermoplastic **UL94V-0**
Working voltage	125V ac	Contacts	Formed Copper Alloy
Temperature range	-55°C to +125°C		
Mating cycles	50		

Mftrs. list no. Plug 0967-2xx-5604 Socket 0967-2xx-4704 where xx=No of ways

210089

No. of Ways	Order Code	Price Each
Solder Bucket Plugs		
9	**109-6858**●	
15	**109-6859**●	
25	**109-6860**●	
37	**109-6861**●	
Solder Bucket Sockets		
9	**109-6863**●	
15	**109-6864**●	
25	**109-6865**●	
37	**109-6866**●	

D -Sub PCB Connectors

Straight and 90⁰ - Formed Pin

HARTING

Pushing Performance

A range of High Performance D-sub connectors with stamped pins

- **UL** Recognised
- Class II performance - DIN 41652
- 4-40 UNC threaded insert flange and grounding boardlocks for improved continuity and mechanical strength
- Tinned and dimpled shells for excellent EMI shielding

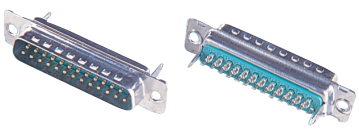
Current rating	6.5A Max	Current rating	6.5A Max
Contact material	Copper Alloy	Contact material	Copper Alloy
Contact plating	Gold	Contact plating	Gold
Temp range	-55⁰C to +125⁰C	Contact resistance	≤10mΩ
Ins material	PBTP	Insulation resistance	≥10^{10}Ω
Shell material	Tinned Steel	Mating cycles	≥200

238807

No of Ways	Order Code	Price Each
Straight Plugs		
9	**109-7056**●	
15	**109-7057**●	
25	**109-7058**●	
37	**109-7059**●	
Straight Sockets		
9	**109-7060**●	
15	**110-6813**●	
25	**109-7061**●	
37	**109-7062**●	
90⁰ Plugs		
9	**109-7063**●	
15	**109-7065**●	
25	**109-7066**●	
37	**109-7067**●	
90⁰ Sockets		
9	**109-7068**●	
15	**109-7069**●	
25	**109-7070**●	
37	**109-7071**●	

Solder Bucket - with Shielding Lugs

FCI



- Tin and dimple 'D' connectors with solder lugs attached to the shell
- Improved cable shield termination and EMI/RFI shielding
- The pins and sockets are formed contact style with solder bucket terminations.

Contact rating	5A @ 20°C	Housing	Steel, tin plating
Contact resistance	10mΩ max	Insulator	Green thermoplastic **UL94V-0**
Working voltage	350V dc/ac peak	Contacts	Formed Copper Alloy, Gold over Nickel Plating
Temperature range	-55°C to +105°C	Terminations	Tinned
Mating cycles	100		

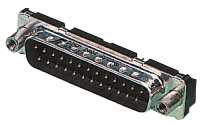
Mftrs. List No. = 110-3968DB25P064HTXLF 110-3968= DB25P064HTXLF 110-3968= DB25P064HTXLF
= 110-3973DA15S064HTLF 110-3973= DA15S064HTLF 110-3973= DA15S064HTLF
= 110-3975DC37S064HTLF 110-3975= DC37S064HTLF

209783

No. of Ways	Order Code	Price Each
Plugs		
9	**110-3966**●	
15	**110-3967**●	
25	**110-3968**●	
37	**110-3971**●	
Sockets		
9	**110-3972**●	
15	**110-3973**●	
25	**110-3974**●	
37	**110-3975**●	

Delta 'D' - with Boardlocks

FCI



- Straight PCB mounted tin & dimple
- Female screwlocks and locking lugs

Contact rating	5A max	Housing	Steel, bright tin plated
Working voltage	350V dc/ac peak	Insulator	Glass Filled Thermoplastic**UL94V-0**
Contact resistance	≥10mΩ max	Contacts	Phosphor Bronze, Gold Flash Over Nickel
Temperature range	-55°C to +125°C		
Mating cycles	300	Termination	Bright Tin - Lead over Nickel

D09P24A4GV00LF=110-3907 D15P24A4GV00LF=110-3909 D25P24A4GV00LF=110-3911
D37P24A4GV00LF=110-3912 D09S24A4GV00LF=110-3913
D15S24A4GV00LF=110-3914 D25S24A4GV00LF=110-3915 D37S24A4GV00LF=110-3916

209996

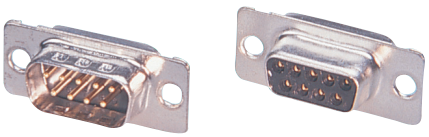
No. of Ways	Order Code	Price Each
Plugs		
9	**110-3907**●	
15	**110-3909**●	
25	**110-3911**●	
37	**110-3912**●	

RoHS Compliant Non-compliant
For free legislation advice visit **www.global-legislation.com**

No. of Ways	Order Code	Price Each
Sockets		
9	**110-3913**●	
15	**110-3914**●	
25	**110-3915**●	
37	**110-3916**●	

Turned Pin Solder Bucket

ITW McMurdo Connectors



● Gold plated machined contacts giving a minimum of 300 mating cycles.

Contact rating	6.5A @ 60°C	Housing	Steel, tin plating
Contact resistance	10mΩ max	Insulator	Black, two piece polyester **UL94V-0**
Working voltage	500V dc/ac peak	Contacts	Turned Copper Alloy
Insulation resistance	100MΩ	Terminations	Tinned
Temperature range	-55°C to +105°C		
Mating cycles	300		

Mftrs. List No.
DE9PBTD = 107-5335, DA15PBTD = 107-5336, DB25PBTD = 107-5337, DC37PBTD = 107-5338,
DE9SBTD = 107-5339, DA15SBTD = 107-5340, DB25SBTD = 107-5341,

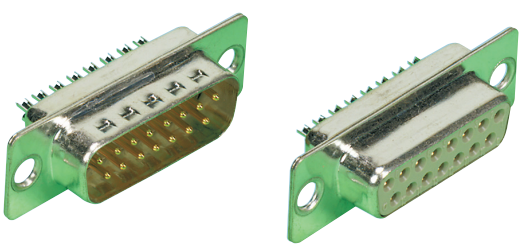
209787

5 Per Pack

No. of Ways	Order Code	Price Per Pack
Plugs		
9	**107-5335**●	
15	**107-5336**●	
25	**107-5337**●	
37	**107-5338**●	
Sockets		
9	**107-5339**●	
15	**107-5340**●	
25	**107-5341**●	

Turned Pin 'D' Tin and Dimple

HARTING
Pushing Performance



Contact rating	5A @ 60°C	Housing	Steel, tin plating
Contact resistance	10mΩ max	Insulator	Black, two piece thermoplastic, **UL94V-0**
Temperature range	-55°C to +125°C	Contacts	Turned Copper Alloy
Working voltage	125V dc/ac peak	Terminations	Tinned
Mating cycles	50		

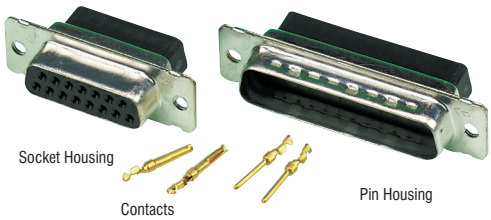
Mftrs. List No. Plugs 0967-0xx-5604 Sockets 0967-0xx-4704 where xx = no of ways

210091

No. of Ways	Order Code	Price Each
Solder Bucket Plugs		
9	**109-6848**●	
15	**109-6851**●	
25	**109-6852**●	
37	**109-6853**●	
Solder Bucket Sockets		
9	**109-6854**●	
15	**109-6855**●	
25	**109-6856**●	
37	**109-6857**●	

HDP-20 Crimp Snap-in contacts

Tyco Electronics



● Lower cost commercial version of the military approved series
● Tin plated shells with grounding indents
● Low cost, high performance, precision formed crimp contacts
● Allows selective loading of contacts

Contact rating	7.5A	Housing	Steel, tin plating
Contact resistance	15mΩ max	Insulator	Black, thermoplasic **UL94V-0**
Dielectric withstand voltage	1KV ac min	Contacts: Pin	Phosphor Bronze
Temperature range	-55°C to +105°C	Socket	

Mftrs. List No. 66507-9 = 593-205, 1-66507-0 = 177-6435, 66506-9 = 593-217, 1-66506-0 = 593-242, 66505-9 = 593-229, 1-6605-0 = 177-6447, 66504-9 = 593-230, 1-66504-0 = 593-25

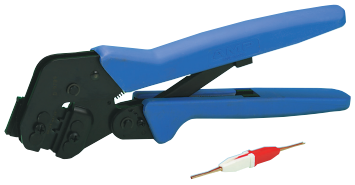
No. of Ways	Mftrs. List No.	Order Code	Price Each
Pin Housing			
9	205204-4	**134-5138**●	
15	205206-3	**134-5151**●	
25	207464-2	**134-5175**●	
37	205210-3	**134-5199**●	
Socket Housing			
9	205203-3	**134-5230**●	
15	205205-2	**134-5254**●	
25	207463-1	**134-5278**●	
37	205209-2	**105-5990**●	

209978

Wire Size	Order Code	Price Each
Crimp Pins		
28-24 AWG,0.08-0.2mm² (Sel. Gold)	**593-205**●	
28-24 AWG,0.08-0.2mm² (Gold Flash)	**177-6435**●	
24-20 AWG,0.2-0.52mm² (Sel. Gold)	**593-217**●	
24-20 AWG,0.2-0.52mm² (Gold Flash)	**593-242**●	
Crimp Sockets		
28-24 AWG,0.08-0.2mm² (Sel. Gold)	**593-229**●	
28-24 AWG,0.08-0.2mm² (Gold Flash)	**177-6447**●	
24-20 AWG,0.2-0.52mm² (Sel. Gold)	**593-230**●	
24-20 AWG,0.2-0.52mm² (Gold Flash)	**593-254**●	

Tooling for HDP-20 Crimp 'D'

Tyco Electronics



Mftrs. List No. 58448-2 = 134-5497, 91067-2 = 593-266,

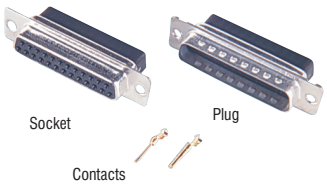
209977

	Order Code	Price Each
Pro-Crimper	**134-5497**	
Insertion/Extraction tool (24-20 AWG)	**593-266**●	

EMI/RFI Shielded 'D' Connectors - continued

Crimp 'D' Tin and Dimple (Formed Pin)

ITW McMurdo Connectors



- A range of crimp connectors with rear insert contacts
- The connectors have tinned shells, plugs dimpled for improved electrical continuity.
- The connector and contacts are ordered separately
- Suitable for applications where partial loading is required.

Contact rating	4A @ 70°C	Housing	Steel, tin plating
Contact resistance	10mΩ max	Insulator	Black, two piece thermoplastic **UL94V-0**
Temperature range	-55°C to +85°C	Contacts	Copper Alloy
Working voltage	500V dc/ac peak		
Mating cycles	100		

Suitable wire sizes:
24/28 AWG, 0.08-0.22mm^2 7/0.2 or 10/0.1
20/24 AWG, 0.20-0.52mm^2 7/0.2 or 16/0.2

Mftrs. List Nos:							
	DEC9PTD	= 151-241 ,	DAC15PTD	= 151-242 ,	DBC25PTD	= 151-243
,	DCC37PTD	= 151-244 ,	DEC9ST	= 151-245 ,	DAC15ST	= 151-246
,	DBC25ST	= 151-247 ,	DCC37ST	= 151-248		

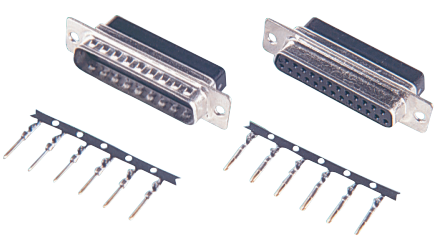
210092

No. of Ways	Order Code	Price Each / Per Pack
Plug Housings		
9	**151-241**●	
15	**151-242**●	
25	**151-243**●	
37	**151-244**●	
Socket Housings		
9	**151-245**●	
15	**151-246**●	
25	**151-247**●	
37	**151-248**●	

Crimp 'D' Tin and Dimple (Formed Pin)

HARTING

Pushing Performance



- A range of Tin and Dimple D connectors with rear insert snap in contacts
- The connector housing is supplied without contacts (contacts ordered separately)
- The connectors are suitable for applications requiring less than the full population of pins or sockets.

Contact rating	4A @ 70°C	Housing	Steel, tin plating
Contact resistance	10mΩ max	Insulator	two piece thermoplastic, **UL94V-0**
Working voltage	V dc/ac peak		
Temperature range	-55°C to +125°C		
Mating cycles	50		

Plug Housings	Mftrs. List No.	Order Code	Socket Housings	Mftrs. List No.	Order Code
9 way	09 67 009 5601	109-6840	9 way	09 67 009 4701	109-6843
15 way	09 67 015 5601	109-6841	15 way	09 67 015 4701	109-6844
25 way	09 67 025 5601	109-6842	25 way	09 67 025 4701	109-6845
			37 way	09 67 037 4701	109-6846

Open Crimp		
Pin contact 0.25-0.56mm^2 (24-20 AWG)- strip of 10	0967-000-8167	109-6876
Socket contact 0.25-0.56mm^2 (24-20 AWG)- strip of 10	0967-000-8267	109-6877

210094

No. of Ways	Order Code	Price Each
Plug Housings		
9	**109-6840**●	
15	**109-6841**●	
25	**109-6842**●	
Socket Housings		
9	**109-6843**●	
15	**109-6844**●	
25	**109-6845**●	
37	**109-6846**●	
Crimp Contacts(10 Per Strip)		
Pin		
	109-6876●	
Socket		
	109-6877●	

Tooling for Crimp 'D'

HARTING

Pushing Performance

Mftrs. List No. 0999-000-0175 = 150-171, 0999-000-0171 = 150-172

210095

	Order Code	Price Each
Crimp tool	**150-171**	
Insertion/extraction tool	**150-172**	

HDP-20 kits

Tyco Electronics

Crimp Version

- HDP-20 male and female connector with metal cover, shielding plates, plastic covering cap, integral, jack screws
- Each kit contains:
  1 HDP20 plug connector
  Empty housing for crimped contacts
  1 inner and 1 outer shielding plate
  1 plastic covering cap
  2 jack screws
- **Note:** The crimping sleeve and crimping contacts must be ordered separately (see:' crimping sleeves')

Metal cover:	Steel over nickel, galvanized
Insulation body:	Polyamide UL94V-0
Shielding plate:	Steel, galvanized
Covering cap:	Polyester, black
Lifting screws:	Steel, galvanized

243423

No. of Ways	Mftrs. List No.	Order Code	Price Each
Crimped Version/Male Connector			
9	0-01658655-1	**116-2471**●	
15	0-01658657-1	**116-2472**●	
25	0-01658659-1	**116-2473**●	
Crimped Version/Female Connector			
9	0-01658654-1	**116-2474**●	
15	0-01658656-1	**116-2475**●	
25	0-01658658-1	**116-2476**●	
Crimp Contacts			
Male			
24 - 28 AWG	166294-1.	**341-6823**	
Female			
24 - 20 AWG	166291-1	**341-6770**●	
Tooling			
Crimp Tool	0-0169341-1	**421-8127**	
Insertion/Extraction Tool	91067-2	**593-266**●	

HD-20 Solder Cup kits

Tyco Electronics

Solder Version

- Connector has preloaded contacts
- One-piece 94V-0 rated plastic insert
- Intermateable with other subminiature D connectors
- **UL** recognised and **CSA** approved

Metal cover:	Steel tin plated	Enclosure:	Polyester, black
Insulation body:	Black thermoplastic UL94V-0	Jack screws:	Brass, zinc coated
Shielding plate:	Steel, tin plated		

419434

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug Kit			
9	0-01571650-4	**955-2634**	
15	0-01571651-5	**955-2642**	
25	0-01571652-6	**955-2650**	
Receptacle kit			
9	0-01571654-4	**955-2669**	
15	0-01571655-5	**955-2677**	

Harsh Environment

CINCH

- Special plated shell guarantees electrical grounding up to 25 years

Mating cycles	500	Current rating	5A
Contacts	Copper Alloy	Working voltage	750Vac peak
Insulator	GF polyester	Proof voltage	2.5KV ac peak
Shell	Steel, special nickel plating	Temperature range	-55°C to +125°C

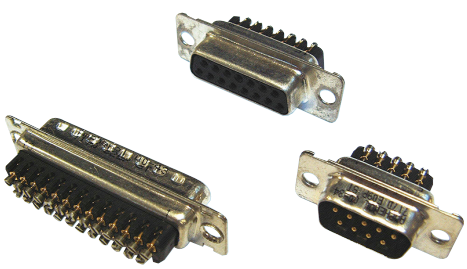
210057

No. of Ways	Mftrs. List No.	Order Code	Price Each
Sockets, solder			
9	DE-9ST-0-LF	**111-4100**	
Sockets (PCB) straight			
9	DE-9ST-0-LF	**111-4101**	

Rewireable 'D' Connectors

Screw Termination D-Sub Series

Amphenol



- Easily wired withouht any specific tool - only a standard screwdriver is required
- Compatible with all standard hoods and accessories

Shells	Steel, Tin plated	Withstanding Voltage	1000V
Insulator	Glass Filled Thermoplastic, UL94V-0	Insulation Resistance	5000Mohm
Contacts	Brass, Gold over Nickel plating	Contact Resistance	5mohm
Current Rating	7.5A	Operating Temperature	-55°C to 85°C
Voltage Rating	300V	Mating Cycles	100

451515

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug			
9	L717DE09PST	**130-6750**	
15	L717DA15PST	**130-6751**	
25	L717DB25PST	**130-6752**	
Socket			
9	L77DE09SST	**130-6754**	
15	L77DA15SST	**130-6755**	
25	L77DB25SST	**130-6756**	

Over 500 000 products available online QGO

Screw Termination D-Sub Series

Amphenol

Plastic Hood Kits

Kit includes connector and plastic hood.

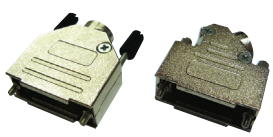
451524

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug + Straight Cable Entry Hood Kit			
9	L717DE09PST1	**130-6757**	
15	L717DA15PST1	**130-6758**	
25	L717DB25PST1	**130-6759**	
Socket + Straight Cable Entry Hood Kit			
9	L77DE09SST1	**130-6760**	
15	L77DA15SST1	**130-6761**	
25	L77DB25SST1	**130-6762**	
Plug + 90° Cable Entry Hood Kit			
9	L717DE09PST2	**130-6763**	
15	L717DA15PST2	**130-6764**	
25	L717DB25PST2	**130-6766**	
Socket + 90° Cable Entry Hood Kit			
9	L77DE09SST2	**130-6767**	
15	L77DA15SST2	**130-6768**	
25	L77DB25SST2	**130-6769**	

Screw Termination D-Sub Series

Amphenol

Metallic Hood Kits



Kit includes connector and metallic hood.

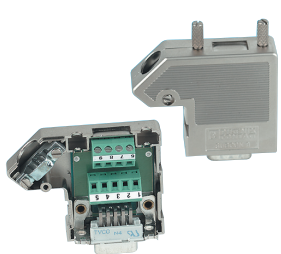
451527

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug + Straight Cable Entry Hood Kit			
9	L717DE09PST3	**130-6770**	
15	L717DA15PST3	**130-6771**	
25	L717DB25PST3	**130-6772**	
Socket + Straight Cable Entry Hood Kit			
9	L77DE09SST3	**130-6773**	
15	L77DA15SST3	**130-6774**	
25	L77DB25SST3	**130-6775**	
Plug + 45° Cable Entry Hood Kit			
9	L717DE09PST4	**130-6776**	
15	L717DA15PST4	**130-6778**	
25	L717DB25PST4	**130-6779**	
Socket + 45° Cable Entry Hood Kit			
9	L77DE09SST4	**130-6780**	

Re-Wireable D Connectors

PHOENIX CONTACT

Single Cable Entry



- Cable entry 45° from left or right
- Ideal for R&D, Prototyping, Multiple re-use
- Contacts clearly numbered
- Knurled fixing screws
- Integral cable clamp
- Shielded backshell accept 4mm to 10mm cable

Supplied complete with marking labels and instructions

Maximum Voltage	60V AC/DC	Cable Dia Max/Min	10mm to 4mm
Current Rating	1A	Wire Size AWG	26 to 16 AWG
Temperature Range	-20°C to +75°C	Housing	ABS-V0, metal-plated
Mating Cycles	≥50		

Rewireable 'D' Connectors - continued

Re-Wireable D Connectors - continued

Single Cable Entry - continued

244041

No. Ways	Mftrs. List No.	Order Code	Price Each
Plugs			
9	SUBCON 9/M-SH	**121-6700**	
15	SUBCON 15/M-SH	**121-6702**	
25	2761622	**121-6706**	
Sockets			
9	SUBCON 9/F-SH	**121-6699**	
15	2761596	**121-6701**	
25	2761619	**121-6704**	

BUS 'D' Connectors

Bus Connector for CAN Systems

PHOENIX CONTACT

Subcon CANbus

The SUBCON-CANbus connector can be used in accordance with ISO/DIN 11 898 for CAN bus systems up to 1 Mbit/s and SAFETY-P.

- Angled connector for CAN systems
- Connection via screw terminals
- Terminating impedance can be connected
- Screened connector housing
- Max. cable diameter 10 mm

No. of ways:	9	Wire size:	0.14-1.5mm² solid 0,14-1,0mm² stranded 26-16AWG
Voltage, rated max..:	60V AC/DC		
Current, rated:	1A	Material, hoods:	ABS, metallized
Temperature range:	-20°C to +75°C	Protection class:	IP44
Mating cycles:	≥200	Fixing screws:	UNC4-40
Cable-∅ max.:	6/10mm		

405896

Version	Mftrs. List No.	Order Code	Price Each
Angled	2744694.	**940-1350**	

Waterproof 'D' Connectors

Waterproof D Type Connectors

multicomp

IP 67

Cable Mount Plug

Panel Plug - Solder type (Rear view)

- Panel versions with solder bucket or PCB options
- Straight or right angle options
- Cable mounted plugs and sockets
- Formed pin contacts
- Tin and dimple housing
- Screw lock / thread lock, fixings included

Contact resistance	mΩ	Temperature range	°C to +°C
Voltage Rating	350V	Current Rating	5A

272877.343004

No. of Ways	Mftrs. List No.	Order Code	Price Each
Panel Socket - Solder			
9	LTWDB-09PFFS-SL7001	**117-0070**	
15	LTWDB-15PFFS-SL7001	**117-0071**	
Panel Socket - PCB Straight			
9	LTWDB-09PFFP-SL7001	**117-0072**	
15	LTWDB-15PFFP-SL7001	**117-0073**	
25	LTWDB-25PFFP-SL7001	**117-0074**	
Panel Plug - Solder			
9	LTWDB-09PMMS-SL7001	**117-0075**	
15	LTWDB-15PMMS-SL7001	**117-0076**	
25	LTWDB-25PMMS-SL7001	**117-0078**	
Panel Plug - PCB Straight			
9	LTWDB-09PMMP-SL7001	**117-0079**	
25	LTWDB-25PMMP-SL7001	**117-0081**	
Cable Socket			
9	LTWDB-09BFFA-SL7001	**117-0082**	
15	LTWDB-15BFFA-SL7001	**117-0083**	
25	LTWDB-25BFFA-SL7001	**117-0084**	
Cable Plug			
9	LTWDB-09BMMA-SL7001	**117-0085**	
15	LTWDB-15BMMA-SL7001	**117-0086**	
25	LTWDB-25BMMA-SL7001	**117-0087**	

Gender Changers

Low Profile Gender Changers

multicomp

- Gender changers are available in 9, 15 and 25 way
- Standard and HD version available
- Fully Shielded
- Gold plated over nickel contacts
- 0.7" deep at thickest part

Current Rating	3 A
Dielectric Strength	1000 V for one minute
Operating Temperature	-55°C to 105°C
Insulator	PBT Glass Fibre Reinforced

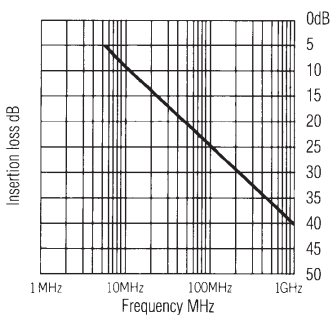
Lowprofile design is ideal when space is a prime consideration in a permanent installation.

491371

No. of Ways	Order Code	Price Each
9 male-male	**142-7691**	
15 male-male	**142-7692**	
15 female-female	**142-7694**	
15 male-male, HD	**177-5246**	
15 female-female, HD	**177-5247**	
25 male-male	**142-7695**	
25 female-female	**142-7698**	
Port Savers		
9 male-female	**142-7690**	
15 male-female	**142-7693**	
15 male-female, HD	**177-5245**	
25 male-female	**142-7697**	

Filtered 'D'

CINCH



- Filtered tin and dimple 'D' connectors with turned pin contacts
- Designed to make equipment compatible with **BS, VDE, FCC** and **FTZ** regulations in respect of EMI/RFI emissions
- Filtering is achieved by means of a 1nF feed through ceramic capacitor on each contact which is fully encapsulated within the connector shell for maximum resistance to hazardous environments
- Soldering instructions included

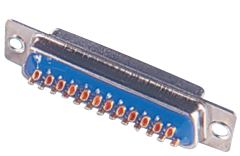
Typical performance relates to 50Ω system **Mil Std 220**
Capacitance - 1nF nominal 1KHz 0.1rms

Contact rating	5A @60°C	Housing	Steel, Tin plating
Contact resistance	5mΩmax	Insulator	Grey ploy ester **UL94V-0**
Insulation resistance	5000MΩmin	Rear encapsulation	Blue epoxy resin
Working voltage	200V dc/ac peak	Contacts	Turned Copper Alloy
Capacitance	1nF @ 1KHz 0.1 rms		Gold over Nickel
Temperature range	-55°C to +85°C	Earthing strap (90°PCB)	Steel, Tin plating
Mating cycles	100	Riv-nut (90°PCB)	4-40 NC Thread

209778

Filtered Solder Bucket 'D'

CINCH



Mftrs. List No. = FDE-9PTI2/1-LF111-4110
= FDA-15PTI2/1-LF111-4111
= FDB-25PTI2/1-LF111-4112
= FDE-9ST2/1-LF111-4113

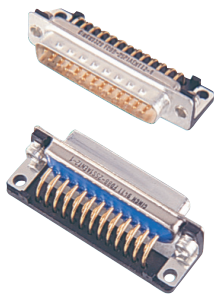
Mftrs. List No. = FDE-9PTI2/1-LF111-4110
= FDA-15ST2/1-LF111-4114
= FDB-25ST2/1-LF111-4115

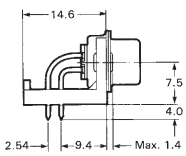
209781

No. of Ways	Order Code	Price Each
Plugs		
9	**111-4110●**	
15	**111-4111●**	
25	**111-4112●**	
Sockets		
9	**111-4113●**	
15	**111-4114●**	
25	**111-4115●**	
37	**111-4117●**	

Filtered 90° PCB 'D' Earthing Strap and Riv-Nuts

CINCH





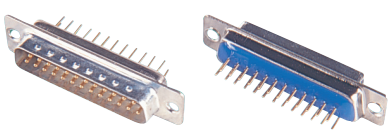
Mftrs. List No. FDEB-9P1AENT12/1-LF= 111-4127, FDBB-25P1AENT12/1-LF= 111-4132, FDEB-9S1AENT12/1-LF= 111-4134, FDBB-25S1AENT12/1-LF= 111-4136, FDAB-15P1AENT12/1-LF= 111-4131, FDCB-37P1AENT12/1-LF= 111-4133, FDAB-15S1AENT12/1-LF=111-4135, FDCB-37S1AENT12/1-LF= 111-4137

209782

No. of Ways	Order Code	Price Each
Plugs		
9	**111-4127●**	
15	**111-4131●**	
25	**111-4132●**	
37	**111-4133●**	
Sockets		
9	**111-4134●**	
15	**111-4135●**	
25	**111-4136●**	
37	**111-4137●**	

Filtered Straight PCB 'D'

CINCH



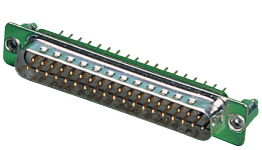
Mftrs. List Nos: FDE-9POL2TI2/1-LF = 111-4118, FDA-15POL2TI2/1 = 429-053, FDA-15POL2TI2/1-LF = 111-4119, FDB-25POL2TI2/1-LF = 111-4120, FDC-37POL2TI2/1-LF = 111-4121, FDE-9SOL2T2/1-LF = 111-4122, FDA-15SOL2T2/1-LF = 111-4123, FDB-25SOL2T2/1-LF = 111-4124, FDC-37SOL2T2/1-LF = 111-4126

209779

No. of Ways	Order Code	Price Each
Plugs		
9	**111-4118●**	
15	**111-4119●**	
25	**111-4120●**	
37	**111-4121●**	
Sockets		
9	**111-4122●**	
15	**111-4123●**	
25	**111-4124●**	
37	**111-4126●**	

Filtered Straight PCB 'D', 4-40 Threaded Stand offs

CINCH



- 7mm high stand offs
- Snap in board lock
- Full shielding for EMI/RFI
- Potted construction, provides resistance to hazardous environments
- Complies with **BS9523, MIL-C-24308** or **HE501**

Contact Rating	5A	Mating Cycles	250
Contact Resistance	5mΩ	Housing (front)	Steel. tin plated
Insulation Resistance	5000MΩ min	(rear)	Steel, nickel plated
Working voltage	200V dc/ac peak	Insulator	High impact epoxy & GF polyester
Capacitance	1nF @ 1KHz 0.1 rms	Stand offs	4-40NC threaded
Temperature Range	-55°C to +85°C		

209841

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plugs			
9	FDE-9PBL2TI2/1-LF	**111-4156●**	
15	FDA-15PBL2TI2/1-LF	**111-4157●**	
25	FDB-25PBL2TI2/1-LF	**111-4158●**	
37	FDC-37PBL2TI2/1-LF NEW	**155-4820●**	
Sockets			
9	FDE-9SBL2T2/1-LF	**111-4159●**	
15	FDA-15SBL2T2/1-LF	**111-4160●**	
25	FDB-25SBL2T2/1-LF	**111-4161●**	
37	FDC-37SBL2T2/1-LF	**111-4162●**	

Filtered 'D' Adapters

CINCH

- Converts standard 'D' to filtered 'D'
- Full shielding integrity for protection against RFI/EMI
- 'Feed through' technology enhances rejection levels in VHF and UHF bands

Contact Material	Copper Alloy, Gold over nickel	Insulator Material	High impact epoxy glass filled polyester
Current Rating			
Temperature Range	-40 to +125°C	Shell material	
Working voltage	200V dc/ac peak	Front Housing	Steel, bright tin finish
Contact Resistance	$5x10^{-3}\Omega$ max	Back	Steel, electrolytic nickel
Insulation Resistance	$>5x10^{9}\Omega$	Body	Aluminium alloy, nickel plated
		Mating Cycles	250

227390

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	FA-9PS/1-LF	**111-4106●**	
15	FA-15PS/1-LF	**111-4107●**	
25	FA-25PS/1-LF	**111-4108●**	
37	FA-37PS/1-LF	**111-4109●**	

Filtered D Sub Adapters

HARTING® Pushing Performance

- Male to Female Filtered D Sub Adapter
- 9, 15, 25 and 37 way available
- 3 Filter Values 47pF, 1000pF and 3900 pF for effective electronic noise reduction
- Ideal for easy EMI corrections in existing applications or quick filter tests during design phase
- Provided with 2 Jack screws 4-40 UNC not pre-mounted to allow flexibility of use

Contact Rating	6.5A
Working voltage	100V

503084

No. of Ways	Capacitance PF	Mftrs. List No.	Order Code	Price Each
9	47	09 64 100 7210	**155-4604●**	
9	1000	09 64 100 7230	**155-4605●**	
9	3900	09 64 100 7240	**155-4606●**	
15	47	09 64 200 7210	**155-4607●**	
15	1000	09 64 200 7230	**155-4609●**	
15	3900	09 64 200 7240	**155-4611●**	
25	47	09 64 300 7210	**155-4612●**	
25	1000	09 64 300 7230	**155-4613●**	
25	3900	09 64 300 7240	**155-4614●**	
37	47	09 64 400 7210	**155-4615●**	
37	1000	09 64 400 7230	**155-4616●**	

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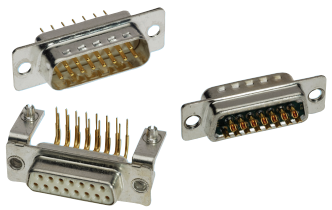
Filtered 'D' - continued

Filtered "D" Sub Connectors

Plugs and Sockets

HARTING Pushing Performance



- The filtering element incorporates a multi-layer printed circuit board and surface mount components
- The right angled versions are supplied with board locks and clinch nut with a 4-40 UNC thread
- Suitable for military, aerospace, industrial, medical, telecom and computer applications
- Reflow solder compatible
- Allows user to use the same layout as a standard D-Sub (or mixed D-Sub) but provides more space on the PCB board by having the filter in the connector

Current Rating	7.5A	Housing	Steel
Contact Resistance	10mΩ max	Insulator	PCT Re-inforced Glass fibre , UL94V-0
Withstand voltage	250V	Contacts	Copper Alloy, Selective Gold
Temperature Range	-55°C to +125°C		

	Filter Capacitance - Application	
3900pf	**1000 pf**	**47 pf**
Photocopiers	Networks	Video
LF Audio Equipment	Industrial Applications	High Speed Networks
Robotics	Audio / Data	
Computer / Switch Mode PSU	PC Applications	
Power Control Electronics	Printers	
5 MHz	-	1 GHz

Straight PCB - with Turned Solder Pins

No. of Ways	Mftrs. List No.	Filter Type	Order Code	Price Each
Plugs				
9	09641227210	47pF	**134-1499**	
15	09642227210	47pF	**134-1500**	
25	09643227210	47pF	**134-1501**	
37	09644227210	47pF	**134-1502**	
9	09641227230	1000pF	**116-8717**	
37	09644227230	1000pF	**116-8720**	
9	09641227240	3900pF	**134-1526**	
15	09642227240	3900pF	**134-1527**	
25	09643227240	3900pF	**134-1528**	
37	09644227240	3900pF	**134-1529**	
Sockets				
9	09641127210	47pF	**134-1503**	
15	09642127210	47pF	**134-1504**	
25	09643127210	47pF	**134-1505**	
37	09644127210	47pF	**134-1506**	
9	09641127230	1000pF	**116-8722**	
15	09642127230	1000pF	**116-8723**	
9	09641127240	3900pF	**134-1530**	
15	09642127240	3900pF	**134-1531**	
25	09643127240	3900pF	**134-1532**	
37	09644127240	3900pF	**134-1533**	

90° PCB Turned Solder Pin - Board Locks and Clinch Nut - 4-40 UNC

No. of Ways	Mftrs. List No.	Filter Type	Order Code	Price Each
Plugs				
9	09641247212	47pF	**134-1507**	
15	09642247212	47pF	**134-1508**	
25	09643247212	47pF	**134-1511**	
37	09644247212	47pF	**134-1512**	
9	09641247232	1000pF	**116-8726**	
9	09641247242	3900pF	**134-1535**	
15	09642247242	3900pF	**134-1536**	
25	09643247242	3900pF	**134-1537**	
Sockets				
9	09641147212	47pF	**134-1513**	
15	09642147212	47pF	**134-1514**	
25	09643147212	47pF	**134-1515**	
37	09644147212	47pF	**134-1516**	
9	09641147232	1000pF	**116-8730**	
15	09642147232	1000pF	**116-8731**	
25	09643147232	1000pF	**116-8732**	
9	09641147242	3900pF	**134-1539**	
15	09642147242	3900pF	**134-1540**	
25	09643147242	3900pF	**134-1541**	

Solder Bucket

430008

No. of Ways	Mftrs. List No.	Filter Type	Order Code	Price Each
Plugs				
9	09641217210	47pF	**134-1517**	
15	09642217210	47pF	**134-1518**	
25	09643217210	47pF	**134-1519**	
37	09644217210	47pF	**134-1520**	
9	09641217230	1000pF	**116-8735**	
15	09642217230	1000pF	**116-8736**	
25	09643217230	1000pF	**116-8737**	
9	09641217240	3900pF	**134-1543**	
15	09642217240	3900pF	**134-1544**	
25	09643217240	3900pF	**134-1545**	
37	09644217240	3900pF	**134-1547**	
Sockets				
9	09641117210	47pF	**134-1521**	
15	09642117210	47pF	**134-1523**	
25	09643117210	47pF	**134-1524**	
37	09644117210	47pF	**134-1525**	
9	09641117230	1000pF	**116-8739**	
15	09642117230	1000pF	**116-8740**	
25	09643117230	1000pF	**116-8741**	
9	09641117240	3900pF	**134-1548**	
15	09642117240	3900pF	**134-1549**	
25	09643117240	3900pF	**134-1550**	
37	09644117240	3900pF	**134-1551**	

Filtered D Sub Connectors

US Footprint

HARTING Pushing Performance

New

Plug Socket

Operating Voltage	250V ac	Contact Resistance	15mΩ
Current Rating	7.5A	Dielectric Voltage	500V ac / min.
Insulation Resistance	1GΩ		

601256

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plug			
09 64 123 7802	9	**177-9279**	
09 64 223 7802	15	**177-9281**	
09 64 323 7802	25	**177-9282**	
Socket			
09 64 113 7802	9	**177-9283**	
09 64 213 7802	15	**177-9284**	
09 64 313 7802	25	**177-9285**	

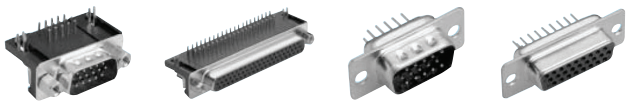
High Density D Sub

Standard / High Density D-Sub Connectors

ZD Series

ITT Engineered for life

Standard PCB Plug Standard PCB Socket HD Solder Cup Plug HD Solder Cup Socket



HD R/A PCB Plug HD R/A PCB Socket HD Vertical PCB Plug HD Vertical PCB Socket

HD Crimp Plug HD Crimp Socket

New

- Stamped contacts ZD connectors
- Closed-entry socket insulator for secure blind mating
- Compatible with all other D Subminiature series
- Glass filled thermoplastic insulator, UL94V-0
- Standard arrangement and high density arrangement available
- **Applications:** Industrial such as Control & Measurement, Computer, Telecom or Medical Equipment

Specifications:-

Contact Material	Brass (Plug) Phosphor Bronze (Socket)	Current Rating	5A (Standard) 2A (High Density)
Contact Plating	Gold	Withstanding Voltage	1000VAC
Insulator Material	Glass Filled Thermoplastic	Shell Material	Steel
Contact Resistance	20mohm	Insulation Resistance	5000Mohm
Mating Cycles	50	Flammability Rating	UL94V-0
Operating Temp.	-55°C to 105°C		

601706

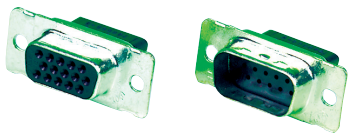
No. of Ways	Shell Size	Mftrs. List No.	Order Code	Price Each
Standard Plugs, Vertical, PCB, Through Hole				
9	E	ZDE9P-OL2	**176-0263**●	
15	A	ZDA15P-OL2	**176-0264**●	
25	B	ZDB25P-OL2	**176-0265**●	
37	C	ZDC37P-OL2	**176-0266**●	
Standard Sockets, Vertical, PCB, Through Hole				
9	E	ZDE9S-OL2	**176-0267**●	
15	A	ZDA15S-OL2	**176-0268**●	
25	B	ZDB25S-OL2	**176-0271**●	
37	C	ZDC37S-OL2	**176-0272**●	
HD Plugs, Solder Cup, Through Hole				
15	E	ZDEA15P	**176-0273**●	
26	A	ZDAA26P	**176-0274**●	
44	B	ZDBA44P	**176-0275**●	
62	C	ZDCA62P	**176-0276**●	
HD Sockets, Solder Cup, Through Hole				
15	E	ZDEA15S	**176-0277**●	
26	A	ZDAA26S	**176-0278**●	
44	B	ZDBA44S	**176-0279**●	
62	C	ZDCA62S	**176-0280**●	
HD Plugs, R/A, PCB, Boardlock & Screwlock 4-40				
15	E	ZDE15P1AKN-146	**176-0281**●	
26	A	ZDA26P1AKN-146	**176-0283**●	
44	B	ZDB44P1AKN-146	**176-0284**●	
62	C	ZDC62P1AKN-146	**176-0285**●	
HD Sockets, R/A, PCB, Boardlock & Screwlock 4-40				
15	E	ZDE15S1AKN-146	**176-0286**●	
26	A	ZDA26S1AKN-146	**176-0287**●	
44	B	ZDB44S1AKN-146	**176-0288**●	
62	C	ZDC62S1AKN-146	**176-0289**●	
HD Plugs, Vertical, PCB, Boardlock & Thread 4-40				
15	E	ZDEAE15POL2-146	**176-0290**●	
26	A	ZDAAE26POL2-146	**176-0291**●	
44	B	ZDBAE44POL2-146	**176-0292**●	
62	C	ZDCAE62POL2-146	**176-0293**●	
HD Sockets, Vertical, PCB, Boardlock & Thread 4-40				
15	E	ZDEAE15SOL2-146	**176-0295**●	
26	A	ZDAAE26SOL2-146	**176-0296**●	
44	B	ZDBAE44SOL2-146	**176-0297**●	
62	C	ZDCAE62SOL2-146	**176-0298**●	
HD Plugs, Vertical, PCB, Boardlock & Screwlock 4-40				
15	E	ZDEAE15POL2-AB-146	**176-0299**●	
26	A	ZDAAE26POL2-AB-146	**176-0301**●	
44	B	ZDBAE44POL2-AB-146	**176-0302**●	
62	C	ZDCAE62POL2-AB-146	**176-0303**●	
HD Sockets, Vertical, PCB, Boardlock & Screwlock 4-40				
15	E	ZDEAE15SOL2-AB-146	**176-0304**●	
26	A	ZDAAE26SOL2-AB-146	**176-0305**●	
44	B	ZDBAE44SOL2-AB-146	**176-0306**●	
62	C	ZDCAE62SOL2-AB146	**176-0307**●	
HD Plugs, Crimp Cable, Through Hole				
15	E	ZDEA-15P-FO	**176-0308**●	
26	A	ZDAA-26P-FO	**176-0309**●	
44	B	ZDBA-44P-FO	**176-0310**●	
62	C	ZDCA-62P-FO	**176-0311**●	
78	D	ZDDA-78P-FO	**176-0313**●	
HD Sockets, Crimp Cable, Through Hole				
15	E	ZDEA-15S-FO	**176-0314**●	
26	A	ZDAA-26S-FO	**176-0315**●	
44	B	ZDBA-44S-FO	**176-0316**●	
62	C	ZDCA-62S-FO	**176-0317**●	
78	D	ZDDA-78S-FO	**176-0318**●	
Crimp Contact, Pin, Size 22				
24-26 AWG		ZD120191-22	**177-7593**●	
Crimp Contact, Socket, Size 22				
24-26 AWG		ZD120191-24	**177-7594**●	
Hand Tools				
Crimp Tool		CCT-D*A	**176-0321**●	
Insertion / Extraction		CIET-22DF	**176-0322**●	

Over 500 000 products available online QGO

HDP-22 Crimp Snap-in Contact Connectors

Tyco Electronics

Formed Pins



- Approximately 65% higher density than HD-20 connectors
- Low cost, high performance, precision formed contacts
- Tin plated shells with grounding indents

Contact Rating	5A	Temperature Range	-55°C to +105°C
Contact Resistance	15mΩ max	Housing	Steel, Tin plating
Dielectric withstand voltage	1kV ac min	Insulator	Black Thermoplastic **UL94V-0**

Mftrs. List No: 748364-1 = 182-4867; 1658671-1 = 109-8427; 1658672-1 = 109-8428; 1658673-1 = 109-8468; 1658681-1. = 109-8429; 1658682-1 = 109-8430; 1658683-1 = 109-8431; 1658684-1 = 109-8432; 1658670-2 = 109-8472; 1658670-4 = 109-8434

209975

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug Housing			
15	748364-1	**182-4867**●	
26	1658671-1	**109-8427**●	
44	1658672-1	**109-8428**●	
62	1658673-1	**109-8468**●	
Socket Housing			
15	1658681-1.	**109-8429**●	
26	1658682-1	**109-8430**●	
44	1658683-1	**109-8431**●	
62	1658684-1	**109-8432**●	

Order Multiple=10

	Order Code	
Pin Contacts		
28-22 AWG, 0.08-0.4mm² (Gold)	**109-8472**●	
28-22 AWG, 0.08-0.4mm² (Gold Flash)	**109-8434**●	
Socket Contacts		
28-22 AWG, 0.08-0.4mm² (Gold)	**109-8424**●	
28-22 AWG, 0.08-0.4mm² (Gold Flash)	**109-8425**●	

Crimp Tool for HDP-22

Tyco Electronics

9629408

Mftrs. List Nos: 90800-1 = 215-6659; 91520-1 = 962-9408

209976

	Order Code	Price Each
Crimp tool	**215-6659**	
Crimp tool	**962-9408**	

High Density D Sub Crimp Connectors

multicomp

Plug

Socket

- Pitch - 2.29mm, Pitch Row - 1.98mm
- Crimp type
- Shell material - steel with tin plating
- Retention springs - stainless steel
- Operating temperature- -55°C to 105°C
- Flammability rating - UL 94V-0

High Density D Sub - continued

High Density D Sub Crimp Connectors - continued

524620

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plugs			
SPC15431	15	156-4229●	
SPC15255	26	156-4231●	
SPC15297	44	156-4233●	
SPC15155	62	156-4235●	
SPC15213	78	156-4238●	
Sockets			
SPC15367	15	156-4230●	
SPC15252	26	156-4232●	
SPC15235	44	156-4234●	
SPC15244	62	156-4236●	
SPC15247	78	156-4239●	
Crimp Socket			
SPC15384	20-24AWG	156-4240●	
Crimp Pin			
SPC15398	20-24AWG	146-2670●	

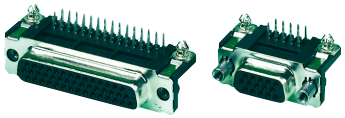
Tyco Electronics

SDE Die and Tooling options available See Web

HD-22, 90° PCB Metal Shell

Tyco Electronics

Screwlocks and Threaded Inserts



- Ideal for robotic and high temperature application
- 4.40 threaded inserts and female screwlocks
- Integral boardlocks

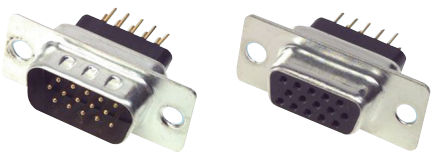
Contact Rating	2A	Housing	Steel, Tin plated
Contact Resistance	20mΩ max	Insulator	Black Thermoplastic
Withstand voltage	1kV ac min	Contacts	Phosphor Bronze, Gold on mating end
Temperature Range	-55°C to +125°C		

209974

No. of Ways	Mftrs. List No.	Order Code	Price Each
4-40 Threaded Inserts			
15	1-1734530-3	105-6020●	
44	5748482-5	109-8452●	
62	5748394-5	109-8423●	
4-40 Female Screwlocks			
15	1734530-3	105-6018●	
26	5748481-6	109-8420●	

High Density D Sub DIP Connectors

multicomp



Plug Socket

- Pitch - 2.29mm, Pitch Row - 1.98mm
- DIP type
- Shell material - steel with tin plating
- Operating temperature- -50°C to 100°C
- Flammability rating - UL 94V-0

Insulator Material	Contact Material	Contact Plating	Withstanding Voltage	Current Rating
PBT +30% Fibre Glass	Brass	Gold	500VAC for 1 min.	5A

524627

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plugs			
SPC15402	15	156-4241●	
SPC15353	26	156-4242●	
SPC15326	44	156-4243●	
SPC15240	62	146-2669●	
SPC15386	78	156-4244●	
Sockets			
SPC15408	15	156-4245●	
SPC15300	26	156-4246●	
SPC15399	44	156-4247●	
SPC15169	62	156-4248●	
SPC15351	78	156-4251●	

High Density D Sub R/A PCB Connectors

multicomp

Socket Plug

- Pitch - 2.29mm, Pitch Row - 1.98mm
- Orientation - Right Angle
- Shell material - steel, nickel plated over copper
- Contact resistance - 20 mOhm
- Insulation resistance - 5000 Mohm at 500Vdc
- Operating temperature- -55°C to 105°C

Insulator Material	Contact Material	Contact Plating	Withstanding Voltage	Current Rating
PBT +30% Fibre Glass	Copper Alloy	Gold	1000VAC for 1 min.	2A

524633

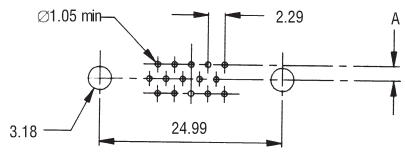
Mftrs. List No.	No. of Ways	Order Code	Price Each
Sockets			
SPC15430	15	156-4252●	
SPC15293	26	156-4253●	
SPC15324	44	156-4254●	
SPC15436	78	156-4255●	
Plugs			
SPC15254	15	156-4256●	
SPC15237	26	156-4257●	
SPC15140	44	156-4258●	
SPC15370	78	156-4259●	
HD D Sub Crimp Tool			
CTT8424-01		156-4260	

ITW McMurdo Connectors

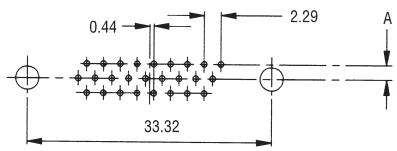
The High Density 'D' connector is well suited to a wide range of applications where a larger than normal number of contacts is required in a standard 'D' subminiature shell. Available with solder bucket or crimp contacts - both male and female, straight pcb termination (male only) and right angled pcb termination (female only)

Contact Rating	3A @ 70°C
Contact Resistance	15mΩ max
Working voltage	300V dc/ac peak
Temperature Range	-55°C to +105°C
Mating cycles	50
Housing	Steel, Tin over Nickel plating
Insulator	Black polyester
Contacts	
Pin	Copper alloy, gold over nickel
Socket	Phosphor bronze, gold over nickel

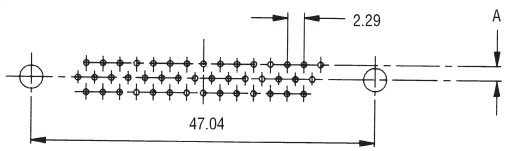
15 contacts in 9 way standard 'D' shell



26 contacts in 15 way standard 'D' shell



44 contacts in 25 way standard 'D' shell



Dimension A, straight pcb = 1.98, 90° pcb = 2.54

210096

Solder Bucket (Formed Pin)

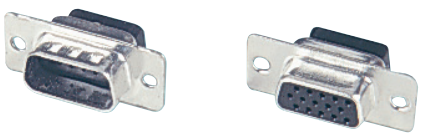
Mftrs. List Nos: HDE15PTD = 107-1808 HDE15ST = 107-1811 HDB44ST = 107-1813
HDA26PTD = 107-1809 HDA26ST = 107-1812

209765

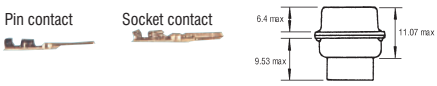
No. of Ways	Order Code	Price Each
Plugs		
15	**107-1808**	
26	**107-1809**	
44	**107-1810**	
Sockets		
15	**107-1811**	
26	**107-1812**	
44	**107-1813**	

Crimp Housings

Formed Contacts and Tooling



Pin contact Socket contact



Open crimp conductor diameters
24/28 AWG, 0.08-0.22mm^2, 7/0.2 or 10/0.1

Mftrs. List Nos: HDEC15PTD = 107-1807 HDAC26ST = 107-5293 MP643-16 = 107-5300
HDAC26PTD = 107-5290 MP642-06 = 107-5297 MP643-15 = 107-5301
HDBC44PTD = 107-5291 MP642-05 = 107-5298 MP-600-HD = 151-226
HDEC15ST = 107-5292

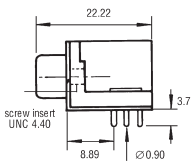
210097

No. of Ways	Order Code	Price Each
Plug Housing		
15	**107-1807**	
26	**107-5290**	
44	**107-5291**	
Socket Housing		
15	**107-5292**	
26	**107-5293**	

Number of Insertions	Price Per Pack
Pin Contacts (100 Per Pack)	
50	**107-5297**
200	**107-5298**
Socket Contacts (100 Per Pack)	
50	**107-5300**
200	**107-5301**

Ratchet	Price Each
Crimp Tool 151-226	

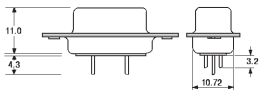
90° PCB Sockets - With Boardlocks and Screwlocks



210098

No. of Ways	Order Code	Price Each
15	**107-5303**	
26	**107-5304**	
44	**107-5306**	

Straight PCB Plugs (Turned Pin)



Mftrs. List Nos: HDA26POLTD = 107-5295

210099

No. of Ways	Order Code	Price Each
26	**107-5295**	

Plastic 'D'

Plastic 90° PCB

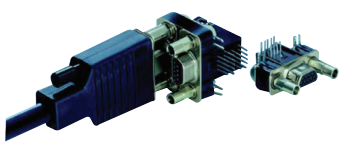
Contact Rating	1A
Contact Resistance	5mΩ max
Working voltage	350V dc/ac peak
Temperature Range	-55°C to +105°C
Mating cycles	50
Housing	Glass Filled Thermoplastic Polyester,
Contacts	Phosphor Bronze, Gold over Nickel

209972

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plugs			
9	108343009012001	**637-531**	
25	108343025012001	**637-555**	
Sockets			
9	208343009012001	**637-579**	
25	208343025012001	**637-592**	

Micro Miniature 'D' Connectors

Micro MDSM Shielded Connectors



- Micro D-Sub shielded interface connectors
- MDSM connectors are suitable for IR reflow & vapour phase soldering
- 90° solder pins in PCB plug, 1.27 x 2.54mm spacing
- Sockets can hold either pin or socket crimp contacts but these must be ordered separately
- Screw locking mounting method

Specifications:-

Contact Material	Copper Alloy	Contact Plating	Gold
Current Rating	2.5A	Test Voltage	350V
Shell Material	Steel	Operating Temp.	-55°C to 125°C
Insulator Material	Thermoplastic	Flammability Rating	UL94V-0
Contact Resistance	35mohm (PCB version) / 20mohm (Crimp version)	Insulation Resistance	5000Mohm

602847

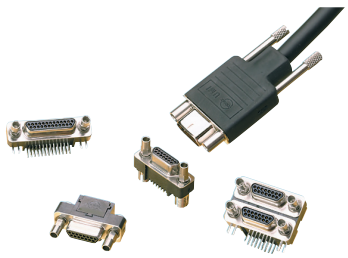
No. of Ways	Mftrs. List No.	Order Code	Price Each
Plugs, PCB, 90° Solder Pins			
15	MDSM-15PE-Z10-VR22	**176-0375**	
25	MDSM-25PE-Z10-VR17	**176-0376**	
Sockets, Crimp Termination			
9	MDSM-9SC-Z11-VS1	**176-0377**	
15	MDSM-15SC-Z11-VS1	**176-0378**	
25	MDSM-25SC-Z11-VS1	**176-0379**	
Crimp Contacts, 26-28 AWG			
Pin	MDS-P-TS	**177-7595**	
Socket	MDS-S-TS	**177-7596**	
Hand Tools			
Crimp Tool	CCTR-MDS	**176-0382**	
Hand Press Tool	CHP-MDSM-SR	**176-0383**	
Insertion Tool	CT120090-102	**176-0384**	

Micro Miniature 'D' Connectors - continued

Commercial Micro-D

molex

1.27mm Pitch



- Suitable for commerical applications
- Metal interface and grounding tabs improve mechanical and electrical sheilding properties

Current Rating	1A	Insulator Material	PPS Polyphenylene Sulfide
Approval Bodies	**CSA, UL Recognised**	Contact Material	Beryllium Copper, Gold Plated
Insulation Resistance	5000Mohm	Temperature Range	-55°C to +125°C
Housing	Nickel Plated	Working Voltage	350V

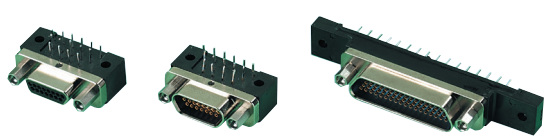
449945

No of Ways	Mftrs. List No.	Order Code	Price Each
Plug - PCB Mount - Verticle			
9	83611-9023	**126-3554**	
15	83612-9024	**126-3555**	
25	83614-9016	**126-3556**	
Plug - PCB Mount - Right Angle			
9	0836119006	**126-3551**	
15	0836129020	**126-3552**	
25	0836149012	**126-3553**	
Plug - PCB Mount - Right Angle - Dual Stack			
9 x 2	83619-9003	**126-3557**	
Cable Assembly			
9	83421-9044	**126-3562**	
15	83422-9018	**126-3563**	
25	83424-9021	**126-3564**	

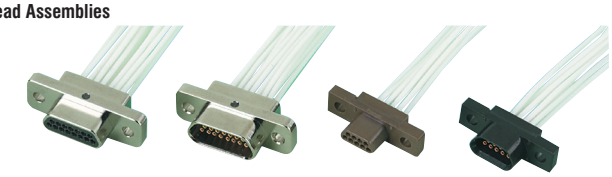
Microdot

Tyco Electronics

PCB Connectors



Lead Assemblies



- Designed for both military and commercial applications
- Current Rating - 3 amps per contact
- Leads,18" Long (457mm)

	Metal	Plastic
Housing Mat	Aluminium Alloy	Polyphenylene Sulfide MIL-M-24519
Housing Plating	Nickel	
Insulator Material	Ryton R4	Polyester GF MIL-M-24519
Pitch	1.27mm	
Contact Material	Copper Alloy	
Contact Plating	Gold over Copper MIL-G-45204 Type 2	
Contact Resistance	25mV at 3A 25°C	
Current Rating	3A	
Mating Cycles	≥500	
Temperature Range	-55°C to 125°C	
Insulation Resistance	≥5000MΩ	
Withstand Voltage	600V RMS	
Wire Range	30 AWG to 24 AWG	

No. of Ways	Mftrs. List No.	Order Code	Price Each
Metal Shell - Plug			
9	MCKN1-B-9P6A1-18.0	**388-0047**	
15	MCKN1-B-15P6A1-18.0	**388-0059**	
25	MCKN1-B-25P6A1-18.0	**388-0060**	
Metal Shell - Socket			
9	MCKN1-B-9S6A1-18.0	**388-0096**	
15	MCKN1-B-15S6A1-18.0	**388-0102**	
25	MCKN1-B-25S6A1-18.0	**388-0114**	

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plastic Shell - Plug			
9	MCDR3-B-9P6A1-18.0	**388-0140**	
Plastic Shell - Socket			
9	MCDR3-B-9S6A1-18.0	**388-0187**	
15	MCDR3-B-15S6A1-18.0	**388-0199**	
Hardware			
Jackpost Assembly (Jackpost, nut and washer)			
	1466016-1	**388-0023**	
Jackscrew Assembly (Jackscrew and circlip)			
	1466008-1	**388-0035**	

PCB Connectors

232223

No. of Ways	Mftrs. List No.	Order Code	Price Each
Metal Shell - RA PCB Plug			
9	MCKN1-P-9PRT1	**388-0229**	
15	MCKN1-P-15PRT1	**388-0230**	
25	MCKN1-P-25PRT1	**388-0242**	
Metal Shell - RA PCB Socket			
9	MCKN1-P-9SRT1	**388-0278**	

Metal and Plastic Shell

CINCH

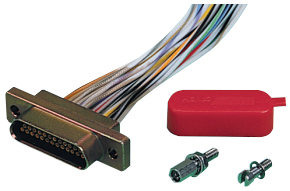
- A high quality, high density range of environmental connectors
- Lightweight, durable shell
- Twisted pin contact
- Ideal for industrial application where size and mateability are important
- Metal and plastic body version, complete with dust cover

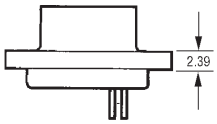
Contact Rating	3A	Housing (metal body)	Aluminium alloy
Working voltage	200V dc/ac peak		Electroless Nickel
Proof voltage	600V dc/ac peak	(plastic body)	Thermoplastic polyester
Contact Resistance	≤8mΩ max		G.F
Insulation Resistance	5000MΩ	Insulator	Diallyl phthalate G.R
Temperature Range	-55°C to +125°C	Contact material	Copper Alloy, 50µ Gold plated
Mating cycles	500		

227503

Metal Shell - Flying Leads

CINCH





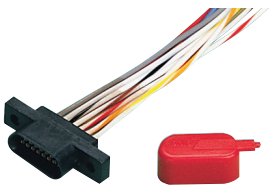
- 450mm colour coded PTFE flying leads

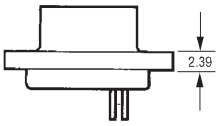
209836

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug			
9	DCCM-9P6E518.0B-LF	**111-4163**	
15	DCCM-15P6E518.0B-LF	**111-4164**	
37	DCCM-37P6E518.0B-LF	**111-4167**	
51	DCCM-51P6E518.0B-LF	**111-4168**	
Socket			
9	DCCM-9S6E518.0B-LF	**111-4169**	
15	DCCM-15S6E518.0B-LF	**111-4170**	
25	DCCM-25S6E518.0B-LF	**111-4171**	
37	DCCM-37S6E518.0B-LF	**111-4172**	
51	DCCM-51S6E518.0B-LF	**111-4173**	
2 Per Pack			**Price Per Pack**
Jack posts			
	M83513/5.07-LF	**111-4186**	
Jack screws			
	M83513/5.05-LF	**111-4187**	

Plastic Shell - Flying Leads

CINCH





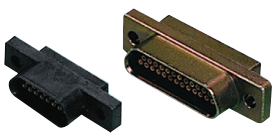
- 450mm Colour coded PTFE flying leads

219842

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug			
9	DCDA-9P6E518.0B-LF	**111-4174**	
15	DCDA-15P6E518.0B-LF	**111-4175**	
25	DCDA-25P6E518.0B-LF	**111-4178**	
37	DCDA-37P6E518.0B-LF	**111-4179**	
Socket			
9	DCDA-9S6E518.0B-LF	**111-4181**	
15	DCDA-15S6E518.0B-LF	**111-4182**	
25	DCDA-25S6E518.0B-LF	**111-4183**	
37	DCDA-37S6E518.0B-LF	**111-4184**	

Metal and Plastic Shell

Solder Bucket Contacts



- Rugged reliable contacts
- High working voltage
- Solder bucket contacts

Current Rating	3A	Contact Material	Copper Alloy
Withstand voltage	600V ac @ sea level	Metal Shell Material	Aluminium Alloy
Contact Resistance	8mohm	Plastic Shell Material	Glass Reinforced Thermoplastic
Operating Temperature	-55 to +135°C		

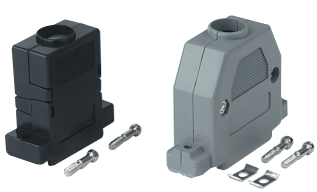
450835

No. of Ways	Mftrs. List No.	Order Code	Price Each
Metal Plugs			
9	DCDM-9PSBN-LF	**128-2138**	
15	DCDM-15PSBN-LF	**128-2139**	
25	DCDM-25PSBN-LF	**128-2140**	
37	DCDM-37PSBN-LF	**128-2142**	
51	DCDM-51PSBN-LF	**128-2143**	
Metal Sockets			
9	DCDM-9SSBN-LF	**128-2144**	
15	DCDM-15SSBN-LF	**128-2145**	
25	DCDM-25SSBN-LF	**128-2146**	
37	DCDM-37SSBN-LF	**128-2147**	
51	DCDM-51SSBN-LF	**128-2148**	
Plastic Plugs			
9	DCDA-9PSBN-LF	**128-2149**	
15	DCDA-15PSB-LF	**128-2151**	
25	DCDA-25PSB-LF	**128-2152**	
37	DCDA-37PSB-LF	**128-2154**	
Plastic Sockets			
9	DCDA-9SSB-LF	**128-2156**	
15	DCDA-15SSB-LF	**128-2157**	
37	DCDA-37SSB-LF	**128-2159**	

Standard 'D' Shells

Economy D Hoods

Plastic, Snap or screw together D-Hoods



A range of economy top entry snap together and screw together plastic D-Hoods

- Black or grey plastic
- Long or short screws available

Snap together	Width	Length	Screw together		
9 Way	30.5	39.2	9 Way	31.4	40.2
15 Way	40.1	39.6	15 Way	39.6	35.8
25 Way	53.6	42.1	25 Way	55.0	42.0

238494

No. of Ways	Mftrs. List No.	Order Code	Price Each
Snap Together - Black			
9	MHCCOV-9SN-BK	**393-7926**	
15	MHCCOV-15SN-BK	**393-7938**	
25	MHCCOV-25SN-BK	**393-7940**	
Snap Together - Grey			
9	MHCCOV-9SN-LG	**393-7951**	
15	MHCCOV-15SN-LG	**393-7963**	
25	MHCCOV-25SN-LG	**393-7975**	
Screw Together - Black - Short Screw			
9	MHCCOV-9SC-BK	**393-7987**	
15	MHCCOV-15SC-BK	**393-7999**	
25	MHCCOV-25SC-BK	**393-8001**	
Screw Together - Grey - Short Screw			
9	MHCCOV-9SC-LG	**393-8013**	
15	MHCCOV-15SC-LG	**393-8025**	
25	MHCCOV-25SC-LG	**393-8037**	
Screw Together - Black - Long Screw			
9	MHCCOV-9SCL-BK	**393-8049**	
15	MHCCOV-15SCL-BK	**393-8050**	
25	MHCCOV-25SCL-BK	**393-8062**	
Screw Together - Grey - Long Screw			
9	MHCCOV-9SCL-LG	**393-8074**	
15	MHCCOV-15SCL-LG	**393-8086**	
25	MHCCOV-25SCL-LG	**393-8098**	

Colour Coded

- 8 different colours
- One piece hinged nylon, **UL94V-2**
- Quick snap locking assembly
- Captive steel jack screws (48mm)
- Nickel plated for coloured shells
- Black for black shells
- Reversible cable clamp with self tapping screws
- Lip height = 3.5

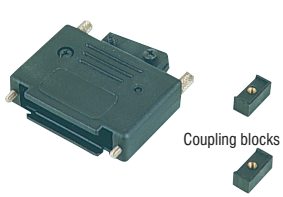
No. of Ways	H	W	D	Cable Entry Max. Dia
9	34	33	15	11.5
15	34	41	15	11.5
25	40	54.5	15	12
37	40	71	17	14

Mftrs. List No: DPPKxxy,
where xx = No. of ways and y = colour

209788

Colour	Order Code	Price Each
9 way		
Black	**469-889**	
Red	**469-890**	
Blue	**469-907**	
Yellow	**469-919**	
Green	**469-920**	
Light Grey	**469-944**	
Computer Grey (ivory)	**469-956**	
15 way		
Black	**469-968**	
Red	**469-970**	
Blue	**469-981**	
Yellow	**469-993**	
Green	**470-004**	
Light Grey	**470-028**	
Computer grey	**470-030**	
25 way		
Black	**470-041**	
Red	**470-053**	
Blue	**470-065**	
Yellow	**470-077**	
Green	**470-089**	
Light Grey	**470-107**	
Computer Grey (ivory)	**470-119**	
37 way		
Black	**470-120**	

Plastic



A low cost screw together 'D' shell with captive metal jackscrews and external strain relief available in 9, 15, 25 and 37 ways. The body design provides valuable extra space for wiring. Line to line applications are catered for with coupling blocks which enable two in-line shells to be screwed together.

H = 49, W = 33 (9 way), 42 (15 way), 55 (25 way),71 (37 way), D = 16

Housing Black Thermoplastic,

MDJ9 = 107-5162 MDJ25 = 107-5164 MCB = 107-5166
MDJ15 = 107-5163 MDJ37 = 107-5165

Standard 'D' Shells - continued

Plastic - continued

210060

No. of Ways	Order Code	Price Each
Screw Together Cover		
9	**107-5162**●	
15	**107-5163**●	
25	**107-5164**●	
37	**107-5165**●	
2 Per Pack		**Price Per Pack**
Coupling blocks	**107-5166**●	

Low Profile Plastic

No. of Ways	H	W	D
9	23	31	12.8
15	28	39.4	12.8
25	34	53.3	12.8
37	37	69.7	12.8

HARTING Pushing Performance

- The hoods provide a very compact package where space is at a premium

Housing Grey Thermoplastic

Mftrs. List No: 09670xx0411 where xx = No. of ways

210071

No. of Ways	Order Code	Price Each
25	**110-6719**●	
37	**110-6720**●	

Plastic

ITT Engineered for life

- A screw together 'D' shell with slotted and knurled steel jack-screws
- Adjustable strain relief.

Housing Black Thermoplastic,

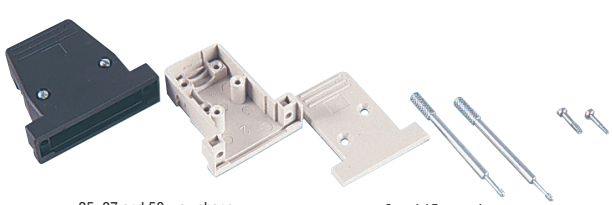
No. of Ways	Dimensions H	W	D	Mftrs. List No.	Order Code
9	36	33	16	DE77762-9	121-5629
15	36	42	16	DA77762-15	121-5630
25	36	55	16	DB77762-25	121-5631
37	36	71	16	DC77762-37	121-5633

210077

No. of Ways	Order Code	Price Each
9	**121-5629**●	
15	**121-5630**●	
25	**121-5631**●	
37	**121-5633**●	

Top or Side Entry

multicomp



25, 37 and 50 way shape 9 and 15 way shape

- Top or side knockout cable entry
- Two long finger jack screws (59mm)
- Two short jack screws (13mm)
- 4/40 UNC jack screw thread
- Side cable entry only suitable with short jack screws
- Flame retardant **UL94V-0** ABS
- Nickel plated steel screws and clamp
- Two countersunk fixing screws
- Wide cable clamp range
- Lip height = 1.0

No. of Ways	H	W	D	Cable Entry Max.
9	41	35	17	6 x 5.5
15	48	43	17	9 x 5
25	48	57	17	9 x 6
37	54	74	17	13 x 6
50	54	70	20	13 x 9

209786

5 Per Pack

No of ways	Order Code	Price Per Pack
Light Grey		
9	**955-4343**●	
15	**955-4351**●	
25	**955-4360**●	
Black		
9	**955-4378**●	
15	**955-4386**●	
25	**955-4394**●	
37	**955-4408**●	
50	**955-4416**●	

Plastic or Metallised Plastic

MH CONNECTORS

Snap together - Top or side entry D hoods

A range of plastic and metallised plastic D connector hoods

- Metallised Plastic provides excellent EMI shielding
- Suitable for all popular D-sub connectors
- Highly durable
- Quick snap together action - no screws needed
- Top and side entry options in one hood

No of ways	Width	Height	Depth
9	31.5	40.0	15.0
15	40.0	40.0	15.0
25	53.5	40.0	15.0
37	71.3	40.0	15.0

238493

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plastic - Black			
9	MHDSSK-P-9-L-K	**393-7847**●	
15	MHDSSK-P-15-L-K	**393-7859**●	
25	MHDSSK-P-25-L-K	**393-7860**●	
37	MHDSSK-P-37-L-K	**393-7872**●	
Plastic - Metalised			
9	MHDSSK-M-9-L-K	**393-7884**●	
15	MHDSSK-M-15-L-K	**393-7896**●	
25	MHDSSK-M-25-L-K	**393-7902**●	
37	MHDSSK-M-37-L-K	**393-7914**●	

Straight and 45° Cable Entry

MH CONNECTORS

- Low profile 45° design
- Turned, full metal 4-40 thumb screws
- Plastics strain relief inserts for cable sizes 3.5mm to 13mm
- Flame retardant black ABS **UL94V-0**

Mftrs. List No: MHD45PPKx-K = 45° Hood MHDTPPKx-K = Top Entry Hood, Where x = No. of ways

210007

No. of Ways	Top Entry Order Code	45° Entry Order Code	Price Each
9	**358-228**●	**358-083**●	
15	**358-332**●	**358-101**●	
25	**358-381**●	**358-125**●	
37	**358-393**●	**358-198**●	

Plastic

Tyco Electronics

Box and Lid Straight / 45° exit

- Unshielded cable clamps for HDP20 crimp snap in connectors

Housing Black Thermoplastic
Gates Black Thermoplastic
Screws Black zinc plated steel

210032

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	207467-1	**134-5576**●	
15	207470-1	**134-5588**●	
25	207345-1	**105-5992**●	
37	207473-1	**134-5606**●	

Plastic

Tyco Electronics

Clam Shell Straight / 45° exit
Unshielded Cable Clamps

- Unshielded cable clamps for HDP20 crimp snap in connectors
- Includes hardware

Housing Black Thermoplastic

210028

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	5205729-1	**109-8368●**	
15	5205730-1	**109-8369●**	
25	5205718-1	**109-8362●**	

Metal - Deep Cover

ITT *Engineered for life*

- Top entry metal junction shells
- Deep housing with cable clamp

Mftrs. List No: DE24657 = 118-6661 DB24659 = 118-6662

209672

No. of Ways	Order Code	Price Each
9	**118-6661●**	
25	**118-6662●**	

EMI/RFI Shielded 'D' Shells

Black Plastic 3

Tyco Electronics

Plastic Shield Hoods

- For HDP20 and HDE20 metal shell connectors

Housing Black Thermoplastic
4-40 Screws Steel, zinc plated
Jackscrews Steel, zinc plated clear chromate

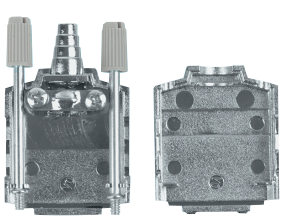
210026

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	5748678-1	**109-8407●**	
15	5748678-2	**109-8409●**	
25	5748678-3	**109-8411●**	
37	5748678-4	**109-8412●**	

Metallised Plastic

MH CONNECTORS

Snap together Top entry



A range of Top entry snap together metallised plastic hoods

- Metallised for excellent EMI shielding
- Suitable for all popular D-sub connectors
- Snap together action, No screws
- Manufactured in self extinguishing material
- Highly durable

Order Code	No of ways	Width mm	Height mm	Depth mm
3937800	9	32.5	38.0	15.0
3937811	15	41.0	38.0	15.0
3937823	25	54.5	40.0	15.0
3937835	37	71.0	40.0	15.0

238492

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	MHDPPK-M-9-K	**393-7800●**	
15	MHDPPK-M-15-K	**393-7811●**	
25	MHDPPK-M-25-K	**393-7823●**	
37	MHDPPK-M-37-K	**393-7835●**	

Over 500 000 products available online QGO

Metallised Plastic

multicomp

9 and 15 Way — 25 and 37 Way

- Nickel plated ABS shell
- Enhanced shielding of cables from RFI/EMI

No. of Ways	H	W	D	Max. Cable Entry
9	41	35	17	6 x 5.5
15	48	43	17	9 x 5

- Knockout for top or side cable entry
- Supplied with two 59mm and two 13mm jackscrews

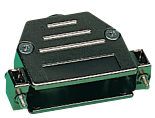
No. of Ways	H	W	D	Max. Cable Entry
25	48	57	17	9 x 6
37	54	74	17	13 x 6

209826

No. of Ways	Order Code	Price Each
9	**955-4424●**	
15	**955-4432●**	
25	**955-4440●**	
37	**955-4459●**	

Black and Metallised Plastic

HARTING **Pushing Performance**



Top entry hoods with 4.40 UNC locking screws

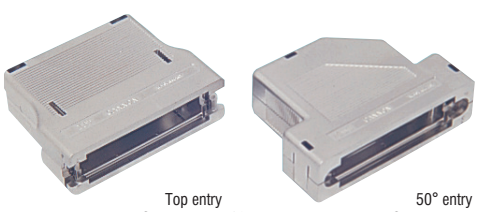
9 way 2,5-7mmØ
15-50 way 4,5-11mmØ

239230

Mftrs. List No.	No. of Ways	Order Code	Price Each
Black			
0967 009 0442	9	**109-6964●**	
0967 015 0442	15	**109-6966●**	
0967 025 0442	25	**109-6967●**	
0967 037 0442	37	**109-6968●**	
Metallised			
09 67 009 0443	9	**109-6969●**	
0967 015 0443	15	**109-6970●**	
0967 025 0443	25	**109-6971●**	
0967 037 0443	37	**110-6830●**	
0967 050 0443	50	**109-6972●**	

Metallised Plastic

ITT *Engineered for life*



Top entry Shell depth = 16 — 50° entry Shell depth = 16

The shell consists of two halves which easily snap together. The metallised finish gives protection from EMI/RFI interference.

Housing ABS Polymer Coating Nickel over copper

Mftrs. List No:		Top Entry	50° Entry
9 way	DE-121073-	154	54
15 way	DA-121073-	150	50
25 way	DB-121073-	151	51
37 way	DC-121073-	152	52
50 way	DD0121073-	—	53

210102

No. of Ways	Order Code	Price Each
Top Entry		
9	**118-8164●**	
15	**118-8166●**	
25	**118-8167●**	
37	**118-8168●**	

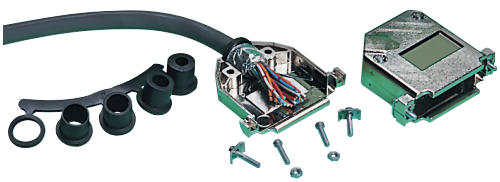
EMI/RFI Shielded 'D' Shells - continued

Metallised Plastic - continued

No. of		Price Each
50° Entry		
9	**118-8169●**	
15	**118-8170●**	
25	**118-8171●**	
37	**118-8172●**	
50	**118-8312●**	
Male Screwlock		
Recessed slotted	**118-8177●**	
Finger jackscrew	**118-8176●**	

Metallised Plastic

Straight and 45° Cable Entry



- ABS with nickel over copper plating
- EMC/RFI shielding braid/foil folded back over suitable size strain relief bush
- Range of 5 strain relief bushes per hood
- Accepts foil, lap or braided cable
- No tooling required for shield termination

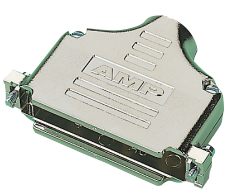
Shell Dimensions	H Straight	H 45°	W Both	D Both	Cable Entry via 5 Bushes
9 way	35.5	37.2	31.1	16.3	5 - 7.5
15 way	38.8	40.6	39.1	16.3	5 - 8
25 way	42	44.1	53.1	18	5 - 8
37 way	46.5	47.5	69.3	23	8 - 15

209845

No. of Ways	Straight Entry Order Code	45° Entry Order Code	Price Each
9	**746-058●**	**746-060**	
15	**746-071●**	**746-083**	
25	**746-095●**	**746-101**	
37	**746-113●**	**746-125**	

Metallised Plastic

Metal Plated Plastic Shield Hoods



- For HDP20 and HDE20 metal shell connectors

Housing Thermoplastic nickel plated over copper
4-40 screws Steel, zinc plated
Jackscrews Steel, zinc plated clear chromate

219866

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	5748677-1	**109-8416●**	
15	5748677-2	**109-8417●**	
25	5748677-3	**109-8418●**	

Metallised Plastic

Straight and 45° Cable Entry

- Low profile 45° design
- Turned, full metal 4-40 thumb screws
- Plastic strain relief inserts for cable sizes 3.5mm to 13mm
- ABS with nickel over copper plating
- No tooling required for shielded termination

Mftrs. List No: MHD45PKx-K = 45° Hood MHDTPKx-K = Top Entry Hood, Where x = No. of ways

210011

No. of Ways	45° Entry Order Code	Top Entry Order Code	Price Each
9	**357-649●**	**357-728●**	
15	**357-662●**	**357-765●**	
25	**357-698●**	**357-911●**	
37	**357-704●**	**357-984●**	

Metallised Plastic EMI Junction Shell

- Easy assemble
- Lightweight, compact design
- Supplied with hardware on 4-40 UNC thread, 2 x Jackscrews, 2 x Saddle washers and 2 nuts
- No tooling required for shielding

Material ABS Thermoplastic
Plating Nickel Over Copper

210033

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	3357-6509-1C	**111-6700●**	
15	3357-6515-1C	**111-6701●**	
25	3357-6525-1C	**111-6703●**	
37	3357-6537-1C	**111-6704●**	

D Sub EMI Junction Shell

Metalised Plastic

- Protection from EMI / ESD
- Easy assembly reduces time and labour for low cost
- Light weight and a compact design
- Strain Relief compensates for multiple cable diameters
- Jack screws provide positive retention
- RoHS compliant

Specifications:-

Shell Material	ABS	Shell Plating	Nickel over Copper
Operating Temp.	0°C to 75°C	Flammability Rating	UL 94HB

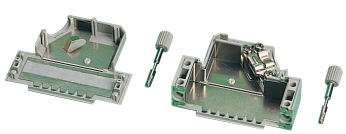
527681

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	3357-6209-1C	**167-2004●**	
15	3357-6215-1C	**167-2005●**	
25	3357-6225-1C	**167-2006●**	
37	3357-6237-1C	**167-2007●**	
50	3357-6250-1C	**167-2008●**	

Plastic with Folded Tin Inner Shell

45° Cable Entry

Pushing Performance



- Insulated outer casing
- Substantial cable clamp/ground contact
- Plastic head finger jack screws (sold seperatley)
- Click together hood

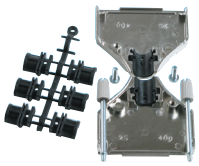
Note: Jack screws must be fitted to lower hood before final assembly

No. of Ways	H	W	D	Cable Entry Max.
9	38.05	31.3	15	8
15	42.05	39.62	15	9
15	42.05	39.62	15	9
25	42.05	53.52	15	11
37	42.05	69.8	19	11

209847

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	0967 009 0573	**109-6954●**	
15	09 67 015 0573	**110-6825●**	
25	09 67 025 0573	**109-6955●**	
37	0967 037 0573	**110-6826●**	
Jack Screws			
	0967 000 9971	**120-7571●**	

Diecast Rapid Assembly



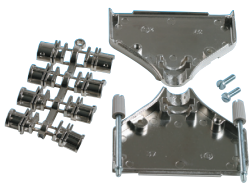
- NIckel plated die cast covers
- High quality plastic capped UNC440 jackscrews
- Rapid assembly strain relief insert
- 360° shielding
- Fully tapped screw holes
- Phillips headed screws

No. of Ways	H	W	D
9	39.9	31.2	15.0
15	41.5	39.5	15.3
25	48.6	53.4	15.5
37	53.6	69.7	15.5

335206.343014

No. of Ways	Order Code	Price Each
Nickel		
9	**486-1693**	
15	**486-1700**	
25	**486-1711**	
37	**486-1723**	

Diecast Rapid Assembly Hi-Grade



- NIckel plated die cast covers
- High quality plastic capped UNC440 jackscrews
- Rapid assembly strain relief insert
- 360°Metallised shielding
- Metallised shielding greatly enhances the performance of the hood
- Fully tapped screw holes
- Phillips headed screws

No. of Ways	H	W	D
9	39.9	31.2	15.0
15	41.5	39.5	15.3
25	48.6	53.4	15.5
37	53.6	69.7	15.5

335207.343016

No. of Ways	Order Code	Price Each
Nickel		
9	**486-1735**	
15	**486-1747**	
25	**486-1759**	
37	**486-1760**	

Die Cast Sub D Hood System

A range of Die-Cast hoods for sub D connectors to suit all applications with one adaptable product range. This high grade system gives exceptional RFI/EMI shielding and conforms to European and US standards when used as part of an approved system.

Standard Assembly D Hoods - MHDM Series

MHDM Series

- Designed with the cable assembler in mind
- Allows fast assembly
- Metallised plastic insert gives 360 degree shielding in cable entry area
- Simple removal of inserts allows reworking or maintenance

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	MHDM-9-K	**430-3430**	
15	MHDM-15-K	**430-3441**	
25	MHDM-25-K	**430-3453**	
37	MHDM-37-K	**430-3465**	

Cone Style D Hoods - MHEE Series

MHEE Series

- Well proven shielding system using metallised cone insert
- 360 Degree shielding
- Cone insert can be cut to suit cable size
- Cone easily cut with knife

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	MHEE-9-K	**430-3477**	
15	MHEE-15-K	**430-3489**	
25	MHEE-25-K	**430-3490**	
37	MHEE-37-K	**430-3507**	

Crimp Style D Hoods - MHC Series

MHC Series

- For use where braided cable is used for a stronger permanent earth path
- Allows pre assembly of the earth connection before assembling the connector and backshell
- Select appropriate ferrule and die size for cable diameter

249078

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	MHC-9-K	**430-3520**	
15	MHC-15-K	**430-3532**	
25	MHC-25-K	**430-3544**	
37	MHC-37-K	**430-3556**	
Ferrule Kits			
8.6mm	MHC8.6	**430-3600**	

Double Clamp Backshells

DTZI Series

The DTZI series is supplied complete with two internal Cable Clamps, which make it suitable for heavy duty applications. The double Cable Clamp provides strong and secure strain relief which will withstand heavy pull forces.

Key Features:-
- Excellent EMI Shielding
- Re-openable
- Available in sizes 9, 15, 25, 37, 50 way
- RoHS Compliant

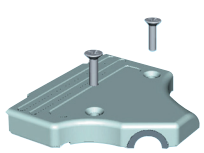
Specifications:-

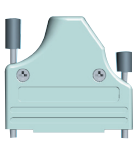
Current Rating	Zinc, Nickel plated	Voltage Rating	-30°C to 90°C
Cable Entry	Top	Thumbscrews	UNC 4-40 (standard)

528695

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	MHDTZI-09-K	**168-8932**	
15	MHDTZI-15-K	**168-8933**	
25	MHDTZI-25-K	**168-8934**	
37	MHDTZI-37-K	**168-8936**	
50	MHDTZI-50-K	**168-8937**	

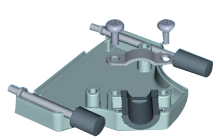
Diecast MHulti 35° Hood Series





Front profile

No. of Ways	H	W	D
9	41.3	32.2	15.4
15	43.3	40.6	15.4
25	49.5	54.5	15.4
37	54.3	70.7	15.4



Assembly

- 35° Cable Entry
- NIckel plated die cast covers
- High quality plastic capped UNC440 jackscrews
- Rapid assembly strain relief insert
- 360°Metallised shielding
- Metallised shielding greatly enhances the performance of the hood
- Fully tapped screw holes
- Phillips headed screws
- Crimp Hood uses ferrule kits from MH Die cast Hood System

335210.343025

No. of Ways	Order Code	Price Each
Standard Hood		
9	**486-1802**	
15	**486-1814**	
25	**486-1826**	
37	**486-1838**	

EMI/RFI Shielded 'D' Shells - continued

Diecast Zinc - Metal Right Angle Ultra Low Profile Covers

4861772 4861784 4861796

- Low profile and Ultra-Slim design allows for use in confined spaces
- Tapped through-holes ensures easy and rapid assembly
- Rugged Die-Cast Zinc covers provide excellent protection against EMI/RFI
- Available in 9 and 25 position with captive screws and unique 9 position ETHERNET style that is less than 1 inch in height

No. of Ways	H	W	D
9	44.55	19.81	15.09
9	50.80	24.38	15.09
25	72.14	30.23	14.99

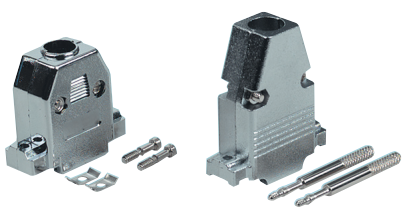
Order Code 4861772 will require Slide Lock Accessories.
Lock Posts 148704 and Lock Plate 148644

335208.343022

No. of Ways	Order Code	Price Each
Nickel		
9	**486-1772**	
9 **Ethernet**	**486-1784**	
25	**486-1796**	

Economy Metplas and Die cast D-Hoods

Top Entry



A range of Economy Top entry Metallised and die cast D connector Hoods

MHCCOV-9SC-MP	3938140	MHCCOV-15ME	3938165
MHCCOV-15SC-MP	3938116	MHCCOV-25ME	3938177
MHCCOV-25SC-MP	3938128	MHCCOV-9MEL	3938189
MHCCOV-37SC-MP	3938130	MHCCOV-15MEL	3938190
MHCCOV-50SC-MP	3938141	MHCCOV-25MEL	3938207
MHCCOV-9ME	3938153		

238496

No. of Ways	Order Code	Price Each
Metallised Plastic - Short Screws		
9	**393-8104**	
15	**393-8116**	
25	**393-8128**	
37	**393-8130**	
50	**393-8141**	
Die Cast - Short Screws		
9	**393-8153**	
15	**393-8165**	
25	**393-8177**	
Die Cast - Long Screws		
9	**393-8189**	
15	**393-8190**	
25	**393-8207**	

Die-Cast Backshells

For D-Subminiature connectors

Suitable for high integrity data links in computer peripheral, medical and instrumentation applications

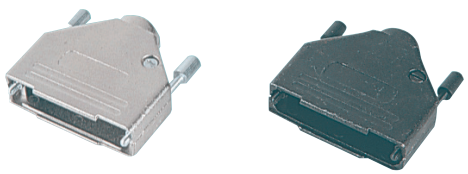
- Straight or 45° cable entry
- Excellent EMI/RFI Shielding
- Lightweight and cost effective
- Supplied with standard cable grommet
- High performance cable grommet available for 360° screening
- Tooling and dies required for high performance grommet

Contact material	Phosphor Bronze	Contact material	Phosphor Bronze
Contact plating	Gold Plated	Insulator material	PBT UL94V-0
Temperature range	-40°C120°C to	Shell	Zinc Die Cast

239070

No. of Ways.	Mftrs. List No.	Order Code	Price Each
Top Entry Backshells			
9 way	0-1478762-9	**412-9696**	
15 way	1-1478762-5	**412-9702**	
25 way	2-1478762-5	**412-9714**	
37 way	3-1478762-7	**412-9726**	
45⁰ Angled entry Backshells			
9 way	0-1478763-9	**412-9738**	
15 way	1-1478763-5	**412-9740**	
25 way	2-1478763-5	**412-9751**	
37 way	3-1478763-7	**412-9763**	
High Performance Screened Cable Grommet			
6.0 mm	0-1478764-1	**412-9775**	
7.5mm	0-1478764-2	**412-9787**	
8.5mm	0-1478764-3	**412-9799**	
9.5mm	0-1478764-4	**412-9805**	
Crimp Tool and Dies for Screened Cable Grommet			
Crimp Tool	6-1419172-9	**412-9817**	

Diecast



- Lightweight alloy body
- Bright nickel or resilient black chromate finishes
- Spring shielding clamp
- Screening conforms to **VDE 0871, FCC 20780** and EC EMC directive when part of an approved system
- Attenuation >40dB over 30MHz to 1GHz
- Accepts foil or braided cables
- Steel jackscrews (48mm)
  Nickel plated for nickel shells
  Black for black chromate shells
- Instructions supplied
- Wide cable variation, 3.5-13
- Lip height = 1.3

No. of Ways	H	W	D	No. of Ways	H	W	D
9	40	31	15	25	48.6	53.4	15
15	41.5	39.5	15	37	54	70	15

Mftrs. List No: DTZK-xx = Nickel DTZK-xxB = Black
where xx = No. of ways

209789

No. of Ways	Order Code	Price Each
Nickel		
9	**463-012**	
15	**463-024**	
25	**463-036**	
37	**463-048**	
Black Chromate		
9	**463-050**	
15	**463-061**	
25	**463-073**	
37	**463-085**	

Diecast

Single or Dual Cable Entry

- Single or dual cable entry
- Steel, zinc plated screws and cable clamp

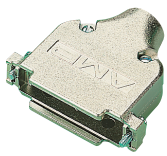
335227.343465

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	1534805-1	**105-6338**	
15	1534807-1	**105-6339**	
25	1534809-1	**105-6340**	
37	1534811-1	**105-6341**	

Diecast

Diecast Zinc Alloy Shield Hoods

Tyco Electronics



- For HDP20 and HDE20 metal shell connectors

Housing	Zinc alloy, Plated Bright Nickel over Bright Copper
4-40 screws	Steel, Zinc Plated

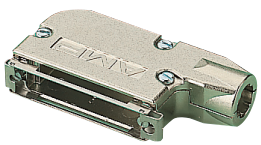
227510

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	5748676-1	109-8419●	
15	5748676-2	109-8413●	
25	5748676-3	109-8414●	
37	5748676-4	109-8415●	

Diecast

90° Exit

Tyco Electronics



- For HDP20 and HDE20 metal shell connectors
- For jacketed cable (two piece)

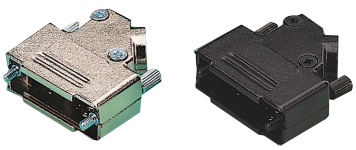
Housing	Zinc alloy, Plated Nickel Over Copper
4-40 screws	Steel, Zinc Plated
Jackscrews	Stainless Steel

219865

No. of Ways	Cable dia (max)	Mftrs. List No.	Order Code	Price Each
15	6.09mm	5745652-2	109-8385●	
25	10.92mm	5745653-3	109-8386●	

45° Cable Entry

MH CONNECTORS



- Lightweight zinc diecast shell, nickel plating over copper
- Turned, full metal 4-40 UNC thumb screws
- Low profile design

No. of Ways	Dimension (mm) A	B	C
9	36.3	31	14.5
15	40.3	39.5	14.5
25	40.3	53.2	14.5
37	40.3	69.7	14.5

Mftrs. List No: D45ZK-xx = Nickel D45ZK-xxb = Black, where xx = No. of ways

209981

No. of Ways	Order Code	Price Each
Nickel		
9	633-847●	
15	633-859●	
25	633-860●	
37	633-872●	
Black Chromate		
9	633-884●	
15	633-896●	
25	633-902●	
37	633-914●	

D Sub Metal Backshells

45° Exit

ITT *Engineered for life*

New

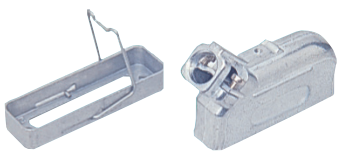
- Offers protection from magnetic & radio interferences to cable assembly
- No crimp ferrule tooling required
- Zinc, blue chromated material
- Unique metal filled plastic cable strain relief guarantees 360° shielding
- Corrosion resistant
- Temperature Range = -40°C to +120°C

602876

No. of Ways	Shell Size	Cable dia.	Mftrs. List No.	Order Code	Price Each
Backshells with #4-40 UNC Jackscrew					
9	DE	4 - 9 mm	DEFME-100	176-0386●	
15	DA	4 - 9 mm	DAFME-100	176-0387●	
25	DB	4 - 9 mm	DBFME-100	176-0388●	
37	DC	4 - 9 mm	DCFME-100	176-0389●	
50	DD	13 - 16 mm	DDFME-100	176-0390●	
Backshells with M3 Jackscrew					
9	DE	4 - 9 mm	DEFMX-100	176-0391●	
15	DA	4 - 9 mm	DAFMX-100	176-0392●	
25	DB	4 - 9 mm	DBFMX-100	176-0393●	
37	DC	4 - 9 mm	DCFMX-100	176-0394●	
50	DD	13 - 16 mm	DDFMX-100	176-0395●	

Diecast Shells and Retainers

CINCH



- Heavy duty die cast shells complete with cable clamp
- Fixing screws and die cast base retainer
- Manufactured from zinc alloy with a polished finish.

No. of Ways	Shell Dimensions H	W	D	max dia.	Mftrs. List No.	Order Code
9	33.5	40.4	16	9.5	RK000250000AL00	111-4093
15	33.5	48.4	16	9.5	RK000260000AL00	111-4095
25	39.5	60	16	9.5	RK000270000AL00	111-4096
37	39.5	76.4	16	9.5	RK000280000AL00	111-4097
50	39.9	74.9	18.8	12.7	RK000290000AL00	111-4099

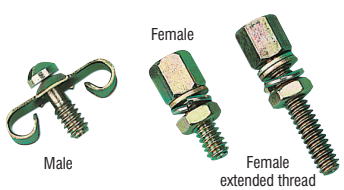
210103

No. of Ways	Order Code	Price Each
9	111-4093●	
15	111-4095●	
25	111-4096●	
37	111-4097●	
50	111-4099●	

'D' Accessories

Screw Lock Accessories

SPC multicomp



Male Type D20419, 'D' Flange Th = 0.99 Type D20419-16, Thread length = 3.7

Female Thread length = 8 Type D20418-2

Female extended thread Thread length = 14.5 Type D20418-2145

Available in a pale Yellow chromate on zinc plating finish, designed to match the standard 'D' connectors, or a bright tin plating suitable for EMI/RFI shielded 'D' connectors. The base of the female screwlocks have chamfered corners to prevent scratching of surface during assembly.

210082

2 Per Pack	Order Code	Price Per Pack
Zinc Plated		
Male	120-6634●	
Female	109-9006●	
Extended female	109-9007●	
Bright Tin		
Female	109-9010●	
Extended female	109-9011●	
NIckel Plated		
Male	171-2324●	
Female	171-2322●	
Extended female	171-2323●	

Screw Lock Accessories

ITT *Engineered for life*

D20419 Male D20418-2 Female

	Mftrs. List No.	Order Code
Male for DA, DE plug or socket; DB, DC socket	D20419	121-5323
Female	D20418-2	160-8704

'D' Accessories - continued

Screw Lock Accessories - continued

209673

2 Per Pack	Order Code	Price Per Pack
Male	121-5323●	
Female	160-8704▲	

D-sub accessories

Tyco Electronics

Screw/bolt kits

Screw locking kits for HDP20&HDF20 Sub-D connectors.
Kit comprises 2 bolts with nuts, washers and spring washers

	Mftrs. List No.	Order Code
Threaded bolt kit (7.9 mm UNC4-40 / UNC4-40)	167501-2	121-7993
Threaded bolt kit (7.9 mm M3 / M3)	215073-2	122-1120
Threaded bolt kit (14.2 mm UNC4-40 / UNC4-40) (Bolt length, internal, external thread)	215072-2	122-5969
Screw locks, female for HD series		
Supply quantity: individual items		
Threaded bolt (14.2 mm UNC4-40 / M3 bolt)	1-0829261-6	120-6767
Threaded bolt (7.9 mm UNC4-40 / M3 bolt)	829261-6.	421-8061
Threaded bolt (5.0 mm M3 / M3 bolt)	829068-1	118-7871
Screw holding kits, steel, galvanized		
Comprises: 2 locking screws, 2 holding clips		
Screw kit, metal housing (5.8 mm M3)	0-0166541-2	421-8115

243391

Mftrs. List No.	Order Code	Price Each
167501-2	121-7993●	
215073-2	122-1120●	
215072-2	122-5969●	
1-0829261-6	120-6767●	
829261-6.	421-8061●	
828102-1	118-7870●	
829068-1	118-7871●	
0-0166541-2	421-8115	

Mounting Accessories

ITW McMurdo Connectors

129-7955 Brackets and screws

107-5200 PCB spacer

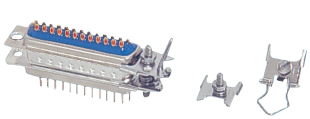
Brackets For mounting 90° PCB Connectors, two required per connector.
Spacer For mounting straight PCB connectors, two required per connector.

209674

	Order Code	Price Per Pack
9, 15, 25, 37 Way (10 Pairs Per Pack)		
Brackets	129-7955●	
		Price Each
Spacers	107-5200●	

Latch Assembly

ITT
Engineered for life



Mftrs. List Nos: D110277 = 118-6663 D110278 = 118-6664

219833

2 Per Pack	Order Code	Price Per Pack
Plate with spring	118-6663●	
Retaining plate	118-6664●	

Over 500 000 products available online QGO

D Type Connector Covers

MH CONNECTORS

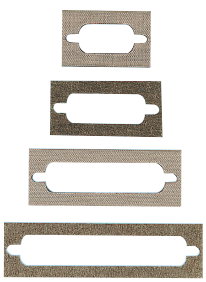
- Prevents physical and chemical damage
- For cable assemblies, computers, peripherals, etc
- Plug and socket options

211489

No. of Pins	Mftrs. List No.	Order Code	Price Each
Plug covers			
9	MHDC09P	529-5361●	
15	MHDC15P	529-5373●	
25	MHDC25P	529-5385●	
Socket covers			
9	MHDC09S	529-5397●	
15	MHDC15S	529-5403●	
25	MHDC25S	529-5415●	

Electromagnetic Shielding Gaskets

SPECTRUM CONTROL, INC.



- I/O gaskets provide a ground between metal connectors and enclosure/mating connector
- Ensures continuous shield from cable to enclosure
- Light weight
- Shielding Effectiveness (SE) of 70dB between 1MHz to 18GHz
- **UL** listed
- Three thickness styles
- Each style available in 'D' sizes 1-5 (9,15,25,37,50 way)

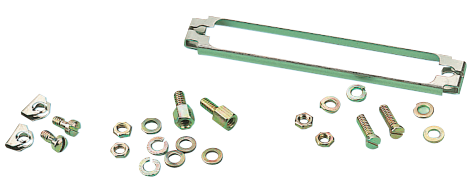
Thickness styles a = 0.3mm (0.012") Die-cut non-woven fabric
b = 1.02mm (0.040") Woven fabric around neoprene

210008

'D' Size	Thickness	Mftrs. List No.	Order Code	Price Each
	b	267251-1	487-569●	
	b	267252-1	487-594●	
3 (25 way)	a	267250-3	487-612●	
	b	267253-1	487-624●	
4 (37 way)	a	267250-4	487-648●	

Amplimite 'D' Hardware

Tyco Electronics



- All female screwlock kits fit metal shell or plastic connector and contain 2 assemblies per pack
- Slide latch clip assembly contains 2 per pack
- Latching blocks are supplied 2 per pack

Mftrs. List No.	Description	Suitable For	Order Code
747784-3	2 piece 4-40 jackscrew kit		139-3728
745255-2	2 Spring latches	HDE/HDP	134-5722
745779-2	2 spring latches with post moulded s/relief	HDE/HDP Metal	134-5680
Mftrs. List No.	**Description**	**Suitable For**	**Order Code**
5205980-1	Male screw reatainer kit for Metal shells		109-8377
5745647-1	Male screw kit for plastic shells	HDE/HDP Metal	109-8379
5205817-1	Standard female screwlock kit	HDE/Plastic	109-8381
5207719-1	Long female screwlock kit	HDP/PL/Metal	109-8371
5206514-1	2 Locking post assemblies	HDF Plastic	109-8372
5745563-1	Female screwlock kit (all plastic)	HDF/HD/HDP/HDF	109-8451
5745404-1	9w slide latch kit	HDE/HDP	109-8373

210024

Order Code	Price Each
109-8377●	
109-8379●	
109-8381●	
109-8371●	
109-8372●	

Order Code	Price Each
109-8451●	
109-8373●	
139-3728●	
134-5722●	
134-5680●	

'D' Range Face Plates and Panels

Extruded Aluminium Panels 16 way.

19" Rack Mounting 2U High 9, 15 & 25 way 'D'

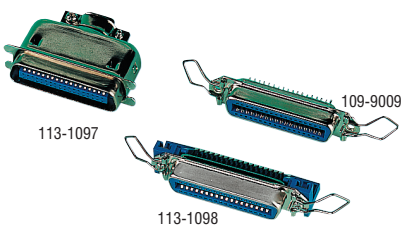
H=88, W=483, D=20

- 2mm rigid, extruded aluminium panels
- Front, rear or through 'D' cut outs
- Satin anodised finish
- 3.3mm fixing holes for pop riverts or 4/40UNC
- Easy fit labelling strips
- 2U panels, 16way in 9, 15 & 25 'D'

209846

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	KK2ASUBD9	746-022●	
15	KK2ASUBD15	746-034●	
25	KK2ASUBD25	746-046●	

Centronics/IEEE 488 Style



A range of metal shell connectors most commonly used for IEEE488 and printer interface connections.

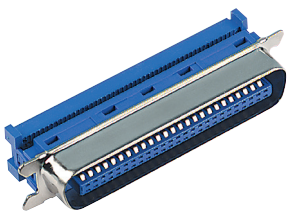
Current rating	3A dc	Contact resistance	30mΩ max.
Temperature range	-55°C to +105°C	Housing	Blue Polyester, **UL94V-0**
Contacts	Phosphor Bronze, Gold over Nickel		

219834

No. of Ways	Order Code	Price Each
Straight Plugs		
14	113-1099●	
36	113-1097●	
50	113-1100●	
Straight PCB Sockets		
14	109-9013●	
24	109-9008●	
36	109-9009●	
50	109-9014●	
90° PCB Sockets		
36	113-1098●	

Centronics IDC Ribbon Connectors

Bailmount



- Metal front shell (24 way plastic shell)
- Pitch, 1.27 (0.050")

Current Rating	1A	Temperature Range	-55°C To + 105°C
insulation resistance	1000 MΩ	Insulation Material	Polyester UL94V-0
Contact resistance	20Ω	Contact Material	Phosphor Bronze
Dielectric withstand Voltage	500V ac @ 1min	Contact plating	Gold over Nickel

236518

No of Ways	Order Code	Price Each
Plug		
24	109-9278●	
36	109-9282●	
50	109-9284●	
Socket		
24	109-9281●	
36	109-9283●	
50	109-9285●	
Strain relief		
24	109-9286●	
36	109-9287●	
50	109-9288●	

SCSI Connectors

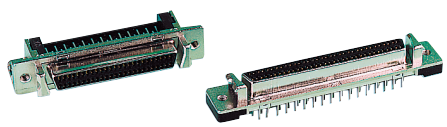
High Density I/O Connectors

Har-mik 1.27mm Pitch

- SCSI 'One stop shop' solution
- Two mating styles, pin/socket and bellows
- Meets ANSI standards
- Intra cabinet input/output and terminators
- Terminators ensure matched impedance transfer
- Bellows style gives reliable mating and reduced susceptibility to contact damage
- Conforms to Bi-directional parallel interface (IEEE 1284-C)

209945

Straight and 90° Pin I/O Connectors



114-2826
H=10.5,W=52.45, D=12.3

114-2825
H=9.3,W=52.45, D=10.5

- Polarised 'D' shaped shell
- **UL** Recognised

Contact rating	1A	Housing	Thermoplastic resin UL94V-0
Contact resistance	≤30mΩ	Insulator	nickel plated
Temperature range	-55°C to +105°C	Contacts	Copper Alloy, Gold over Palladium / Nickel

209946

No. of Ways	Mftrs. List No.	Order Code	Price Each
Straight PCB socket - with latch blocks			
50	60 01 050 5102	114-2824●	
68	60 01 068 5102	114-2825●	
Straight PCB Socket - without latch			
68	60 02 068 5120	109-6973●	
90° PCB Socket - with latch and board locks			
50	60 01 050 5140	114-2826●	
68	60 01 068 5140	114-2827●	
90° PCB Socket - with 2.56 UNC and board lock			
68	60 02 068 5141	114-2828●	

90°Pin I/O Connectors

- High density connectors with angled solder pins
- M2.5 Panel and board fixing (100 pole 2.56 UNC)

Contact rating	1A	Housing	Thermoplastic Resin
Contact resistance	30mohm	Insulator	Die-cast zamac nickle plated
Temperature range	-55°C to +105°C	Contacts	Copper Alloy . Gold over Palladium / Nickel

239280

Mftrs. List No.	No. of Ways	Order Code	Price Each
Plug	68	114-2818●	
Socket	68	114-2821●	

Insulation-Displacement Terminal Connection

- Male multiway connectors with a grid size of 1.27 mm, specifically for connection of round ribbon cables and individual conductors

SCSI Connectors - continued

Insulation-Displacement Terminal Connection - continued

- Without interlock

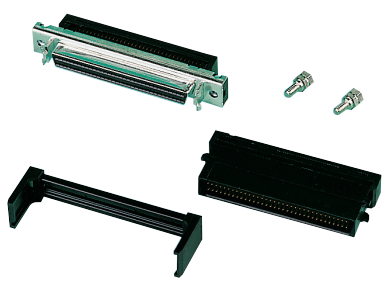
Insulation diameter: 0.65-0.80 mm

239274

Mftrs. List No.	No. of Ways	Order Code	Price Each
Male multiway connectors			
60 03 050 5210	50	**120-7633**	
60 03 068 5210	68	**120-7634**	

Intra Cabinet, Ribbon Cable Connectors

HARTING Pushing Performance



H=10.26, W=63.88, D=15.7

- Female panel mount and male all plastic connectors
- 4 point IDCfork design for accurate termination
- Connector guides for cable alignment
- Optional strain relief

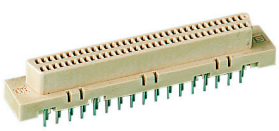
Contact rating	1A	Housing	Thermoplastic resin UL94V-0
Insulation resistance	≥1000M ohms	Shell	Nickel plated
Temperature range	-20°C to +105°C	Contacts	Beryllium Copper, Gold / Nickel plated

219859

No. of Ways	Mftrs. List No.	Order Code	Price Each
Panel Mount Sockets			
68 (fastwide SCSI)	60 04 068 5343	**109-6974**	
68 (SCSI-3 wide)	60 04 068 5344	**109-6975**	
Free Plug			
68 (SCSI-3 wide)	60 06 068 5440	**109-6976**	
Accessories			
68 strain relief (plastic)	60 06 068 9001	**114-2829**	
			Price Per Pack
2 Per Pack			
Screw Locks	60 01 000 9019	**114-2830**	

Straight PCB Socket (Plastic)

HARTING Pushing Performance



H=8.5, W=53.2, D=8.9

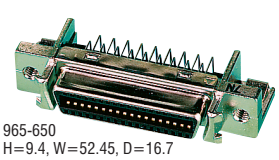
209949

No. of Ways	Mftrs. List No.	Order Code	Price Each
68 (fast, wide SCSI)	60 05 068 5100	**109-6978**	

High Density PCB Mount I/O

Bellows Contact

HARTING Pushing Performance



965-650
H=9.4, W=52.45, D=16.7

- Har-mik bellows offer good EMI/RFI characteristics
- 'D' shaped polarization
- 36 way complies with **IEEE 1284-C** specification
- Integral board lock
- **UL** Recognised

Contact rating	1A	Moulding	Thermoplastic resin UL94V-0
Temperature range	-55°C to +105°C	Shell	Die cast Zamac nickel plated
		Contacts	Copper alloy, gold over palladium/ nickel plating

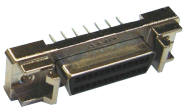
209952

No. of Ways	Mftrs. List No.	Order Code	Price Each
90° PCB Sockets - with latches			
26	60 11 026 5140	**114-2832**	
36	60 11 036 5140	**114-2833**	
50	60 11 050 5140	**114-2834**	

Amplimite .050 Series Headers

Tyco Electronics

SCSI



- Compatible with SCSI-2 and SCSI-3 standards
- Vertical and right angle headers

Housing	Thermoplastic, UL94V-0, Black, SMT compatible
Shell	Steel, plated Nickel over Copper
Bracket	Zinc, plated Nickel over Copper
Contacts	Phosphor Bronze, Gold plated on mating end, Tin plated on solder end

451257

No. of Ways	Mftrs. List No.	Order Code	Price Each
Right Angle Receptacle Headers - Through Hole, with Rails and Latches + Boardlocks			
50	1761028-3	**128-4371**	
68	1761028-4	**128-4372**	
Right Angle Receptacle Headers - Through Hole, with Boardlocks			
50	5787170-5	**128-4373**	
68	5787170-7	**128-4374**	
Vertical Receptacle Headers - Through Hole, with Rails and Latches			
68	5749069-7	**128-4377**	
Right Angle Receptacle Headers - Through Hole			
68	5749070-7	**128-4379**	

Amplimite 0.050 Cable Plugs

Tyco Electronics

SCSI2

- High density 'D' type interface to mate with SCSI2 receptacles
- Excellent EMI/RFI shielding when used with metal backshell kits
- Compatible with SCSI2, EIA RS232 IPI and HIPPI standards

Housing	Black Thermoplastic, UL94V-0
Shell	
Contacts	Phosphor Bronze Plating: Gold (mating end), Tin-lead (termination end)
Wire size	28-30AWG (0.08-0.09)
Inslation dia.	0.74-0.91mm, solid or 7 strand

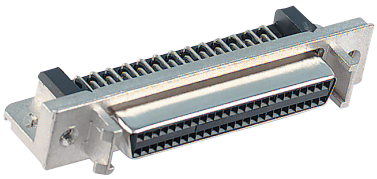
219663

No. of Ways	Mftrs. List No.	Order Code	Price Each
26	5749621-2	**109-8643**	
50	5749621-5	**109-8644**	
68	5749621-7	**109-8645**	

SCS12 High Density Connector

multicomp

PCB Mount Sockets - Right Angle



- High Density SCS12 connector
- 1.27 (0.050") Pitch

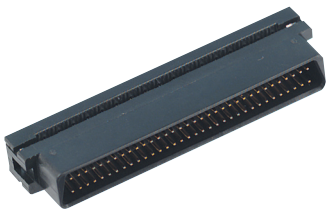
Current		Temperature Range	-55°C105°C To +
Insulation resistance	500M Ω	Insulation Material	Glass filled PB7 UL94V-o
Contact resistence	35m Ω	Contact Material	Phosphor Bronze, Gold over Nickel
Voltage	250V		

236517/406721

No. of Ways.	Order Code	Price Each
50	**109-9271**	
68	**109-9270**	

SCSI2 High Density Connector

IDC Ribbon Cable - Plugs



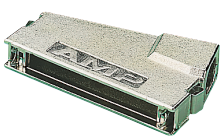
- 1.27 (0.050") Pitch
- IDC ribbon connector

Current rating	1A	Temperature range	-55°C105°C to +
Insulation Resistance	500MΩ	Insulater Material	Glass filled PBT UL94V-0
Contact Resistence	35mΩ	Contact Material	Phosphor Bronze, Gold over Nickel
Dielectric withstand Voltage	250V @ 1min		

236513/406723

No. of Ways	Order Code	Price Each
50	109-9275●	
68	109-9273●	

Amplimite



- Use with 26,50 and 68 way cable plugs
- Available with straight and angled cable exits
- Squeeze to spring latches
- Each kit contains
  1 each upper and lower backshells and strain relief
  2 each spring latches and 2-56 screws

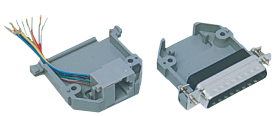
Backshell	Zinc plated Nickel Over Copper
Spring Latch	Stainless Steel
Strain relief staple	Steel plated tin-lead over nickel

210013

No. of Ways	Mftrs. List No.	Order Code	Price Each
		Straight Exit	
26	749608-2	109-8646●	
		Angled Exit	
50	5749202-2	109-8651●	
68	5749204-2	109-8653●	

Adaptors

D-FCC-68 Adaptors



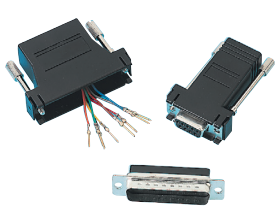
A range of adaptors for interfacing 'D' connectors to modular connectors.

The adaptors provide an easy method for using inexpensive 6 or 8 wire cable to interconnect with RS232 computer equipment. The modular socket has colour coded crimp terminations which can be hardwired into the 'D' connector. Each kit is supplied with a grey cover and captive jack screws.

209771

Modular Socket	'D' Connector	Order Code	Price Each
RJ11	9 Way D Socket	117-9358●	
RJ11	25 Way D Plug	117-9359●	
RJ11	25 Way D Socket	117-9360●	
RJ45	9 Way D Plug	117-9361●	
RJ45	9 Way D Socket	117-9363●	
RJ45	25 Way D Plug	117-9364●	
RJ45	25 Way D Socket	117-9365●	

Modular Jack Adaptors



- One piece polycarbonate shell, housing a modular socket
- The modular socket has colour coded crimp-terminations which can be hard wired into the 'D' plug socket and then snapped into the housing
- Additional wired cables are available to enable extra pin connections. (647-871 and 648-883).
- Moulded in high temperature black polycarbonate to UL94V-0, with easy grip jack screws.

Mftrs. List No.	Farnell Order Code	Mftrs. List No.	Farnell Order Code	Mftrs. List No.	Farnell Order Code
MHDA25-PMJ8-K	429-739	MHDA9-SMJ8-K	647-846	MHDA9-PMJ6-K	647-858
MHDA25-SMJ8-K	429-740	MHDA25-PMJ6-K	647-810	MHDA9-SMJ6-K	647-860
MHDA9-PMJ8-K	647-834				

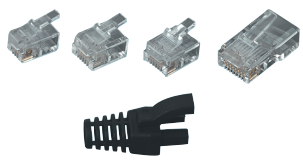
221471

RJ45 Connections	Order Code	Price Each
RJ45 to 25 Way D Plug	429-739	
RJ45 to 25 Way D Socket	429-740	
RJ45 to 9 Way D Plug	647-834	
RJ45 to 9 Way D Socket	647-846	
RJ11 Connections		
RJ11 to 25 Way D Plug	647-810	
RJ11 to 9 Way D Plug	647-858	
RJ11 to 9 Way D Socket	647-860●	

FCC-68 Modular Connectors

RJ Modular Plugs

and strain relief inserts



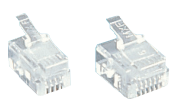
A range of quality RJ series Modular Plugs

- High quality gold plated contacts
- Insulation piercing IDC blade contacts
- Strain relief is Ideal replacement for a moulded boot
- Ideal for volume user
- Body is glass filled polycarbonate - UL94V-0
- Standard crimp tool compatible

238497

10 Ways / Contacts	Mftrs. List No.	Order Code	Price Each
4/4	MHRJ224P4CF	393-8220●	
6/4	MHRJ116P4CR	393-8232●	
6/6	MHRJ126P6CR	393-8244●	
8/8	MHRJ458P8CR	393-8256●	
Strain Relief Inserts (only for use with 8/8 contact connector)			
Light Grey	MHRJ45SRI-LG	393-8268●	
Black	MHRJ45SRI-BK	393-8270●	
Blue	MHRJ45SRI-B	393-8281●	
Green	MHRJ45SRI-G	393-8293●	
Red	MHRJ45SRI-R	393-8300●	
Yellow	MHRJ45SRI-Y	393-8311●	

Unshielded Plugs



90075-0027 90075-0031

- Quick and easily terminated connectors
- Suitable for use with flat telephone cable.

No. of Ways/Contacts	Type	Length	Width	Mftrs. List No.	Order Code
4/4	–	12.32	7.62	90075-0027	112-5135
6/4	RJ11	12.32	9.65	90075-0035	112-5136
6/6	RJ12	12.32	9.65	90075-0031	112-5137
8/8	RJ45	12.32	11.68	90075-0141	112-5139

209679

No. of Ways/Contacts	Order Code	Price Each
Short Body		
4/4	112-5135●	
6/4	112-5136●	
6/6	112-5137●	
8/8	112-5139●	

Unshielded Plugs

- Suitable for flat cable connection

Housing:	Polycarbonate
Contact surface:	Gold plated, 6μm
Isolation resistance:	500mΩ
	35mΩ

Mtfrs.List No.	Contacts/Loaded	Order Code
P126	4/4	124-3233
P127	/4	124-3234
P128	6/6	124-3235
P129	8/8	124-3236

239696

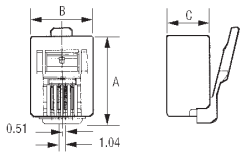
Mftrs. List.No	Order Code	Price Each
P126	124-3233●	
P127	124-3234●	
P128	124-3235●	
P129	124-3236●	

FCC-68 Modular Connectors - continued

Unshielded Plugs

bel Stewart Connector

RJ11 MMJ RJ45



- Modular plugs featuring mirror smooth contact surfaces with extended mating life
- Datacom and mobile communication applications
- The plugs have dual point contacts and are available in flat, oval or round cable versions
- Approved to **CSA**, **UL** recognised and manufactured to **FCC** docket 20780.

Contact rating	1.5A @ 30V ac/42V dc	Housing	Clear Polycarbonate, UL94V-0
Contact resistance	10mΩ max.	Contacts	Phosphor Bronze
Dielectric strength	1000V rms	Plating	50µinch gold over 100µinch nickel
Insulation resistance	500MΩ min.	Temp. range	-40°C to +125°C
Mating cycles	1000	Suitable wire size	24, 26, 28 AWG, 0.96mm dia.

Mftrs. List No.	No. of Positions	Type	Cable Type	Length A (mm)	Width B (mm)	Height C (mm)	Order Code
Stranded Conductors							
937-SP-3044	4	–	Flat / Oval	13.3	7.6	6.6	429-752
937-SP-3066	6	RJ11	Flat / Oval	13.3	9.6	6.6	429-764
937-SP-3066R	6	RJ11	Round	13.3	9.6	6.6	429-776
937-SP-3066R-OST	6	MMJ	Round	13.3	9.6	6.6	429-788
937-SP-3066-OST	6	MMJ	Flat / Oval	13.3	9.6	6.6	429-790
937-SP-3088R	8	RJ45	Round	22.5	11.7	7.9	429-806
Solid or Stranded Conductors							
940-SP-3044	4	–	Flat / Oval	13.3	7.6	6.6	429-818
940-SP-3066	6	RJ11	Flat / Oval	13.3	9.6	6.6	429-820
940-SP-3066R	6	RJ11	Round	13.3	9.6	6.6	429-831
940-SP-3066-OST	6	MMJ	Flat / Oval	13.3	9.6	6.6	429-855
940-SP-3088R	8	RJ45	Round	22.5	11.7	7.9	429-867

NET98/221639

10 Per Pack

No. of Positions	Order Code	Price Per Pack
Stranded Conductors		
4	**429-752**	
6	**429-764**	
6	**429-776**	
6	**429-788**	
6	**429-790**	
8	**429-806**	
Solid or Stranded Conductors		
4	**429-818**	
6	**429-820**	
6	**429-831**	
6	**429-855**	
8	**429-867**	

Modular Plugs

multicomp

- Modular plugs for flat or rounded cable
- Various contact arrangments available

New

Order Code	171-2384	171-2385	171-2386	171-2387	171-2388	171-2389
Contact Arrangement	4/4	6/4	6/6	8/8	8/8	8/8
Contact Plating	Gold	Gold	Gold	Gold	Gold	Gold
Contact Material	Phosphor Bronze	Phosphor Brozne	Phosphor Brozne	Phosphor Bronze	Phosphor Bronze	Phosphor Bronze
Insulation Material	High Temp. Plastic	High Temp. Plastic	High Temp. Plastic	High Temp. Plastic	High Temp. Plastic	High Temp. Plastic
Current Rating	1A	1A	1A	1.5A	1.5A	1A
Voltage Rating	150V	150V	150V	125V	125V	150V
Withstanding Voltage	750V	500V	500V	1000V	1000V	500V
Contact Resistance	20mohm	20mohm	20mohm	20mohm	20mohm	20mohm
Isulation Resistance	1000Mohm	1000Mohm	1000Mohm	500Mohm	500Mohm	1000Mohm
Flammability Rating	UL94V-0	UL94V-2	UL94V-2	UL94V-0	UL94V-0	UL94V-2
Operating Temp.	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 85°C	-40°C to 85°C	-40°C to 125°C

555364

Description	Order Code	Price Each
RJ11, 4P4C, Flat Cable	**171-2384**	
RJ11, 6P4C, Flat Cable	**171-2385**	
RJ12, 6P6C, Flat Cable	**171-2386**	
RJ45, 8P8C, Flat Cable	**171-2387**	
RJ45, 8P8C, Round Cable	**171-2388**	
RJ45, 8P8C, Shielded, Flat Cable	**171-2389**	

Over 500 000 products available online QGO

Unshielded 8 Way RJ45 Plug

Tyco Electronics

- Unshielded 8 position RJ45 plug ideal for constructing patch leads
- Suitable for terminating round cable

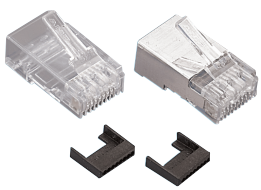
Housing	Clear Polycarbonate
Contacts	Phosphor Bronze
Plating	1.27µm gold in localised gold. Plate area, gold flash over the remainder, over 2.54µm nickel
Suitable wire	0.74mm to 0.99mm dia. stranded wire, 26 or 28 AWG with a 5.34mm dia. max. jacket

221459

10 Per Pack Order Code	Price Per Pack
546-124	

High Performance RJ45 Connectors

Tyco Electronics



Plugs
- Exceed TIA/EIA-568A requirements of UTP applications
- Supplied with a load bar to aid installation with a 1.26mm untwist
- Designed 24 AWG stranded cable with a maximum diameter of .99m

Crimp tool
- Cut and strip blades incorporated within the tool
- Ratchet mechanism

221605

Mftrs. List No.	Order Code	Price Each
High Performance Plugs		
UTP 5-558530-3	**307-3464**	
FTP 5-569552-3	**120-5942**	
Tooling		
Professional Crimp Tool 3-231652-0	**307-3488**	

RJ45 Shielded

Tyco Electronics

Standard

- Compact shielded Plug
- 8 position, 8 contacts
- Meet FCC Rules and Regulations, part 68
- Accommodates 24 to 28 AWG wire
- Mate with any FCC accepted jacks, shielded or unshielded
- **UL** Recognised and **CSA** Certified

Contact Rating	150V at 1.5A	**Material**	
Withstand Voltage	1000V AC	Body	Polycarbonate.
Insulation Resistance	500Mohm	Flamability	UL94V-2
Durability	750 mating cycles	Contact	Phosphor Bronze
Temperature Range	-40°C to 60°C	Contact Plating	Gold / Nickel

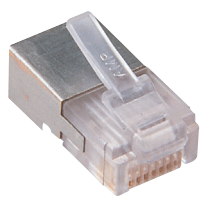
334965

Cable Type	Mftrs. List No.	Order Code	Price Each
Stranded	5-569532-2	**118-7824**	
Solid	5-569530-2	**473-9565**	
Crimp Tool	2-231652-1	**218-9483**	

RJ45 EMT Shielded

Tyco Electronics

Cat5e, for all EMV requirements



- Very high performance modular plug
- 8 position, 8 contacts
- Suitable for shielded round cable up to 6mm outside diameter: FTP, S-UTP, S-FTP and PIMF
- Shielded contacts using AMP Hex-Crimps to meet the very high demands of the EMV-standards
- Seperate external strain relief - 5 colours
- **UL** Recognised and **CSA** Certified

Contact Rating	150V at 1.5A	**Material**	
Withstand Voltage	1000V AC	Body	Polycarbonate
Insulation Resistance	500Mohm	Flamability	UL94V-2
Durability	750 mating cycles	Contact	Brass
Temperature Range	-40°C to 60°C	Contact Plating	Selective Gold

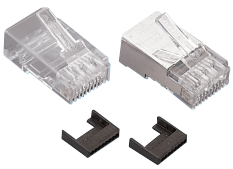
334967/406725

Description	Mftrs. List No.	Order Code	Price Each
Plug	336330-1	**473-9504**●	
Crimp Tool			
Ergocrimp with Die	539690-1	**785-4692**	
Strain Relief			
Colour			
Grey	737893-2	**473-9590**●	
Red	737893-3	**473-9607**●	
Green	737893-5	**473-9620**●	

RJ45 Shielded

Cat5e

Tyco Electronics



- One-piece construction with preloaded contacts
- 8 position, 8 contacts
- Exceed FCC and TIA/EIA-568A requirements
- Accommodates 24 or 26 AWG wire
- Selectively gold plated terminals
- **UL** Recognised and **CSA** Certified

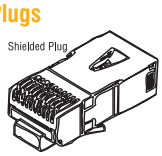
Contact Rating	150V at 1.5A	**Material**	
Withstand Voltage	1000V AC	Body	Polycarbonate
Insulation Resistance	500Mohm	Flamability	UL94V-2
Durability	750 mating cycles	Contact	Phosphor Bronze
Temperature Range	-40°C to 60°C	Contact Plating	Gold over Nickel

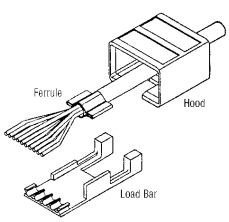
334966/406724

Description	Mftrs. List No.	Order Code	Price Each
Stranded Cable Plug	5-569552-2	**473-9589**	
Crimp Tool	3-231652-0	**307-3488**	

Shielded 8 Way RJ45 Plugs

bel Stewart Connector





- Fully shielded plugs designed for ease of termination and assembly and to minimise EMI/RFI
- Approved to **UL** and **CSA** and manufactured to **FCC** docket 20780.
- A four piece assembly consisting of a strain relief ferrule which clamps the braid and also contacts directly on to the shielded plug
- A load bar holds twisted pair wires firmly in place during assembly
- A black flexible hood clicks over the plug housing

Contact rating	1.5A @ 30V ac/42V dc	Housing	Clear Polycarbonate, UL94V-0
Contact resistance	10mΩ max.	Shield	Brass, tin plated
Dielectric strength	1000V rms	Contacts	Phosphor Bronze
Insulation resistance	500MΩ min.	Plating	50µinch gold over 100µinch nickel
Mating cycles	1000 min.	Suitable wire	24, 26, 28 AWG, 0.96mm dia.

Mftrs. List No.: 937-SP-360808 = 430-031, 940-SP-360808 = 430-043

221427

5 Per Pack	Order Code	Price Per Pack
Stranded wire	**430-031**●	
Solid wire	**430-043**●	

Shielded CAT6a RJ45 Modular Plug

TM31 Series

HRS

New

- Plug design satisfying CAT6a performance
- Wire guide plate helps to provide a simple and quick assembly process
- Steady cable assembly procedure
- 24-27 AWG stranded PIMP cable is applicable
- IDC and clamping process can be implemented by same specific tool (p/n 412-7626)

Specifications:-

Current Rating	1A	Voltage Rating	125VAC
Contact Material	Phosphor Bronze	Contact Plating	Gold
LAN Type	Cat6a	Shell Material	Stainless Steel
Operating Temp.	-25°C to 60°C		

549880

Description	Mftrs. List No.	Order Code	Price Each
Plug	TM31P-TM-88P(01)	**171-9112**●	
Guide Plate	TM31P-TM-88P(02)	**171-9113**●	

Description	Mftrs. List No.	Order Code	Price Each
Hand Tool	TM11-21	**412-7626**	

RJ45 Modular Plugs, EMI Protection

TM11 Series

HRS

New

- Single-body construction incorporating a shell and cable clamp
- Designed for electrostatic prevention with the metal shell covered with a plastic hood.
- EMI protection
- L-Shape or straight (for ganged jacks) plug options

Specifications:-

Current Rating	0.5A per contact	Voltage Rating	125VAC per contact
Contact Material	Phosphor Bronze	Contact Plating	Gold
Insulation Resistance	100Mohm	Withstanding Voltage	500VAC r.m.s.
Operating Temp.	-20°C to 60°C	Mating Cycles	200

549884

Description	Mftrs. List No.	Order Code	Price Each
L-Shape	TM11APA-88P(03)	**171-9114**●	
Straight	TM11AP1-88P(03)	**171-9115**●	

RJ45 Shielded Modular Plug and Hoods

TM21P Series

HRS

New

- Conforms to requirements of TIA/EIA-568-B data wiring standards
- Satisfies the transmission performance of Enhanced Category 5

- Supporting high-speed LAN transmissions such as Gigabit Ethernet (1000BASE-T) and Fast Ethernet (100BASE-TX)
- The metal shield assures protection against EMI
- Conforming to the ISO 8877 standards (ISDN interface connectors)

Specifications:

Current Rating	1A	Voltage Rating	125V
Contact Plating	Gold	Contact Material	Copper Alloy
Contact Resistance	230mohm	Insulation Resistance	100Mohm
Operating Temp.	-25°C to 60°C	Flammability Rating	UL94V-2

553091

Description	Mftrs. List No.	Order Code	Price Each
RJ45 Plug	TM21P-88P(21)	**176-4402**●	
Guide Plate for RJ45 Connnector			
	Mftrs. List No.	Order Code	
	TM21P-88P(22)	**176-4403**●	
Hoods for RJ45 Connnector			
Colour	Mftrs. List No.	Order Code	
Light Beige	TM21P-88P(11)	**176-4395**●	
Black	TM21P-88P(13)	**176-4396**●	
Light Grey	TM21P-88P(14)	**176-4397**●	
Red	TM21P-88P(15)	**176-4398**●	
Green	TM21P-88P(16)	**176-4399**●	
Blue	TM21P-88P(17)	**176-4400**●	
Yellow	TM21P-88P(18)	**176-4401**●	

Shielded 8 Way RJ45 Plug

molex

- Shortbody RJ45 plug suitable for CAT5 shielded twisted pair plastic cable.
- Plastic housing has an integrated wire manager
- Loaded IDC terminals have two contact points
- The metal shield ensures optimum protection due to a hex crimp on the cable
- A short grey boot is included

Contact rating	1.5A@ 125V ac	Mating cycles	500
Contact resistance	10mΩ max.	Frequency	30 to 150Mhz
Dielectric strength	1000V rms	Housing	Clear Polycarbonate, UL94V-0
Contacts	Phosphor Bronze	Shielding	Brass, tin plated
Plating	1.3µm Gold over Nickel	Suitable wire	28 AWG, 5.4mm O.D.
Insulation resistance	500MΩ min.	Temp. range	-40°C to +80°C

Mftrs. List No. 95043-2891

219838

FCC-68 Modular Connectors - continued

Shielded 8 Way RJ45 Plug - continued

5 Per Pack Order Code	Price Per Pack
997-3885●	

Strain Relief Boots

RJ45

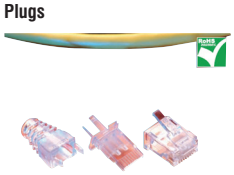
- Protection for terminated plugs
- Nine colours available for easy cable recognition
- This neoprene strain relief boot offers protection against strain on cable connections
- Designed for fitment on RJ45 data plugs the strain relief will accept standard 4 Pair UTP and STP cable
- Strain relief boots can be used with the shielding cans (728-780) below, to provide both shielded and protected termination

221529

8 Per Pack	Order Code	Price Per Pack
Black	728-950●	
Light Grey	728-962●	
Dark Grey	728-640●	
Blue	728-652●	
Yellow	728-664●	
Red	728-676●	
Green	728-688●	
White	728-690●	
Purple	728-706●	

Modular Connectors, Cat 6

Plugs



- Designed for solid and stranded conductors
- Meets EIT/TIA Category 6 component standard when terminated to Category 6 compliant cable
- Electro-polished contacts for minimum of 1000 insertion cycles
- Loadbar for ease of assembly
- Field installable with Category 6 termination tool
- Shielded and unshielded plugs available

Plug Body Material	Contact Material	Contact Plating	No. of Ways	LAN Category	Flammability Rating
Polycarbonate	Copper Alloy	Gold	8	Cat6	UL94V-0

Description	Mftrs. List No.	Order Code	Price Each
Unshielded for un-splined cable	SS-39100-008	157-2183●	
Unshielded for splined cable	SS-39100-011	157-2184●	
Shielded	SS-39200-011	157-2185●	

Jacks

- Preloaded, formed wire contacts offer superior mechanical and electrical performance
- Through hole jacks for PCB soldering
- Designed for Category 6 patch panel and wall jack applications
- Vertical, right angle, shielded and unshielded jacks available
- Minimum of 1000 insertion cycles

Plug Body Material	Contact Material	Contact Plating	No. of Ways	LAN Category	Flammability Rating
Thermoplastic	Copper Alloy	Gold	8	Cat6	UL94V-0

Description	Mftrs. List No.	Order Code	Price Each
Vertical, unshielded	SS-60000-007	157-2186●	
Vertical, shielded	SS-60000-008	157-2187●	
R/A, shielded	SS-60000-009	157-2188●	
R/A, unshielded	SS-60000-010	157-2189●	

Jacks, Cat 6a

- Easily compensated to CAT6a performance levels through an integrated flexible circuit board design
- Flexible PCB design helps cancel Near End Cross Talk (NEXT) at the plug / jack interface
- Right angle mount, shielded jack
- Minimal secondary compensation required due to the jack's construction
- Selectively plated contacts with 50 micro-inches of gold
- Designed for use in 10 Gigabit Ethernet applications
- UL 94V-0 plastic
- Wave solder compatible

Description	Mftrs. List No.	Order Code	Price Each
R/A, shielded	SS-60300-010	157-2190●	

Hand Tools

Professional hand tools for the assembly of shielded and unshielded Cat 6 plugs.

524711

Description	Mftrs. List No.	Order Code	Price Each
Unshielded	2980047-01	157-2197	
Shielded	2980075-01	157-2198	

Unshielded 10 Way RJ48 Plug

- **UL** recognised - File No. E132408 (N)
- Complies with F.C.C requirements

Contact rating	1.5A @ 30V ac/42V dc	Contacts	Phosphor Bronze
Contact resistance	10mohm	Plating	50µinch gold over 100µinch nickel
Mating cycles	1000	Conductor ∅	0.965mm
Housing	Clear Polycarbonate, UL94V-0		

Mftrs. List No.: 9940SP301010R

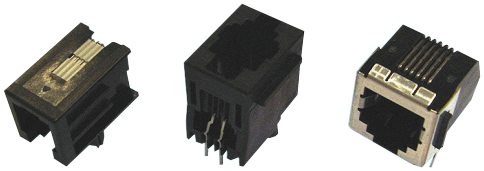
431732

	Order Code	Price Per Pack (5)
RJ48 Plug	112-2287●	

		Price Each
Crimp Tool	308-9599	
Die Set	121-1551	

Modular Jacks

Sheilded and Unshielded



- Unsheilded jacks are through hole mount
- Sheilded jacks are panel and PCB ground through hole mount

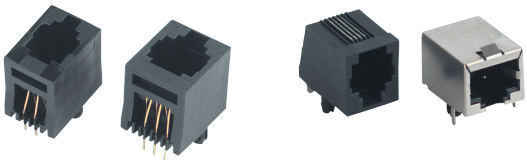
Voltage	150V	Contacts	Phosphor Bronze, Gold plated
Current Rating	1.5A	Durability	750 mating cycles
Housing	Polyester, Black , UL94V-0		

451169

Contacts	Mftrs. List No.	Order Code	Price Each
R/A - Through Hole			
4/4	1-1705949-1	128-4335●	
6/6	1-1705950-1	128-4337●	
8/8	1-1705951-1	128-4338●	
R/A - SMT			
6/6	5557314-1	152-2225●	
8/8	5555764-1	152-2226●	
Top Entry - Through Hole			
4/4	5520257-2	128-4339●	
6/6	216548-1	128-4341●	
8/8	216550-1	128-4342●	
Top Entry - SMT			
6/6	1-338086-3	152-2227●	
8/8	1-338088-3	152-2228●	
R/A Shielded - Panel and PCB Ground Through Hole			
6/6	5555140-1	128-4343●	
8/8	106066-2	128-4345●	

Modular Jacks - Vertical and Right Angle

PCB Mount



A range of right angle and vertical PCB mounted modular jacks

- Shielded or Unshielded options
- Compatible with industry standard PCB layouts
- Pre tinned solder terminals

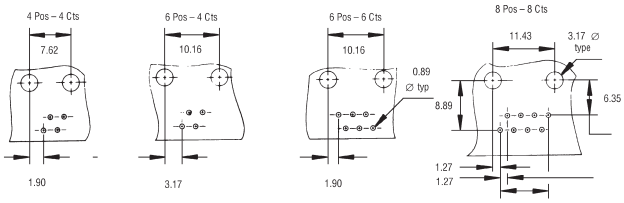
Contact Material	Phosphor Bronze
Contact Plating	Gold over Nickel

238499

Contacts	Mftrs. List No.	Order Code	Price Each
RA Unshielded			
4/4	MHRJJ44NFRA	**393-8335●**	
6/4	MHRJJ64NFRA	**393-8347●**	
6/6	MHRJJ66NFRA	**393-8359●**	
RA Shielded			
6/6	MHRJJ66NFRAS	**393-8372●**	
8/8	MHRJJ88NFRAS	**393-8384●**	
Vertical Unshielded			
4/4	MHRJJ44NFV	**393-8396●**	
6/4	MHRJJ64NFV	**393-8402●**	
6/6	MHRJJ66NFV	**393-8414●**	
8/8	MHRJJ88NFV	**393-8426●**	
Vertical Shielded			
8/8	MHRJJ88NFVS	**393-8438●**	

Unshielded Flush Mount Panel / PCB Sockets

molex



Housing Black Polyester UL94V-0
Contacts Phosphor BronzeGold
Plating Level 1 - 30µinch gold
Level 2 - 50-60µinch gold

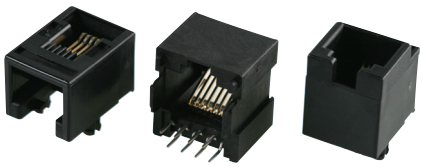
Mftrs. List No.	No. of Ways/Contacts	Plating Level	Socket H	Socket W	Socket D	Panel Cut-out H	Panel Cut-out W	Order Code
95009-2441	4/4	1	11.56	16.38	20.6	16.38	11.56	973-2055
95009-2641	6/4	1	13.59	16.38	20.6	16.38	11.56	973-2063
95009-2661	6/6	1	13.59	16.38	20.6	16.38	11.56	973-2071
95009-2881	8/8	2	15.62	16.38	20.6	16.38	11.56	973-2535

209680

No. of Ways/Contacts	Order Code	Price Each
4/4	**973-2055●**	
6/4	**973-2063●**	
6/6	**973-2071●**	
8/8	**973-2535●**	

Unshielded Low Profile PCB Sockets

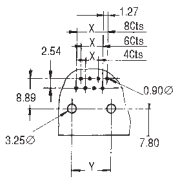
molex



Low profile 90° Vertical

● **UL** recognised and **CSA** approved

Contact rating 1.5A @ 125V dc
Contact resistance 20mΩ max.
Dielectric strength 1000V ac
Insulation resistance 500MΩ min.
Mating cycles 50
Housing Black Polyester, UL94V-0
Contacts Phosphor Bronze
Plating 1.3µm gold on nickel
Temp. range -40°C to +80°C



No. of Ways/ Contacts	H	W	D	X	Y	Mftrs. List No.	Order Code
Low Profile 90°							
4/4	11.5	11.18	18.1			95501-2441	156-0167
6/4	11.5		18.1	3.81	10.16	95501-2641	156-0166
6/6	11.5	13.21	18.1	6.35	10.16	95501-2661	153-6490
8/8	11.5	15.24	18.1	8.89	11.43	95501-2881	152-4544
Vertical							
4/4	15.7	13.21	15.08	3.81	10.16	95503-2641	157-2017
6/6	15.7	11.18	15.08	6.35	10.16	95503-2661	162-0210
8/8	15.7	15.24	15.08	8.89	11.43	95503-2881	162-0209

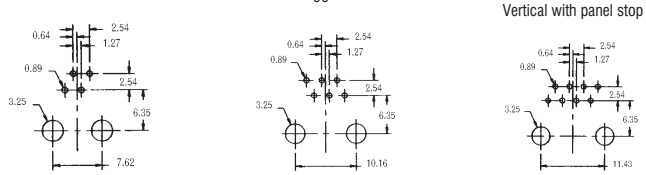
209802

No. of Ways/Contacts	Order Code	Price Each
Low Profile 90°		
4/4	**156-0167●**	
6/4	**156-0166●**	
6/6	**153-6490●**	
8/8	**152-4544●**	
Vertical		
4/4	**157-2017●**	
8/8	**162-0209●**	

Unshielded PCB Sockets

bel Stewart Connector

90° Vertical with panel stop



4 Position 6 Position 8 Position

● Fully enclosed housings approved to **CSA**, **UL** recognised and manufactured to **FCC** docket 20780

Contact rating 1.5A @ 30V ac/42V dc
Contact resistance 10mΩ max.
Dielectric strength 1000V rms
Insulation resistance 500MΩ min.
Mating cycles 1000
Housing Black Polyester, UL94V-0
Contacts Phosphor Bronze
Plating 30µinch gold over 75µinch nickel

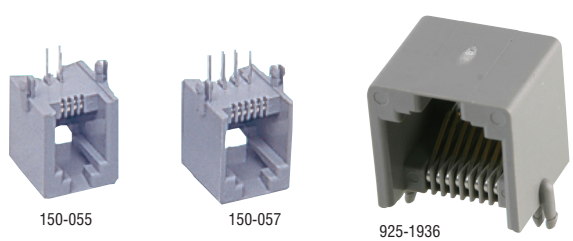
No. of Positions	Type	Dimensions (mm) H	W	D	Mftrs. List No.	Order Code
Low Profile 90°						
4	RJ11	12.83	11.3	20.7	SS-6444-NF	113-7972
6	RJ11	12.83	13.84	20.7	SS-6466-NF	113-7973
8	RJ45	12.83	15.37	20.7	SS-6488-NF	113-7974
Vertical						
6	RJ11	16.51	16	16.36	SS-6566-FLS	113-7975
8	RJ45	16.51	18.03	16.36	SS-650810-FLS	113-7976

221426

No. of Positions	Order Code	Price Each
Low Profile 90°		
4	**113-7972●**	
6	**113-7973●**	
8	**113-7974●**	
Vertical		
6	**113-7975●**	
8	**113-7976●**	

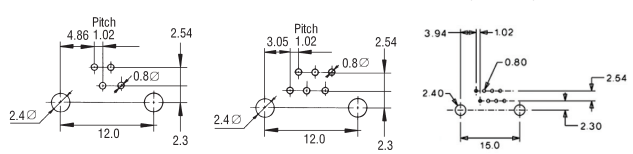
Unshielded Narrow Profile PCB Sockets

molex



150-055 150-057 925-1936

H=14.5, W=12.2, D=13.0 H=14.5, W=15.0, D=13.0



Housing Grey Glass filled Polyester UL94V-0
Contact Phosphor Bronze. 4µinch gold plated in contact area, over 40µinch nickel plating. Solder area dip tinned.

Mftrs. List No. 52018-4416=978-6090, 52018-6415=978-6104, 52018-6616=978-6112, 52018-8816=121-1012

209681

No. of Ways/ Contacts	Order Code	Price Each
4/4	**978-6090●**	
6/6	**978-6112●**	
8/8	**121-1012●**	

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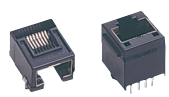
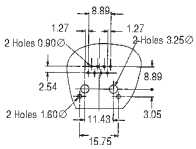
FCC-68 Modular Connectors - continued

Shielded Low Profile 8 Way RJ45 PCB Sockets

molex



Right angle Vertical



- Footprint meets industry standard
- Metal shielding for ESD protection
- Mates with industry standard FCC 68 plugs

Contact rating	A@ 125V	Housing	LCP, UL94V-0
Contact resistance	mΩ max	Contacts	Brass
Dielectric strength	V ac	Plating	1.3μm Gold
Insulation resistance	MΩ min	Temp range	°C to +°C
Mating cycles			

Type	H	W	D	Mftrs List No.	Order Code
Right Angle (Cat 3)	11.5	15.24	18.1	95540-2881	160-2633
Vertical (Cat 5)	16.2	15.24	16.4	95552-2887	162-0208

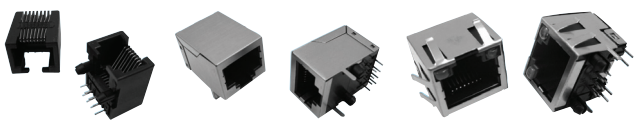
209800

Type	Order Code	Price Each
Right Angle - Cat 3	**160-2633**●	
Vertical - Cat 5	**162-0208**●	

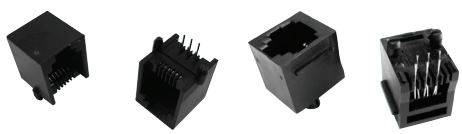
RJ45 / RJ11 Modular Jacks

WÜRTH ELEKTRONIK

WR-MJ Series



164-2037 164-2038 164-2039



New

164-2034 164-2041

- Right Angle / Vertical Orientation
- Tap up and Tap Down options
- Shielded jacks available
- 500 mating cycles

Specifications:-

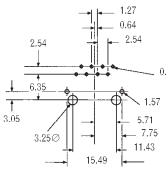
Current Rating	1.5A	Withstanding Voltage	1000VAC
Contact Material	Copper Alloy	Contact Plating	Selective Gold
Insulation Resistance	500Mohm	Contact Resistance	20mohm
Flammability Rating	UL94V-0	Operating Temp.	-25°C to 85°C
Working Voltage	120VAC	Material Insulator	PBT

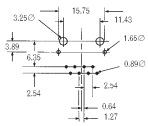
601712

No. of Ways	Mftrs. List No.	Order Code	Price Each
RJ45, Right Angle, Tab Down			
8/8	615008137121	**164-2037**●	
RJ45, Right Angle, Shielded, Tab Down			
8/8	61500814221	**164-2038**●	
RJ45, Right Angle, Shielded, EMI, 2xLED (G/Y), Tab Up			
8/8	615008137421	**164-2039**●	
RJ11, Right Angle, Tab Up			
6/6	615006138421	**164-2040**●	
RJ11, Vertical, with Ears			
6/6	615006138521	**164-2041**●	

Shielded 8 Way RJ45 PCB Sockets

bel Stewart Connector





90° Vertical

H=13.84, W=15.88, D=21.21 H=17.02, W=17.02, D=15.88

- Fully shielded sockets approved to **UL** and **CSA** and manufactured to **FCC** docket 20780

Contact rating	1.5A @ 30V ac/42V dc	Housing	Black Polyester, UL94V-0
Contact resistance	10mΩ max.	Shield	Brass, tin plated
Dielectric strength	1000V rms	Contacts	Phosphor Bronze
Insulation resistance	500MΩ min.	Plating	50μinch gold over 100μinch nickel
Mating cycles	1000		

Mftrs. List No.: SS6488S-NF = 113-7977, SS650810S-A-FLS = 113-7978

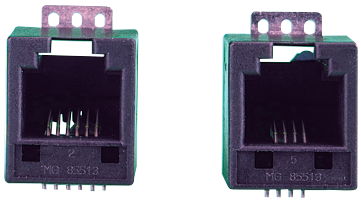
221428

	Order Code	Price Each
90°	**113-7977**●	
Vertical	**113-7978**●	

Modular Jacks

molex

SMT,Vertical Low Profile



- 0.10mm (.004") coplanarity
- Recommended PCB thickness 1.57mm (.062")

Voltage	125V	Housing	Black Polyamide 4/6 UL94V-0
Current Rating	1.5	Contacts	Phosphor Bronze
Contact Resistance	20mΩ	Plating	Gold
DWV	V	Temperature Range	-40°C to 80°C
Insulation Resistance	500MΩ		

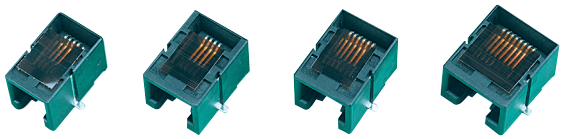
233709

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
RJ11	6	85513-5014	**138-8980**●	
RJ11	8	85513-5013	**134-5055**●	

Modular Jacks

molex

SMT, Right Angle Low Profile



- Low profile - 11.5mm high
- 0.10mm coplanarity

Voltage	125V	Housing	Black Polyamide 4/6 UL94V-0
Current Rating	1.5A	Contacts	Phosphor Bronze
Contact Resistance	20mΩ	Plating	Gold
Insulation Resistance	500MΩ	Temperature Range	-40°C to 80°C

232118

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
RJ11	4	85502-5005	**138-8978**●	
RJ11	4	85502-5006	**147-1565**●	
RJ12	6	85502-5007	**138-8979**●	
RJ45	8	85502-5008	**133-1561**●	

Modular Jacks

molex

Shielded

- Fully shielded connector
- Advanced EMI/RFI protection
- Industry standard footprint
- Mates with industry standard FCC 68 plugs

925-1910

Voltage	125V	Housing	Black Phosphor Bronze UL94V-0
Current Rating	1.5A	Contacts	Phosphor Bronze
Contact Resistance	10mΩ	Plating	Gold
DWV	1000V	Temperature Range	-40°C to 80°C
Insulation Resistance	500MΩ		

233718

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
Right Angle Standard Profile (Cat3)				
8	8	0446200002	**925-1910**●	
Vertical Standard Profile (Cat3)				
8	8	95623-2881	**157-2013**●	
Vertical Low Profile (Cat5)				
8	8	85508-5001	**160-2634**●	

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Double Modular Jack

SMT, Right Angle Low Profile

- Surface mount solder tab provides retention to the PCB and strain relief for PC tails
- Side-to-side stackable for modular configurations
- 0.15mm max. nail-to-tail coplanarity ensures high reliability during surface mount soldering

Voltage	125V	Housing	Black PA Polyamide (Nylon) UL94V-0
Current Rating	1.5	Contacts	Phosphor Bronze
Contact Resistance	10mΩ	Contact Plating	Gold
DWV	1000V	Temperature Range	-40°C to 80°C
Insulation Resistance	500MΩ		

411008

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
8	8	0441930003	**925-1901**	

High Speed Modular Jacks

Flangeless Low Profile

- Category 5E performance
- Footprint meets industry standard
- Mates with industry standard FCC 68 plugs

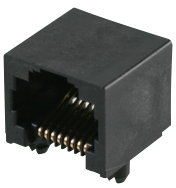
Voltage	125V	Insulation Resistance	MΩ
Current Rating	1.5A	Contacts	Phosphor Bronze
Contact Resistance	mΩ	Plating	Gold
DWV	1000V	Temperature Range	-40°C to 80°C

411037

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
Shielded				
8	8	85505-5113	**156-0163**	
SMT Shielded				
8	8	85543-5001	**134-5053**	

Inverted Modular Jack

Low Profile



- Inverted plug latch on top for easy insertion and extraction
- Mating contacts on bottom of inverted jack provide shorter leads to reduce electrical noise
- Connector designed for through hole PCB mounting and pin-through-paste soldering
- Cat 3 performance

Voltage	125V	Housing	Black PA Polyamide (Nylon) UL94V-0
Current Rating	1.5	Contacts	Phosphor Bronze
Contact Resistance	10mΩ	Contact Plating	Gold
DWV	1000V	Temperature Range	-40°C to 80°C
Insulation Resistance	500MΩ		

411086

Circuits	Loaded Circuits	Mftrs. List No.	Order Code	Price Each
8	8	0438600001	**925-1898**	

Unshielded 90° PCB Sockets

10 Way - RJ48

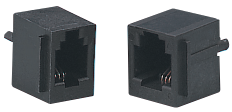
- **UL** recognised and manufactured to **FCC** requirements

Contact rating	1.5A @ 30V ac/42V dc	Housing	Black Thermoplastic, UL94V-0
Contact resistance	10mΩ max.	Contacts	Copper Alloy
Mating cycles	1000	Plating	30µinch Gold over Nickel

431734

Order Code	Price Each
112-2288	

Unshielded, Vertical PCB Sockets



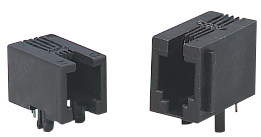
- **FCC compliant - part 68, subpart f**
- 4-6 and 8-position receptacles
- Horizontal and vertical entry styles
- Drawn wire contacts
- Meets industry standard jack-to-board footprints
- Available with snap or diamond shaped mounting pegs
- FCC approved GXT™ plating
- **UL** Recognised and **CSA** approved

Current rating	2 amp dc	Contact Spring	Phosphor Bronze
Withstanding voltage	1000 kV rms, 60Hz	Body material	Thermoplastic resin(UL94V-0)
Insulation resistance	500M Ohms min		
		Durability	250 cycles
Contact resistance	20m Ohm max		

221506

Number of Ways/Contacts	Mftrs. List No.	Order Code	Price Each
Vertical Jack - Diamond Peg			
4/4	69253-001LF	**109-7907**	
6/6	69254-001LF	**109-7909**	
8/8	69255-001LF	**109-7912**	
Vertical Jack - Snap Peg			
4/4	90511-001LF	**109-7913**	
6/6	90512-001LF	**109-7914**	
6/4	90512-003LF	**109-7915**	
8/8	90598-001LF	**109-7916**	

Unshielded, Horizontal PCB Sockets



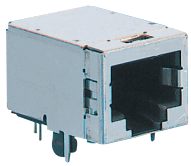
- **FCC compliant - part 68,subpart f**
- 4-6 and 8-position receptacles
- Horizontal and vertical entry styles
- Drawn wire contacts
- Meets industry standard jack-to-board
- footprints
- Available with snap or diamond shaped mounting pegs
- FCC approved GXT™ plating
- **CSA** approved and **UL** Recognised

Current rating	2 amp dc	Contact Plating (Finish)	Gold / Nickel
Withstanding voltage	1000 volts rms, 60Hz	Contact Spring	Phosphor Bronze
Insulation resistance	500 Ohms min	Body material	Thermoplastic Resin
Contact resistance	20 Ohm max		Black
Electrical performance meets or exceeds EIA/TIA 568A specifications		Durability	250 cycles

221505

No.of Ways/ Contacts	Mftrs. List No.	Order Code	Price Each
Horizontal Low Profile Jack - Snap Peg			
4/4	87180-044LF	**109-7902**	
6/4	87180-064LF	**109-7903**	
6/6	87180-066LF	**109-7904**	
8/8	87180-088LF	**109-7905**	
6/6	68898-001LF	**109-7906**	

Shielded Filtered Jack



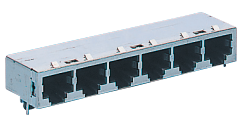
- **UL**Recognised and **CSA** approved
- **FCC compliant - part 68, subpart f**
- Horizontal RJ-45 style
- Drawn wire contacts
- Meets industry standard jack-to-board footprints
- According to the EIA/TIA 568, TSB 31, 40 \ specifications
- FCC approved GXT™ plating

Current rating	2 amp dc	EIA/TIA 568A specifications	
Withstanding voltage	60 volts rms, 60hHz	Contact Plating (Finish)	Gold / Nickel
Insulation resistance	500 Ohms min	Contact Spring	Phosphor Bronze
		Body material	Thermoplastic Resin
Contact resistance	20 Ohm max		Black
Electrical performance meets or exceeds		Durability	250 cycles

221504

Number of Ports	Mftrs. List No.	Order Code	Price Each
1	95672-001LF	**121-1641**	

Shielded Gang Jack



- **CSA** Approved and **UL** Recognised
- **FCC compliant - part 68, subpart f**
- Horizontal RJ-45 style
- Shielded, unshielded, filtered and Category 5 versions available
- Available with 1 or 8 ports
- Drawn wire contacts
- Meets industry standard jack-to-board footprints

FCC-68 Modular Connectors - continued

Shielded Gang Jack - continued

- According to the EIA/TIA 568, TSB 31, 40 specifications
- FCC approved GXT™ plating

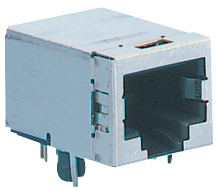
Current rating	2 amp dc	EIA/TIA 568A specifications	
Withstanding voltage	1kV rms, 60Hz	Contact Plating (Finish)	Gold / Nickel
Insulation resistance	500 Ohms min	Contact Spring	Phosphor Bronze
		Body material	Thermoplastic Resin
Contact resistance	20 Ohm max		Black
Electrical performance meets or exceeds		Durability	250 cycles

221503

No. of Ports	Mftrs. List No.	Order Code	Price Each
Shielded Gang Jack - Snap Peg			
1	94910-001MLF	**121-1637**	
4	94910-004MLF	**109-7898**	
8	94910-008MLF	**121-1639**	

Cat. 5 Shielded Gang Jack

FCI



- **UL** Recognised and **CSA** approved
- **FCC compliant - part 68, subpart f**
- Horizontal RJ-45 style
- Shielded, unshielded, filtered and Category 5 versions available
- Available with 1 or 4 ports
- Drawn wire contacts
- Meets industry standard jack-to-board footprints

- According to the EIA/TIA 568, TSB 31, 40 specifications
- FCC approved GXT™ plating

Current rating	2 amp dc	EIA/TIA 568A specifications	
Withstanding voltage	60 volts rms, 60hHz	Contact Plating (Finish)	Gold / Nickel
Insulation resistance	500 Ohms min	Contact Spring	Phosphor Bronze
		Body material	Thermoplastic Resin
Contact resistance	20 Ohm max		Black
Electrical performance meets or exceeds		Durability	250 cycles

221502

No. of Ports	Mftrs. List No.	Order Code	Price Each
Cat. 5 Shielded Gang Jack - Snap Peg			
1	95678-001LF	**109-7900**	
4	95678-004-00LF	**109-7901**	

RJ45 Shielded Modular Jack

Tyco Electronics

Inverted

- Fully shielded, inverted RJ45 Jack
- 8 position, 8 contacts
- Meets FCC Rules and Regulations, Part 68
- **UL** Recognised and **CSA** Certified

Contact Rating	150V ac max., 1.5A @ 25°C	**Material**	
Insulation Resistance	500Mohm	Flamability	UL94V-0
Durability	750 mating cycles	Contact	Phosphor Bronze
Temperature Range	-40°C to 70°C	Contact Plating	Gold

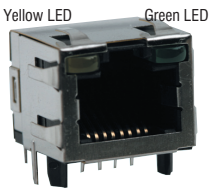
334975/406727

Mftrs. List No.	Order Code	Price Each
1-406541-1	**116-2481**	

RJ45 Shielded Modular Jack

Tyco Electronics

Inverted with LED's



The LED's are integrated into the modular jack thus eliminating the need for additional system space for indicators. The modular jack functions as transmit/receive with line status and collisions identified by viewing the LED's directly in each port.
Recommended applications include Fast Ethernet, 10 Base-T Ethernet and 10/100 BaseT Ethernet (Cat 5 on two pair 1/2, 3/6)

- Compact size with high reliability
- 8 position, 8 contacts
- Meet FCC Rules and Regulations, Part 68
- **UL** Recognised and **CSA** Certified

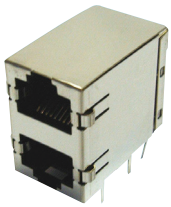
Contact Rating	150V ac max., 1.5A @ 25°C	**Material**	
Withstand Voltage	1000V AC	Body	High temperature thermoplastic
Insulation Resistance	500Mohm	Flamability	UL94V-0
Durability	750 mating cycles	Contact	Phosphor Bronze
Temperature Range	-40°C to 70°C	Contact Plating	Gold

334973/406728

Colour LED's	Mftrs. List No.	Order Code	Price Each
Yellow/Green	2-406549-1	**116-2483**	

Double Modular Jack

Tyco Electronics



- 8 Position/8 Contacts
- 750 Mating Cycles
- Shielded
- Through Hole Mounting

Voltage	150V
Current Rating	1.5A
Housing	Polyester, Black , UL94V-0
Contacts	Phosphor Bronze, Gold plated
Durability	750 mating cycles

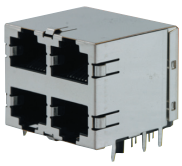
451194

Configuration	Mftrs. List No.	Order Code	Price Each
2 x 1	5569381-1	**128-4346**	

RJ45 Shielded Stacked

Tyco Electronics

Cat5, PCB Mounted Jacks



- Low profile Cat 5 Multi-port
- 8 position, 8 contacts jacks
- 2 rows of either 2 or 4 jacks available
- High temperature polyester (PCT) for IR reflow applications
- **UL** Recognised and **CSA** Certified

Voltage Rating	150V max.	**Material**	
Withstand Voltage	1000V AC	Flamability	UL94V-0
Insulation Resistance	500Mohm min.	Shield	Copper alloy, tin-lead plated
Durability	750 mating cycles	Contact	Phosphor Bronze
Temperature Range	-40°C to 70°C	Contact Plating	Gold

334971/406729

Configuration	Mftrs. List No.	Order Code	Price Each
2 x 2	5569260-1	**116-2484**	
2 x 4	5569262-1	**116-2485**	

Cat 5e

HRS

Shielded PCB Mount Jack and Plugs

- Meets performance requirements of Cat 5e when link tested up to 250MHz Class E
- Jacks fully shielded with the facility to take ground from the mating plug to the panel and PCB (2 PCB and 6 panel ground points)
- Plugs supplied with black hood and guide plate to assist assembly
- Hood incorporates latch protector and can be fitted after plug assembled onto cable

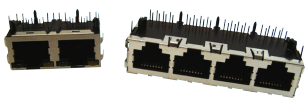
Specification	**Jack**	**Plug**
Voltage Rating	125V AC	125V AC
Current Rating	500mA	500mA
Temperature Range	-25°C to +80°C	-25°C to +80°C
Insulation Resistance	100MΩ for 1 min	≥100MΩ
Contact Resistance	250mΩ max	≤230mΩ
Mating Cycles	200	
Contacts	Copper AlloySelective Gold	
Shield Plate	Copper Alloy Tin Plated	
Insulation	PBT UL94V-0 Black	

238488

	Mftrs. List No.	Order Code	Price Each
PCB Jack	TM21R-5C-88(50)	**107-7747**	
Plug + Hood	TM21P-88P(03)	**412-7640**	
Hand Tool	TM11-21	**412-7626**	

RJ45 Shielded Modular Jack

Tyco Electronics



- **FCC compatible - Part 68, Subpart f**
- Fully shielded RJ-45 Jack
- Available with 2, 4, 6 or 8 Ports

Current	1.5 amp dc	Contact spring	Phosphor Bronze
Voltage	150 volts rms, 60hHz	Colour	Black
Enclosure	Nylon, UL94V-0	Operation Temperature	-40°C to+80°C

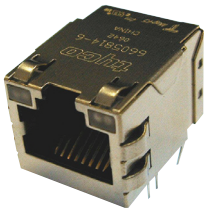
468757

Ports	Mftrs. List No.	Order Code	Price Each
2	5406443-1	**134-6691**	
4	5406203-3	**134-6693**	
6	5406206-1	**134-6695**	
8	5558505-1	**134-6697**	

Modular Jacks with Integrated Magnetics

Tyco Electronics

MAG 45



- RJ45, 8 Position
- Through Hole
- Side Entry
- **UL recognised, UL 94V-0**
- IEE 802.3 & ANSI X3.263 compliant
- Supports all appropriate and available PHY Chips and applications

Magnetics integrated into connector:

- Less components needed
- Saves board space
- Cheaper assembly on PCB (only 1 component)

LEDs	Mftrs. List No.	Order Code
Non - Illuminated	6605759-1	128-4348
Yellow + Green / Orange	1368458-2	128-4351
Yellow / Green	5-6610000-1	128-4353
Green / Green	1-6605834-1	128-4349
Green / Yellow / Green / Yellow	6605444-6	128-4347
Green / Yellow / Green / Yellow	6605814-6	128-4350
Yellow + Green / Orange	1368398-2	128-4352

451200

No. of Ports	Mftrs. List No.	Order Code	Price Each
10/100 Base T Ethernet			
1	6605759-1	**128-4348**	
1 (LP)	1368458-2	**128-4351**	
1 x 2	5-6610000-1	**128-4353**	
10/100 Power Over Ethernet (POE)			
1	1-6605834-1	**128-4349**	
Gigabit Ethernet			
1 (TD)	6605444-6	**128-4347**	
1	6605814-6	**128-4350**	
1	1368398-2	**128-4352**	

LP = Low Profile, TD = Tab Down

RJ Modular Jacks

Amphenol

10/100

- LED Indicators
- **UL** Recognised

Contact	Phosphor Bronze	Flamability	UL 94V-0
Insulator Polyester	Thermoplastic Polyester	Contact Plating	Selective Gold
Temperature Range	0°C to +70°C		

474539

Mftrs. List No.	Order Code	Price Each
Single Port		
RJMG163217101NR	**135-7433**	
RJMG163218101NR	**135-7435**	
RJMG163118101NR	**135-7436**	
Single Port Low Profile SMT		
RJMG1M5218101LR	**135-7441**	
RJMG185118101LR	**135-7442**	

Integrated Connector Modules (ICMs)

bel Stewart Connector

10/100 Base

A range of single port RJ45, 10/100Base Ethernet 1:1 turns ratio, integrated connectors to suit most applications for LAN and Telecommunications. They integrate a combination The of transformers; common mode chokes (CMC), resistors, capacitors and LEDs.The transformers offer isolation, impedance matching and filtering.The common mode chokes, provide high impedance against common mode signals, while allowing differential mode signals to pass through.
The integration of the components into the RJ45 cuts down on PCB real-estate, allowing smaller product designs, this reduces the component count, and so production component placement cost. Integrating the magnetics also improves the EMC performance by approx 20dB, helping to get the design through the EMC tests first time.

SI-10021

- Tab-down 10/100Base Ethernet Connector
- The first step on saving board space

SI-20039

- 10/100/1000 Ethernet, four pair CMC
- Drop in replacement for a standard RJ45, to dramatically improve EMC

SI-60062-F

- Tab-down, 10/100Base Ethernet, Y/G LED
- Add in LED's to indicate network status

SI-50001

- Tab-up, 10/100Base Ethernet, Y/G LED
- Tab-up to allow better access to the tab, and allow for the LED pins to be away from the Ethernet signal pins.

SI-70002

- 10/100Base Ethernet, Twin USB A, Y/G LED
- Integrate USB A connectors, ideal for single board computers.

249011

Mftrs. List No.	Order Code	Price Each
SI-60002-F	**113-7981**	
SI-60008-F	**113-7982**	
SI-60062-F	**113-7983**	
SI-50158-F	**113-7984**	
C893-1DX1-E5	**113-7985**	

RJ45 Single Port MagJack®

bel Stewart Connector

New

- 10/100/1000 Gigabit Ethernet Jacks
- Plug tab up and tab down
- With or without LEDs and bi-color
- RJ45 and USB port combinations
- Right Angle mount
- Power over Ethernet options
- Extended temperature range of -40°C to +85°C

Specifications:-

Order Code	157-2191	157-2193	157-2194	157-2195	157-2196
No. of LEDs	2	0	2	2	2
Colour of LEDs	Green / Yellow	–	Yellow / Bi-colour (Green, Yellow, Orange)	Green / Yellow	Yellow / Bi-colour (Green, Orange)
Tab Up / Down	Down	Down	Up	Up	Up
USB	–	–	2 X A	–	–
PoE	–	–	–	Yes	Yes

Contact Material:- Copper Alloy
Contact Plating: Gold

528946

Mftrs. List No.	Order Code	Price Each
SI-61001-F	**157-2191**	
SI-61007-F	**157-2193**	
0862-1J1T-43	**157-2194**	
SI-52008-F	**157-2195**	
0826-1X1T-80	**157-2196**	

Modular RJ45 Panel Couplers

bel Stewart Connector

Shielded and Unshielded

- Shielded or Unshielded options
- Compatible with industry standard panel cutouts
- Cat5e

431736

Mftrs. List No.	Order Code	Price Each
Unshielded		
MH3101-8821	**112-2291**	
Shielded		
MH3101S-8821	**112-2292**	

Low Cost Plastic Crimp Tool with Stripper

- Low cost plastic crimping tools
- Contain outer insulation stripping blades with stop gauges
- Just the right amount of outer insulation is removed prior to plug/cable assembly
- Suitable for use on modular/RJ type plugs

221434

No. of Positions/Contacts	Order Code	Price Each
4/4, 6/4, & 6/6	**106-321**	
6/4 & 6/6	**106-322**	

FCC-68 Modular Connectors - continued

Crimp Tool for FCC-68 Plugs

molex

A full cycling parallel action ratchet crimp tool with manual release and a thumbscrew for replacing dies quickly. Suitable for crimping all Molex unshielded modular plugs. Supplied with full instructions.

Order dies separately.

209799

	No. of Ways/ Contacts/Body Type	Mftrs. List No.	Order Code	Price Each
Ratchet Crimp Tool	–	69008-1150	**473-145**	
Die Set	4/4 SHORT	69008-1125	**473-157**	
Die Set	6/4 SHORT	69008-1126	**473-169**	
Die Set	6/6 SHORT	69008-1127	**473-170**	
Die Set	8/8 SHORT	69008-1129	**473-182**	
Die Set	8/8 LONG	69008-1103	**473-352**	

Crimp Tool for RJ45 Plugs

bel Stewart Connector

- A full cycling parallel action ratchet crimp tool with manual release and a thumbscrew for replacing dies quickly
- Suitable for crimping all Stewart RJ45 modular plugs. Supplied with full instructions
- Order dies separately

221425

	No. of Positions	Mftrs. List No.	Order Code	Price Each
Crimp tool	—	2980011-01	**308-9599**	
Die Set	6	2980013-01	**308-9617**	
Die Set	8	2980015-01	**308-9630**	
Die Set - Shielded	8	2980017-01	**308-9642**	
Ferrule crimp tool	—	2980028-01	**308-9654**	
Ferrule Insert cable OD 5.2mm	—	2980031-01	**308-9666**	

Crimp Tool for RJ45 Plugs

molex

- Ratchet crimp tool suitable for terminating AMP modular plugs to jacketed cable
- Features spring-actuated handles with cushioned hand grips
- The ratchet release will allow disengagement of the ratchet in the event of a faulty termination.

221457

Mftrs. List No.	Order Code	Price Each
734218-3	**546-148**	

Crimp Tool for Shielded Plug

molex

- A full cycling parallel action ratchet crimp tool with manual release
- Suitable for crimping Molex shielded modular plug 497-861
- Supplied with full instructions

209801

Mftrs. List No.	Order Code	Price Each
69008-1100	**473-250**	

All-in-One Telephone Tools

Paladin Tools

Economy Crimping Tools - WE/SS and AMP

Two models available: Western Electric (WE)/Stewart Stamping (SS) types and AMP (Tyco) for 6 and 8 position modular telephone plugs.

347128

	Mftrs. List No.	Order Code	Price Each
All-in-one Tool (WE/SS)	1545	**454-9430**	
All-in-one Tool (AMP)	1554	**748-7703**	

All-in-One Pro Telephone Tools

Paladin Tools

Crimping Tools - WE/SS and AMP

Crimps CAT-3 to CAT-6 with one crimping tool. Two models available: Western Electric (WE)/Stewart Stamping (SS) types and AMP (Tyco) for 4 - 6 and 8 position modular telephone plugs.

347127

	Mftrs. List No.	Order Code	Price Each
All-in-one Pro (WE/SS)	1530R	**182-9865**	
All-in-one Pro (AMP)	1540	**748-7690**	

Crimp Tool All in One

multicomp

Amp and WE/SS Style

1346963

1346964

488316

	Order Code	Price Each
Crimp Tool Amp Style	**134-6963**	
Crimp Tool WE/SS Style	**134-6964**	

RJ45 Ethernet Connector Systems

Cat 5e Ethernet Buccaneer

BULGIN

IP68 Sealed

The Ethernet Buccaneer provides a high degree of enviromental sealing for Cat 5e Ethernet connections using standard RJ45s. Dust and waterproof to IP68 the Ethernet Buccaneer is ideal for industrial applications where a robust and secure connection is required.

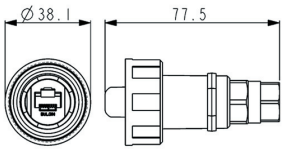
- Dust and waterproof to **IP68**
- Shielded RJ45 connectors to maintain screening
- Flex re-wireable & chassis body styles
- Patch cords conform to Cat 5e standard
- Plug connector is shrouded from accidental damage
- Shroud also provides positive alignment
- Compression gland sealing system
- Sealing caps to maintain **IP68** rating

Sealing	IP68 EN60529 (When mated)	TIA/EIA Rating	Cat 5e
Flammability	UL94V-0	Characteristic Impedence	100Ω ±15Ω at 4MHz to 100MHz
Operating Temps	-40°C To 70°C	Capacacitance	1600pF/km
Patch cords		Operating Temp	-40°C to +70°C

248485

Re-wireable Flex Cable Connector

BULGIN



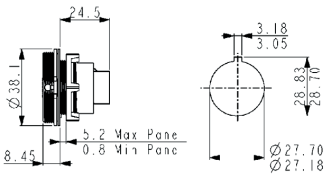
- Re-wireable flex cable connector
- Supplied with shielded RJ45 plug
- Mates with panel mounting connector,PX0833

248500

Mftrs List No.	Order Code	Price Each
PX0834/B	**966-7733**	

Panel Mount Connector

BULGIN



- Cat 5e shielded coupler
- For use with Ethernet Buccaneer flex connectors
- Standard patchcord can be plugged into rear
- Single hole fixing
- Complete with panel sealing gasket

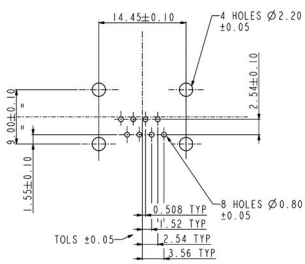
248534

Mftrs. List No.	Order Code	Price Each
PX0833	**966-7725●**	

Panel Mounting Connector

BULGIN

PCB Termination



- Cat 5e shielded RJ45 interface
- Rear panel mounting
- Mates with FIO: 9667733, 4285888, 4285890, 4285906, 4285918, 4285920 and 4285931 flex connectors
- For direct mounting to PCB
- Complete with panel sealing gasket

430395

Mftrs. List No.	Order Code	Price Each
PX0839/PC	**116-6679●**	

Panel Mounting Connector

BULGIN

IDC Termination

- Cat 5e shielded RJ45 interface
- Rear panel mounting
- Mates with FIO: 9667733, 4285888, 4285890, 4285906, 4285918, 4285920 and 4285931 flex connectors
- IDC block for discrete termination
- Complete with panel sealing gasket

430396

Mftrs. List No.	Order Code	Price Each
PX0839/IDC	**116-6680●**	

IP68 Ethernet Buccaneer® PCB Mounting Connector

BULGIN

Rear Panel Mounting

- Cat 5e shielded coupler
- Direct horizontal mounting to PCB, 90° pins
- Flange fixing
- Rear of panel mounting
- Mates with Farnell p/ns 121-1516, 121-1517, 121-1518, 121-1519, 121-1520, 121-1521, 966-7733

528475

Mftrs. List No.	Order Code	Price Each
PX0839/90	**168-7567●**	

Over 500 000 products available online QGO

IP68 Ethernet Buccaneer® Panel Mounting Connector

BULGIN

- Cat 5e shielded coupler
- Standard RJ45 patchcord can be plugged into rear
- Flange fixing
- Complete with panel sealing gasket
- Mates with Farnell p/ns 121-1516, 121-1517, 121-1518, 121-1519, 121-1520, 121-1521, 966-7733

528474

Mftrs. List No.	Order Code	Price Each
PX0870	**168-7565●**	

Ethernet Buccaneer® IP68 Panel Mounting Connector

BULGIN

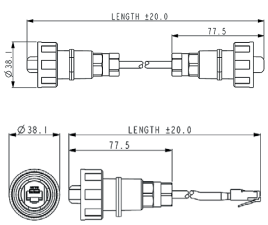
- Cat 5e shielded coupler
- Standard patchcord can be plugged into rear
- Earth wrie
- Single hole fixing
- Complete with panel sealing gasket
- Mates with Farnell p/ns 121-1516, 121-1517, 121-1518, 121-1519, 121-1520, 121-1521, 966-7733

528434

Mftrs. List No.	Order Code	Price Each
PX0833/E	**165-4415●**	

Patchcords

BULGIN



- Patchcords with IP68 connector
- Supplied with shielded RJ45 plug
- 2m, 3m & 5m lengths
- Mates with panel mounting connector, PX0833
- S-FTP cable construction
- PE jacket cable
- Wiring configuration to 568-B
- Exceeds EIA/TIA Cat 5e

PX0837/2M00	121-1516	2m	Buccanneer to shielded RJ45
PX0837/3M00	121-1517	3m	Buccanneer to shielded RJ45
PX0837/5M00	121-1518	5m	Buccanneer to shielded RJ45
PX0838/2M00	121-1519	2m	Buccanneer to Buccaneer
PX0838/3M00	121-1520	3m	Buccanneer to Buccaneer
PX0838/5M00	121-1521	5m	Buccanneer to Buccaneer

248514

Mftrs. List No.	Length	Order Code	Price Each
PX0837/2M00	2m	**121-1516●**	
PX0837/3M00	3m	**121-1517●**	
PX0837/5M00	5m	**121-1518●**	
PX0838/2M00	2m	**121-1519●**	
PX0838/3M00	3m	**121-1520●**	
PX0838/5M00	5m	**121-1521●**	

Sealed In-Line Cable Joiner

BULGIN

LAN/Ethernet

- IP68 rated
- For RJ45 connectors
- Complete with coupler
- Shielded (STP), Shielded CAT5e and Unshielded (UTP) versions
- Glands supplied to seal cables from 3.5 to 8mm

Current Rating	1.5A	Material	Glass Filled Polyamide UL94V-0
Voltage Rating	30V, 42V	Colour	Black
No. of Conductors	8	Sealing	IP68 to BSEN 60529:1977
Cable Range	3.5 to 8mm (glands supplied)	Operating Temperature Range	-20°C to 70°C

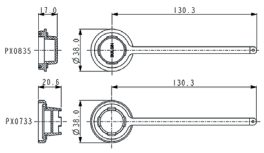
347547

Type	Mftrs. List No.	Order Code	Price Each
Unshielded	PX0777/UTP	**117-2516●**	
Shielded	PX0777/STP	**117-2518●**	
Shielded, CAT5e	PX0777/CAT5E STP	**117-2519●**	

RJ45 Ethernet Connector Systems - continued

Sealing Caps

BULGIN



- Sealing caps to maintain IP68 rating when connectors are not in use

Mftrs List No	Order Code	Description
PX0835	428-5876	Sealing Cap for PX0831/2/4
PX0733	314-390	Sealing Cap for PX0833

248535

Order Code	Price Each
428-5876●	
314-390●	

RJ Field Sealed RJ45

Amphenol

MIL-C-26482

- Sealed against fluid and dusts (**IP67**)
- Shock, Vibration and Traction resistant
- Suitable for at least 500 mating cycles

Transforms regular RJ45 cordset for use in harsh environments. Easy to assemble, the plug adapts a standard RJ45 cordset without the need for tools.

Salt Spray	96h
Flammability / Smoke	UL94 V0 and NF F 16 101 & 16 102
Vibrations	10Hz - 500Hz, 10g, 3 axes: no discontinuity ≤ 10ns
Shocks	IK06: 250g dropped from 40cm onto mated connectors
Humidity	21 days, 43°C, 98% humidity
Thermal Shock	5 cycles @ - 40°C / +100°C
Temperature Range	-40°C to +85°C

450052

Description	Mftrs. List No.	Order Code	Price Each
Receptacle, Square Flange	RJF 21B	122-0775●	
Receptacle, Jam Nut	RJF 71B	122-0786●	
Plug Assembly	RJF 6B	122-0790●	
Cap for Square Flange Receptacle	RJF C2B	122-0787●	
Cap for Jam Nut Receptacle	RJF C7B	122-0788●	
Cap for Plug Assembly	RJF C6 B	122-0791●	
Panel Gasket	JE18	122-0789●	
Removal Tool	RJF ODE	122-0793	

RJ Field Sealed RJ45

Amphenol

Self Closing Cap

- Automatically protects RJ Field square flange receptacles
- Closes when either an RJ Field plug or regular RJ45 cordset is removed from receptacle

450087

Description	Mftrs. List No.	Order Code	Price Each
Nickel and metallised inserts (EMI)	RJF 21 N SCC	122-0794●	
Black and blank insert	RJF 21 B SCC	122-0795●	

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RJ Field Sealed RJ45

Amphenol

MIL-C-26482 Right Angle

Ideal for appliances where panel depth is of a premium

497313

Description	Mftrs. List No.	Order Code	Price Each
RJ45 Square Flange	RJFTV21RAG	142-8230▲	
RJ45 Square Flange	RJF21RAB	142-8232●	
RJ45 Jam Nut	RJF71RAB	142-8233●	

RJ Field Sealed RJ45

Amphenol

Reverse Bayonet

122-0798

122-0799

122-0800

122-0801

Transforms regular RJ45 cordset for use in harsh environments. Easy to assemble, the plug adapts a standard RJ45 cordset without the need for tools.

- Sealed against fluid and dusts (**IP67**)
- Shock, Vibration and Traction resistant
- Suitable for at least 500 mating cycles

Salt Spray	1000h
Flammability / Smoke	UL94 V0, NF F 16 101 and DIN 5510-2
Thermal Shock	5 cycles @ - 40°C / +100°C
Temperature Range	-40°C to +85°C

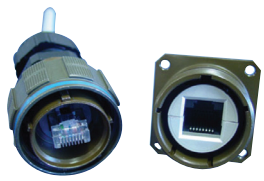
450080

Description	Mftrs. List No.	Order Code	Price Each
Plug	RJF RB 6	122-0798●	
Receptacle, Jam Nut	RJF RB 71	122-0799●	
90° Receptacle, Jam Nut	RJF RB 71RA	122-0800●	
Cap for Receptacle	RJF RB C7	122-0801●	

RJ Field TV Sealed RJ45

Amphenol

MIL-C-38999 Series III



Transforms regular RJ45 cordset for use in harsh environments. Easy to assemble, the plug adapts a standard RJ45 cordset without the need for tools.

- Sealed against fluid and dusts (**IP67**) in mated **and** unmated conditions
- Shock, Vibration and Traction resistant
- Suitable for at least 500 mating cycles
- Olive Drab Cadmium finish
- Metallised receptacle inserts

Salt Spray	96h
Flammability / Smoke	UL94 V0 and NF F 16 101 & 16 102
Vibrations	NAS 1599
Shocks	IK06: 250g dropped from 40cm onto mated connectors
Humidity	21 days, 43°C, 98% humidity
Thermal Shock	5 cycles @ - 40°C / +100°C
Temperature Range	-40°C to +85°C

450097

Description	Mftrs. List No.	Order Code	Price Each
Receptacle, Square Flange	RJF TV 21 G	122-0804▲	
Receptacle, Jam Nut	RJF TV 71 G	122-0805▲	
Plug Assembly	RJF TV 6M G	122-0802▲	
Cap for Square Flange Receptacle	RJF TVC 2 G	122-0806▲	
Cap for Jam Nut Receptacle	RJF TVC 7 G	122-0807▲	
Cap for Plug Assembly	RJF TVC 6 G	122-0803▲	
Panel Gasket	JE19	122-0808●	
Removal Tool	RJF ODE	122-0793	

RJ Field TV sealed RJ45

Amphenol

MIL-C-38999, Nickel Finish

- Sealed against dust and fluids (IP67)
- Shock, Vibration and Traction resistant
- No cabling operation in field and no tools required
- Mechanical coding/polorization (2 positions)
- Improved EMI protection
- Nickel plated finish

With USB Field, you can insert a standard USB 2.0 cordset into a metallic plug which will protect if from dust, shocks and fluids.

Salt Spray	48h
Flammability / Smoke	and NF F 16 101 & 16 102
Vibrations	10-500 Hz
Shocks	IK06: 250g dropped from 40cm onto mated connectors
Humidity	21 days, 43°C, 98% humidity
Temperature Range	-55°C to 85°C

488651

Description	Mftrs. List No.	Order Code	Price Each
Receptacles			
Sealed Flange USB Back Termination	USBF TV 21 N	**142-8218**	
Sealed Flange Solder Back Termination	USBF TV 22 N	**142-8219**	
Jam Nut USB Back Termination	USBF TV 71 N	**142-8221**	
Jam Nut USB Back Term	USBF TV 72 N	**142-8223**	
Plug			
Plug Assembly	USBF TV 6 N	**142-8224**	
Accessories			
Plug Assembly Cap	USBF TVC 6 N	**142-8225**	
Receptacle Square Flange Cap	USBF TVC 2 N	**142-8220**	
Receptacle Jam Nut Cap	USBF TVC 7 N	**142-8222**	

RJ Industrial Ethernet

Pushing Performance

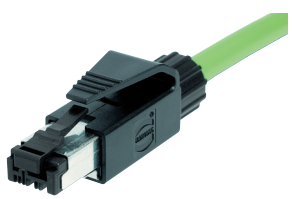
The Modular Harting RJ Industrial® family of connectors is based on the standard RJ45 connector pattern, and is specifically developed for use in harsh industrial environments. The Harax®rapid termination technology has been proven in many industrial applications. The design of the Harting RJ® family allows for the quick and easy termination and connection to ethernet devices in either data only or hybrid networks.

- IP20, Standard cable connector
- IP67, Push-Pull Connector
- IP67, Hybrid Connector
- IP67, Data3A

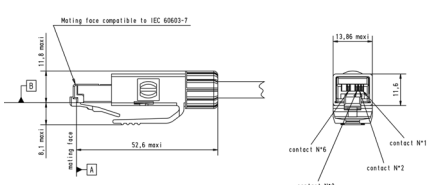
Protection level	IP20-67	Cable Sheath Diameter, IP20, IP67, 3A	6.5 - 6.9mm
Wire Size. Flexible	22 AWG	Cable Sheath Diameter,Push-Pull connector	5.8 - 7.2mm
Wire Size. Rigid	22-23 AWG	Mating Cycles	750 >
Temperature Range	- 40°C To + 70°C		

335475/406730

IP20 Data Connectors



- Smallest RJ45 ethernet connector
- AWG 22 Cables can be connected using IDC technology
- Designed on a 14mm standard grid
- Latching clip makes unlocking connector significantly easier
- Connector set includes housing cable gland,and instruction manual



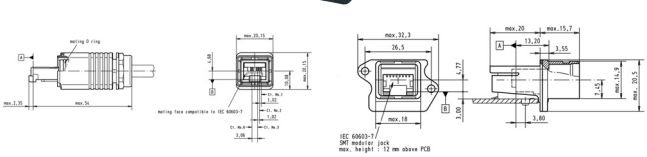
311946

Price Each

Mftrs List No.	Order Code	
09 45 151 1100	**110-6814**	

Push/Pull Connectors IP67

Pushing Performance



Connector Set:
- Sealed to **IP67**
- Connector can be locked/unlocked using only one hand
- Very compact housing
- Connector set includes housing , Cable gland and instruction manual

Push/Pull Feed Through:
- Sealed to **IP67**
- Very compact using only 21 x 27mm of panel space
- Compatable with standard RJ45 connectors for service and test purposes
- Data lines are connected at the rear
- Set includes: housing and instruction manual

311948/406732

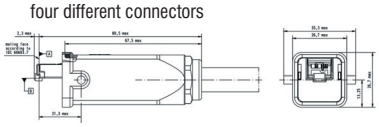
Price Each

Mftrs List No.	Order Code	
Connector Set		
09 45 145 1100	**110-6815**	
Panel feed through		
09 45 245 1102	**117-0278**	

Data 3A Connectors IP67

- Based on the Han 3A profile for data and hybrid solutions
- Optional housings give IP65/67 protection
- Plastic or metal housing
- Optional coding prevents incorrect mating up to four different connectors

Pushing Performance



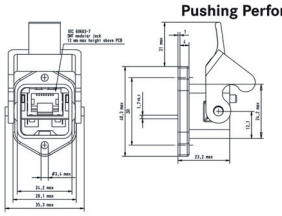
311950/406733

Price Each

Mftrs list No.	Order Code	
Plastic Type		
09 45 125 1100	**110-6819**	
Metal Type		
09 45 115 1100	**110-6816**	

Panel Feed Through, Data 3A

Pushing Performance



- IP67 data connector in standard Han®3A
- RJ45 Compatible for standard service and test purposes
- Optional coding prevents incorrect mating up to four different connectors
- Plastic or metal housing

311951/406734

Mftrs List No.	Order Code	Price Each
Plastic Type		
09 45 225 1100	**110-6821**	
Metal Type		
09 45 215 1100	**110-6817**	

Rugged RJ45 Ethernet Connection System

Bayonet Locking

Ideal for use in harsh environments where EtherNet protocol is used including manufacturing facilities, water treatment plants and transportation hubs. Designed with one sealing surface, the connectors ensure optimum performance even in harsh environments.

- Bayonet latching for easy connection
- Meets **NEMA 6P** and **IP67** protection ratings
- Meets Open DeviceNet Vendors Association and ControlNets Vendors Association IP specification

386344

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RJ45 Ethernet Connector Systems - continued

RJ-45 Industrial Ethernet connectors and assemblies

molex

- Circular bayonet locking style allows quick and easy connection
- One sealing surface for superior sealing
- Accepts 2.9mm to 6.4mm cable diameters
- Meets **NEMA 6P** and **IP67** protection ratings

386320/406736

	Mftrs List No.	Order Code	Price Each
Plug	847000002	**878-0579**	
Receptacle	84700-0001	**878-0560**	
Dust Cap	847000003	**878-0587**	

IP68 Ethernet Cable Assemblies and Socket

samtec

SCPE / SCRE Series

New

- Single sealed or double sealed ended male cable assembly options
- 2, 3 and 5m cable lengths available
- Meets IP68 requirements for dust and weaterproof sealing
- Individual sealed, panel mount, Ethernet socket also available

547709

Cable Length	Mftrs. List No.	Order Code	Price Each
Male Ethernet Assembly, Single Ended, IP68 RJ45 - RJ45			
2m	SCPE-G-02.00-S	**175-8309**	
3m	SCPE-G-03.00-S	**175-8310**	
5m	SCPE-G-05.00-S	**175-8311**	
Male Ethernet Assembly, Double Ended, IP68 RJ45 - IP68 RJ45			
2m	SCPE-G-02.00-D	**175-8312**	
3m	SCPE-G-03.00-D	**175-8313**	
5m	SCPE-G-05.00-D	**175-8314**	

Sealed, Panel Mount, Ethernet Socket

Description	Mftrs. List No.	Order Code	Price Each
RJ45	SCRE-01	**166-7927**	

Fibre Optic Connectors

ST, SC Hot Melt Connectors with Tooling

3M

- High performance hot melt connectors
- Qualified to **TIA/EIA 568B** standards
- Pre loaded with adhesive
- PC zircona ceramic ferrule provides superior opical contact and durability
- Hot melt termination kit contains all materials necessary to terminate 3M connectors

Termination Kit Contents	Mnfrs List No	Quantity
230V Oven	6323	1
Universal Holder	6365-UH	6
Round Polishing Pad	6365-PP	1
Soft Polishing Pad	8365-PP	2
2µm Lapping film (pale green)	6192-A	200
0.5µm Diamond film (pale gray)	661X-0.5S	15
0.5µm Final Lapping film (frosted)	863X-0.02S	50
0.5µm Lapping film (pale yellow)	263X	50
Polishing Jig	8892	3
Jacket Stripper	6365-JS	1
Kevlar Snips	6365-KS	1
Stripping Tool	6365-ST	1
Crimp Tool	6365-CT	1
Fibre Scribe	6365-FS	1
View Scope (200X)	6365-VS	1
Pronto Adhesive	CA-8	1
Lint Free Clothes	--	100
230V UK Power Cord	--	1
230V EU Power Cord	--	1
Alcohol Bottle (empty)	--	1
Water Bottle (empty)	--	1
Fibre Scrap Can	--	1
Roll Up Pouch	--	1
Fibre Marking Pen	--	1
Training CD Rom	--	1
Instructions (Paper)	--	1

386538/406739

Type	Order Code	Price Each
Connector, ST Hotmelt	**121-1041**	
Termination Kit	**121-1042**	

ST Coupler

Tyco Electronics

- Allows terminated fibre cables to be coupled together
- Die cast metal housing, polymer alignment sleeve
- Supplied with lock nut and washer
- Intermateable with all "ST style" connectors

221559/406742

	Mftrs. List No.	Order Code	Price Each
ST Coupler	501381-1	**915-919**	

SC Coupler

Tyco Electronics

- Allows terminated fibre cables to be coupled together
- Plastic housing with metal alignment sleeve
- Accepts 2 x simplex connectors or one duplex connector each side
- Intermateable with any SC type connector

221558

	Mftrs. List No.	Order Code	Price Each
SC Coupler	5504640-1	**109-8772**	

SC-ST Adaptor-Duplex

Tyco Electronics

- Interconnects SC terminated cable with ST terminated cable
- Plastic housing with metal alignment sleeve

221560

	Mftrs. List No.	Order Code	Price Each
SC-ST Adaptor	5504663-2	**109-8774**	

Technical information at your fingertips

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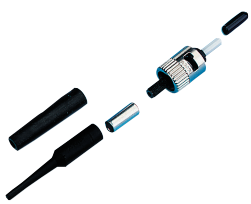
ST Connectors-Epoxy

Multimode



- Ceramic ferrule
- Overmolded polymer body prevents ferrule movement
- Compatible with following cable specifications: 50/125 or 62.5/125 micron cable, 250 or 500 micron primary coating, 900 micron buffer and 2.5 to 3mm ruggedised cable
- Intermateable with all "ST Style" connectors (STII, STIV etc)
- No crush force on fibre

Insertion loss: <0.4dB
No of mating: 1000
Temperature range: -45° to 85°C

221557

	Mftrs. List No.	Order Code	Price Each
ST Connector	503677-2	**105-6422**	
Light Crimp ST Polymer	5492168-1	**105-6039**	

Signal and Data Tools

25 Piece Cable Service Termination Kit

A low cost cable termination tool kit. Supplied in a plastic blow moulded case measuring 570 x 320 x 320 mm
Contents:

- 10 x RJ45 8P6C modular plugs
- 10 x RJ12 6P6C modular plugs
- 1 x Enhanced network cable tester
- 1 x Network cable terminator
- 1 x Wrist strap set
- 1 x 2-in-1 modular telephone plug crimp tool

551105.472552

Order Code	Price Per Kit
177-5249	

Modular Ratchet Tool and Dies

For DataCom Connectors

- Modular tool with interchangeable die sets
- 7 die sets to suit most RJ connectors
- ABS case holds 1 tool and 7 die sets

Part No.	Description
1302	1300 Series Universal Tool Frame
2061	Crimp Die RJ45 8P8C (8 Pin) WE / Stewart
2062	Crimp Die RJ11/RJ12 6P6C, 6P4C 6P2C WE / Stewart
2064	Crimp Die RJ45 8P8C (8 Pin) Tyco AMP
2065	Crimp Die RJ11 RJ12 6P6C 6P4C 6P2C Tyco AMP
2068	Crimp Die RJ50 10P10C (10 Pin)
901013	ABS Tool Case

272152

Mftrs. List No.	Order Code	Price Each
Universal Tool Frame		
1302	**887-146**	
Crimp Dies		
2061	**439-2474**	
2062	**439-2498**	
2064	**439-2516**	
2065	**439-2528**	
2068	**439-2530**	
ABS Tool Case		
901013	**377-6657**	

8000 Series CrimpALL™ Fibre Optic Crimp Tool

Interchangeable Die Sets

Incorporates 4 important ergonomic features that improve user satisfaction and job function:
1. Angled head prevents ackward wrist bending during operation.
2. Reduced handle grip distance is comfortable for workers with small and large hands.
3. The higher crimp force is produced with a lower hand force so hands don't tire as quickly.
4. No breakover hand force.

- Ergonomic design
- Long lasting tool that delivers over 50,000 crimp cycles
- Ultra-smooth, fully-ratcheting cycle with built in safety release
- Double plated jaw assembly
- Comfortable rubber embedded handles.

Interchangeable Dies Order Code	Application	Interchangeable Dies 413-2660	SMA, SMB, SFR, ST and SC type

240407

	Order Code	Price Each
Crimp tool frame	**413-2658**	
Die set 2652	**413-2660**	

DataReady Kit

A complete Cat5 datacomm tool set in a handy zipper case.
Kit includes:

- All in one telephone tool for RJ45 and RJ11
- Impact punch-down tool with 110 and 66 blades
- AM12 cutter/stripper for unshielded and shielded cable
- Patch-Check continuity tester
- Category 5 RJ45 connectors (x20)
- Zipper case with carrying strap and complete instructions

232159

Desc	Mftrs. List No.	Order Code	Price Each
DataReady Kit	901053	**388-8320**	

Premise Service Kit

AMP/Krone kit

A large data, voice and coaxial LAN installation kit providing everything for twisted pair and coaxial cable installation.
Kit contains:

- KT8 round cable cutter - 900265
- Data SureStrip™ UTP/STP & flat satin cutter/stripper - 1116
- LC CST-58/59 coax stripper - 1255
- FlatCat™ flat satin cable cutter/stripper - 1160
- CrimpALL® CrimpFrame with EZI-CHANGE™ thumb screws - 8000
- Die sets:
  RJ45 AMP-style - 2061
  RJ11 AMP Style - 2062
  RG58/59/62AU BNC/TNC - 2034
- SurePunch™ PDT punchdown tool - 3570
- SurePunch™ 110 reversible blade - 4572
- SurePunch™ Krone reversible blade - 4573
- LAN ProNavigator™ tester - 1543
- Speaker probe with volume control and light - 1571

346115

Mftrs. List No.	Order Code	Price Each
9010391	**748-7657**	

Universal Serial Bus

USB Plugs and Sockets

- Standard / mini USB
- PCB / SMT mounitng options
- Single / Double deck
- Type A / Type B / Type AB
- Vertical / Right Angle
- UL94V-0

Specifications:-

Current Rating	1A	Voltage Rating	30V AC/DC
Withstanding Voltage	750V AC (1 minute)	Contact Plating	Gold
Contact Material	Phosphor Bronze	Contact Resistance	20mohm
Insulation resistance	1000Mohm	Operating Temperature	-40°C to 105°C

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Universal Serial Bus - continued

USB Plugs and Sockets - continued

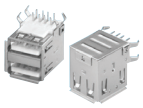
531563

Description	Order Code	Price Each
USB Sockets, Single Deck		
Type A, R/A PCB Mount	**169-6534**	
Type A, Vertical PCB Mount	**169-6536**	
Type B, R/A PCB Mount	**169-6537**	
Type B, Vertical PCB Mount	**169-6538**	
Type A, R./A Surface Mount	**169-6541**	
Type A, Kinked, R./A Surface Mount	**169-6542**	
USB Sockets, Double Deck		
Type A, R/A PCB Mount	**169-6535**	
Mini USB Sockets, Single Deck		
Type AB, Vertical Surface Mount	**169-6539**	
Type B, DIP, R/A PCB Mount	**169-6540**	
USB Plugs, Single Deck		
Type A, R/A PCB Mount	**169-6544**	
Type A, R/A Surface Mount	**169-6545**	
Type A, Vertical Surface Mount	**169-6546**	

USB Socket, Type A & B

WR-COM Series

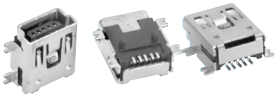
164-2033



164-2040

New

164-2035



164-2036

Specifications:-

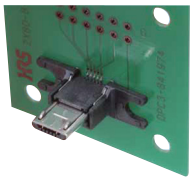
Current Rating	1A	Mating Cycles	1500
Contact Material	Copper Alloy	Contact Plating	Selective Gold
Insulation Resistance	1000Mohm	Contact Resistance	20mohm
Flammability Rating	UL94V-0	Operating Temp.	-40°C to 105°C
Working Voltage	30VAC	Material Insulator	PTB / LCP (Mini USB)
Withstanding Voltage	750VAC		

601679

MftList No.	Order Code	Price Each
USB Type A, Right Angle		
61400416021	**164-2033**	
USB Type A, Dual Stacked, Right Angle		
61400826021	**164-2034**	
USB Type B, Right Angle		
61400416121	**164-2035**	
Mini USB Type B, SMT, Right Angle		
65100516121	**164-2036**	

Micro-USB Connectors

ZX Series



- Type B Plug
- High durability
- PCB Mount
- Option for stainless steel spring lock

New

Specifications:-

Current Rating	1A per contact	Voltage Rating	30VAC
Contact Material	Copper Alloy	Contact Plating	Gold
Insulator Material	Synthetic Resin	Shell Material	Stainless Steel
Operating Temp.	-30°C to 85°C		

549870

Description	Mftrs. List No.	Order Code	Price Each
With Lock	ZX80-B-5S	**171-9110**	
Without Lock	ZX80-B-5SA	**171-9111**	

Micro USB

ZX Series

- Micro USB compliant connector
- Maintains high retention forces over 10,000 mating life cycle
- Micro USB saves approximately 25% PCB space

Current Rating	A
Voltage Rating	V AC
Operating Temperature	°C to °C
Durability	10,000 cycles
Contacts	Copper Alloy

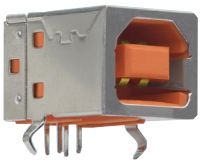
491388

No. of Ways	Mftrs. List No.	Order Code	Price Each
Micro USB			
Receptacle USB B Type	ZX62-B-5PA(11)	**164-5325**	
Receptacle USB B Type	ZX62M-B-5P	**142-5721**	
Receptacle USB AB Type	ZX62-AB-5PA(11)	**164-5326**	
Plug	ZX20-B-5S	**142-5723**	
Shield	ZX20-B-SLDC	**142-5724**	
Cable Assembly	ZX40-B-5S-1000-STDA	**142-5725**	

USB Interfaces

USBR Series

175-3808



175-3809

- A and B types available
- Higher retention than standard USBs
- Through Hole

New

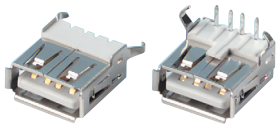
Specifications:-

Contact Material	Phosphor Bronze	Contact Plating	Gold
Insulator Material	High Temp. Thermoplastic	Contact Resistance	30mohm
Current Rating	1A per contact	Voltage Rating	30Vrms
No.of Mating Cycles	1500	No. of Ways	4
Operating Temp.	-50°C to 85°C		

546784

No. of Ways	Type	Mftrs. List No.	Order Code	Price Each
4	A	USBR-A-S-S-O-TH	**175-3808**	
4	B	USBR-B-S-S-O-TH	**175-3809**	

USB 2.0



- USB 2.0

Housing:	Brass, Nickel plated
Insulation:	PBT Glass Filled
Solder Pin:	Brass, Tin Plated
Contact Spring:	Brass, Gold plated

Contact Resistance:	≤30mΩ	Test Voltage:	500V@60s
Rated Current:	1A	Insulaion Resistance:	≥108Ω
Rated Voltage:	30VAC	Temperature Range:	-25°C to +85°C

239539/406473

Mftrs. List No.	Order Code	Price Each
USB Sockets		
Type A: Vertical PCB Mount - Single - 4 Pole		
2410 01	**117-7882**	
Type A: RA PCB Mount - Single - 4 Pole		
2410 02	**117-7883**	
Type A: RA PCB Mount - Double - 4 Pole		
2410 03	**119-6550**	
Type B: Vertical PCB Mount - Single - 4 Pole		
2411 01	**117-7884**	
Type B: RA PCB Mount - Single - 4 Pole		
2411 02	**117-7885**	
USB Cable Assemblies A - B		
A to B 2.0m		
2431 02	**124-3239**	
A to B 3.0m		
2431 03	**119-6551**	
A to B 5.0m		
2431 05	**124-3241**	

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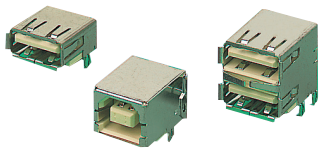
Receptacles

FCI



- 4 and 5 pin receptacles available
- Through-hole and SMT
- With or without back shielding
- A and B types
- A type in single and double deck
- **UL** approved

Insulation resistance	1000MΩ min.initial	Temperature range	0°C to +40°C
Withstanding voltage	750V ac (rms), 60 Hz	Housing	Phosphor Bronze, Tin / Lead plated
Current rating	1A max.	Insulator	Moulded Plastic UL94V-0
Contact resistance	30mohmΩ max.initial	Plating (contact)	0.76um (30uin) PaNi Contact
Contact capacitance	2pF max.	(tails)	2.54um (100uin) tin-lead Solder tail

209991

No. of Ways	Mftrs. List No.	Order Code	Price Each
Thru Mount - Style A			
4 Position Double Deck	72309-0034BLF	**109-7895**	
Surface Mount - Style A			
4 Position, Single Deck	87583-2010BLF	SMD **131-4363**	
Thru Mount - Style B			
4 Position, Single Deck	61729-0010BLF	**109-7897**	

Mini USB Interfaces

samtec

MUSB Series

- B and AB types available
- Surface Mount

New

Specifications:-

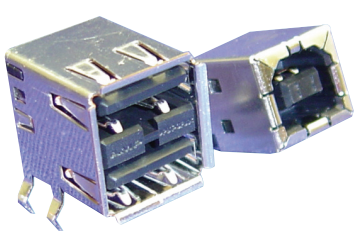
Contact Material	Phosphor Bronze	Contact Plating	Gold
Insulator Material	High Temp. Thermoplastic	Contact Resistance	50mohm
Current Rating	1A per contact	Voltage Rating	30Vrms
No.of Mating Cycles	1500	No. of Ways	5
Operating Temp.	-50°C to 85°C		

546778

No. of Ways	Type	Mftrs. List No.	Order Code	Price Each
5	B	MUSB-05-S-B-SM-A	**175-3806**	
5	AB	MUSB-05-S-AB-SM-A	**175-3807**	

USB Receptacle

Tyco Electronics



419671

No. of Ways	Mftrs. List No.	Order Code	Price Each
Right Angle Through Hole - Type A			
4	292303-1	**107-6663**	
4+4 Stacked	5787617-1	**107-6664**	
Vertical Through Hole - Type A			
4	292336-1	**107-6667**	
Right Angle Through Hole - Type B			
4	292304-1	**107-6665**	
Vertical Through Hole - Type B			
4	5787834-1	**107-6666**	
SMT - Type B			
4	1734346-1	SMD **132-1918**	

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Mini-USB Type B Receptacle Connector

AVX A KYOCERA GROUP COMPANY

- Improved rear shell for EMI shielding
- Reduced mounting area
- Pre-loaded contacts
- High contact pressure
- Interface contamination removed by wiping contacts

Insulator Material	Contact Material	Contact Plating	Current Rating	Voltage Rating	Operating Temperature
Heat Resistance Plastic	Copper Alloy	Au (0.75μm Min.)	1A	30V AC/DC	0°C bis 50°C

523671

Mftrs. List No.	No. of Ways	Order Code	Price Each
24 5141 005 000 863+	5	**155-8179**	

USB 2.0 Cable Assemblies

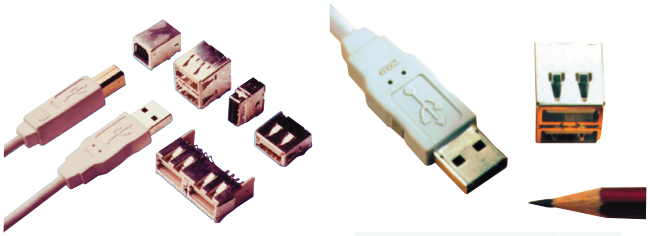
Tyco Electronics

419674

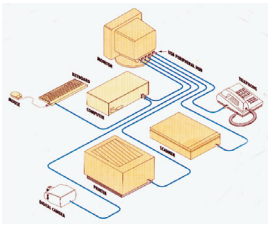
Cable Length (m)	Mftrs. List No.	Order Code	Price Each
Type A to Type B			
1m	1487587-1	**107-6669**	
1.5m	1487588-2	**107-6671**	
2m	1487588-1	**107-6672**	

USB Cable Assemblies

molex



- High quality cable assemblies
- Various cable lengths available



Function:	Serial, bidirectional data bus for networking different peripherals
Number of appliances:	up to 127 on one bus
Additional function:	Power supply transmission (for IEEE 1394)
Transmission rate:	12 Mbit/s (standard); 1.5 Mbit (slow)
Cable length:	per segment, maximum 0.83m
Bus lines:	4- core, shielded
Plug connector:	Series A and B avoids loop formation

245799/407904

Mftrs. List No.	Order Code	Price Each
USB 'A-B' cable, 0.83 m	**120-1896**	
USB 'A-B' cable, 1.30 m	**120-1897**	
USB 'A-B' cable, 2.00 m	**121-1028**	
USB 'A-B' cable, 3.30 m	**120-1898**	
USB 'A-B' cable, 5.00 m	**120-1899**	

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See inside front cover

See inside front cover

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Universal Serial Bus - continued

USB - On The Go

Connectors and Cable Assemblies

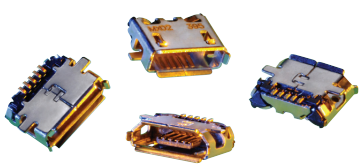
- Approximately 1/8th the size of standard USB connectors
- Cable Assemblies have 5 pin design (one ID pin)
- Cable Assemblies are fully shielded for EMI protection
- Fully compliant with current USB 2.0 specifications
- Operates at speeds up to 480 Mbps
- Rugged durability up to 5000 cycles
- Connector, Order Code 4768334 has additional back cover shielding

OTG connectors can be used to enable mobile devices such as digital cameras, PDAs, audio players, printers and cellular phones to exchange data directly without the need for a host PC. The new OTG technology also enables mobile products to become "dual-role" devices, serving as either host or peripheral.

335213/406744

Description	Mftrs. List No.	Order Code	Price Each
Connectors			
Mini AB Receptacle	565790519	112-5347	
Mini AB Socket	56579-0576	SMD 978-6490	
Mini B Socket	548190519	978-6465	
Mini B Socket-Cover Tape	548190572	SMD 978-6473	
Mini B Receptacle-Cover Tape	675031020	SMD 112-5348	
Mini B Receptacle, vertical	500075-1517	112-5349	
Cable Assemblies (male/male) - 1.0m long			
USB Type A to Mini B	88732-8600	122-1070	
USB Type A to Mini B	88732-8602	122-1071	

Micro USB Receptacles



Micro USB supports the current USB On-The-Go supplement, this allows communication between portable devices without going through a host. Being much smaller than the Mini-USB, the Micro-USB is the choice of mobile phone makers.

- Mating cycles over 10000
- Stainless steel shell provides high mating durability and strength
- Shell tabs enhance PCB retention

Current Rating	1 A	Durability	10,000 cycles
Voltage Rating	100V AC	Contacts	Copper Alloy
Operating Temperature	-20°C to 85°C		

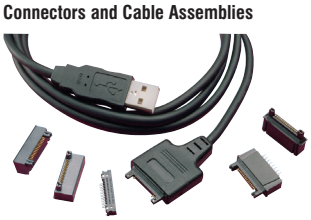
510577

Description	Mftrs. List No.	Order Code	Price Each
AB type Top Mount	47590-0001	156-8022	
AB type Bottom Mount	47589-0001	156-8023	
B type Mid Mount	47491-0001	156-8025	
B type Bottom Mount	47346-0001	156-8026	
Cable Assemblies			
USB A to Micro USB B, 1M	68784-0001	161-7585	
USB A to Micro USB B, 1.5M	68784-0002	161-7586	
USB A to Micro USB B, 2M	68784-0003	161-7587	

USB Connector Systems

HandyLink™ I/O Interconnect System

Connectors and Cable Assemblies



The new USB 2.0 compatible, 0.8mm (.031") pitch HandyLink™ product family of connectors, cable assemblies and accessories from Molex offers a perfect solution to any handheld device design or application. The HandyLink family includes a right-angle SMT receptacle, a wire and PCB version of the plug, perpendicular and parallel mounted cradle connectors for docking applications and a wide array of cable assemblies. The HandyLink family's current-carrying capability of 1.5A continuous (up to 3.0A depending on circuit configuration) and compact size provide an optimal solution for the mobile device industry. The patented integrated-latch design provides ESD protection and mechanical integrity. The HandyLink connector interface is suitable for wire-to-board or board-to-board docking solution for hand held devices.

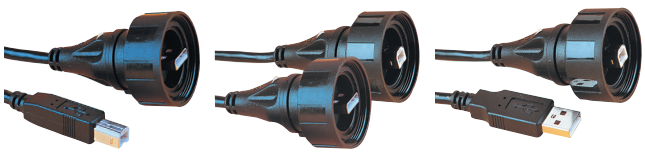
- USB 2.0 compatiblem up to 622Mbs
- Low profile recptacle height: 3.5mm
- Hot plug mating
- Robust cradle connector offers parallel or perpendicular mounting to PCB
- 1.5A - 3A Depending on circuit configurations
- Lead free process compatible and RoHS compliant

454714

Description	Mftrs. List No.	Order Code	Price Each
HandyLink™ Connectors 0.8mm			
SMT Receptacle	44828-1162	SMD 132-2903	
PCB Plug	45593-1600	132-2905	
90° Cradle	45560-0161	132-2906	
Cable Assemblies (Male - Male) 2m			
H/Link to H/Link	36697-0002	132-2908	

Bulgin - USB Buccaneer

PX0840 / PX0841



The USB Buccaneer is designed to confirm to the latest USB version 2 specification and provide an environmental seal to IP68.
This dust and and waterproof USB connector is suitable for industrial or hostile environments where a high speed computer interface is required.

- Dust and waterproof to IP68
- Data rates up to 480Mbs
- PCB adaptor leads
- Hot pluggable, standard 4 pole USB interface
- Double and Single ended sealed cable versions
- 2m and 5m lengths
- PVC black cable jacket

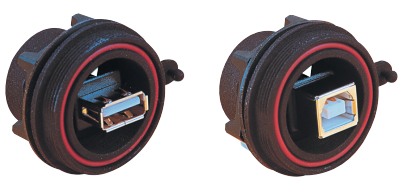
Sealing	IP68, EN60529 (when mated)
Flammability	
Operating Temp.	0°C to 70°C

2m	IP68 A type USB to standard B type USB
5m	IP68 A type USB to standard B type USB
2m	IP68 B type USB to standard A type USB
5m	IP68 B type USB to standard A type USB
2m	IP68 A type USB to IP68 B type USB

335221/406745

Mftrs. List No.	Length	Order Code	Price Each
PX0840/A/2M00	2m	999-7377	
PX0840/A/5M00	5m	999-7385	
PX0840/B/2M00	2m	999-7393	
PX0840/B/5M00	5m	999-7407	
PX0841/AB/2M00	2m	999-7415	

Panel Mount Connectors



966-7741 - Computer USB connector

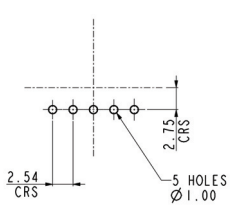
966-7750 - Peripheral USB connector

- Single hole fixing
- Front panel sealed to IP68
- Sealed "A" type to "B" type or "B" type to "A" type adaptor
- Opposite connector at rear of adaptor
- Mounting hole diameter 27.5mm (plus keyway)

335222/406746

Description	Mftrs. List No.	Order Code	Price Each
IP68 "A" type USB	PX0842/A	966-7741	
IP68 "B" type USB	PX0842/B	966-7750	

Rear Panel Mounting Connector - PCB Direct Mount



- 1166684 - USB "A" type IP68 connector
- 1166685 - USB "B" type IP68 connector
- PCB contacts at rear
- Direct PCB mount
- Mates with FIO: 9997377, 9997385, 9997393, 9997407, 9997415 and 9997423

430398

Description	Mftrs. List No.	Order Code	Price Each
IP68 "A" type USB	PX0845/A	**116-6684**	
IP68 "B" type USB	PX0845/B	**116-6685**	

Front Panel Mounting Connector

Flying Lead Termination

- 1166681 - USB "A" type IP68 connector
- 1166683 - USB "B" type IP68 connector
- Mates with FIO: 9997377, 9997385, 9997393, 9997407, 9997415 and 9997423
- Leaded with 5 way crimp connector

1166681 1166683

430397

Description	Mftrs. List No.	Order Code	Price Each
IP68 "A" type USB	PX0843/A	**116-6681**	
IP68 "B" type USB	PX0843/B	**116-6683**	

Adaptor Leads

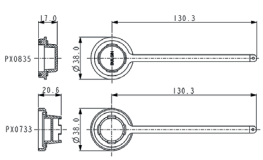
- PCB adaptor lead, USB to 5 way crimp connector
- Lead length 100mm
- 5 way PCB header (0.1"/ 2.54mm pitch)

Mftrs.List No.	Order Code	Description
14193	999-7431	USB "A" type to 5 way crimp
14194	999-7440	USB "B" type to 5 way crimp
14191	966-7768	5 way PCB header - straight
14192	966-7776	5 way PCB header - right angle

335224

Order Code	Price Each
999-7431	
999-7440	
966-7768	
966-7776	

Sealing Caps



- Sealing caps to maintain IP68 rating when connectors are not in use

Mftrs List No	Order Code	Description
PX0835	428-5876	Sealing Cap for PX0840 and 841
PX0733	314-390	Sealing Cap for PX0842

335223/406748

Mftrs. List No.	Order Code	Price Each
PX0835	**428-5876**	
PX0733	**314-390**	

IP68 Sealed - Mini USB Buccaneer

The Mini USB Buccaneer provides a compact solution for USB connectionsin industrial environments. Utilising industry standard Mini "B" connections, the connector provides an IP68 sealed, secure and robust connection performing to USB V2.0, for use in areas where dust or water could prove detrimental to system operation. Fully shielded, providing good levels ofnoise immunity and EMI protection. Cables are overmoulded offering secure, tamper-proof connections.

- Dust and waterproof to **IP68**
- USB V2.0 data rates up to 400Mbs
- Shielded system, high noise immunity
- Overmoulded cables, tamperproof construction

Sealing	IP68	Performance	USB V2.0
Mating Cycles	5000	Operating Temp.	-20°C to +70°C
Flammability	UL94V-0		

442433

Sealed Mini USB Cables

PX0441 / PX0442

- IP68 sealed Mini "B" type to standard "A" USB
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446 and PX0447

- IP68 sealed Mini "B" type to Mini "A" USB
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446 and PX0447

2m	IP68 Mini USB B to USB A
3m	IP68 Mini USB B to USB A
4.5m	IP68 Mini USB B to USB A
2m	IP68 Mini USB B to Mini USB A
4.5m	IP68 Mini USB B to Mini USB A

442434

Mftrs. List No.	Length	Order Code	Price Each
PX0441/2M00	2m	**122-9677**	
PX0441/3M00	3m	**122-9678**	
PX0441/4M50	4.5m	**122-9681**	
PX0442/2M00	2m	**122-9682**	
PX0442/4M50	4.5m	**122-9684**	

Rear Panel Mount Connectors

1229687

1229686

- Mini "B" type
- With pins for direct PC mounting
- Mates with PX0441 and PX0442

- Mini "B" type
- Leaded with 5 way header
- Mates with PX0441 and PX0442

442494

Mftrs. List No.	Order Code	Price Each
PX0446	**122-9686**	
PX0447	**122-9687**	

Front Panel Mount Connectors

- Mini "B" type
- Leaded with 5 way crimp, for use with PC header
- Mates with PX0441 and PX0442

442435

Mftrs. List No.	Order Code	Price Each
PX0443	**122-9685**	

IP68 USB Buccaneer® Rear Panel Mounting Connectors

PX0848

PX0849

- IP68 rated, dust and waterproof sealing when mated
- USB V2.0, low and high speed bus connection, 1.5Mbs to 480Mb
- Plug and play capability - standard 4 pole interface
- Visual mating indication
- High noise immunity and EMI protection
- Screw coupling - secure, proven locking system

Current	1A	Contact Plating	30 µin. Gold
Voltage	30Vac	Operating Temperature	0°C to 70°C
Contact Resistance	30mohm	Mating Cycles	1000
Contact Material	Copper Alloy	Flammability Rating	UL94V-0

USB Connector Systems - continued

IP68 USB Buccaneer® Rear Panel Mounting Connectors - continued

Product Descriptions:-
PX0848/A - A type USB, rear panel mounted. Sealed A type at front of panel, standard B type at rear.
PX0848/B - B type USB, rear panel mounted. Sealed B type at front of panel, standard A type at rear.
PX0849/A - A type USB, rear panel mounted. Sealed A type at front of panel, leaded with 5 way header at rear.
PX0849/B - B type USB, rear panel mounted. Sealed B type at front of panel, leaded with 5 way header at rear.
NB- PX0848 and PX0849 mate with Bulgin's PX0840 and PX0841 USB leads (Farnell p/ns 999-7377, 999-7385, 999-7393, 999-7407, 999-7415)

524415

Mftrs. List No.	USB Type	Order Code	Price Each
PX0848/A	Type A	162-9392●	
PX0848/B	Type B	162-9393●	
PX0849/A	Type A	162-9394●	
PX0849/B	Type B	162-9395●	

IP68 Mini USB Buccaneer®

BULGIN

Mini AB Type

PX0458
Rear Panel Mounting

PX0456
Front Panel Mounting

PX0457
Rear Panel Mounting

The Mini USB Buccaneer provides a compact solution for USB connections in industrial environments.Utilising the industry standard Mini AB connections for the panel connection, the latest in the USB Buccaneer range offers a secure, robust connection performing to USB V2.0, where dust or water could prove detrimental to system operation. The system is fully shielded providing good levels of noise immunity and EMI protection. Cables are fully overmoulded construction offering secure, tamper-proof connections.
Features:-
- Mini AB type
- IP68 rated, dust & waterproof to EN60529
- USB V2.0, data rates up to 480Mbs
- PX0456 leaded with 6 way crimp, for use with PC header
- PX0457 leaded with 6 way header
- PX0458 with pins for direct PC mounting

NB- Mate with Bulgin PX0441 & PX0442 USB leads (Farnell p/ns 122-9677, 122-9678, 122-9681, 122-9682, 122-9683, 122-9684)

Current	1A	Flammability Rating	UL94V-0
Voltage	30Vac / 42Vdc	Contact Plating	50 micron gold
Contact Resistance	50mohm	Mating Cycles	5000
Operating Temperature	0°C to 70°C		

524412

Mftrs. List No.	Mounting Type	Order Code	Price Each
PX0456	Front Panel Mounted	162-9389●	
PX0457	Rear Panel Mounted	162-9390●	
PX0458	Rear Panel Mounted	162-9391●	

Accessories

BULGIN

- Sealing Caps
- 5 way PCB eaders

For use with PX0441 & PX0442
For use with PX0443
For use with PX0446 & PX0447

5 way straight header
5 way right angle header

442507

Mftrs. List No.	Order Code	Price Each
PX0485	124-5342●	
PX0480	384-1285●	
PX0484	840-6642●	
14191	966-7768●	
14192	966-7776●	

Over 500 000 products available online QGO

USB Field TV Sealed USB

Amphenol

MIL-C-38999 Series III

- Sealed against fluid and dusts (**IP67**)
- Shock, Vibration and Traction resistant
- Suitable for 500-1500 mating cycles
- Improved EMI protection
- Choice of back terminations on receptacles - USB-A receptacle or Solder (4 tinned holes)
- Olive Drab Cadmium finish

Transforms regular USB cordset for use in harsh environments. Easy to assemble, the plug adapts a standard USB cordset without the need for tools.

Salt Spray	≥500h
Flammability / Smoke	UL94 V0 and NF F 16 101 & 16 102
Vibrations	10Hz - 500Hz, 10g, 3 axes: no disconitinuity ≤ 1µs
Shocks	IK06: 250g dropped from 40cm onto mated connectors
Humidity	21 days, 43°C, 98% humidity
Temperature Range	-55°C to +85°C

450110

Description	Mftrs. List No.	Order Code	Price Each
Receptacle, Square Flange, USB-A	USBF TV 21 G	122-0811▲	
Receptacle, Square Flange, Solder	USBF TV 22 G	122-0812▲	
Receptacle, Jam Nut, USB-A	USBF TV 71 G	122-0814▲	
Plug Assembly	USBF TV 6 G	122-0817▲	
Cap for Square Flange Receptacle	USBF TVC 2 G	122-0813▲	
Panel Gasket	JE15	122-0819●	
Removal Tool	USBF ODE	122-0820	

USB Field Sealed USB

Amphenol

Self Closing Cap

- Automatically protects USB Field square flange receptacles
- Closes when either a USB Field plug or regular USB cordset is removed from receptacle

450096

Description	Mftrs. List No.	Order Code	Price Each
Nickel and metallised inserts (EMI)	USBF 21 N SCC	122-0796●	
Black and blank insert	USBF 21 B SCC	122-0797●	

Reinforced USBFTV Memory Keys

Amphenol

- 1024 KB Memory Size
- Cap Sealing of IP67
- USB Cordset is included with each memory key
- Choice of Nickel,Olive or Black

488654

Description	Mftrs. List No.	Order Code	Price Each
Nickel	USBKEY1024N	142-8239●	
Black	USBKEY1024B	142-8241●	
Olive Drab	USBKEY1024G	142-8242▲	
Olive Drab	USBFTVKEY6A1024GCAP	142-8243▲	
Nickel	USBFTVKEY6A1024NCAP	142-8244●	

Industrial USB - IP67

molex

Plugs and Receptacles

- Sealed housing for harsh industrial environments
- Single seal surface ensures IEC 60529 **IP67** sealing
- 1/3 turn bayonet latching for quick connection
- Same form factor as RJ45 Ethernet
- Over-moulded cord-sets and pigtails ensure **IP67** sealing on cable side

419726

Mftrs. List No.	Length	Order Code	Price Each
USB Plug Type A to Pigtail			
84727-1001	2m	965-2795●	
84727-1003	3m	965-2809	
USB Plug Type B to Pigtail			
84728-1001	2m	965-2825●	
Panel Mount USB Receptacle Type A to Pigtail			
84729-0001	0.152m	965-2850●	
PCB / Panel Mount USB Receptacle Type B			
84730-0001		965-2892●	

Industrial USB - IP67

Panel Mount Lead Type A to Type A

419744

Mftrs. List No.	Length	Order Code	Price Each
84729-0003	0.152m	**965-2868**	
84729-0004	0.8m	**965-2876**	
84729-0005	1.3m	**965-2884**	

USB Panel Mount Assemblies and Sockets

SCPU, SCRU Series

New

- Single sealed or double sealed ended cable assembly options
- 2 and 5m cable lengths available
- Meets IP68 requirements for dust and weaterproof sealing
- Individual sealed, panel mount, USB Type A & B sockets also available

527374

Cable Length	Mftrs. List No.	Order Code	Price Each
Male USB Assemblies, Single Ended, IP68 USB A - USB B			
2m	SCPU-17-G-2.00-AMS-BM	**175-8315**	
5m	SCPU-17-G-5.00-AMS-BM	**175-8316**	
Male USB Assemblies, Single Ended, IP68 USB B - USB A			
2m	SCPU-17-G-2.00-BMS-AM	**175-8318**	
5m	SCPU-17-G-5.00-BMS-AM	**175-8319**	
Male USB Assemblies, Double Ended, IP68 USB A - IP68 USB A			
2m	SCPU-17-G-2.00-AMS-BMS	**175-8320**	
Sealed, Panel Mount, USB Sockets			
USB A	SCRU-01	**166-7928**	
USB B	SCRU-02	**166-7929**	

IEEE 1394 Connectors

IEEE 1394

Connectors and Cable Assemblies

IEEE1394, also named "Firewire" by Apple, and "i.Link" by Sony, is a new standard I/O interface designed to service the demands of the emerging multimedia bus requirements. 1394 is unique in its ability to carry video and audio with assured quality, based on its high bandwidth capabilities.

This simple to use, peer-to-peer connection system can carry a dense multimedia data stream between computers, video cameras, high-fidelity audio products, and imaging devices at a maximum speed of 400Mbps.

The hot plugging capabilities of 1394 make it ideal as a consumer interface. A new node can be plugged in without powering down. When a new node is detected, all existing nodes on the bus sense it and know a change in bus topology has occurred.

Sockets

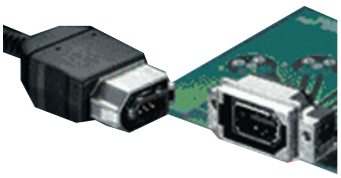
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- High temperature plastic housing for SMT processing

335211/407901

Description	Mftrs. List No.	Order Code	Price Each
IEEE 1394-1995, 2.0mm pitch			
Connectors, 6 Pin			
Right Angle, Upright	534600629	**978-6392**	
Right Angle, Flat	53984-0671	**978-6414**	
IEEE P1394a, 0.80mm pitch			
Connectors, 4 Plin			
Right Angle, Flat	54030-0471	**978-6422**	

IEEE 1394 - Industrial

Connector and Cable Assembly



This SMT PCB socket and cable plug system is designed for rugged applications such as factory automation machines, instrumentation and industrial cameras.

An outer metal shell design on both the plug and socket offers superior EMI/RFI protection. Six friction grounding fingers provide additional shielding and mating stability. The system can reach speeds up to 400 Mbps and is IEEE 1394-1995 compliant.

The right-angle SMT PCB socket features a diecast metal shell that provides robust construction for harsh environments and four screw lock locations for secure panel and pcb mounting. Metal PCB tabs offer additional SMT solder-joint support and plastic pegs provide board-placement guidance. The socket is made of high-temperature housing to withstand SMT soldering environments.

Socket

- Provides for speeds up to 400Mbps
- Robust diecast metal shell for harsh environments
- Double shielding offers superior EMI/RFI protection
- Four screwlock locations enable secure panel and PCB mounting
- Spring retention features provides secure mating and outer shell grounding

Cable Assemblies

- Provides for speeds up to 400Mbps
- 6 circuit to 6 circuit configuration
- Easy to use latch provides strong retention and audible "click"
- Rugged PCB moulded boot includes serrated finger grips for easy mating and unmating and an open area for custom logos

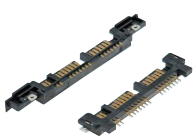
335199/407903

Description	Mftrs. List No.	Order Code	Price Each
Connector			
IEEE 1394 PCB Socket	55395-0619 SMD	**978-6481**	
Cable Assemby (male/male)			
4.5m	592337003	**112-5351**	

Serial ATA Storage Interface

Micro SATA Interconnect Solution

1.27mm Pitch



Plugs

Sockets

New

- Interconnect solution for 1.8" form factor drives and backplane applications
- Staggered contact lengths (First Mate - Last Break)
- Guide pocket for plug and guide post for socket allows blind mating
- Power segment key prevents insertion of non-micro SATA power cables
- Plastic locating peg on plugs
- Metal locating pin on sockets
- Friction locking and solder tabs

Specifications:-

Current Rating	1.5A	Voltage Rating	30V
Withstanding Voltage	500VAC	Contact Material	Copper Alloy
Contact Plating	Gold over Nickel	Contact Resistance	30mohm
Insulation Resistance	1000Mohm	No. of Ways	16
Flammability Rating	UL94V-0	Housing Material	LCP (Plugs)
Operating Temp.	-25°C to 85°C		Nylon 9T (Sockets)

544570

Mftrs. List No.	Drive Type	Mating Z-Height	Order Code	Price Each
R/A micro SATA Plugs, SMT				
78103-0001	HDD	3.15mm	**171-2401**	
78285-0001	SSD	1.29mm	**171-2402**	
R/A micro SATA Sockets, SMT				
78109-0001	HDD / SSD	1.15mm	**171-2403**	
78320-0001	HDD / SSD	3.80mm	**171-2404**	

Serial ATA Storage Interface

Desk top and Server Storage

107-8527
System Plug reverse right angle

107-8528
Signal Plug, straight, Vertical

107-8530
Device Plug

Serial ATA Storage Interface - continued

Serial ATA Storage Interface - continued

Desk top and Server Storage - continued

107-8533
Receptacle, SMT.

101-2233
Signal Cable

101-2235
Power Cable assembly

- Ideal Storage interface to meet increased bandwidth and performance requirements
- Can support 1.5 Gbps.

Current Rating	1.5A max	Contact Resistance	30mΩ max
Dialectric withstand Voltage	500V AC 1 min. at sea level	Operating Temperature (Desktop)	-25°C to85°C
Insulation Resistance	1000MΩ min	Operating Temperature (Server)	-40°C to105°C

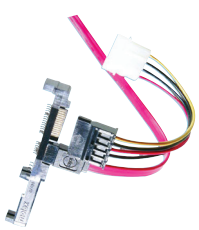
272340/406750

	Mftrs. List No.	Order Code	Price Each
Desktop Storage			
System plug, reverse r/a	67490-3220	107-8527●	
System plug, standard r/a	67490-1220	107-8524●	
Signal plug, vertical	67491-0020	107-8528●	
Signal plug, vertical	67491-1030	107-8529●	
Receptacle, right angle, SMT	67492-9220	107-8531●	
Server Storage			
Device plug	877030001	107-8530●	
Receptacle, SMT	87713-1001	107-8533●	
Cable Assemblies			
Signal cable - Female to Female			
Straight - straight,0.5M	88750-5318	101-2233●	
Straight - straight, 1M	88750-5418	107-8518●	
Straight - r/angle, 0.5M	88762-5400	107-8519●	
Straight - r/angle, 1M	88762-5410	107-8520●	
Power cable			
Male - female, 0.15M	88751-1310	101-2235●	
4 way female - pigtail, 1.5M	88751-1410	107-8522●	
5 way female - pigtail, 1.5M	88757-7810	107-8523●	

Serial ATA Storage Interface

molex

Board-to-Board and Cable-to-Board Solution



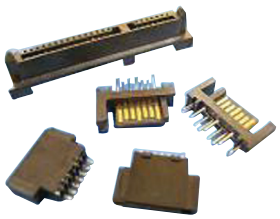
Moving beyond traditional desktop and network storage applications, Serial ATA is quickly becoming an integral part of consumer electronic products with integrated hard disk drives.
Typical applications include HDD-DVD recorders, home-servers, multimedia hubs, LCD TVs, digital juke boxes, HDD enabled game consoles, set-top boxes with personal video recorders, audio players and audiovisual devices for the automotive industry.

494685

Mftrs. List No.	Description	Order Code	Price Each
External SATA Receptacle			
47082-1000	Receptacle, SMT 7 Way	151-9799●	
Signal Plugs			
47080-4005	Plug, SMT RA latch	151-9800●	
47155-4001	Plug, Thru Hole Latch	151-9801●	
67800-5025	Plug, Vert SMT Latch	151-9802●	
67800-8005	Plug, Vert Thru Hole Latch Footprint A	151-9804●	
67800-7005	Plug, Vert Thru Hole Latch Footprint B	151-9805●	
Combo Plug			
87799-0001	SMT inc Jumper	151-9810●	
Combo Receptacle			
47018-4001	Receptacle, SMT RA 22 Way 5.15mm	151-9813●	
87678-1001	Receptacle, Vert Backplane 22 way	151-9811●	
47018-2001	Receptacle, SMT RA 22 Way 4.30mm	151-9812●	
Power Connectors			
67926-0001	Receptacle, IDT Metal Latch	151-9806●	
67926-0011	Receptacle, IDT Friction locking	151-9807●	
67926-0040	Cover for IDT Receptacle, Feed To	151-9808●	
67926-0041	Cover for IDT Receptacle, Feed-Thru	151-9809●	
Cable Assemblies			
68561-0015	Straight Latching to Straight Latching	151-9814●	
68561-0016	Straight Latching to RA Latching	151-9816●	

E-SATA

multicomp



- E SATA Plugs with cable assembly options

Current Rating	1.5 A
Insulation Resistance	Mohm-m
Voltage Rating	40 AC
Operating Temperature	-25°C to 85°C

491674

	Order Code	Price Each
R/A DIP Plug	142-8277●	
R/A DIP Plug without bottom spring	142-8278●	
Vertical DIP Plug	142-8279●	
R/A SMT Plug	142-8280●	
R/A SMT Plug without bottom spring	142-8281●	
R/A SMT Plug Reverse	142-8282●	
Cable Assembly		
120mm	142-8283●	
245mm	142-8286●	
250mm	142-8284●	
450mm	142-8285●	

Small Form Pluggable

SFP+ Cage / Connector Assemblies

Tyco Electronics

New

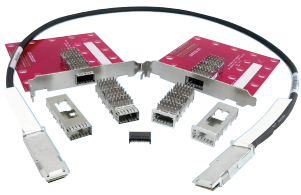
- SFP+ interconnect system supports data rates of 10 Gb/s
- Connector designed to support 10 Gb/s+ signal speeds, backward compatible with SFP
- Both EMI spring and gasket options for cages provide excellent shielding
- All cage configurations are offered with lightpipes for LED applications
- Heat sink option for single port cages
- Cages are available for PCI card applications (one degree mounting angle)
- Cages accommodate belly-to-belly mounting
- Stacked cages include integrated high speed connector using patented wafer construction
- Cage Material = Nickel Silver

546855

Configuration	Mftrs. List No.	Order Code	Price Each
Single Port / Ganged Cages, EMI Springs, with Light Pipes			
1 x 1	2007254-1	175-5770●	
1 x 2	2007262-1	175-5771●	
1 x 4	2007178-1	175-5772●	
Single Port / Ganged Cages, EMI Springs, without Light Pipes			
1 x 1	2007198-1	175-5773●	
1 x 2	2007263-1	175-5774●	
1 x 4	2007132-1	175-5775●	
1 x 6	2007251-1	175-5776●	
Single Port Cages, EMI Springs, with PCI Heat Shrink			
1 x 1	2007464-1	175-5777●	
Single Port Cages, EMI Springs, for PCI Applications			
1 x 1	2007194-1	175-5779●	
Ganged Cages, Elastrometric Gasket, with Light Pipes			
1 x 2	2007180-1	175-5781●	
1 x 4	2007093-1	175-5782●	
Ganged Cages, Elastrometric Gasket, without Light Pipes			
1 x 2	2007181-1	175-5783●	
1 x 4	2007135-1	175-5784●	
Stacked Cages, EMI Springs, with Light Pipes			
2 x 1	2007492-5	175-5786●	
2 x 2	2007637-5	175-5787●	
2 x 4	2007394-5	175-5788●	
Receptacle, 0.8mm Pitch, R/A, Higher Speed SFP+ compliant			
20 Ways	1888247-2	175-5785●	
EMI Plug Assembly			
	1888901-1	175-5789●	

QSFP Cage / Connector Assemblies

Tyco Electronics



New

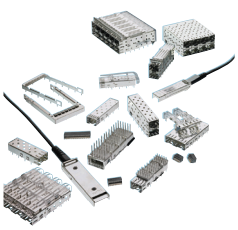
- Lightpipe and heat sink options available
- Through-bezel and behind bezel cage options
- Behind bezel design eliminates potential for mismating plug
- Quick release latching system
- Reliable spring design for EMI containment
- Belly-to-belly compatible (double-sided PCB's)
- Press-fit termination
- Port-to port spacing - 21.0 mm (through-bezel) / 23.5 mm (behind-bezel)
- Cage Material = Nickel Silver

546898

Configuration	Heatsink Application	Mftrs. List No.	Order Code	Price Each
Single Port Cages, Through Bezel, with Light Pipes				
1 x 1	PCI	1888631-1	**175-5790●**	
1 x 1	SAN	1888972-1	**175-5792●**	
1 x 1	Network	1888972-2	**175-5793●**	
Ganged Cages, Behind Bezzel, with Light Pipes				
1 x 3	PCI	2057042-1	**175-5794●**	
1 x 3	SAN	2057042-2	**175-5795●**	
1 x 4	PCI	2057183-1	**175-5796●**	
1 x 4	SAN	2057183-2	**175-5797●**	
Receptacle, 0.8mm Pitch, R/A, Mini SAS				
38 Ways		1761987-9	**175-5798●**	

XFP 10 Gigabit Serial Pluggable Solution

Tyco Electronics



The XFP Multi-Source agreement specifies the next generation pluggable transceiver. Tyco Electronics' is fully compliant with the XFP MSA. The goal of the XFP MSA is to provide a universal design for the transceiver that will be suitable for all applications {One size fits all}.

- Press fit PCB attach
- Designed for use in belly-to-belly applications
- Applications include 10 Gigabit Ethernet Switches and Routers, 10 Gigabit Aggregator ports

Mftrs. List No.	Description	Order Code
1888481-1	XFP Kit, with ins tape and SAN Heat Sink {6.5mm}	152-2214
788862-1	XFP PT Connector, SMT 30 position	152-2215
1902480-1	XFP Cable Assembly, Passive 0.3M	152-2216

496343

Mftrs. List No.	Order Code	Price Each
1888481-1	**152-2214●**	
788862-1	**152-2215●**	
1902480-1	**152-2216●**	

SFP Connectors, Cages, Cable Assemblies and Adapters

molex

The SFP product range meets the demands of networking and storage industries, which require denser and faster packaging for high-speed serial interfaces. The Multi-Port connectors offer high port density with complete integration of stacked 20-circuit SFP connector ports within a cage. Integrated light pipes are available to provide port-status indication to the user.

Mftrs. List No.	Description	Order Code
74441-0007	Receptacle, SMT R/A 30 way	152-0101
75640-5001	2-by-1 Multiport Connector	152-0103
74720-0510	Plug, Loopback	152-0104
74736-0240	Heatsink, PCI 4.2mm	152-0105
74736-0241	Heatsink, SAN 6.3mm	152-0107
74726-0001	Lightpipe cover assembly, 1-by-1	152-0108
74727-0001	Lightpipe cover assembly, 1-by-2	152-0109
74736-0220	Cage assembly W/O heat sink	152-0110
74736-0230	Heatsink clip	152-0111
74722-0001	Ganged cage, 1-by-2	152-0112
74737-0004	Pressfit cage, 0.120" legs Belly-to-Belly	152-0113
74737-0009	Pressfit cage, 0.133" legs	152-0114

494794

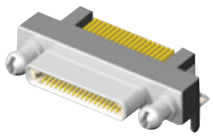
Order Code	Price Each	Order Code	Price Each
152-0101●		**152-0105●**	
152-0103●		**152-0107●**	
152-0104●		**152-0108●**	
152-0109●		**152-0112●**	
152-0110●		**152-0113●**	
152-0111●		**152-0114●**	

VHDCI

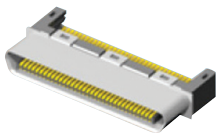
VHDCI Connectors

samtec

VHDCR / VHDCP Series



Receptacle, Right Angle



Plug, Edge Mount

New

- Right Angle Receptacles and Edge Mount Plugs
- 36, 50 and 68 Positions

Specifications:-

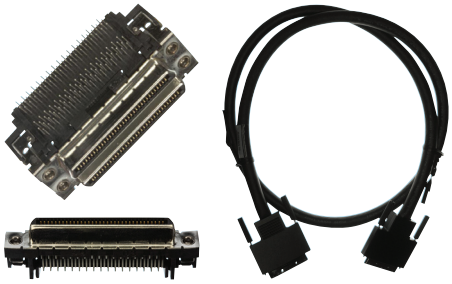
Contact Material	Phosphor Bronze	Contact Plating	Gold over Nickel
Insulator Material	Vectra E130i	Pitch	0.8mm
Shell Material	Nickel Plated Zinc Alloy (Receptacle) / Nickel Plated Phosphor Bronze (Plug)		

547694

No. of Ways	Mftrs. List No.	Order Code	Price Each
Receptacle, Right Angle			
36	VHDCR-36-01-M-RA	**175-3933●**	
50	VHDCR-50-01-M-RA	**175-3934●**	
68	VHDCR-68-01-M-RA	**175-3935●**	
Plug, Edge Mount			
36	VHDCP-36-01-M-EM	**175-3936●**	
50	VHDCP-50-01-M-EM	**175-3937●**	
68	VHDCP-68-01-M-EM	**175-3938●**	

Ultra+™ VHDCI

molex



New

- Stacked / single assembly VHDCI receptacles and male-male VHDCI cable assembly
- Stacked recpetacle supports twice the density of the standard right angle receptacle
- The receptacles feature enhanced shields & ground tabs with multiple contact points for improved EMI/RFI performance
- **Screw locks ordered separately**

Specifications:

Contact Plating	Solder	Contact Material	Phosphor Bronze
Housing Material	High Temp. Thermoplastic	Flammability Rating	UL94V-0
Current Rating	0.5A	Voltage Rating	30V
Mating Cyles	500	Impedance	100 ohm
Operating Temp.	-55°C to 85°C		

601175

No. of Ways	Mftrs. List No.	Order Code	Price Each
Double Stacked VHDCI Receptacle, R/A			
136	74337-0015	**171-8016●**	
Single VHDCI Receptacle, R/A			
68	71430-0013	**171-8017●**	
Screwlock, Thread Size = M2 x 0.4mm, Pack Size = 2 pcs			
	71433-0002	**171-8019●**	
Cable Assembly, VHDCI Plug - VHDCI Plug, 1m			
68	79918-0080	**171-8018●**	

VHDCI Cable Assemblies

multicomp

- Cost effective shielded VHDCI cable assemblies
- Conductive copper foil 360° shielding
- 28AWG x 2PRS + 30AWG x 32PRS FAEB. cable
- Cable diameter - 9.8mm
- Minimum isulation resistance - 1MΩ

New

540604

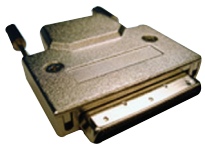
Cable Length	Order Code	Price Each
1m	**171-8937●**	
2m	**171-8938●**	

VHDCI - continued

VHDCI

multicomp

Plugs and Sockets



Current Rating	0.3 A
Insulation Resistance	500 Mohm-m
Voltage Rating	30 AC
Operating Temperature	-25°C to 85°C

491672

Plugs	Order Code	Price Each
68 Way	142-8253	
68 Way without hood	142-8254	
Socket		
Stacked 2 x 68 Way with screws	142-8255	
Stacked 2 x 68 Way without screws	142-8256	
68 Way	142-8257	

Infiniband

4X Cable Assemblies

Tyco Electronics

Tyco Electronics' 4X series of cable assemblies are designed to meet the most demanding INFINIBAND™Specification, Fibre Channel and Gigabet Ethernet (CX4) applications. This family of products exhibits high signal integrity capabilities.

Key Features :
- High signal integrity capabilities
- Fully shielded for EMI/RFI protection
- Built with robust strain relief and wire retention
- Available in lanyard latching style
- Reduced crosstalk (less than 3%)
- Available with standard 28, 26 and 24 AWG wire

Order Code	Cable Size
128-3193	28AWG
128-3195	28AWG
128-3196	26AWG
122-2283	24AWG

415075

Type	Length	Mftrs. List No.	Order Code	Price Each
Cable Assemblies (male/male)				
CX4, 4X to 4X	1m	6751546-2	128-3193	
CX4, 4X to 4X	5m	6751546-6	128-3195	
CX4, 4X to 4X	10m	1-6751546-2	128-3196	
CX4, 4X to 4X	15m	1-6751546-4	122-2283	

Camera Link

MDR Cable Assembly

3M

High Speed Digital Data Transmission System - 26 way

- Supports new industrial Camera-Link™ in Automated Imaging Association for camera to frame grabber communications
- Fully shielded, matched impedance system using twin-ax cables for higher speed applications
- Rugged thumbscrew retention
- Available in 3, 5 and 10 metre lengths
- Signal speed upto 1.5Gb over a 10-metre length

3M have designed and developed the Camera-Link™ interconnect standard based on a 26-pin mini delta ribbon (MDR) connector from 3M that uses LVDS technoloy (low voltage differentioal signalling). The assemblies provide the link between the digital cameras and the frame-grabbers becoming the Camera-Link™ standard interconnect solution.The assemblies are made up of 3M MDR connectors with backshells providing full shielding and are based on the LVDS technology. The twin-ax cable contains 11 high speed shielded pairs and 4 drain wires allowing multiple applications.

Voltage rating	30V	Withstand voltage	350 Vrms for 1 minute
Current	1A	Temperature rating	-20°C To 75°C
Conductor size	28AWG		

414226

Length	Mftrs. List No.	Order Code	Price Each
1m	14B26-SZLB-100-0LC	142-8343	
2m	14B26-SZLB-200-0LC	142-8344	
3m	14B26-SZLB-300-0LC	991-1928	
5m	14B26-SZLB-500-0LC	991-1936	
10m	14B26-SZLB-A00-0LC	991-1944	

Mini D Ribbon (MDR) Cable Assemblies

3M

1.27mm Right-Angle Digital Camera Cable - 26 position

- Mates to popular 3M MDR 26 position receptacle
- For machine vision camera to frame grabber communications in applications where full CameraLink™ configuration is not necessary
- 3 shielded quads with drains and 5 unshielded twisted pairs
- Entire cable bundle shielded with foil and braid for additional signal protection
- Rugged MDR ribbon type contact for reliable, repeatable connectivity
- Rugged thumbscrew retention
- EMI shielded junction shell

Specifications:-

Current Rating	1A	Voltage Rating	30V
Contact Plating	30 μ" (0.76 μm) Min. Gold	Shell Material	Polyester Elastomer
Conductor Size	28 AWG	Withstanding Voltage	350Vrms
Operating Temp.	-55°C to 105°C	Flammability	AWM VW-1

527809

Mftrs. List No.	Cable Length	Order Code	Price Each
14H26-SZ3M-200-03C	2m	166-8863	
14H26-SZ3M-500-03C	5m	166-8864	
14H26-SZ3M-A00-03C	10m	166-8865	

SDR (Shrunk D Ribbon) Receptacle

3M

0.8mm High Speed Digital Data Transmission - 26 way

"3M™ SDR Connectors with a .8mm contact pitch is a miniature version of the MDR input/output (I/O) ribbon contact system. SDR boardmount connectors in 14 and 26 positions are constructed of RoHS compliant, high temp plastic bodies, 30μ" gold contacts, polarised, stamped metal EMI/ESD interface with installed jack sockets and supporting boardmounting hardware. SDR applications are for high density I/O and the 26 position is for camera to Camera Link® frame grabber applications meeting the new AIA Industrial Mini Camera Link® standard".

- Wiper on wiper contact for reliable repetitive mating
- Full metal face for better EMI shielding
- 14, 26 and 50 ways
- On-board jack sockets
- 30μ" Gold Plate
- RoHS compliant

454437

No. of Ways	Mftrs. List No.	Order Code	Price Each
90°, Surface Mount			
26	12226-8250-00FR	SMD 132-1032	
90°, Through Hole			
26	12226-1150-00FR	132-1037	
Vertical, Through Hole			
26	12226-5150-00FR	132-1034	

Panel Thickness			Price Each
Screw Lock			
1.2mm	12600-S-12	132-1040	

SDR (Shrunk D Ribbon) Cable Assemblies

3M

0.8mm High Speed Digital Data Transmission - 26 way

- Supports new AIA Industrial Camera-Link™ standard for new Mini C/L camera to C/L frame grabber applications
- 11 shielded, twisted twinax pairs with four drain wires
- Double overall shield with inner foil and outer braid
- Rugged ribbon contact type
- Rugged thumbscrew retention
- RoHS compliant

454417

Type	Length	Mftrs. List No.	Order Code	Price Each
Cable Assemblies (Male/Male)				
MDR - SDR	5m	1MF26-L560-00C-500	132-1041	
R/A SDR - MDR	2m	1MF26-L576-00C-200	132-1042	
SDR - SDR	5m	1SF26-L120-00C-500	132-1046	
SDR - R/A SDR	2m	1SF26-L136-00C-200	132-1047	
Cable Assemblies (Female / Male) Bulkhead / Extension				
MDR - SDR	2m	1MG26-LFW0-00C-200	132-1045	

Over 500 000 products available online QGO

Miniature I/O Connectors

DA1 Series 0.6mm pitch I/O Connector

JAE

Receptacle / Cradle / Plug

The DA1 series connectors are low profile SMT compact interface connectors for use in compact and slim mobile information terminal devices such as PDAs HPCs mobile communication equipment.

- Mating height 3mm
- Metal shell provides shielding against EMI and static electricity
- Side locking system for positive mating between plug and receptacle
- Board mounting cradle for PCB-PCB applications

Current Rating - Signal	0.5A
Current Rating - Power	1.0A
Insulation Resistance	100MΩ
Operating Temperature	-25^{0}C to +75^{0}C
Contact Resistance	50mΩ
Dielectric Voltage	250V AC rms
Mating Cycles	10000
Applicable Wire Size	28AWG
Cable OD	10 Contacts 0.4mm 18 Contacts 0.5mm

233320

No. Contacts	Mftrs. List No.	Order Code	Price Each
Plug - Cable Mount			
10	DA1P010M94E	**996-5084**●	
18	DA1P018M91E	**996-5092**●	
Receptacle - PCB Mount			
10	DA1R010H91E	**996-5106**●	
18	DA1R018H91E	**996-5114**●	
Cradle - PCB Mount			
10	DA1B010H91E	**996-5122**●	
18	DA1B018H91E	**996-5130**●	

Micro Miniature Interface connectors

HRS

MQ172 Series

- Ultra miniature low profile SMT design
- Automatic mounting
- Reliable contact
- High current capacity
- Positive locking
- Keys for preventing incorrect insertion

Current Rating	2 A	Durability	5,000 cycles
Voltage Rating	40V AC	Contacts	Phosphor Bronze
Operating Temperature	-30°C to 75°C	Colour	Black

496475

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug			
3	MQ172-3PA(55)	**151-8736**●	
4	MQ172X-4PA(55)	**151-8738**●	
Receptacle			
3	MQ172-3SA-CV(50)	**151-8737**●	
4	MQ172X-4SA-CV(50)	**151-8739**●	

Interface Connectors

HRS

ST Series

- Strong locking mechanism
- Prevention against reversed or angle insertion
- Small size and low profile
- EMI protection
- Wide variety of contact positions and mounting styles

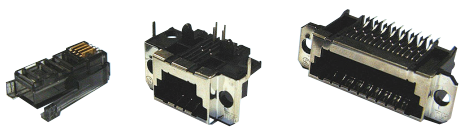
Current Rating	0.5 A	Durability	10,000 cycles
Voltage Rating	100V AC	Contacts	Copper Alloy
Operating Temperature	-30°C to 80°C	Colour	Black

491386

No. of Ways	Mftrs. List No.	Order Code	Price Each
Plug			
10 Free	ST40-10S-CV(80)	**142-5685**●	
18 Free	ST40X-18S-CV(80)	**142-5686**●	
24 Free	ST40X-24S-CV(80)	**142-5688**●	
10 Cradle Verticle	ST80X-10S	**142-5697**●	
18 Cradle Verticle	ST80X-18S(50)	**142-5698**●	
24 Cradle Verticle	ST80X-24S(50)	**142-5700**●	
18 Cradle Right Angle	ST60X-18S	**142-5702**●	
36 Cradle Right Angle	ST60X-36S	**142-5703**●	
10 Free Shielded	ST40X-10S-CV(80)	**142-5704**●	
24 Free Reverse	ST40X-24S-CV1(80)	**142-5706**●	
36 Free Shielded	ST40X-36S-CV(80)	**142-5707**●	
R/A Receptacle			
10	ST60-10P	**142-5693**●	
18	ST60-18P(50)	**142-5694**●	
24	ST60-24P(50)	**142-5696**●	
36	ST60-36P	**142-5701**●	
Accessories			
Cable Bushing 4.0	ST40X-BS(4.0)	**142-5690**●	
Cable Bushing 5.8	ST40X-BS(5.8)	**142-5689**●	
Cable Bushing 6.8	ST40X-BS1(6.8)	**142-5708**●	
Clamp Bracket 4 - 5	ST40X-CM(4.0-5.0)	**142-5691**●	
Clamp Bracket 5.8	ST40X-CM(5.8)	**142-5692**●	
Clamp Bracket 6.8	ST40X-CM1(6.8)	**142-5709**●	

Shielded Data Link (SDL)

Tyco Electronics



- Cost-effective shielded connector for data interconnection
- Miniature size saves PCB space
- UL & CSA approved

Housing	Polyester, UL 94V-0
Current Rating	1.5A
Voltage Rating	30VAC, 42VDC
Temperature Range	-20°C to 80°C
Durability	Up to 3000 mating cycles
Shielding Effectiveness	20 dB min from 30 MHz to 500 MHz and 10 dB min from 500 MHz to 1 GHz

451261

No. of Ways	Key Code	Mftrs. List No.	Order Code	Price Each
Side Entry Receptacles with Ground				
4	A	1-1761185-1	**128-4380**●	
6	A	1-1761185-2	**128-4382**●	
8	A	1-1761185-3	**128-4383**●	
16	E	5-1761185-6	**128-4384**●	
Top Entry Receptacles				
4	A	1-1761183-1	**128-4385**●	
6	A	1-1761183-2	**128-4386**●	
8	A	1-1761183-3	**128-4387**●	
16	E	5-1761183-6	**128-4388**●	
Plug Assemblies for Flat Cable - 24-26AWG				
4	A	1-1761184-1	**128-4389**●	
6	A	1-1761184-2	**128-4390**●	
8	A	1-1761184-3	**128-4391**●	
16	E	5-1761184-6	**128-4392**●	
Plug Assemblies for Round Cable - 24-26AWG				
4	A	1-520424-1	**128-4394**●	
6	A	1-520424-2	**128-4395**●	
8	A	1-520424-3	**128-4396**●	
16	E	5-520424-6	**128-4397**●	

Shielded Data Link (SDL)

Tyco Electronics

Shells and Ferrules

Housing	Carbon Steel
Current Rating	1.5A
Voltage Rating	30VAC, 42 VDC
Temperature Range	-20°C to 80°C
Durability	500 mating cycles

No. of Ways	Mftrs. List No.	Order Code	Price Each
Shell Top Half			
4	520460-1	**156-9935**●	
6	520462-1	**156-9938**●	
8	520464-1	**156-9941**●	
16	520466-1	**156-9944**●	
Shell Bottom Half			
4	520461-1	**156-9936**●	
6	520463-1	**156-9939**●	
8	520465-1	**156-9942**●	
16	520467-1	**156-9945**●	

Miniature I/O Connectors - continued

Shielded Data Link (SDL) - continued

Shells and Ferrules - continued

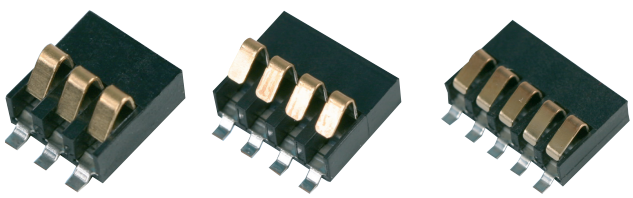
514986

No. of Ways	Cable Diameter	Mftrs. List No.	Order Code	Price Each
Ferrules				
4	4.72-5.08	520433-1	**156-9937**●	
6	5.36-5.72	520435-1	**156-9940**●	
8	5.69-6.20	520437-1	**156-9943**●	
16	7.32-7.83	520441-1	**156-9947**●	

Battery Connectors

Battery Connector

MOBO™ - 2.5mm pitch



3 Way 4 Way 5 Way

- Specifically designed for mobile equipment
- Available in 3, 4 and 5 way configurations all on a 2.5mm pitch
- Insulator height provides a 3mm spacing
- Various contact nose heights from 1.2mm to 2.3mm provides flexibility in design
- Suitable for 5000 mechanical cycles
- Contacts are gold plated, stamped and rated to 3A
- Retaining brackets provide even greater strength when connected to the PCB

346938/406760

Contact Nose Height	Mftrs. List No.	Order Code	Price Each
3 Way			
1.2mm	9155003001016	**972-8350**●	
1.8mm	9155003002016	**972-8376**●	
2.3mm	9155003003016	**972-8384**●	
4 Way			
1.2mm	9155004001016	**972-8392**●	
1.8mm	9155004002016	**972-8406**●	
2.3mm	9155004003016	**972-8414**●	
5 Way			
1.2mm	9155005001016	**972-8422**●	
1.8mm	9155005002016	**972-8430**●	
2.3mm	9155005003016	**972-8449**●	

Reduced Size Battery Connector

MOBO™ - 2.5mm pitch

- Available in 2, 3, 4 and 5 way configurations all on a 2.5mm pitch
- 2.4mm Insulator height
- 1.2/1.5mm nose height
- Only 2.5mm total height when contacts fully deflected
- Suitable for 5000 mechanical cycles
- Contacts are gold plated, stamped and rated to 3A
- End-to-End stackable

464664

No. of Ways	Mftrs. List No.	Order Code	Price Each
2	009155002201006	**134-5482**●	
3	009155003201006	**134-5483**●	
4	009155004201006	**134-5484**●	

SIM Card Connectors

SIM Card Connector

MOBO 2.54mm pitch - Slide in

- For use with both full ISO and micro SIM cards
- Integral guides aid card insertion
- Rounded contact design avoids damage during and after card insertion
- Gold plated contacts rated to 0.5A
- 5000 mechanical cycles
- Insulator is moulded from high temperature plastic
- Can be used in convection or infra red soldering processes
- All plastic design prevents damage to the SIM card
- Two contact sizes:
  Standard - 1.6 x 1.6mm
  Narrow - 1.05 x 1.05mm

346943/406763

Contact description	Mftrs. List No.	Order Code	Price Each
Standard	9162006206175	**972-8473**●	
Narrow	9162006216175	**972-8481**●	

SIM Card Connector

1.27mm Pitch

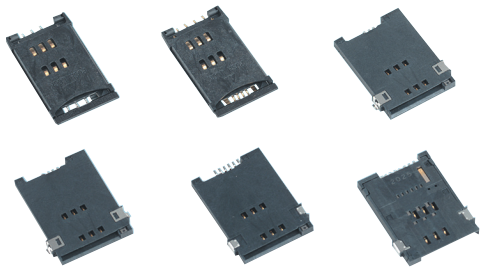
- The spring-ejection mechanism obtains stronger clicking feeling on insertion and ejection
- High durability for 5,000 cycle mating
- A wide range of variations are available such as 6 positions or 8 positions, with a lock or without a lock of the card retention mechanism that prevents SIM card coming off. The lock guarantees the durability against an excessive vibration or dropping impact, and 6 positions type services as a card detection switch that detects the existence of the card
- Metal shell is adopted for EMI protection

496266

Description	Mftrs. List No.	Order Code	Price Each
6 Pin Push / Push with boss	04 5036 006 200 862+	**150-3772**●	
6 Pin Push/ Push without boss	04 5036 006 201 862+	**150-3773**●	
6 Pin Push / Push w. Slide Lock	05 5036 006 202 862+	**150-3774**●	
8 Pin Push / Push	04 5036 008 210 862+	**150-3775**●	

SIM Card Connectors

FMS - Series



- Typical applications include GSM phones and EPOS equipment
- Conform to GSM11.11 standard

FMS006Z-0000-BF
- Ultra low profile - 2.3mm
- Locking lid - one touch release

FMS006-0001
- Ultra low profile - 2.3mm
- Locking lid - one touch release
- Integrated card detection switch

FMS006-2000-0
- Push / Push insert / eject mechanism

FMS006Z-2001-1
- Push / Push insert / extract mechanism
- Integrated card detection switch

FMS006-2100-0
- Push / Push insert / extract mechanism
- Reverse mount

Insulation Resistance	500MΩ min	Current Rating	0.5A
Withstand Voltage	250V AC rms	Operating temperature range:	-55°C to +85°C
Contact Resistance	100mΩ max	Mating Cycles	5000
Voltage Rating	250V AC		

248976

Type	Mftrs. List No.	Order Code	Price Each
Cover Type - Standard PCB Mount			
Unswitched	FMS006Z-0000-BF	**114-3954**●	
With Switch	FMS006-0001	**114-5895**●	
Push / Push - Standard PCB Mount			
Unswitched	FMS006Z-2000-0	**117-0398**●	
With Switch	FMS006Z-2001-1	**114-3956**●	

SIM Card Connector with Eject

2.54mm Pitch

- For use with ISO and Micro sim cards
- Standard 6-pin configuration on a 2.54mm pitch
- Push-push button enables easy extraction
- Polarization on card holder prevents mismating of card
- Eject mechanism with card holder (91236-****)
- 5000 mating cycles (minimum)
- Contacts are gold plated and rated to 0.5A

414026

	Mftrs. List No.	Order Code	Price Each
Yellow P/B - With PCB locator peg	91228-3001	**151-8961**	
Black P/B - Without locator	91228-3002	**151-8962**	
SIM Card Holder			
With Slanted face	91236-0002	**965-2345**	
With Straight face	912360001	**965-2329**	

Security Access Modules (SAM)

Tyco Electronics

- SIM/SAM
- Metal Locking Disk
- Includes Switch

SMD

Housing	High Temperature Thermoplastic, Black
Contact Plating	Gold
Durability	Up to 10000 mating cycles

451272

No. of Contacts	Mftrs. List No.	Order Code	Price Each
6	5145299-1	**128-4401**	
8	5145299-2	**128-4402**	

Smart Card Connectors

FCI

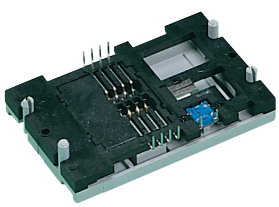
- A range of chip card connector products, with wiping and landing contacts
- Provides electrical connection of chip cards according to ISO7810-7813
- Variants for different environments, friendly, harsh or space critical
- Wide range of application : data terminal, security, Epos payment, metering

Current rating	1A max	Housing	Self extinguishing thermoplastic **UL94V-0**UL94V-0
	10µA min	Contact	Copper Alloy, Gold over Nickel
Voltage rating	≥ 300Vrms	Pins	Copper Alloy, Tin over Nickel
Dielectric withstand voltage	≥1000Vrms		
Contact resistance	≤100mΩ		
Insulation resistance	≥1000MΩ		
Operating temperature	-40°C to +90°C		

209839

L26 Series

FCI



- Wiping technology
- Protected contacts
- Suitable for all environments
- Sealed switch card detection
- PCB mounting
- 100,000 card insertions

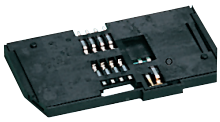
L=62, W=40, D=9

209844

Mftrs. List No.	Order Code	Price Each
7434L0825S01LF	**109-8026**	

Ultra Low Profile 3.4mm

FCI



- Wiping technology
- Suitable for all environments
- Blade switch card detection
- SMT mounting
- Protected contacts
- 100,000 card insertions

L=55.95, W=33.2, D=3.4

209840

Mftrs. List No.	Order Code	Price Each
7312P0225A13LF	**109-8028**	

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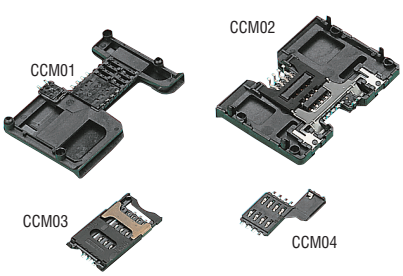
CCM Series

ITT
Engineered for life



CCM01	Papillion SMT 8 or 16 way reduced contact base sealed end travel switch
CCM02mk2	Advanced landing style contacts for long live in SMT and through hole versions
CCM03	Landing style contacts 16 way for intensive use with sealed end travel switch
CCM03	GSM style for mini smart cards for POS and mobile phones in 6 way and 8 way
CCM04	SMT small package miniature connectors in 8 way for use in limited space applications

Operating life	CCM01 100000	Term plating	Tin
	CCM02 200000	Cover/housing	Thermoplastic
	CCM03 10000	Insulation resistance	>10MΩ
	CCM04 100000	Test voltage	>1KV rms
Contacts	Copper Alloy	Current	10µA min 1A max
Contact plating	Gold over Nickel	Contact resistance	<100mΩ

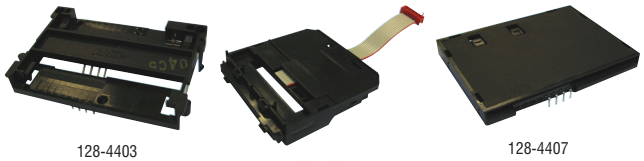
210058

Mftrs. List No.		Order Code	Price Each
CCM01-2013AP LFT T30	8 way Papillion SMT end travel switch sealed	SMD **171-8026**	
CCM01-2252ALFT	16 way Papillion SMT end travel switch sealed	**121-4865**	
CCM02-F503LFT T30	MK2 8 way through hole end travel switch sealed	**171-8028**	
CCM02-2504LFT T30	MK2 8 way SMT end travel switch sealed	SMD **171-8027**	
CCM03-3013LFT R102	6 way & card detectors switch unsealed	**165-0186**	
CCM03-3001LFT R102	6 way low profile 2.5mm high	**122-2712**	
CCM03-3003 LFT	8 way low profile 2.5mm high	**121-4869**	
CCM03-3505LFT R122	6 way profile fixed cover	**122-2420**	
CM03-3504LFT R122	8 way low profile fixed cover	**122-2713**	
CCM04-5427LFT-R901	8 way moulding height 2.75mm sealed end travel switch	**171-3331**	

Smart Card Connectors - continued

Smart Card

Tyco Electronics



128-4403 128-4406 128-4407

- Accept 0.76mm thick integrated circuit type Smartcard ISO 7816-7816 or ISOP8-AF-NOR standard and GSM 11.11 standards for SIM cards
- Include switch
- 30,000 mating cycles, with up to 300,000 mating cycles on high durability version

Housing	Glass-Filled PBT, Black
Contact Plating	Gold over Nickel

Mounting Style	Features	Mftrs List No.	Order Code
Full Size Card			
Through Hole	Low Profile	5953398-1	128-4403
Through Hole	High Profile	5953438-1	128-4404
Panel Mount	60mm RIbbon Cable Termination	5953497-1	128-4406
Through Hole	High Durability	1705054-1	128-4407
2 x Full Size Cards			
Through Hole	Stacked, 2 x RIbbon Cable Termination	6379018-1	128-4408

451279

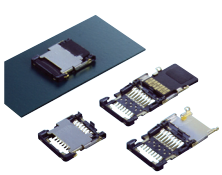
No. of Contacts	Mftrs. List No.	Order Code	Price Each
Full Size Card			
8	5953398-1	**128-4403**	
8	5953438-1	**128-4404**	
8	5953497-1	**128-4406**	
8	1705054-1	**128-4407**	
2 x Full Size Card			
16	6379018-1	**128-4408**	

Memory Card Connectors

MicroSD™ Hinge Type Memory Card Connector

JAE

ST1 Series



New

- Push-slide hinge type connector for microSD card
- Shield characteristic is secured by the 4 ground connection points
- Compact, slim, low profile design
- Card lock mechanism
- Dimensions (HxWxD) - 1.9 x 14.15 x 16.3mm

Specifications:-

Current Rating	0.5A per pin	Rated Voltage	10V per pin
No. of Contacts	8	Withstanding Voltage	500VAC per min.
Pitch	1.1mm	Contact Material	Copper Alloy
Contact Plating	Gold over Nickel	Housing Material	Synthetic Resin
Insulation Resistance	1000Mohm	Contact Resistance	100mohm
Flammability Rating	UL94V-0	Operating Temp.	10000
Operating Temp.	-25°C to 85°C		

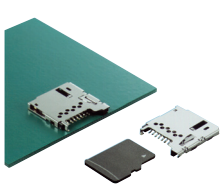
537278

Mftrs. List No.	Order Code	Price Each
ST1W008S4ER1500	**170-2072**	

MicroSD™ Push-Push Type Memory Card Connector

JAE

ST2 Series



- Push-push type connector for microSD memory cards
- 1mm push stroke, 3.3mm card eject length
- Shield characteristic is secured by the 4 ground connection points
- Compact, slim, low profile design
- Card detection switch
- Card lock mechanism
- Metallic ejection bar
- Dimensions (HxWxD) - 1.7 x 14.5 x 15.5mm

New

Specifications:-

Current Rating	0.5A per pin	Rated Voltage	10V per pin
No. of Contacts	8	Withstanding Voltage	500VAC per min.
Pitch	1.1mm	Contact Material	Copper Alloy
Contact Plating	Gold over Nickel	Housing Material	Synthetic Resin
Insulation Resistance	1000Mohm	Contact Resistance	100mohm
Flammability Rating	UL94V-0	No. of Mating cycles	10000
Operating Temp.	-25°C to 85°C		

537294

Mftrs. List No.	Order Code	Price Each
ST2S008V1A1R1500	**170-2073**	

Micro SD TransFlash Memory Card Holders

molex

Trans Flash is the world's smallest memory card storage system. Offering over 70% volume savings versus miniSD, Trans Flash will store up to 256MB of removable memory. Molex offer two types of Trans Flash connectors, a hinged version intended for one-time card insertion applications and a push-push design for scenarios where the card will be removed more frequently.

- Hinged and push-push types
- Gold plated bevelled contacts
- Solder tails on inside of design
- Metal shielding with shell tabs

	Push-push card holder
Voltage rating	10V
Current rating	0.5A
Contact resistance	80mΩ max
Withstand voltage	500V
Insulation resistance	1000MΩ min
Operating temperature range:	-25°C to +85°C
Mating cycles	1000
Housing Material	LCP Liquid Crystal Polymer
Contact Material	Phosphor Bronze- Gold

383439

Mftrs. List No.	Order Code	Price Each
Push-Push Card Holder		
500873-0806	**157-2016**	
Push-Push Card Holder with Detect Switch - Reverse Mount		
49225-0821	**136-6700**	
Hinged Card Holder		
500901-0801	**134-4008**	

MicroSD/SIM Combo Socket

molex

2.75mm Height

Molex's new microSD/SIM card combo connector offers the smallest overall size of any combo version in the market today. Molex developed its microSD/SIM combo connector to meet the continuing downsizing and low height requirements of its mobile phone customers. By combining two connectors in one, this combo design provides significant PCB space savings. This connector was originally introduced for 3G MegaSIM phone applications, but the different pin-out options make it suitable for various mobile device applications.

Features:-

- Ultra low profile and compact; combines two socketports into one footprint
- Reliable mate/un-mate cycling
- Solder tails on two sides
- Visible solder tails
- Card polarization
- Space savings for mobile device applications

Specifications:-

Current Rating	0.5A	Voltage Rating	100V micro SD / 5V SIM
Contact Plating	Gold	Contact Resistance	100mohm
Insulation Resistance	1000mohm	Dielectric Strength	500V AC
Operating Temp.	-25°C to 85°C	Flammability Rating	UL94V-0

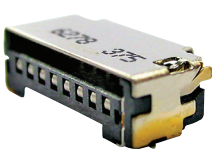
527908

Mftrs. List No.	No. of Ways	Order Code	Price Each
49362-1411	8/6	**168-6209**	

Micro SD Card Header

molex

Push-Pull block type with Detect Switch



These simple push-pull block type connectors are designed for cell phones and other mobile devices that use removable flash memoryto store data. The MicroSD standard has evolved from the previous Transflash standard.

- Card detect switch
- Low Profile compact size
- Metal sheild

Voltage	5V DC	Withstand Voltage	500V AC
Current rating	0.5A	Contact Resistance	25mR
Contacts	Phosphor Bronze	Insulation Resistance	100mR
Operating temperature	-40°C to +85°C		

510462

Mftrs. List No.	Height	Order Code	Price Each
47309-2651	2.65mm	**156-8092**	
47309-3351	3.35mm	**156-8093**	
47309-3751	3.75mm	**156-8094**	

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Micro SD and SIM Card Connector

Current Rating	0.5A
Insulation Resistance	1000MΩ Min.
Dielectric Voltage	500V ac
Contact Resistance	100mΩ Max.
Mating Cycles	10000

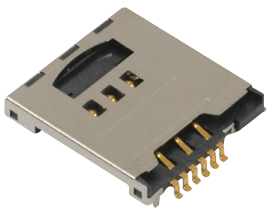
New

601395

Description	Order Code	Price Each
Micro SD and SIM	**177-9006**	

Micro SD and SIM

1.27mm Pitch



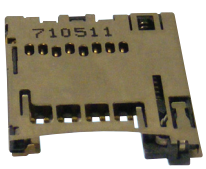
This connector is an integration of SIM and micro SD™ within a compact structure to minimise mounting space yet allowing the 2 cards to be inserted at the same time. This is achieved by the orientation of the cards, their insertion being at 90° to each other allows both cards to be inserted without interference from the other card. There is a slide insertion for the SIM and a Push/Push operation for the micro SD™

505789

Temperature Range	-25°C to +85°C
Contact Material	Nickel
Contact Plating	Gold
Mating Cycles	6000

Description	Mftrs. List No.	Order Code	Price Each
Micro SD / SIM	00 9162 006 501 150	**156-5198**	

Micro SD Connector



- Excellent insertion click
- Rugged connectivity maintains connections
- Supports embossed packaging

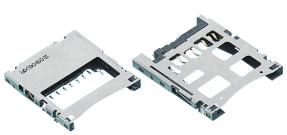
New

Insulator	Thermoplastic	Shell	Copper Alloy
Contact	Copper Alloy	Plating	Gold over Nickel

601446

Description	Mftrs. List No.	Order Code	Price Each
Micro SD	1871602-1	**176-2948**	

SD Memory Card Connectors (Header)



- 2.5mm pitch
- Push - Push eject
- 9 circuits

Order Code	L	W	H
131-8471	29.80	27.90	3.10
978-6430	29.80	27.90	3.10

249748

Mounting Type	Mftrs. List No.	Order Code	Price Each
Shielded - Standard			
Normal	5009980900	**131-8471**	
Reverse	54768-0977	**978-6430**	

REACH - SVHCs

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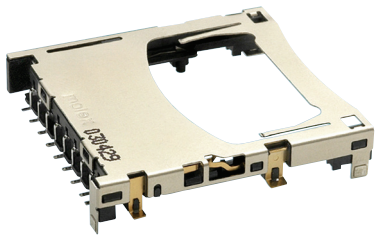
SD I/O Memory Card Connectors



Molex's new SD I/O Card connectors are similar to the standard push-push type SD Card connectors, but also includes grounding arms to provide frame grounding to the metal tab on the SD I/O Cards.

- Accepts SD and SD I/O memory cards
- Push-push card ejector system
- Reverse and normal surface mount versions available
- Stand-offs provide trading space under connector (reverse mount only)

Voltage rating	100V	Operating temperature range:	-40°C to +85°C
Current rating	0.5A	Mating cycles	10000
Contact resistance	100mΩ max	Housing Material	LCP Liquid Crystal Polymer
Withstand voltage	500V	Contact Material	Copper Alloy- Tin Plated
Insulation resistance	100MΩ min		

387050

Mftrs. List No.	Order Code	Price Each
Normal Mount		
679938001	**121-6731**	
Reverse Mount		
67955-8001	**121-4511**	

Card Connectors SMT

Secure Digital

SG1 - Secure Digital

- Push-Push card insertion and extraction
- 3.3mm height when mounted
- First mate last break contacts
- MMC can be inserted

Applications

DSC,DVC,PDA,HPC,portable audio,game machines and other compact portable devices

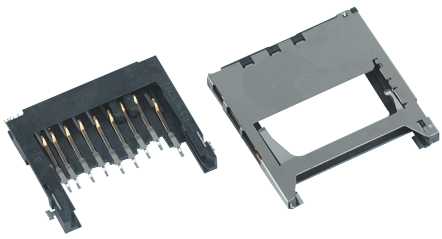
	SG1
Current Rating	0.5A max
D W Voltage	500V AC rms 1 min
Insulation Resistance	1000MΩ min
Contact Resistance	100mΩ max
Contact Spacing	2.5mm
Withstand Voltage	500V rms per minute
Operating Temperature	-25^{0}C to +85^{0}C

233418

No. Contacts	Mftrs. List No.	Order Code	Price Each
13	SG5S009V1A1	**996-5076**	

Secure Digital / Multi Media Card Connectors

FPS - Series



- Connector for both SD and MMC cards
- Cryptographic security feature built into the SD card makes it ideal for use in secure transactions
- Premium quality ensures 10,000 mating cycles

Memory Card Connectors - continued

Secure Digital / Multi Media Card Connectors - continued

FPS - Series - continued

Insulation Resistance	1000MΩ min	Current Rating	0.5A
Withstand Voltage	500V AC rms	Operating temperature range:	-25°C to +85°C
Contact Resistance	100mΩ max	Mating Cycles	10.000
Voltage Rating	250V AC	Coplanarity	≤0.1mm

	Type	Card Detector	SMT	Write Protection
FPS009-3000	Simple Eject	YES	-	YES
FPS009-3001	Simple Eject	YES	YES	YES
FPS009-3003	Manual	-	YES	-
FPS009-2405-0	Push/Push	YES	YES	YES

248984

Mftrs. List No.	Order Code	Price Each
FPS009-3001-BL	114-3952●	
FPS009-3003-BL	114-3953●	
FPS009-2405-0	114-5893●	

SDIO Memory Card Connectors

5738 Series

- 5738 series is a range of SDIO memory connectors
- Two tail types available - outer tail suitable for notebook PCs and digital AV equipment, and inner tail suitable for mobile phones and PDA
- Low profile design - stacking heights range between 2.7 & 2.9mm
- Spring-eject mechanism
- Equiped with write protection switch and card detection switch

Specifications:-

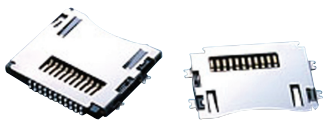
Material Insulator	Heat Resistance Plastic	Contact Material	Copper Alloy
Contact Plating	Au (0.25μm Min.)	Current Rating	0.5A
Voltage Rating	5V AC/DC	Withstanding Voltage	500Vrms/min
No. of Ways	9	Pitch	2.5 / 1.7 mm
No. of Mating Cycles	10000	Operating Temperature	-25°C to 90°C

523628

Mftrs. List No.	Tail Type	Stack Height	Order Code	Price Each
14 5738 009 784 859+	Outer Tail	2.8mm	155-8174●	
14 5738 009 302 859+	Inner Tail	2.9mm	155-8175●	
14 5738 009 220 859+	Outer Tail	2.7mm	155-8176●	

miniSDTM™ Memory Card Connector

5338 Series



New

- 5338 series conforms to the miniSDTM™ standard
- Can be used in applications such as hand-held equipment and mobile phones
- A miniSDTM card is turned upside down when being inserted
- Volume is 52.2% smaller than the conventional SD card (5738 series)
- Spring-eject mechanism
- Equipped with card detection switch

Specifications:-

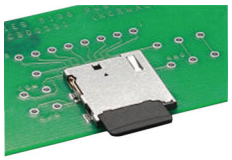
Material Insulator	Heat Resistance Plastic	Contact Material	Copper Alloy
Contact Plating	Au (0.5μm Min.)	Current Rating	0.5A
Voltage Rating	5V AC/DC	Withstanding Voltage	500Vrms/min
No. of Ways	11	Pitch	1.3 / 1.7 mm
No. of Mating Cycles	10000	Operating Temperature	-25°C to 85°C

532805

Mftrs. List No.	Stack Height	Order Code	Price Each
14 5338 011 110 862+	2.15mm	155-8177●	

microSDTM™ Memory Card Connector

5138 Series



New

- 5138 seriesconforms to the microSDTM™ standard
- Lowest profile in the industry at 1.6mm in height
- Developed for equipment requiring portability
- Spring-eject mechanism
- Equipped with card detection switch
- Card locking mechanism
- The outer lead frame enables rework after mounting

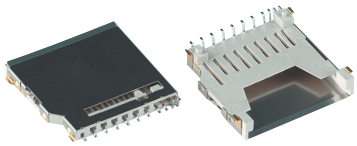
Specifications:-

Material Insulator	Heat Resistance Plastic	Contact Material	Copper Alloy
Contact Plating	Au (0.5μm Min.)	Current Rating	0.5A
Voltage Rating	5V AC/DC	Withstanding Voltage	500Vrms/min
No. of Ways	8	Pitch	1.1 / 1.7 mm
No. of Mating Cycles	10000	Operating Temperature	-25°C to 85°C

532806

Mftrs. List No.	Stack Height	Order Code	Price Each
04 5138 008 010 890+	1.6mm	155-8178●	

Secure Digital Card Connectors



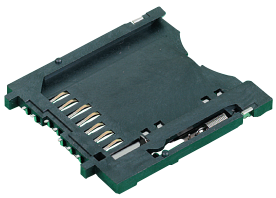
- 10,000 insertion cycles
- For Secure Digital and Multi Media use
- With or without cover

Contacts	Copper Alloy	Voltage Rating	250V AC
Insulation resistance	1000MΩ	Current Rating	0.5A AC/DC Max
Contact resistance	40mΩ	Temperature range	-25°C To +85°C

270109.342987

	Order Code	Price Each
Without Cover	918-6140●	
Metal Cover	918-6158●	
2.0mm Standoff. Metal Cover	918-6166●	
Push in / Push out	918-6174●	

Multimedia Card Connector



- Low Profile - 3mm height
- Surface Mount
- "Push-Push" mechanism. One push to card edge for smooth insertion and extraction
- 2.5mm pitch

Current Rating	0.5A AC DC	Contacts	Phosphor Bronze
Voltage	5V AC DC	Plating	Gold over Nickel
Contact Resistance	Initial/Max 30mΩ	Housing	LCP
Dielectric Voltage	500V AC 1 min	Mating Cycles	10000
Insulation Resistance	Min 1000MΩ at 500V dc	Temperature Range	-25°C to +85°C

231736

No. of Contacts	Mftrs. List No.	Order Code	Price Each
7	MMC-7S-412R(LF)(SN)	949-1996●	

Multi Media Card Connector

- MMC use only
- 10,000 insertion cycles

Contact	Copper Alloy	Current	0.5A AC/DCmax
Voltage Rating	250V AC	Contact resistance	40mΩ
Insulation resistance	1000MΩ	Temperature Range	-25°C To +85°C

270110.343058

	Order Code	Price Each
Without Cover	918-6182●	
Metal Cover	918-6190●	
2.0mm Stand Off Metal Cover	918-6204●	
Push in / Push out	918-6212●	

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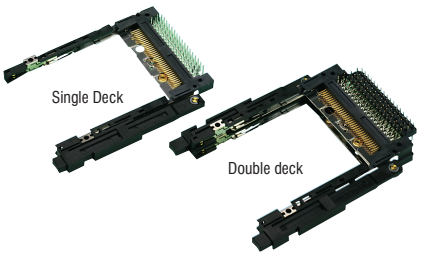
Eject Headers

Card Bus and Type III



- Conforms to PCMCIA and JEIDA standards
- 10,000 mating cycles when using Berg headers and card kits
- Polarised to prevent incorrect card insertion
- Eject headers provide enhanced ESD protection
- Type III eject headers accepts Type 1, 11 and 111 cards

Current rating	0.5A dc max (per contact)
Housing: Header	High temperature plastic
Housing: Eject Mechanism	High temperature plastic
Plating: Contact area	Gold Flash over Palladium-Nickel Alloy

Mftrs. List No. 72206-100CA = 634-499, 92193-100CA = 634-505, 92194-000CA = 634-517

209969

R/A Cardbus	Order Code	Price Each
Single Deck Card Bus	**109-8023**	
Type III Eject Headers - 68 position (without stand off)		
Single Deck Eject Header	**109-8024**	
Double deck	**109-8025**	

ROCARD™ -Rugged Original CARD

- Complies to PC card and JEIDA standards
- Rugged concept with unique SnapFit latches
- Integrated frame bar within shield
- 4; 15 position I/O connectors: closed end
- Standard, 3.3V, 5V and Cardbus options
- Designed for automated-or hand assembly

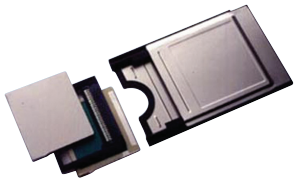
Withstanding voltage	500V rms
Current rating	A0.5A per contact
Contact resistance	40mΩ initial; mΩ after cycling
Temperature range	Operating: -20/+60°C: Storage -55/+85°C°C
Body material	Stainless Steel, LCP
Contact material/plating	68 pos receptacle: Beryllium Copper plating Au 0.1µm min over PdNi 0.5µm min I/O connectors: Phosper Bronze, plating Au 0.1µ min over PdNi 0.5µ min

Mftrs. List No.
10014744-002SLF = 121-1674
10014747-002SLF = 121-1676
10014744-002SLF = 121-1674
83808-21110LF = 117-6527
83808-21111LF = 117-6529

209986

68 Posn. Receptacles	Order Code	Price Each
Standard SMT IL 0.3mm PCB off-set	**121-1674**	
Card Shields - Type 2		
1 I/O, label recess, insulator, Non Card Bus	**117-6527**	
1 I/O, label recess, insulator, Card Bus	**117-6529**	

Compact Flash (CF) Memory Card Connectors



- CF memory cards available with storage capacities up to around 12GB
- Type I and II CF cards accepted
- Using the adaptor a CF card can be connected to a standard Type II PC Card slot

Note: Card ejector mechanism supplied separately to card connector (header)

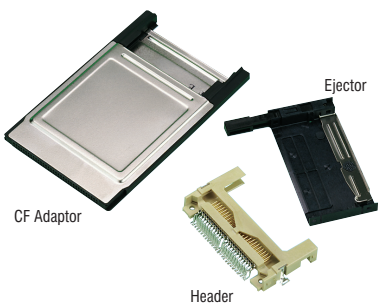
CF Adaptor

Voltage rating	100V	Mating cycles	10000
Current rating	0.5A	Material- Header	Steel
Contact resistance	40mΩ max	Material- Ejector	Steel
Withstand voltage	100V	Material- Adaptor	Steel
Insulation resistance	1000MΩ min	Contact Material	
Operating temperature range:	-20°C to +90°C		

387125

Type	Mftrs. List No.	Order Code	Price Each
Header			
Top Mounting	55358-5029	**121-1009**	
Bottom Mounting	553595029	**121-1011**	
Ejector			
Left Side Button	0553640011	**121-1010**	
Right Side Button	55365-0011	**121-4095**	

Compact Flash™ Interconnectors



- Ejector, (SMT) card headers and PC card adaptor to support compact flash card
- Total interconnect solution for compact flash
- Light, compact eject mechanism
- Standard header = 6.64mm height, Low profile header = 4.00mm
- Adaptor converts compact flash card to PC card

Current rating (Header)	0.5A	Ejector	PBT UL94V-0
Insulation resistance (Header)	1 x MΩ		
Temperature range Header	-55°C to ++85°C		
Ejector	-55°C to ++85°C		
Material Header	Liquid crystal polyester UL94V-0		

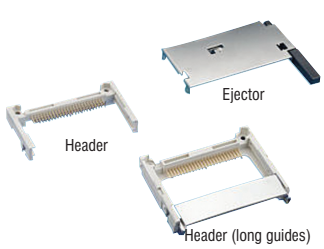
Mftrs. List No.
N7E50-7516-VY-20 = 634-529, D7E50-7316-03 = 634-530, 20468-0000-11 = 634-542
N7E50-7516 PK-20=1034424, N7E50-E516PK-30=1034423

209970

Type 1	Order Code	Price Each
Header	SMD **103-4424**	
Ejector	**117-6694**	
Embase Bas Profil	SMD **103-4423**	
Low Profile Ejector	**126-7440**	

Compact Flash™ Interconnectors

Type II



- Headers mate with Type I & II
- Top or bottom boardmount
- Optional 2mm board stand off
- Standard header = 6.64mm height, Low profile header = 4.00mm
- Adaptor converts compact flash card to PC card

Current rating (Header)	0.5A	Material Header	High Temperature Thermoplastic
Insulation resistance (Header)	10MΩ	Ejector	PBT UL94V-0
Temperature range Header	-40°C to ++85°C		
Ejector	-55°C to ++85°C		
Adaptor	-40°C to ++85°C		

Memory Card Connectors - continued

Compact Flash™ Interconnectors - continued

Type II - continued

Headers					Accepts
Order Code	Mftr. No.	PCB Mounting Type	2mm Stand off	Long Guides	Ejector
126-7441	N7E50-Q516RB-40	Top	-	-	-
126-7442	N7E50-R516RB-50	Bottom	YES	-	-
126-7443	N7E50-Q516RB-50	Top	-	YES	YES
103-4422	N7E50-M516RB-50	Top	YES	YES	YES
126-7444	N7E50-Q516RB-50	Top	YES	-	-
126-7445	N7E50-Q516RB-50	Bottom	YES	YES	YES

449956

Type II	Order Code	Price Each
Header	126-7441	
Header	126-7442	
Header	126-7443	
Header	103-4422	
Header	126-7444	
Header	126-7445	
Ejector, Right Button	126-7446	
Ejector, Left Button	126-7447	
CF to PC Adaptor	126-7439	

PCI Express

PCI Express Mini Card Compatible Connectors

MM60 Series

- Can be used with PCI Express Mini Card & USB transmission
- Compatible with the PCI-SIG standard
- Retention latches available to fix module to connector
- Two mounting heights avaiable - 3.9mm, 5.9mm
- Components under 1.8mm in height can be placed below the module
- Connector and latch are compatible with automatic mounting

New

Module Socket Specifications:-

Current Per Pin	0.5A	Dielectric Withstanding Voltage	300VAC r.m.s. (1 min.)
Contact Material	Copper Alloy	Contact Plating	Gold over Nickel
Material Insulator	Heat Resistant Material	Flammability Rating	UL94V-0
Pitch	0.8mm	Contact Resistance	55mohm
No. of Ways	52	Operating Temperature	-40°C to 80°C
Mating Cycles	50		

532698

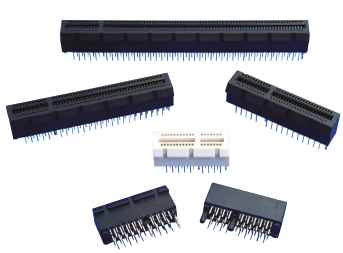
Module Height	Mftrs. List No.	Order Code	Price Each
3.9mm	MM60-52B1-B1-R850	SMD 169-8820	
5.9mm	MM60-52B1-E1-R650	SMD 169-8821	

Retention Latches with Boss

Application Height	Mftrs. List No.	Order Code	Price Each
3.9mm	MM60-EZH039-B5-R850	SMD 169-8822	
5.9mm	MM60-EZH059-B5-R650	SMD 169-8823	

PCI Express™ Connectors

1mm Pitch



These 1.0mm pitch, vertical card edge connectors are used to implement the PCI Express™ strategy in ATX or ATX-based desktop PCs and server systems. The connector family offers 1, 4 & 16 high-speed serial PCI Express Lanes. Each serial lane supports 2.5 Gbps data rate (per direction).

- 1, 4, & 16 serial PCI Express links to suit different bandwidth requirements
- Supports 2.36mm thick motherboards
- Through-mount soldertails are offset to form four rows on 2.0mm pitch
- Moulded polarisation key prevents mis-alignment when mating
- A retention clip may be mounted on the add-in card and latched over the ridge of the connector

Withstand Voltage	300Vac	Mating force	1.15N
Insulation resistance	1000MΩ	Host PCB thickness	2.36mm
Mating cycles	50	Add-in PCB thickness	1.56mm
Contact finish	Gold over Nickel		

Housing Glass Filled High Temp. Nylon
Current rating 1.1A for 8 specified power contacts and 8 nearest ground contacts

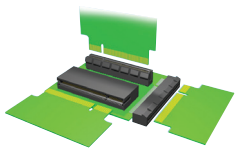
Mftrs. List No.
10018783-11110TLF = 114-4435
10018783-11111TLF = 114-4436
10018783-10113TLF = 114-4437
10042618-002LF = 114-4438

430143

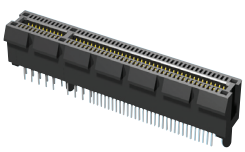
Double Sided No of Ways	Order Code	Price Each
2 x 18	114-4435	
2 x 32	114-4436	
2 x 82	114-4437	
Accessory		
Retention Clip	114-4438	

PCI Express Connectors

PCIE Series



Edge Mount Version



Through Hole Version

New

- Mates with 1.6mm card
- Through Hole and Edge Mount versions
- Dual Row
- Alignment Pins

Specifications:-

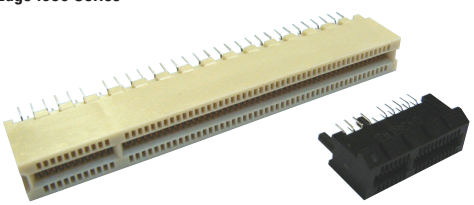
Contact Material	Phosphor Bronze	Contact Plating	Gold over Nickel
Insulator Material	Nylon	Pitch	1mm
Operating Temp.	-55°C to 125°C		

547674

No. of Ways	Mftrs. List No.	Order Code	Price Each
Edge Mount Version			
36	PCIE-036-02-F-D-EM2	175-3901	
64	PCIE-064-02-F-D-EM2	175-3902	
98	PCIE-098-02-F-D-EM2	175-3904	
164	PCIE-164-02-F-D-EM2	175-3905	
Through Hole Version			
36	PCIE-036-02-F-D-TH	175-3906	
64	PCIE-064-02-F-D-TH	175-3907	
98	PCIE-098-02-F-D-TH	175-3908	
164	PCIE-164-02-F-D-TH	175-3909	

PCI Connectors

Standard Edge .050 Series



- High Density .050 (1.27mm) centreline contact spacing
- Easy mating of high circuit count daughter boards
- Polarising web for positive board-to-connector registration

Housing Glass-filled High Temperature Thermoplastic
Contacts Gold Plated

451237

No. of Dual Positions	Total No. of Ways	Mftrs. List No.	Order Code	Price Each
18	36	1612163-1	128-4363	
32	64	1612163-2	128-4364	
49	98	1612163-3	128-4365	
60	120	5145154-4	128-4366	
82	164	1612163-4	128-4367	

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DIN 41612 Selection Chart

Contact Rating	Body Style	No. of Ways	Contact Arrangement	Comments
2A @ 250Vac/dc	B	32	1 3 / a b	2 row body
		32	2 4 / a b	
		64	1 3 / a b	
	1/2B	16	1 3 / a b	Half length 'B' body
		32	1 3 / a b	
	C	32	2 4 / a b c	3 row body
		64	1 3 / a b c	
		96	1 3 / a b c	
	1/2C	32	1 3 / a b c	Half length 'C' body
		48	1 3 / a b c	
6A @ 125Vac/dc	D	32	2 4 / a c	
	F	48	2 4 / z b d	
15A @ 500Vac/dc	H	15	4 6 8 / z d	
6A @ 125Vac/dc 15A @ 500Vac/dc	MH	24+7	16 202224 / z b d	Mixed contact bodies
Signal 3A @ 350V ac/dc Power 10A Coax 50Ω	M	42+6	2 5 810 / a b c	
		60+4	2 57 / a b c	
		78+2	2 4 / a b c	
2A @ 250Vac/dc	Q	64	1 3 / a b	Reverse sex 'B' body
	1/2Q	32	1 3 / a b	Half length 'Q' body
	R	64	1 3 / a b c	Reverse sex 'C' body
		96	1 3 / a b c	
	1/2R	32	1 3 / a b c	Half length 'R' body
		48	1 3 / a b c	

●= Populated, +=Unpopulated, ○=Mounting hole

209682

DIN41612 Performance Levels

Classes 1, 2 and 3 are the performance levels as specified in **DIN41612, part 5.** Connectors appearing in this catalogue will meet the minimum performance levels as shown below and will often exceed them. See individual connector specifications.

Class 1

Service life	500 mating cycles min.
250 mating cycles	Measurement of contact resistance. Visusal inspection.
10 day gas test	No abrasion of the contact finish through to base material.
250 mating cycles	No functional impairment.

Class 2

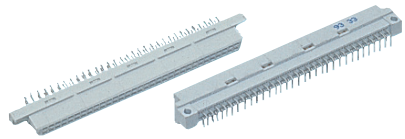
Service life	400 mating cycles min.
200 mating cycles	Measurement of contact resistance. Visusal inspection.
4 day gas test	No abrasion of the contact finish through to base material.
200 mating cycles	No functional impairment.

Class 3

Service life	50 mating cycles min. Visual inspection. No gas test. No functional impairment.

209757

DIN41612 Class 1,2 and 3

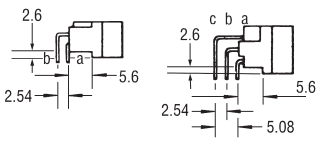


	Class 1	Class 2	Class 3
Mating cycles	500	400	400
Industrial atmospheres	10 days	4 days	
Gold plating thickness	0.8µ	0.3µ	Female 0.3µ/ Male 0.1µ

Contact rating	2A @ 20°C	Insertion/ extraction force		96 contacts≤90N/≥15N
Contact resistance	15mΩ max			64 contacts≤60N/≥10N
Working voltage	330Vac/470Vdc			32 contacts≤30N/≥5N
Insulation resistance	1Ω	Housing		Polyester, 32
Test voltage		Colour		Light Grey
between contacts	1000Vrms	Contact material	Female	Phosphor Bronze
contacts and earth	1500Vrms		Male	Brass
Temperature range	-65°C to +125°C	Contact plating	Active	Gold over Nickel
			Termination	Tin/Lead over Nickel

209761

90° PCB Plugs 'B' and 'C' Body

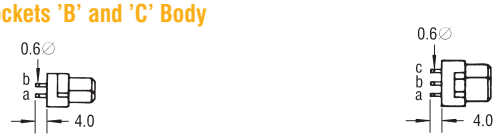


PCB hole dia.=1.0, Mounting holes=2.85 dia. x 88.9, Pin spacing=2.54

209762

No. of Ways	Rows Loaded	Order Code	Price Each
Class 1			
2 Row 'B' Body			
32	a	**109-7917●**	
64	a+b	**109-7918●**	
3 Row 'C' Body			
32	a+c(even)	**109-7919●**	
64	a+c	**109-7920●**	
96	a+b+c	**109-7922●**	
Class 2			
2 Row 'B' Body			
32	a	**109-7923●**	
64	a+b	**109-7924●**	
3 Row 'C' Body			
64	a+c	**109-7925●**	
96	a+b+c	**109-7926●**	
			Price Per Pack
Class 3 (5 Per Pack)			
2 Row 'B' Body			
64	a+b	**109-7927●**	
3 Row 'B' Body			
64	a+c	**109-7928●**	
96	a+b+c	**109-7929●**	

PCB Sockets 'B' and 'C' Body



PCB hole dia.=1.0, Mounting holes=2.85 dia.x90.0, Pin spacing=2.54

209763

No. of Ways	Rows Loaded	Order Code	Price Each
Class 1			
2 Row 'B' Body			
32	a	**121-1660●**	
32	a+b (Even)	**121-1671●**	
64	a+b	**121-1661●**	
3 Row 'C' Body			
32	a+c (Even)	**121-1662●**	
64	a+c	**121-1664●**	
96	a+b+c	**121-1665●**	
Class 2			
2 Row 'B' Body			
32	a	**121-1666●**	
64	a+b	**121-1667●**	

DIN41612 Class 1,2 and 3 - continued

PCB Sockets 'B' and 'C' Body - continued

No. of Ways	Rows Loaded	Order Code	Price Each
3 Row 'C' Body			
64	a+c	**121-1668**	
96	a+b+c	**121-1669**	

			Price Per Pack
Class 3 (5 Per Pack)			
2 Row 'B' Body			
32	a	**121-1670**	
32	a+b	**121-1671**	
3 Row 'C' Body			
64	a+c	**121-1672**	
96	a+b+c	**121-1673**	

90° PCB Plugs 'B' and 'C' Body

Tyco Electronics

PCB hole dia=1±0.1, PCB mounting hole=2.5 dia x 88.9, Pin spacing=2.54

Mftrs. List No. V42254-B1200-B640=112-2923 V42254-B1300-B640=269-906
V42254-B1100-C963=112-2921 V42254-B1200-C963=112-2925
V42254-B1100-C960=112-2922 V42254-B1200-C960=112-2926

209773

No. of Ways	Rows Loaded	Order Code	Price Each
Class 1			
3 Row 'C' Body			
64	a+c	**112-2921**	
96	a+b+c	**112-2922**	
Class 2			
2 Row 'B' Body			
64	a+b	**112-2923**	
3 Row 'C' Body			
64	a+c	**112-2925**	
96	a+b+c	**112-2926**	

PCB Sockets 'B' and 'C' Body

Tyco Electronics

PCB hole dia.=1 0.1. PCB mounting hole=2.8 diax78.74, Pin spacing=2.54

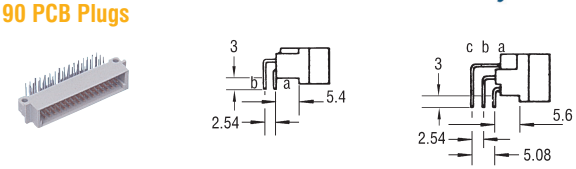
Mftrs. List No. V42254-B2102-B640=112-2928 V42254-B2202-C968=112-2931
V42254-B2102-C963=112-2929 V42254-B2202-C963=112-2932
V42254-B2102-C960=112-2930 V42254-B2202-C960=112-2933

209774

No. of Ways	Rows Loaded	Order Code	Price Each
Class 1			
2 Row 'B' Body			
64	a+b	**112-2928**	
3 Row 'C' Body			
64	a+c	**112-2929**	
96	a+b+c	**112-2930**	
Class 2			
3 Row 'C' Body			
64	a+c (Even)	**112-2932**	
96	a+b+c	**112-2933**	

Half Size 'B' and 'C' Body 90 PCB Plugs

Tyco Electronics



PCB hole dia.=1 0.1, PCB mounting hole=2.8 dia.x48.26, Pin spacing=2.54

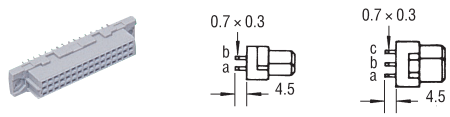
Mftrs. List No. V42254-B1200-C483=112-2935 V42254-B1200-C480=122-2936

209775

No. of Ways	Rows Loaded	Order Code	Price Each
Class 2			
3 Row 'C/2' Body			
32	a + c	**112-2935**	
48	a + b + c	**112-2936**	

Half Size 'B' and 'C' Body PCB Sockets

Tyco Electronics



PCB hole dia.=1 0.1. PCB mounting hole=2.8 dia.x48.26, Pin spacing=2.54

Mftrs. List No. V42254-B2200-B321=112-2937 V42254-B2202-C483=112-2941
V42254-B2202-B320=112-2938 V42254-B2200-C480=112-2942

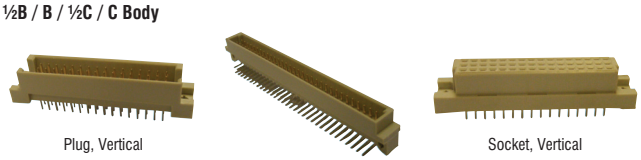
209776

No. of Ways	Rows Loaded	Order Code	Price Each
Class 2			
2 Row 'B/2' Body			
16	a	**112-2937**	
32	a + b	**112-2938**	
3 Row 'C/2' Body			
32	a + c	**112-2941**	
48	a + b + c	**112-2942**	

Din 41612 Plugs & Sockets

multicomp

½B / B / ½C / C Body



Plug, Vertical — Plug, Right Angle — Socket, Vertical

- Vertical and Right Angle Plugs available
- Pitch - 2.54mm
- Pitch Row - 2.54mm
- Flammability Rating - UL94V-0
- Operating Temperature - -25°C to 125°C

	Current Rating	Voltage Rating	Contact Material	Contact Plating	Insulator Material
Plug	2A	250V AC/DC	Copper Alloy	Gold	PBT
Socket	2A	250V AC/DC	Phosphor Bronze	Gold	PBT

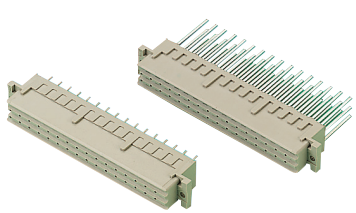
527820

Body Style	No. of Ways	Order Code	Price Each
Plug, Vertical			
½B	32	**166-1145**	
B	64	**166-1151**	
Plug, Right Angle			
½B	32	**166-1147**	
B	64	**166-1154**	
Plug, Vertical			
½C	48	**166-1148**	
C	96	**166-1155**	
Plug, Right Angle			
½C	48	**166-1150**	
C	96	**166-1157**	
Socket, Vertical			
½B	32	**166-1146**	
B	64	**166-1153**	
Socket, Vertical			
½C	48	**166-1149**	
C	96	**166-1156**	

Type F

Tyco Electronics

Class 2



Mftrs. List No.	Type	Description	Positions	Rows	Pin Length(mm)	Order Code
2-164045-4	F	R/Angled PCB Plug	48	z,b,d	2.8	105-6345
166733-4	F	Straight PCB Skirt	48	z,b,d	4	105-6346

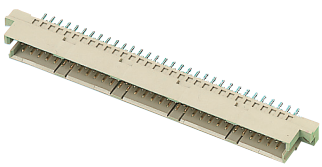
210037

Order Code	Price Each
105-6345●	
105-6346●	

Type Q

Class 3

Tyco Electronics



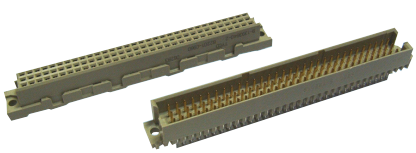
Mftrs. List No.	Type	Size	Description	Positions	Rows	Pin Length(mm)	Order Code
5174254-2	Q	std	Straight PCB Plug	64	a + b	4	966-2626

209849

Order Code	Price Each
966-2626●	

DIN 41612 - Eurocard

Tyco Electronics



- Industry standard 2 piece backplane connector
- DIN Level II
- 64 way connectors have rows A + C loaded, 96 way connectors have rows A + B + C loaded

Current Rating 1A Durability 400 mating cycles

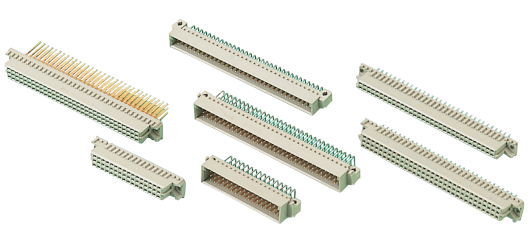
451139

No. of Ways	Term. Style	Mftrs. List No.	Order Code	Price Each
Type C Socket - Straight				
64	Solder Post	9-1393640-3	128-4322●	
96	Solder Post	9-1393640-2	128-4323●	
Type R Socket - Right Angle				
96	Solder Post	3-1393656-4	128-4324●	
Type R Plug - Straight				
96	Solder Post	650889-5	128-4325●	
96	Press Fit	2-1393659-8	128-4326●	

Types B and C

Standard and Half Size Class 2

Tyco Electronics



Mftrs. List No.	Type	Size	Description	Positions	Rows	Pin length (mm)	Order Code
5536052-5	B	std	R/Angled PCB Plug	64	a + b	2.64	109-8669
5650860-5	B	std	Straight PCB Skirt	64	a + b	3.3	109-8670
5650473-5	B	std	R/Angled PCB Plug	96	a + b + c	2.64	109-8671
5650945-5	B	std	R/Angled PCB Plug	64	a + c	2.64	109-8672
5650478-5	C	half	R/Angled PCB Plug	48	a + b + c	2.64	109-8673
5535089-5	C	std	Straight PCB Skirt	96	a + b + c	2.49	109-8674
5650458-5	C	std	Straight PCB Skirt	64	a + c	2.49	109-8675
5535091-5	C	half	Straight PCB Skirt	48	a + b + c	2.49	109-8677
5535032-5	C	std	Straight PCB Skirt with Action Pin	96	a + b + c	4.83	109-8678
5148057-5	C	std	Straight Wire Wrap Skirt	96	a + b + c	13	109-8679

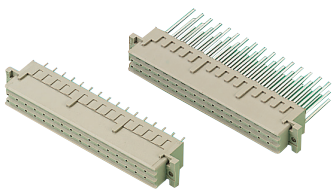
210035

Order Code	Price Each
109-8669●	
109-8670●	
109-8671●	
109-8672●	
109-8673●	
109-8674●	
109-8675●	
109-8677●	
109-8678●	
109-8679●	

Type R

Class 2

Tyco Electronics



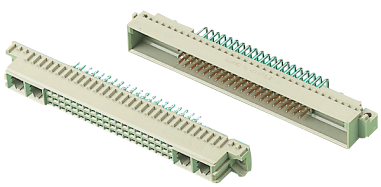
Mftrs. List No.	Type	Size	Description	Positions	Rows	Pin Length(mm)	Order Code
5650908-5	R	std	Straight PCB Plug	96	a + b + c	3.3	109-8680
5650479-5	R	half	Straight PCB Plug	48	a + b + c	3.3	109-8681
5650461-5	R	std	Std R/A PCB Skirt	96	a + b + c	2.79	109-8682
5650868-5	R	half	Half Right Angled PCB Skirt	48	a + b + c	2.79	109-8683

210038

Order Code	Price Each
109-8680●	
109-8681●	
109-8682●	
109-8683●	

Type M with Power and/or Coaxial Contacts

Tyco Electronics



Mftrs List No.	Type	Size	Description	Positions	Rows	Pin Length(mm)	Order Code
148412-5	M	std	r/angled pcb plug	60 + 4SC	a + b + c	2.8	105-6348
148414-5	M	std	r/angled pcb plug	24 + 8SC	a + b + c	2.8	105-6349
148417-5	M	std	Straight pcb skt with action pins	78 + 2SC	a + b + c	6	497-022
148420-5	M	std	Straight pcb skt with action pins	60 - 4SC	a + b + c	6	105-6350
148384-5	M	std	Straight pcb skt with action pins	24 + 8SC	a + b + c	6	105-6351

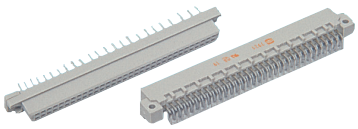
210036

Order Code	Price Each
105-6348●	
105-6349●	
105-6350●	
105-6351●	

Gds A Series DIN41612 Class 3

HARTING

Pushing Performance



Pin spacing=2.54
PCB hole dia=1.0

Contact rating (individual contact in isolation)	2A @ 20°C	Insertion & extraction force	96 contacts ≃90N 64 contacts ≤60N 32 contacts ≤30N
Contact resistance	15mΩ max.		
Working voltage	250V dc/ac peak	Housing	Polyester, UL94V-0
Insulation resistance	$\geq 10^{12}\Omega$ max.	Colour	Pebble grey (RAL7032)
Test voltage	1000V rms	Contacts	Brass, Gold over Nickel plating
Temperature range	-65°C to +125°C	Terminals	Tinned
Mating cycles	50, no gas test		

209683

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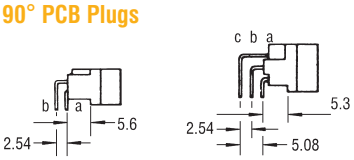
Gds A Series DIN41612 Class 3 - continued

90° PCB Plugs



HARTING Pushing Performance

Mftrs. List No
09 02 132 7931 = 110-6718
09 03 164 7921 = 109-6831
09 02 164 7921 = 109-6830
09 03 196 7921 = 109-6832
09 03 132 7921 = 109-6838

209684

No. of Ways	Rows Loaded	Order Code	Price Each
2 Row 'B' Body			
32	a	**110-6718**●	
64	a + b	**109-6830**●	
3 Row 'C' Body			
32	a + c	**109-6838**●	
64	a + c	**109-6831**●	
96	a + b + c	**109-6832**●	

PCB Sockets

HARTING Pushing Performance

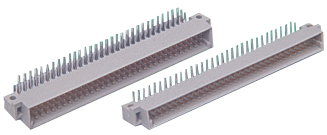
Mftrs. List No 09 03 232 7825 = 109-6839 09 03 264 7825 = 109-6833 09 03 296 7825 = 109-6834

209685

No. of Ways	Rows Loaded	Order Code	Price Each
3 Row 'C' Body			
32	a + c	**109-6839**●	
64	a + c	**109-6833**●	
96	a + b + c	**109-6834**●	

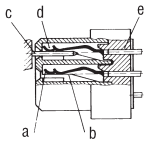
Gds A Series DIN41612 Class 2

HARTING Pushing Performance



A range of connectors manufactured to the specifications of **DIN41612 Part 1, BS9525, VG** and **BT222** requirements.

Superior Design Features



Mating reliability

- a) Contact design prevents incorrect mating
- b) Moulded shoulder pre-loads contact springs
- c) Electro-polished male contact minimises insertion forces
- d) Sequential contact mating reducing insertion forces
- e) Force fit staking ensures firmly held contacts and prevents ingress

Dual Cantilever Single Sided Contact Providing

- Reduced insertion forces
- Added reliability
- Improved vibration resistance

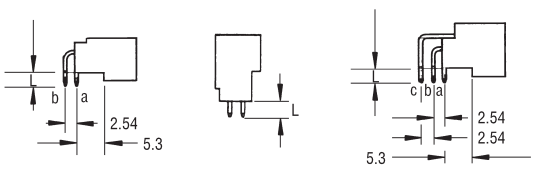
Body material	Glass filled polyester, UL94V-0
Mating force	≃90N
Vibration resistance	to VG95324 / DIN53480 / IEC112
Creepage resistance	VG95324 / DIN53480 / IEC112Polyester K225
Chemically resistant	to Tricholroethylene, carbon tetrachloride, petrol, ethanol and menthanol
Temperature range	-65°C to +125°C. Short term +220°C suitable for vapourphase soldering

Electrical specifications quoted on individual devices

209687

PCB and Wire Wrap Plug

HARTING Pushing Performance



Pin spacing=2.54, PCB hole dia.=1.0

Contact rating	2A @ 20°C	Contact material	Copper Alloy, Gold plating
Working voltage	250 V ac/dc	Mating cycles	400

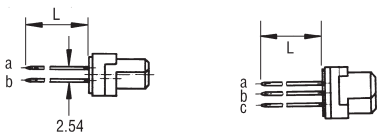
Mftrs. List No
09 02 132 6931 = 114-2808
09 03 132 6921 = 109-6902
0902 164 6921 = 109-6900
0903 164 6921 = 109-6903
09 02 164 6922 = 109-6901
0903 196 6921 = 109-6905
0903 196 6922 = 109-7072
09 03 164 6922 = 109-7073

209688

No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
2 Row 'B' Body 90° PCB Pins				
32	a	3	**114-2808**●	
64	a + b	3	**109-6900**●	
2 Row 'B' Body PCB Pins				
64	a + b	3	**109-6901**●	
3 Row 'C' Body 90° PCB Pins				
32	a + c	3	**109-6902**●	
64	a + c	3	**109-6903**●	
96	a + b + c	3	**109-6905**●	
3 Row 'C' Body Straight PCB Pins				
96	a+b+c	3	**109-7072**●	
64	a+b+c	3	**109-7073**●	

Solder and Wire Wrap Sockets

HARTING Pushing Performance



Pin spacing=2.54 (except 'C' body 32 way=5.08), PCB hole dia=1.0

Contact rating	2A @ 20°C	Contact material	Phosphor Bronze, Gold plating
Working voltage	250 V ac/dc	Mating cycles	400

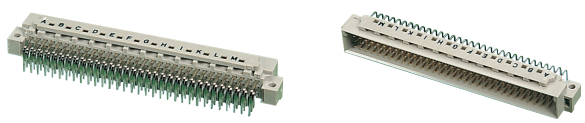
Mftrs. List No
0902 264 6824 = 109-6906
09 03 232 6825 = 109-6908
0902 264 6825 = 109-6907
0903 296 6825 = 109-6910
09 02 264 6421 = 118-9273
0903 264 6825 = 109-6909
0902 264 6821 = 110-6771
0903 264 6821 = 109-6911
09 03 264 6421 = 118-9271

209689

No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
2 Row 'B' Body PCB Pins				
64	a + b	2.5	**109-6906**●	
64	a + b	4	**109-6907**●	
2 Row 'B' Body Wire Wrap Pins				
64	a + b	13	**110-6771**●	
2 Row 'B' Body Solder Pins				
64	a + b	13	**118-9273**●	
3 Row 'C' PCB Pins				
32	a + c	4	**109-6908**●	
64	a + c	4	**109-6909**●	
96	a + b + c	4	**109-6910**●	
3 Row 'C' Wire Wrap Pins				
64	a + c	13	**109-6911**●	
3 Row 'C' Solder Pins				
64	a + c	13	**118-9271**●	

Coded PCB Plugs

HARTING Pushing Performance



- Avoids accidental mating of adjacent connectors
- Coding facility integral part of the connector
- Code keys are push fit into plug and socket connectors

Contact rating	2A @ 20°C	Contact material	Copper Alloy, Gold plating
Working voltage	250 V ac/dc	Mating cycles	400

Mftrs. List No 09 02 664 6921 = 114-2810 09 03 664 6921 = 109-6951 09 02 000 9928 = 109-6952
09 03 696 6921 = 114-2812

209831

No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
2 Row 'B' Body 90° PCB Pins				
64	a + b	3	**114-2810**●	
3 Row 'C' Body 90° PCB Pins				
64	a + c	3	**109-6951**●	
96	a + b + c	3	**114-2812**●	

		Price Per Rack
Coding Keys		
60 per pack	**109-6952**●	

RoHS Compliant Non-compliant
For free legislation advice visit **www.global-legislation.com**

Coded PCB Sockets

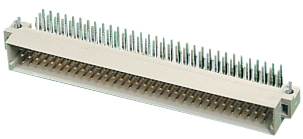
Pushing Performance

Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

219841

No. of Ways	Rows Loaded	Pin Length 'L'	Mftrs. List No.	Order Code	Price Each
3 Row 'C' Body PCB Pins					
64	a + c	3	0903 764 6825	**110-6827**●	
96	a + b + c	3	09 03 796 6825	**110-6828**●	

PCB Plugs with Snap in Clips



Pushing Performance

Pin spacing=2.54, PCB hole dia.=1.0
For PCB thickness 1.6±0.2mm, PCB hole dia.=2.8+0.1mm for snap-in fixing

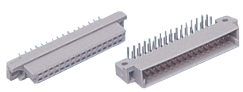
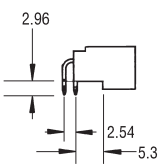
● Snap in clips tinned, for solderability

Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

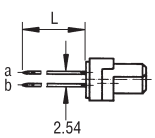
209832

No. of Ways	Rows Loaded	Pin Length 'L'	Mftrs. List No.	Order Code	Price Each
3 Row 'C' Body PCB Pins					
64	a + c	3	09 03 364 6921	**109-6949**●	
96	a + b + c	3	0903 396 6921	**109-6950**●	

Half Size 2 Row 'B' Body

Pushing Performance



Plug

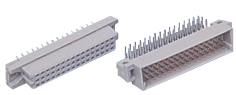
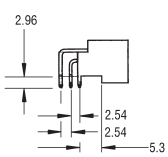
Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

Mftrs. List No
09 22 116 6931 = 114-2809
09 22 132 6921 = 109-6912
0922 232 6825 = 110-6772

209690

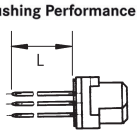
No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
Plugs 90°PCB Solder Pin				
16	a	3	**114-2809**●	
32	a + b	3	**109-6912**●	
Socket				
32	a + b	4	**110-6772**●	

Half Size 3 Row 'C' Body

Plug

Pushing Performance



Socket

Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

Mftrs. List No
0923 132 6921 = 109-6913

Mftrs. List No
0923 148 6921 = 109-6914

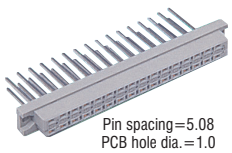
Mftrs. List No
0923 248 6825 = 109-6915

209691

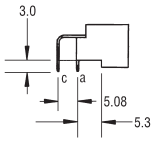
No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
			90° PCB Solder Pin	
32	a + c	2.96	**109-6913**●	
48	a + b + c	2.96	**109-6914**●	
			Straight PCB Solder Pin	
48	a + b + c	4	**109-6915**●	

'D' Body Plug and Sockets

32 Way, Rows a+c Loaded

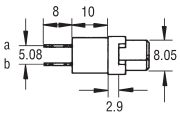


Solder lug sockets

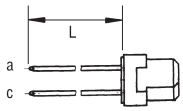


PCB plug

Pin spacing=5.08
PCB hole dia.=1.0



Pushing Performance



PCB and w/w sockets

Mftrs. List No
09 04 132 6921 = 109-6917

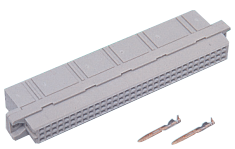
09 04 232 6823 = 109-6872
0904 232 6821 = 109-6880

Contact rating 6A @ 20°C
Working voltage 125 V ac/dc
Housing Polyester
Contact material Copper Alloy, Gold plating
Mating cycles 400

209692

	Pin Length 'L'	Order Code	Price Each
Plugs			
90° PCB pins	3	**109-6917**●	
Socket			
PCB pins	4	**110-6773**●	
Wire wrap pins	8	**109-6872**●	
Wire wrap pins	20	**109-6880**●	

Crimp Contact Socket Housings



Pushing Performance

Contact rating B+C 2A @ 20°C
D+F 6A @ 20°C
Working voltage B+C 250 V ac/dc
Working voltage D+F 125V ac/dc
Housing Polycarbonate (B, C and D)
Polycarbonate (F)
Contact material Copper Alloy, Gold plating
Mating cycles 400

Housing & Contacts	(A)	Crimp Tool
'B'+'C'	0.14—0.5mm$_2$	466-3688
'D'+'F'	0.14—0.5mm$_2$	466-3688
'D'+'F'	0.5—1.5mm$_2$	466-3688

Mftrs. List No
0902 064 3214 = 110-6774
0906 248 3201 = 109-7077

09 06 000 6432 = 109-6947
0903 096 3214 = 109-6918
09 02 000 8474 = 109-6945

09 04 032 3213 = 109-6919
09 06 000 6431 = 109-6946

No. of Ways	Rows Loaded	Order Code	Price Each
Socket Housings			
'B' 64	a + b	**110-6774**●	
'C' 96	a + b + c	**109-6918**●	
'D' 32	a + c	**109-6919**●	
F 48	z + b + d	**109-7077**●	

209693

Contacts **(100 Per Pack)**	Size	Order Code	Price Per Pack
'B'+'C'	**0.14 - 0.5mm²**	**109-6945**●	
'D'+'F'	**0.14 - 0.5mm²**	**109-6946**●	
'D'+'F'	**0.14 - 0.5mm²**	**109-6947**●	

Tooling for Crimp Contacts

Pushing Performance

337966

	Mftrs. List No.	Order Code	Price Each
Crimp Tool			
B+C and D+F	09 99 000 0620	**466-3688**	
Crimp Set Including crimp insert and locator			
B+C	09 99 000 0621	**466-3690**	
D+F 0.14² - 0.56mm²	09 99 000 0622	**466-3706**	
D+F 0.50² - 1.50mm²	09 99 000 0623	**466-3718**	
Contact Removal Tools			
B+C	0999 000 0101	**316-477**	
D+F	0999 000 0087	**316-489**	

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Gds A Series DIN41612 Class 2 - continued

Crimping Tool

- For individual contacts FC 1, FC 2 & FC 3
- Wire gauge - 0.14 - 1.5mm²

Pushing Performance

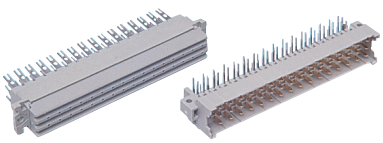
527816

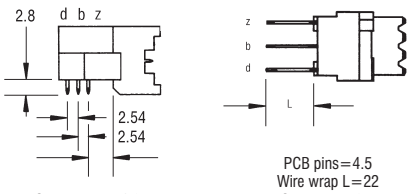
Mftrs. List No.	Order Code	Price Each
09 99 000 0191	**167-0787**●	

'F' Body Plug and Sockets

48 Way, Rows d+b+z Loaded

Pushing Performance





PCB hole dia.=1.0

PCB pins=4.5
Wire wrap L=22
Solder lug=9.5

Contact rating	6A @ 20°C	Contact material	Copper Alloy, Gold plating
Working voltage	125 V ac/dc	Mating cycles	400

0906 148 6901 = 109-6873
0906 248 6823 = 109-6920
09 06 248 6821 = 109-6921
0906 000 8471 = 109-7078
0906 000 8472 = 109-7079

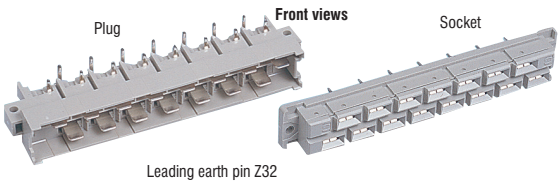
209695

	Order Code	Price Each
Plugs		
90° PCB pins	**109-6873**●	
Socket		
PCB pins	**110-6775**●	
Solder lug	**109-6920**●	
Wire wrap pins	**109-6921**●	
Order Multiple=10		
Crimp Contacts		
0.14mm-0.56mm	**109-7078**●	
0.14mm-0.56mm	**109-7079**●	

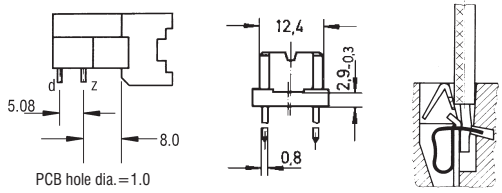
'H' Body Plugs and Sockets

15 Way, Rows d+z Loaded

Pushing Performance



Leading earth pin Z32



PCB hole dia.=1.0

Cage clamp (0.14-1.5mm²) (015-2813H)

Socket rear views

Horizontal faston terminals (6.3 x 0.8) | Cage clamp terminals | Vertical faston terminals (6.3 x 0.8)

Contact rating	15A @ 20°C		Polyester (0906 015 Series)
Working voltage	500 V ac/dc	Contact material	Copper Alloy, Silver plating
Housing	Polyester (0906 115/215 Series)		

Mftrs. List No
0906 115 2932 = 109-6871
0906 215 2811 = 109-6878
09 06 015 2931 = 109-6922
0906 015 2813 = 109-6923
0906 215 2871 = 109-6879
0906 215 2821 = 109-6948

209696

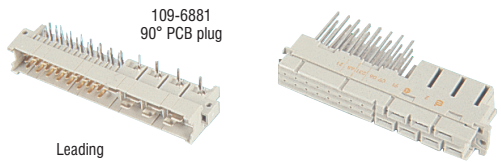
	Order Code	Price Each
Plugs		
90° PCB pins	**109-6871**●	
Faston terminals (horiz)	**109-6922**●	
Sockets		
Faston terminals (horiz)	**109-6879**●	
Faston terminals (vert)	**109-6878**●	
Cage clamp terminals	**109-6923**●	
PCB pins	**109-6948**●	

Note: The plugs have a leading earth pin in position Z32. 225-940 will not accept 'H' body backshell

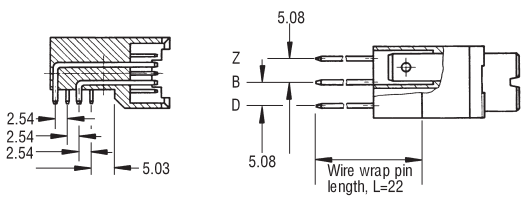
'MH' Body Plugs and Socket

24 Way, Rows d+b+z Loaded and 7 Way, Rows d+z Loaded

Pushing Performance



Leading earth pin



Contact rating	24 way 6A @ 20°C 7 way 15A @ 20°C	Housing	Polyester (0906 131/231 Series) Polyester (0906 031 Series)
Working voltage	24 way 125 V ac/dc 7 way 125 V ac/dc	Contact material	24 way Copper Alloy, Silver plating 7 way Copper Alloy, Silver plating

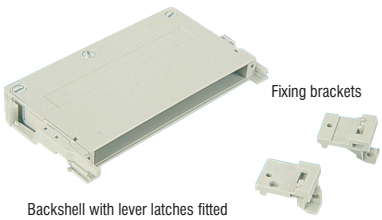
Mftrs. List No.
09 06 131 6922 = 109-6881
09 06 031 6921 = 109-6924
09 06 231 6821 = 109-6882
09 06 231 6822 = 109-7075

209697

	Order Code	Price Each
Plugs		
90° Solder pins	**109-6881**●	
90° PCB pins + straight fastons	**109-6924**●	
Socket		
Straight wire wrap + straight fastons	**109-6882**●	
Straight PCB pins + straight fastons	**109-7075**●	

B, C, D, F, H and MH Accessories

Pushing Performance



Backshell with lever latches fitted

Mftrs. List No
09 02 064 0501 = 110-6777
0903 096 0501 = 109-6925
09 06 048 0504 = 109-6926

	Order Code	Price Each
Backshells		
'B' Body	**110-6777**●	
'C'+'D' Body	**109-6925**●	
'F'+'H'+'MH' Body	**109-6926**●	

Mftrs. List No 0902 000 9902 = 109-6927 0902 000 9903 = 109-6929

RoHS Compliant Non-compliant
For free legislation advice visit **www.global-legislation.com**

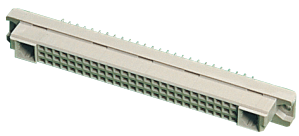
	Order Code	Price Each
Lever Latches		
'B', 'C'+'D' Body left hand	**109-6927●**	
'B', 'C'+'D' Body left hand	**109-6929●**	

Mftrs. List No
09 02 000 9921 = 109-6931
09 02 000 9922 = 109-6932
09 06 000 9909 = 109-6933

	Order Code	Price Each
Fixing Brackets		
'B', 'C'+'D' left hand	**109-6931●**	
'B', 'C'+'D' left hand	**109-6932●**	
'F', 'H'+'MH' left hand	**109-6933●**	

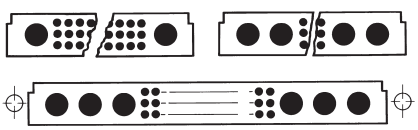
209698

'M' Body Plugs and Sockets



- Connectors offering low frequency contacts and cavities for high power/coaxial format
- Power and coaxial contacts are ordered separately
- Class 2 plating

Contact configurations



209834

Style	Mftrs. List No.	Order Code	Price Each
78+2Contacts			
90°plug	09 03 178 6901	**109-6957●**	
PCB 4mm socket	09 03 278 6805	**109-6958●**	
60+4Contacts			
90°plug	0903 160 6901	**109-6959●**	
PCB 4mm socket	0903 260 6805	**109-6960●**	
42+6Contacts			
90°plug	0903 142 6901	**114-2814●**	
PCB 4mm socket	0903 242 6805	**109-6961●**	
24+8Contacts			
90°plug	0903 124 6901	**109-6962●**	
PCB 4mm socket	09 03 224 6805.	**749-783**	
PCB 4mm socket	0903 224 6805	**109-6963●**	

Power Contacts

0903 000 6103 Plug
0903 000 6203 Socket
0903 000 6104 90° PCB Plug

239184

10 Per Pack

Mftrs List No.	Current Rating (A)	Order Code	Price Per Pack
Plug Contact			
09 03 000 6101	10	**120-7606●**	
90 30 006 10200.	20	**812-924**	
09 03 000 6103	40	**120-0498●**	
90° PCB Plug			
09 03 000 6104	10	**120-0499●**	
Socket Contact			
90 30 006 20200.	20	**812-961**	
09 03 000 6201	10	**120-7609●**	
09 03 000 6202	20	**120-7610●**	
09 03 000 6203	40	**120-0500●**	

Over 500 000 products available online QGO

'Q' Body Plugs and Socket (Reverse 'B')

64 Way, Rows a+b Loaded

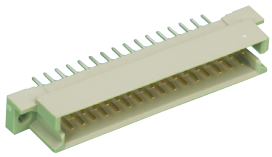
Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

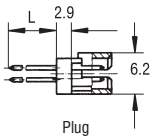
Mftrs. List No
09 72 164 6903 = 110-6779
09 72 164 6907 = 110-6780
09 72 264 6801 = 109-7074

209700

	Pin Length 'L'	Order Code	Price Each
Plugs			
Str PCB pins	4mm	**110-6779●**	
Str wire wrap pins	13mm	**110-6780●**	
Str Solder pins	13mm	**118-9276●**	
Socket			
		109-7074●	

Half Size 2 Row 'Q' Body





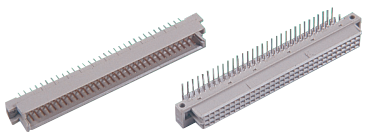
Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Hard Gold plating
Mating cycles 400

Mftrs. List No 09 27 132 6903 = 109-6935

209701

No. of ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
Plugs				
Straight PCB Solder Pin				
32	a + b	4	**109-6935●**	
Socket				
90° PCB Solder Pin				
32	a + b	3	**131-3796●**	

'R' Body Plugs and Sockets (Reverse 'C')



Contact rating 2A @ 20°C
Working voltage 250 V ac/dc
Contact material Copper Alloy, Gold plating
Mating cycles 400

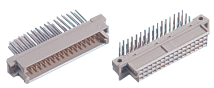
Mftrs. List No.
0973 164 6903 = 109-6936
0973 196 6903 = 109-6937
09 73 164 6907 = 109-6938
09 73 164 6577 = 118-9276
09 73 196 6907 = 109-6939
0973 264 6801 = 109-6940
0973 296 6801 = 109-6942

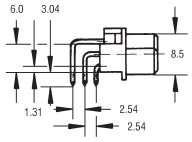
209702

No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
Plugs				
Straight PCB Pin				
64	a + c	4	**109-6936●**	
96	a + b + c	4	**109-6937●**	
Straight Wire Wrap Pins				
64	a + c	13	**109-6938●**	
96	a + b + c	13	**109-6939●**	
Straight Solder Pins				
64	a + c	13	**118-9276●**	
96	a + b + c	13	**118-9272●**	
Sockets				
64	a + c	3	**109-6940●**	
96	a + b + c	3	**109-6942●**	

Gds A Series DIN41612 Class 2 - continued

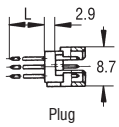
Half Size 3 Row 'R' Body





Socket

Pushing Performance



Plug

Contact rating	2A (max)	Contact material	Copper Alloy, Gold plating
Working voltage	250 V ac/dc	Mating cycles	400

Mftrs. List No
09 28 148 6903 = 109-6944
09 28 148 6907 = 110-6778
09 28 248 6801 = 109-6943
09 28 132 6903 = 110-6781

209703

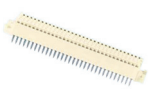
No. of Ways	Rows Loaded	Pin Length 'L'	Order Code	Price Each
Socket				
90° PCB Solder Pin				
48	a + b + c	3	**109-6943●**	
Plugs				
Straight PCB Solder Pin				
32	a + c	4	**110-6781●**	
48	a + b + c	4	**109-6944●**	
Straight Wire Wrap Pin				
48	a + b + c	13	**110-6778●**	

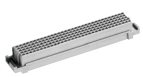
DIN41612 Har-bus 64

har-bus® 64 Connectors

2.54mm Pitch

Pushing Performance


Socket Backplane


Cable Connectors

Extender Card

Pin Shroud

- Additional contacts for I/O and system upgrade
- New voltage supplies for 3.3 V and 48 Vsystem components
- Improved signal/ground ratio for reliable signal data transfer at rates up to 320 MByte/s
- Live Insertion for replacing processor or memory cards without closing down the system
- User defined pins for test and maintenance bus lines
- 4 / 5 rows available

Specifications:-

Current Rating	1A	Moulding Material	LCP
Contact Material	Copper Alloy	Contact Plating	Gold over Nickel
Insulation Resistance	$10^{10}\Omega$	Contact Resistance	a, b, c - 20mΩ z, d - 30mΩ
Flammability Rating	UL94V-0	Operating Temp.	-55°C to 125°C

528756

No. of Ways	Rows Loaded	Termination Length	Mftrs. List No.	Order Code	Price Each
Socket Backplane, Class 2, 4 Row, with Flange					
128	z + a + b + c	4.5 / 5mm	02 02 128 2201	**168-4837●**	
Socket Backplanes, Class 2, 5 Row, without Flange					
160	z + a + b + c + d	5mm	02 02 160 2202	**168-4839●**	
160	z + a + b + c + d	17mm	02 02 160 2302	**168-4842●**	
Socket Backplanes, Class 2, 5 Row, with Flange					
160	z + a + b + c + d	4.5 / 5mm	02 03 160 2201	**168-4843●**	

No. of Ways	Rows Loaded	Position	Mftrs. List No.	Order Code	Price Each
Cable Connectors, 5 Row					
160	a + b + c + d + e	32, 32 to 2, 1	02 05 000 0003	**168-4844●**	
160	z + a + b + c + d	32, 32 to 2, 1	02 05 000 0004	**168-4845●**	
Cable Connector, Type R, 5 Row					
160	a + b + c + d + e	1, 2 to 31, 32	02 05 000 0005	**168-4846●**	

No. of Ways	Rows Loaded	Termination Length	Mftrs. List No.	Order Code	Price Each
Extender Card, Class 1, 5 Row					
160	z + a + b + c + d		02 07 160 1101	**168-4847●**	

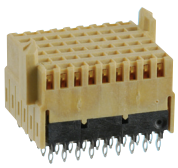
No. of Ways	Rows Loaded	PCB Thickness	Mftrs. List No.	Order Code	Price Each
Pin Shrouds, 5 Row, Wrap Post Length 17mm					
160	z + a + b + c + d	3.4mm	02 44 000 0001	**168-4848●**	
160	z + a + b + c + d	4mm	02 44 000 0002	**168-4849●**	
160	z + a + b + c + d	4.6mm	02 44 000 0003	**168-4850●**	

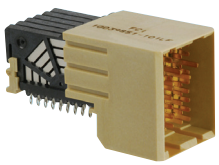
High Speed Differential

AirMax VS® Connectors

2.00 mm Pitch

New


Receptacle, Vertical


Headers, R/A

Receptacle, R/A

In launching the AirMax VS® connector system , FCI is giving backplane system designers the freedom to rethink the way products are designed. Based on a radical design concept, AirMax VS® (Virtual Shield) connectors eliminate the need for interleaving ground shields by using air as a highly efficient dielectric.The scalability of the connector solution means that backplane systems designed for 3.125 - 6.25 Gb/s can be upgraded to 12.5 Gb/s operation without redesigning the basic platform. At such speed the AirMax VS® connector demonstrates exceptionally low insertion loss and crosstalk characteristics.
For use in data, datacom and telecommunications equipment such as servers, storage systems and enterprise routers.

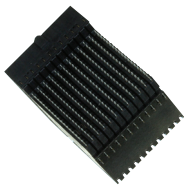
Contact Material	Contact Plating	Housing Material
Copper Alloy	Gold over Nickel	High Temp. Thermoplastic

601526

No. of Ways	Mftrs. List No.	Order Code	Price Each
Receptacles, Vertical			
54	10043546-101LF	**177-7901●**	
120	10028264-101LF	**177-7902●**	
150	10016537-101LF	**177-7903●**	
Headers, R/A			
54	10039851-101LF	**177-7904●**	
120	10028436-101LF	**177-7905●**	
150	10025613-101LF	**177-7906●**	
Receptacles, R/A			
54	10053656-101LF	**177-7908●**	
120	10035754-101LF	**177-7909●**	
150	10034475-101LF	**177-7910●**	
Guide Pin, Internal Thread			
10.8mm	10037911-102LF	**177-7911●**	
Guide Module Receptacle			
10.8mm	10037912-104LF	**177-7912●**	

Zipline® Connectors

Headers and Receptacles



New

Based upon the highly succesful Airmax shieldless connector system, ZipLine™ addresses the growing customer demand for maximum signal density - a paramount requirement for future equipment platforms - at data rates up to 12.5 Gb/s.

- Compatible with Hard Metric design practice (can be used alongside industry standard IEC-61076-101 connectors from FCI, Harting, Tyco 3M etc.).
- Supports differential signaling at up to 12.5 Gb/s
- Opposed dual-beam receptacle contact structure provides high reliability
- Contains no interleaving shields reducing connector weight, insertion forces, cost and PCB routing complexity
- High Density, High Speed - 84.6 differential pairs per linear inch
- Can be used in conventional backpanel, orthogonal, or even co-planar system architecture.
- Applications: Broadcast equipment, Servers, Medical equipment (MRI etc.), Basestations, Routers, DSP

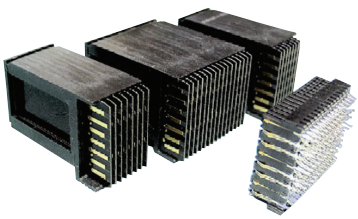
Contact Material	Contact Plating	Housing Material
Copper Alloy	Gold / GXT	High Temp. Thermoplastic

601558

No. of Ways	Mftrs. List No.	Order Code	Price Each
R/A Receptacle			
216	10076209-101LF	**177-7913**●	
Vertical Headers			
216	10076222-101LF	**177-7914**●	
216	10076197-101LF	**177-7915**●	
R/A Header			
216	10077555-101LF	**177-7916**●	

Multigig RT Interconnect

Tyco Electronics



MultiGig RT is a pinless backplane interconnect family comprised of modular components which can be used in a variety of combinations. The connectors in this flexible platform can be combined to provide the density , data throughput and signal integrity required for most applictaions within computer, comms., military, medical and industrial control industries.

- Backplane connector system with "pinless" interface
- Press fit
- 20.3 card pitch
- Optimised footprints for signal integrity and ease of board design
- Superior crosstalk performance
- Single ended and differential
- MultiGig RT1 - 141 signals/inch, data rates up to 3.125 Gbs
- MultiGig RT2 - 113 signals/inch, data rates of 3.125 Gb/s to 6.4 Gb/s+ (10 Gb/s Tested)

Mftrs. List No.	Spec.	Style	Position	Mounting	Order Code
1410140-1	Vita 41/46	Backplane	Centre Module	Vertical	132-9926
1410142-1	Vita 41/46	Backplane	Right Hand Module	Vertical	132-9927
1410186-1	Vita 46	Backplane	Left End Half Module	Vertical	132-9928
1410137-1	Vita 41	Backplane	Centre Module	Right Angle	132-9929
1410147-1	Vita 41	Backplane	Centre Module	Right Angle	132-9930
1410187-3	Vita 46	Backplane	Centre Module	Right Angle	132-9934
1410190-3	Vita 46	Backplane	Centre Module	Right Angle	132-9936
1410189-3	Vita 46	Backplane	Left End Half Module	Right Angle	132-9937

460061

No. of Spec.	Mftrs. List No.	Order Code	Price Each
Backplane Connector			
vita 41/46	1410140-1	**132-9926**●	
vita 41/46	1410142-1	**132-9927**●	
vita 46	1410186-1	**132-9928**●	
Daughter Card Connector			
Vita 41	1410137-1	**132-9929**●	
Vita 41	1410147-1	**132-9930**●	
Vita 46	1410187-3	**132-9934**●	
Vita 46	1410190-3	**132-9936**●	
Vita 46	1410189-3	**132-9937**●	

MULTIGIG RT Connectors for VITA 46 (VPX) Standards

Tyco Electronics

New

TE's MULTIGIG RT product is a backplane interconnect family that offers levels of flexibility and customisation. This printed circuit based, pinless, interconnect family is comprised of modular components which can be used in a variety of combinations.

Key Features:-

- Differntial, Single-ended and Power
- Customisable impedance matched printed circuit wafer interface
- Backplane connector system with pinless interface
- Supperior crosstalk performance
- Optimised footprints for signal integrity & ease of board design
- Utilises a 0.56mm dia. via for backplane connector for lower cost board fabrication
- Three levels of signal contact sequencing
- Modular connector system

Specifications:-

Contact Material	Phosphor Bronze	Contact Plating	Gold
Housing Material	LCP	Flammability Rating	UL94V-0
Card Slot Pitch	20.3mm	Data Rate	10 Gb/s performance
Pitch	1.8mm	Pitch Row	1.35mm (Daughtercard)
		Voltage Rating	1.8mm (Backplane)

601642

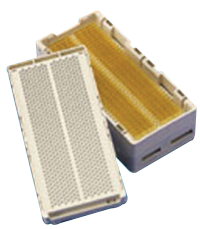
No. of Ways	No. of Rows x Columns	Mftrs. List No.	Order Code	Price Each
Backplane, Vertical Receptacle, Centre Module, Fully Loaded				
144	9 x 16	1410964-1	**177-4233**●	
Backplane, Vertical Receptacle, Centre Module, Columns 9-16 Partially Loaded				
80	9 x 16	1410965-1	**177-4234**●	
Backplane, Vertical Receptacle, Centre Module, Columns 1-8 Partially Loaded				
80	9 x 16	1410966-1	**177-4235**●	
Daughtercard, R/A Plug, Right End Module, Differential Termination				
112	7 x 16	1410188-3	**177-4229**●	
Daughtercard, R/A Plug, Right End Module, Single-Ended Termination				
112	7 x 16	1410191-3	**177-4230**●	
Daughtercard, R/A Plug, Centre Module, Differential Termination				
112	7 x 16	1410975-3	**177-4240**●	
Daughtercard, R/A Plug, Centre Module, Combo Termination				
112	7 x 16	1410968-3	**177-4236**●	
Daughtercard, R/A Plug, Centre Module, Differential / Single-Ended Termination				
112	7 x 16	1410970-3	**177-4237**●	
Daughtercard, R/A Plug, Half Left End Module, Solder Tail Termination				
56	7 x 8	1410971-3	**177-4238**●	
Daughtercard, R/A Plug, Half Left End Module, Single Ended Termination				
56	7 x 8	1410972-3	**177-4239**●	

Accessories

Description	Mftrs. List No.	Order Code
Guide Pin for use with 9mm wide Guide Module		
2.6mm Standoff Height	1-1469491-2	**177-4216**●
4.2mm Standoff Height	1-1469491-3	**177-4217**●
5.7mm Standoff Height	1-1469491-4	**177-4218**●
Guide Module, 9mm, for use with VITA 46 3U & 6U Daughtercard		
0° Key Orientation	1-1469492-1	**177-4221**●
45° Key Orientation	1-1469492-2	**177-4222**●
90° Key Orientation	1-1469492-3	**177-4223**●
270° Key Orientation	1-1469492-7	**177-4224**●
315° Key Orientation	1-1469492-8	**177-4225**●
With out Key Orientation	1-1469492-9	**177-4226**●
Cap Drew, for use with VITA 46 3U & 6U 9mm Daughtercard Guide Module		
3.5mm Length	1410946-1	**177-4231**●

GIG-Array® Board- to-Board Connector Systems

FCI



New

- Optimized design for utilization in high-density, high-speed mezzanine applications
- Ball Grid Array (BGA) termination for process friendly attachment
- Stack Heights available from 15mm to 40mm provide mezzanine design flexibility
- Connector sizes of 200 and 296 signals providing 62 signal contacts per linear cm (158 signal contacts per linear inch) allow for optimization of board space and signal requirements
- 100 Ohm differential pair matched impedance assures consistent high speed performance
- Up to 10 Gb/s differential pair performance
- Very low cross-talk (VLC) design of less than 1% allows for required signal integrity performance
- Dual beam signal contacts provide two points of contact increasing product reliability
- Polarized design assures proper mating of the connector

Housing Material	Contact Material	Contact Plating	No. of Mating Cycles	Current Rating	Operating Temperature
LCP	High Strength Copper Alloy	Gold over Nickel	25	1A	-40°C to 85°C

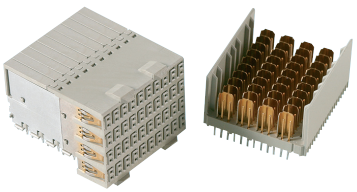
520041

Mftrs. List No.	No. of Ways	Height (mm)	Order Code	Price Each
Plug				
10054783-001LF	200	25	**162-2024**●	
10060910-001LF	200	13	**162-2025**●	
10060911-001LF	296	13	**162-2026**●	
55727-001LF	296	20	**162-2046**●	
55737-001LF	200	10	**162-2047**●	
55739-001LF	200	20	**162-2048**●	
55741-001LF	200	15	**162-2050**●	
Receptacles				
55701-001LF	296	5	**162-2045**●	
55740-001LF	200	5	**162-2049**●	

High Speed Differential - continued

Z-Pack HM-Zd - 4 Pair

Tyco Electronics



Z-Pack HM-Zd is a high speed, differential connector system, which is compatible with the Z-PACK 2mm HM connector line. Z-PACK HM-Zd provides Z-PACK 2mm HM users with a migration path for serial switching applications from 3.125Gbps to 5.0Gpbs.

- Z-PACK HM-Zd is an extension of the Z-PACK 2mm HM product line Designed specifically for high speed differential applications
- A modular connector system with a standard module size of 25mm Contact pitch is 1.5mm within a pair and 3.0mm pair to pair within a coloumn; column to column pitch is 2.5mm
- 4 signal contact pairs per column (40 pairs per 25mm) compatible with 8 row Z-PACK 2mm HM
- Available in vertical press fit pin headers and right angle press fit receptacles
- Optimized footprint for improved electrical performance and ease of routing channels on both daugther card and backplane

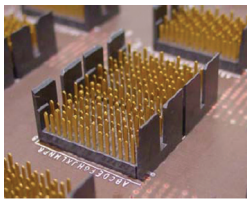
414976

No. of Pairs	Mftrs. List No.	Order Code	Price Each
Header - Vertical			
40	6469002-1	**963-6730**	
Receptacle - Right Angle			
40	6469001-1	**963-6714**	
90° Keyed Guide Modules, 2 Pin			
Male	1-1469372-1	**122-6256**	
Female	1-1469373-1	**122-6257**	

Z-PACK TinMan High Speed, High Density Backplane Connectors

Tyco Electronics

Receptacle Assembly



Header Assembly

- 10+ Gbps performance
- 100 ohm Impedance for Differential Pair configuration
- 5 pair version offers 26 pairs/10mm [66 differential pairs/inch] fitting within a 25.40mm card slot pitch
- 4 pair version offers 21 pairs/10mm [53 differential pairs/inch] fitting within a 20.30mm card slot pitch
- Reliable, redundant contact design
- Low crosstalk and high through-put performance levels
- Meets Industry reliability requirements of Bellcore/ Telcordia
- Sequencing for ground and signal contacts

Specifications:-

Current Rating	0.5A	Voltage Rating	250V
Contact Material	Copper Alloy	Contact Plating	Nickel
Housing Material	LCP	Impedance	100ohm
No. of Mating Cycles	200	Operating Temp.	-65°C to 90°C

528893

No. of Ways	Rows	Columns	Mftrs. List No.	Order Code	Price Each
Receptacle Assemblies, 5 Pair, Right Angle Mount					
120	15	8	1934218-1	**168-6020**	
240	15	16	1934221-1	**168-6022**	
Receptacle Assembly, 4 Pair, Right Angle Mount					
96	12	8	1934222-1	**168-6023**	
Header Assemblies, 5 Pair, Vertical Mount					
120	15	8	1934269-1	**168-6024**	
240	15	16	1934331-1	**168-6025**	
Header Assembly, 4 Pair, Vertical Mount					
96	12	8	1934305-1	**168-6026**	
Header Assemblies, 5 Pair, Vertical Mount, 2 End Walls					
120	15	8	1934271-1	**168-6027**	
240	15	16	1934332-1	**168-6028**	
Header Assembly, 4 Pair, Vertical Mount, 2 End Walls					
96	12	8	1934306-1	**168-6029**	

HCI® Wire-to-Board Connectors

FCI

Headers and Receptacles

New

HCI is the latest generation of mixed high power / signal board to board connector. Used extensively in rack based systems, HCI builds on the success of PwrBlade® which has now become the defacto standard on all rack mount PSU designs.

- Mechanical pre-alignment for blind mate applications
- High power density (82A per contact)
- Cost effective stamped and formed contacts (as opposed to more expensive turned pin products)
- Applications: Rack mounted power supplies, power amplifiers...

Contact Material	Contact Plating	Operating Temperature
Copper Alloy	Tin over Nickel	-65°C to +105°C

601239

Pin Pattern (Right-to-Left)	Mftrs. List No.	Order Code	Price Each
R/A Headers			
10DC+24S	10065864-003LF	**177-8057**	
2DC+16S+4DC	10074864-003LF	**177-7896**	
7DC+24S+4DC	10082722-001LF	**177-7897**	
Vertical Receptacles			
10DC+24S	10065127-001LF	**177-7898**	
4DC+16S+2DC	10074866-001LF	**177-7899**	
R/A Receptacle			
7DC+24S+4DC	10082724-001LF	**177-7900**	

Airmax VS® Power Connectors

FCI

High power connectors from the FCI Airmax virtual shield high-speed signal connector offering.
The unique insulator design includes openings to help air flow around the contacts to improve heat dissipation and with flat contacts to enable the use of high conductivity base metal, these design features contibute to the connectors higher current-carrying capacity.
The right-angle headers and vertical recepticles enable power connections at a backplane-to-daughtcard interface.
Each header offers 2, 4 or 6 individual power contacts positioned in 1x2, 2x2 or 2x3 arrays.
The backplane receptacles are offered in 2x2 or 2x3 configurations, the 2x2 receptacle mates to either the 1x2 or 2x2 header configuration.
Features:
- Current rating to 80 amps for 1x2 and 2x2 modules.
- Hard Metric (HM) equipment practise.
- Standard profile and lower profile options.

Mftrs. List No.	No. of Contacts	Contact Array	Height Above PCB	Contact Material	Contact Plating
10028918-001LF	2	1 x 2	14.7 mm	Copper Alloy	Au over Ni
10028917-001LF	4	2 x 2	14.7 mm	Copper Alloy	Au over Ni
10073379-001LF	4	2 x 2	11.5 mm	Copper Alloy	Au over Ni
10061289-001LF	6	2 x 3	11.5 mm	Copper Alloy	Au over Ni
10028916-4555P00LF	4	2 x 2	11.5 mm	Copper Alloy	Au over Ni
10061290-554555PLF	6	2 x 3	11.5 mm	Copper Alloy	Au over Ni

515484

Mftrs. List No.	Description	Order Code	Price Each
10028918-001LF	Header, R/A	**156-8212**	
10028917-001LF	Header, R/A	**156-8213**	
10073379-001LF	Header, R/A	**156-8214**	
10061289-001LF	Header, R/A	**156-8215**	
10028916-4555P00LF	Receptacle, Vertical	**156-8216**	
10061290-554555PLF	Receptacle, Vertical	**156-8217**	

Ultra Hard Metric Press-Fit Socket

3M

2.00mm Pitch - UHM Series

New

- High-speed connectors 7+ Gbps data rates when mated to standard IEC 61076-4-101 headers
- Low crosstalk at high frequencies
- 50 / 100Ω (single-ended/differential) impedance
- Modular / scalable format IEC 61076-4-101
- Press-fit receptacles
- 63 mated lines per linear inch
- Dual beam contact construction for high reliability
- End-to-end stackable with 5 row 3M™ CP2, HM, UHM and HSHM sockets
- Mates with 3M™ CP2, HM, UHM, HSHM headers, and cPCI™ type headers

Specifications:-

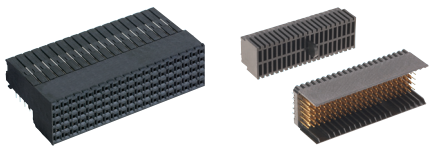
Current Rating	1A	Withstanding Voltage	750V rms
Contact Material	Copper Alloy	Contact Plating	Gold
Flammability Rating	UL94V-0	Operating Temperature	-55°C to 125°C

546052

No. of Ways	Type	Mftrs. List No.	Order Code	Price Each
110	B	UHM-S110B3-5AP1-KR	**173-8147**●	
95	B	UHM-S095B3-5AP1-KR	**179-3698**●	
110	A	UHM-S110A3-5AP1-KR	**179-3699**●	
55	C	UHM-S055CL3-5AP1-KR	**179-3700**●	

MetPak™ HSHM Press-Fit Headers & Sockets

2mm Pitch, Type B19, B22



- Up to 5 Gb/s data rates
- Low crosstalk at high frequencies
- 50/100 Ohm (single-ended / differential) impedance
- Modular / scalable format IEC 61076-4-101
- Press-fit headers and receptacles
- 63 mated lines per linear inch
- Sockets have dual beam contact construction for high reliability
- End-to-end stackable
- 5 Rows

Specifications:-

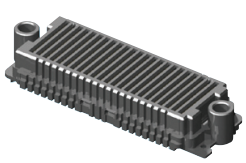
Current Rating	1A	Flammability Rating	UL 94V-0
Contact Material	Copper Alloy	Contact Plating	Gold over Nickel
Insulation Resistance	10000Mohm	Insulation Material	LCP
Pitch	2mm	Pitch Row	2mm
Operating Temp.	-55°C to 125°C	Withstanding Voltage	750Vrms

527677

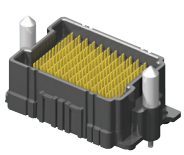
Mftrs. List No.	No. of Ways	Order Code	Price Each
Type B19 Socket			
HSHM-S095B4-5AP1-TG30	95	**167-2000**●	
Type B19 Header			
HSHM-H095B4-5CP1-TG30	95	**167-2001**●	
Type B22 Socket			
HSHM-S110B4-5AP1-TG30	110	**167-2002**●	
Type B22 Header			
HSHM-H110B4-5CP1-TG30	110	**167-2003**●	

HD Mezz Elevated Array

HDAF, HDAM series



HDAF



HDAM

- Open pin field for Single-Ended or Differential Pair configurations
- Intermateable with Molex HD Mezz
- Male and female versions available
- Pitch - 2.00mm
- Elevated stack heights of 20mm, 25mm, 30mm and 35mm
- 143, 195 & 299 pins versions
- 13 rows

NB- The suffix '1' and '2' from the mftrs. list no. refers to the solder charge material. '1' = 63% Tin / 37% Lead. '2' = 95.5% Tin / 3.8% Silver / 0.7% Copper.

Insulator Material	Contact Material	Contact Plating	Current Rating	Operating Temperature
LCP	Copper Alloy	Gold	2.3A	-55°C to 125°C

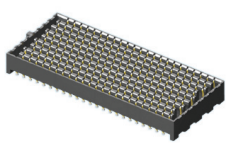
Mated Heights*		
HDAM Profile Height	HDAF Profile Height	
	-08.0** (10.51mm)	-18.0** (20.51mm)
-12.0** (14.41mm)	20mm	30mm
-17.0** (19.41mm)	25mm	35mm
*Processing conditions will affect mated height		
**Lead style taken from Mftrs. List No.- Measurements in brackets give the unmated profile height.		

527306

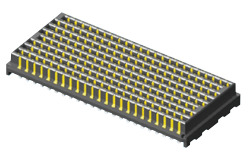
Mftrs. List No.	No. of Ways	Order Code	Price Each
HDAF, Female Version, Profile Height = 10.51mm			
HDAF-11-08.0-S-13-1	143	**166-7783**▲	
HDAF-11-08.0-S-13-2	143	**166-7784**●	
HDAF-15-08.0-S-13-1	195	**166-7788**▲	
HDAF-15-08.0-S-13-2	195	**166-7789**●	
HDAF-23-08.0-S-13-1	299	**166-7792**▲	
HDAF-23-08.0-S-13-2	299	**166-7793**●	
HDAF, Female Version, Profile Height = 20.51mm			
HDAF-11-18.0-S-13-1	143	**166-7785**▲	
HDAF-11-18.0-S-13-2	143	**166-7787**●	
HDAF-15-18.0-S-13-1	195	**166-7790**▲	
HDAF-15-18.0-S-13-2	195	**166-7791**●	
HDAF-23-18.0-S-13-1	299	**166-7794**▲	
HDAF-23-18.0-S-13-2	299	**166-7795**●	
HDAM, Male Version, Profile Height = 14.41mm			
HDAM-11-12.0-S-13-1	143	**166-7796**▲	
HDAM-11-12.0-S-13-2	143	**166-7797**●	
HDAM-15-12.0-S-13-1	195	**166-7801**▲	
HDAM-15-12.0-S-13-2	195	**166-7802**●	
HDAM-23-12.0-S-13-1	299	**166-7806**▲	
HDAM-23-12.0-S-13-2	299	**166-7807**●	
HDAM, Male Version, Profile Height = 19.41mm			
HDAM-11-17.0-S-13-1	143	**166-7799**▲	
HDAM-11-17.0-S-13-2	143	**166-7800**●	
HDAM-15-17.0-S-13-1	195	**166-7803**▲	
HDAM-15-17.0-S-13-2	195	**166-7805**●	
HDAM-23-17.0-S-13-1	299	**166-7808**▲	
HDAM-23-17.0-S-13-2	299	**166-7809**●	

Differential Pair Array

DPAF, DPAM series



DPAF



DPAM

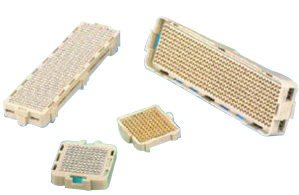
- Staggered layout reduces grounds required
- Performance of up to a terabit per connector
- Low insertion / extraction forces
- Male and female versions available
- Pitch - 2.16mm
- Pitch row - 2.54mm

Insulator Material	Contact Material	Contact Plating	Current Rating	Operating Temperature
LCP	Copper Alloy	Gold	2.9A	-55°C to +125°C

527241

Mftrs. List No.	No. of Ways	Order Code	Price Each
DPAF, Female Version			
DPAF-08-03.0-H-3-2-A	48	SMD **166-7593**●	
DPAF-08-03.0-H-8-2-A	128	SMD **166-7594**●	
DPAF-15-03.0-H-3-2-A	90	SMD **166-7595**●	
DPAF-15-03.0-H-8-2-A	240	SMD **166-7596**●	
DPAF-23-03.0-H-3-2-A	78	SMD **166-7597**●	
DPAF-23-03.0-H-8-2-A	368	SMD **166-7598**●	
DPAM, Male Version			
DPAM-08-07.0-H-3-2-A	48	SMD **166-7599**●	
DPAM-08-07.0-H-8-2-A	128	SMD **166-7600**●	
DPAM-15-07.0-H-3-2-A	90	SMD **166-7601**●	
DPAM-15-07.0-H-8-2-A	240	SMD **166-7602**●	
DPAM-23-07.0-H-3-2-A	78	SMD **166-7603**●	
DPAM-23-07.0-H-8-2-A	368	SMD **166-7604**●	

MEG-array® Connector System



The MEG-Array® connector is designed to meet the needs of 10Gb/s applications requiring up to 528 signal pins per connector. The combination of multiple stack heights (4mm to 14mm) and multiple sizes (81 signals to 528 signals) allows for optimal design flexibility while yielding less than 1% cross-talk performance when configured differentially.

Features & Benefits:-

- Ball Grid Array (BGA) termination for process friendly attachment
- 1.27 x 1.27mm BGA interface pitch optimizes routing and electrical performance
- Stack Heights available from 4mm to 14mm (2mm increments)
- Connector sizes of 100 signals to 400 signals providing 80 usable signals per linear cm (205 signals per linear inch) allow for optimization of board space and signal requirements
- 10 Gb/s differential pair performance at less than 1% cross-talk meets the needs of high speed mezzanine applications
- Demonstrated solder joint reliability of greater than 22 years life (per IPC-SM-785) is unmatched for a BGA mezzanine connector
- Polarized design assures proper mating of the connector
- RoHS Compliant (Lead-Free)

High Speed Differential - continued

MEG-array® Connector System - continued

Housing Material	Contact Material	Contact Plating	Voltage Rating	Current Rating	Operating Temperature
LCP	Copper Alloy	0.76 µm (30 µ") Gold over 0.76 µm (30 µ") Nickel	200V	0.45A	-40°C to 85°C

NB- The contact plating is different for p/n 162-3934. It is 50 µin. Gold and meets Telcordia GR-1217-CORE and NPS25298-2 specifications for utilisation in telecom applications.

522142

Mftrs. List No.	Stack Height	No. of Ways	Order Code	Price Each
Plugs				
84512-102LF	0mm	100	**162-3942**	
84516-102LF	0mm	200	**162-3924**	
84500-102LF	0mm	300	**162-3925**	
84578-102LF	6mm	300	**162-3926**	
84740-102LF	0mm	400	**162-3927**	
84520-102LF	6mm	400	**162-3929**	
Receptacles				
84513-101LF	4mm	100	**162-3944**	
84517-101LF	4mm	200	**162-3931**	
55724-101LF	6mm	200	**162-3932**	
84535-101LF	8mm	200	**162-3933**	
84535-201LF	8mm	200	**162-3934**	
84501-101LF	4mm	300	**162-3935**	
84502-101LF	5.5mm	300	**162-3936**	
84553-101LF	8mm	300	**162-3937**	
74221-101LF	4mm	400	**162-3938**	
74388-101LF	6mm	400	**162-3939**	
74390-101LF	8mm	400	**162-3940**	

2.0mm Backpanel Systems

Millipacs 1 2.0mm System

FCI

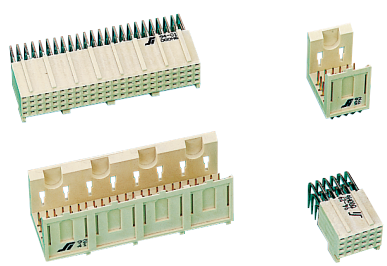
- Board to board modular connector on a 2 x 2mm grid
- Developed for design requirements where high speed and pin density are required
- Conforms to requirements of **IEC917** and meets **IEEE Futurebus** standard

Contact rating	1.5A(signal)	Housing	High temperature GF Thermoplastic UL94V-0
	3A(power)	Contacts, female male	Phosphor Bronze
Temperature range	-55°C to +125°C	Plating	Gold over Nickel

209932

PCB Plugs and Sockets

FCI



PCB hole sizes:
Male = 0.7mm ±0.1
Female = 0.6mm ±0.1

- Sockets have push fit retention pegs

209933

No. of Ways	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins			
96 (4 x 24)	88953-101LF	**121-1677**	
90° PCB Sockets			
24 (4 x 6)	HM1F41TAP000H6LF	**109-8029**	
96 (4 x 24)	HM1F43TAP000H6LF	**109-8030**	
192 (4x48)	HM1F44TAP000H6LF	**109-8031**	

Power/Signal

FCI

- Power modules have a current rating of 3A
- The two modules have 4 rows of 2 pins
- Female has push fit retention peg

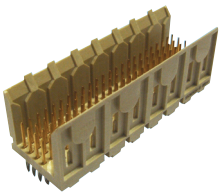
209935

No. of Ways	Mftrs. List No.	Order Code	Price Each
90° PCB Sockets			
8	89039-102LF	**109-7973**	

Over 500 000 products available online QGO

Z-PACK 2mm FB (Futurebus+)

Tyco Electronics



- High density connections: four-row and five-row, 2mm x 2mm circuit grid
- Modular design, end to end stackable
- **UL** recognised & **CSA** approved
- Press-Fit termination

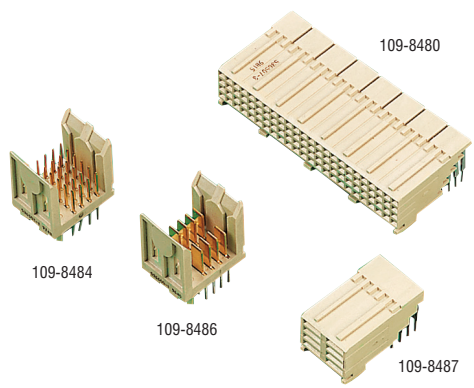
Current Rating	1A
Housing	High Temperature Liquid crystal polymer
Contacts	Phosphor Bronze, Gold plated

451130

No. of Ways	Mftrs. List No.	Order Code	Price Each
Four Row - Plug - Vertical			
24	5536514-1	**128-4305**	
48	5536504-2	**128-4306**	
192	5536504-4	**128-4309**	
Four Row - Socket - Right-Angle			
24	5536511-1	**128-4310**	
48	5536511-2	**128-4311**	
192	5536511-4	**128-4313**	
Five Row - Plug - Vertical			
30	5223016-1	**128-4314**	
60	5223016-2	**128-4315**	
Five Row - Socket - Right-Angle			
30	5223008-1	**128-4317**	

Z-Pack 2mm FB (Futurebus+) Connectors

Tyco Electronics



- High density, high speed signal and power connectors
- Modular design, end to end stackable
- Complies with **Futurebus+, EIASP3179** and **IEC1076-4-OX(48B)**
- Approvals UL and CSA

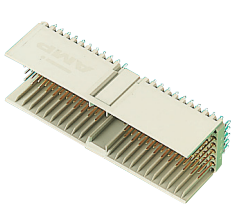
Contact rating	1A(signal)	Contacts sockets	Phosphor Bronze, Gold plating
	3A (power)	Pins	Gold, Phosphor Bronze plating
Housing	Liquid crystal polymer		

209973

No. of Ways	Tail Length (mm)	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins - Signal				
24		5536501-1	**109-8484**	
48		5536501-2	**109-8485**	
90° PCB Sockets - Signal				
24	2.73	5536507-1	**109-8478**	
48	2.73	5536507-2	**109-8479**	
96	2.73	5536507-3	**109-8480**	
192	2.73	5536507-4	**109-8481**	
Power Modules				
90° PCB Sockets				
8 (Solder)	2.73	5536607-1	**109-8487**	

Z-Pack 2.0mm Hard Metric

Tyco Electronics



- Meets needs of telecommunications, computer and instrumentation applications
- Comply with **IEC917** and **IEC 1076-4-101**
- 5 row versions.
  Type A have 110 signal pins, center guiding and keying facility
  Type B have 125 signal pins Type C have 55 signal pins and guiding features
- High density system
- All lines impedance matched to 50Ω single ended and 100Ω differential pair
- Press fit

Signal pin rating, all contracts loaded	1.5 @ 70°C
Norminal resistance	≥13.5mΩ
Housing	Grey, Glass filled Polyester UL94V-0
Contacts	Phosphor Bronze plated Gold over Nickel over Nickel

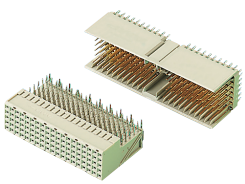
210014

No. of Ways	Type	Mftrs. List No.	Order Code	Price Each
Male Straight				
110	A	5100143-1	**109-8655**	
55	C	5100159-1	**109-8657**	
Female 90°				
110	A	5100147-1	**109-8658**	
55	C	5100161-1	**109-8660**	
Male Coding Keys				
Pastel Orange		6-100525-3	**487-867**	

Compact PCI

Backplane

Tyco Electronics



- Meets needs of telecommunications, computer and instrumentation applications
- Comply with **IEC917** and **IEC1076-4-101**
- Press fit
- C-PCI can use 32 bit or 64 bits on 3U cards and 6U cards using standard and special length connectors

C-PCI Components for Backplane	Mftrs. List No.
22 column type A header hot swap	5352332-1
22 column type B header	5188835-1
22 column type A header	5188834-1
System slot () and peripheral slot(0) adapters	
22 column type A shielded receptacle	5352068-1
22 column type B shielded receptacle	5352152-1
19 column type B shielded receptacle	5352171-1

219864

Mftrs. List No.	Order Code	Price Each
5352332-1	**109-8661**	
5188835-1	**109-8662**	
5188834-1	**109-8665**	
5352068-1	**109-8666**	
5352152-1	**109-8667**	
5352171-1	**109-8668**	

Har. bus HM 2.0mm

HARTING

Pushing Performance

- Specified for Compact PCI/VME bus
- Complies with **IEC 61076-4-101**
- Pre-leading contacts
- Pre-installed upper shields on the sockets
- Specific colour code keys for board insertion identification
- 32/64 Bit Transfer Rate

Test Voltage	750Vrms	Housing	Thermoplastic Resin glass-fibre filled UL94V-0
Contact rating	1.5A dc(signal)		
Contact resistance	20mohmΩ max	Contacts	Copper AlloyGold plated
Temperature range	-55°C to +125°C	Press in force	100N/pin (max)
Mating cycles	250	Retention force	20N/pin (max)

227394

No. of Ways	Type	Mftrs. List No.	Order Code	Price Each
Straight Plug				
110	B	1701 110 2201	**110-6794**	
110	B	1704 110 2201	**110-6796**	
125	C	1702 125 2201	**110-6795**	
55	C	1703 055 2201	**110-6798**	
90° Sockets				
110	With upperShield	17 21 110 2101	**110-6799**	
110	B	17 21 110 2102	**110-6800**	
95	With upperShield	1725 095 2101	**110-6802**	
95	B	1725 095 2102	**110-6803**	
110	With upperShield	17 24 110 2101	**110-6804**	
110	B	17 24 110 2102	**110-6805**	
125	C	17 22 125 2102	**110-6801**	
55	47 Monobloc	1723 055 2101	**110-6807**	
220	With upperShield	1726 220 2102	**110-6809**	

Metral

FCI

- Modular high density, 2mm interconnect system
- Flexibility of design
- Ideal for Futurebus+ and SCI (IEEE P1596) users
- Stackable end to end, without loss of poles
- Solder to board and press fit versions
- 4 and 5 row versions

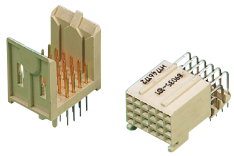
Current	1A(signal) 3A(power)	Contacts	Phosphor Bronze Gold(in contact over)
		Withstand voltage	1kV rms (@sea level)
Housing	Liquid Crystal Polymer(LCP),		

209968

Solder to Board Plugs and Sockets, 4 Row

Class II

FCI

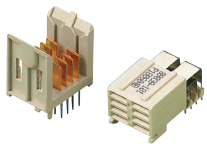


209967

No. of Ways	Tail Length (mm)	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins				
24 (4 x 6)	4.25	88951-101LF	**109-7998**	
24 (4 x 6)	3.45	88951-131LF	**109-7999**	
96 (4 x 24)	3.45	88953-131LF	**109-8000**	
192 (4x48)	3.45	88954-131LF	**109-8001**	
90° PCB Sockets				
24	3.53	89035-112LF	**163-6594**	
96 (4 x 24)	2.73	89037-101LF	**109-8004**	
96 (4 x 24)	3.53	89037-111LF	**109-8005**	
192 (4x48)	2.73	89038-101LF	**109-8006**	

Power Modules, 4 Row

FCI



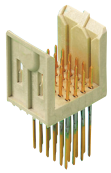
209966

No. of Ways	Tail Length (mm)	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins				
8(4 x 2)	4.25	88960-101LF	**109-8008**	

Press Fit Plugs, 4 Row

Class II

FCI



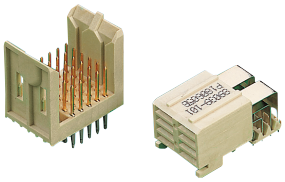
227531

No. of Ways	Tail Length (mm)	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins				
24 (4 x 6)	4.3	70232-111LF	**109-8009**	
24 (4 x 6)	13.6	70232-121LF	**109-8010**	

Press Fit Plugs and Solder to Board Sockets

5 Row

FCI



209963

No. of Ways	Tail Length (mm)	Mftrs. List No.	Order Code	Price Each
Straight PCB Pins - Press Fit				
30 (5 x 6)	4.3	89006-111LF	**109-8012**	
90° PCB Sockets - Solder to Board				
30 (5 x 6)	3.53	85863-112LF	**109-8015**	
60 (5 x 12)	3.53	85864-112LF	**109-8016**	
120 (5x24)	3.53	85865-112LF	**109-8017**	

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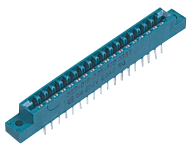
Card Edge Connectors

0.156" Pitch Single Sided

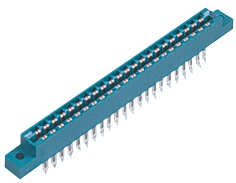


- An 18 way single sided edge connector with 0.156" gold over nickel plated contacts
- Connector has PCB pins (1.23 x 0.33 x 5.41mm) with 5.08mm row spacing
- Mounting holes 3.25mm dia.
- Current rating 5A.

209711

Single Sided		Price Each
No. of Ways	Order Code	
18	**145-149**	

0.156" Pitch Double Sided



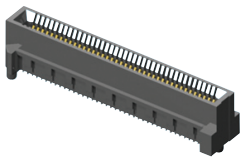
- A 22 way double sided edge connector with 0.156" gold inlay contacts suitable for use with video games and PCB's.
- connector has solder eyelet terminals with a 3.55mm row spacing
- Mounting holes 3.25mm diameter.
- Current rating 5A.

209712

Double Sided		Price Each
No. of Ways	Order Code	
22 + 22	**145-148**	

0.8mm Hi-Speed Sockets

HSEC8 series



- Low profile - 7.8mm
- Alignment pins
- Card thickness - 1.6mm
- Double row
- Pitch - 0.8mm

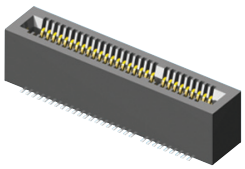
Insulator Material	Contact Material	Contact Plating	Current Rating	Operating Temperature
LCP	Beryllium Copper	Gold	3.1A	-55°C to 125°C

527334

Mftrs. List No.	No. of Ways	Order Code	Price Each
HSEC8-110-01-SM-DV-A	20	**166-7810**	
HSEC8-120-01-SM-DV-A	40	**166-7811**	
HSEC8-130-01-SM-DV-A	60	**166-7812**	
HSEC8-140-01-SM-DV-A	80	**166-7813**	
HSEC8-150-01-SM-DV-A	100	**166-7814**	
HSEC8-160-01-SM-DV-A	120	**166-7815**	

Mini Edge Card Sockets

MEC1 series



- Body is polarized
- Alignment pins
- Card thickness - 1.60mm
- Double row
- Pitch - 1.0mm
- Mates with 1.60mm card

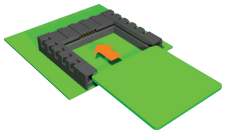
Insulator Material	Contact Material	Contact Plating	Current Rating	Operating Temperature
LCP	Beryllium Copper	Gold	2A	-55°C to 125°C

527342

Mftrs. List No.	No. of Ways	Order Code	Price Each
MEC1-105-02-S-D-A	10	**166-7837**	
MEC1-108-02-S-D-A	16	**166-7838**	
MEC1-120-02-S-D-A	40	**166-7839**	
MEC1-130-02-S-D-A	60	**166-7840**	
MEC1-140-02-S-D-A	80	**166-7842**	
MEC1-150-02-S-D-A	100	**166-7843**	
MEC1-160-02-S-D-A	120	**166-7844**	
MEC1-170-02-S-D-A	140	**166-7845**	

Mini Card Guides

MB1 Series



- Mini Card options to use with both 0.8mm and 1.6mm PCB thickness
- 1mm Pitch

New

Specifications:-

Contact Material	Beryllium Copper	Contact Plating	Gold
Insulator Material	LCP	Operating Temp.	-55°C to 125°C

546769

No. of Ways	Mftrs. List No.	Order Code	Price Each
Mini Card Guides for 0.8mm PCB			
20	MB1-120-01-L-S-01-SL	**175-3941**	
30	MB1-130-01-L-S-01-SL	**175-3942**	
40	MB1-140-01-L-S-01-SL	**175-3943**	
50	MB1-150-01-L-S-01-SL	**175-3944**	
Mini Card Guides for 1.6mm PCB			
20	MB1-120-01-L-S-02-SL	**175-3945**	
30	MB1-130-01-L-S-02-SL	**175-3946**	
40	MB1-140-01-L-S-02-SL	**175-3947**	
50	MB1-150-01-L-S-02-SL	**175-3948**	

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