

# Customer Information Sheet

DRAWING No.: M80-400000F3-XX-XXX-00-000

SHEET 4 OF 6

IF IN DOUBT - ASK

©

NOT TO SCALE

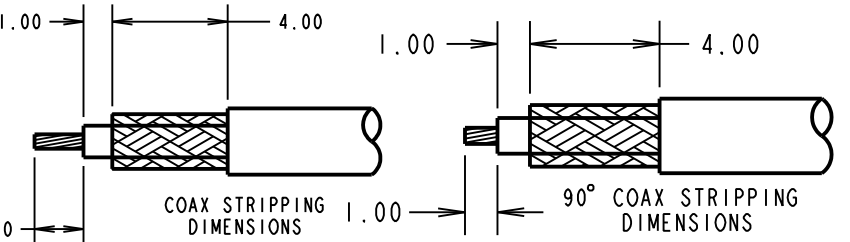
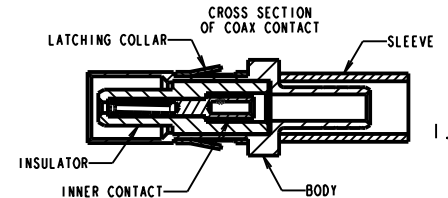
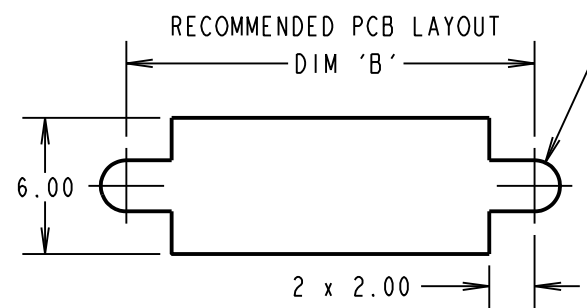
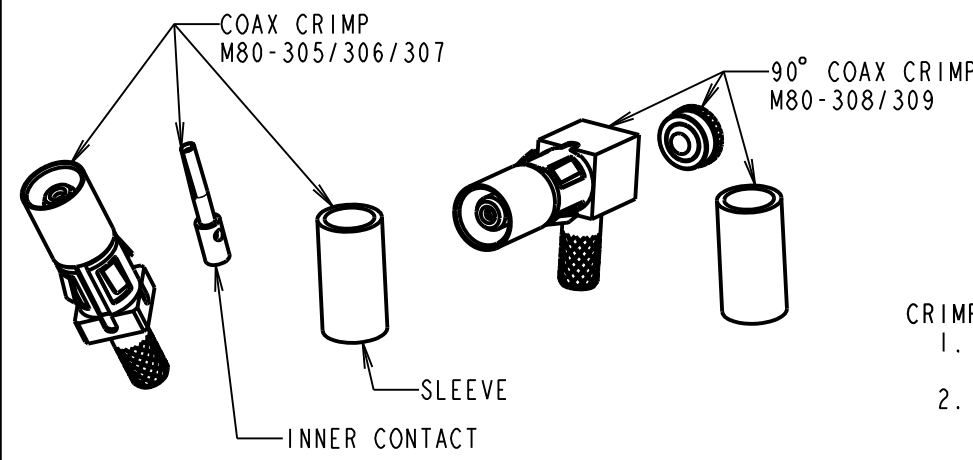
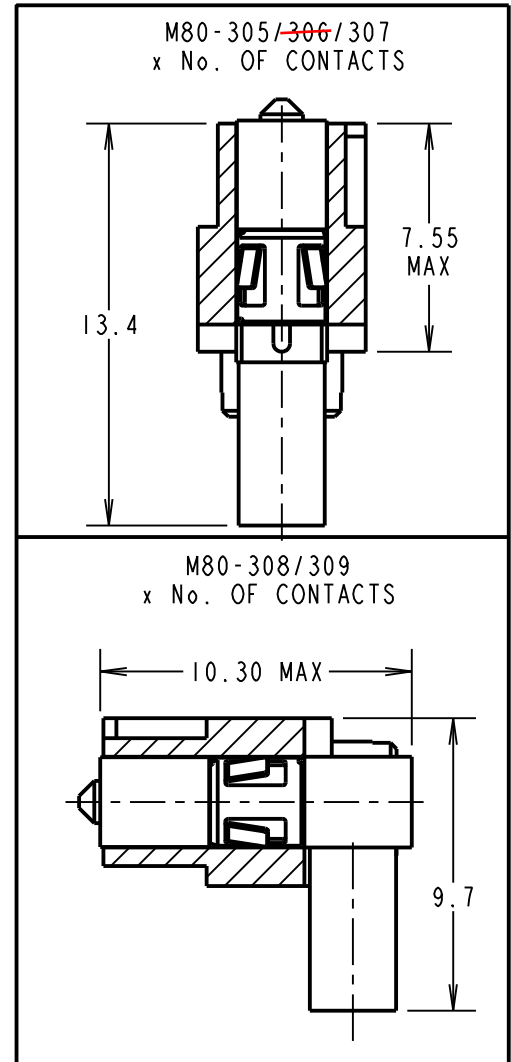
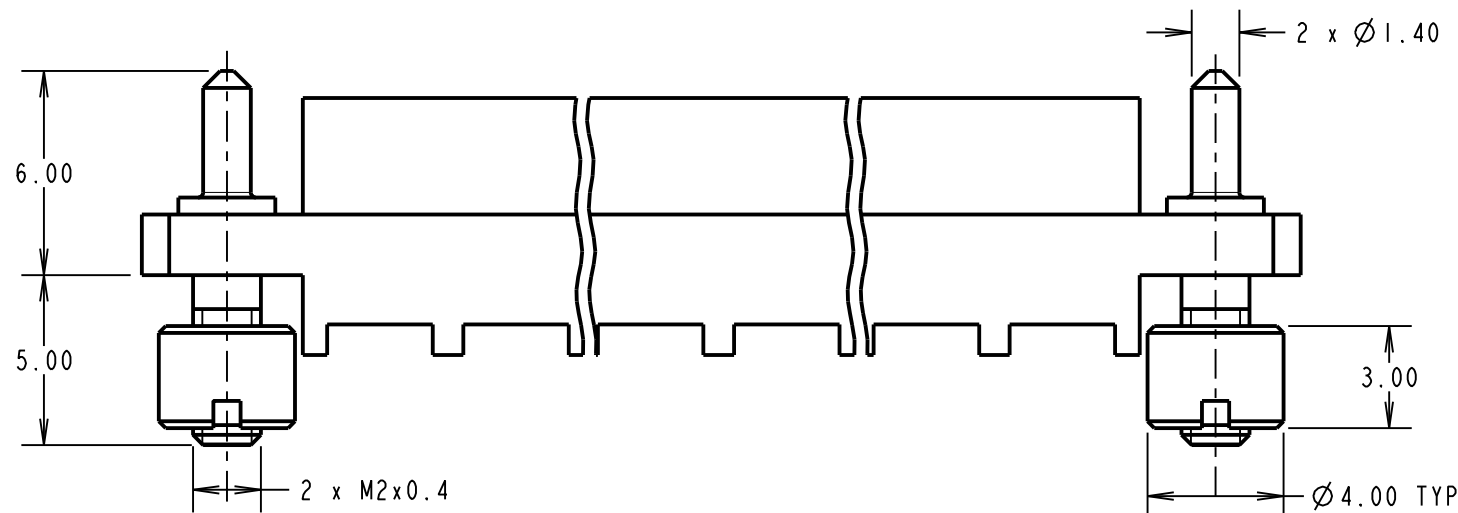
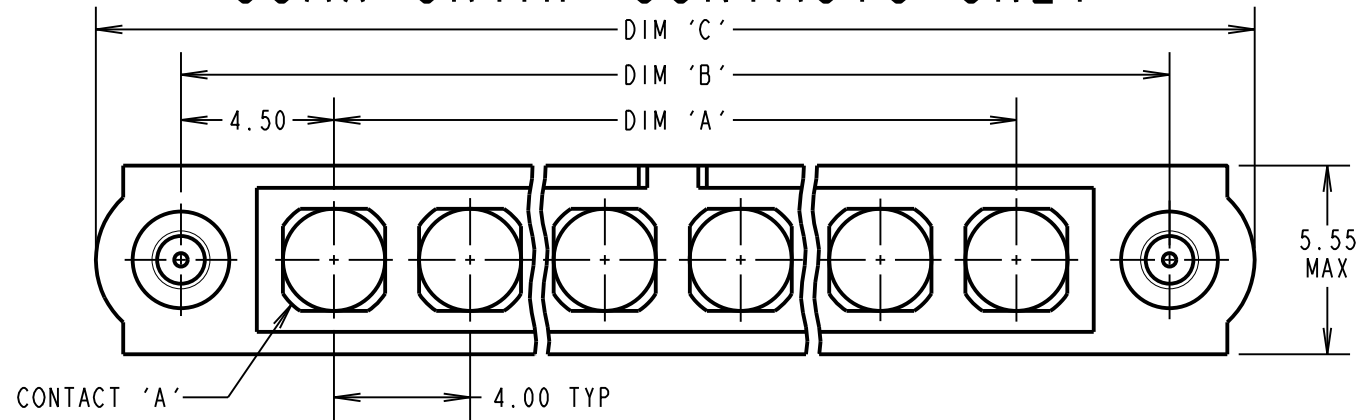
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE  
 BOARD MOUNT JACKSCREW, NUTS = STAINLESS STEEL  
**FINISH:**  
**COAX 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  
**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 CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONTACTS AND BOARD MOUNT NUTS ARE SUPPLIED WITH CONNECTOR, BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.
  - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, MAIN INSULATOR, INNER CONTACT AND LATCHING COLLAR ARE PRE-ASSEMBLED AND SLEEVE AND INSULATED END PLUG ASSEMBLY ARE SEPARATE.
  - FOR EXTRA COAX CONTACTS, USE PART NUMBERS M80-305/~~306~~/307/308/309.
  - COAX CONTACT EXTRACTION TOOL = Z80-290.
  - 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.
  - INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (COAX CRIMP CONTACTS ONLY)  
**M80-400000F3-XX-XXX-00-000**

TOTAL No. OF CONTACTS \_\_\_\_\_  
 02 TO 12

SPECIAL CONTACTS \_\_\_\_\_  
 305 = COAX CONTACT 2.00mm CRIMP M80-305  
~~306 = COAX CONTACT 2.40mm CRIMP M80-306~~  
 307 = COAX CONTACT 2.70mm CRIMP M80-307  
 308 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-308  
 309 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-309

MGP	5	12.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
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 + 10.0

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-400000F3-08-305-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm

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**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 BOARDMOUNT JACKSCREWS  
**DRAWING NUMBER:** M80-400000F3-XX-XXX-00-000  
 SHT 4 OF 6

# Customer Information Sheet

DRAWING No.: M80-400000F3-XX-XXX-00-000

SHEET 5 OF 6

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

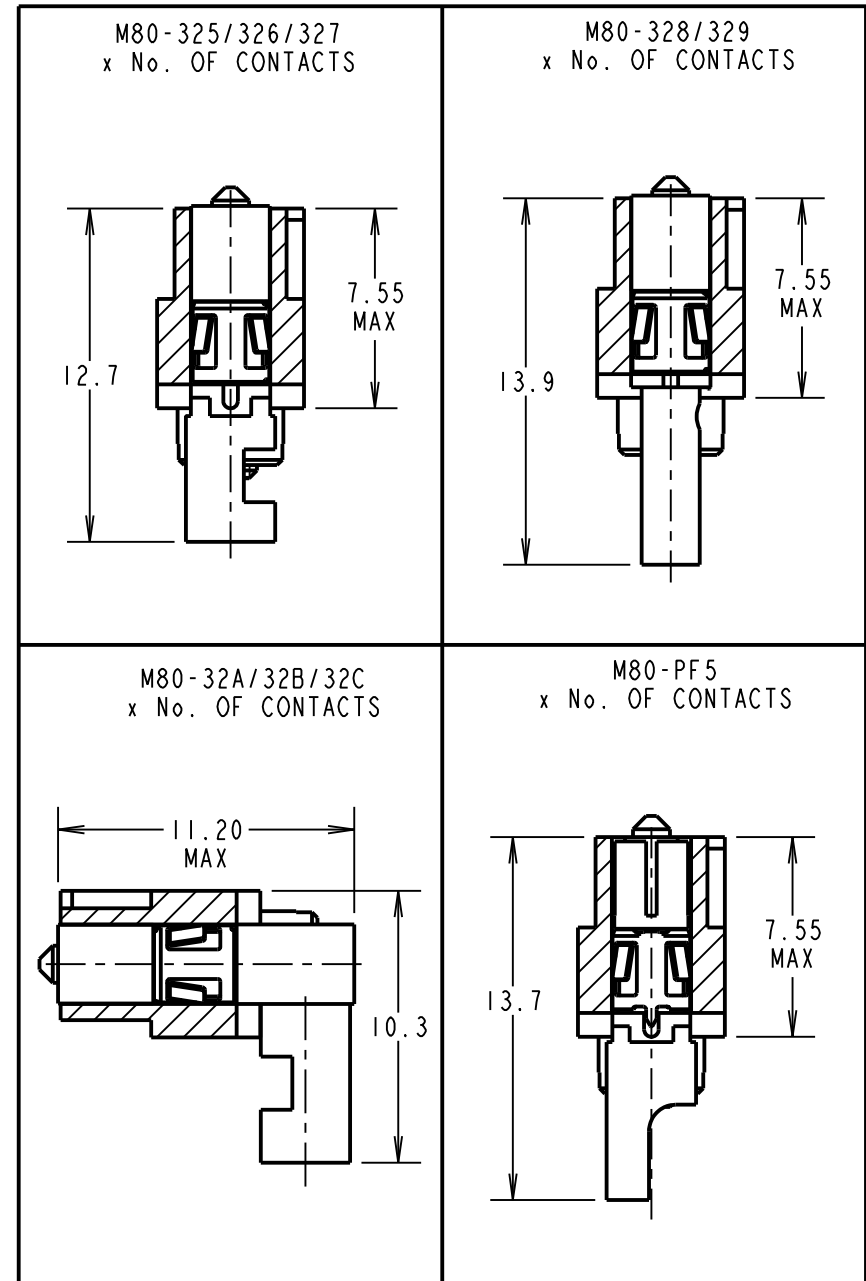
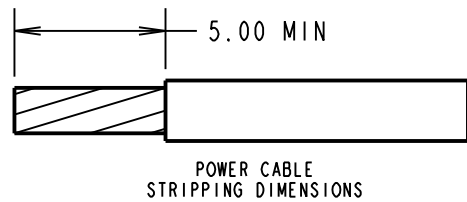
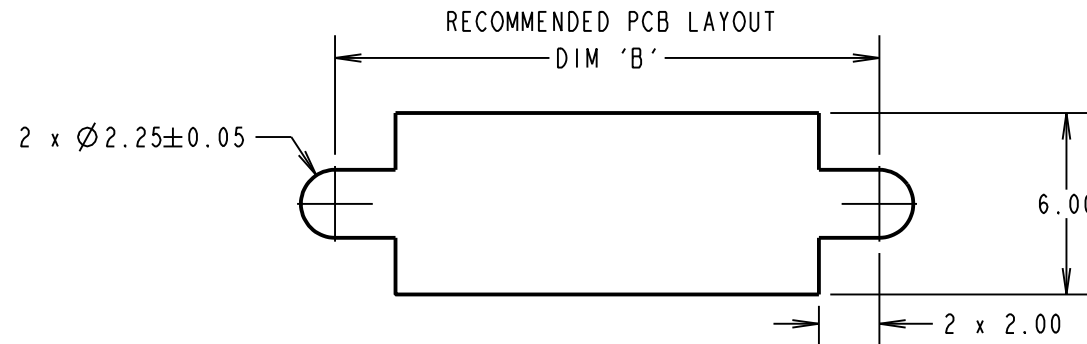
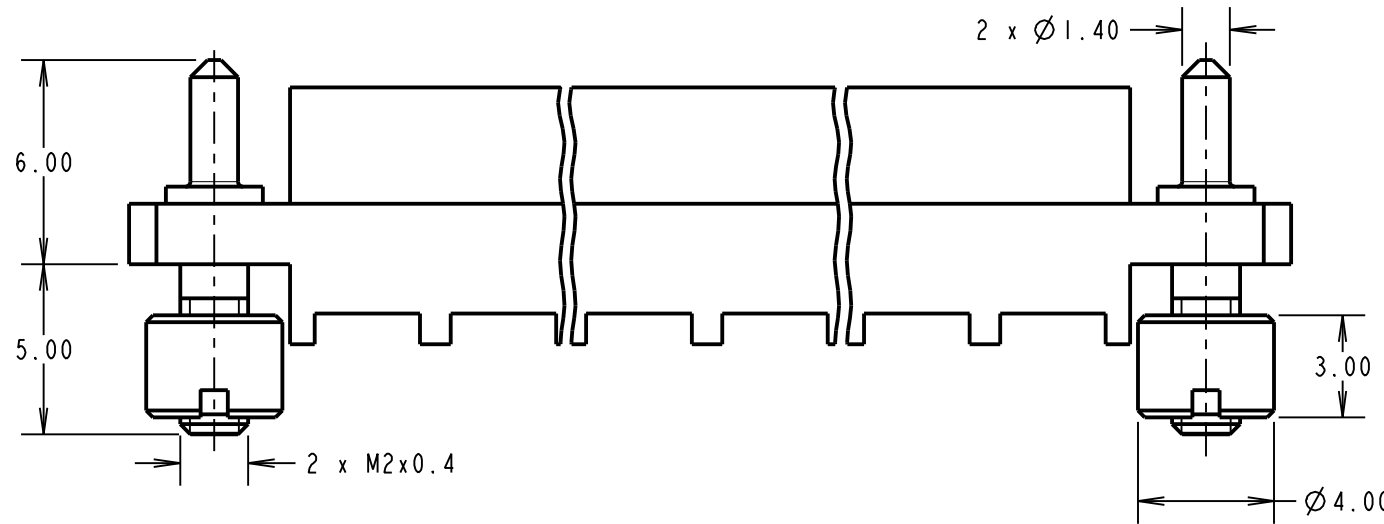
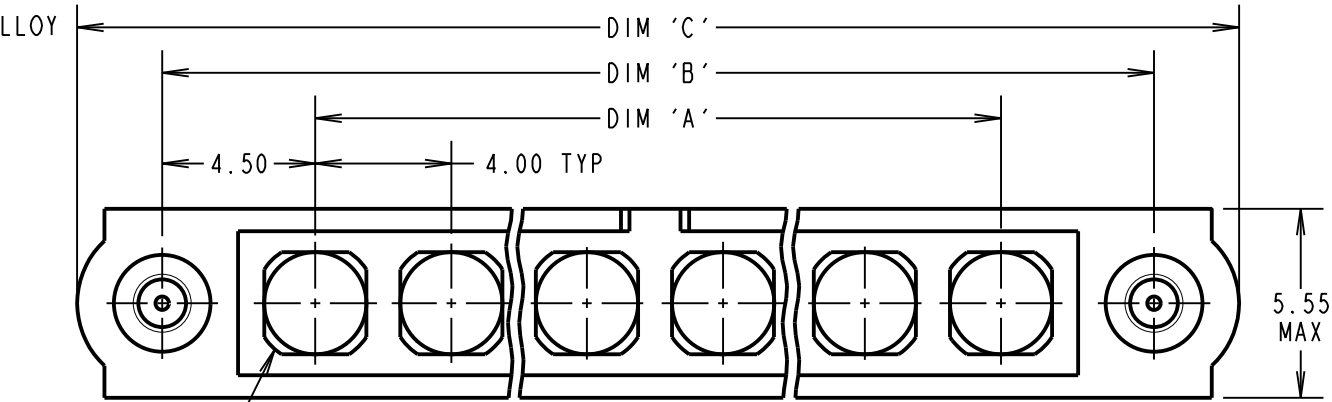
**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**POWER CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE  
 BOARD MOUNT JACKSCREW, NUTS = STAINLESS STEEL  
**FINISH:**  
**POWER CONTACT:**  
 BODY, SLEEVE, INNER 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

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

## POWER CRIMP & SOLDER CONTACTS ONLY



ORDER CODE: (POWER CRIMP/SOLDER CONTACTS ONLY)  
**M80-400000F3-XX-XXX-00-000**

TOTAL No. OF CONTACTS \_\_\_\_\_  
 02 TO 12

- SPECIAL CONTACTS**
- 325 = POWER CONTACT 12AWG SOLDER M80-325
  - 326 = POWER CONTACT 14AWG SOLDER M80-326
  - 327 = POWER CONTACT 16AWG SOLDER M80-327
  - 328 = POWER CONTACT 18AWG SOLDER/CRIMP M80-328
  - 329 = POWER CONTACT 20AWG SOLDER/CRIMP M80-329
  - 32A = POWER CONTACT 12AWG HORIZ' SOLDER M80-32A
  - 32B = POWER CONTACT 14AWG HORIZ' SOLDER M80-32B
  - 32C = POWER CONTACT 16AWG HORIZ' SOLDER M80-32C
  - PF5 = POWER CONTACT 10AWG SOLDER M80-PF5

- CRIMP/SOLDER NOTES:**
1. CONTACTS AND BOARD MOUNT NUTS ARE SUPPLIED WITH CONNECTOR, BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.
  2. FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-325/326/327/328/329/32A/32B/32C/PM5.
  3. POWER CONTACT EXTRACTION TOOL = Z80-290.
  4. RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 328/329 = Z80-294 AND POSITIONER Z80-295.
  5. INSTRUCTION SHEETS ARE AVAILABLE.

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 + 10.0

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-400000F3-10-325-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm

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**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  
 BOARDMOUNT JACKSCREWS  
**DRAWING NUMBER:**  
 M80-400000F3-XX-XXX-00-000  
 SHT 5 OF 6

MGP	5	12.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

# Customer Information Sheet

DRAWING No.: M80-400000F3-XX-XXX-00-000

SHEET 6 OF 6

IF IN DOUBT - ASK

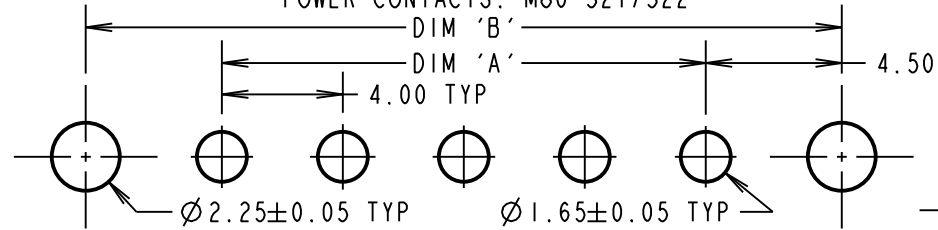
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NOT TO SCALE

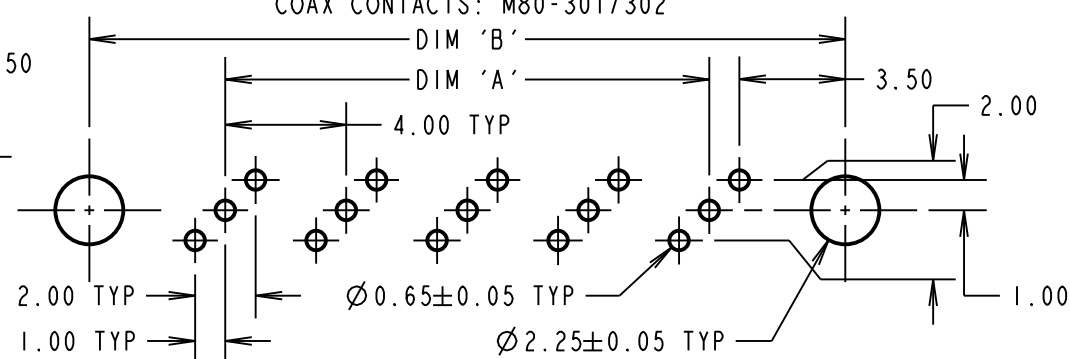
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

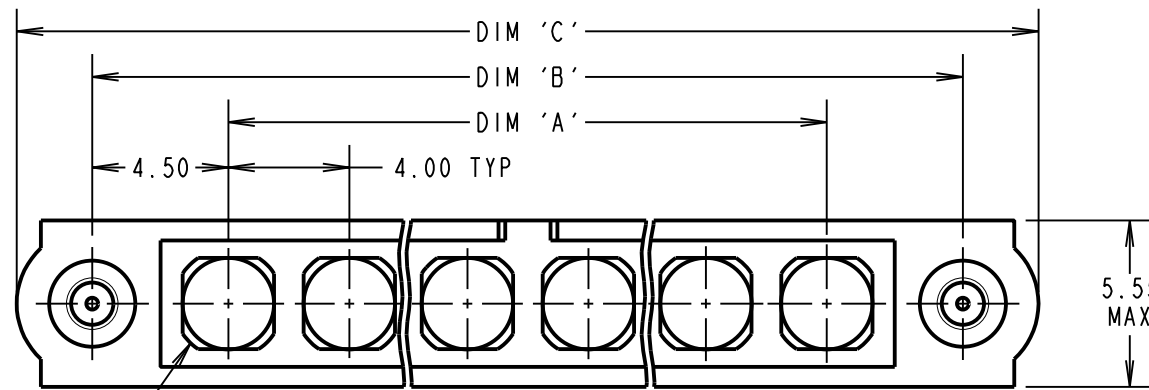
RECOMMENDED PCB LAYOUT FOR  
POWER CONTACTS: M80-321/322



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



VERTICAL PC TAIL CONTACTS ONLY



**SPECIFICATIONS:**

**MATERIAL:**  
MOULDING = GLASS FILLED PPS, UL94V-0, BLACK  
POWER CONTACT = COPPER ALLOY  
COAX CONTACT:  
BODY = COPPER ALLOY  
INNER CONTACT = COPPER ALLOY  
INSULATOR = PTFE  
BOARD MOUNT JACKSCREW, NUTS = 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 = 100M $\Omega$  MIN

**POWER CONTACT:**  
CONTACT RESISTANCE = 6m $\Omega$  MAX  
CURRENT RATING:

M80-321/322 = 20A MAX  
M80-PF1/PF2 = 40A MAX

**COAX CONTACT:**  
FREQUENCY RANGE = 6GHz  
IMPEDANCE = 50 $\Omega$   
V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
CONTACT RESISTANCE = 6m $\Omega$  MAX

INSULATION RESISTANCE = 10<sup>6</sup>M $\Omega$  @ 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)

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 + 10.0
DIM 'D'	M80-301 = 3.0mm, M80-302 = 4.5mm
DIM 'E'	M80-321 = 3.5mm, M80-322 = 5.0mm
DIM 'F'	M80-PF1 = 3.5mm, M80-PF2 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
M80-400000F3-08-301-00-000  
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm  
DIM 'D' = 3.0mm

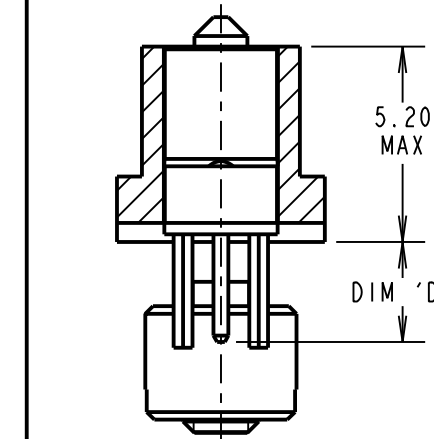
EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
M80-400000F3-10-PF1-00-000  
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm  
DIM 'F' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)  
**M80-400000F3-XX-XXX-00-000**

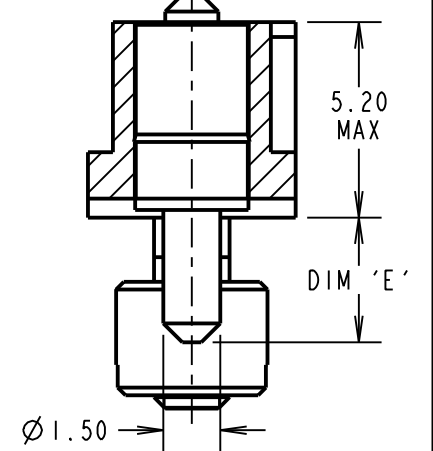
TOTAL No. OF CONTACTS  
02 TO 12

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

M80-301/302  
x No. OF CONTACTS

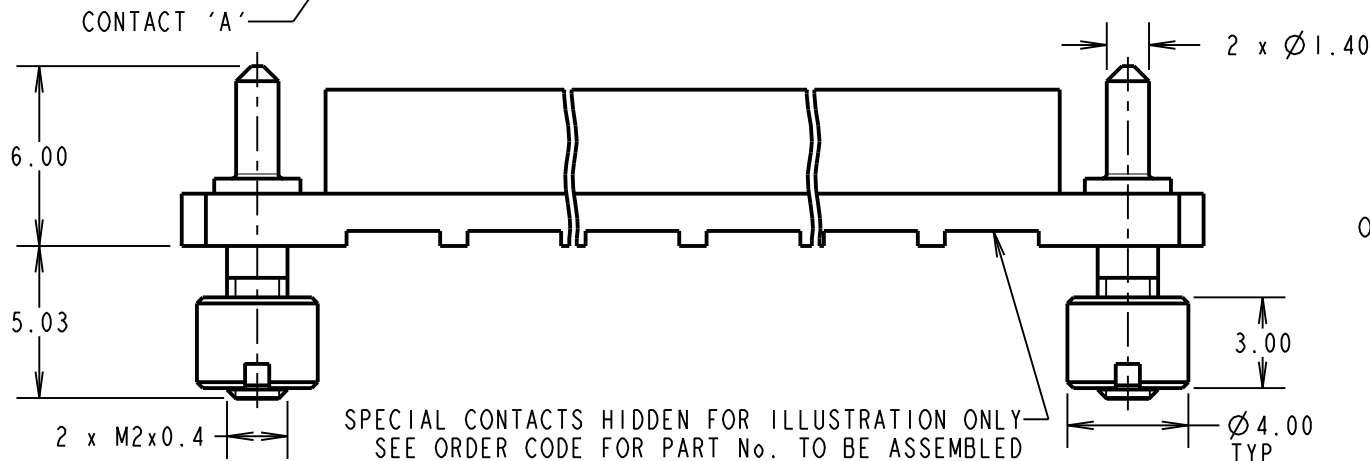
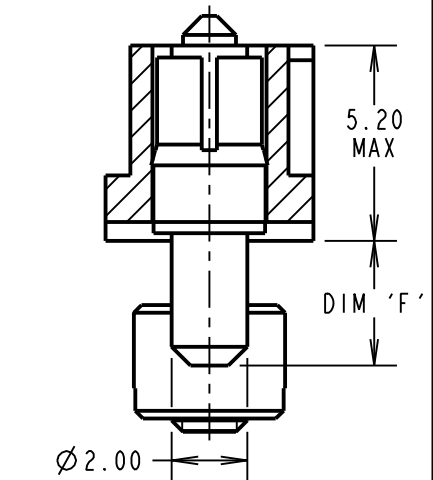


M80-321/322  
x No. OF CONTACTS



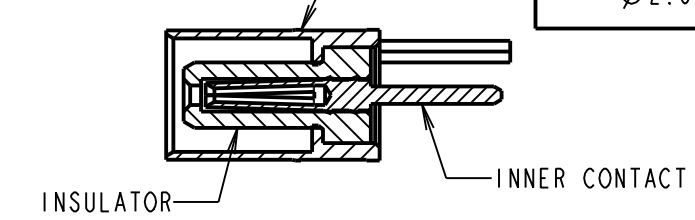
NOTE:  
1. BOARD MOUNT NUTS ARE  
SUPPLIED WITH CONNECTOR,  
BUT NOT ASSEMBLED AS  
SHOWN FOR ILLUSTRATION.

M80-PF1/PF2  
x No. OF CONTACTS

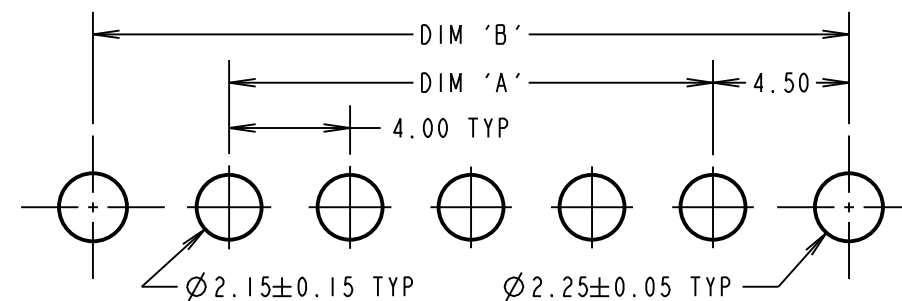


SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY  
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

CROSS-SECTION  
OF COAX CONTACT



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



MGP	5	12.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

**HARWIN**

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technical@harwin.com

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**TOLERANCES**  
X. =  $\pm 1$ mm  
X.X =  $\pm 0.50$ mm  
X.XX =  $\pm 0.10$ mm  
X.XXX =  $\pm 0.01$ mm  
ANGLES =  $\pm 5^\circ$   
UNLESS STATED

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

**TITLE:** DATAMATE MIX-TEK  
FEMALE ASSEMBLY WITH  
BOARDMOUNT JACKSCREWS

**DRAWING NUMBER:**  
**M80-400000F3-XX-XXX-00-000**

SHT  
6 OF 6