

# Customer Information Sheet

DRAWING No.: M80-500000MF-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, NUT = STAINLESS STEEL

**FINISH:**  
**COAX CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD  
 LATCHING COLLAR = NICKEL

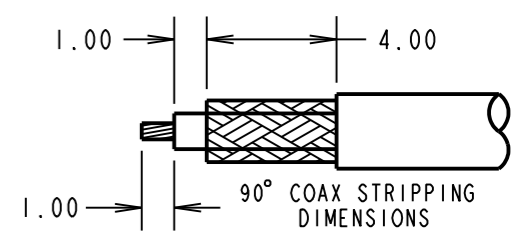
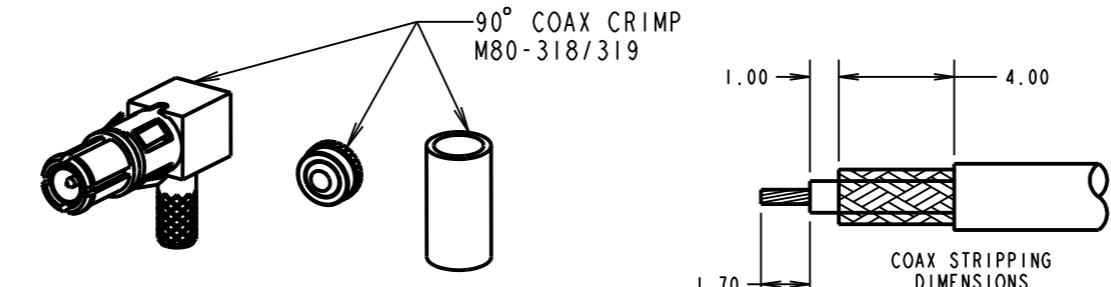
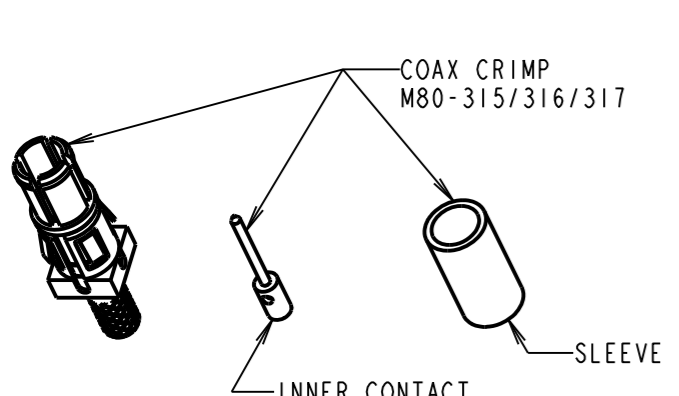
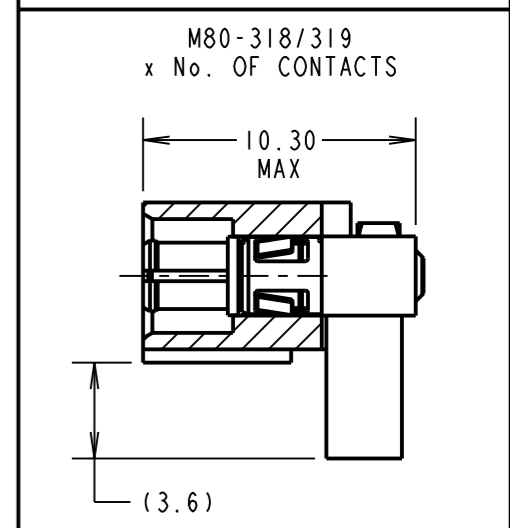
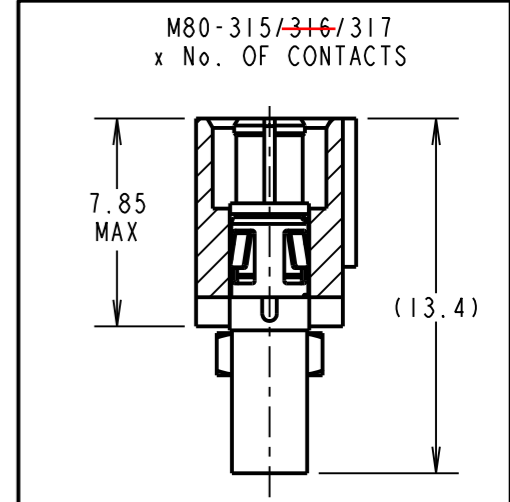
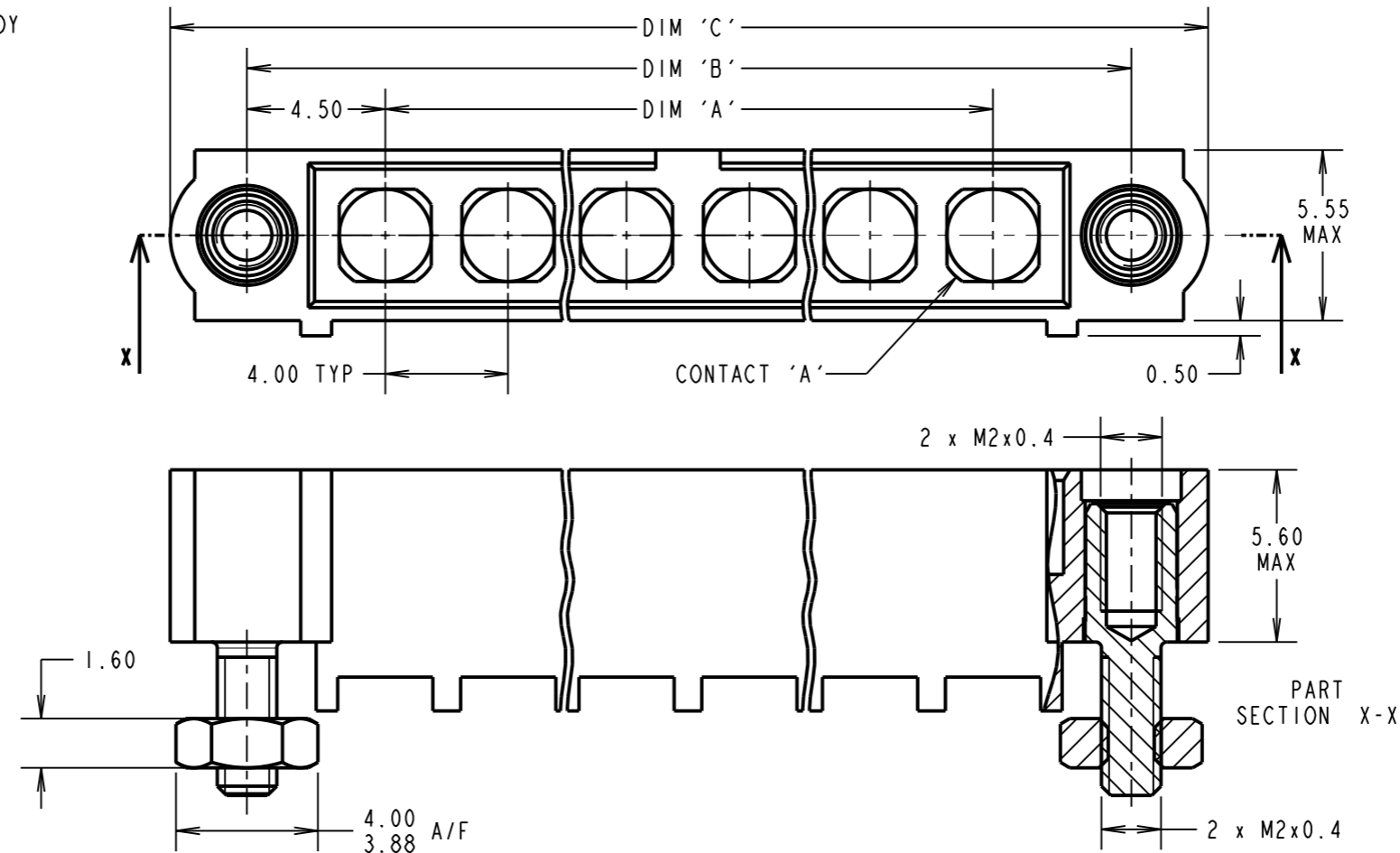
**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
**COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ @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:

- CONNECTORS ARE SUPPLIED WITH CONTACTS AND NUTS LOOSE.
- 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 M80-315/316/317/318/319.
- 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)  
**M80-500000MF-XX-XXX-00-000**

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

SPECIAL CONTACTS \_\_\_\_\_  
 315 = COAX CONTACT 2.00mm CRIMP M80-315  
~~316 = COAX CONTACT 2.40mm CRIMP M80-316~~  
 317 = COAX CONTACT 2.70mm CRIMP M80-317  
 318 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-318  
 319 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-319

FM	4	18.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED: F. MCGOWAN			
CHECKED: S. BENNETT			
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,  
 M80-500000MF-08-315-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm

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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  
 MALE ASSY WITH  
 BOARD MOUNT J/SCREW  
**DRAWING NUMBER:**  
 M80-500000MF-XX-XXX-00-000  
 SHT 4 OF 6

# Customer Information Sheet

DRAWING No.: M80-500000MF-XX-XXX-00-000

SHEET 5 OF 6

IF IN DOUBT - ASK

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NOT TO SCALE

THIRD ANGLE PROJECTION

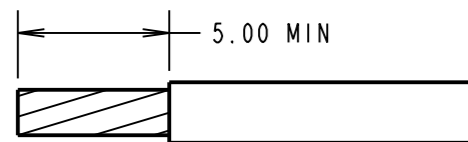
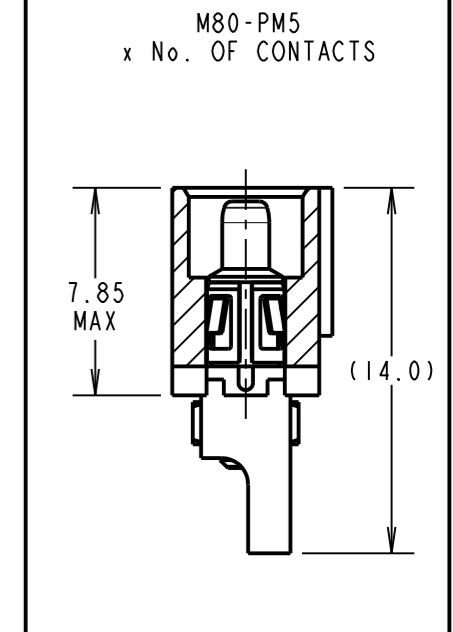
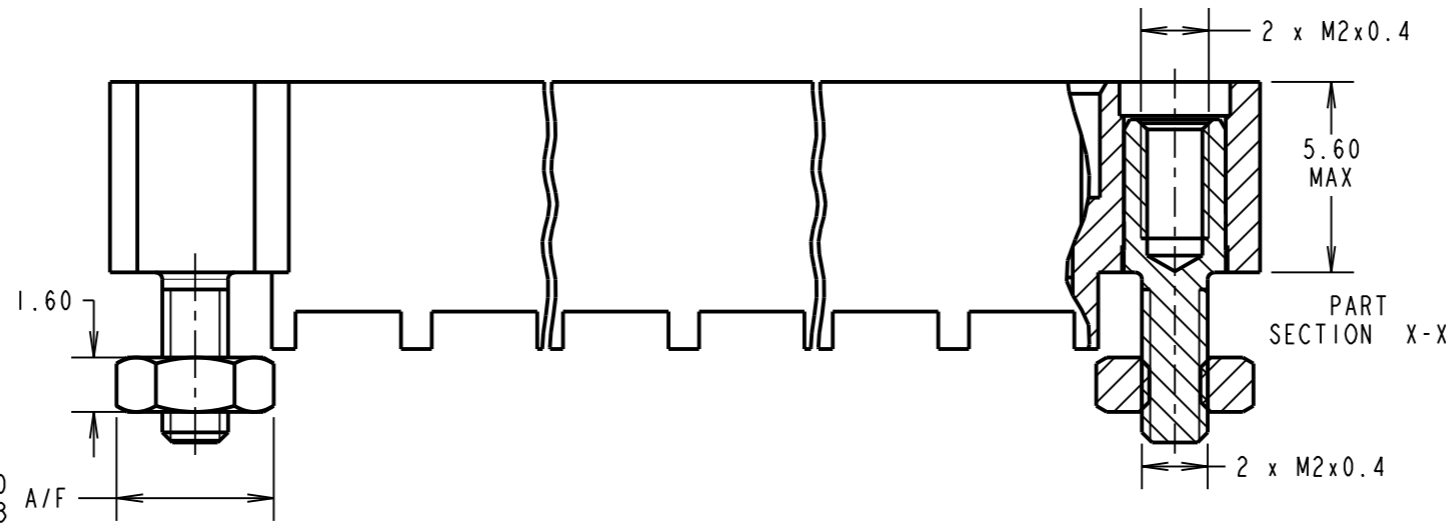
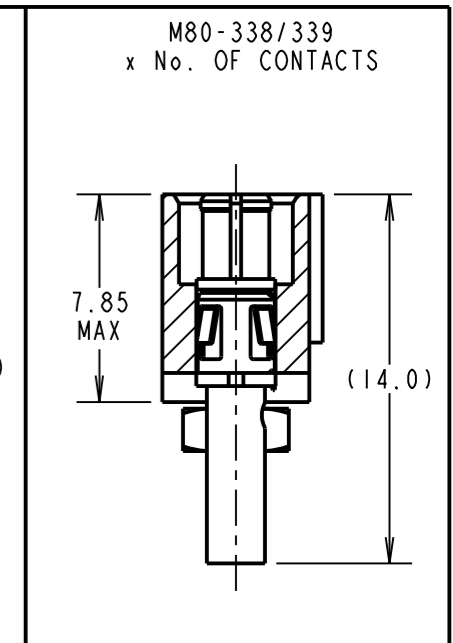
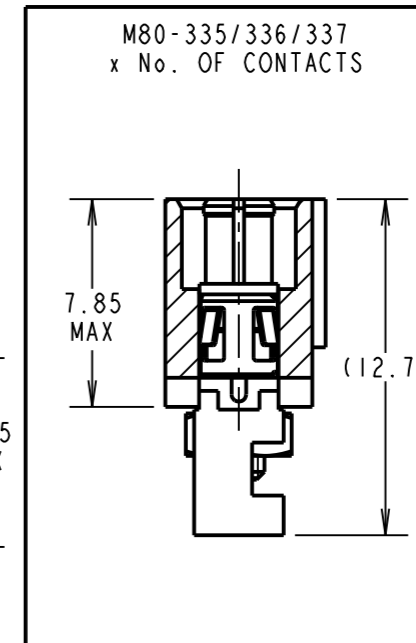
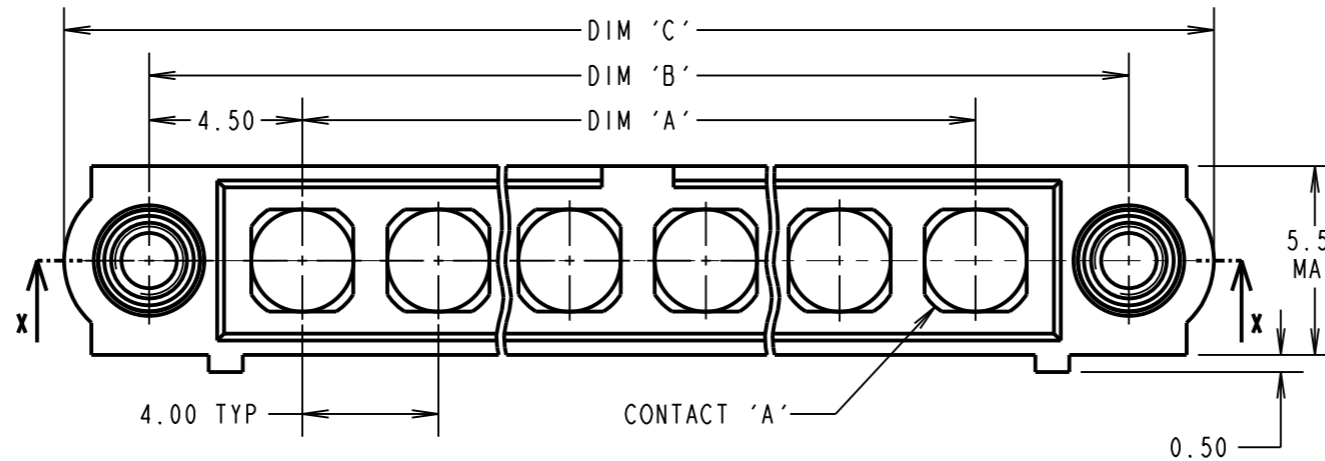
ALL DIMENSIONS IN mm

## 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, NUT = 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 = M80-335 = 20A MAX WITH 12AWG  
 M80-336 = 15A MAX WITH 14AWG  
 M80-337 = 10A MAX WITH 16AWG  
 M80-338 = 8A MAX WITH 18AWG  
 M80-339 = 5A MAX WITH 20AWG  
 M80-PM5 = 40A MAX WITH 10AWG  
 CONTACT AS SPECIFIED

**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
**POWER CONTACT:**  
 INSERTION FORCE:  
 M80-335/336/337/338/339 = 8N MAX  
 M80-PM5 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
**ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-335/336/337/338/339 = -55°C TO +125°C  
 M80-PM5 = -55°C TO +150°C  
**PACKING:**  
 BAG  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

## POWER CRIMP & SOLDER CONTACTS ONLY



POWER CABLE STRIPPING DIMENSIONS

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)

**M80-500000MF-XX-XXX-00-000**

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

**SPECIAL CONTACTS**  
 335 = POWER CONTACT 12AWG SOLDER M80-335  
 336 = POWER CONTACT 14AWG SOLDER M80-336  
 337 = POWER CONTACT 16AWG SOLDER M80-337  
 338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338  
 339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339  
 PM5 = POWER CONTACT 10AWG SOLDER M80-PM5

### CRIMP/SOLDER NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS AND NUTS LOOSE.
- POWER CONTACT EXTRACTION TOOL: Z80-290.
- FOR EXTRA POWER CONTACTS, USE PART NUMBERS M80-335/336/337/338/339/PM5.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
- 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,  
 M80-500000MF-10-335-00-000  
 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 MALE ASSY WITH BOARD MOUNT J/SCREW

**DRAWING NUMBER:** M80-500000MF-XX-XXX-00-000

FM	4	18.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED: F. MCGOWAN			
CHECKED: S. BENNETT			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

# Customer Information Sheet

DRAWING No.: M80-500000MF-XX-XXX-00-000

SHEET 6 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: COPPER ALLOY  
 COAX CONTACT:  
 BODY = COPPER ALLOY  
 INNER CONTACT = COPPER ALLOY  
 INSULATOR = PTFE  
 BOARD MOUNT JACKSCREW, NUT = 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:  
 M80-331/332 = 20A MAX  
 M80-PM1/PM2 = 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

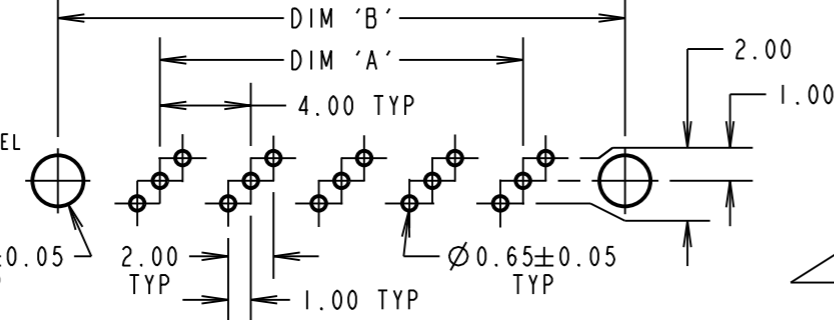
**INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC**  
**OPERATING VOLTAGE = 180V AC @ 500mA**  
**MAXIMUM VOLTAGE = 1000V AC**

**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
 POWER CONTACT:  
 INSERTION FORCE:  
 M80-331/332 = 8N MAX  
 M80-PM1/PM2 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
 COAX CONTACT:  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

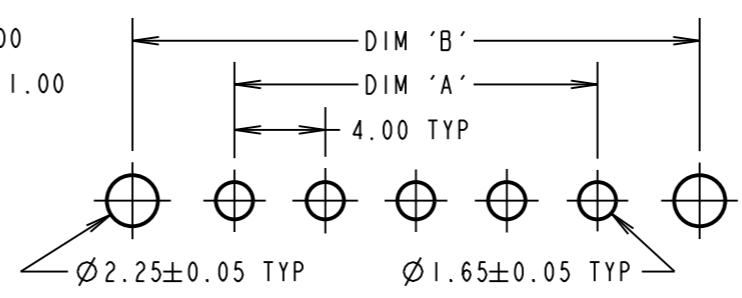
**ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-311/312/331/332 = -55°C TO +125°C  
 M80-PM1/PM2 = -55°C TO +150°C

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

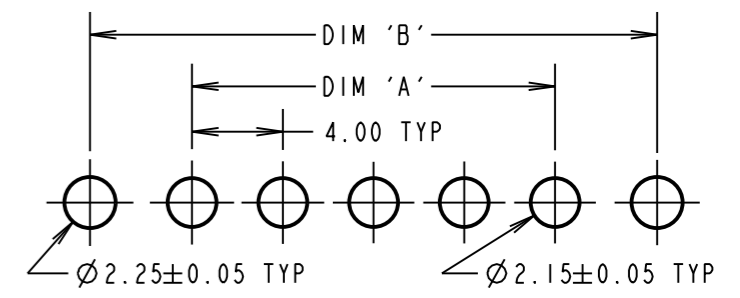
RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-311/312



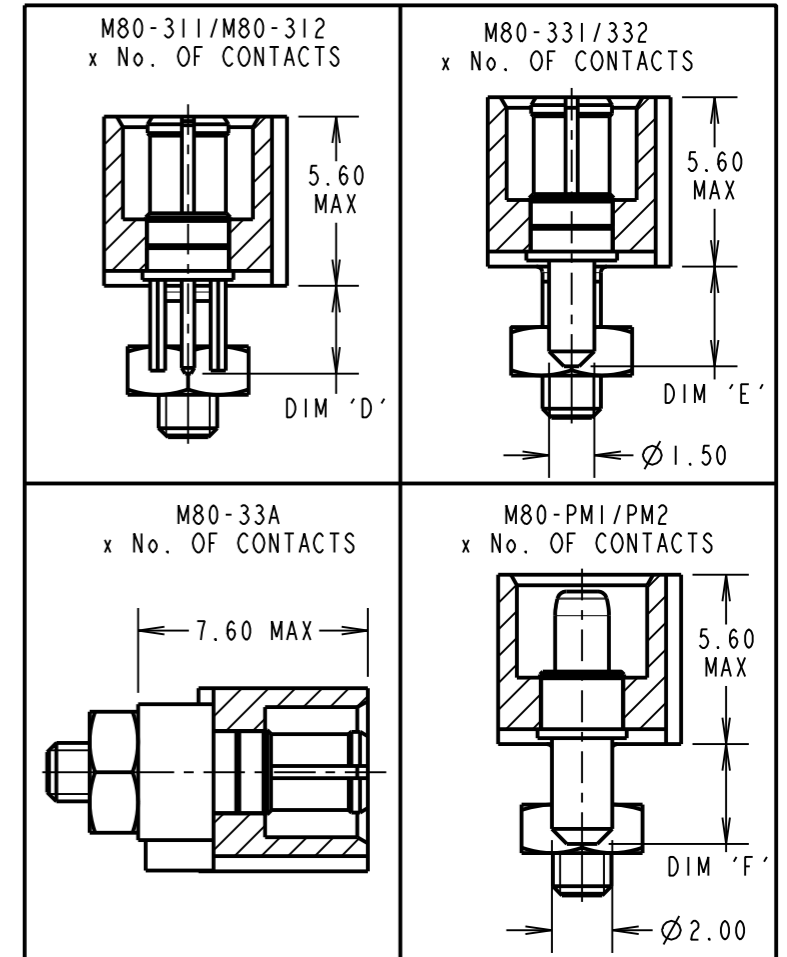
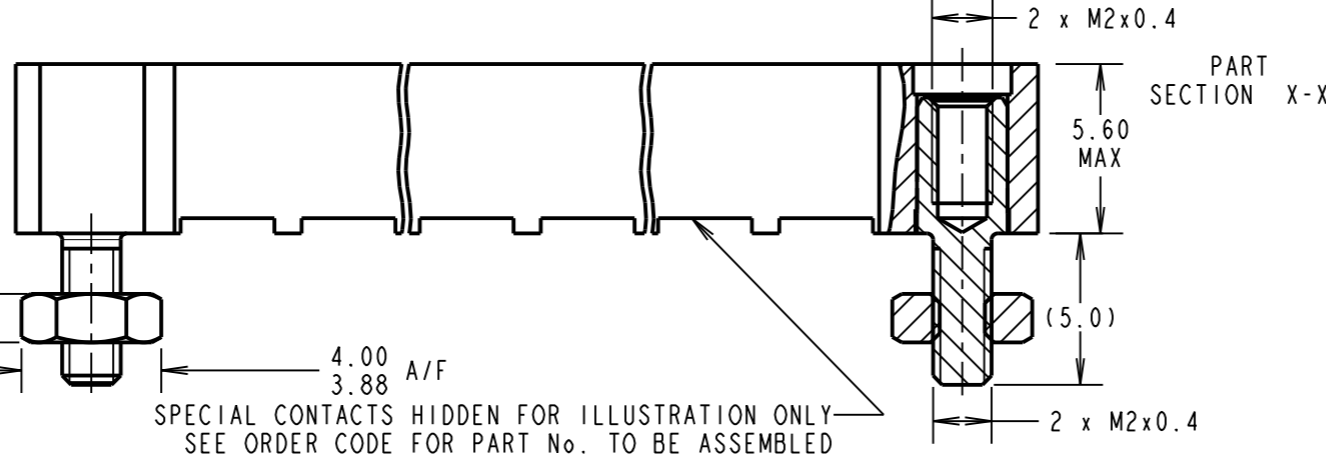
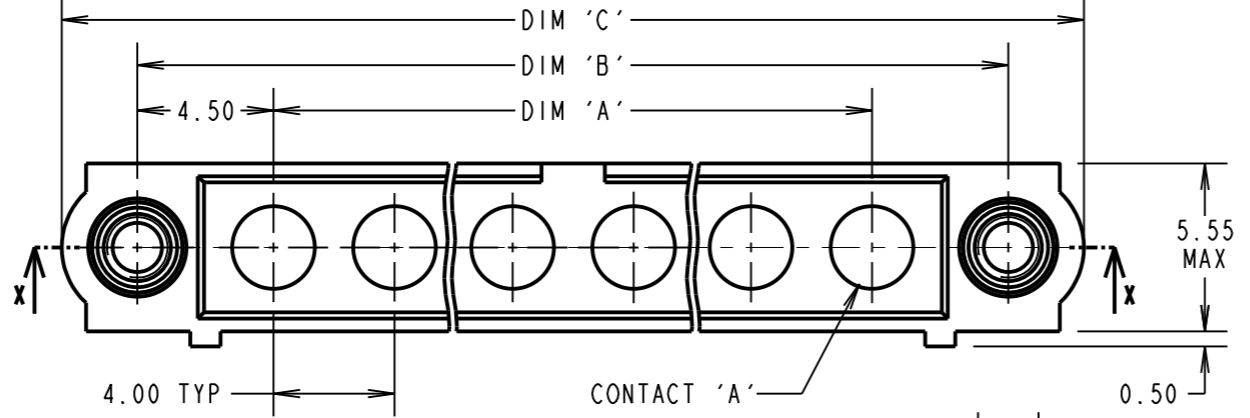
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1/PM2



## VERTICAL PC TAIL & SMT 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 + 10.0
DIM 'D'	M80-311 = 3.0mm, M80-312 = 4.5mm
DIM 'E'	M80-331 = 3.5mm, M80-332 = 5.0mm
DIM 'F'	M80-PM1 = 3.5mm, M80-PM2 = 5.0mm

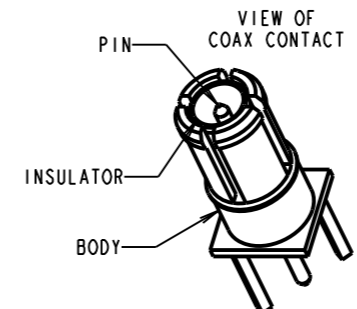
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-500000MF-08-311-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm  
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-500000MF-10-PM1-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm  
 DIM 'F' = 3.5mm

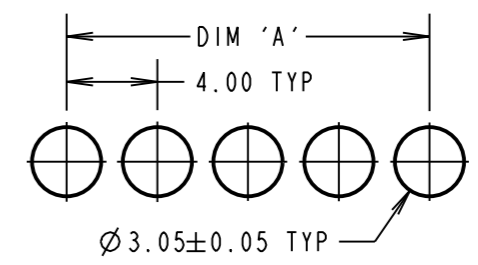
ORDER CODE:(PC TAIL CONTACTS ONLY)  
**M80-500000MF-XX-XXX-00-000**

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

SPECIAL CONTACTS \_\_\_\_\_  
 311 = COAX CONTACT 3.0mm PC TAIL M80-311  
 312 = COAX CONTACT 4.5mm PC TAIL M80-312  
 331 = 20A POWER CONTACT 3.5mm VERT' PC TAIL M80-331  
 332 = 20A POWER CONTACT 5.0mm VERT' PC TAIL M80-332  
 PM1 = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PM1  
 PM2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PM2  
 33A = POWER CONTACT HORZ' SMT M80-33A



RECOMMENDED PCB LAYOUT FOR POWER SMT



FM	4	18.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED: F. MCGOWAN			
CHECKED: S. BENNETT			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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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 MALE ASSY WITH BOARD MOUNT J/SCREW  
 DRAWING NUMBER: **M80-500000MF-XX-XXX-00-000** SHT 6 OF 6