

# M83 Datamate Connectors

# Mixed Technology Series

## PART NUMBERING SYSTEM

**M83-L # #X #X N XX - AA BB - XXX**

### PRODUCT RANGE

### GENDER

<b>F</b>	Female (Socket)
<b>M</b>	Male (Plug)

### TERMINATION STYLE

<b>T1</b>	Vertical PC Tail, 3mm tail
<b>T2</b>	Vertical PC Tail, 4.5mm tail
<b>L3</b>	Horizontal PC Tail, 4mm tail (Male only)
<b>C1</b>	Crimp 24-28 AWG (Small Bore) (Female only)
<b>D1</b>	Crimp 22 AWG (Large Bore) (Female only)

### PART NUMBER OF SPECIAL CONTACT

See page 66, or 000 if none loaded

### NUMBER OF SPECIAL CONTACTS ON OPPOSITE SIDE

### NUMBER OF SPECIAL CONTACTS FROM SIGNAL CONTACT NO. 1 SIDE

### NO. OF SIGNAL CONTACTS

### JACKSCREW VARIANT (see following page)

<b>00</b>	None assembled
<b>Fx</b>	Female jackscrews – see page 64
<b>Mx</b>	Male jackscrews – see page 65

See pages 67 to 76 for configurations currently available.  
Contact [datamate@harwin.com](mailto:datamate@harwin.com) for other variants

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.



# HARWIN

## M83 Datamate Connectors

## JACKSCREWS

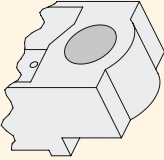
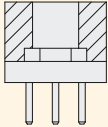
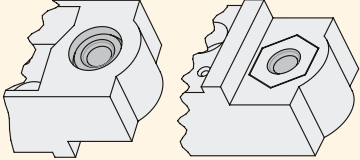
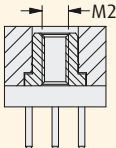
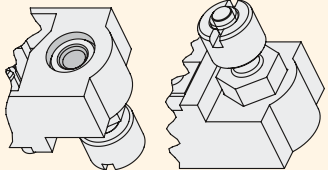
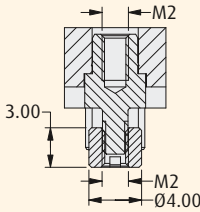
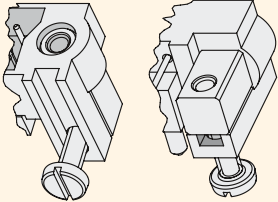
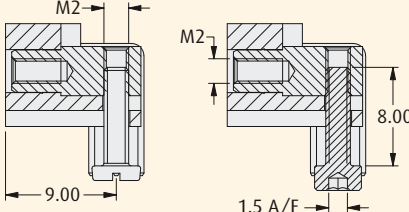
## FEMALE

00			None assembled
F1			Hexagonal Slotted Jackscrew (floating)
F2			Hexagonal Socket Jackscrew (floating)
F4			Guide Pin Jackscrew
F6 or F7			Guide Pin Jackscrew with Panel Mount F6 = slotted nut F7 = hexagonal nut
FB			Hexagonal Socket Jackscrew (floating) with guide pin

All dimensions in mm.

[www.harwin.com](http://www.harwin.com)

## MALE

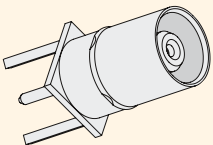
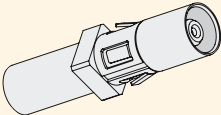
00			None assembled
M1			Jackscrew Nut only
M2 or M3			Jackscrew Nut with Vertical Board Mount stud M2 = 3.5mm stud length M3 = 5mm stud length
M5 or M7			Jackscrew Nut with Horizontal Board Mount stud M5 = slotted head M7 = hexagonal socket

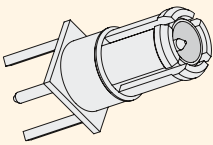
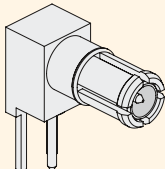


# M83 Datamate Connectors

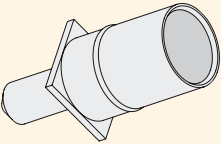
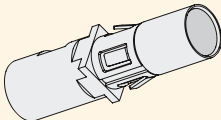
## SPECIAL CONTACTS

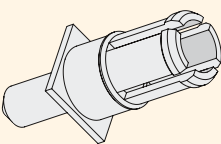
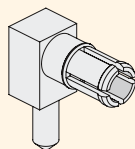
### COAX

FEMALE		
301 or 302		Vertical PC Tail 301 = 3.00mm tail 302 = 4.50mm tail
305 306 307		Straight Crimp 305 = Ø2.00mm cable 306 = Ø2.40mm cable 307 = Ø2.70mm cable

MALE		
311 or 312		Vertical PC Tail 311 = 3.00mm tail 312 = 4.50mm tail
313 or 314		Horizontal PC Tail 313 = 3.00mm tail 314 = 4.50mm tail

### POWER

FEMALE		
321 or 322		Vertical PC Tail 321 = 3.50mm tail 322 = 5.00mm tail
325 326 327		Straight Solder 325 = 12 AWG cable 326 = 14 AWG cable 327 = 16 AWG cable

MALE		
331 or 332		Vertical PC Tail 331 = 3.50mm tail 332 = 5.00mm tail
333 or 334		Horizontal PC Tail 333 = 3.00mm tail 334 = 4.50mm tail

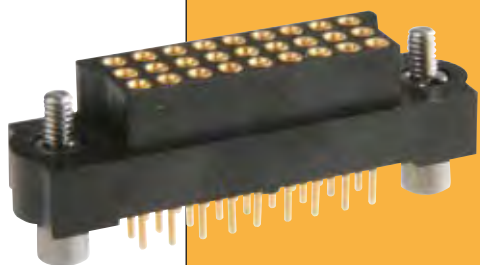
Tail dimensions given are for the special contacts once assembled into the connector.

[www.harwin.com](http://www.harwin.com)



# M83 Datamate Connectors

## Female Vertical PC Tail

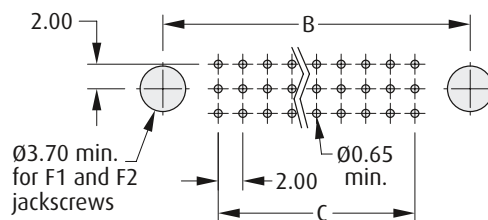
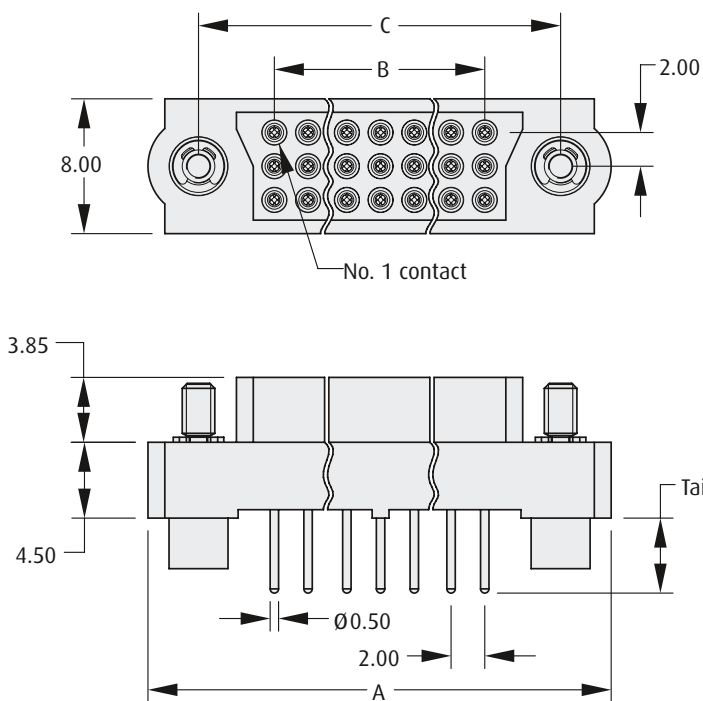


- ❖ Choice of compatible jackscrews.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ See pages 68 and 69 for configurations including special contacts.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.

### FEMALE VERTICAL

### CALCULATION

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



Recommended PC Board Pattern

Diagram shown with Jackscrew F2 assembled.

### HOW TO ORDER

**M83 - LF TX XX N XX - 0000 - 000**

#### SERIES CODE

#### TOTAL NO. OF CONTACTS

27, 36, 48, 51, 60, 78, 96

#### TAIL

<b>T1</b>	3mm Tail
<b>T2</b>	4.5mm Tail

#### JACKSCREW

<b>00</b>	No Jackscrew
<b>Fx</b>	Female Jackscrews - see page 64

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.



**HARWIN**



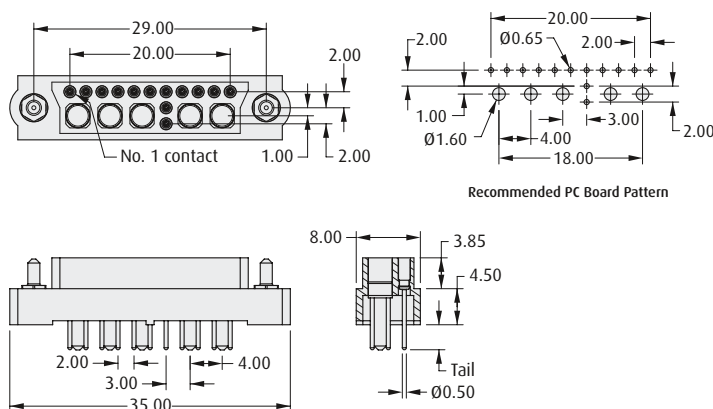
## M83 Datamate Connectors

## Female Vertical PC Tail

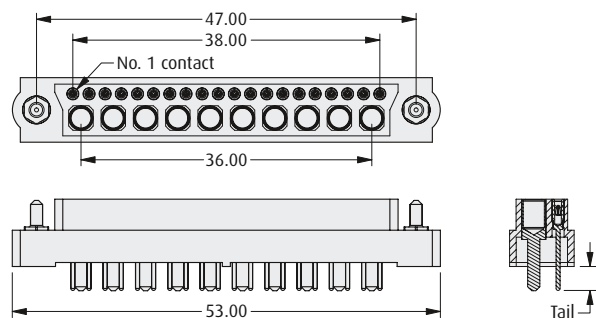


Diagrams shown with special contact 321 and Jackscrew F4 assembled.

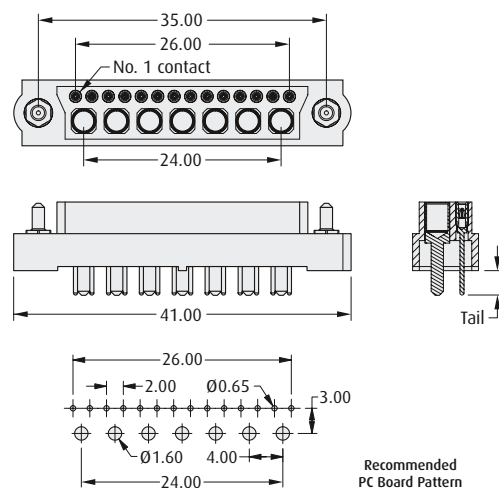
## 13 – 0302 CONFIGURATION



## 20 – 1000 CONFIGURATION



## 14 – 0700 CONFIGURATION



## HOW TO ORDER

**M83 - LF TX XX N XX - XXXX - XXX**

**SERIES CODE**

## SPECIAL CONTACTS

**301, 302, 321, 322**

**TAIL**

<b>T1</b>	3mm Tail
-----------	----------

T2	4.5mm Tail
----	------------

**JACKSCREW**

00	No Jackscrew
----	--------------

<b>Fx</b>	Female Jackscrews – see page 64
-----------	---------------------------------

## SIGNAL/SPECIAL CONFIGURATIONS

13 - 0302

14 - 0700

20 - 1000

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.

**HARWIN**

# M83 Datamate Connectors

## Female Crimp

- ❖ Choice of compatible jackscrews.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ See page 71 for configurations including special contacts.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.
- ❖ Spare contacts are available – see page 16.



### FEMALE CRIMP

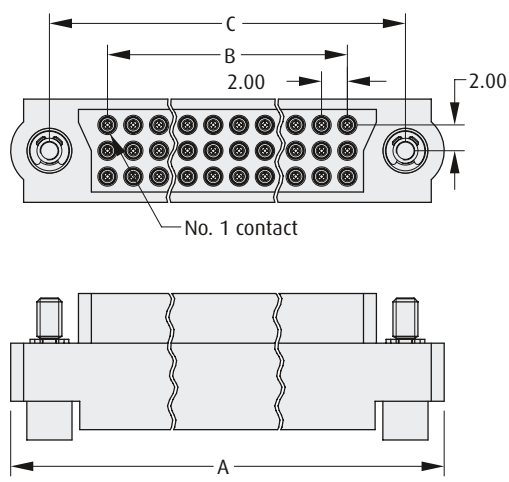


Diagram shown with Jackscrew F2 assembled.

### CALCULATION

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

### TOOLS

**Recommended Crimp Tool** – M22520/2-01

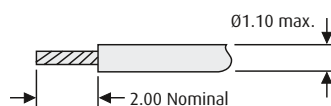
**Positioner** – T5747

**Contact Insertion/Removal Tool** – Z80-280

See pages 77 to 79

❖ Instruction sheets available at [www.harwin.com/downloads/instructions](http://www.harwin.com/downloads/instructions)

### WIRE STRIPPING DETAILS



### HOW TO ORDER

**M83 - LF XX XX N XX - 0000 - 000**

**SERIES CODE**

#### CRIMPS

<b>C1</b>	Small Bore
<b>D1</b>	Large Bore

**TOTAL NO. OF CONTACTS**

**18,27,36,51,54,60,72,96**

#### JACKSCREW

<b>00</b>	No Jackscrew
<b>Fx</b>	Female Jackscrews – see page 64

All dimensions in mm.

[www.harwin.com](http://www.harwin.com)



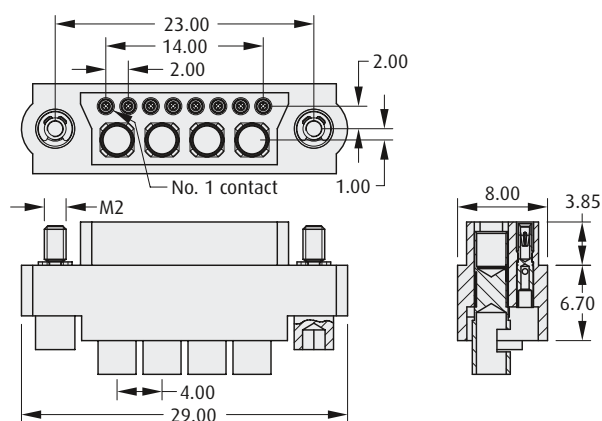
# M83 Datamate Connectors

## Female Crimp

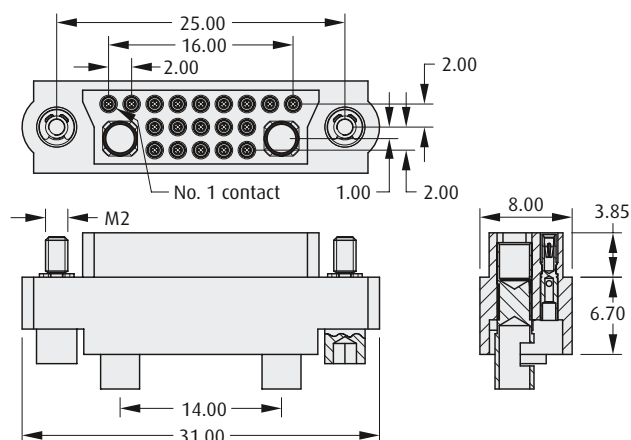


- ❖ Choice of compatible jackscrews and special contacts.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ See page 71 for signal-only configurations.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.
- ❖ Spare contacts are available – see page 16.

### 08 – 0400 CONFIGURATION



### 19 – 0101 CONFIGURATION



Diagrams shown with special contact 327 and Jackscrew F2 assembled.

### TOOLS

**Recommended Crimp Tool** – M22520/2-01

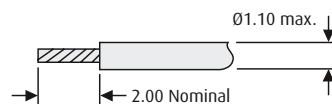
**Positioner** – T5747

**Contact Insertion/Removal Tool** – Z80-280

See pages 77 to 79

❖ Instruction sheets available at [www.harwin.com/downloads/instructions](http://www.harwin.com/downloads/instructions)

### WIRE STRIPPING DETAILS



### HOW TO ORDER

**M83 – LF XX XX N XX – XXXX – XXX**

#### SERIES CODE

#### CRIMPS

<b>C1</b>	Small Bore
<b>D1</b>	Large Bore

#### JACKSCREW

<b>00</b>	No Jackscrew
<b>Fx</b>	Female Jackscrews – see page 64

#### SPECIAL CONTACTS

**305, 306, 307, 325, 326, 327**

#### SIGNAL/SPECIAL CONFIGURATIONS

**08 – 0400**

**19 – 0101**

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.

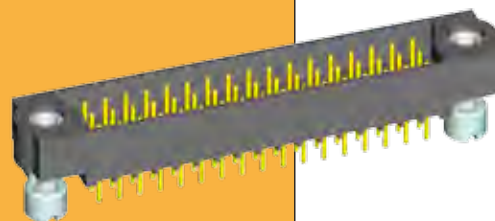


**HARWIN**

# M83 Datamate Connectors

## Male Vertical PC Tail

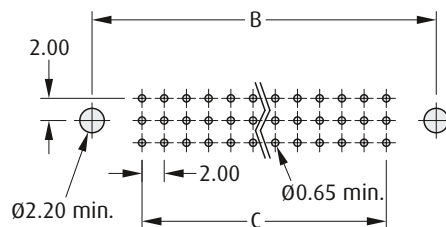
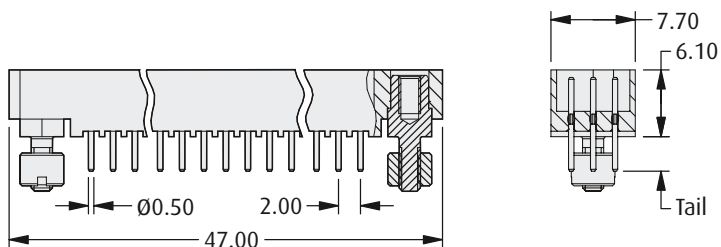
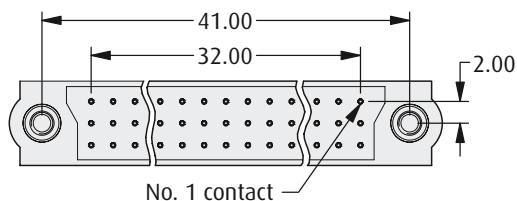
- ❖ Choice of compatible jackscrews.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ See page 73 for configurations including special contacts.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.



### MALE VERTICAL

### CALCULATION

<b>A</b>	$B + 15$
<b>B</b>	$(\text{Total No. Of contacts} - 3) \times 2/3$
<b>C</b>	$B + 9$



Recommended PC Board Pattern

Diagram shown with Jackscrew M2 assembled.

### HOW TO ORDER

**M83 - LM TX XX N XX - 0000 - 000**

#### SERIES CODE

#### TAIL

<b>T1</b>	3mm Tail
<b>T2</b>	4.5mm Tail

#### JACKSCREW

<b>00</b>	No Jackscrew
<b>Mx</b>	Male Jackscrews - see page 65

#### TOTAL NO. OF CONTACTS

18, 60, 72, 96

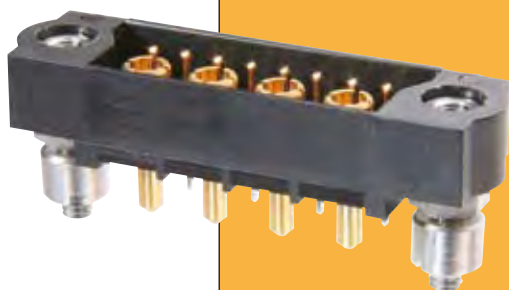
All dimensions in mm.

[www.harwin.com](http://www.harwin.com)



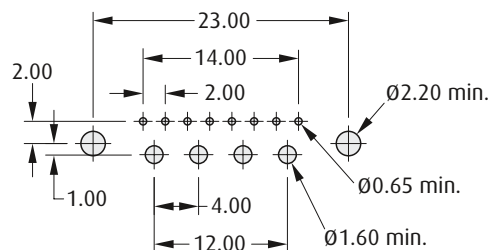
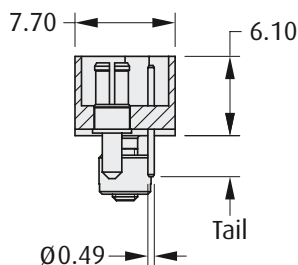
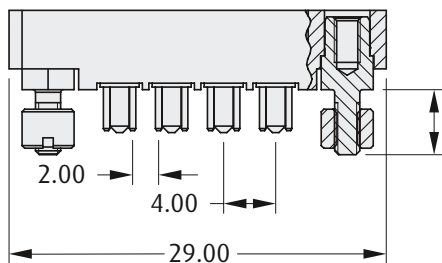
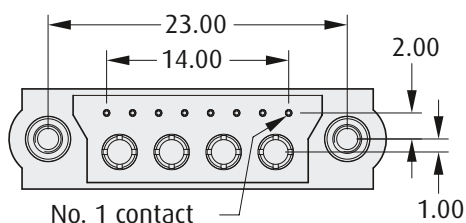
# M83 Datamate Connectors

## Male Vertical PC Tail

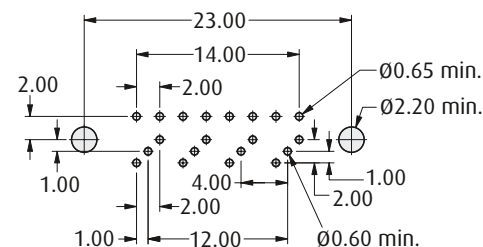


- ❖ Choice of compatible jackscrews and special contacts.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.
- ❖ See page 72 for signal-only configurations.

### MALE VERTICAL



Recommended PC Board Pattern  
with 331 or 332 Power contacts



Recommended PC Board Pattern  
with 311 or 312 Coax contacts

Diagram shown with special contact 331 and Jackscrew M2 assembled.

### HOW TO ORDER

**M83 - LM TX XX N 08 - 0400 - XXX**

#### SERIES CODE

#### TAIL

<b>T1</b>	3mm Tail
<b>T2</b>	4.5mm Tail

#### JACKSCREW

<b>00</b>	No Jackscrew
<b>Mx</b>	Male Jackscrews - see page 65

#### SPECIAL CONTACTS

**311, 312, 331, 332**

#### TOTAL NO. OF CONTACTS

**08**

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.

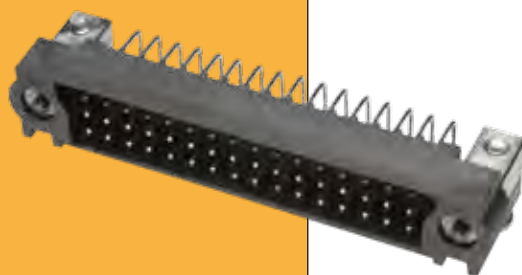


**HARWIN**

# M83 Datamate Connectors

## Male Horizontal PC Tail

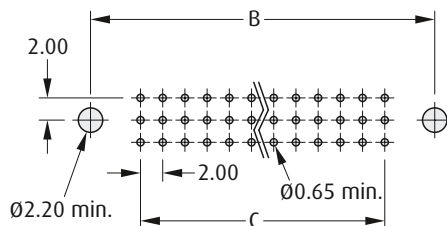
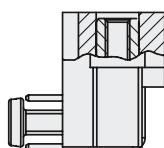
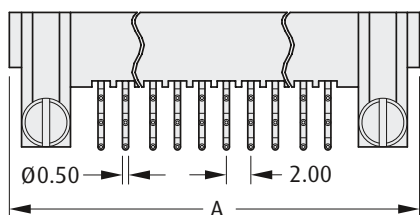
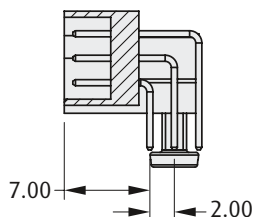
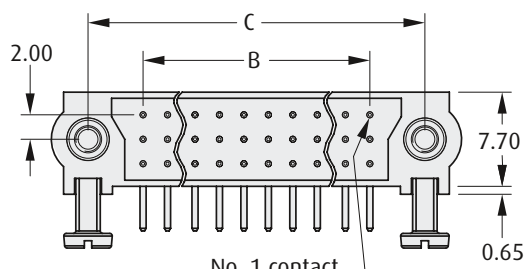
- ❖ Choice of compatible jackscrews.
- ❖ All contacts are gold finish for full RoHS compliance.
- ❖ See pages 75 and 76 for configurations including special contacts.
- ❖ Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.



### MALE HORIZONTAL

### CALCULATION

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



Recommended PC Board Pattern

Diagram shown with Jackscrew M5 assembled.

### HOW TO ORDER

**M83 - LM L3 XX N XX - 0000 - 000**

**SERIES CODE**

**TAIL**

**L3** 4mm Tail

**TOTAL NO. OF CONTACTS**

**18, 27, 36, 48, 54, 60, 96**

**JACKSCREW**

<b>00</b>	No Jackscrew
<b>Mx</b>	Male Jackscrews - see page 65

All dimensions in mm.

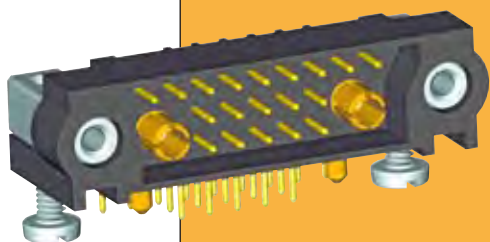
[www.harwin.com](http://www.harwin.com)





# M83 Datamate Connectors

## Male Horizontal PC Tail

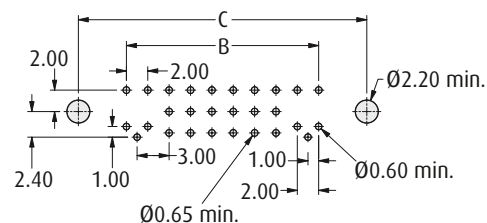
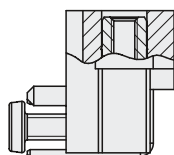
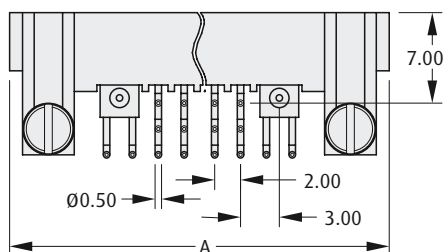
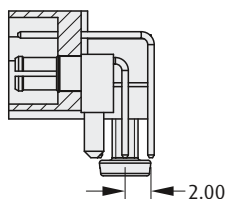
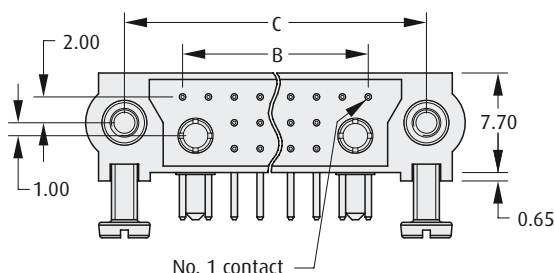


- Choice of compatible jackscrews and special contacts.
- All contacts are gold finish for full RoHS compliance.
- See page 74 for a signal-only configuration, and page 76 for an alternative mixed technology configuration.
- Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.

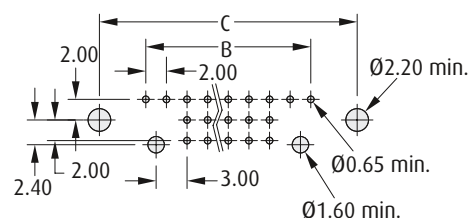
### MALE HORIZONTAL

### CALCULATION

<b>A</b>	B + 15
<b>B</b>	(Total No. of contacts + 5) x 2/3
<b>C</b>	B + 9



Recommended PC Board Pattern with 313 or 314 Coax contacts



Recommended PC Board Pattern with 333 or 334 Power contacts

Diagram shown with special contact 333 and Jackscrew M5 assembled.

### HOW TO ORDER

**M83 - LM L3 XX N XX - 0101 - XXX**

**SERIES CODE**

**TAIL**

**L3** 4mm Tail

**SPECIAL CONTACTS**

**313, 314, 333, 334**

**TOTAL NO. OF CONTACTS**

**19, 25**

**JACKSCREW**

<b>00</b>	No Jackscrew
<b>Mx</b>	Male Jackscrews - see page 65

[www.harwin.com](http://www.harwin.com)

All dimensions in mm.

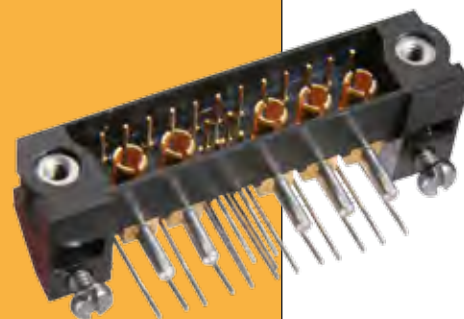


**HARWIN**

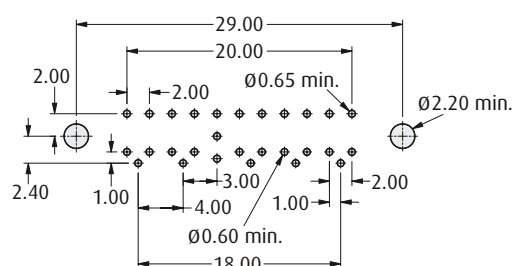
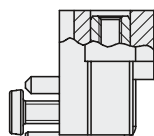
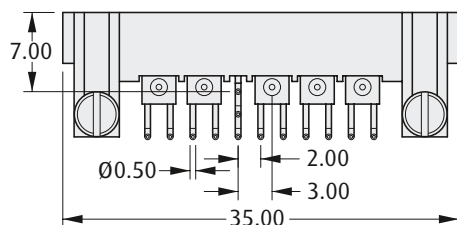
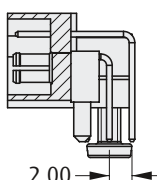
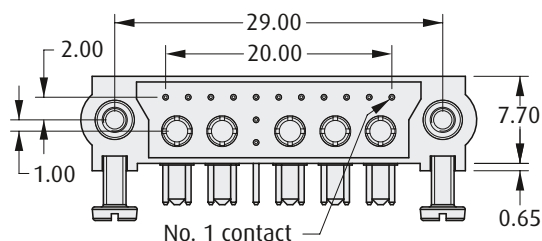
# M83 Datamate Connectors

## Male Horizontal PC Tail

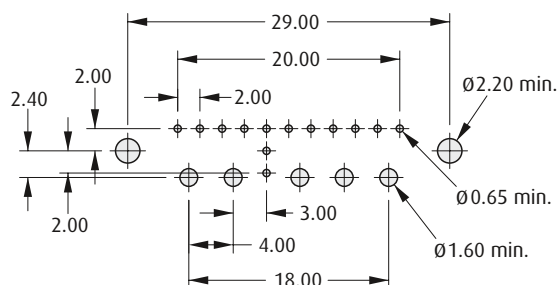
- Choice of compatible jackscrews and special contacts.
- All contacts are gold finish for full RoHS compliance.
- See page 74 for a signal-only configuration, and page 75 for an alternative mixed technology configuration.
- Contact [datamate@harwin.com](mailto:datamate@harwin.com) for alternative contact configurations.



### MALE HORIZONTAL



Recommended PC Board Pattern  
with 313 or 314 Coax contacts



Recommended PC Board Pattern  
with 333 or 334 Power contacts

Diagram shown with special contact 333 and Jackscrew M5 assembled.

### HOW TO ORDER

**M83 - LM L3 XX N 13 - 0302 - XXX**

**SERIES CODE**

**TAIL**

**L3** 4mm Tail

**JACKSCREW**

<b>00</b>	No Jackscrew
<b>Mx</b>	Male Jackscrews - see page 65

**SPECIAL CONTACTS**

**313, 314, 333, 334**

**TOTAL NO. OF CONTACTS**

**13**

All dimensions in mm.

[www.harwin.com](http://www.harwin.com)

