

## Features and Benefits

- Shielded High-Reliability connectors, for I/O and cable-to-board applications.
- Performs to the same high standards as the existing Datamate range, but with the added facility of complete shielding for cable-to-panel and PCB applications where EMI and RFI screening is required.
- Tested in accordance with MIL-STD-1377.
- 30dBs attenuation.
- Nickel-plated aluminium alloy construction, 360° attachment to braid.

## Typical Applications

- Avionic Systems
- Control Systems
- Space Applications
- Communications Systems
- Radar Equipment
- Life Sciences

## Specifications

### Materials

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

### Electrical

RF Attenuation:	10kHz to 400MHz @ >30dBs
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 ACrms
Voltage Proof (at sea level 1013 mbar):	1,200V DC or ACrms
Contact resistance (initial):	20 mΩ max
Contact resistance (after conditioning):	25 mΩ max
Insulation resistance (initial):	1,000 MΩ min
Insulation resistance (after conditioning):	100 MΩ min

### Mechanical

Durability:	500 operations
Insertion force (max):	2.8N
Withdrawal force (min):	0.2N
Signal crimp accommodation:	22 A.W.G. to 28 A.W.G. 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 <sup>2</sup> (10G). duration 6h
*Bump severity:	390m/s <sup>2</sup> (40G), 4000 ±10 bumps
*Shock severity:	981m/s <sup>2</sup> (100G) for 6ms
*Acceleration severity:	490m/s <sup>2</sup> (50G)

\* Tested with connectors with Jackscrews.

All preferred sizes of this range are held in stock. Check [www.harwin.com](http://www.harwin.com) for availability.

## Mating Profiles

See page 35 for Pin Numbering

MALE / FEMALE	PC TAIL	CRIMP
CRIMP		

All dimensions in mm.

## Female Crimp with Metal Backshell

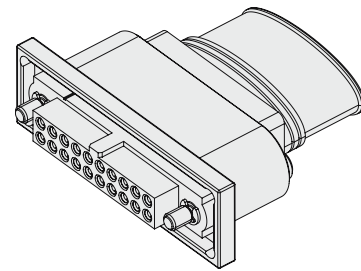
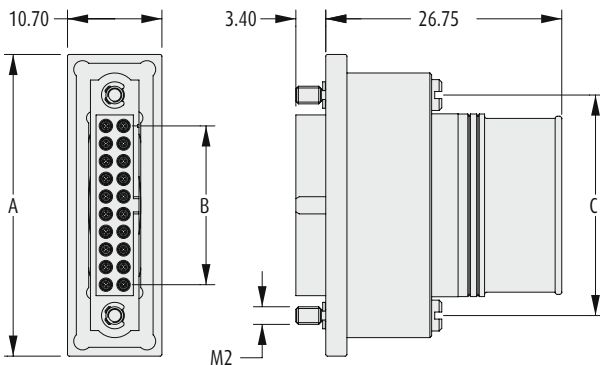
A range of shielded Datamate connectors, performing to the same high-reliability standards, with the added feature of aluminium backshells compatible with full 360° securing to braiding.

- ❖ Supplied as a kit, including backshell, tie-band (not shown), e-clips, Jackscrews, connector housing and contacts (braiding not included).
- ❖ For spare crimp contacts, see page 51.
- ❖ Mates with male connectors shown on pages 73 and 74.



DATAMATE S-TEK

### FEMALE



CALCULATION	
<b>A</b>	$B + 16.20$
<b>B</b>	Total no. of contacts - 2
<b>C</b>	$B + 7$

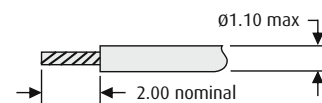
### TOOLS

- Recommended Crimp Tool** - M22520/2-01
- Positioner** - T5747
- Contact Insertion/Removal Tool** - Z80-280
- E-Clip Assembly Tool** - Z80-300

See pages 87 to 89

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

### WIRE STRIPPING DETAILS



### HOW TO ORDER

**M80 - 4 X1 XX XX S1**

**SERIES CODE**

**TYPE**

<b>C1</b>	Small Bore 24-28 AWG
<b>D1</b>	Large Bore 22 AWG

### FINISH

<b>05</b>	Gold	
<b>42</b>	Gold + Tin	

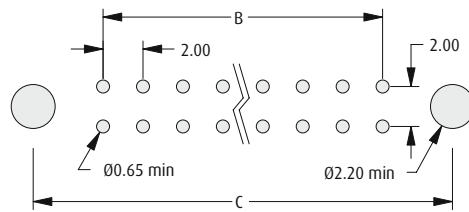
### TOTAL NO. OF CONTACTS

**06, 10, 14, 20, 26**

All dimensions in mm.

### Male Vertical PC Tail with Metal Backshell

- ❖ Board Mount version, with Jackscrew fixings for attachment to PCB for added strain relief.
- ❖ Supplied as a complete kit, including backshell, jackscrew nuts, and connector with jackscrew studs assembled.
- ❖ Mates with female connectors shown on page 72.



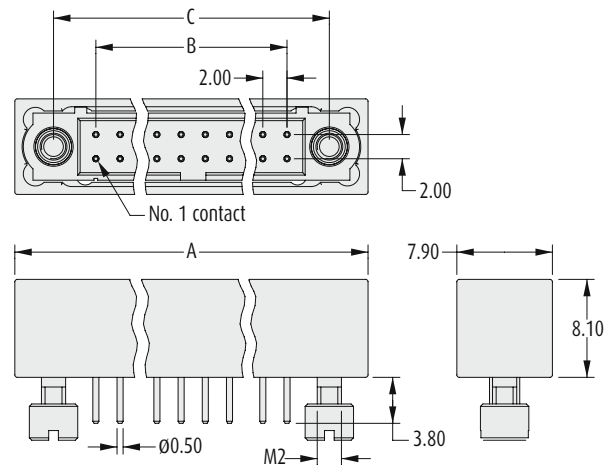
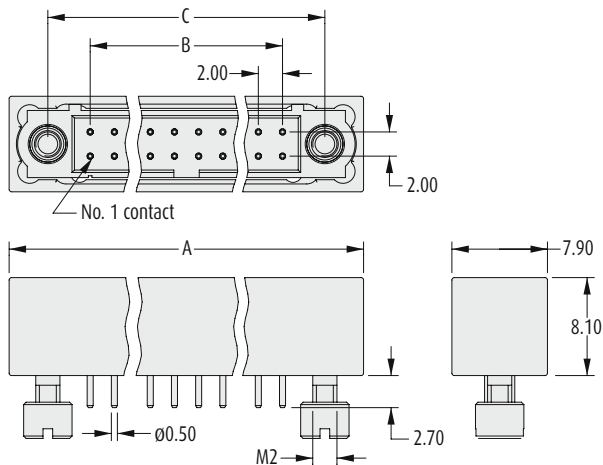
Recommended PC Board Pattern

#### CALCULATION

<b>A</b>	$B + 13.40$
<b>B</b>	Total no. of contacts - 2
<b>C</b>	$B + 7$

#### 2.7mm TAIL

#### 3.8mm TAIL



#### HOW TO ORDER

**M80 - 5 TX XX XX B1**

**SERIES CODE**

**TYPE**

<b>T1</b>	2.7mm Tails
<b>T2</b>	3.8mm Tails

#### FINISH

<b>05</b>	Gold	
<b>22</b>	Gold + Tin/Lead	
<b>42</b>	Gold + Tin	

#### TOTAL NO. OF CONTACTS

**06, 10, 14, 20, 26**

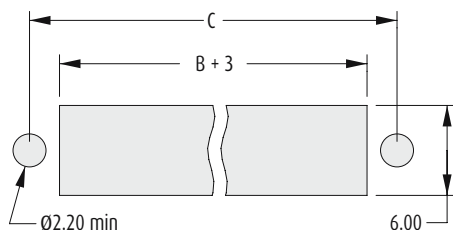
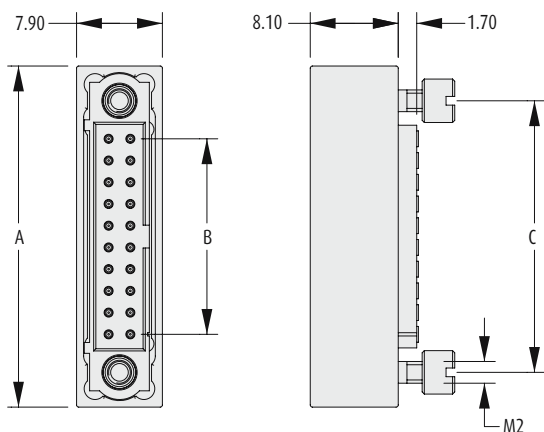
All dimensions in mm.

### Male Crimp with Metal Backshell

- Panel mount version, with Jackscrew fixings for attachment to panels.
- Supplied as a complete kit, including backshell, contacts, Jackscrew nuts, and connector housing with Jackscrew studs assembled.
- For spare crimp contacts, see page 65.
- Mates with female connectors shown on page 72.



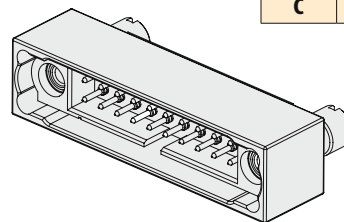
DATAMATE S-TEK



Recommended Panel Cutout

#### CALCULATION

<b>A</b>	$B + 13.40$
<b>B</b>	Total no. of contacts - 2
<b>C</b>	$B + 7$



#### TOOLS

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

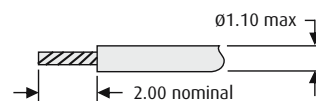
**Positioner** - Z80-193

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

See pages 87 to 89

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

#### WIRE STRIPPING DETAILS



#### HOW TO ORDER

**M80 - 5 X1 XX 05 B1**

#### SERIES CODE

#### TYPE

<b>C1</b>	Small Bore 24-28 AWG
<b>D1</b>	Large Bore 22 AWG

#### FINISH

**05** Gold

#### TOTAL NO. OF CONTACTS

**06, 10, 14, 20, 26**

All dimensions in mm.