

# Customer Information Sheet

DRAWING No.: M80-5000000MA-XX-XXX-00-000

SHEET 5 OF 8

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, 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

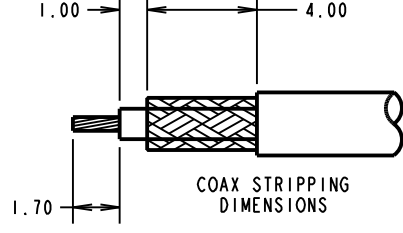
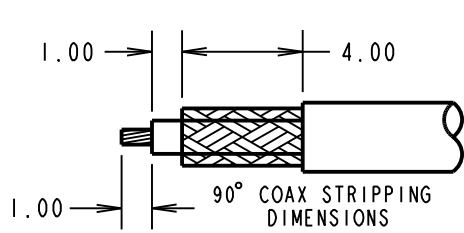
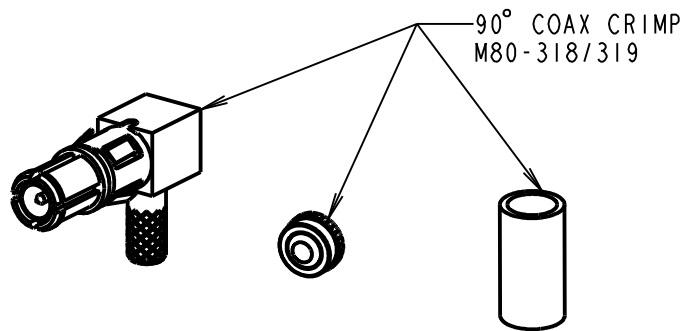
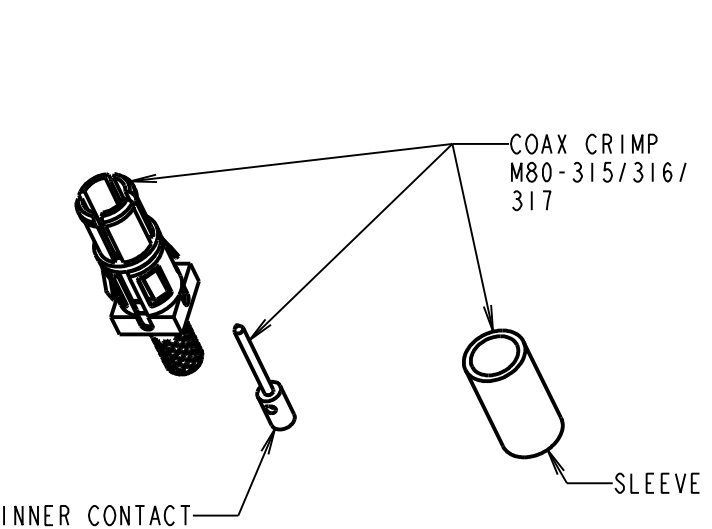
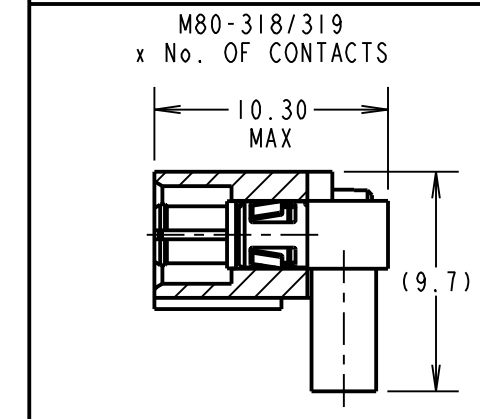
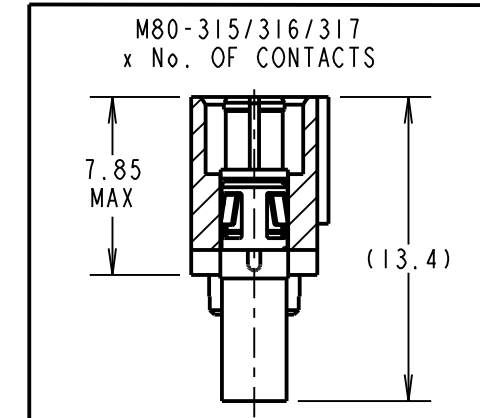
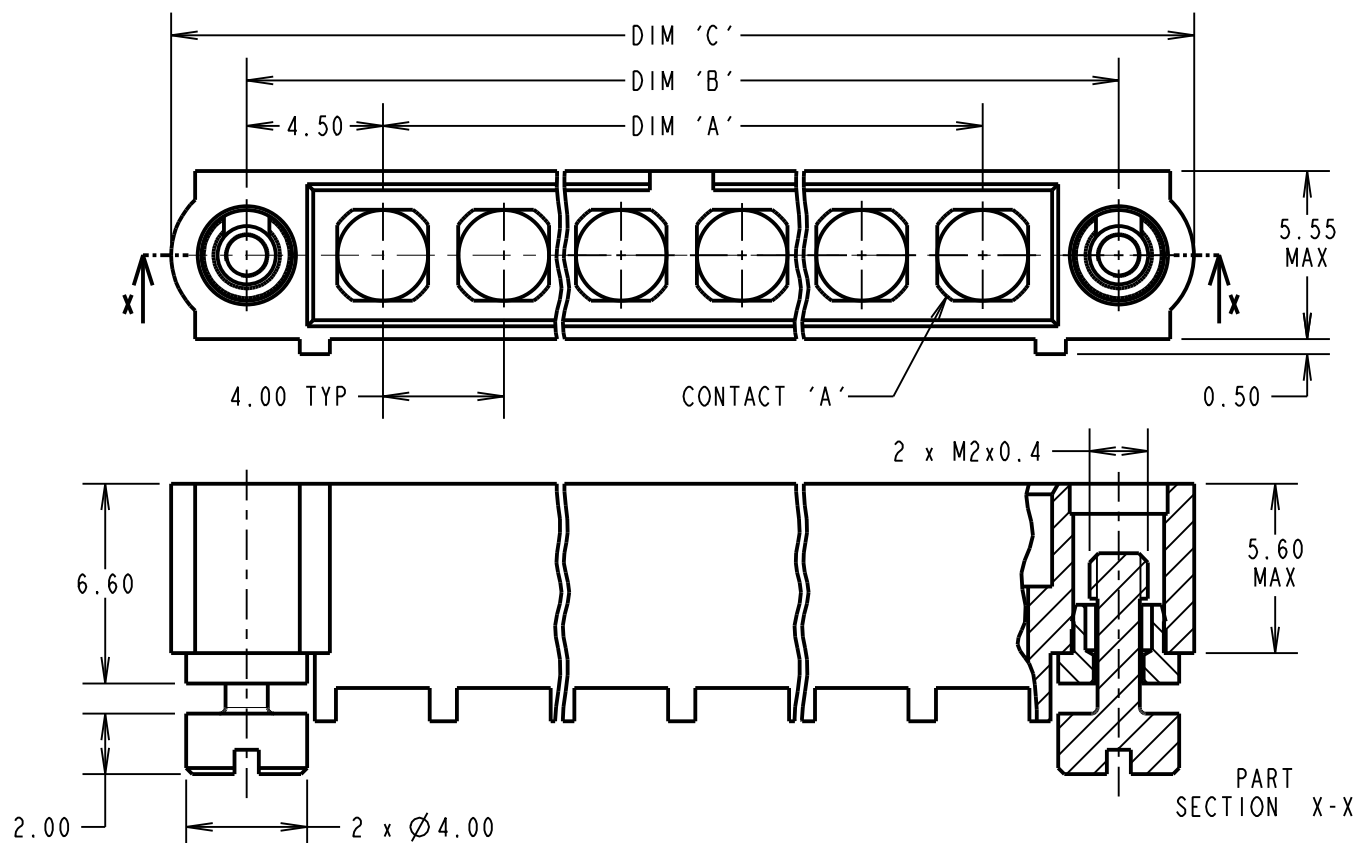
**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
 COAX CONTACT:  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ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

## CRIMP AND SOLDER CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS 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)  
**M80-5000000MA-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

MSP	3	03.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		M.PLESTED	
DRAWN:		R.ADE	
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 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-5000000MA-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 REVERSE FIX SLOTTED JACKSCREW  
**DRAWING NUMBER:** M80-5000000MA-XX-XXX-00-000  
 SHT 5 OF 8

# Customer Information Sheet

DRAWING No.: M80-5000000MA-XX-XXX-00-000

SHEET 6 OF 8

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, 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

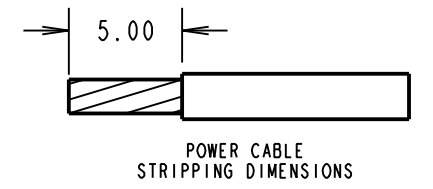
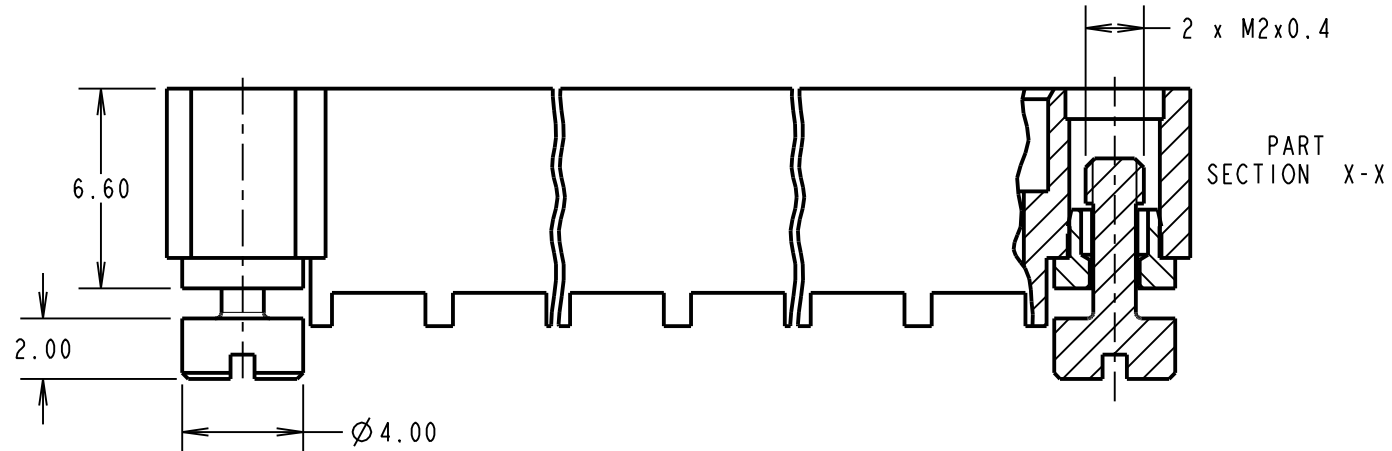
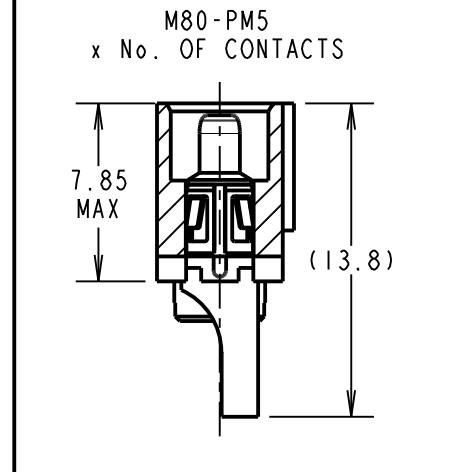
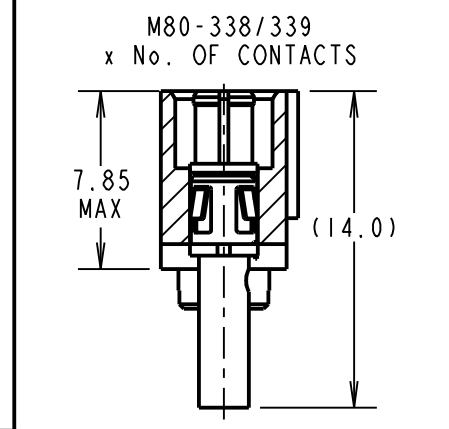
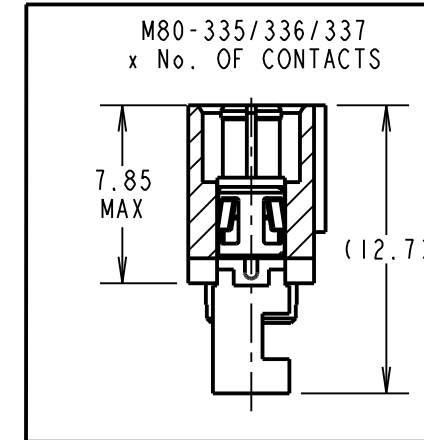
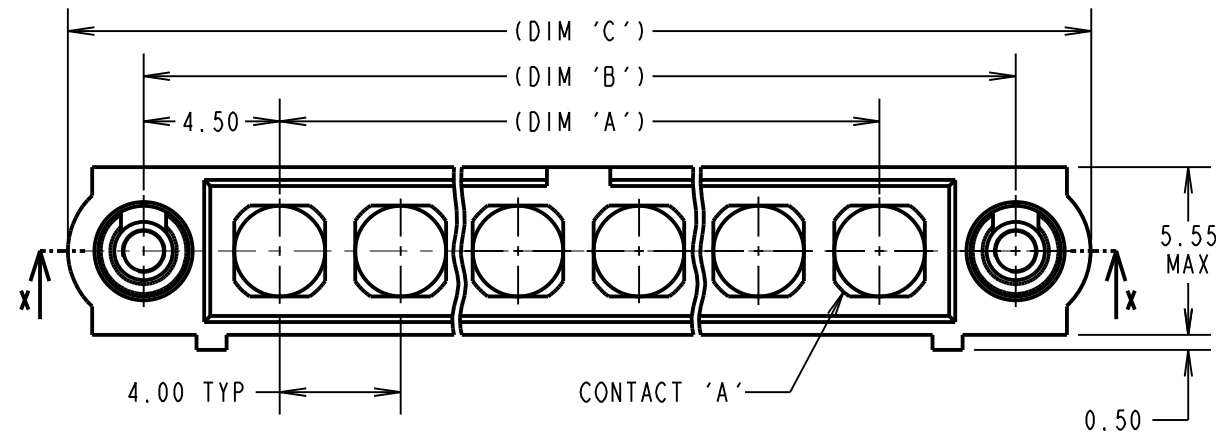
### ENVIRONMENTAL:

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)

## CRIMP AND SOLDER CONTACTS ONLY



### CRIMP/SOLDER NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
- FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339/PM5.
- POWER CONTACT EXTRACTION TOOL = Z80-290.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
- INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)  
**M80-5000000MA-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

MSP	3	03.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		M.PLESTED	
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 2: CONNECTOR WITH 10 POWER CONTACTS, M80-5000000MA-10-335-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm	

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 technical@harwin.com

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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 REVERSE FIX SLOTTED JACKSCREW  
 DRAWING NUMBER:  
**M80-5000000MA-XX-XXX-00-000**

# Customer Information Sheet

DRAWING No.: M80-5000000MA-XX-XXX-00-000

SHEET 7 OF 8

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  
 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

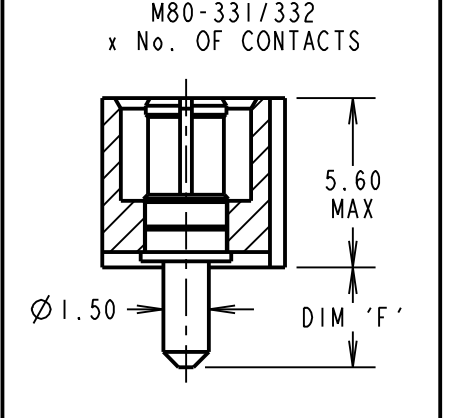
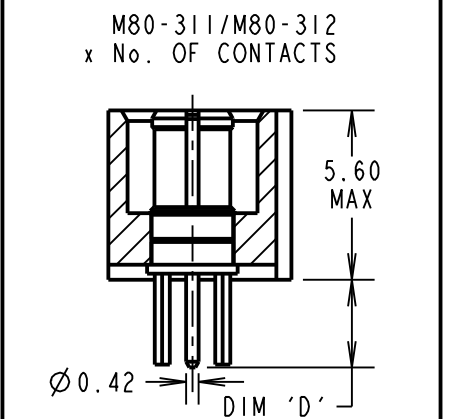
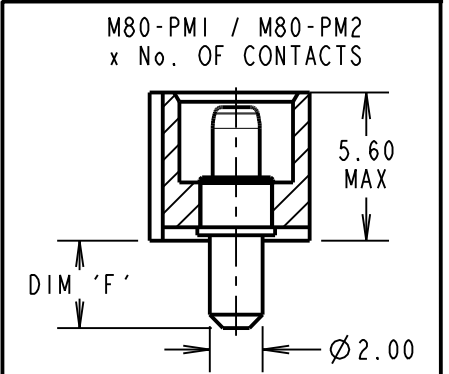
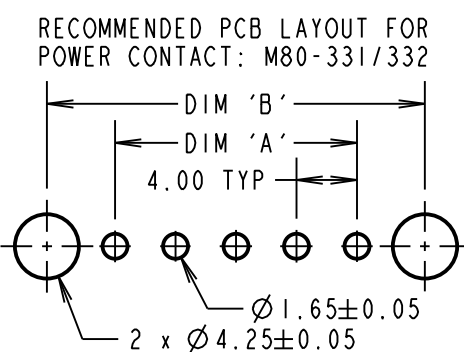
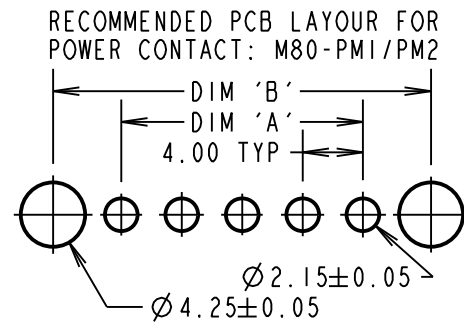
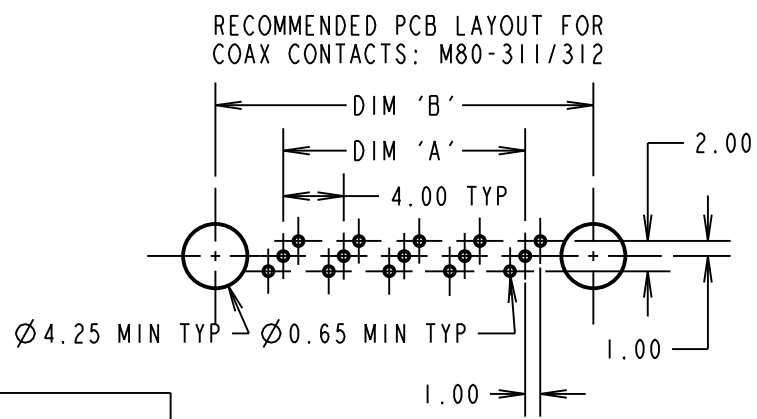
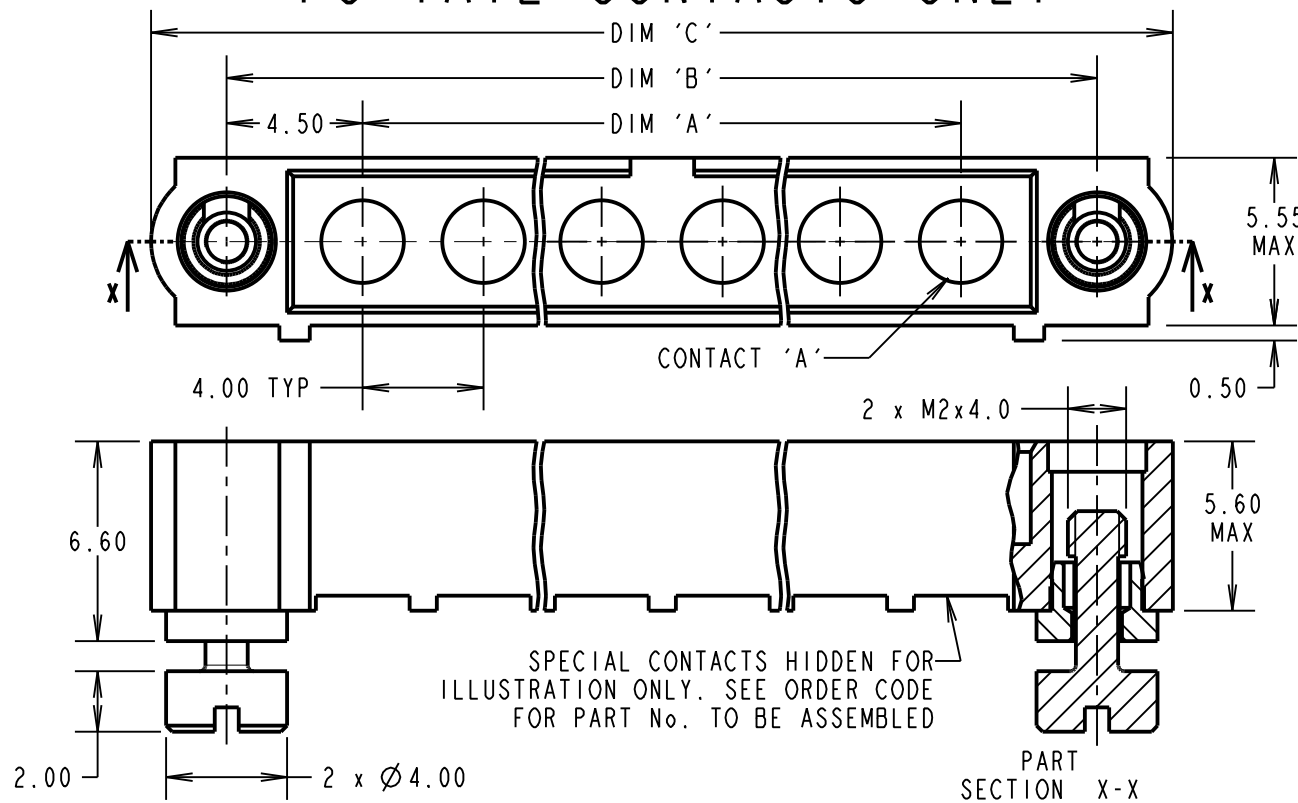
**COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE = 6mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC

**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)

## PC TAIL 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
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

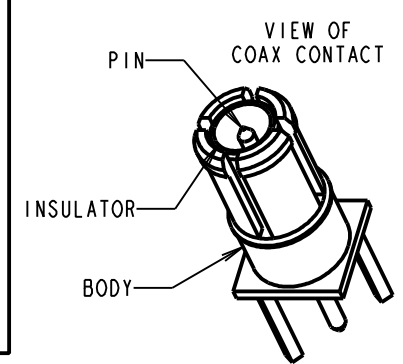
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-5000000MA-08-311-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm  
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-5000000MA-10-PM1-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm  
 DIM 'F' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)  
**M80-5000000MA-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



MSP	3	03.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M. PERREN	
CHECKED:		M. PLESTED	
DRAWN:		R. ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

**HARWIN**

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 technical@harwin.com

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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 REVERSE FIX SLOTTED JACKSCREW  
 DRAWING NUMBER: **M80-5000000MA-XX-XXX-00-000**  
 SHT 7 OF 8

# Customer Information Sheet

DRAWING No.: M80-5000000MA-XX-XXX-00-000

SHEET 8 OF 8

IF IN DOUBT - ASK

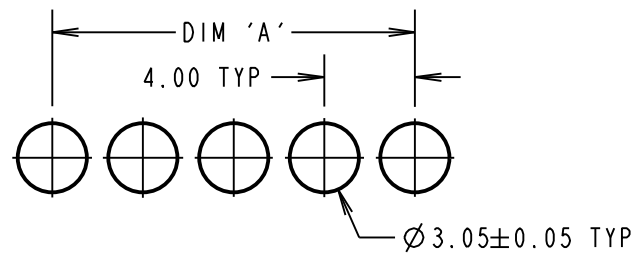
(C)

NOT TO SCALE

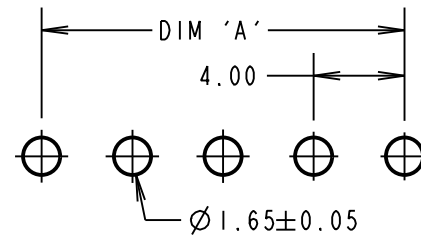
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

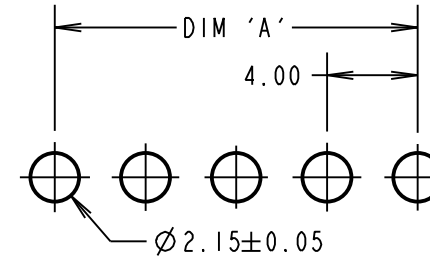
RECOMMENDED PCB LAYOUT FOR POWER SMT



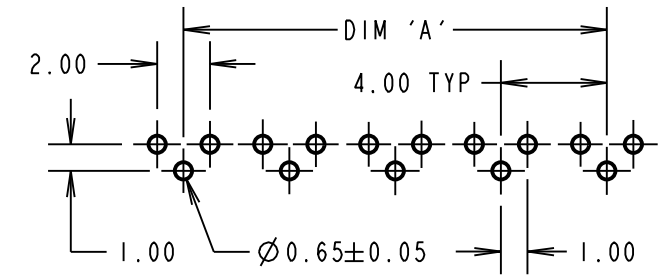
RECOMMENDED PCB LAYOUT FOR POWER M80-333/334



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM3/PM4



RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-313/314



**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

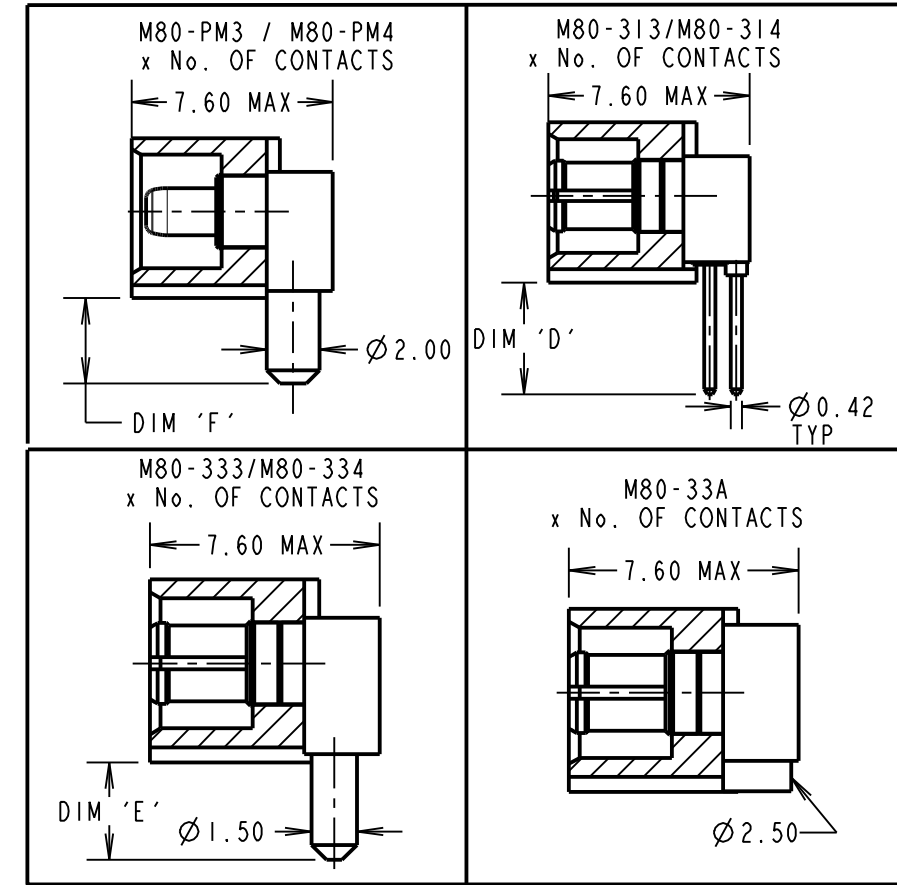
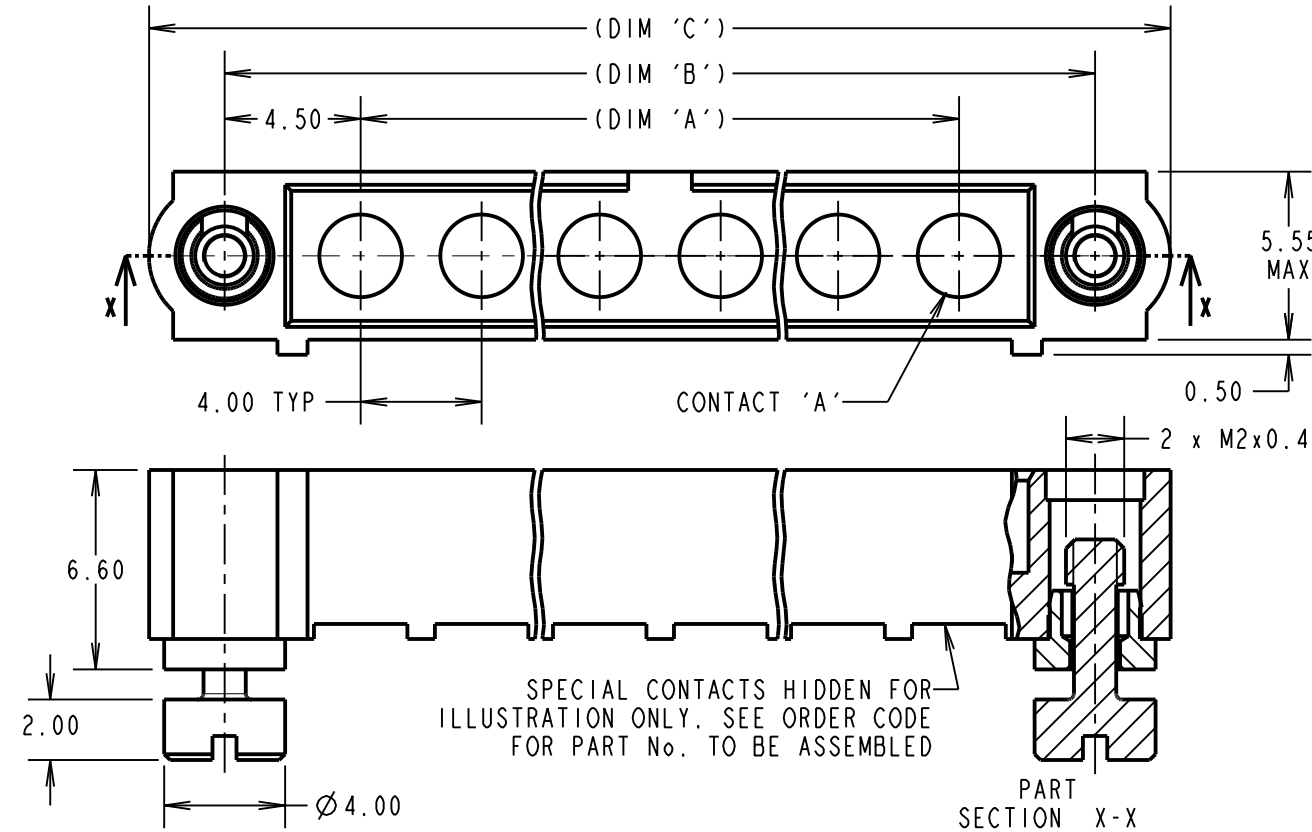
**ELECTRICAL:**  
 WORKING VOLTAGE = 800V AC/DC  
 VOLTAGE PROOF = 1200V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
 POWER CONTACT:  
 CONTACT RESISTANCE = 6mΩ MAX  
 CURRENT RATING:  
 M80-333/334/33A = 20A MAX  
 M80-PM3/PM4 = 40A MAX  
 COAX CONTACT:  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50Ω  
 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:  
 M80-333/334/33A = 8N MAX  
 M80-PM3/PM4 = 15N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
 COAX CONTACT:  
 INSERTION FORCE = 8N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

**ENVIRONMENTAL:**  
 TEMPERATURE RANGE:  
 M80-313/314/333/334/33A = -55°C TO +125°C  
 M80-PM3/PM4 = -55°C TO +125°C

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

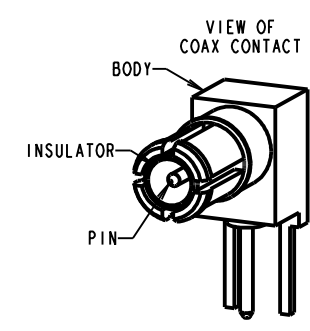
PC TAIL + SMT CONTACTS ONLY



ORDER CODE:(PC TAIL CONTACTS ONLY)  
**M80-5000000MA-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

SPECIAL CONTACTS  
 313 = COAX CONTACT 3.0mm PC TAIL M80-313  
 314 = COAX CONTACT 4.5mm PC TAIL M80-314  
 333 = 20A POWER CONTACT 3.5mm HORZ' PC TAIL M80-333  
 334 = 20A POWER CONTACT 5.0mm HORZ' PC TAIL M80-334  
 PM3 = 40A POWER CONTACT 3.5mm HORZ' PC TAIL M80-PM3  
 PM4 = 40A POWER CONTACT 5.0mm HORZ' PC TAIL M80-PM4  
 33A = POWER CONTACT HORZ' SMT M80-33A



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'	M80-313 = 3.0mm, M80-314 = 4.5mm
DIM 'E'	M80-333 = 3.0mm, M80-334 = 4.5mm
DIM 'F'	M80-PM3 = 3.5mm, M80-PM4 = 5.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-5000000MA-10-333-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm  
 DIM 'E' = 3.0mm



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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 REVERSE FIX SLOTTED JACKSCREW  
 DRAWING NUMBER:  
**M80-5000000MA-XX-XXX-00-000**  
 SHT 8 OF 8

MSP	3	03.03.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:		M.PERREN	
CHECKED:		M.PLESTED	
DRAWN:		R.ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			