

# Customer Information Sheet

DRAWING No.: M80-400000FI-XX-XXX-00-000

IF IN DOUBT - ASK

(C)

NOT TO SCALE

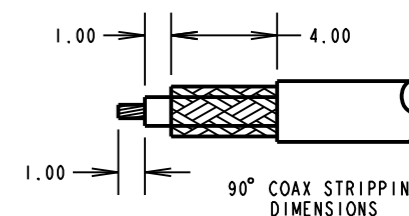
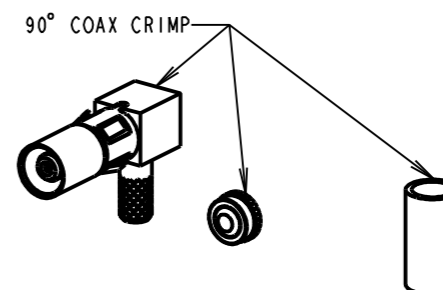
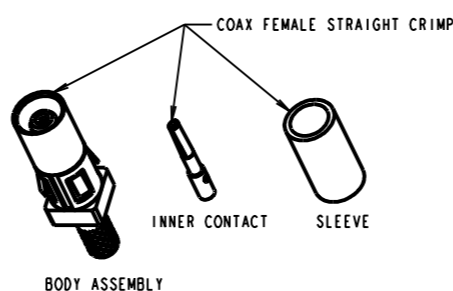
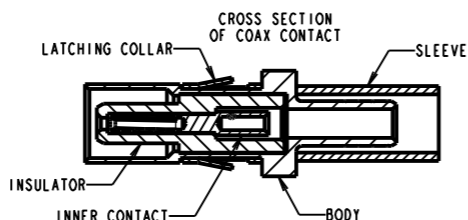
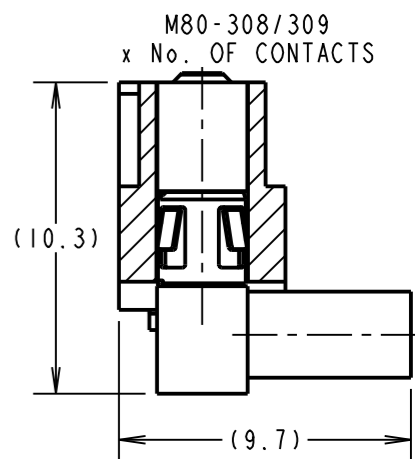
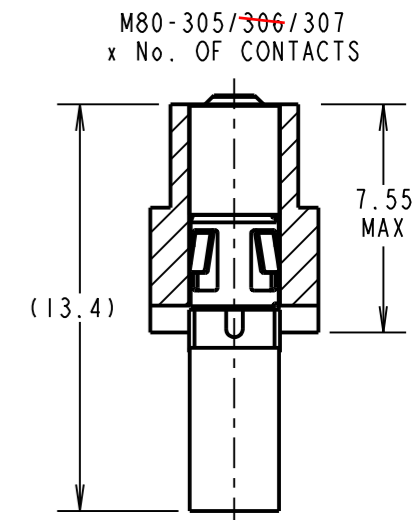
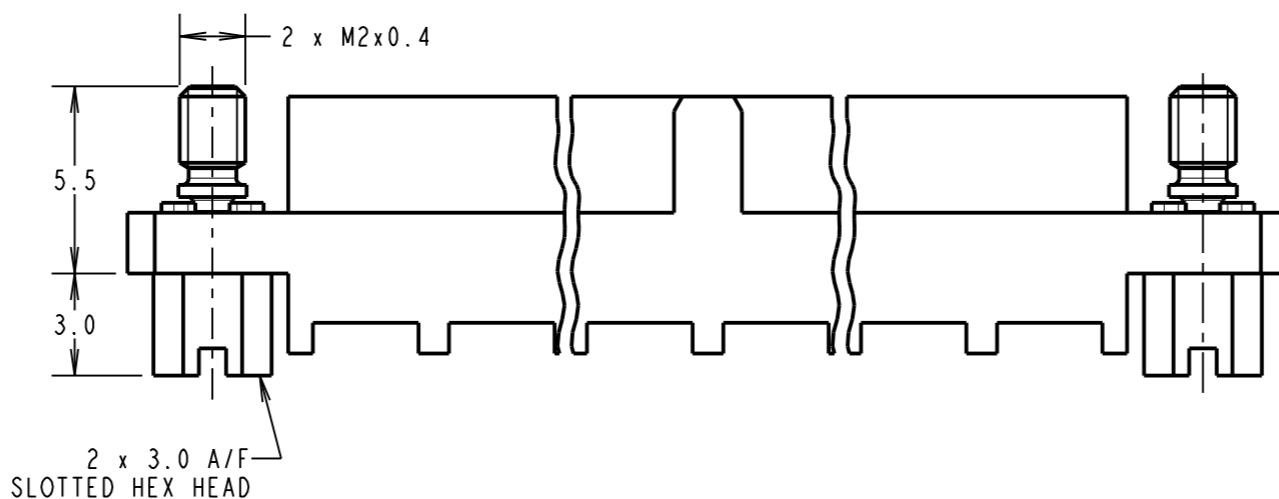
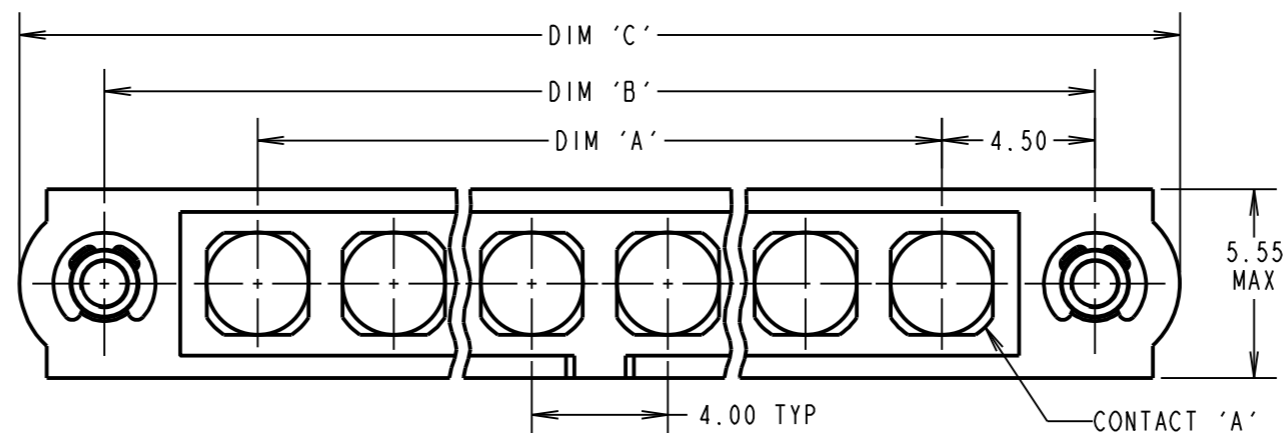
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

**SPECIFICATIONS:**

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX CONTACT:**  
 BODY, SLEEVE, END PLUG = COPPER ALLOY  
 INNER CONTACT, LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE  
 JACKSCREW, CIRCLIP = STAINLESS STEEL  
**FINISH:**  
**COAX CONTACT**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD  
 LATCHING COLLAR: = NICKEL  
**ELECTRICAL:**  
 INSULATION RESISTANCE = 100MΩ MIN  
**COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC  
**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
**COAX CONTACT:**  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
**ENVIRONMENTAL:**  
 TEMPERATURE RANGE = -55°C TO +125°C  
**PACKING:**  
 BAG  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

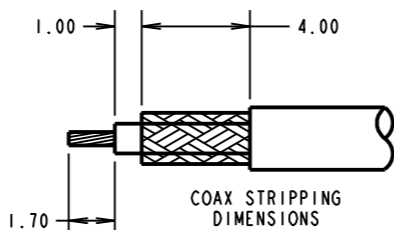
## COAX CRIMP/SOLDER CONTACTS ONLY



ORDER CODE: (COAX CRIMP/SOLDER)  
**M80-400000FI-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

SPECIAL CONTACTS  
 305 = COAX CONTACT CRIMP 2.0mm M80-305  
~~306 = COAX CONTACT CRIMP 2.4mm M80-306~~  
 307 = COAX CONTACT CRIMP 2.7mm M80-307  
 308 = 90° COAX CONTACT CRIMP/SOLDER 2.0mm M80-308  
 309 = 90° COAX CONTACT CRIMP/SOLDER 2.7mm M80-309



**NOTES:**

- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
- COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, INSULATOR AND LATCHING COLLAR ARE PRE-ASSEMBLED. SLEEVE AND INNER CONTACT ARE SEPARATE.
- FOR EXTRA COAX CONTACTS, USE PART NUMBER M80-305/~~306~~/307/308/309
- RECOMMENDED HAND CRIMP TOOL FOR COAX INNER CONTACT = Z80-292 WITH POSITIONER Z80-291 AND RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR COAX SLEEVE = Z80-293.
- COAX CONTACT EXTRACTION TOOL = Z80-290.
- INSTRUCTION SHEETS ARE AVAILABLE.

MSP	8	11.08.15	12997
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		S.BENNETT	
DRAWN:		R.ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00
EXAMPLE: CONNECTOR WITH 08 COAX CONTACTS, M80-400000FI-08-305-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm	

**HARWIN**

www.harwin.com  
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

TOLERANCES  
 X. = ±1mm  
 X.X = ±0.50mm  
 X.XX = ±0.10mm  
 X.XXX = ±0.01mm  
 ANGLES = ±5°  
 UNLESS STATED

MATERIAL:  
 SEE ABOVE  
 FINISH: SEE ABOVE  
 S/AREA: mm<sup>2</sup>

TITLE: DATAMATE MIX-TEK FEMALE ASSEMBLY WITH JACKSCREW

DRAWING NUMBER:  
**M80-400000FI-XX-XXX-00-000**

SHT  
 5  
 OF  
 8

# Customer Information Sheet

DRAWING No.: M80-400000F1-XX-XXX-00-000

IF IN DOUBT - ASK

(C)

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

**SPECIFICATIONS:**

**MATERIAL:**

MOULDING: GLASS FILLED PPS, UL94V-0, BLACK

**POWER CONTACT:**

BODY = COPPER ALLOY

LATCHING COLLAR = BERYLLIUM COPPER

JACKSCREW, CIRCLIP = STAINLESS STEEL

**FINISH:**

**POWER CONTACT:**

BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD

LATCHING COLLAR = NICKEL

**ELECTRICAL:**

WORKING VOLTAGE = 800V AC/DC

VOLTAGE PROOF = 1200V AC/DC

INSULATION RESISTANCE = 100MΩ MIN

**POWER CONTACT:**

CONTACT RESISTANCE = 6mΩ MAX

CURRENT RATING = M80-325 = 20A MAX WITH 12AWG

M80-326 = 15A MAX WITH 14AWG

M80-327 = 10A MAX WITH 16AWG

M80-328 = 8A MAX WITH 18AWG

M80-329 = 5A MAX WITH 20AWG

M80-32A = 20A MAX WITH 12AWG

M80-32B = 15A MAX WITH 14AWG

M80-32C = 10A MAX WITH 16AWG

M80-PF5 = 40A MAX WITH 10AWG

CONTACT AS SPECIFIED

**MECHANICAL:**

DURABILITY = 500 OPERATIONS

**POWER CONTACT:**

**INSERTION FORCE:**

M80-325/326/327/328/329/  
32A/32B/32C = 8N MAX

M80-PF5 = 15N MAX

WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**

**TEMPERATURE RANGE:**

M80-325/326/327/328/329/  
32A/32B/32C = -55°C TO +125°C

M80-PF5 = -55°C TO +150°C

M80-PF5 = -55°C TO +150°C

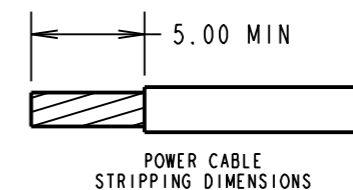
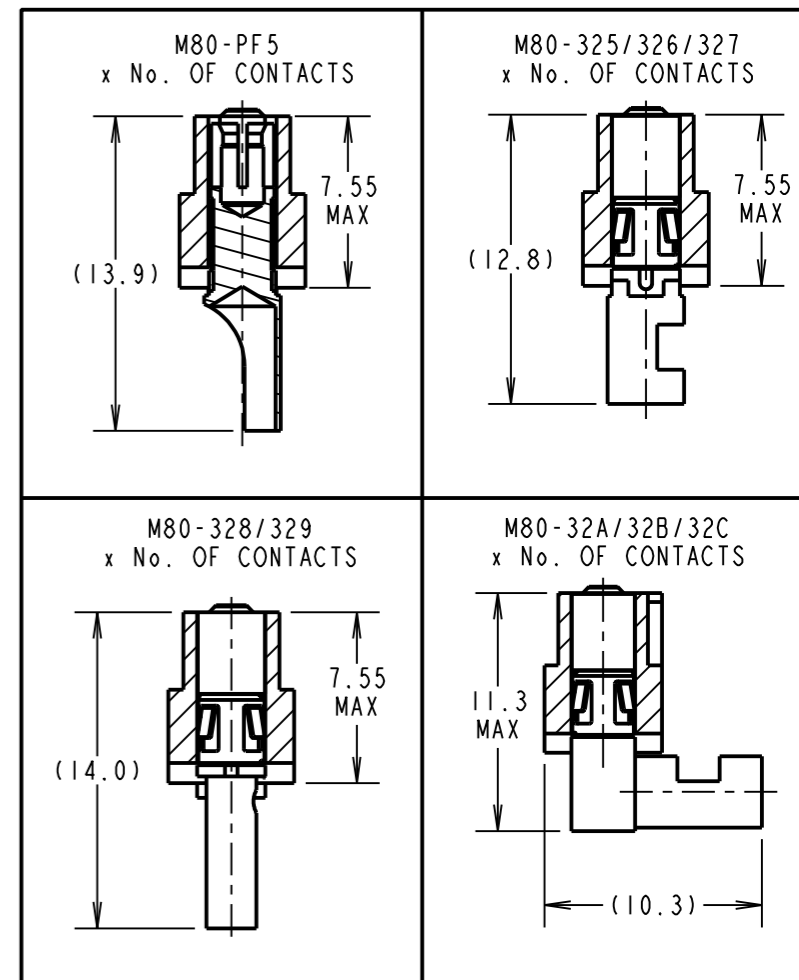
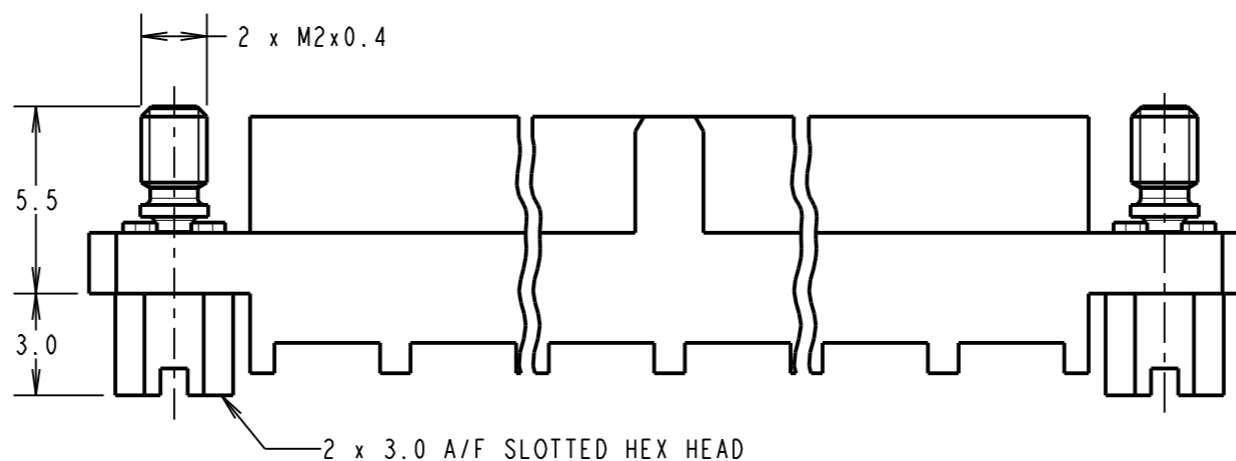
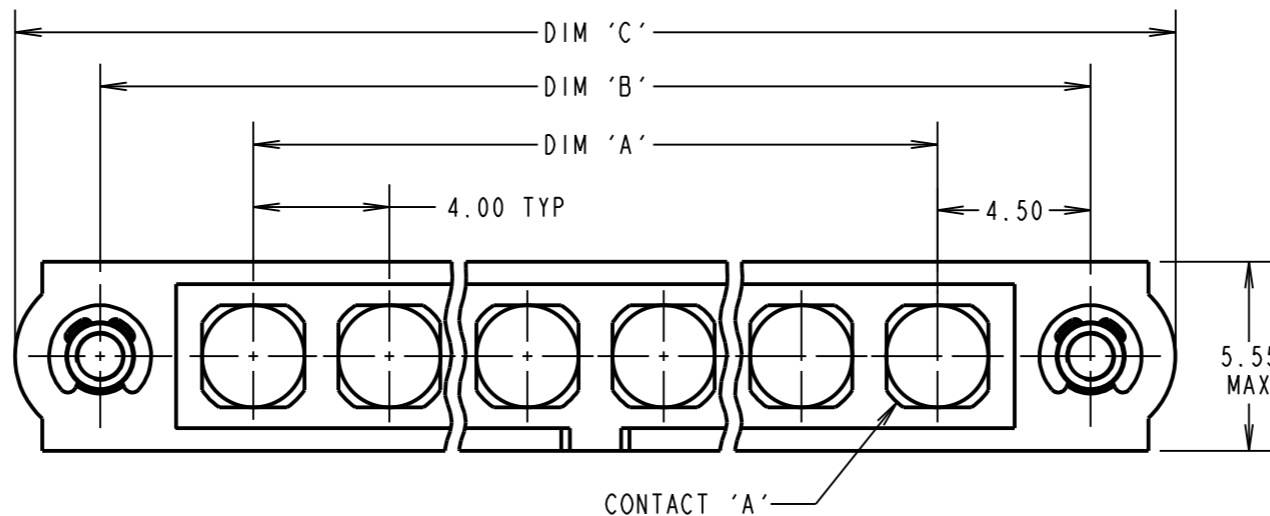
**PACKING:**

BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT

SPECIFICATION C005XX (LATEST ISSUE)

## POWER CRIMP AND SOLDER CONTACTS ONLY



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00

EXAMPLE: CONNECTOR WITH 10 POWER CONTACTS,  
M80-400000F1-10-325-00-000  
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm,  
DIM 'C' = 50.00mm

**NOTES:**

- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
- FOR EXTRA POWER CONTACTS, USE PART NUMBER M80-325/326/327/328/329/32A/32B/32C/PF5.
- POWER AND CONTACT EXTRACTION TOOL = Z80-290.
- INSTRUCTION SHEETS ARE AVAILABLE.
- RECOMMENDED HAND CRIMP TOOL FOR INNER COAX CONTACT = Z80-292 WITH POSITIONER Z80-291. RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR SLEEVE = Z80-293.

MSP	8	11.08.15	12997
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		S.BENNETT	
DRAWN:		R.ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

ORDER CODE: (POWER CRIMP/SOLDER)

**M80-400000F1-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
02 TO 12

**SPECIAL CONTACTS**

- 325 = POWER CONTACT SOLDER 12AWG M80-325
- 326 = POWER CONTACT SOLDER 14AWG M80-326
- 327 = POWER CONTACT SOLDER 16AWG M80-327
- 328 = POWER CONTACT SOLDER OR CRIMP 18AWG M80-328
- 329 = POWER CONTACT SOLDER OR CRIMP 20AWG M80-329
- 32A = 90° POWER CONTACT SOLDER 12AWG M80-32A
- 32B = 90° POWER CONTACT SOLDER 14AWG M80-32B
- 32C = 90° POWER CONTACT SOLDER 16AWG M80-32C
- PF5 = POWER CONTACT SOLDER 10AWG M80-PF5

**HARWIN**

www.harwin.com  
technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

**TOLERANCES**

X. = ±1mm  
X.X = ±0.50mm  
X.XX = ±0.10mm  
X.XXX = ±0.01mm  
ANGLES = ±5°  
UNLESS STATED

**MATERIAL:**

SEE ABOVE

**FINISH:**

SEE ABOVE

**S/AREA:**

mm<sup>2</sup>

**TITLE:**

DATAMATE MIX-TEK  
FEMALE ASSEMBLY  
WITH JACKSCREW

**DRAWING NUMBER:**

**M80-400000F1-XX-XXX-00-000**

SHT  
6  
OF  
8

# Customer Information Sheet

DRAWING No.: M80-400000F1-XX-XXX-00-000

IF IN DOUBT - ASK

(C)

NOT TO SCALE

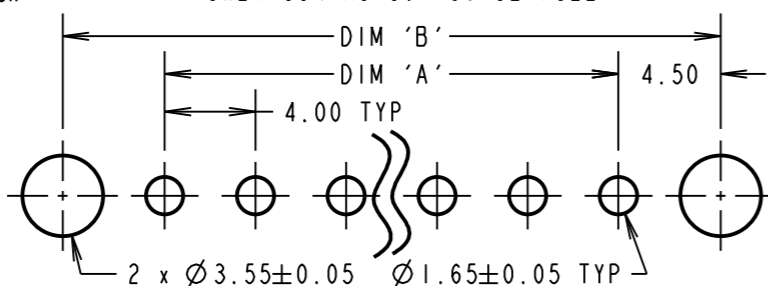
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

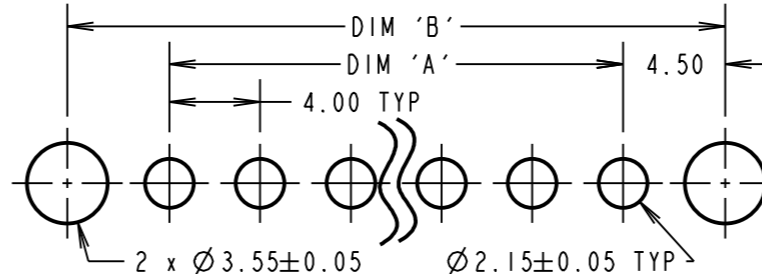
**SPECIFICATIONS:**

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
 POWER CONTACT: COPPER ALLOY  
 COAX CONTACT:  
 BODY = COPPER ALLOY  
 INNER CONTACT = COPPER ALLOY  
 INSULATOR = PTFE  
 JACKSCREW, CIRCLIP = STAINLESS STEEL  
**FINISH:**  
 POWER CONTACT: GOLD  
 COAX CONTACT: BODY, INNER CONTACT = GOLD  
**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
**POWER CONTACT:**  
 CONTACT RESISTANCE = 6mΩ MAX  
**CURRENT RATING:**  
 M80-321/322 = 20A MAX  
 M80-PF1/PF2 = 40A MAX  
**COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC  
**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
**POWER CONTACT:**  
 INSERTION FORCE:  
 M80-321/322 = 8N MAX  
 M80-PF1/PF2 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
**COAX CONTACT:**  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
**ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-301/302/321/322 = -55°C TO +125°C  
 M80-PF1/PF2 = -55°C TO +150°C  
**PACKING:**  
 TUBE  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

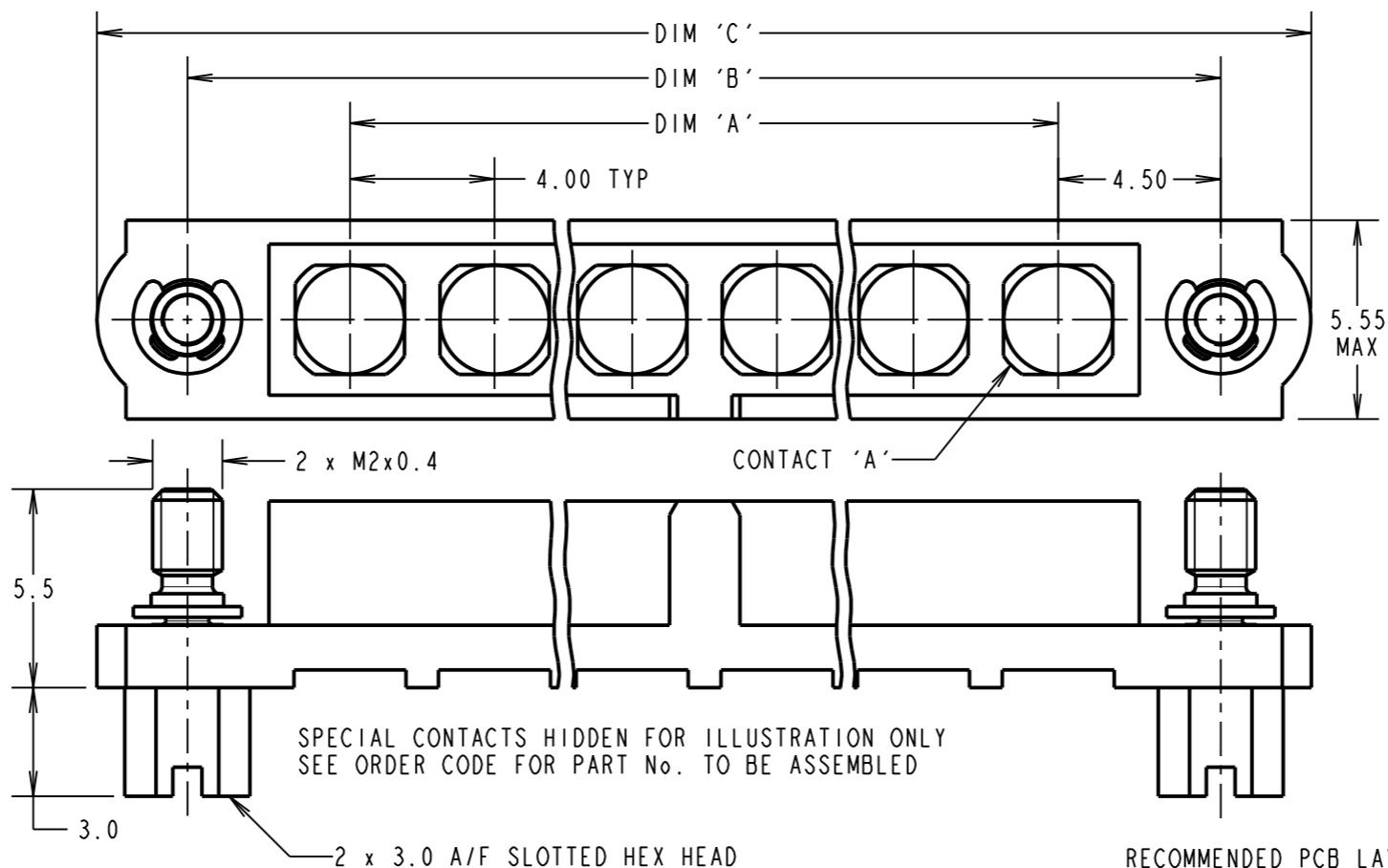
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-321/322



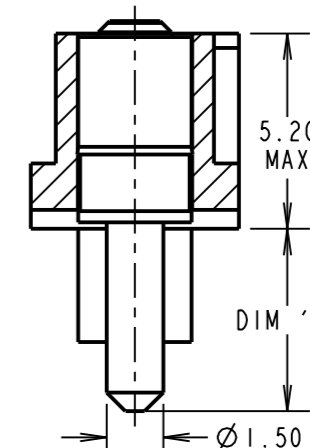
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PF1/PF2



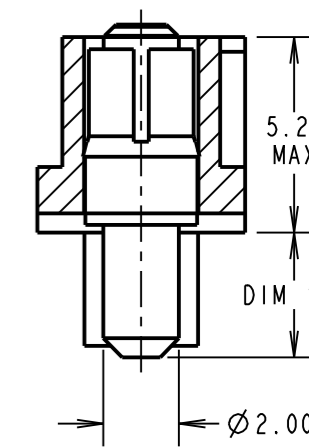
**VERTICAL PC TAIL CONTACTS ONLY**



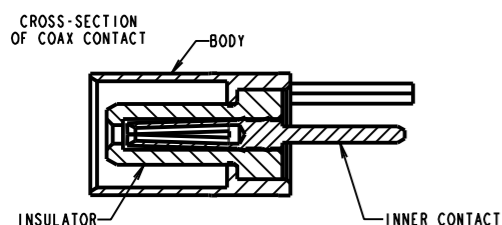
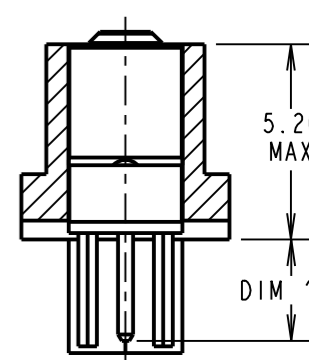
M80-321/322 x No. OF CONTACTS



M80-PF1/PF2 x No. OF CONTACTS



M80-301/302 x No. OF CONTACTS



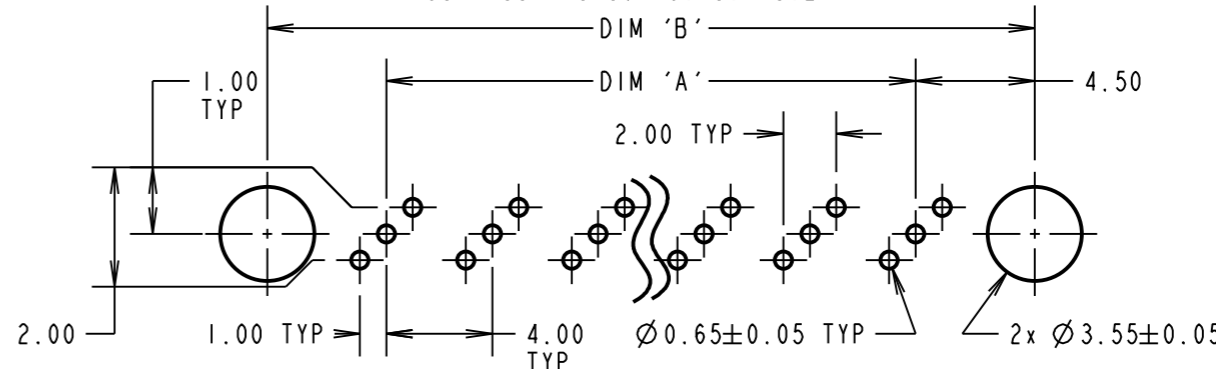
ORDER CODE:  
 (COAX PC TAIL VERTICAL CONTACTS ONLY)  
**M80-400000F1-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

**SPECIAL CONTACTS**

- 301 = COAX CONTACT PC TAIL 3.0mm M80-301
- 302 = COAX CONTACT PC TAIL 4.5mm M80-302
- 321 = 20A POWER CONTACT PC TAIL 3.5mm M80-321
- 322 = 20A POWER CONTACT PC TAIL 5.0mm M80-322
- PF1 = 40A POWER CONTACT PC TAIL 3.5mm M80-PF1
- PF2 = 40A POWER CONTACT PC TAIL 5.0mm M80-PF2

RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-301/302



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00
DIM 'D'	M80-301 = 3.00mm, M80-302 = 4.50mm
DIM 'E'	M80-321 = 3.50mm, M80-322 = 5.00mm
DIM 'F'	M80-PF1 = 3.50mm, M80-PF2 = 5.00mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-400000F1-08-301-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm,  
 DIM 'C' = 42.00mm, DIM 'D' = 3.00mm

MSP	8	11.08.15	12997
NAME	ISS.	DATE	C/NOTE
APPROVED: M.PERREN			
CHECKED: S.BENNETT			
DRAWN: R.ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

**HARWIN**

www.harwin.com  
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

**TOLERANCES**  
 X. = ±1mm  
 X.X = ±0.50mm  
 X.XX = ±0.10mm  
 X.XXX = ±0.01mm  
 ANGLES = ±5°  
 UNLESS STATED

**MATERIAL:**  
 SEE ABOVE  
**FINISH:**  
 SEE ABOVE  
**S/AREA:**  
 mm<sup>2</sup>

**TITLE:**  
 DATAMATE MIX-TEK  
 FEMALE ASSEMBLY  
 WITH JACKSCREW  
**DRAWING NUMBER:**  
**M80-400000F1-XX-XXX-00-000**  
 SHT 7 OF 8

# Customer Information Sheet

DRAWING No.: M80-4000000F1-XX-XXX-00-000

IF IN DOUBT - ASK

(C)

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

**SPECIFICATIONS:**

**MATERIAL:**  
 Moulding: GLASS FILLED PPS, UL94V-0, BLACK  
 POWER CONTACT: COPPER ALLOY  
 JACKSCREW, CIRCLIP: STAINLESS STEEL

**FINISH:**  
 POWER CONTACT:  
 20A = 0.25µ MIN GOLD OVER NICKEL  
 40A = 0.76µ MIN GOLD OVER NICKEL

**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN

**POWER CONTACT:**  
 CONTACT RESISTANCE = 6mΩ MAX

**CURRENT RATING:**  
 M80-323/324 = 20A MAX  
 M80-PF4/PF4 = 40A MAX

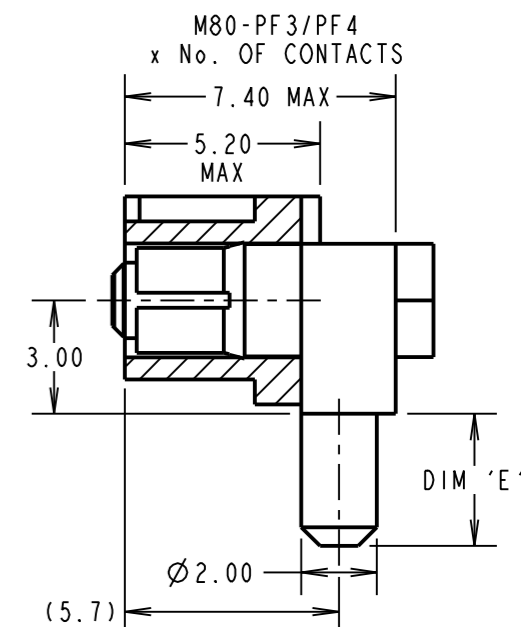
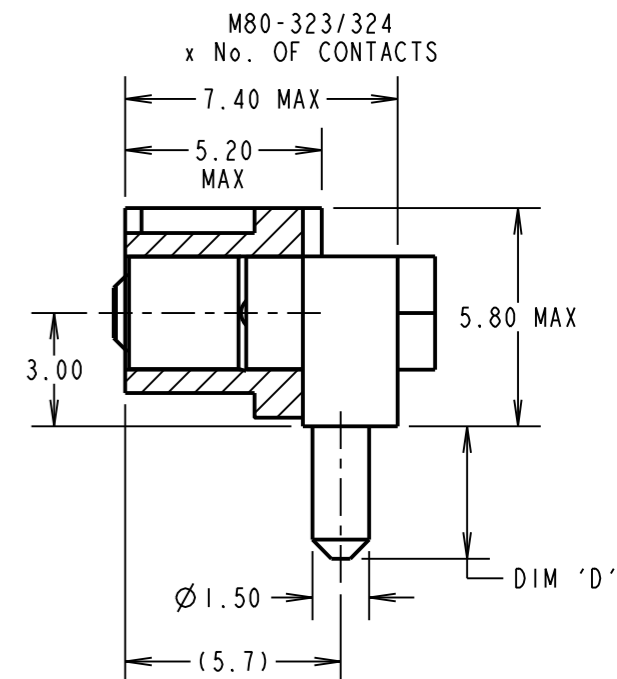
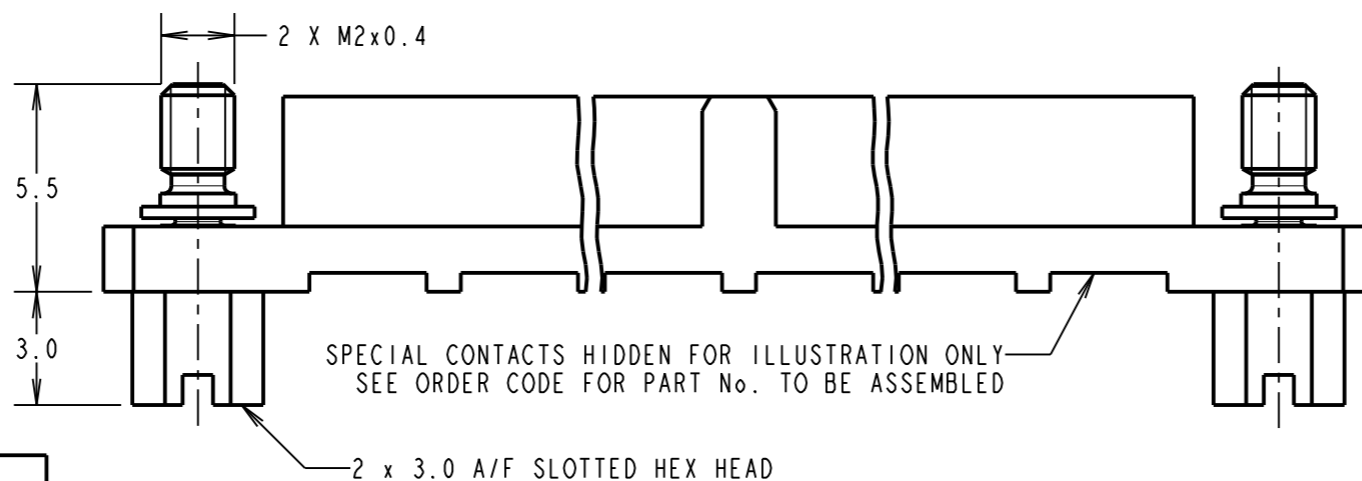
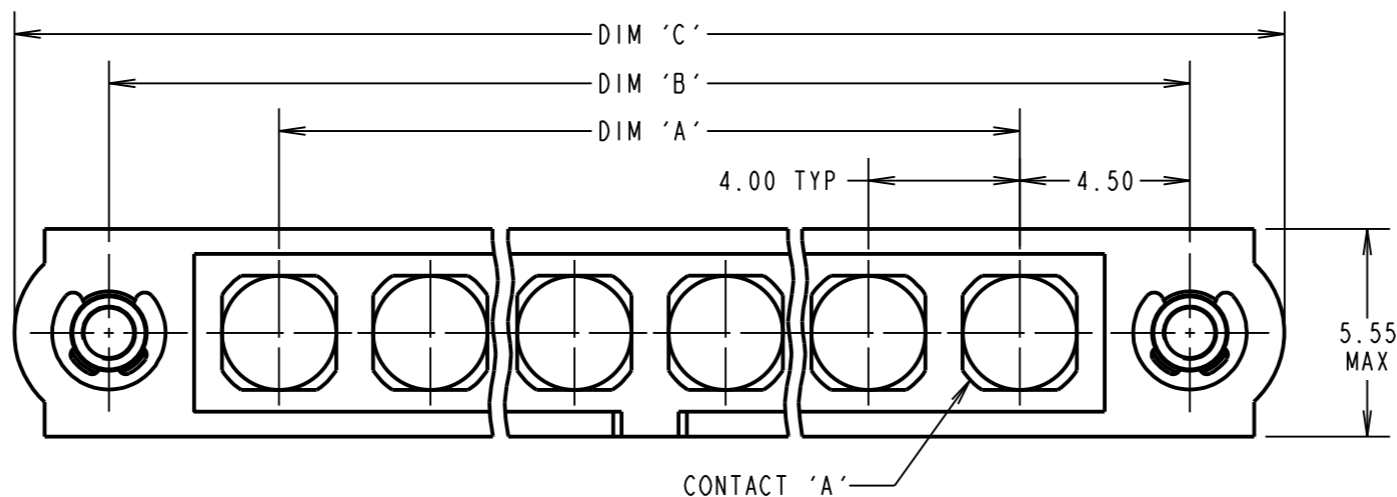
**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS

**POWER CONTACT:**  
 INSERTION FORCE:  
 M80-323/324 = 8N MAX  
 M80-PF3/PF4 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**  
 TEMPERATURE RANGE = -55°C TO +150°C

**PACKING:**  
 TUBE  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

## HORIZONTAL POWER PC TAIL CONTACTS ONLY

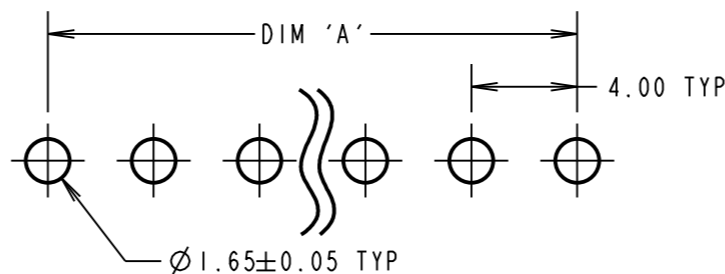


**ORDER CODE:**  
 (POWER PC TAIL HORIZONTAL CONTACTS ONLY)  
**M80-4000000F1-XX-XXX-00-000**

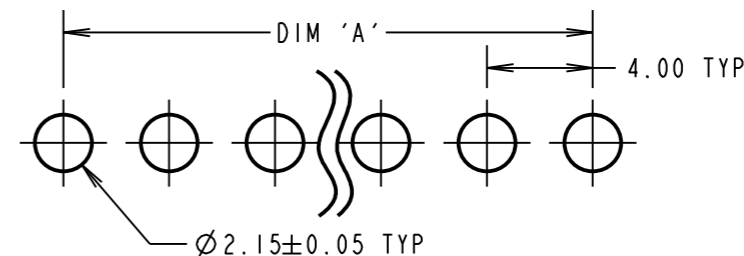
TOTAL No. OF CONTACTS  
 02 TO 12

**SPECIAL CONTACTS**  
 323 = 20A POWER CONTACT PC TAIL 3.5mm M80-323  
 324 = 20A POWER CONTACT PC TAIL 5.0mm M80-324  
 PF3 = 40A POWER CONTACT PC TAIL 3.5mm M80-PF3  
 PF4 = 40A POWER CONTACT PC TAIL 5.0mm M80-PF4

RECOMMENDED PCB LAYOUT FOR  
 POWER CONTACTS: M80-323/324



RECOMMENDED PCB LAYOUT FOR  
 POWER CONTACTS: M80-PF3/PF4



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00
DIM 'D'	M80-323 = 3.50mm, M80-324 = 5.00mm
DIM 'E'	M80-PF3 = 3.50mm, M80-PF4 = 5.00mm

EXAMPLE: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-4000000F1-10-323-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm,  
 DIM 'C' = 50.00mm, DIM 'D' = 3.50mm

**HARWIN**

www.harwin.com  
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

**TOLERANCES**  
 X. = ±1mm  
 X.X = ±0.50mm  
 X.XX = ±0.10mm  
 X.XXX = ±0.01mm  
 ANGLES = ±5°  
 UNLESS STATED

**MATERIAL:**  
 SEE ABOVE  
**FINISH:** SEE ABOVE  
**S/AREA:** mm<sup>2</sup>

**TITLE:** DATAMATE MIX-TEK FEMALE ASSEMBLY WITH JACKSCREW

**DRAWING NUMBER:** M80-4000000F1-XX-XXX-00-000

MSP	8	11.08.15	12997
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		S.BENNETT	
DRAWN:		R.ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			