

Datamate

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Datamate Connectors Introduction

Datamate is a 2mm pitch High-Reliability, high performance connector range from Harwin. Approved to British Standard 9525-F0033, the range has a proven track record for performance under extreme conditions.

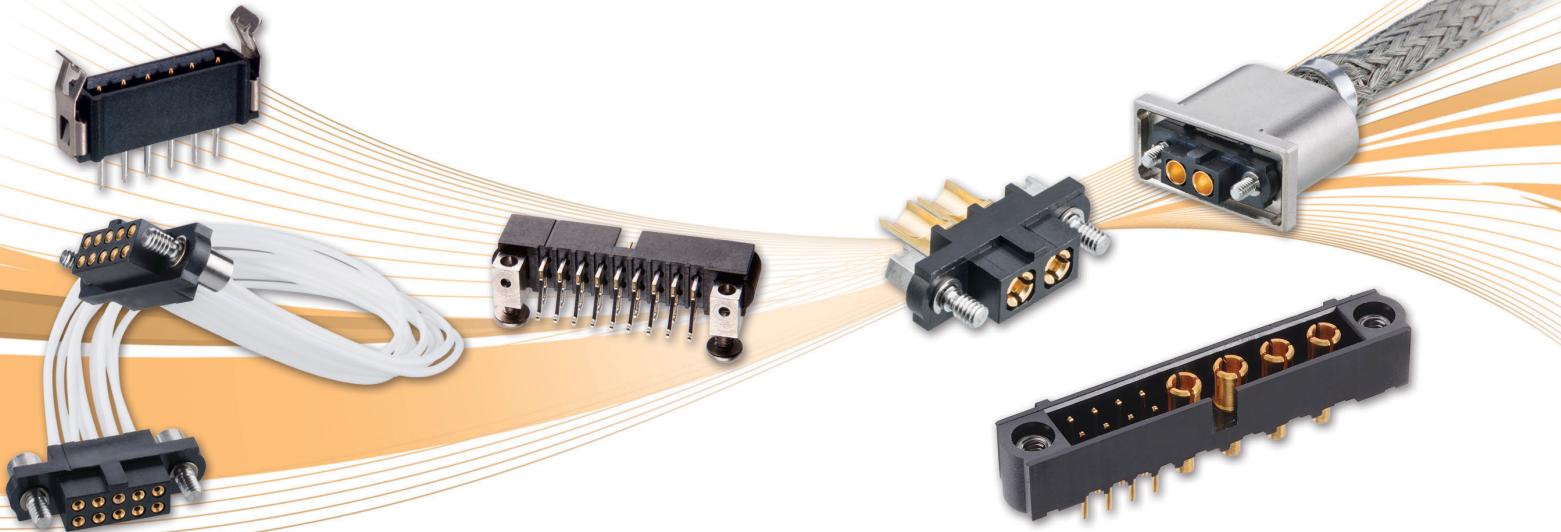
Datamate provides a low-profile solution for all variations of cable-to-board, board-to-board and cable-to-cable interconnect requirements. The range has seen many developments to match customer and market demands, and now includes 1-, 2- and 3-row configurations, vertical and horizontal in both Throughboard and Surface Mount designs for PCB flexibility. To meet the demanding requirements of vibration, shock and acceleration, added security is available with the options of latches (for space-saving) or jackscrews (for maximum strain-relief).

With the addition of Datamate Mix-Tek, the 3A signal contacts can be supplied in the same connector as 20A power, 40A high power, or 6GHz coax connections, giving complete flexibility of design. Other range additions include the 101Lok fixing – designed for fast mating with a quarter-turn bayonet-style jackscrew.

- ▶ 3A per contact (all electrically loaded; 3.3A per individual contact)
- ▶ 4-finger contact design to maintain electrical contact through high vibration and shock
- ▶ Beryllium Copper Contact for improved temperature range: -55°C to +125°C
- ▶ 500 Mating cycles durability
- ▶ Professional connector system at commercial prices
- ▶ Ongoing development program for High-Reliability connectors from Harwin
- ▶ Online videos and Cable assembly facility for assistance with cabling requirements

Datamate Signal

- ▶ Strong stainless steel jackscrew fixings for maximum strain relief, or lightweight space-saving locking latches
- ▶ Lightweight metal and plastic hood options for shielding and additional cable protection
- ▶ Choices of pre-wired contacts or full cable assemblies from stock, for prototyping and full production



Datamate Mix-Tek

- ▶ Multiple variations of power-only, power-and-signal, or coax only variations of connectors, available from stock
- ▶ Full cable assembly options for coax and power, in 2/4/6/8 contact connectors on 4mm pitch
- ▶ Compatible with lightweight metal hoods for shielding and cable protection

Datamate Connectors Product Features

Four Finger Beryllium Copper Contact

Proven high-reliability contact design ensures signal integrity under extremes of bump, vibration and shock. Durable to over 500 mating cycles.



Rugged construction

For use in harsh environments where high vibration, shock and temperature are a consideration.



Ready-made Cable Assemblies

Wide selection of stocked single and double-ended cable assemblies, with jackscrews or latching connectors, signal or power contacts.



Low outgassing emissions

Plastic housings with outgassing emissions within NASA & ESA recommendations, ready for space and low-pressure research.



Polarization

All Datamate designs feature polarization to prevent mis-mating in everyday use.



Innovative fast-acting bayonet fixing

101Lok utilises a 101-degree turn to quickly and simply lock mating connectors together.



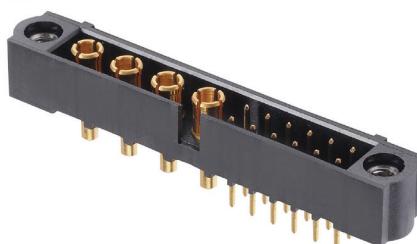
Single piece metal Backshells for EMC Shielding

Compatible with the J-Tek and Mix-Tek connector ranges, these robust hoods provide full 360° shielding, complete with retention feature on cable exit for fixing additional braiding.



Comprehensive Operating Temperature

All connectors suitable for operational temperatures from -55°C to +125°C, due to high quality material choice.



All dimensions in mm.

Datamate Mix-Tek Specification

Materials

Housings:	Glass-filled thermoplastic UL94V-0
Female contacts:	Brass shell, with Beryllium Copper inner contact
Male contacts:	Copper alloy
Finish:	See individual pages

Electrical

Current	
Individual contacts in isolation:	3.3A max (at 25°C) 2.6A max (at 85°C)
All contacts simultaneously:	3.0A max (at 25°C) 2.2A max (at 85°C)
Working voltage	
At sea level 1013 mbar:	800V DC or AC _{rms}
Voltage proof	
At sea level 1013 mbar:	1,200V DC or AC _{rms}
Contact resistance	
Initial:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	1,000MΩ min
After conditioning:	100MΩ min

Power Contacts

Materials

Latching collar:	Beryllium Copper, Nickel plated
Other metallic parts:	Copper alloy, Gold plated

Electrical

Current (in isolation)	
32x, 33x:	20A max
PFx, PMx:	40A nominal, up to 80A max
Contact resistance:	6mΩ max

Mechanical

Insertion force (max)	
32x, 33x:	8N
PFx, PMx:	15N
Withdrawal force (min):	0.5N
Contact replacement in connector:	5 times
Power contact accommodation	
32x, 33x:	12 to 20 AWG
PFx, PMx:	10 AWG

All dimensions in mm.

Mechanical

Durability:	500 operations
Insertion force (max):	2.8N
Withdrawal force (min):	0.2N
Signal crimp accommodation:	22 AWG to 28 AWG BS 3G 210 Type A

Environmental

Environmental classification:	55/125/56 days at 95% RH
Operational temperature:	-55°C to +125°C
*Vibration sensitivity:	10Hz to 2000Hz, 0.75mm, 98m/s ² (10G), duration 6h
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms
*Acceleration severity:	490m/s ² (50G)

* Tested with connectors with Jackscrews.

Coax Contacts

Materials

Latching collar:	Beryllium Copper, Nickel plated
Other metallic parts:	Copper alloy, Gold plated
Insulator:	PTFE

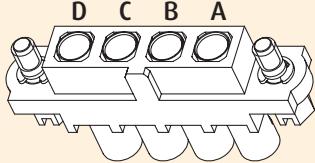
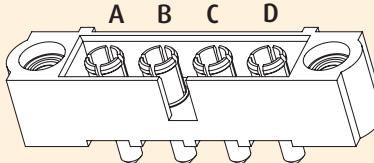
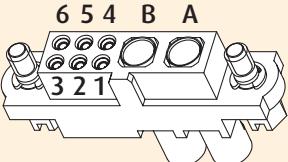
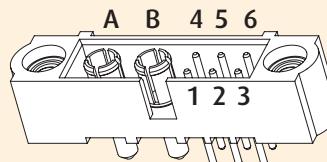
Electrical

Frequency range:	6GHz (depending on cable)
Impedance:	50Ω
VSWR:	1.05 + (0.04 x Frequency) GHz max
Operating voltage (sea level):	180V AC at 500mA
Maximum voltage (sea level):	1000V AC _{rms}
Contact resistance:	6mΩ max
Insulation resistance:	10 ⁶ MΩ at 250V AC _{rms}

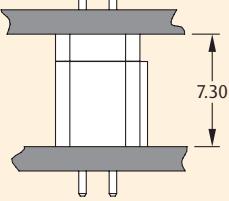
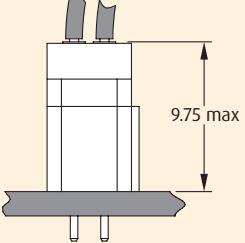
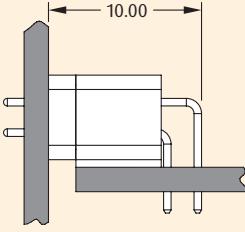
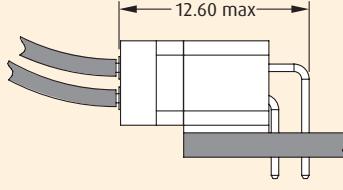
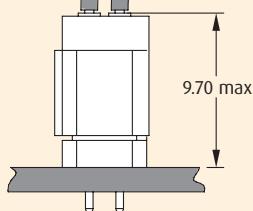
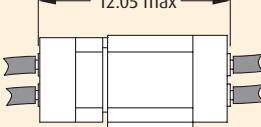
Mechanical

Insertion force (max):	8N
Withdrawal force (min):	0.5N
Contact replacement in connector:	5 times

Datamate Mix-Tek Pin Numbering

	FEMALE	MALE
POWER OR COAX ONLY		
SIGNAL AND POWER		

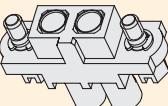
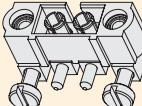
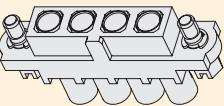
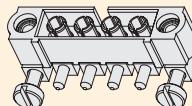
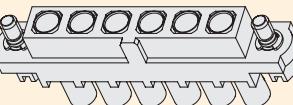
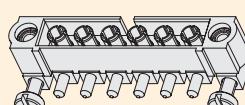
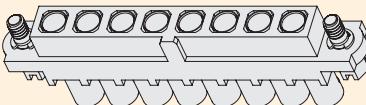
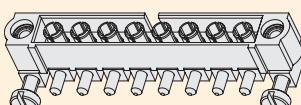
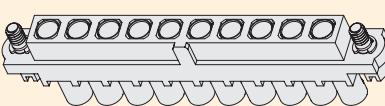
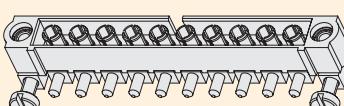
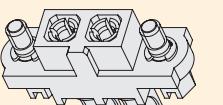
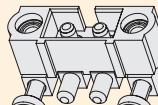
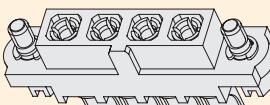
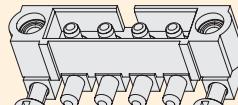
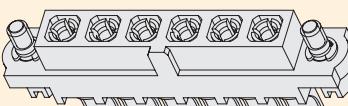
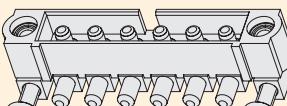
Mating Profiles

	FEMALE	
	VERTICAL THROUGHBOARD	CRIMP
VERTICAL THROUGH-BOARD		
HORIZONTAL THROUGH-BOARD		
CRIMP		

All dimensions in mm.

Datamate Power Connectors

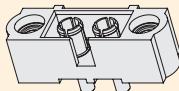
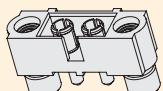
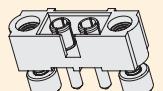
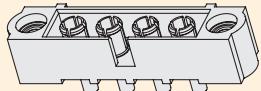
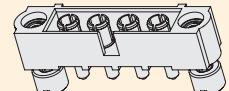
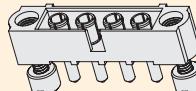
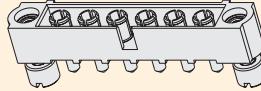
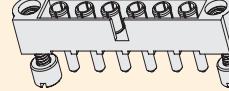
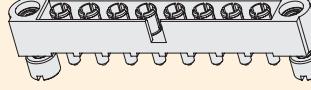
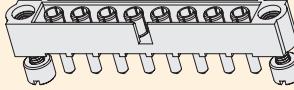
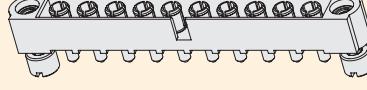
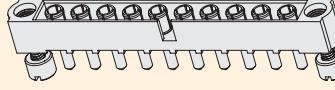
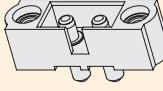
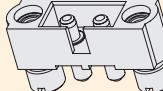
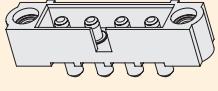
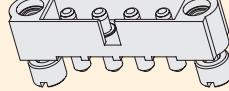
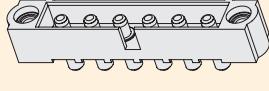
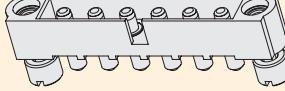
- Standard high-reliability connectors fitted with power contacts on 4mm pitch.

TOTAL NO. OF CONTACTS		TYPE		
		Cable Assemblies	Female Cable - Hex Slotted Jackscrews	Male Horizontal 3.5mm PC Tail - 5mm Board Mount Jackcrew
	2 Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FC325F1-02-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MC335M1-02-0150L	 M80-4000000F1-02-325-00-000	 M80-5000000M5-02-333-00-000
	4 Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FC325F1-04-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MC335M1-04-0150L	 M80-4000000F1-04-325-00-000	 M80-5000000M5-04-333-00-000
	6 Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FC325F1-06-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MC335M1-06-0150L	 M80-4000000F1-06-325-00-000	 M80-5000000M5-06-333-00-000
	8 Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FC325F1-08-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MC335M1-08-0150L	 M80-4000000F1-08-325-00-000	 M80-5000000M5-08-333-00-000
	10 Power		 M80-4000000F1-10-325-00-000	 M80-5000000M5-10-333-00-000
	2 High Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FCPF5F1-02-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MCPM5M1-02-0150L	 M80-4000000F1-02-PF5-00-000	 M80-5000000M5-02-PM3-00-000
	4 High Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FCPF5F1-04-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MCPM5M1-04-0150L	 M80-4000000F1-04-PF5-00-000	 M80-5000000M5-04-PM3-00-000
	6 High Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FCPF5F1-06-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MCPM5M1-06-0150L	 M80-4000000F1-06-PF5-00-000	 M80-5000000M5-06-PM3-00-000
	8 High Power	Female Single Ended (Female to Cut End) Hex Socket Jackscrews M80-FCPF5F1-08-0150L Male Single Ended (Male to Cut End) Jackscrew Fixing M80-MCPM5M1-08-0150L		

All dimensions in mm.

Datamate Power Connectors

- Standard high-reliability connectors fitted with power contacts on 4mm pitch.

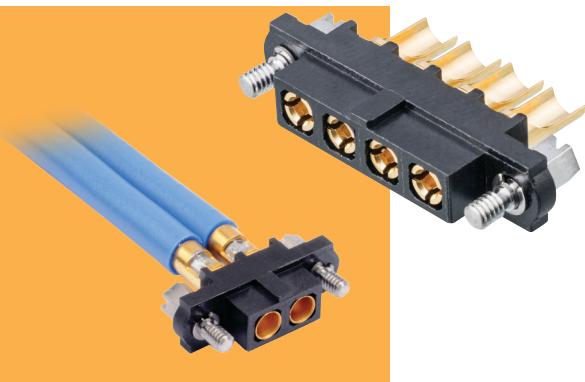
TOTAL NO. OF CONTACTS	TYPE		
	Male Vertical 3.5mm Tail - Jackscrew Fixing	Male Vertical 3.5mm Tail - 3.5mm Board Mount Jackcrew	Male Vertical 5mm Tail - 5mm Board Mount Jackcrew
2 Power			
	M80-5000000M1-02-331-00-000	M80-5000000M2-02-331-00-000	M80-5000000M3-02-332-00-000
4 Power			
	M80-5000000M1-04-331-00-000	M80-5000000M2-04-331-00-000	M80-5000000M3-04-332-00-000
6 Power			
		M80-5000000M2-06-331-00-000	M80-5000000M3-06-332-00-000
8 Power			
		M80-5000000M2-08-331-00-000	M80-5000000M3-08-332-00-000
10 Power			
		M80-5000000M2-10-331-00-000	M80-5000000M3-10-332-00-000
2 High Power			
	M80-5000000M1-02-PM1-00-000	M80-5000000M2-02-PM1-00-000	
4 High Power			
	M80-5000000M1-04-PM1-00-000	M80-5000000M2-04-PM1-00-000	
6 High Power			
	M80-5000000M1-06-PM1-00-000	M80-5000000M2-06-PM1-00-000	

All dimensions in mm.

Datamate Power Connectors

Female Power Cable Connector Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Hexagonal slotted jackscrews are assembled where specified.
- Polarized housings.
- Standard Power contacts rated to 20A, High Power to 40A.



POWER CONTACTS ONLY	CALCULATION	SPARE SOLDER CONTACTS									
Standard Power (12 AWG)	<table border="1"> <tr> <td>A</td><td>$B + 14$</td></tr> <tr> <td>B</td><td>(No. of Power contacts - 1) x 4</td></tr> <tr> <td>C</td><td>$B + 9$</td></tr> </table>	A	$B + 14$	B	(No. of Power contacts - 1) x 4	C	$B + 9$	Standard Power (12 AWG)			
A	$B + 14$										
B	(No. of Power contacts - 1) x 4										
C	$B + 9$										
High Power (10 AWG)											
TOOLS	WIRE STRIPPING DETAILS										
Contact Removal Tool - Z80-290											
<ul style="list-style-type: none"> No special tooling required for connecting wire, other than standard soldering equipment. 											
HOW TO ORDER											
M80 - 4000000F1 - XX - XXX - 00 - 000											
<table border="1"> <tr> <td>NO. OF POWER CONTACTS</td> <td></td> <td>POWER CONTACTS PART NO.</td> </tr> <tr> <td>02, 04, 06, 08, 10</td> <td>Standard Power</td> <td>325 Standard Power</td> </tr> <tr> <td>02, 04, 06</td> <td>High Power</td> <td>PF5 High Power</td> </tr> </table>			NO. OF POWER CONTACTS		POWER CONTACTS PART NO.	02, 04, 06, 08, 10	Standard Power	325 Standard Power	02, 04, 06	High Power	PF5 High Power
NO. OF POWER CONTACTS		POWER CONTACTS PART NO.									
02, 04, 06, 08, 10	Standard Power	325 Standard Power									
02, 04, 06	High Power	PF5 High Power									

All dimensions in mm.

Datamate Power Connectors

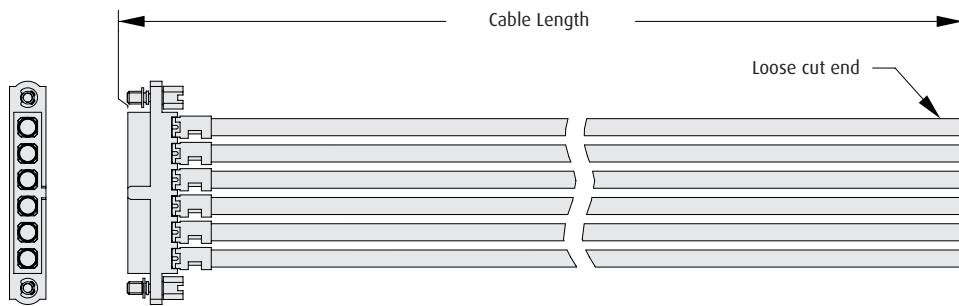
Female Cable Assemblies

- Fully assembled connectors, fixings and cable in standard configurations.
- Standard Power contacts are rated to 20A, and are fitted with 12AWG, white PTFE-insulated cables.
- High Power are rated to 40A nominal, up to 80A max. Fitted with 10AWG, white PTFE-insulated cables.

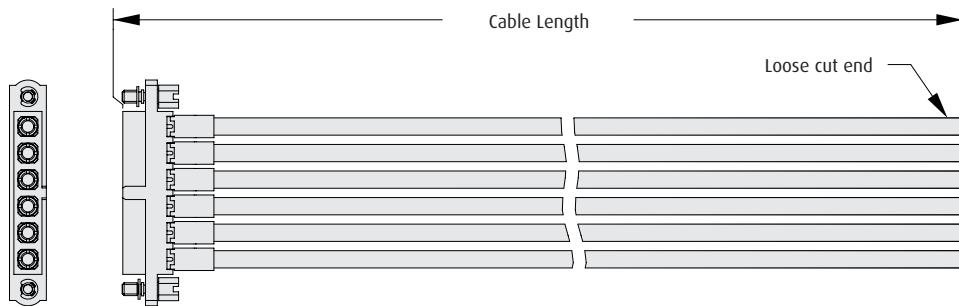


DATAMATE POWER

STANDARD POWER



HIGH POWER



HOW TO ORDER

M80 - FC XXX F1 - XX - 0150 L

SERIES CODE

325	Standard Power
PF5	High Power

JACKSCREW

F1	Hex Slotted Jackscrews
----	------------------------

TERMINATION - SECOND END

L	Loose cut end
---	---------------

CABLE LENGTH

0150	150mm
------	-------

NO. OF POWER CONTACTS

02, 04, 06, 08

All dimensions in mm.

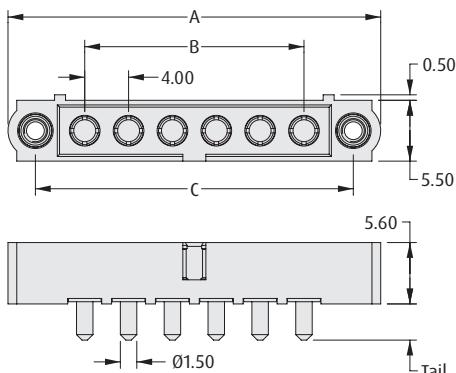
Datamate Power Connectors

Male Vertical Throughboard

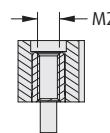
- A selection of stocked Datamate Mix-Tek solder tail standard layouts.
- Choice to suit two PCB thicknesses and two stud lengths.
- Standard Power contacts rated to 20A.
- High Power rated to 40A nominal, up to 80A max.



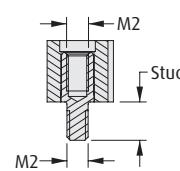
STANDARD POWER



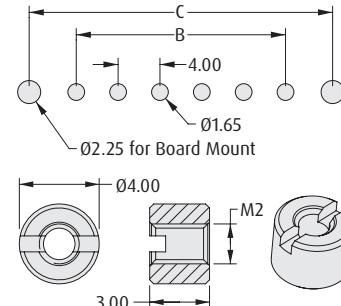
Jackscrew fixing



Jackscrew with Board Mount



Recommended PC Board Pattern

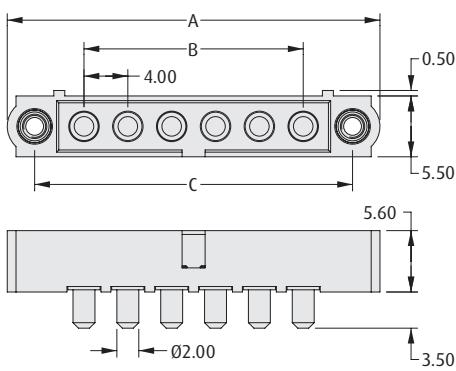


Board Mount Nut, 2 per connector

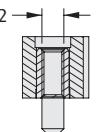
CALCULATION

A	$B + 14$
B	(No. of Power contacts - 1) x 4
C	$B + 9$

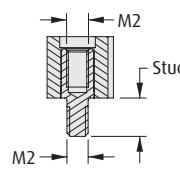
HIGH POWER



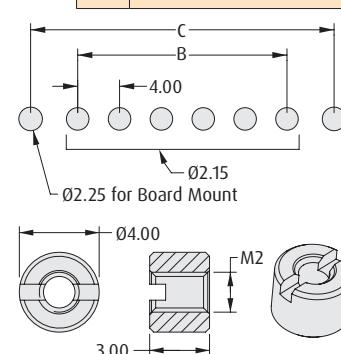
Jackscrew fixing



Jackscrew with Board Mount



Recommended PC Board Pattern



Board Mount Nut, 2 per connector

HOW TO ORDER

M80 - 5000000 XX - XX - XXX - 00 - 000

JACKSCREW

M1	Jackscrew only
M2	With 3.5mm Board Mount stud
M3	With 5mm Board Mount stud

Check image chart to confirm Off-The-Shelf sizes available

NO. OF POWER CONTACTS

02, 04	Standard Power (M1 Jackscrews)
02, 04, 06, 08, 10	Standard Power (M2/M3 Jackscrews)
02, 04, 06	High Power (M1/M2 Jackscrews)

POWER CONTACTS PART NO.

331	3.5mm Tail Standard Power
332	5mm Tail Standard Power
PM1	3.5mm Tail High Power

All dimensions in mm.

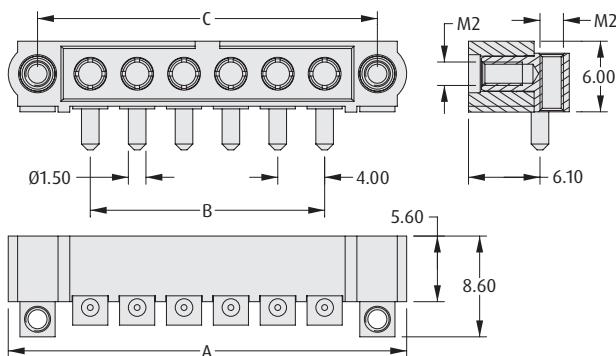
Datamate Power Connectors

Male Horizontal Throughboard

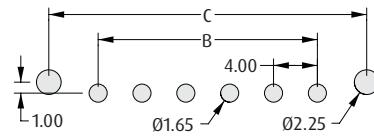
- Choice to suit two PCB thicknesses and two stud lengths.
- Standard Power contacts rated to 20A.
- High Power rated to 40A nominal, up to 80A max.



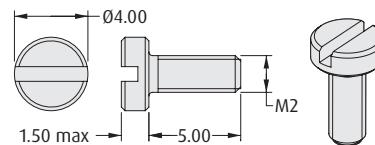
STANDARD POWER



Board Mount Bolt,
2 per connector



Recommended PC Board Pattern



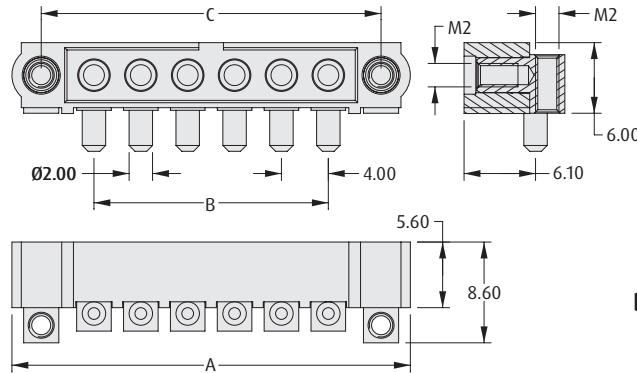
CALCULATION

A $B + 14$

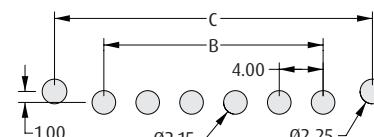
B (No. of Power contacts - 1) $\times 4$

C $B + 9$

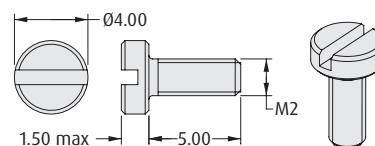
HIGH POWER



Board Mount Bolt,
2 per connector



Recommended PC Board Pattern



HOW TO ORDER

M80 - 5000000 M5 - XX - XXX - 00 - 000

NO. OF POWER CONTACTS	
02, 04, 06, 08, 10	Standard Power
02, 04, 06,	High Power

POWER CONTACTS PART NO.	
333	3.5mm Tail Standard Power
PM3	3.5mm Tail High Power

All dimensions in mm.

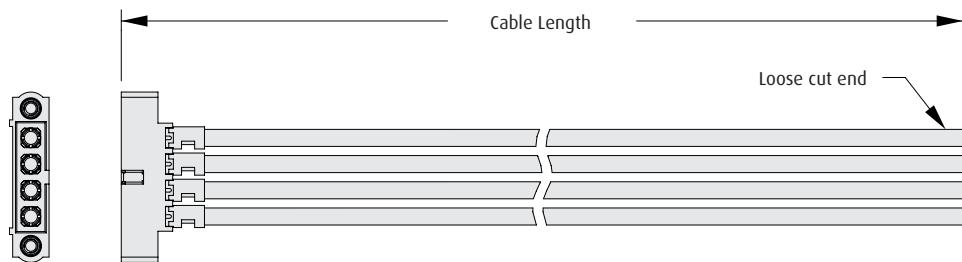
Datamate Power Connectors

Male Cable Assemblies

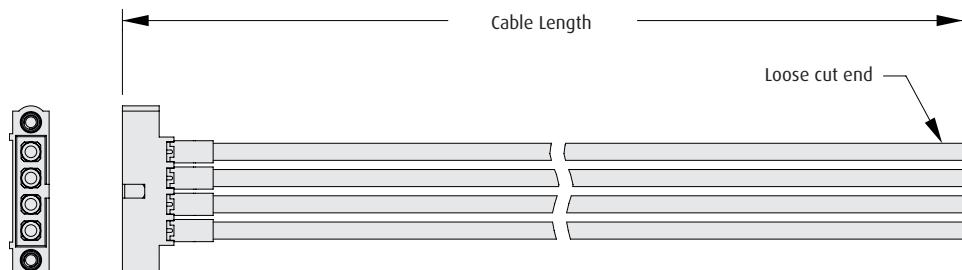
- Fully assembled connectors, fixings and cable in standard configurations.
- Standard Power contacts are rated to 20A, and are fitted with 12AWG, white PTFE-insulated cables.
- High Power are rated to 40A nominal, up to 80A max. Fitted with 10AWG, white PTFE-insulated cables.



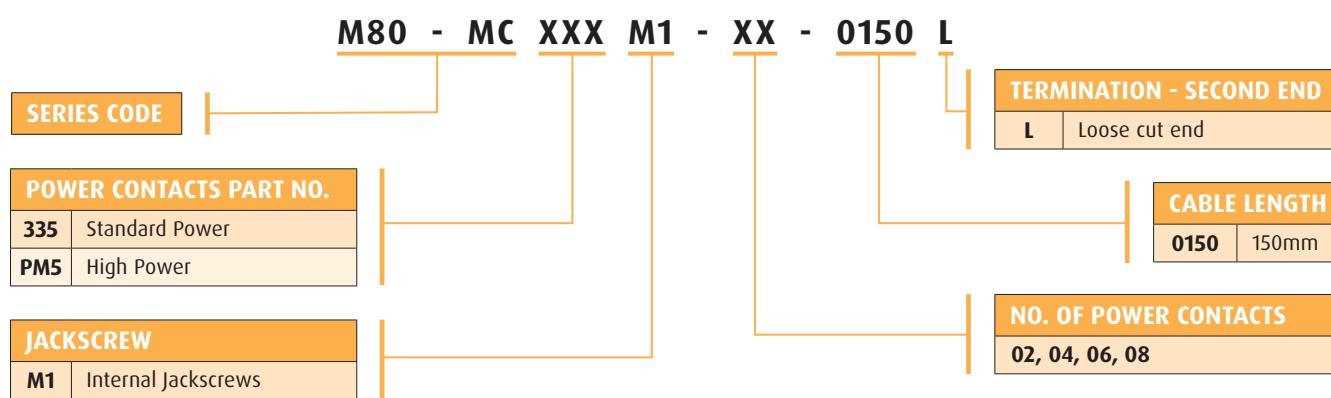
STANDARD POWER



HIGH POWER



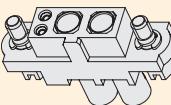
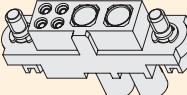
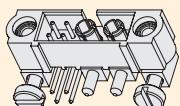
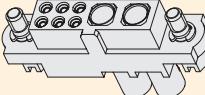
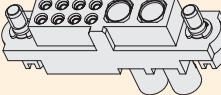
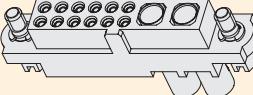
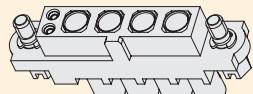
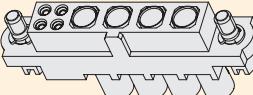
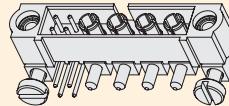
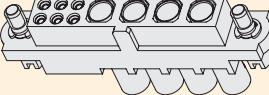
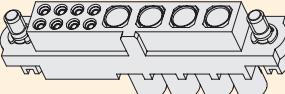
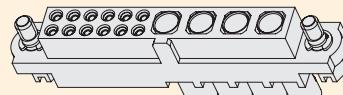
HOW TO ORDER



All dimensions in mm.

Datamate Power/Signal Connectors

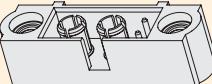
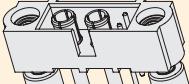
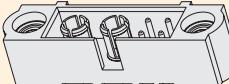
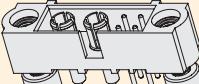
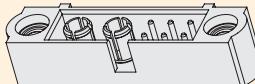
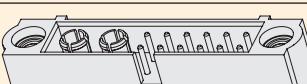
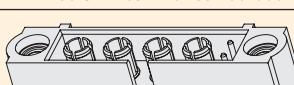
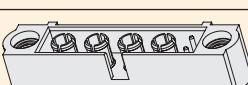
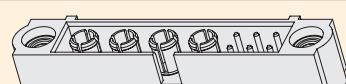
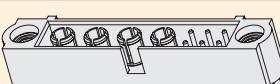
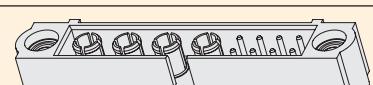
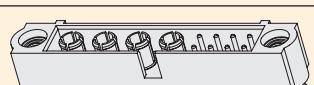
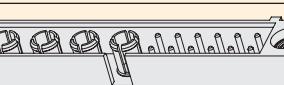
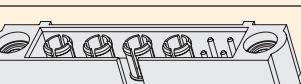
- Standard high-reliability connectors fitted with a combination of signal and 20A power contacts.

		TYPE	
		Female Cable - Hex Slotted Jackscrews	Male Horizontal 3mm Tail - 5mm Board Mount Jackcrew
TOTAL NO. OF CONTACTS	2 Power	2 Signal  M80-4C10205F1-02-325-00-000	
	4 Power	4 Signal  M80-4C10405F1-02-325-00-000	 M80-5L10405M5-02-333-00-000
	6 Power	6 Signal  M80-4C10605F1-02-325-00-000	
	8 Power	8 Signal  M80-4C10805F1-02-325-00-000	
	12 Power	12 Signal  M80-4C11205F1-02-325-00-000	
	4 Power	2 Signal  M80-4C10205F1-04-325-00-000	
	4 Power	4 Signal  M80-4C10405F1-04-325-00-000	 M80-5L10405M5-04-333-00-000
	6 Power	6 Signal  M80-4C10605F1-04-325-00-000	
	8 Power	8 Signal  M80-4C10805F1-04-325-00-000	
	12 Power	12 Signal  M80-4C11205F1-04-325-00-000	

All dimensions in mm.

Datamate Power/Signal Connectors

- Standard high-reliability connectors fitted with a combination of signal and 20A power contacts.

		TYPE	
TOTAL NO. OF CONTACTS	2 Power	Male Vertical 3mm Tail - Jackscrew fixing	Male Vertical 3mm Tail - 3.5mm Board Mount Jackcrew
			
		M80-5T10205M1-02-331-00-000	M80-5T10205M2-02-331-00-000
			
		M80-5T10405M1-02-331-00-000	M80-5T10405M2-02-331-00-000
4 Power	6 Signal		
	8 Signal		
	12 Signal		
	2 Signal		
	4 Signal		
4 Power	6 Signal		
	8 Signal		
	12 Signal		
	2 Signal		M80-5T10205M2-04-331-00-000
	4 Signal		M80-5T10405M2-04-331-00-000

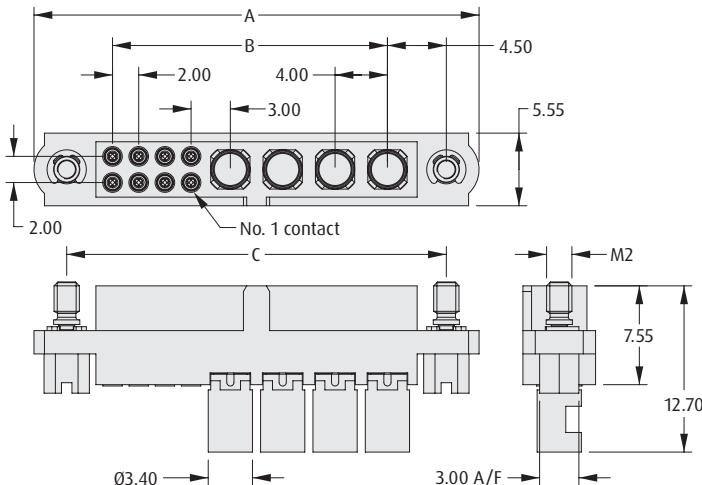
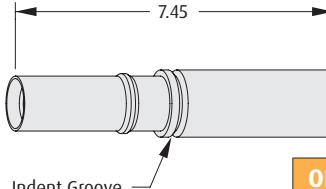
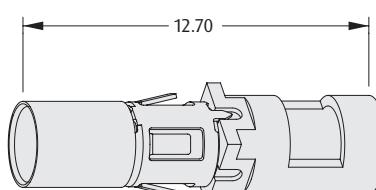
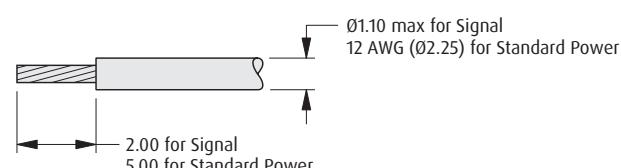
All dimensions in mm.

Datamate Power/Signal Connectors

Female Power/Signal Cable Connector Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Hexagonal slotted jackscrews are assembled.
- Polarized housings.
- Standard Power contacts rated to 20A, signal to 3A.



SIGNAL AND POWER	CALCULATION	SPARE CONTACTS
	A B + 13 B (No. of Power contacts - 1) x 4 + Total no. of Signal contacts +1 C B + 8	
		
		Signal (24 to 28 AWG)  ORDER CODE M80-0130005
		Standard Power (12 AWG)  ORDER CODE M80-325
TOOLS	WIRE STRIPPING DETAILS	
Recommended Crimp Tool (Signal) - M22520/2-01 Positioner (Signal) - T5747 Contact Insertion/Removal Tool (Signal) - Z80-280 Contact Removal Tool (Power) - Z80-290		
HOW TO ORDER		
M80 - 4C1 XX 05F1 - XX - 325 - 00 - 000		
NO. OF SIGNAL CONTACTS 02, 04, 06, 08, 12		NO. OF POWER CONTACTS 02, 04
Check image chart to confirm Off-The-Shelf sizes available		

All dimensions in mm.

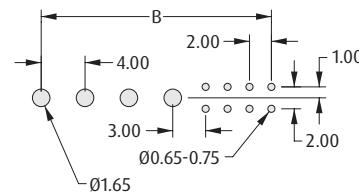
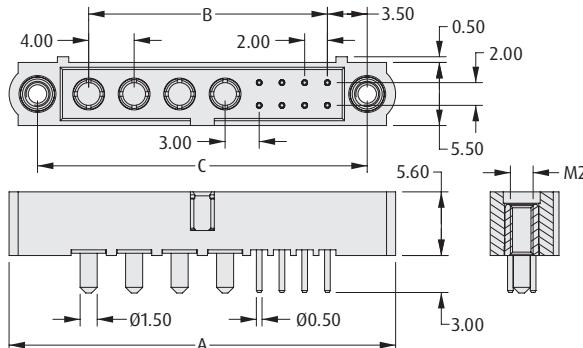
Datamate Power/Signal Connectors

Male Power/Signal Vertical Throughboard

- A selection of stocked Datamate Mix-Tek solder tail standard layouts.
- Choice to suit two PCB thicknesses and two stud lengths.
- Polarized housings.
- Standard Power contacts rated to 20A, signal to 3A.

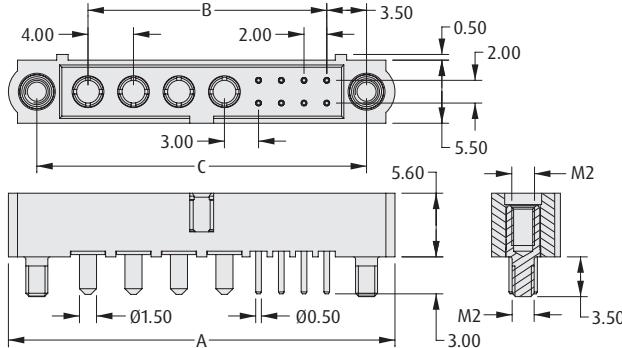


JACKSCREW ONLY

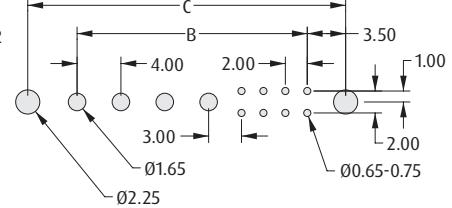
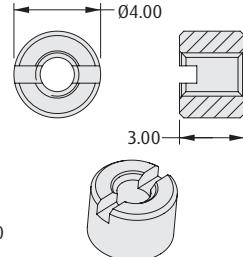


Recommended PC Board Pattern

WITH BOARD MOUNT



Board Mount Nut,
2 per connector



Recommended PC Board Pattern

CALCULATION

A	$B + 13$
B	(No. of Power contacts - 1) x 4 + Total no. of Signal contacts +1
C	$B + 8$

HOW TO ORDER

M80 - 5T1 XX 05 XX - XX - 331 - 00 - 000

NO. OF SIGNAL CONTACTS
02, 04, 06, 08, 12

NO. OF POWER CONTACTS
02, 04

JACKSCREW

M1	Jackscrew only
M2	With 3.5mm Board Mount stud

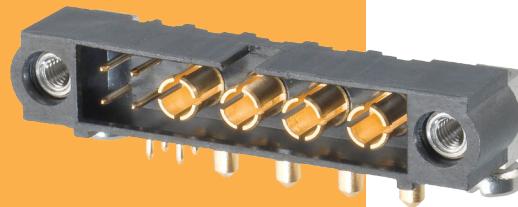
Check image chart to confirm Off-The-Shelf sizes available

All dimensions in mm.

Datamate Power/Signal Connectors

Male Power/Signal Horizontal Throughboard

- A selection of stocked Datamate Mix-Tek solder tail standard layouts.
- Polarized housings.
- Standard Power contacts rated to 20A, signal to 3A.



SIGNAL AND POWER

CALCULATION

A	$B + 13$
B	(No. of Power contacts - 1) x 4 + Total no. of Signal contacts + 1
C	$B + 8$

Recommended PC Board Pattern

Board Mount Bolt, 2 per connector

HOW TO ORDER

M80 - 5L1 04 05 M5 - XX - 333 - 00 - 000

NO. OF SIGNAL CONTACTS

04

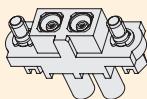
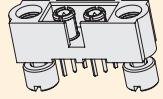
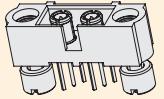
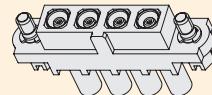
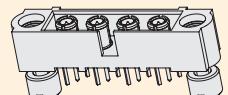
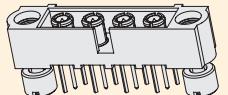
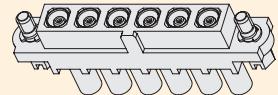
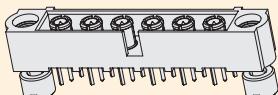
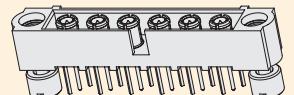
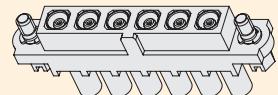
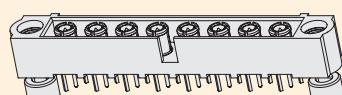
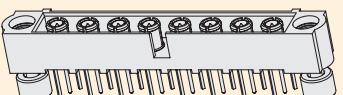
NO. OF POWER CONTACTS

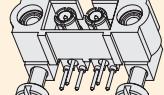
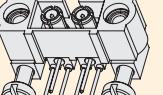
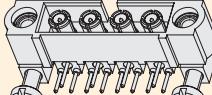
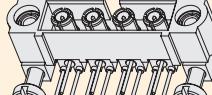
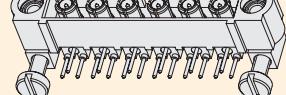
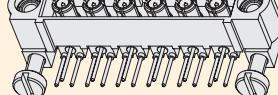
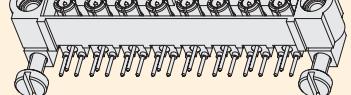
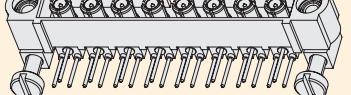
02, 04

All dimensions in mm.

Datamate Coax Connectors

- Standard high-reliability connectors fitted with coax contacts on 4mm pitch.

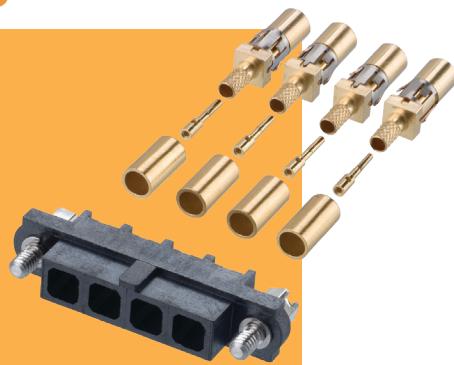
TOTAL NO. OF CONTACTS	TYPE		
	Female Cable Connectors - Hex Slotted Jackscrews	Male Vertical 3mm Tail - 3.5mm Board Mount Jackcrew	Male Vertical 4.5mm Tail - 5mm Board Mount Jackcrew
2 Coax	 M80-FC305F1-02	 M80-MV311M2-02	 M80-MV312M3-02
4 Coax	 M80-FC305F1-04	 M80-MV311M2-04	 M80-MV312M3-04
6 Coax	 M80-FC305F1-06	 M80-MV311M2-06	 M80-MV312M3-06
8 Coax	 M80-FC305F1-08	 M80-MV311M2-08	 M80-MV312M3-08

TOTAL NO. OF CONTACTS	TYPE		
	Female Cable Assemblies - Hex Slotted Jackscrews	Male Horizontal 3mm Tail - 5mm Board Mount Jackcrew	Male Horizontal 4.5mm Tail - 5mm Board Mount Jackcrew
2 Coax	Single Ended (Female to Cut End) M80-FC305F1-02-0150L Double Ended (Female to Female) M80-FC305F1-02-0150F1	 M80-MH313M5-02	 M80-MH314M5-02
4 Coax	Single Ended (Female to Cut End) M80-FC305F1-04-0150L Double Ended (Female to Female) M80-FC305F1-04-0150F1	 M80-MH313M5-04	 M80-MH314M5-04
6 Coax	Single Ended (Female to Cut End) M80-FC305F1-06-1050L Double Ended (Female to Female) M80-FC305F1-06-0150F1	 M80-MH313M5-06	 M80-MH314M5-06
8 Coax	Single Ended (Female to Cut End) M80-FC305F1-08-0150L Double Ended (Female to Female) M80-FC305F1-08-0150F1	 M80-MH313M5-08	 M80-MH314M5-08

Datamate Coax Connectors

Jack (Female) Crimp Kit

- A selection of stocked jack cable connectors in standard layouts.
- 6GHz, 50Ω Coax contacts, suitable for RG178 cable.
- Product supplied as a complete kit; housing with jackscrews assembled, and the applicable number of coax contacts supplied loose, not assembled.
- Polarized housings.
- Hexagonal slotted jackscrew style.



CABLE	CALCULATION	SPARE COAX CONTACTS						
	<table border="1"> <tr> <td>A</td><td>$B + 14$</td></tr> <tr> <td>B</td><td>(No. of Coax contacts - 1) x 4</td></tr> <tr> <td>C</td><td>$B + 9$</td></tr> </table>	A	$B + 14$	B	(No. of Coax contacts - 1) x 4	C	$B + 9$	
A	$B + 14$							
B	(No. of Coax contacts - 1) x 4							
C	$B + 9$							
		<p>ORDER CODE M80-305</p>						
TOOLS	WIRE STRIPPING DETAILS							
<p>Recommended Inner Contact Crimp Tool - Z80-292 Positioner for Inner Contact - Z80-291 Recommended Outer Sleeve Crimp Tool - Z80-293 Contact Removal Tool - Z80-290</p> <p>▪ Instruction sheets available at www.harwin.com/instructions.</p>								
HOW TO ORDER								
<p>M80 - FC 305 F1 - XX</p> <table border="1"> <tr> <td>COAX CONTACT TYPE</td> <td>NO. OF COAX CONTACTS</td> </tr> <tr> <td>305 Ø2.00mm cable</td> <td>02, 04, 06, 08</td> </tr> </table>			COAX CONTACT TYPE	NO. OF COAX CONTACTS	305 Ø2.00mm cable	02, 04, 06, 08		
COAX CONTACT TYPE	NO. OF COAX CONTACTS							
305 Ø2.00mm cable	02, 04, 06, 08							

All dimensions in mm.

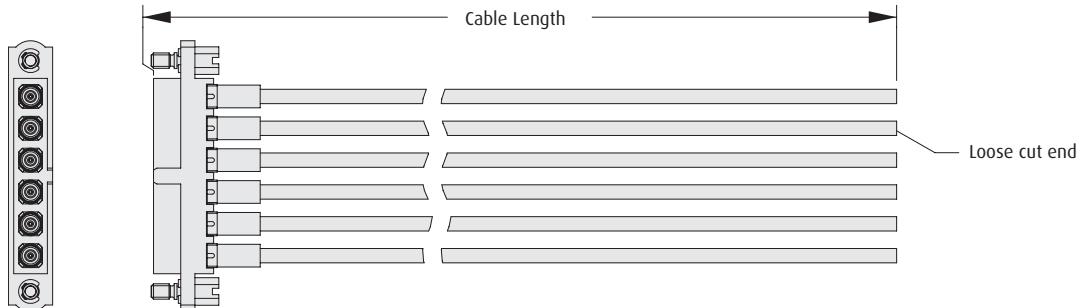
Datamate Coax Connectors

Jack (Female) Cable Assemblies

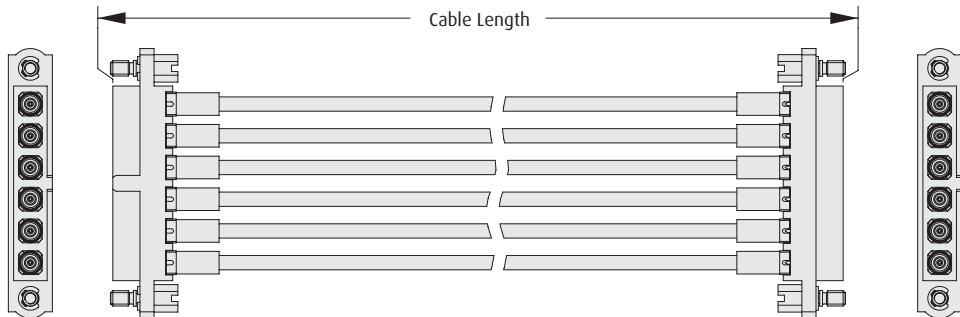
- A selection of stocked ganged multiport coaxial cable assemblies in standard layouts.
- 6GHz, 50Ω Coax contacts, assembled with RG178 cable.
- Hexagonal slotted jackscrew style.



FEMALE SINGLE ENDED



FEMALE - FEMALE



HOW TO ORDER

M80 - FC305F1 - XX - 0150 X

TERMINATION - SECOND END

TERMINATION - SECOND END

L	Loose cut end
F1	Female connector

NO. OF POWER CONTACTS

02, 04, 06, 08

CABLE LENGTH

0150 150mm

0300 300mm

0450 450mm

All dimensions in mm.

Datamate Coax Connectors

Plug (Male) Vertical Throughboard

- Stocked coax connectors in vertical orientation, with board-mount jackscrews for added security.
- 6GHz, 50Ω Coax contacts.
- Choice to suit two PCB thicknesses.
- Order board mount nuts separately.
- Screwdriver **Z80-298** available for assembling slotted jackscrew nuts.



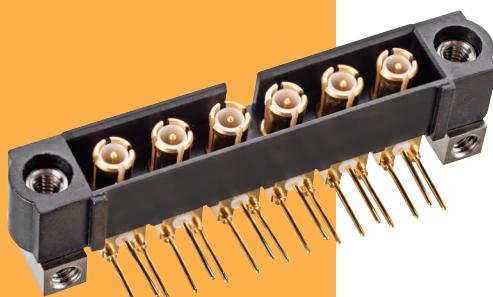
VERTICAL		CALCULATION	
		A	B + 14
		B	(No. of Coax contacts - 1) x 4
		C	B + 9
HOW TO ORDER		Recommended PCB Board Pattern	
M80 - MV 3XX MX - XX		Recommended PCB Board Pattern	
TYPE		NO. OF COAX CONTACTS	
311M2	3mm Tail with 3.5mm Board Mount Stud	02, 04, 06, 08	
312M3	4.5mm Tail with 5mm Board Mount Stud		
REQUIRED HARDWARE		Order separately from connector	
Slotted Board Mount Nut		Hexagonal Board Mount Nut	
ORDER CODE		ORDER CODE	
M80-2130000B		M80-2430000B	

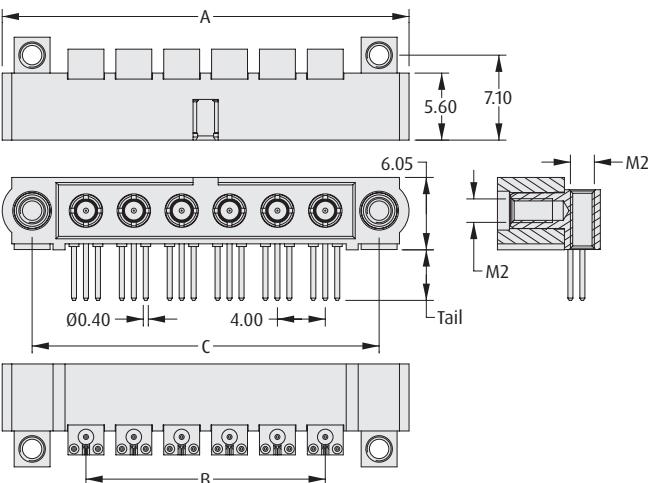
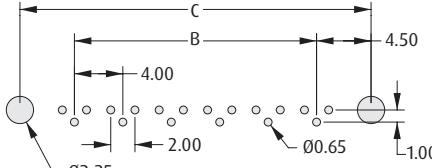
All dimensions in mm.

Datamate Coax Connectors

Plug (Male) Horizontal Throughboard

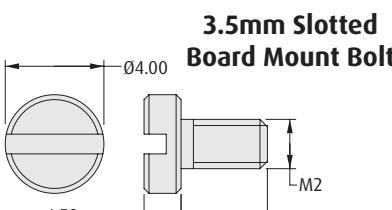
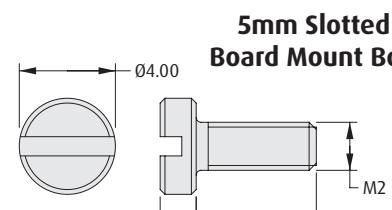
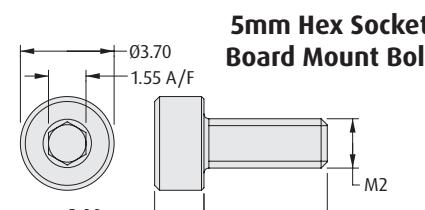
- Stocked coax connectors in horizontal orientation, with board-mount jackscrews for added security.
- 6GHz, 50Ω Coax contacts.
- Choice to suit two PCB thicknesses.
- Order board mount bolts separately.



HORIZONTAL		CALCULATION	
A	7.10	A	B + 14
B	5.60	B	(No. of Coax contacts - 1) x 4
C	6.05	C	B + 9
			
Recommended PCB Board Pattern			

HOW TO ORDER

TYPE	M80 - MH 3XX M5 - XX	NO. OF COAX CONTACTS
313	3mm Tail	02, 04, 06, 08
314	4.5mm Tail	

REQUIRED HARDWARE		Order separately from connector	
3.5mm Slotted Board Mount Bolt		5mm Slotted Board Mount Bolt	
	ORDER CODE M80-2260000B		ORDER CODE M80-2270000B
5mm Hex Socket Board Mount Bolt			ORDER CODE M80-2320000B

All dimensions in mm.

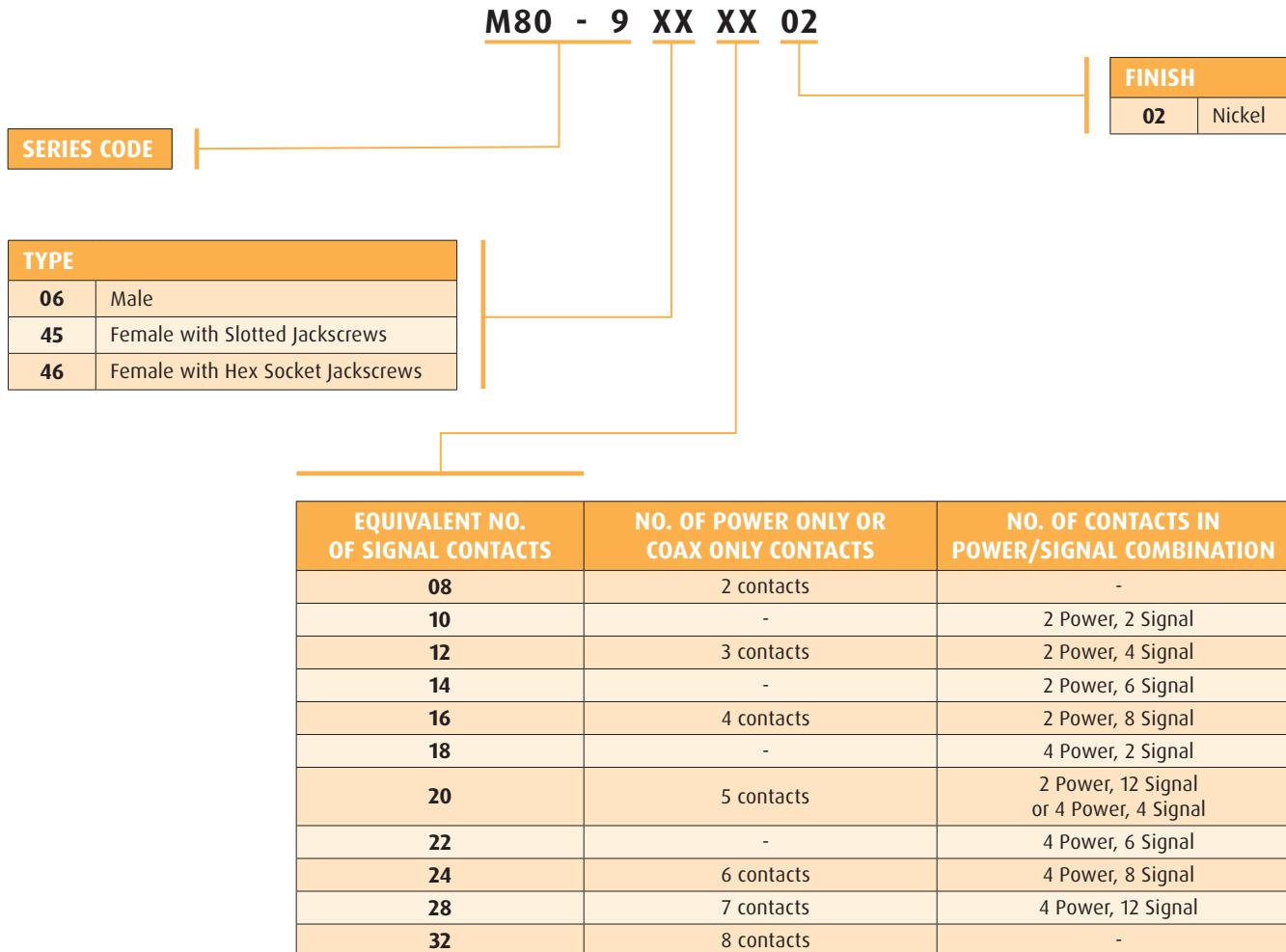
Datamate Mix-Tek Connectors

Metal Backshell Accessories

- Metal Backshells that can be used with any female cable connector (up to 12AWG), or male connectors with board mount jackscrews.
- Female backshells come with jackscrews - any existing jackscrews can be removed by removing the e-clip.
- Suitable for new designs, or in-production addition to enhance existing designs.



PART NUMBERING SYSTEM



All dimensions in mm.

Datamate Mix-Tek Connectors

Female Metal Backshell

- Supplied as an accessory kit, including metal backshell, e-clips and the applicable jackscrews.
- To be used with the appropriate size of Female Cable connector kit without jackscrews (existing jackscrews can be removed).
- Gives 360 degree shielding when used with conductive braid and mated to a compatible male connector with metal backshell.
- Instruction sheets available at www.harwin.com/instructions.



FEMALE		CALCULATION	
1 x Metal Backshell		A	$B + 16.2$
		B	Equivalent no. of contacts - 2
		C	$B + 7$
		D	$B + 0.8$
		4 x E-Clip (2 spare)	
		2 x Slotted Jackscrew (M80-945 Kit)	
		2 x Hex Socket Jackscrew (M80-946 Kit)	
E-CLIP TOOL		BAND-IT TIE	
<ul style="list-style-type: none"> For assembling E-Clips supplied with kit. 		<ul style="list-style-type: none"> For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool). 	
ORDER CODE Z80-300		ORDER CODE M80-9470000 Length = 206.8mm M80-9480000 Length = 362.0mm	
HOW TO ORDER			
SERIES CODE	M80 - 94 X XX 02	FINISH	
TYPE		02	Nickel
5	With Slotted Jackscrews		
6	With Hex Socket Jackscrews		
		EQUIVALENT NO. OF SIGNAL CONTACTS	
		08, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32	

All dimensions in mm.

Datamate Mix-Tek Connectors

Male Metal Backshell

- Supplied as an accessory, to be used with existing male connectors.
- Can be fitted to either male vertical PCB connectors with board mount, or male cable connectors with panel mount jackscrews.
- Gives 360 degree shielding when mounted to a conductive panel and mated to a compatible female connector with metal backshell.



MALE	CALCULATION
	A B + 13.7
	B Equivalent no. of contacts - 2
	C B + 7
	D B + 2.8

Front view: Dimension A (height) is 8.10 mm. Dimension B (width) is 7.90 mm.

Side view: Dimension C (depth) is 7.50 mm. Dimension D (height) is 5.90 mm.

Top view: Dimension B (width) is 7.90 mm.

HOW TO ORDER

M80 - 906 XX 02

SERIES CODE | **FINISH**
02 Nickel

EQUIVALENT NO. OF SIGNAL CONTACTS
08, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32

All dimensions in mm.

Datamate J-Tek Specification

Materials

Housings:	Glass-filled thermoplastic UL94V-0
Female contacts Standard J-Tek:	Brass shell, with Beryllium Copper inner contact
T-Contact:	Beryllium Copper
Male contacts:	Copper alloy
Finish:	See individual pages

Electrical

Current - Standard J-Tek

Individual contacts in isolation:	3.3A max (at 25°C) 2.6A max (at 85°C)
All contacts simultaneously:	3.0A max (at 25°C) 2.2A max (at 85°C)

Current - T-Contact

Individual contacts in isolation:	8.5A max (at 25°C) 6.5A max (at 85°C)
All contacts simultaneously:	3.5A max (at 25°C) 2.6A max (at 85°C)

Working voltage

At sea level 1013 mbar:	800V DC or AC peak
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Voltage proof

At sea level 1013 mbar:	1,200V DC or AC peak
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Contact resistance

Initial:	20mΩ max
After conditioning:	25mΩ max

Insulation resistance

Initial:	1,000MΩ min
After conditioning:	100MΩ min

Mechanical

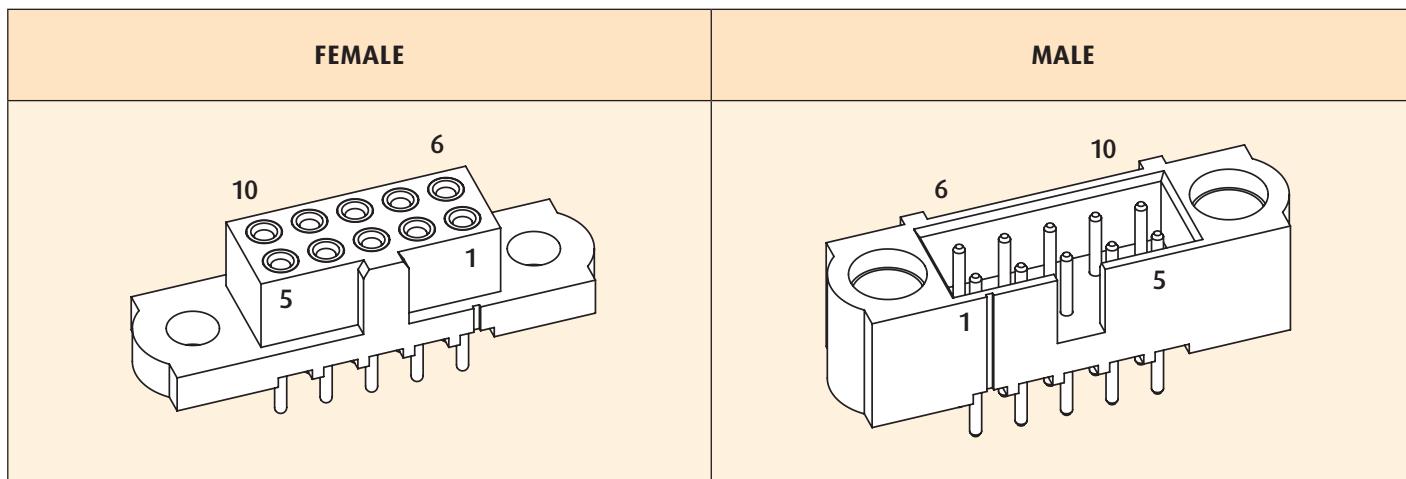
Durability	
Standard J-Tek:	500 operations
T-Contact:	1,000 operations
Insertion force (max)	
Standard J-Tek:	2.8N
T-Contact:	4.0N
Withdrawal force (min)	
Standard J-Tek:	0.2N
T-Contact:	0.5N
Signal crimp accommodation:	22 AWG to 32 AWG BS 3G 210 Type A, MIL-W-16878

Environmental

Environmental classification:	55/125/56 days at 95% RH
Operational temperature:	-55°C to +125°C
*Vibration sensitivity	
Standard J-Tek:	10Hz to 2000Hz, 0.75mm, 98m/s ² (10G), duration 6 hours
T-Contact:	10Hz to 2000Hz, 0.75mm, 390m/s ² (40G), duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms
*Acceleration severity:	490m/s ² (50G)

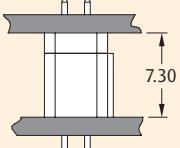
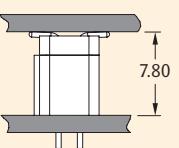
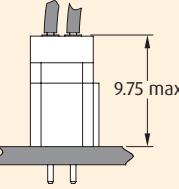
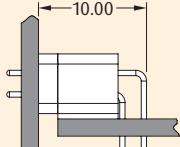
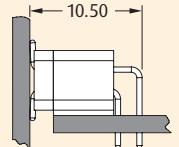
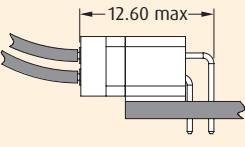
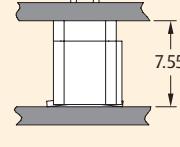
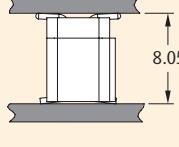
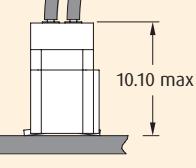
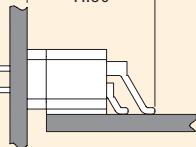
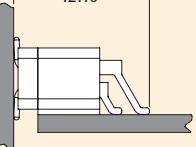
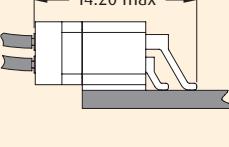
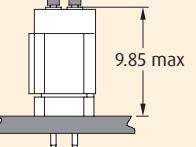
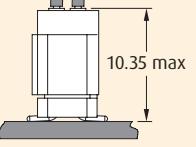
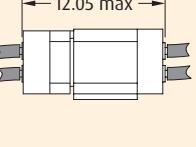
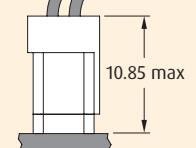
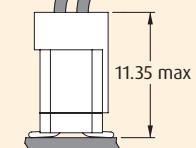
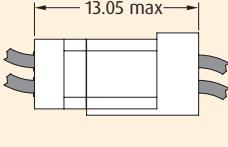
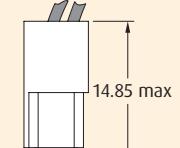
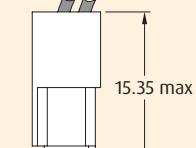
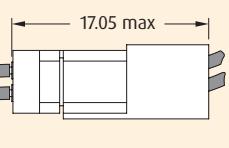
* Tested with connectors with Jackscrews.

Pin Numbering



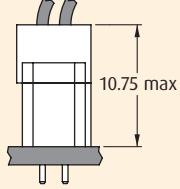
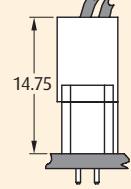
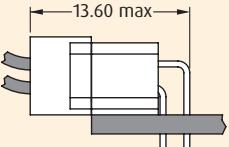
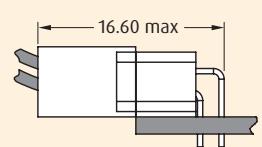
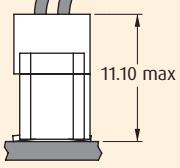
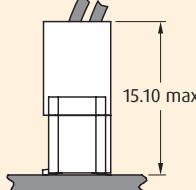
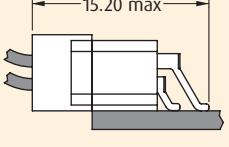
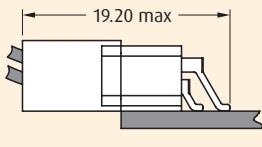
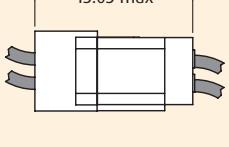
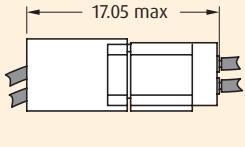
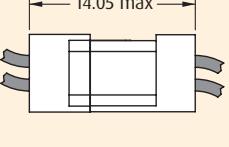
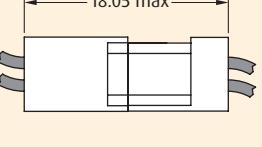
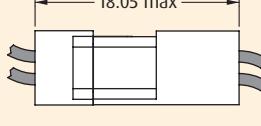
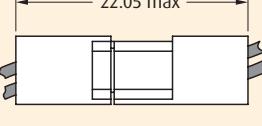
All dimensions in mm.

Datamate J-Tek Mating Profiles

		FEMALE		
		VERTICAL THROUGHBOARD	VERTICAL SMT	CRIMP
MALE	VERTICAL THROUGH- BOARD			
	HORIZONTAL THROUGH- BOARD			
	VERTICAL SMT			
	HORIZONTAL SMT			
	CRIMP			
	CRIMP 1mm EXTENDED WALL			
	CRIMP 5mm EXTENDED WALL			

All dimensions in mm.

Datamate J-Tek Mating Profiles

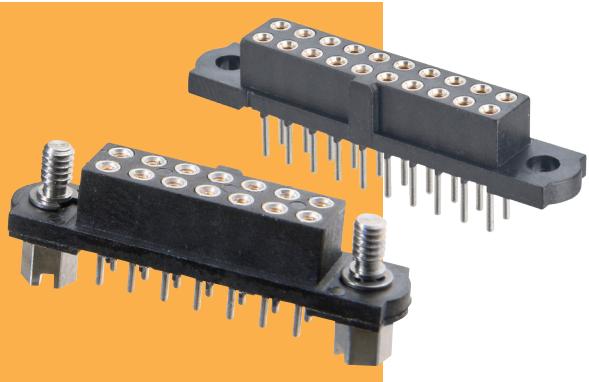
		FEMALE	
		CRIMP 1mm EXTENDED WALL	CRIMP 5mm EXTENDED WALL
MALE	VERTICAL THROUGH- BOARD		
	HORIZONTAL THROUGH- BOARD		
	VERTICAL SMT		
	HORIZONTAL SMT		
	CRIMP		
	CRIMP 1mm EXTENDED WALL		
	CRIMP 5mm EXTENDED WALL		

All dimensions in mm.

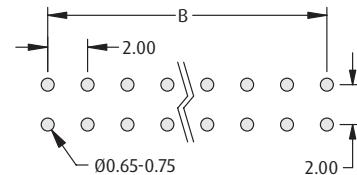
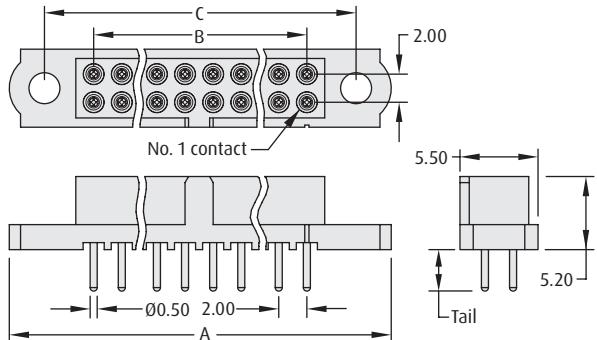
Datamate J-Tek Connectors

Female Vertical Throughboard

- Fully shrouded contacts.
- Polarized housings.
- Mates with all Datamate J-Tek male connectors with compatible jackscrews.



WITHOUT JACKSCREWS

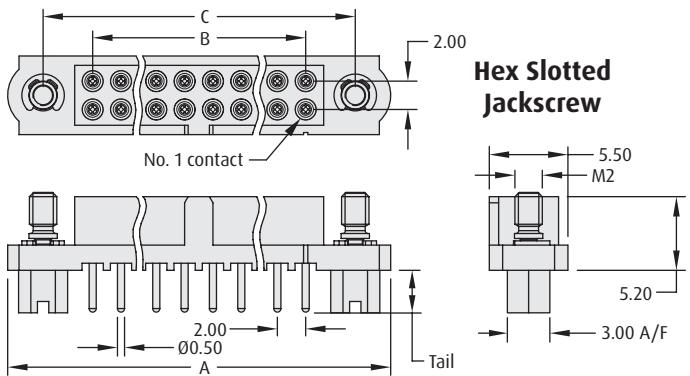


Recommended PC Board Pattern

CALCULATION

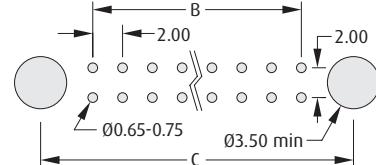
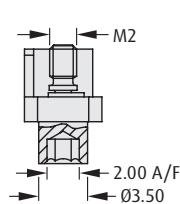
A	$B + 12$
B	Total no. of contacts - 2
C	$B + 7$

WITH JACKSCREWS



Hex Slotted Jackscrew

Hex Socket Jackscrew



Recommended PC Board Pattern

HOW TO ORDER

M80 - 4 X X XX XX

SERIES CODE

0	With Hex Slotted Jackscrews
1	Without Jackscrews
2	With Hex Socket Jackscrews
0	3mm Tails
1	4.5mm Tails

FINISH

05	Gold
42	Gold + Tin

TOTAL NO. OF CONTACTS

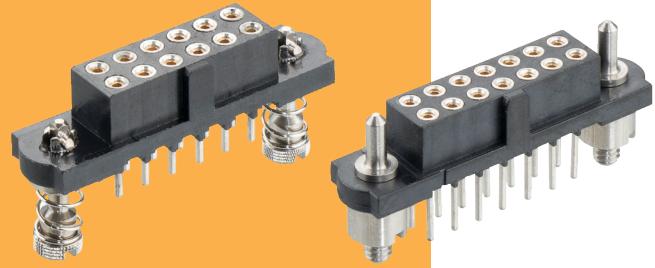
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50

All dimensions in mm.

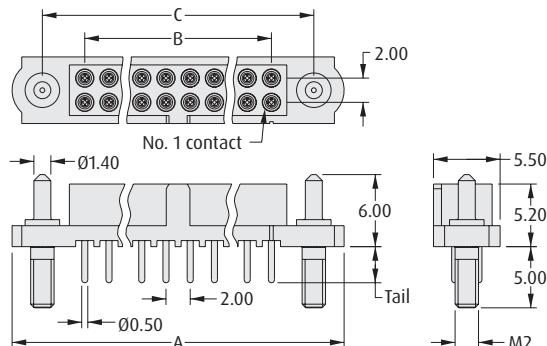
Datamate J-Tek Connectors

Female Vertical Throughboard, Guide Pin, 101Lok

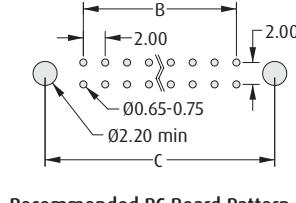
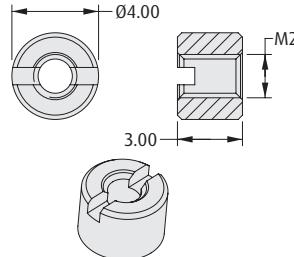
- Guide pin style includes board mount fixing, and mates with Datamate J-Tek male connectors with compatible jackscrews.
- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- 101Lok style mates with Datamate J-Tek male connectors with compatible 101Lok fixings.



GUIDE PIN JACKSCREWS

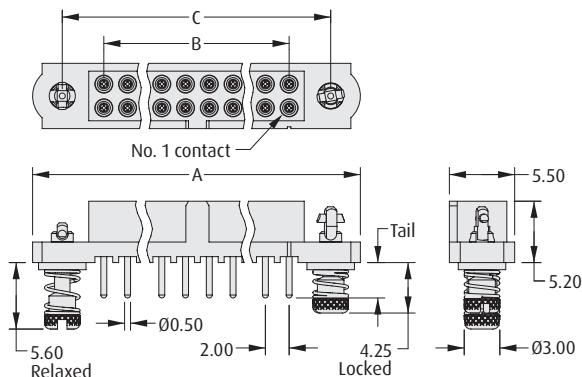


Board Mount Nut, 2 per connector



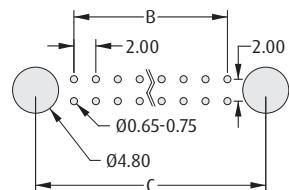
Recommended PC Board Pattern

101LOK



CALCULATION

A	$B + 12$
B	Total no. of contacts - 2
C	$B + 7$



Recommended PC Board Pattern

HOW TO ORDER

M80 - 4 TX XX XX FX

SERIES CODE

TYPE

T1	3mm Tails
T2	4.5mm Tails

TOTAL NO. OF CONTACTS

04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50

JACKSCREW

F3	Guide Pin
FD	101Lok

FINISH

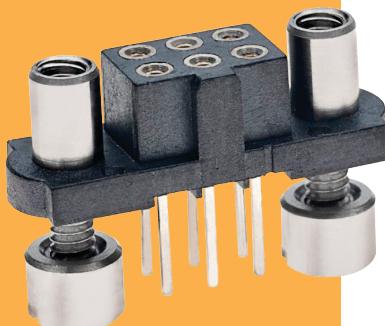
05	Gold
42	Gold + Tin

All dimensions in mm.

Datamate J-Tek Connectors

Female Vertical Throughboard Reverse Fix

- Fully shrouded contacts.
- Polarized housings.
- Includes board mount fixing.
- Mates with male Datamate J-Tek connectors with compatible Reverse Fix jackscrews.



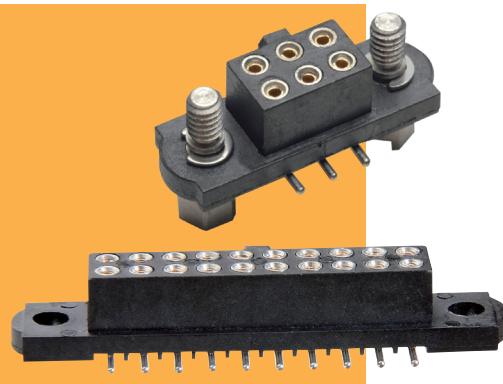
REVERSE FIX		CALCULATION	
		A	$B + 12$
		B	Total no. of contacts - 2
		C	$B + 7$
		Board Mount Nut, 2 per connector 	
		Recommended PC Board Pattern	
HOW TO ORDER			
SERIES CODE	M80	-	40 X XX XX
TYPE	5	3mm Tails	
	6	4.5mm Tails	
FINISH	05	Gold	
	42	Gold + Tin	
TOTAL NO. OF CONTACTS	04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50		

All dimensions in mm.

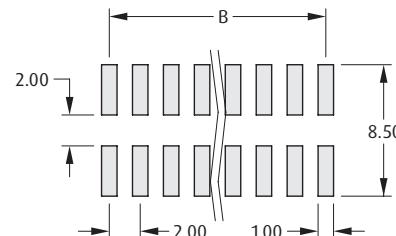
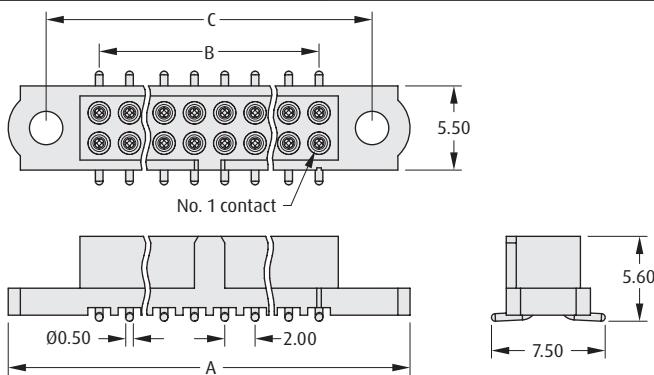
Datamate J-Tek Connectors

Female Vertical Surface Mount

- Mates with all Datamate J-Tek male connectors with compatible jackscrews.
- Gull wing SMT tails simplify inspection process.



WITHOUT JACKSCREWS



Recommended PC Board Pattern

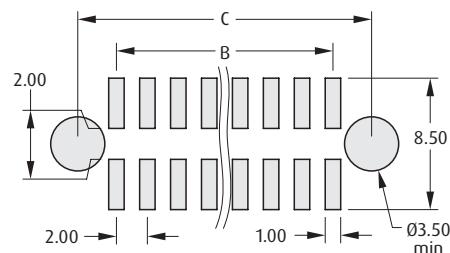
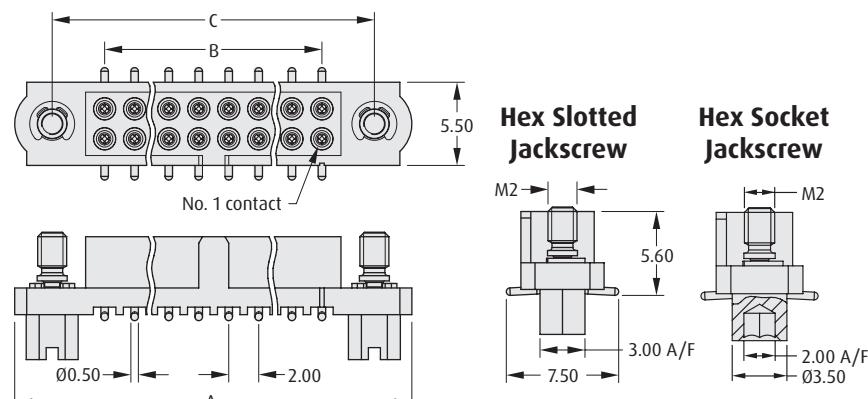
CALCULATION

A | $B + 12$

B | Total no. of contacts - 2

C | $B + 7$

WITH JACKSCREWS



Recommended PC Board Pattern

HOW TO ORDER

M80 - 4 X 2 XX XX

SERIES CODE

TYPE

0	With Hex Slotted Jackscrews
1	Without Jackscrews
2	With Hex Socket Jackscrews

FINISH

05 | Gold

42 | Gold + Tin

TOTAL NO. OF CONTACTS

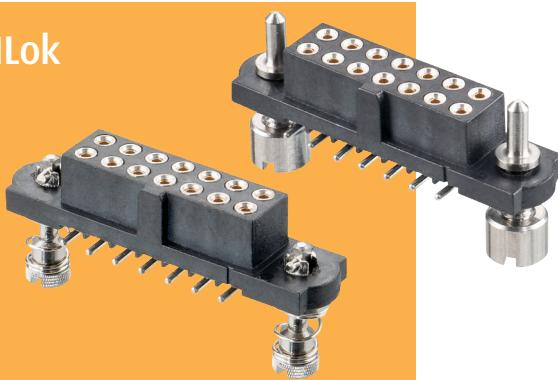
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50

All dimensions in mm.

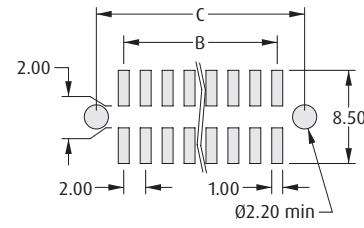
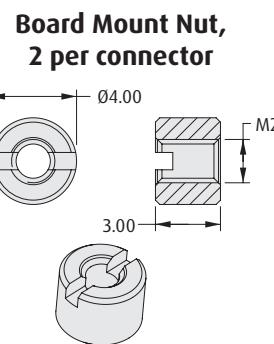
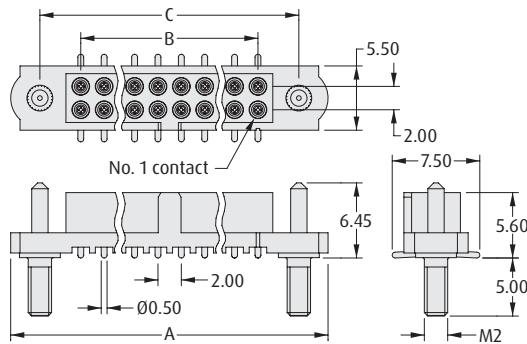
Datamate J-Tek Connectors

Female Vertical Surface Mount Guide Pin, 101Lok

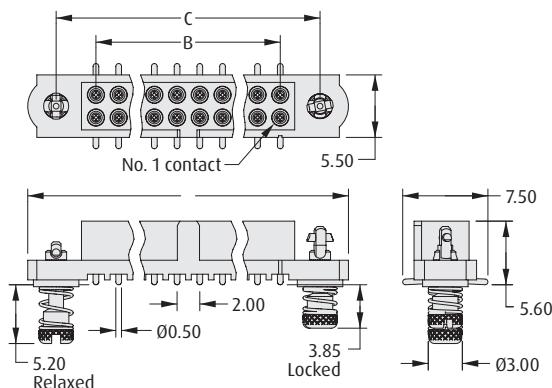
- Guide pin style includes board mount fixing, and mates with Datamate J-Tek male connectors with compatible jackscrews.
- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- 101Lok style mates with Datamate J-Tek male connectors with compatible 101Lok fixings.



GUIDE PIN JACKSCREWS

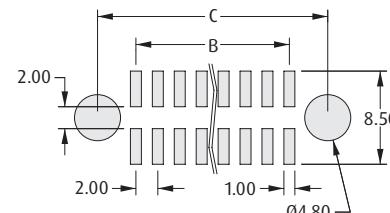


101LOK



CALCULATION

A	$B + 12$
B	Total no. of contacts - 2
C	$B + 7$



HOW TO ORDER

M80 - 4S1 XX XX FX

SERIES CODE

TOTAL NO. OF CONTACTS

04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50

JACKSCREW

F3	Guide Pin
FD	101Lok

FINISH

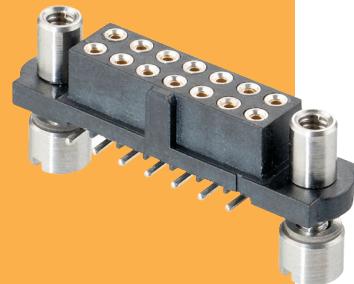
05	Gold
42	Gold + Tin

All dimensions in mm.

Datamate J-Tek Connectors

Female Vertical Surface Mount Reverse Fix

- Fully shrouded contacts.
- Polarized housings.
- Includes Board Mount fixing.
- Mates with male Datamate J-Tek connectors with compatible Reverse Fix jackscrews.



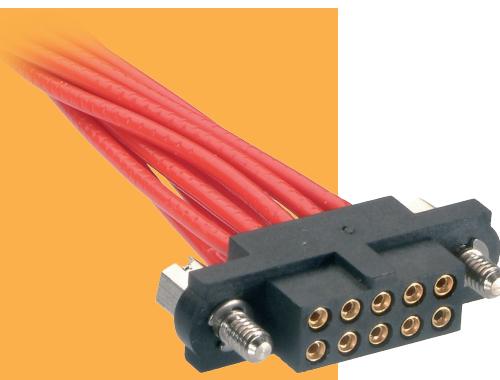
REVERSE FIX		CALCULATION	
		A	B + 12
		B	Total no. of contacts - 2
		C	B + 7
		Board Mount Nut, 2 per connector 	
HOW TO ORDER			
SERIES CODE	M80 - 4S1 XX XX FX	TYPE F8 3.5mm Board Mount Jackscrew F9 5mm Board Mount Jackscrew	FINISH 05 Gold 42 Gold + Tin
TOTAL NO. OF CONTACTS	04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50		

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Jackscrews are assembled where specified.
- Crimp contacts are rear insertable.
- Version also available for 28 - 32 AWG cable - see the following page.
- Spare contacts are available.



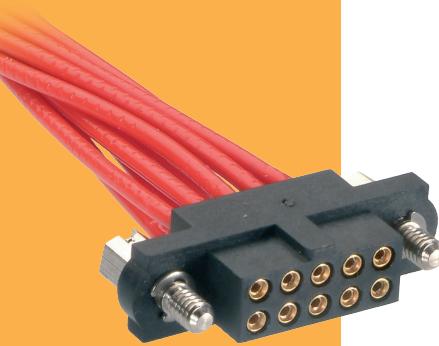
WITHOUT JACKSCREWS		WITH JACKSCREWS			
CALCULATION					
A B + 12		Hex Slotted Jackscrew			
B Total no. of contacts - 2		Hex Socket Jackscrew			
C B + 7					
TOOLS		WIRE STRIPPING DETAILS			
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 ▷ Spare and pre-cabled contacts shown on following pages. ▷ Instruction sheets available at www.harwin.com/instructions .					
HOW TO ORDER					
SERIES CODE	M80	- 4XX XX XX	FINISH		
LARGE BORE (22 AWG)		4XX Without Jackscrews With Hex Slotted Jackscrews With Hex Socket Jackscrews	05 Gold 42 Gold + Tin		
SMALL BORE (24-28 AWG)					
470 460 480					
471 461 481		XX Without Jackscrews With Hex Slotted Jackscrews With Hex Socket Jackscrews	TOTAL NO. OF CONTACTS 04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50		

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit - Extra Small Bore

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Jackscrews are assembled where specified.
- Crimp contacts are rear insertable.
- Versions also available for 22 - 28 AWG cable - see the previous page.
- Spare contacts are available.



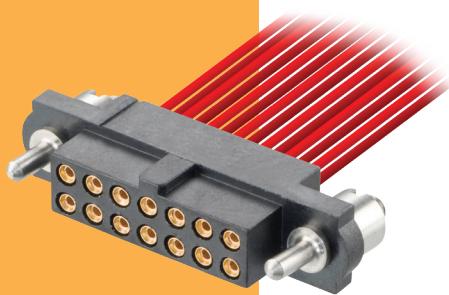
WITHOUT JACKSCREWS		WITH JACKSCREWS	
CALCULATION			
A	$B + 12$	Hex Slotted Jackscrew	
B	Total no. of contacts - 2	Hex Socket Jackscrew	
C	$B + 7$		
TOOLS		WIRE STRIPPING DETAILS	
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 Spare and pre-cabled contacts shown on following pages. Instruction sheets available at www.harwin.com/instructions .			
HOW TO ORDER			
SERIES CODE	M80	-	4
TYPE	E1	XX	XX
TOTAL NO. OF CONTACTS	04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50	XX	FX
		JACKSCREW 00 Without Jackscrews F1 With Hex Slotted Jackscrews F2 With Hex Socket Jackscrews	
		FINISH 05 Gold 42 Gold + Tin	

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit - Guide Pin, 101Lok

- Guide pin style includes board mount fixing.
- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek male connectors with applicable jackscrews or 101Lok fixings.
- Part numbers are for a complete kit of a housing and the applicable number of contacts.



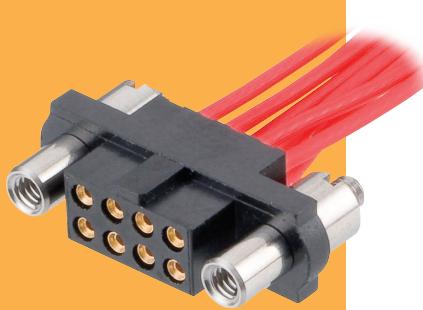
GUIDE PIN JACKSCREWS	101LOK						
<p>No. 1 contact</p>	<p>No. 1 contact</p>						
Board Mount Nut, 2 per connector	CALCULATION <table border="1"> <tr> <td>A</td><td>B + 12</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>B + 7</td></tr> </table>	A	B + 12	B	Total no. of contacts - 2	C	B + 7
A	B + 12						
B	Total no. of contacts - 2						
C	B + 7						
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 <ul style="list-style-type: none"> ▪ Spare and pre-cabled contacts shown on following pages. ▪ Instruction sheets available at www.harwin.com/instructions. 							
HOW TO ORDER							
SERIES CODE M80 - 4 X1 XX XX FX	JACKSCREW <table border="1"> <tr> <td>F3</td><td>Guide Pin</td></tr> <tr> <td>FC</td><td>101Lok</td></tr> </table>	F3	Guide Pin	FC	101Lok		
F3	Guide Pin						
FC	101Lok						
TYPE <table border="1"> <tr> <td>C1</td><td>Small Bore (24-28 AWG)</td></tr> <tr> <td>D1</td><td>Large Bore (22 AWG)</td></tr> <tr> <td>E1</td><td>Extra Small Bore (28-32 AWG)</td></tr> </table>	C1	Small Bore (24-28 AWG)	D1	Large Bore (22 AWG)	E1	Extra Small Bore (28-32 AWG)	TOTAL NO. OF CONTACTS 04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50
C1	Small Bore (24-28 AWG)						
D1	Large Bore (22 AWG)						
E1	Extra Small Bore (28-32 AWG)						
	FINISH <table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>	05	Gold	42	Gold + Tin		
05	Gold						
42	Gold + Tin						

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit - Reverse Fix

- Allows for further flexibility in system design.
- Crimp contacts supplied loose and are inserted from rear.
- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Jackscrews are assembled.
- Mates with male Datamate J-Tek connectors with compatible Reverse Fix jackscrews.



WITH JACKSCREWS	CALCULATION	WIRE STRIPPING DETAILS						
	<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>	A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$	
A	$B + 12$							
B	Total no. of contacts - 2							
C	$B + 7$							
TOOLS								
		<p>Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280</p> <ul style="list-style-type: none"> Spare and pre-cabled contacts shown on following pages. Instruction sheets available at www.harwin.com/instructions. 						

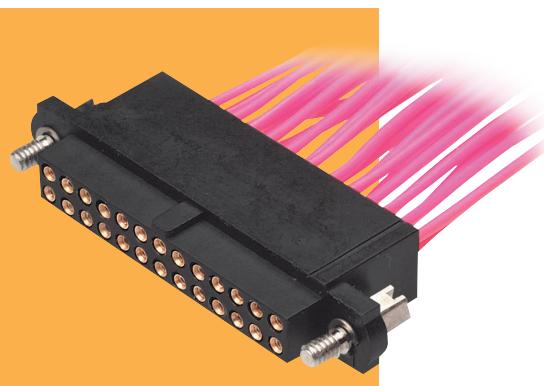
HOW TO ORDER																	
SERIES CODE M80 - 4XX XX XX						SERIES CODE M80 - 4 X1 XX XX FX											
TYPE <table border="1"> <tr> <td>462</td><td>Large Bore (22 AWG)</td></tr> <tr> <td>463</td><td>Small Bore (24-28 AWG)</td></tr> </table>		462	Large Bore (22 AWG)	463	Small Bore (24-28 AWG)					TYPE <table border="1"> <tr> <td>C1</td><td>Small Bore (24-28 AWG)</td></tr> <tr> <td>D1</td><td>Large Bore (22 AWG)</td></tr> <tr> <td>E1</td><td>Extra Small Bore (28-32 AWG)</td></tr> </table>		C1	Small Bore (24-28 AWG)	D1	Large Bore (22 AWG)	E1	Extra Small Bore (28-32 AWG)
462	Large Bore (22 AWG)																
463	Small Bore (24-28 AWG)																
C1	Small Bore (24-28 AWG)																
D1	Large Bore (22 AWG)																
E1	Extra Small Bore (28-32 AWG)																
TOTAL NO. OF CONTACTS <table border="1"> <tr> <td>04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50</td></tr> </table>		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50					TOTAL NO. OF CONTACTS <table border="1"> <tr> <td>04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50</td></tr> </table>		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50								
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50																	
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50																	
FINISH <table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>		05	Gold	42	Gold + Tin					FINISH <table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>		05	Gold	42	Gold + Tin		
05	Gold																
42	Gold + Tin																
05	Gold																
42	Gold + Tin																
3.5mm Board Mount Jackscrews only																	

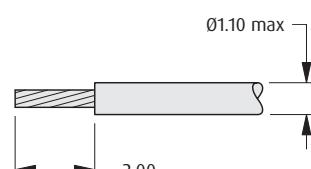
All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit - Extended Wall

- Extended Wall Datamate allows back potting to be performed.
- Polarized housings.
- Crimp contacts are rear insertable.
- Large bore 22 AWG, small bore 24 – 28 AWG.
- Part numbers are for a housing and the equivalent number of contacts.



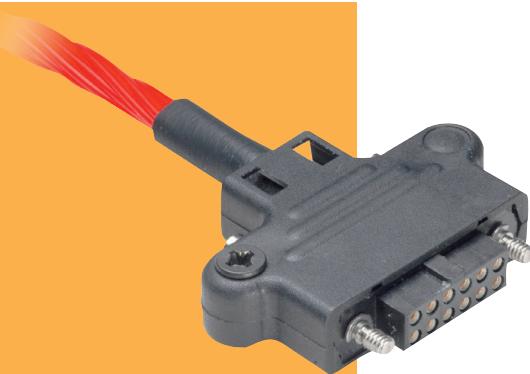
WITHOUT JACKSCREWS		WITH JACKSCREWS	
TOOLS	WIRE STRIPPING DETAILS	HOW TO ORDER	
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280		M80 - XXX XX XX	
SERIES CODE	LARGE BORE (22 AWG) SMALL BORE (24-28 AWG)	WALL SIZE	FINISH
475 476	Without Jackscrews	BLANK Wall = 5mm A Wall = 1mm	05 Gold 42 Gold + Tin
465 466	With Hex Slotted Jackscrews	TOTAL NO. OF CONTACTS 06, 10, 12, 14, 18, 20, 26, 34, 42, 50	
485 486	With Hex Socket Jackscrews	TOTAL NO. OF CONTACTS 06, 10, 12, 14, 18, 20, 26, 34, 42, 50	

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Kit with Hood

- Supplied as a complete kit: jackscrews assembled to housing; hood, contacts and assembly screws supplied loose.
- Provides strain relief by preventing cable bending at the rear of the connector, and also has the option of inserting a cable tie to reduce pull strain.



FEMALE		CALCULATION						
		<table border="1"> <tr> <td>A</td><td>$B + 21.5$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>	A	$B + 21.5$	B	Total no. of contacts - 2	C	$B + 7$
A	$B + 21.5$							
B	Total no. of contacts - 2							
C	$B + 7$							
TOOLS	WIRE STRIPPING DETAILS							
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 ▶ Spare and pre-cabled contacts shown on following pages. ▶ Instruction sheets available at www.harwin.com/instructions .								
HOW TO ORDER								
SERIES CODE	M80 - 94 X XX XX	FINISH						
TYPE		<table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>	05	Gold	42	Gold + Tin		
05	Gold							
42	Gold + Tin							
0 Small Bore (24-28 AWG)		TOTAL NO. OF CONTACTS						
1 Large Bore (22 AWG)		06, 08, 10, 12, 14, 20, 26, 34, 42, 50						

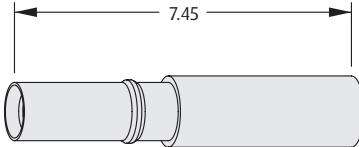
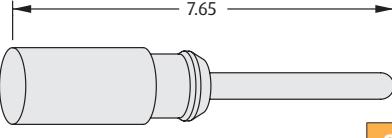
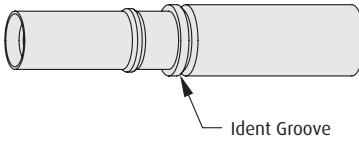
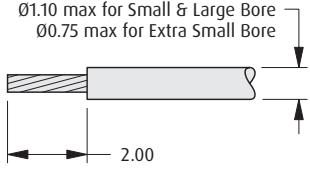
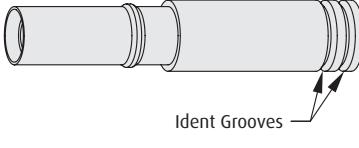
All dimensions in mm.

Datamate J-Tek Connectors

Spare Female Crimp Contacts

- Barrel Crimp Contacts are supplied with the connectors - see previous page. Use the order code for extra spare crimps.



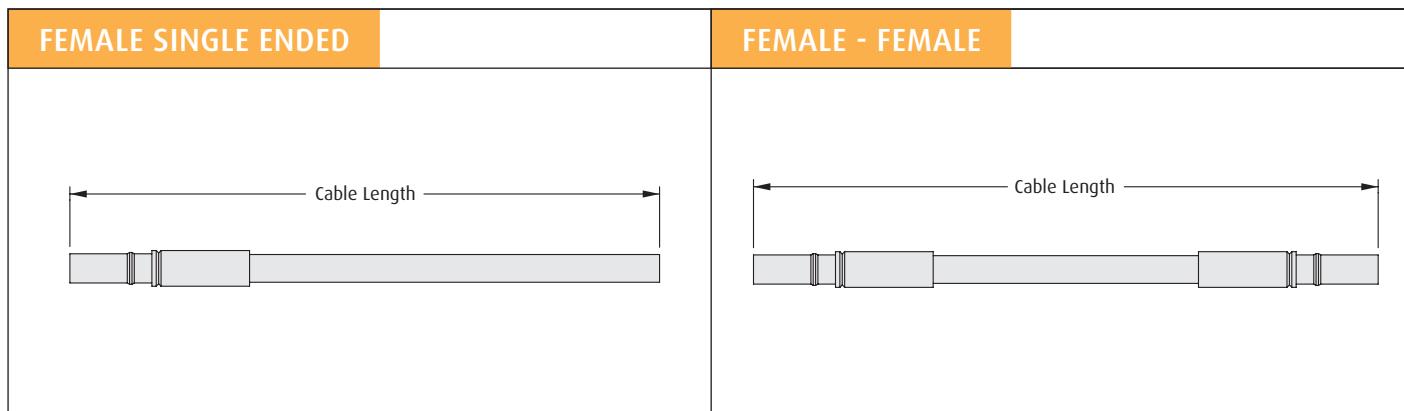
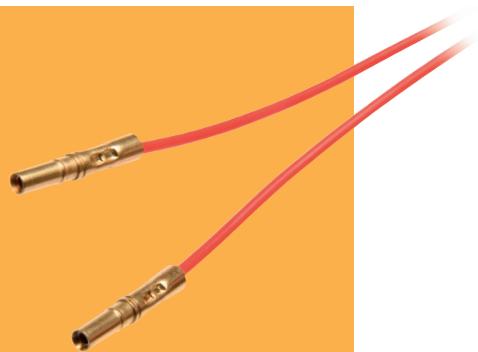
CRIMP CONTACTS	DUMMY CONTACT
Large Bore (22 AWG) 	 ORDER CODE M80-023
Small Bore (24 to 28 AWG) 	WIRE STRIPPING DETAILS 
Extra Small Bore (28 to 32 AWG) 	TOOLS Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 Pre-cabled contacts shown on following page. Instruction sheets available at www.harwin.com/instructions .
HOW TO ORDER	
SERIES CODE	M80 - 0XX 00 XX
TYPE	
011	Large Bore (22 AWG)
013	Small Bore (24-28 AWG)
019	Extra Small Bore (28-32 AWG)
	FINISH
	01 Gold + Tin
	05 Gold

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Contacts - Pre-Crimped Wires

- Female crimp contacts pre-assembled with a choice of BS 3G 210 Type A cable at selected lengths.
- PTFE-insulated, multi-strand silver-plated copper conductor equipment wire.
- Ideal for prototype and pre-production applications.



TOOLS

Contact Insertion/Removal Tool - Z80-280

- Full crimp connector kits and spare crimp contacts shown on previous pages.
- Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

M80 - 9XX 00 99

Series Code

CABLE COLOR

99 Red

SINGLE ENDED	FEMALE-FEMALE	
910	918	22 AWG Cable, 150mm length
911	919	24 AWG Cable, 150mm length
912	920	26 AWG Cable, 150mm length
913	921	28 AWG Cable, 150mm length
914	922	22 AWG Cable, 300mm length
915	923	24 AWG Cable, 300mm length
916	924	26 AWG Cable, 300mm length
917	925	28 AWG Cable, 300mm length

All dimensions in mm.

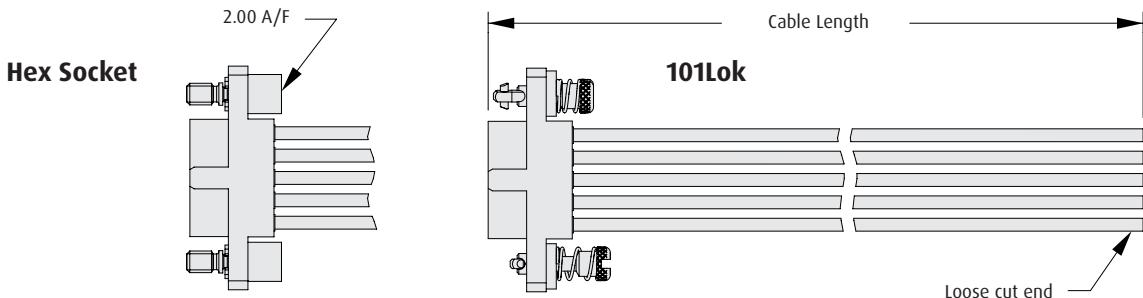
Datamate J-Tek Connectors

Female Cable Assemblies

- Fully assembled connectors, fixings and cable in standard configurations.
- Fitted with 24AWG wire, PTFE insulation.
- Connectors mate with Datamate J-Tek male connectors with applicable threaded jackscrews or 101Lok fixings.

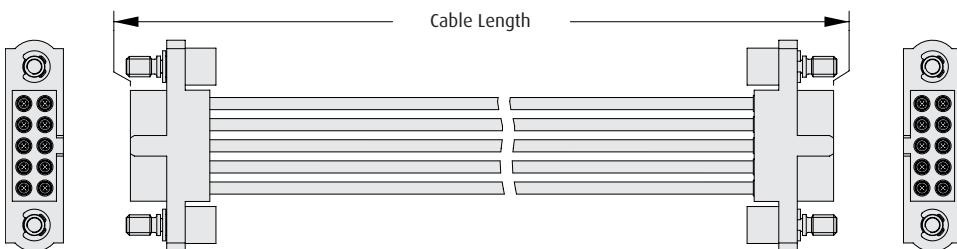


FEMALE SINGLE ENDED



- Cable insulation is multicolored - check applicable Technical Drawing for color sequence.

FEMALE - FEMALE DOUBLE ENDED



- Cable insulation is white.
- Contact 1 is attached to Contact 1, Contact 2 to Contact 2, etc.

HOW TO ORDER

M80 - FC2 XX XX XX - 0150 XX

SERIES CODE

TOTAL NO. OF CONTACTS

06, 10, 20, 26	Double Ended, Hex Socket
06, 10, 20, 26, 50	Single Ended, Hex Socket
04, 08, 12, 20	Single Ended, 101Lok

FIXING, LENGTH, TERMINATION - SECOND END

F2-0150F2	150mm, Double Ended, Hex Socket Jackscrews
F2-0150L	150mm, Single Ended, Hex Socket Jackscrews
FC-0150L	150mm, Single Ended, 101Lok

WIRE COLOR

05	White (Double Ended only)
68	Multicolor (Single Ended only)

All dimensions in mm.

Datamate J-Tek Connectors

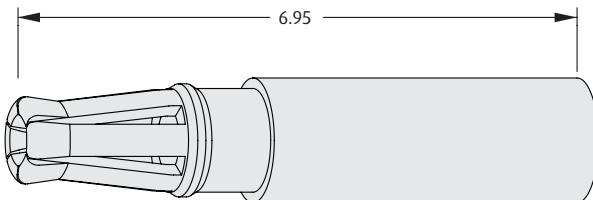
Female Crimp T-Contact

- Advanced single-piece contact design using Beryllium Copper for a 6-finger contact with improved capabilities.
- Current carrying capacity up to 8.5 Amps per contact.
- Improved mating durability to 1,000 operations.
- Suitable for use with 22AWG cable, Ø1.1mm maximum insulation diameter.
- Compatible cable housings showing on the following pages - order contact and housings separately.



CRIMP CONTACTS

Large Bore (22 AWG)



TOOLS	WIRE STRIPPING DETAILS
Recommended Crimp Tool - M22520/2-01 Positioner - Z80-444 Contact insertion/Removal Tool - Z80-280 ▪ Instruction sheets available at www.harwin.com/instructions .	
HOW TO ORDER	
M80 - 206 00 05	
SERIES CODE	FINISH 05 Gold

All dimensions in mm.

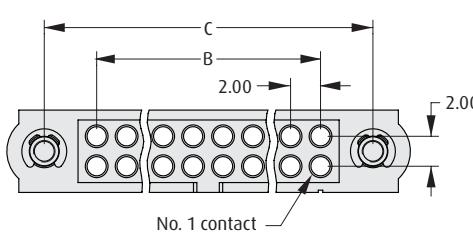
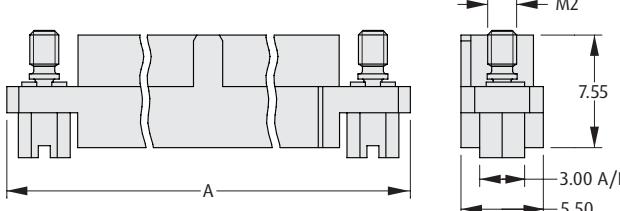
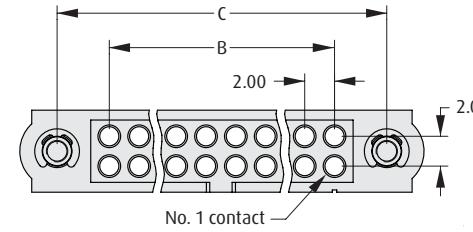
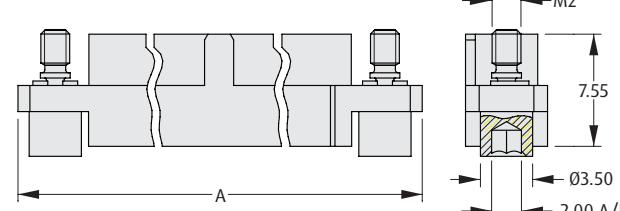
Patent Pending

Datamate J-Tek Connectors

Female Crimp Housing

- Compatible with all female signal barrel crimp contacts, including T-Contact shown on previous page.
- Use insertion tool to insert crimped contacts into rear of connector housing: **order code Z80-280**.
- Connectors mate with Datamate J-Tek male connectors with applicable jackscrews.
- Jackscrews are supplied already assembled to housing.



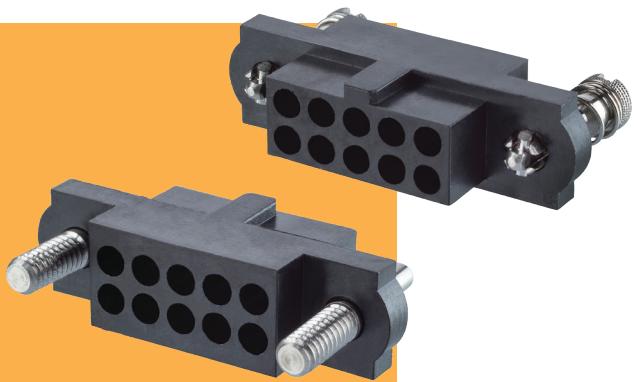
HEX SLOTTED JACKSCREWS	HEX SOCKET JACKSCREWS								
 	 								
<table border="1"><tr><th colspan="2">CALCULATION</th></tr><tr><td>A</td><td>B + 12</td></tr><tr><td>B</td><td>Total no. of contacts - 2</td></tr><tr><td>C</td><td>B + 7</td></tr></table>		CALCULATION		A	B + 12	B	Total no. of contacts - 2	C	B + 7
CALCULATION									
A	B + 12								
B	Total no. of contacts - 2								
C	B + 7								
HOW TO ORDER									
M80 - 41 X XX 98									
SERIES CODE									
JACKSCREW TYPE									
3	Hex Slotted Jackscrews								
4	Hex Socket Jackscrews								
TOTAL NO. OF CONTACTS									
04 to 50									

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Housing - Guide Pin, 101Lok

- Compatible with all female signal barrel crimp contacts, including T-Contact shown on previous page.
- Guide pin style includes board mount fixing.
- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek male connectors with applicable jackscrews or 101Lok fixings.



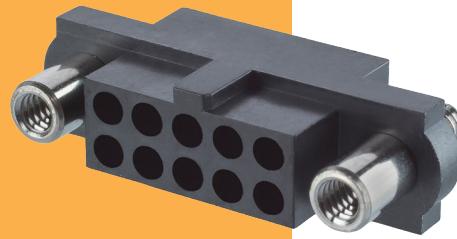
GUIDE PIN JACKSCREWS	101LOK						
CALCULATION							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">A</td><td style="padding: 2px;">B + 12</td></tr> <tr> <td style="padding: 2px;">B</td><td style="padding: 2px;">Total no. of contacts - 2</td></tr> <tr> <td style="padding: 2px;">C</td><td style="padding: 2px;">B + 7</td></tr> </table>		A	B + 12	B	Total no. of contacts - 2	C	B + 7
A	B + 12						
B	Total no. of contacts - 2						
C	B + 7						
HOW TO ORDER							
M80 - 41 X XX 98							
SERIES CODE							
JACKSCREW TYPE							
7 Guide Pin Jackscrews	8 101Lok						
TOTAL NO. OF CONTACTS 04 to 50							
HARDWARE FOR GUIDE PIN STUD							
Slotted Board Mount Nut 	Hexagonal Board Mount Nut 						
ORDER CODE M80-2130000B	ORDER CODE M80-2430000B						

All dimensions in mm.

Datamate J-Tek Connectors

Female Crimp Housing - Reverse Fix

- Compatible with all female signal barrel crimp contacts, including T-Contact shown on previous page.
- Use insertion tool to insert crimped contacts into rear of connector housing: **order code Z80-280**.
- Jackscrews are supplied already assembled to housing.
- Connectors mate with Datamate J-Tek male connectors with compatible Reverse Fix jackscrews.



REVERSE FIX JACKSCREWS		CALCULATION	
		A	$B + 12$
		B	Total no. of contacts - 2
		C	$B + 7$
HOW TO ORDER			
SERIES CODE	M80	- 41	5
JACKSCREW TYPE	5	XX	98
			TOTAL NO. OF CONTACTS
			04 to 50
HARDWARE FOR PANEL MOUNT STUD		Order separately from connector	
Slotted Board Mount Nut		Hexagonal Board Mount Nut	
	ORDER CODE M80-2130000B		ORDER CODE M80-2430000B

All dimensions in mm.

Datamate J-Tek Connectors

Female Metal Backshell

- Supplied as an accessory kit, including metal backshell, e-clips and the applicable jackscrews.
- To be used with the appropriate size of Female Crimp Kit without jackscrews.
- Gives 360 degree shielding when used with conductive braid and mated to a compatible male connector with metal backshell.
- Instruction sheets available at www.harwin.com/instructions.



FEMALE		CALCULATION	
1 x Metal Backshell		A	$B + 16.2$
		B	Equivalent no. of contacts - 2
		C	$B + 7$
		D	$B + 0.8$
E-CLIP TOOL		BAND-IT TIE	
<ul style="list-style-type: none"> For assembling E-Clips supplied with kit. 		<ul style="list-style-type: none"> For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool). 	
ORDER CODE Z80-300		ORDER CODE M80-9470000 Length = 206.8mm M80-9480000 Length = 362.0mm	
HOW TO ORDER			
SERIES CODE M80 - 94		X XX 02	
TYPE 5 With Slotted Jackscrews 6 With Hex Socket Jackscrews		FINISH 02 Nickel	
		EQUIVALENT NO. OF SIGNAL CONTACTS 08, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32	

All dimensions in mm.

Datamate J-Tek Connectors

Male Vertical Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Jackscrews are assembled where specified.
- Choice of throughboard termination length.
- Board Mount provides PCB strain relief.
- Mates with female Datamate J-Tek connectors with compatible jackscrews.



WITHOUT JACKSCREWS		CALCULATION							
		<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$
A	$B + 12$								
B	Total no. of contacts - 2								
C	$B + 7$								
		<p>Recommended PC Board Pattern</p>							
WITH JACKSCREWS		WITH BOARD MOUNT							
HOW TO ORDER									
M80 - 5 X X XX XX									
SERIES CODE		FINISH							
0	With Jackscrews	05	Gold						
1	With Board Mount	42	Gold + Tin						
2	Without Jackscrews								
TOTAL NO. OF CONTACTS		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50							
0 3mm Tails		1 4.5mm Tails							

All dimensions in mm.

Datamate J-Tek Connectors

Male Vertical Throughboard 101Lok

- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek female connectors with applicable 101Lok fixings.
- Board Mount provides PCB strain relief.
- Choice of throughboard termination length.



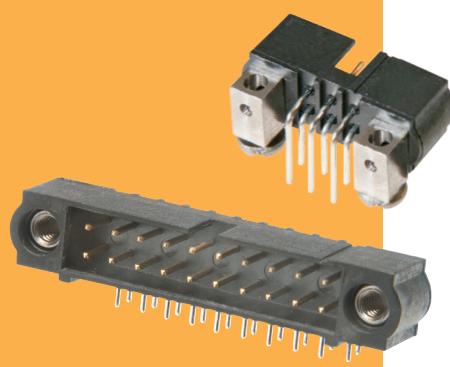
101LOK	101LOK WITH BOARD MOUNT														
<p>No. 1 contact</p> <p>Front view dimensions: A=2.00, B=0.50, C=2.00, Tail height=5.60, Tail width=5.55, Tail thickness=0.50, Tail length=2.00.</p> <p>Cross-sectional view dimensions: A=2.00, B=0.50, C=2.00.</p> <p>Recommended PC Board Pattern:</p> <p>Front view dimensions: A=2.00, B=0.50, C=2.00, Tail height=5.60, Tail width=5.55, Tail thickness=0.50, Tail length=2.00.</p> <p>Cross-sectional view dimensions: A=2.00, B=0.50, C=2.00.</p>	<p>No. 1 contact</p> <p>Front view dimensions: A=2.00, B=0.50, C=2.00, Tail height=5.60, Tail width=5.55, Tail thickness=0.50, Tail length=2.00.</p> <p>Cross-sectional view dimensions: A=2.00, B=0.50, C=2.00.</p> <p>Board Mount Nut, 2 per connector:</p> <p>Front view dimensions: A=2.00, B=0.50, C=2.00, Tail height=5.60, Tail width=5.55, Tail thickness=0.50, Tail length=2.00.</p> <p>Cross-sectional view dimensions: A=2.00, B=0.50, C=2.00.</p> <p>Recommended PC Board Pattern:</p> <p>Front view dimensions: A=2.00, B=0.50, C=2.00, Tail height=5.60, Tail width=5.55, Tail thickness=0.50, Tail length=2.00.</p> <p>Cross-sectional view dimensions: A=2.00, B=0.50, C=2.00.</p>														
CALCULATION															
<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$								
A	$B + 12$														
B	Total no. of contacts - 2														
C	$B + 7$														
HOW TO ORDER															
SERIES CODE TYPE <table border="1"> <tr> <td>T1</td><td>3mm Tails</td></tr> <tr> <td>T2</td><td>4.5mm Tails</td></tr> </table> TOTAL NO. OF CONTACTS 04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50	T1	3mm Tails	T2	4.5mm Tails	M80 - 5 TX XX XX MX <table border="1"> <tr> <td>JACKSCREW</td></tr> <tr> <td>MC</td><td>101Lok</td></tr> <tr> <td>ME</td><td>101Lok with Board Mount</td></tr> </table> <table border="1"> <tr> <td>FINISH</td></tr> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>	JACKSCREW	MC	101Lok	ME	101Lok with Board Mount	FINISH	05	Gold	42	Gold + Tin
T1	3mm Tails														
T2	4.5mm Tails														
JACKSCREW															
MC	101Lok														
ME	101Lok with Board Mount														
FINISH															
05	Gold														
42	Gold + Tin														

All dimensions in mm.

Datamate J-Tek Connectors

Male Horizontal Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Jackscrews are assembled where specified.
- Choice of throughboard termination length.
- Board Mount provides PCB strain relief.
- Mates with female Datamate J-Tek connectors with compatible jackscrews.



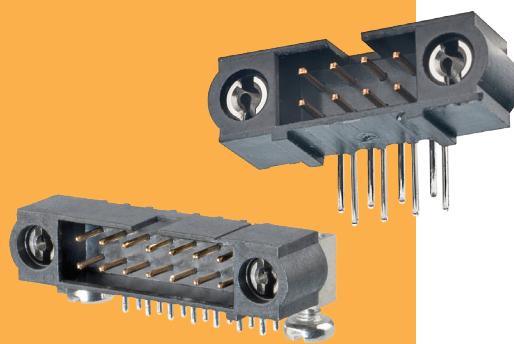
WITHOUT JACKSCREWS		CALCULATION													
		<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$						
A	$B + 12$														
B	Total no. of contacts - 2														
C	$B + 7$														
		<p>Recommended PC Board Pattern</p>													
WITH JACKSCREWS		WITH BOARD MOUNT													
		<p>Board Mount Bolt, 2 per connector</p>													
HOW TO ORDER															
SERIES CODE		M80 - 5 X X XX XX													
<table border="1"> <tr> <td>3</td><td>With Jackscrews</td></tr> <tr> <td>4</td><td>With Board Mount</td></tr> <tr> <td>5</td><td>Without Jackscrews</td></tr> </table>		3	With Jackscrews	4	With Board Mount	5	Without Jackscrews	<table border="1"> <tr> <td>FINISH</td><td></td></tr> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>		FINISH		05	Gold	42	Gold + Tin
3	With Jackscrews														
4	With Board Mount														
5	Without Jackscrews														
FINISH															
05	Gold														
42	Gold + Tin														
<table border="1"> <tr> <td>0</td><td>3mm Tails</td></tr> <tr> <td>1</td><td>4.5mm Tails</td></tr> </table>		0	3mm Tails	1	4.5mm Tails	<table border="1"> <tr> <td>TOTAL NO. OF CONTACTS</td><td></td></tr> <tr> <td>04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50</td><td></td></tr> </table>		TOTAL NO. OF CONTACTS		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50					
0	3mm Tails														
1	4.5mm Tails														
TOTAL NO. OF CONTACTS															
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50															

All dimensions in mm.

Datamate J-Tek Connectors

Male Horizontal Throughboard 101Lok

- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek female connectors with applicable 101Lok fixings.
- Board Mount provides PCB strain relief.
- Choice of throughboard termination length.



101LOK	101LOK WITH BOARD MOUNT						
CALCULATION							
<table border="1"> <tr> <td>A</td> <td>$B + 12$</td> </tr> <tr> <td>B</td> <td>Total no. of contacts - 2</td> </tr> <tr> <td>C</td> <td>$B + 7$</td> </tr> </table>	A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$	<p>Board Mount Bolt, 2 per connector</p>
A	$B + 12$						
B	Total no. of contacts - 2						
C	$B + 7$						
HOW TO ORDER							
SERIES CODE	M80 - 5 LX XX XX MX						
TYPE	<table border="1"> <tr> <td>L1</td> <td>3mm Tails</td> </tr> <tr> <td>L2</td> <td>4.5mm Tails</td> </tr> </table>	L1	3mm Tails	L2	4.5mm Tails		
L1	3mm Tails						
L2	4.5mm Tails						
TOTAL NO. OF CONTACTS	<table border="1"> <tr> <td>04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50</td> </tr> </table>	04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50					
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50							
JACKSCREW							
	<table border="1"> <tr> <td>MC</td> <td>101Lok</td> </tr> <tr> <td>MD</td> <td>101Lok with Board Mount</td> </tr> </table>	MC	101Lok	MD	101Lok with Board Mount		
MC	101Lok						
MD	101Lok with Board Mount						
FINISH							
	<table border="1"> <tr> <td>05</td> <td>Gold</td> </tr> <tr> <td>42</td> <td>Gold + Tin</td> </tr> </table>	05	Gold	42	Gold + Tin		
05	Gold						
42	Gold + Tin						

All dimensions in mm.

Datamate J-Tek Connectors

Male Vertical Surface Mount

- Gull wing SMT tails simplify inspection process.
- Board Mount provides PCB strain relief.
- Optional pick and place cap.
- Mates with female Datamate J-Tek connectors with compatible jackscrews.



WITHOUT JACKSCREWS		CALCULATION													
		<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$						
A	$B + 12$														
B	Total no. of contacts - 2														
C	$B + 7$														
WITH JACKSCREWS		WITH BOARD MOUNT													
HOW TO ORDER															
SERIES CODE M80		PICK AND PLACE CAP <table border="1"> <tr> <td>BLANK</td><td>No Cap</td></tr> <tr> <td>P</td><td>Pick & Place Cap</td></tr> </table>		BLANK	No Cap	P	Pick & Place Cap								
BLANK	No Cap														
P	Pick & Place Cap														
TYPE <table border="1"> <tr> <td>02</td><td>With Jackscrews</td></tr> <tr> <td>12</td><td>With 3.5mm Board Mount</td></tr> <tr> <td>13</td><td>With 5mm Board Mount</td></tr> <tr> <td>22</td><td>Without Jackscrews</td></tr> </table>		02	With Jackscrews	12	With 3.5mm Board Mount	13	With 5mm Board Mount	22	Without Jackscrews	FINISH <table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>		05	Gold	42	Gold + Tin
02	With Jackscrews														
12	With 3.5mm Board Mount														
13	With 5mm Board Mount														
22	Without Jackscrews														
05	Gold														
42	Gold + Tin														
TOTAL NO. OF CONTACTS		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50													

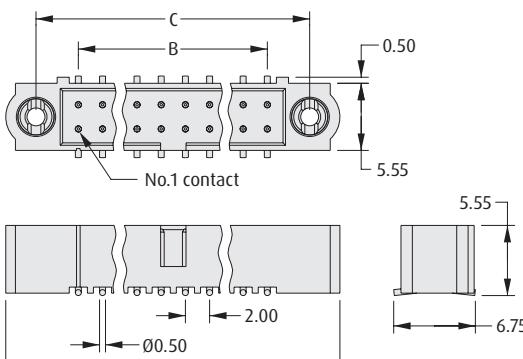
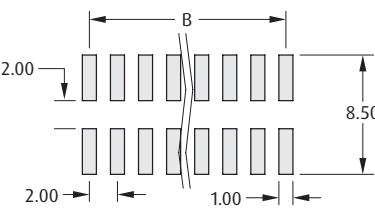
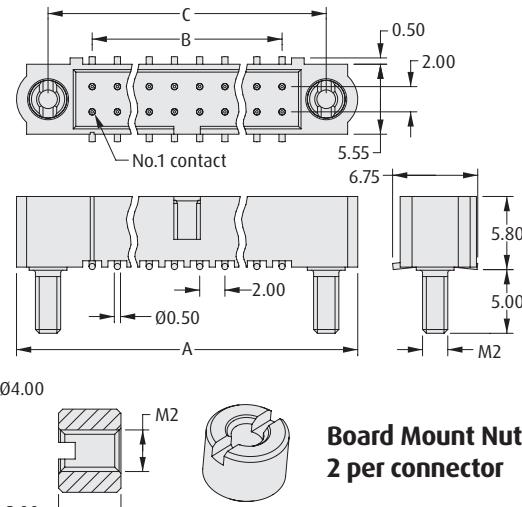
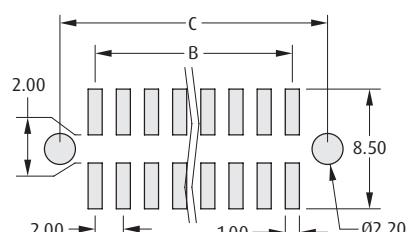
All dimensions in mm.

Datamate J-Tek Connectors

Male Vertical Surface Mount 101Lok

- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek female connectors with applicable 101Lok fixings.
- Board Mount provides PCB strain relief.
- Gull wing SMT tails simplify inspection process.



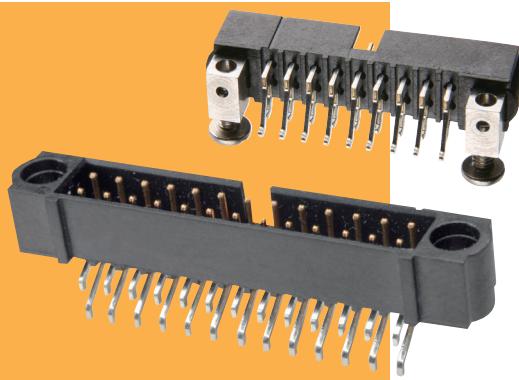
101LOK	101LOK WITH BOARD MOUNT						
  Recommended PC Board Pattern	  Recommended PC Board Pattern						
CALCULATION <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$
A	$B + 12$						
B	Total no. of contacts - 2						
C	$B + 7$						
HOW TO ORDER							
101LOK SERIES CODE TOTAL NO. OF CONTACTS 04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50	M80 - 5S1 XX XX MX JACKSCREW MC 101Lok ME 101Lok with 5mm Board Mount FINISH 05 Gold 42 Gold + Tin						

All dimensions in mm.

Datamate J-Tek Connectors

Male Horizontal Surface Mount

- Stamped contact ensures co-planarity.
- Board Mount provides PCB strain relief.
- Mates with female Datamate J-Tek connectors with compatible jackscrews.



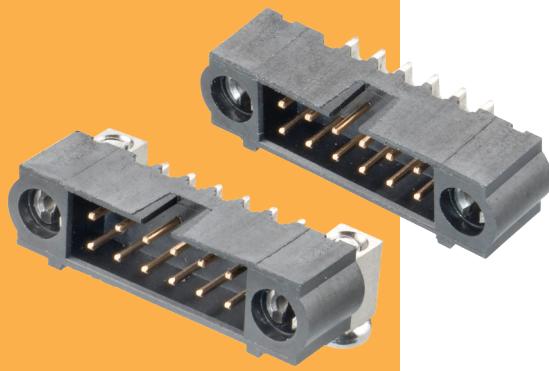
WITHOUT JACKSCREWS		CALCULATION	
		A	$B + 12$
		B	Total no. of contacts - 2
		C	$B + 7$
WITH JACKSCREWS		WITH BOARD MOUNT	
HOW TO ORDER		M80 - 5 XX XX XX	
SERIES CODE			FINISH
TYPE			05 Gold
32	With Jackscrews		42 Gold + Tin
42	With 3.5mm Board Mount		
43	With 5mm Board Mount		
52	Without Jackscrews		
TOTAL NO. OF CONTACTS		04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50	

All dimensions in mm.

Datamate J-Tek Connectors

Male Horizontal Surface Mount 101Lok

- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek female connectors with applicable 101Lok fixings.
- Board Mount provides PCB strain relief.
- Stamped contact ensures co-planarity.



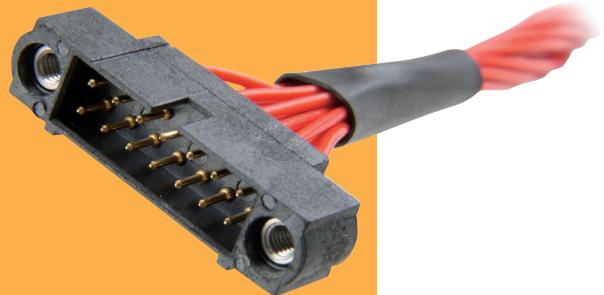
101LOK	101LOK WITH BOARD MOUNT						
 Recommended PC Board Pattern	 Board Mount Bolt, 2 per connector Recommended PC Board Pattern						
CALCULATION							
<table border="1"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$
A	$B + 12$						
B	Total no. of contacts - 2						
C	$B + 7$						
HOW TO ORDER							
SERIES CODE	M80 - 5S2 XX XX MX						
TOTAL NO. OF CONTACTS	JACKSCREW						
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50	<table border="1"> <tr> <td>MC</td><td>101Lok</td></tr> <tr> <td>MD</td><td>101Lok with Board Mount</td></tr> </table>	MC	101Lok	MD	101Lok with Board Mount		
MC	101Lok						
MD	101Lok with Board Mount						
FINISH							
<table border="1"> <tr> <td>05</td><td>Gold</td></tr> <tr> <td>42</td><td>Gold + Tin</td></tr> </table>		05	Gold	42	Gold + Tin		
05	Gold						
42	Gold + Tin						

All dimensions in mm.

Datamate J-Tek Connectors

Male Crimp Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Jackscrews are assembled where specified.
- Crimp contacts supplied loose.
- Crimp contacts are rear insertable and replaceable.
- Spare contacts are available.



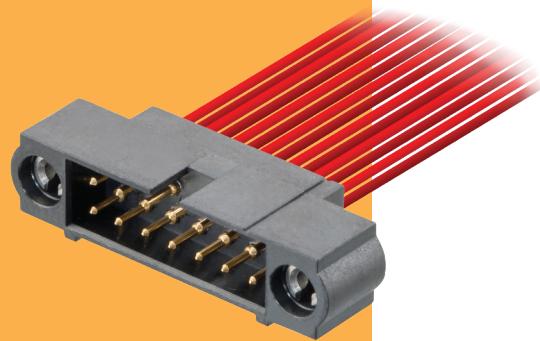
WITHOUT JACKSCREWS	WITH JACKSCREWS						
CALCULATION <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>A</td><td>$B + 12$</td></tr> <tr> <td>B</td><td>Total no. of contacts - 2</td></tr> <tr> <td>C</td><td>$B + 7$</td></tr> </table>		A	$B + 12$	B	Total no. of contacts - 2	C	$B + 7$
A	$B + 12$						
B	Total no. of contacts - 2						
C	$B + 7$						
TOOLS	WIRE STRIPPING DETAILS						
Recommended Crimp Tool - M22520/2-01 Positioner - Z80-193 Contact Insertion/Removal Tool - Z80-280 <ul style="list-style-type: none"> Spare contacts shown on following pages. Instruction sheets available at www.harwin.com/instructions. 							
HOW TO ORDER							
SERIES CODE	M80 - 5XX XX 05	FINISH 05 Gold					
TYPE		TOTAL NO. OF CONTACTS 04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50					
570 Large Bore (22 AWG), without Jackscrews 571 Small Bore (24-28 AWG), without Jackscrews 560 Large Bore (22 AWG), with Jackscrews 561 Small Bore (24-28 AWG), with Jackscrews							

All dimensions in mm.

Datamate J-Tek Connectors

Male Crimp Kit 101Lok

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- 101Lok fixing gives secure, fast and simple mating; no special tooling required. Just a simple 101-degree turn is required to fix the connectors together.
- Connectors mate with Datamate J-Tek female connectors with applicable 101Lok fixings.
- Crimp contacts supplied loose.



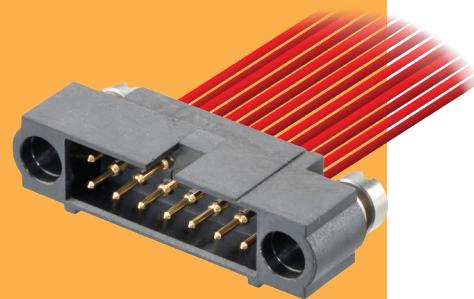
101LOK		CALCULATION	
		A	B + 12
		B	Total no. of contacts - 2
		C	B + 7
TOOLS		WIRE STRIPPING DETAILS	
Recommended Crimp Tool - M22520/2-01 Positioner - Z80-193 Contact Insertion/Removal Tool - Z80-280 ▷ Spare contacts shown on following pages. ▷ Instruction sheets available at www.harwin.com/instructions .			
HOW TO ORDER			
SERIES CODE	M80	-	5 X1 XX 05 MC
TYPE	C1	Small Bore (24-28 AWG)	JACKSCREW
	D1	Large Bore (22 AWG)	MC 101Lok
TOTAL NO. OF CONTACTS	04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50		FINISH
			05 Gold

All dimensions in mm.

Datamate J-Tek Connectors

Male Crimp Kit Reverse Fix

- Allows for further flexibility in system design.
- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Crimp contacts are rear insertable and replaceable.
- Mates with female Datamate J-Tek connectors with compatible Reverse Fix jackscrews.



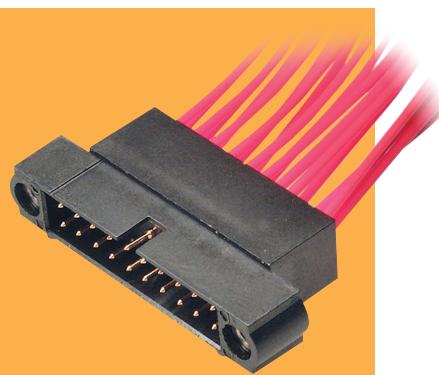
REVERSE FIX		CALCULATION				
		A	$B + 12$			
		B	Total no. of contacts - 2			
		C	$B + 7$			
TOOLS		WIRE STRIPPING DETAILS				
Recommended Crimp Tool - M22520/2-01 Positioner - Z80-193 Contact Insertion/Removal Tool - Z80-280 ▶ Spare contacts shown on following pages. ▶ Instruction sheets available at www.harwin.com/instructions .						
HOW TO ORDER						
SERIES CODE	M80	- 5XX XX 05	FINISH			
TYPE			05 Gold			
562	Large Bore (22 AWG), Slotted Jackscrew					
563	Small Bore (24-28 AWG), Slotted Jackscrew					
582	Large Bore (22 AWG), Hex Socket Jackscrew					
583	Small Bore (24-28 AWG), Hex Socket Jackscrew					
TOTAL NO. OF CONTACTS						
04, 06, 08, 10, 12, 14, 20, 26, 34, 42, 50						

All dimensions in mm.

Datamate J-Tek Connectors

Male Crimp Kit Extended Wall

- Extended Wall Datamate allows back potting to be performed.
- Fully shrouded contacts.
- Large Bore 22 AWG, Small Bore 24 – 28 AWG.
- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Crimp contacts are rear insertable and replaceable.
- Crimp contacts supplied loose.



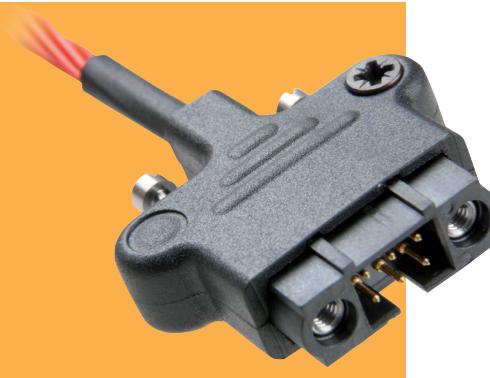
WITHOUT JACKSCREWS	WITH JACKSCREWS															
<p>CALCULATION</p> <p>A = B + 12 B = Total no. of contacts - 2 C = B + 7</p>	<p>CALCULATION</p> <p>A = B + 12 B = Total no. of contacts - 2 C = B + 7</p>															
TOOLS	WIRE STRIPPING DETAILS															
<p>Recommended Crimp Tool – M22520/2-01</p> <p>Positioner – Z80-193</p> <p>Contact Insertion/Removal Tool – Z80-280</p> <p>▪ Spare contacts shown on following pages.</p> <p>▪ Instruction sheets available at www.harwin.com/instructions.</p>	<p>Ø0.110 max</p> <p>2.00</p>															
HOW TO ORDER																
<p>SERIES CODE</p> <p>TYPE</p> <table border="1"> <tr> <td>575</td> <td>Large Bore (22 AWG), without Jackscrews</td> </tr> <tr> <td>576</td> <td>Small Bore (24-28 AWG), without Jackscrews</td> </tr> <tr> <td>565</td> <td>Large Bore (22 AWG), with Jackscrews</td> </tr> <tr> <td>566</td> <td>Small Bore (24-28 AWG), with Jackscrews</td> </tr> </table>	575	Large Bore (22 AWG), without Jackscrews	576	Small Bore (24-28 AWG), without Jackscrews	565	Large Bore (22 AWG), with Jackscrews	566	Small Bore (24-28 AWG), with Jackscrews	<p>M80 - 5XX XX 05 X</p> <p>WALL SIZE</p> <table border="1"> <tr> <td>BLANK</td> <td>Wall = 5mm</td> </tr> <tr> <td>A</td> <td>Wall = 1mm</td> </tr> </table> <p>FINISH</p> <table border="1"> <tr> <td>05</td> <td>Gold</td> </tr> </table> <p>TOTAL NO. OF CONTACTS</p> <table border="1"> <tr> <td>06, 10, 14, 20, 26, 34</td> </tr> </table>	BLANK	Wall = 5mm	A	Wall = 1mm	05	Gold	06, 10, 14, 20, 26, 34
575	Large Bore (22 AWG), without Jackscrews															
576	Small Bore (24-28 AWG), without Jackscrews															
565	Large Bore (22 AWG), with Jackscrews															
566	Small Bore (24-28 AWG), with Jackscrews															
BLANK	Wall = 5mm															
A	Wall = 1mm															
05	Gold															
06, 10, 14, 20, 26, 34																

All dimensions in mm.

Datamate J-Tek Connectors

Male Crimp with Hood

- Supplied as a complete kit: jackscrews assembled to housing; hood, contacts and assembly screws supplied loose.
- Provides strain relief by preventing cable bending at the rear of the connector, and also the option of inserting a cable tie to reduce pull strain.



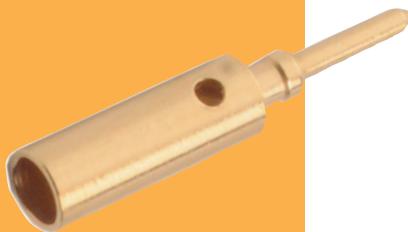
MALE	CALCULATION
	A B + 21.5 B Total no. of contacts - 2 C B + 7
TOOLS	WIRE STRIPPING DETAILS
Recommended Crimp Tool - M22520/2-01 Positioner - Z80-193 Contact Insertion/Removal Tool - Z80-280 □ Spare contacts shown on following pages. □ Instruction sheets available at www.harwin.com/instructions .	
HOW TO ORDER	
SERIES CODE TYPE 2 Small Bore (24-28 AWG) 3 Large Bore (22 AWG)	M80 - 94 X XX 05 FINISH 05 Gold TOTAL NO. OF CONTACTS 06, 08, 10, 12, 14, 20, 26, 34, 42, 50

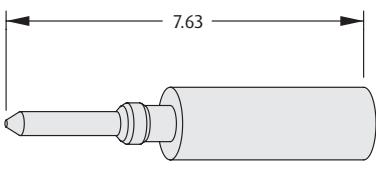
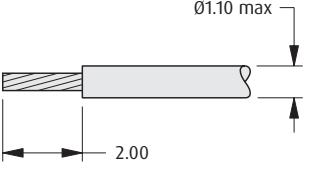
All dimensions in mm.

Datamate J-Tek Connectors

Spare Male Crimp Contacts

- Barrel Crimp Contacts are supplied with the connectors - see previous page. Use the order code for extra spare crimps.



CRIMP CONTACTS	WIRE STRIPPING DETAILS
Large Bore (22 AWG)	 
Small Bore (24 to 28 AWG)	TOOLS <p> Recommended Crimp Tool - M22520/2-01 Positioner - Z80-193 Contact Insertion/Removal Tool - Z80-280 ► Instruction sheets available at www.harwin.com/instructions. </p>
HOW TO ORDER	
M80 - 19 X 00 05	
SERIES CODE	
TYPE	
4	Large Bore (22 AWG)
5	Small Bore (24-28 AWG)
	FINISH
	05 Gold

All dimensions in mm.

Datamate J-Tek Connectors

Male Metal Backshell



MALE

CALCULATION	
A	$B + 13.7$
B	Equivalent no. of contacts - 2
C	$B + 7$
D	$B + 2.8$

HOW TO ORDER

M80 - 906 XX 02

FINISH
02 Nickel

EQUIVALENT NO. OF SIGNAL CONTACTS
08, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32

All dimensions in mm.

Datamate J-Tek 3-Row Specification

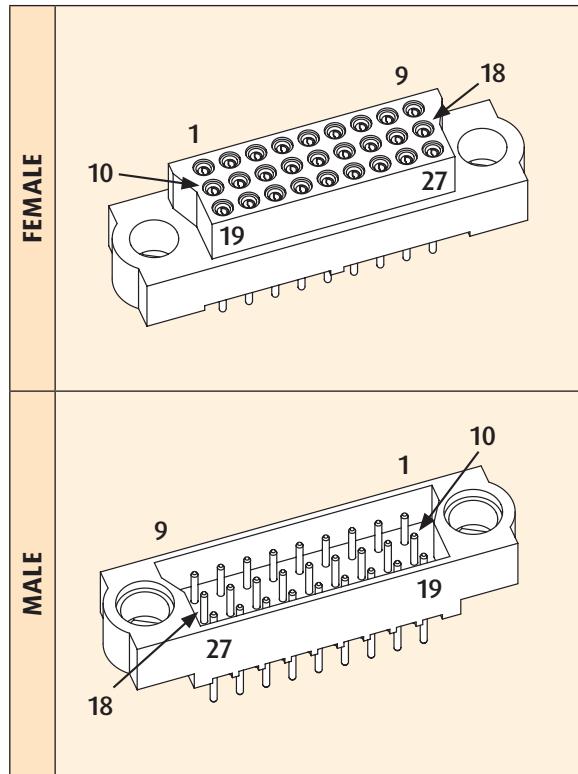
Materials

Housings:	Glass-filled thermoplastic UL94V-0
Female contacts:	Brass shell, with Beryllium Copper inner contact
Male contacts:	Phosphor bronze
Finish:	Gold

Electrical

Current	
Individual contacts in isolation:	3.3A max (at 25°C)
	2.6A max (at 85°C)
All contacts simultaneously:	3.0A max (at 25°C)
	2.2A max (at 85°C)
Working voltage	
At sea level 1013 mbar:	800V DC or AC _{rms}
Voltage proof	
At sea level 1013 mbar:	1200V DC or AC _{rms}
Contact resistance	
Initial:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	1000MΩ min
After conditioning:	100MΩ min

Pin Numbering



Mechanical

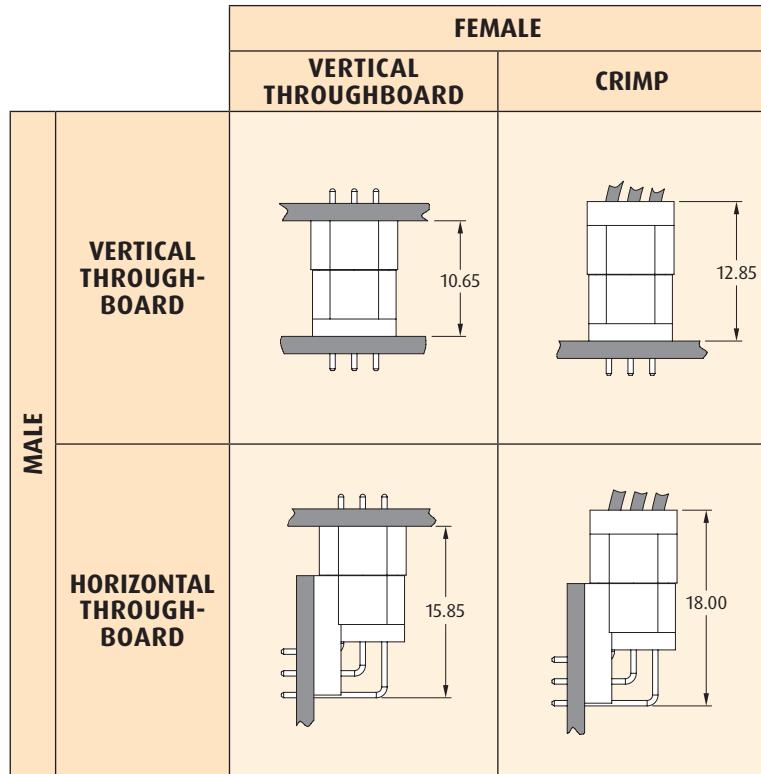
Durability:	500 operations
Insertion force (max):	1.0N
Withdrawal force (min):	0.2N
Signal crimp accommodation:	22 AWG to 28 AWG BS 3G 210 Type A or MIL-DTL-16878/6 Type ET

Environmental

Environmental classification:	55/125/56 days at 95% RH
Operational temperature:	-55°C to +125°C
*Vibration sensitivity:	10Hz to 2000Hz, 0.75mm, 98m/s ² (10G), duration 6h
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms
*Acceleration severity:	490m/s ² (50G)

* Tested with connectors with Jackscrews.

Mating Profiles

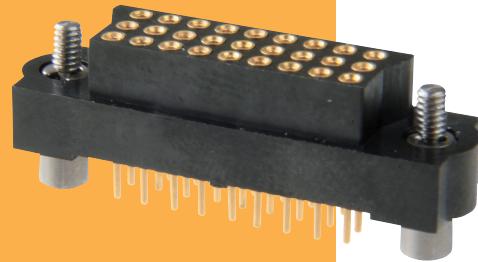


All dimensions in mm.

Datamate J-Tek 3-Row Connectors

Female Vertical Throughboard

- Low-force 4-finger Beryllium Copper contact clip.
- Fully shrouded contacts.
- Polarized housings.
- All contacts are gold finish for full RoHS compliance.
- Mates with all Datamate 3-Row male connectors with compatible jackscrews.



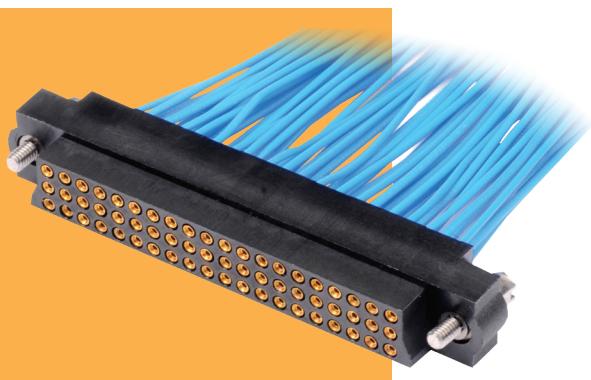
THROUGHBOARD		CALCULATION			
		A	B + 15		
		B	(Total no. of contacts - 3) x 2/3		
		C	B + 9		
HOW TO ORDER					
M83 - LF T1 F2 N XX - 0000 - 000					
SERIES CODE		TOTAL NO. OF CONTACTS			
M83		18, 27, 36, 54, 60, 96			
TYPE		JACKSCREW			
T1 3mm Tail		F2 Hex Socket Jackscrew			

All dimensions in mm.

Datamate J-Tek 3-Row Connectors

Female Crimp Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Jackscrews are assembled where specified.
- Crimp contacts are rear insertable.
- Low-force 4-finger Beryllium Copper contact clip.
- Spare contacts are available.



FEMALE CRIMP		CALCULATION
		A B + 15 B (Total no. of contacts - 3) x 2/3 C B + 9
		A B + 15 B (Total no. of contacts - 3) x 2/3 C B + 9
TOOLS		WIRE STRIPPING DETAILS
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 □ Spare contacts shown on following pages. □ Instruction sheets available at www.harwin.com/instructions .		
HOW TO ORDER		
M83 - LF X1 F2 N XX - 0000 - 000		
SERIES CODE		TOTAL NO. OF CONTACTS
TYPE		18, 27, 36, 54, 60, 96
C1 Small Bore (24-28 AWG)		
D1 Large Bore (22 AWG)		
		JACKSCREW
		F2 Hex Socket Jackscrew

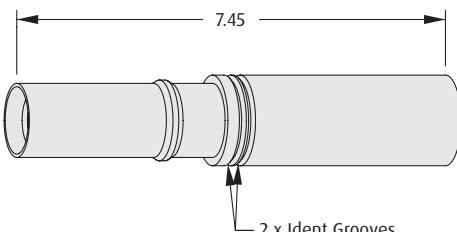
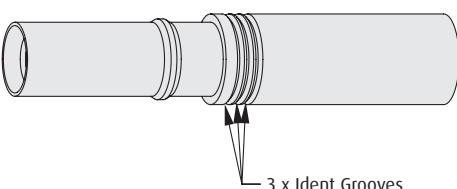
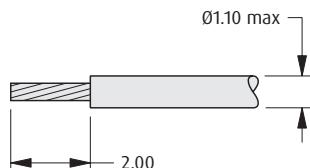
All dimensions in mm.

Datamate J-Tek 3-Row Connectors

Spare Female Crimp Contacts

- Barrel Crimp Contacts are supplied with the connectors - see previous page. Use the order code for extra spare crimps.



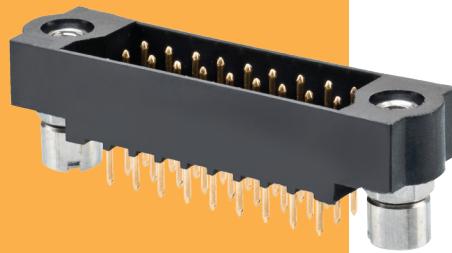
CRIMP CONTACTS	WIRE STRIPPING DETAILS
Large Bore (22 AWG)  Small Bore (24 to 28 AWG) 	
	TOOLS Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 Instruction sheets available at www.harwin.com/instructions .
HOW TO ORDER	
M83 - 01X 00 05	
Series Code	
Type	
011 Large Bore (22 AWG)	
013 Small Bore (24-28 AWG)	
	Finish
	05 Gold

All dimensions in mm.

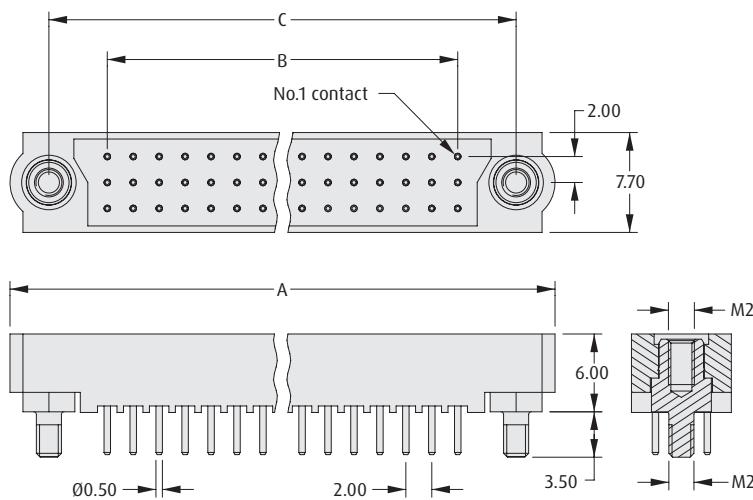
Datamate J-Tek 3-Row Connectors

Male Vertical Throughboard

- Board Mount nuts to be tightened to a maximum torque of 23cmN.
- Fully shrouded contacts.
- Polarized housings.
- All contacts are gold finish for full RoHS compliance.
- Mates with all Datamate 3-Row female connectors with compatible jackscrews.



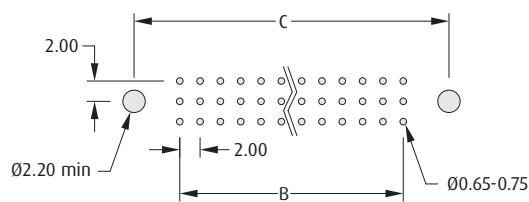
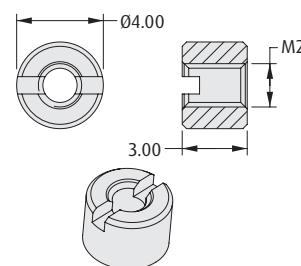
MALE VERTICAL



CALCULATION

A	$B + 15$
B	$(\text{Total no. of contacts} - 3) \times 2/3$
C	$B + 9$

Board Mount Nut, 2 per connector



Recommended PC Board Pattern

HOW TO ORDER

M83 - LM T1 M2 N XX - 0000 - 000

SERIES CODE

TOTAL NO. OF CONTACTS

18, 27, 36, 54, 60, 96

TYPE

T1 3mm Tail

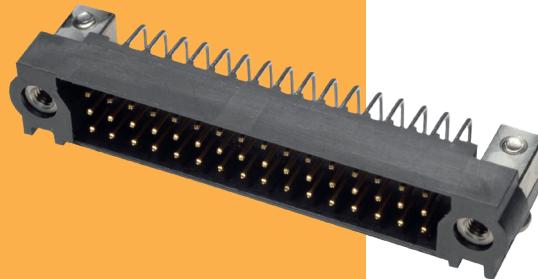
JACKSCREW

M2 Board Mount Jackscrew

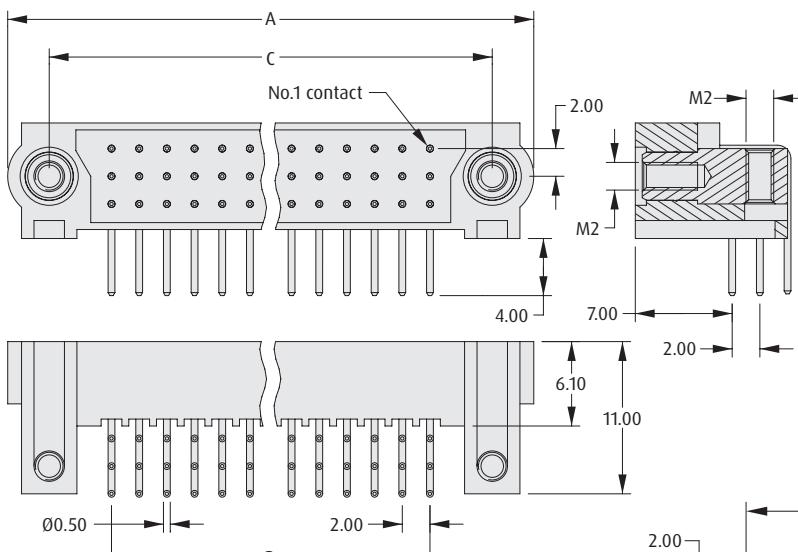
All dimensions in mm.

Datamate J-Tek 3-Row Connectors

Male Horizontal Throughboard

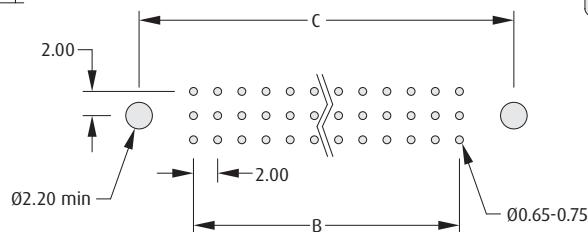
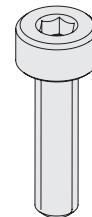
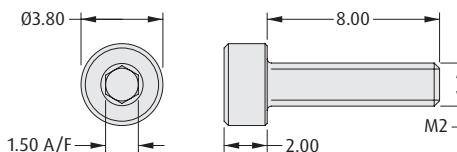


MALE HORIZONTAL



CALCULATION	
A	$B + 15$
B	(Total no. of contacts - 3) $\times \frac{2}{3}$
C	$B + 9$

**Board Mount Bolt,
2 per connector**



Recommended PC Board Pattern

HOW TO ORDER

M83 - LM L3 M7 N XX - 0000 - 000

SERIES CODE

TOTAL NO. OF CONTACTS

TYPE

L3 | 4mm Tail

JACKSCREW

M7 Hex Socket Board Mount

All dimensions in mm.

Datamate L-Tek Specification

Materials

Housings:	Glass-filled thermoplastic UL94V-0
Female contacts:	Brass shell, with Beryllium Copper inner contact
Male contacts:	Copper alloy
Finish:	See individual pages

Electrical

Current	
Individual contacts in isolation:	3.3A max (at 25°C)
	2.6A max (at 85°C)
All contacts simultaneously:	3.0A max (at 25°C)
	2.2A max (at 85°C)
Working voltage	
At sea level 1013 mbar:	800V DC or AC _{rms}
Voltage proof	
At sea level 1013 mbar:	1,200V DC or AC _{rms}
Contact resistance	
Initial:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	1,000MΩ min
After conditioning:	100MΩ min

Mechanical

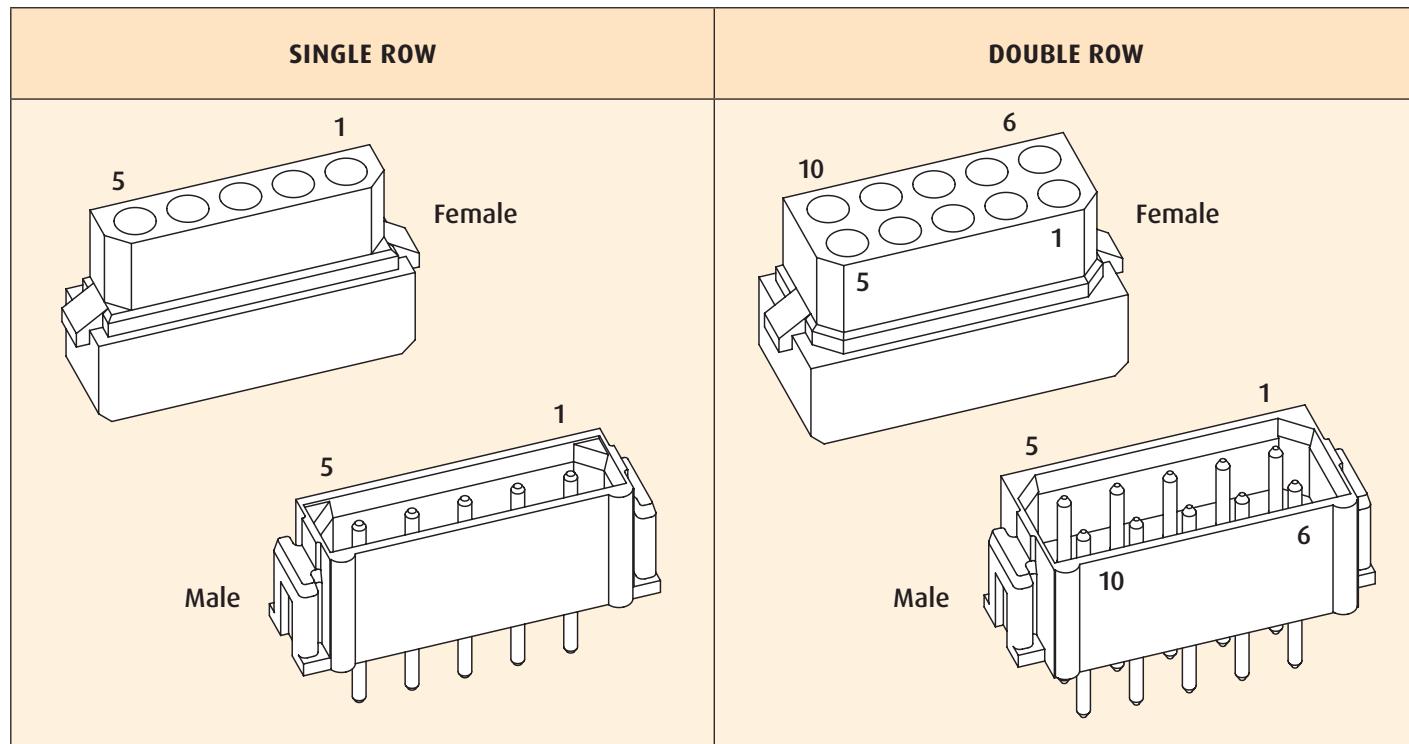
Durability:	500 operations
Insertion force (max):	2.8N
Withdrawal force (min):	0.2N
Signal crimp accommodation:	22 AWG to 32 AWG BS 3G 210 Type A, MIL-W-16878

Environmental

Environmental classification:	55/125/56 days at 95% RH
Operational temperature:	-55°C to +125°C
*Vibration sensitivity:	10Hz to 2000Hz, 0.75mm, 98m/s ² (10G), duration 6h
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms
*Acceleration severity:	490m/s ² (50G)

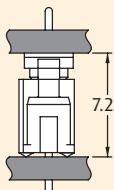
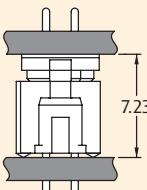
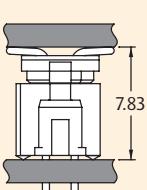
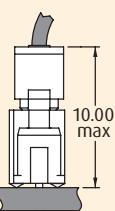
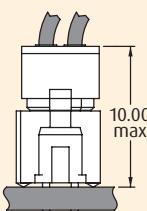
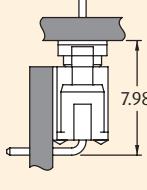
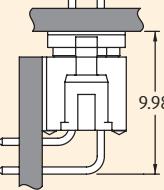
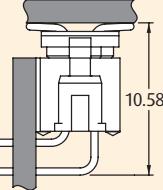
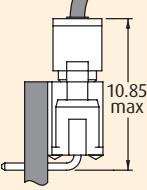
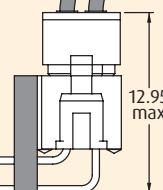
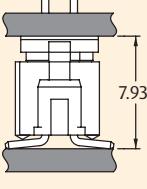
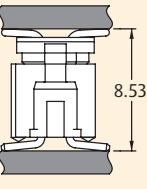
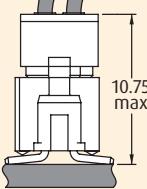
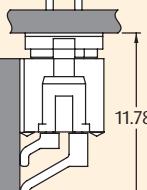
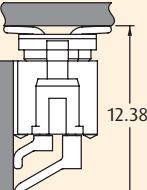
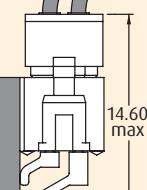
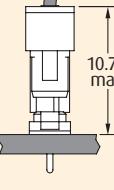
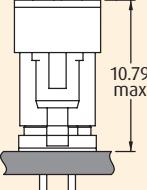
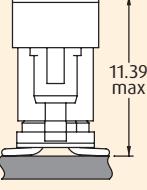
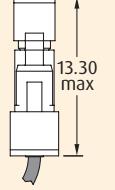
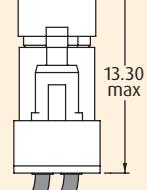
* Tested with latched connectors.

Pin Numbering



All dimensions in mm.

Datamate L-Tek Mating Profiles

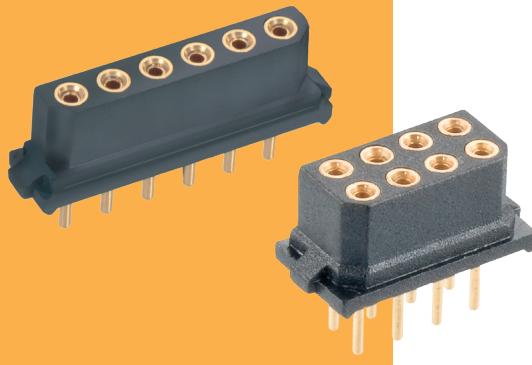
		FEMALE				
		VERTICAL THROUGHBOARD		VERTICAL SMT	CRIMP	
MALE	VERTICAL THROUGHBOARD	SIL	DIL	DIL	SIL	DIL
	VERTICAL THROUGHBOARD	 7.23	 7.23	 7.83	 10.00 max	 10.00 max
	HORIZONTAL THROUGHBOARD	 7.98	 9.98	 10.58	 10.85 max	 12.95 max
	VERTICAL SMT		 7.93	 8.53		 10.75 max
	HORIZONTAL SMT		 11.78	 12.38		 14.60 max
CRIMP		 10.79 max	 10.79 max	 11.39 max	 13.30 max	 13.30 max

All dimensions in mm.

Datamate L-Tek Connectors

Female Vertical Throughboard

- Polarized housings.
- Dummy contacts are available for additional polarization, use **order code M80-023**.



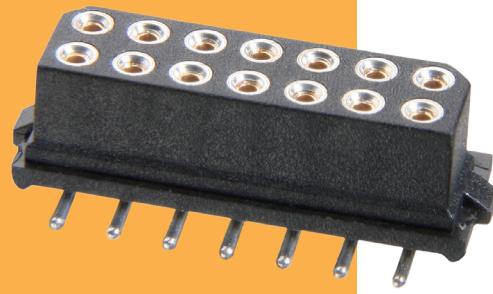
SINGLE ROW		CALCULATION	
		A	$B + 5.15$
		B	(Total no. of contacts - 1) x 2
DOUBLE ROW		CALCULATION	
		A	$B + 5.15$
		B	Total no. of contacts - 2
HOW TO ORDER			
SERIES CODE	M80	- XXX	XX XX
TYPE			
840	Single Row (3mm tail)		
850	Double Row (3mm tail)		
790	Single Row (4.5mm tail)		
770	Double Row (4.5mm tail)		
			FINISH
			42 Gold + Tin
			45 Gold
			TOTAL NO. OF CONTACTS
			02 to 07, 17, 22
			Single Row
			04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34, 44
			Double Row

All dimensions in mm.

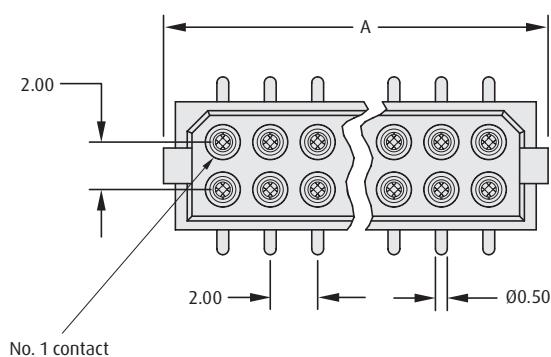
Datamate L-Tek Connectors

Female Vertical Surface Mount

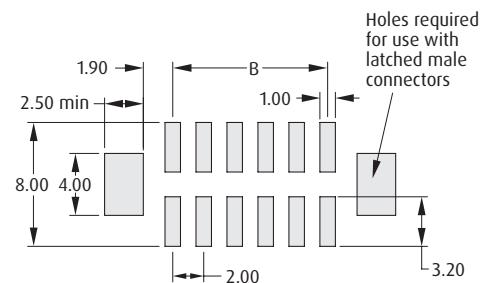
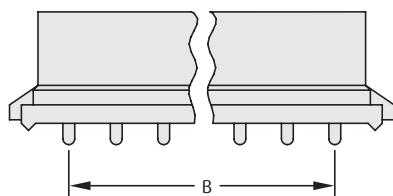
- Optional pick and place cap.
- Gull wing SMT tails simplify inspection process.



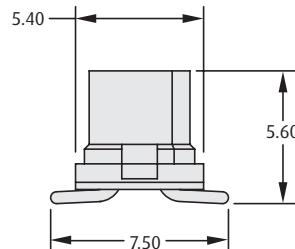
DOUBLE ROW



No. 1 contact



Recommended PC Board Pattern



CALCULATION

A	$B + 5.15$
B	Total no. of contacts - 2

HOW TO ORDER

M80 - 681 XX XX P

SERIES CODE

TOTAL NO. OF CONTACTS

04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34, 44

PICK AND PLACE CAP

BLANK	No cap
P	Pick and place cap

FINISH

42	Gold + Tin
45	Gold

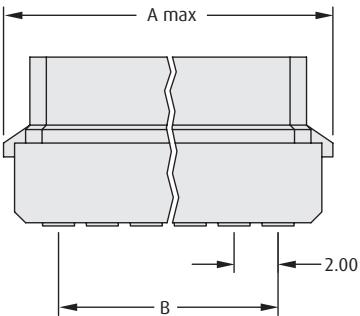
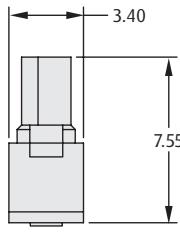
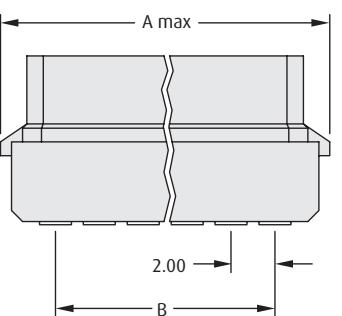
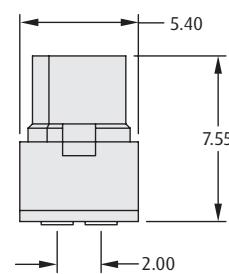
All dimensions in mm.

Datamate L-Tek Connectors

Female Crimp Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Contacts are rear insertable.
- Spare contacts are available - see the following page.



SINGLE ROW	CALCULATION	DOUBLE ROW	CALCULATION		
	A B + 5.15 B (Total no. of contacts - 1) x 2		A B + 5.15 B Total no. of contacts - 2		
 		 			
TOOLS	WIRE STRIPPING DETAILS				
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 <ul style="list-style-type: none"> Spare and pre-cabled contacts shown on following pages. Instruction sheets available at www.harwin.com/instructions. 					
HOW TO ORDER					
SERIES CODE	M80 - XXX XX XX	FINISH 01 Gold + Tin 05 Gold			
TYPE	TOTAL NO. OF CONTACTS 02 to 07, 17 Single Row 04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34 Double Row				
798 Single Row, Extra Small Bore (28-32 AWG) 898 Single Row, Small Bore (24-28 AWG) 899 Single Row, Large Bore (22 AWG) 788 Double Row, Extra Small Bore (28-32 AWG) 888 Double Row, Small Bore (24-28 AWG) 889 Double Row, Large Bore (22 AWG)					

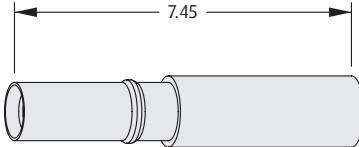
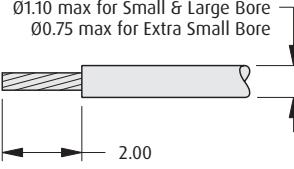
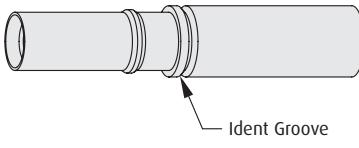
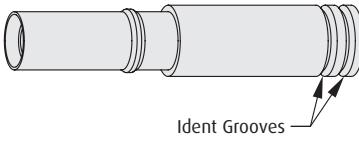
All dimensions in mm.

Datamate L-Tek Connectors

Spare Female Crimp Contacts

- Barrel Crimp Contacts are supplied with the connectors
- see previous page. Use the order code for extra spare crimps.



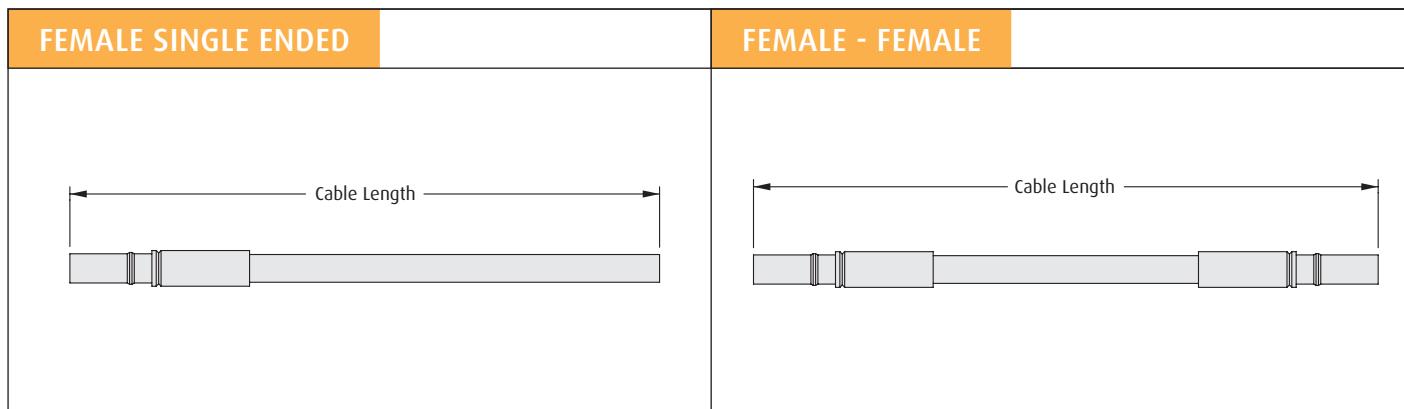
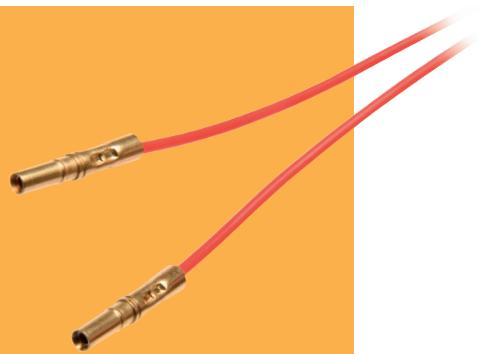
CRIMP CONTACTS	WIRE STRIPPING DETAILS											
Large Bore (22 AWG) 												
Small Bore (24 to 28 AWG) 												
Extra Small Bore (28 to 32 AWG) 												
TOOLS	<p>Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280</p> <ul style="list-style-type: none">▪ Pre-cabled contacts shown on following page.▪ Instruction sheets available at www.harwin.com/instructions.											
HOW TO ORDER	<p>M80 - 0XX 00 XX</p> <p>Legend: Series Code Type Finish </p> <table border="1"><tr><td>SERIES CODE</td><td></td></tr><tr><td>TYPE</td><td>011 Large Bore (22 AWG)</td></tr><tr><td></td><td>013 Small Bore (24-28 AWG)</td></tr><tr><td></td><td>019 Extra Small Bore (28-32 AWG)</td></tr></table> <table border="1"><tr><td>FINISH</td></tr><tr><td>01 Gold + Tin</td></tr><tr><td>05 Gold</td></tr></table>	SERIES CODE		TYPE	011 Large Bore (22 AWG)		013 Small Bore (24-28 AWG)		019 Extra Small Bore (28-32 AWG)	FINISH	01 Gold + Tin	05 Gold
SERIES CODE												
TYPE	011 Large Bore (22 AWG)											
	013 Small Bore (24-28 AWG)											
	019 Extra Small Bore (28-32 AWG)											
FINISH												
01 Gold + Tin												
05 Gold												

All dimensions in mm.

Datamate L-Tek Connectors

Female Crimp Contacts – Pre-Crimped Wires

- Female crimp contacts pre-assembled with a choice of BS 3G 210 Type A cable at selected lengths.
- PTFE-insulated, multi-strand silver-plated copper conductor equipment wire.
- Ideal for prototype and pre-production applications.



TOOLS

Contact Insertion/Removal Tool – Z80-280

- Full crimp connector kits and spare crimp contacts shown on previous pages.
- Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

M80 - 9XX 00 99

Series Code

CABLE COLOR

99 Red

SINGLE ENDED	FEMALE-FEMALE	
910	918	22 AWG Cable, 150mm length
911	919	24 AWG Cable, 150mm length
912	920	26 AWG Cable, 150mm length
913	921	28 AWG Cable, 150mm length
914	922	22 AWG Cable, 300mm length
915	923	24 AWG Cable, 300mm length
916	924	26 AWG Cable, 300mm length
917	925	28 AWG Cable, 300mm length

All dimensions in mm.

Datamate L-Tek Connectors

Female Cable Assemblies

- Fully assembled connectors and cable in standard configurations.
- Fitted with 24AWG wire, PTFE insulation.
- Double Row connectors (10 contacts and larger) compatible with plastic Hood shown on following page.



SINGLE ROW, SINGLE ENDED	DOUBLE ROW, SINGLE ENDED								
FEMALE - FEMALE DOUBLE ENDED									
<ul style="list-style-type: none"> ▪ Cable insulation is multicolored - check applicable Technical Drawing for color sequence. 									
HOW TO ORDER									
<p>M80 - FX2 XX XX LO - 0150 XX</p>									
SERIES CODE <table border="1"> <tr> <td>M80-FD2</td> <td>Single Row</td> </tr> <tr> <td>M80-FC2</td> <td>Double Row</td> </tr> </table>	M80-FD2	Single Row	M80-FC2	Double Row	TERMINATION - SECOND END <table border="1"> <tr> <td>L</td> <td>Loose cut end</td> </tr> <tr> <td>F</td> <td>Female connector (Double row only)</td> </tr> </table>	L	Loose cut end	F	Female connector (Double row only)
M80-FD2	Single Row								
M80-FC2	Double Row								
L	Loose cut end								
F	Female connector (Double row only)								
TOTAL NO. OF CONTACTS <table border="1"> <tr> <td>02, 03, 04, 17</td> <td>Single Row</td> </tr> <tr> <td>06, 10, 26, 34</td> <td>Double Row</td> </tr> </table>	02, 03, 04, 17	Single Row	06, 10, 26, 34	Double Row	CABLE LENGTH <table border="1"> <tr> <td>0150</td> <td>150mm</td> </tr> </table>	0150	150mm		
02, 03, 04, 17	Single Row								
06, 10, 26, 34	Double Row								
0150	150mm								
	WIRE COLOR <table border="1"> <tr> <td>05</td> <td>White (Double Ended only)</td> </tr> <tr> <td>68</td> <td>Multicolor (Single Ended only)</td> </tr> </table>	05	White (Double Ended only)	68	Multicolor (Single Ended only)				
05	White (Double Ended only)								
68	Multicolor (Single Ended only)								

All dimensions in mm.

Datamate L-Tek Connectors

Female Accessories

- Crimp Hood is supplied as a kit of parts, including body, lid, cable clamp and 4 screws.
- For use with double row female crimp connectors.
- Mates with unlatched male connectors.
- Dummy contact can be used for additional polarization or keying of multiple connectors.
- Fits both female Throughboard and Crimp housings.



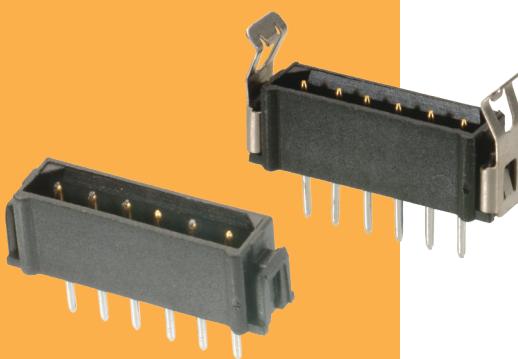
CRIMP HOOD		CALCULATION	
		A	$B + 8.3$
		B	Total no. of contacts - 2
		C	$B + 6.3$
HOW TO ORDER			
M80 - 880 XX 98		TOTAL NO. OF CONTACTS 10, 12, 14, 16, 18, 20, 26, 34	
SERIES CODE			
DUMMY CONTACT		ORDER CODE M80-023	

All dimensions in mm.

Datamate L-Tek Connectors

Male Single Row Vertical Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Mates with standard Datamate L-Tek female connectors.
- Can be used with optional Strain Relief straps, available to order separately: **order code M80-0030006**.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B (Total no. of contacts - 1) x 2		A B + 6.1 B (Total no. of contacts - 1) x 2

STRAIN RELIEF STRAP	Order separately from connector	Recommended PC Board Pattern
	 View of Strain Relief strap in place	 ORDER CODE M80-0030006

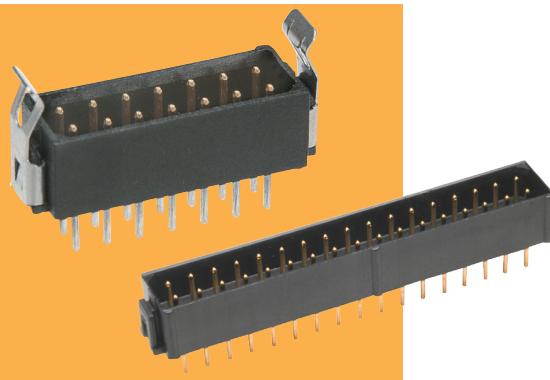
HOW TO ORDER			
SERIES CODE	M80 - XXX XX XX	FINISH	TOTAL NO. OF CONTACTS
TYPE			
852	No Latches, 3mm Tail	42 Gold + Tin	02 to 07, 17, 22
882	Locking Latch, 3mm Tail	45 Gold	
782	Locking Latch, 4.5mm Tail		

All dimensions in mm.

Datamate L-Tek Connectors

Male Double Row Vertical Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Mates with standard Datamate L-Tek female connectors.
- Can be used with optional Strain Relief straps, available to order separately: **order code M80-0030006**.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B Total no. of contacts - 2		A B + 6.1 B Total no. of contacts - 2

STRAIN RELIEF STRAP	Order separately from connector	Recommended PC Board Pattern
	 ORDER CODE M80-0030006	 Recommended PC Board Pattern

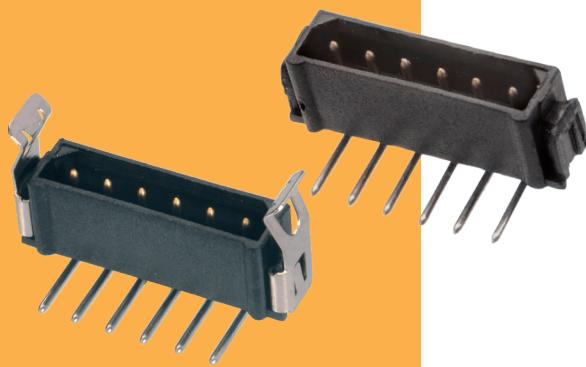
HOW TO ORDER									
SERIES CODE		M80 - XXX XX XX				FINISH			
3mm TAIL	4.5mm TAIL	XXX	XX	XX	42	Gold + Tin			
854	754	No Latches			45	Gold			
853	753	Locking Latch					TOTAL NO. OF CONTACTS		
							04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34, 44		

All dimensions in mm.

Datamate L-Tek Connectors

Male Single Row Horizontal Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Mates with standard Datamate L-Tek female connectors.
- Supplied with two Strain Relief straps per connector; spares available under **order code M80-0030006**.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B (Total no. of contacts - 1) x 2		A B + 6.1 B (Total no. of contacts - 1) x 2

STRAIN RELIEF STRAP	Supplied with connector	Recommended PC Board Pattern
	<p>View of Strain Relief strap in place</p>	

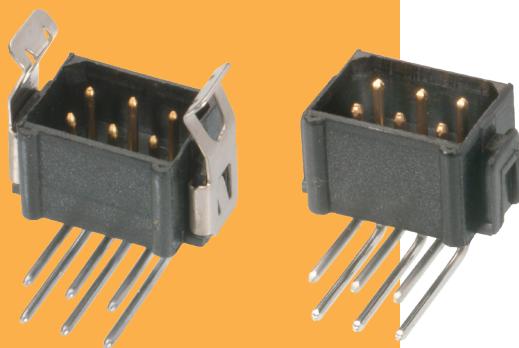
HOW TO ORDER							
SERIES CODE	M80 -	XXX XX XX	FINISH				
TYPE			<table border="1"> <tr> <td>42</td><td>Gold + Tin</td></tr> <tr> <td>45</td><td>Gold</td></tr> </table>	42	Gold + Tin	45	Gold
42	Gold + Tin						
45	Gold						
843	No Latches, 3mm Tail						
842	Locking Latch, 3mm Tail						
792	Locking Latch, 4.5mm Tail						
			TOTAL NO. OF CONTACTS				
			02 to 07, 17, 22				

All dimensions in mm.

Datamate L-Tek Connectors

Male Double Row Horizontal Throughboard

- Polarized housings.
- Fully shrouded contacts.
- Mates with standard Datamate L-Tek female connectors.
- Supplied with two Strain Relief straps per connector; spares available under **order code M80-0030006**.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B Total no. of contacts - 2		A B + 6.1 B Total no. of contacts - 2

STRAIN RELIEF STRAP	Supplied with connector	Recommended PC Board Pattern

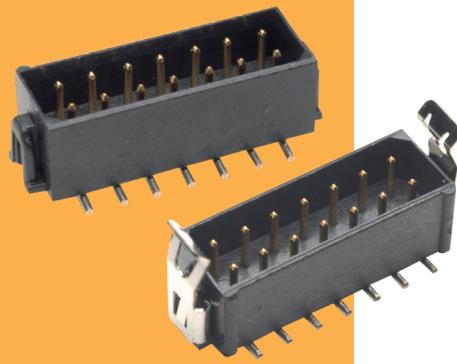
HOW TO ORDER			
SERIES CODE	M80 - XXX XX XX	FINISH	
TYPE		42	Gold + Tin
841	No Latches, 3mm Tail	45	Gold
851	Locking Latch, 3mm Tail		
771	Locking Latch, 4.5mm Tail		
		TOTAL NO. OF CONTACTS	
		04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34, 44	

All dimensions in mm.

Datamate L-Tek Connectors

Male Vertical Surface Mount

- Mates with standard Datamate L-Tek female connectors.
- Can be used with optional Strain Relief straps, available to order separately: **order code M80-0030006**.
- Optional pick and place cap.
- Gull wing SMT tails simplify inspection process.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B Total no. of contacts - 2		A B + 6.1 B Total no. of contacts - 2

STRAIN RELIEF STRAP	Order separately from connector	Recommended PC Board Pattern
 	ORDER CODE M80-0030006	

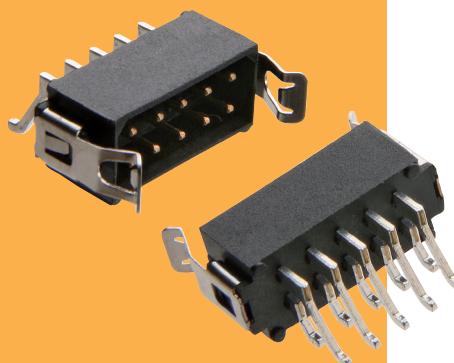
HOW TO ORDER								
SERIES CODE	M80	-	82X	XX	XX	P	PICK AND PLACE CAP	
TYPE	826	No Latches	828	Locking Latch	TOTAL NO. OF CONTACTS		BLANK	No cap
					04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34		P	Pick and place cap
FINISH					42 Gold + Tin			
					45 Gold			

All dimensions in mm.

Datamate L-Tek Connectors

Male Horizontal Surface Mount

- Mates with standard Datamate L-Tek female connectors.
- Supplied with two Strain Relief straps per connector; spares available under **order code M80-0030006**.
- Stamped contact ensures co-planarity.



NO LATCHES	CALCULATION	LOCKING LATCH	CALCULATION
	A B + 5.6 B Total no. of contacts - 2		A B + 6.1 B Total no. of contacts - 2

STRAIN RELIEF STRAP	Supplied with connector	Recommended PC Board Pattern
	 View of Strain Relief strap in place	

HOW TO ORDER			
SERIES CODE	M80	- 66X XX 42	FINISH
TYPE	665	No Latches	42 Gold + Tin
	666	Locking Latch	
TOTAL NO. OF CONTACTS			04, 06, 08, 10, 12, 14, 16, 18, 20, 26, 34

All dimensions in mm.

Datamate L-Tek Connectors

Male Crimp Kit

- Part numbers are for a complete kit of a housing and the applicable number of contacts.
- Contacts are rear insertable.
- Spare contacts are available - see the following page.



SINGLE ROW	CALCULATION		DOUBLE ROW	CALCULATION			
Latches (when fitted) add 0.5mm to overall length 'A'	A	$B + 5.6$	A	$B + 5.6$			
	B	(Total no. of contacts - 1) x 2	Latches (when fitted) add 0.5mm to overall length 'A'	B	Total no. of contacts - 2		
TOOLS	WIRE STRIPPING DETAILS						
Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 <ul style="list-style-type: none"> Spare contacts shown on following page. Instruction sheets available at www.harwin.com/instructions. 							
HOW TO ORDER							
SERIES CODE	M80 - 8XX XX 05			FINISH	05 Gold		
SINGLE ROW	DOUBLE ROW						
806	810	Small Bore (24-28 AWG), No Latches					
807	811	Large Bore (22 AWG), No Latches					
808	812	Small Bore (24-28 AWG), Locking Latch					
809	813	Large Bore (22 AWG), Locking Latch					
TOTAL NO. OF CONTACTS							
02, 03, 04, 05, 06, 07			Single Row				
04, 06, 08, 10, 12			Double Row				

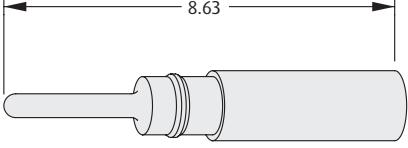
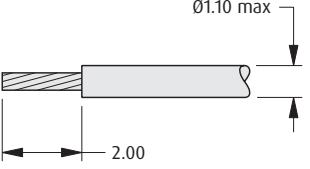
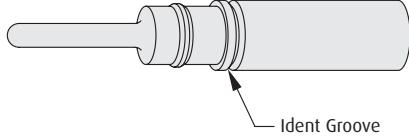
All dimensions in mm.

Datamate L-Tek Connectors

Spare Male Crimp Contacts

- Barrel Crimp Contacts are supplied with the connectors
- see previous page. Use the order code for extra Spare crimps.



CRIMP CONTACTS	WIRE STRIPPING DETAILS
Large Bore (22 AWG) 	
Small Bore (24 to 28 AWG) 	TOOLS <p>Recommended Crimp Tool - M22520/2-01 Positioner - T5747 Contact Insertion/Removal Tool - Z80-280 ▪ Instruction sheets available at www.harwin.com/instructions.</p>
HOW TO ORDER	
M80 - 04X 00 05	
Series Code	
Type	
040	Large Bore (22 AWG)
041	Small Bore (24-28 AWG)
	Finish
	05 Gold

All dimensions in mm.

Datamate Tooling

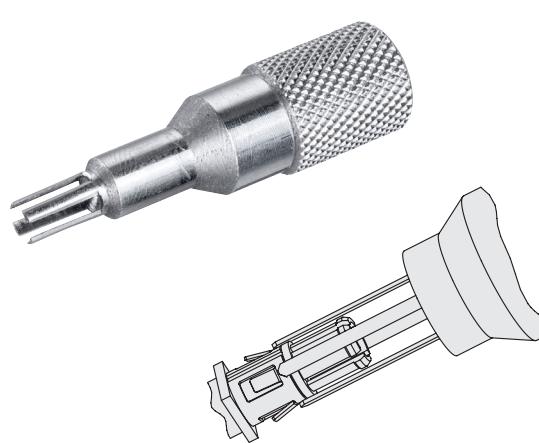
- Instruction sheets can be accessed at www.harwin.com/instructions.
- A Datamate Crimping Instruction video is available at www.harwin.com/harwintv.

HAND CRIMP TOOL	HAND CRIMP TOOL												
<ul style="list-style-type: none"> Standard circular crimp tool BS5210-3A-300 and MIL specification M22520/2-01. Precision tool with ratchet mechanism and 8-indent form. Must be used with applicable positioner shown below. Instruction sheet available. 	<ul style="list-style-type: none"> Standard circular crimp tool. Precision tool with ratchet mechanism and 8-indent form. Must be used with applicable positioner shown below. Instruction sheet available. 												
<table border="1"> <thead> <tr> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Signal contacts, L-Tek, J-Tek & Mix-Tek</td> <td>M22520/2-01</td> </tr> </tbody> </table>	ORDER CODE	Signal contacts, L-Tek, J-Tek & Mix-Tek	M22520/2-01	<table border="1"> <thead> <tr> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Inner contact of Mix-Tek coax contacts</td> <td>Z80-292</td> </tr> </tbody> </table>	ORDER CODE	Inner contact of Mix-Tek coax contacts	Z80-292						
ORDER CODE													
Signal contacts, L-Tek, J-Tek & Mix-Tek	M22520/2-01												
ORDER CODE													
Inner contact of Mix-Tek coax contacts	Z80-292												
HAND CRIMP TOOL	POSITIONER												
<ul style="list-style-type: none"> Standard coax crimp tool for crimping the outer sleeve of Mix-Tek coax contacts. Instruction sheet available. 	<ul style="list-style-type: none"> Used with applicable hand crimp tool.  												
<table border="1"> <thead> <tr> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Outer sleeve of Mix-Tek coax contacts</td> <td>Z80-293</td> </tr> </tbody> </table>	ORDER CODE	Outer sleeve of Mix-Tek coax contacts	Z80-293	<table border="1"> <thead> <tr> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Female Signal Barrel Crimp, Male L-Tek Crimp</td> <td>T5747</td> </tr> <tr> <td>Male J-Tek, Mix-Tek Signal Crimp</td> <td>Z80-193</td> </tr> <tr> <td>Inner contact of Mix-Tek coax contacts</td> <td>Z80-291</td> </tr> <tr> <td>Female T-Contact</td> <td>Z80-444</td> </tr> </tbody> </table>	ORDER CODE	Female Signal Barrel Crimp, Male L-Tek Crimp	T5747	Male J-Tek, Mix-Tek Signal Crimp	Z80-193	Inner contact of Mix-Tek coax contacts	Z80-291	Female T-Contact	Z80-444
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Female T-Contact	Z80-444												

All dimensions in mm.

Datamate Tooling

- Instruction sheets can be accessed at www.harwin.com/instructions.
- A Datamate Crimping Instruction video is available at www.harwin.com/harwintv.

INSERTION/REMOVAL TOOL	REMOVAL TOOL														
<ul style="list-style-type: none">For inserting crimped contacts into the rear of housings.Suitable for all Datamate signal Barrel crimp contacts.  <table border="1"><tr><th>ORDER CODE</th></tr><tr><td>Barrel Signal crimps for L-Tek, J-Tek & Mix-Tek</td></tr><tr><td>Z80-280</td></tr></table>	ORDER CODE	Barrel Signal crimps for L-Tek, J-Tek & Mix-Tek	Z80-280	<ul style="list-style-type: none">To aid removal of special cable contacts from Mix-Tek connectors.  <table border="1"><tr><th>ORDER CODE</th></tr><tr><td>Mix-Tek special cable connectors</td></tr><tr><td>Z80-290</td></tr></table>	ORDER CODE	Mix-Tek special cable connectors	Z80-290								
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Z80-280															
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Mix-Tek special cable connectors															
Z80-290															
SEPARATOR TOOL	DRIVERS														
<ul style="list-style-type: none">Recommended for unplugging L-Tek latched connectors (tool releases the latches prior to disengagement).Can also be used with unlatched connectors.Suitable for all sizes.  <table border="1"><tr><th>ORDER CODE</th></tr><tr><td>L-Tek</td></tr><tr><td>Z80-299</td></tr></table>	ORDER CODE	L-Tek	Z80-299	<ul style="list-style-type: none">Mating jackscrews to be tightened to a torque of 23cmN max.Board mount nuts and bolts to be tightened to a torque of 21 ±2cmN.  <table border="1"><tr><th>ORDER CODE</th></tr><tr><td>Slotted Nut Screwdriver (board mount nuts)</td></tr><tr><td>Z80-298</td></tr><tr><td>1.5mm A/F Hex Drive Bit (board mount bolts)</td></tr><tr><td>Z9950-00</td></tr><tr><td>2mm A/F Hex Drive Bit (floating jackscrews)</td></tr><tr><td>Z9951-00</td></tr><tr><td>1.5mm A/F Ball Hex Driver (board mount bolts)</td></tr><tr><td>Z9952-00</td></tr><tr><td>2mm A/F Ball Hex Driver (floating jackscrews)</td></tr><tr><td>Z9953-00</td></tr></table>	ORDER CODE	Slotted Nut Screwdriver (board mount nuts)	Z80-298	1.5mm A/F Hex Drive Bit (board mount bolts)	Z9950-00	2mm A/F Hex Drive Bit (floating jackscrews)	Z9951-00	1.5mm A/F Ball Hex Driver (board mount bolts)	Z9952-00	2mm A/F Ball Hex Driver (floating jackscrews)	Z9953-00
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