

# Customer Information Sheet

DRAWING No.: M80-5000000M2-XX-XXX-00-000

IF IN DOUBT - ASK

(C)

NOT TO SCALE

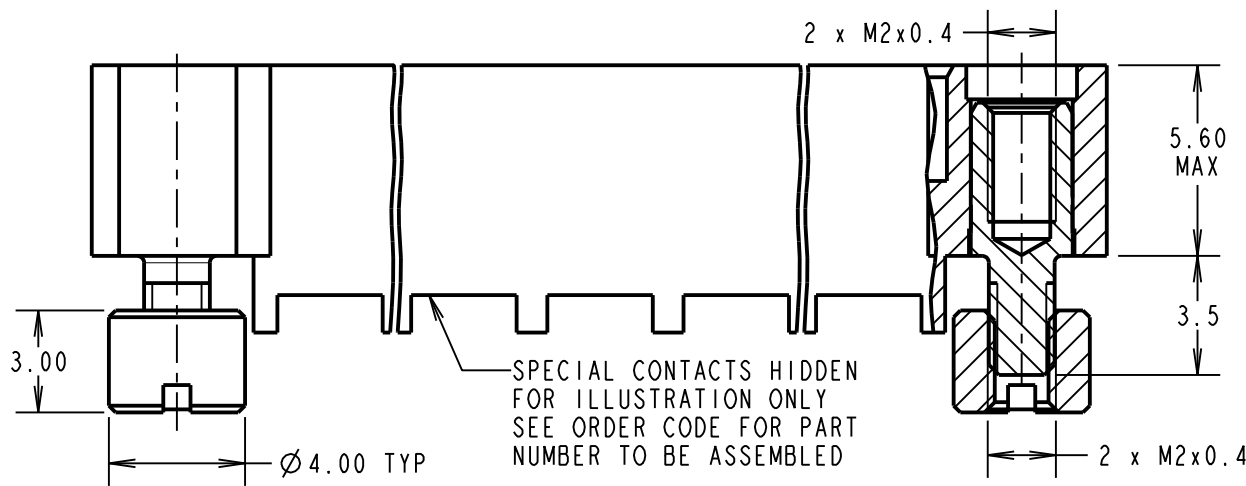
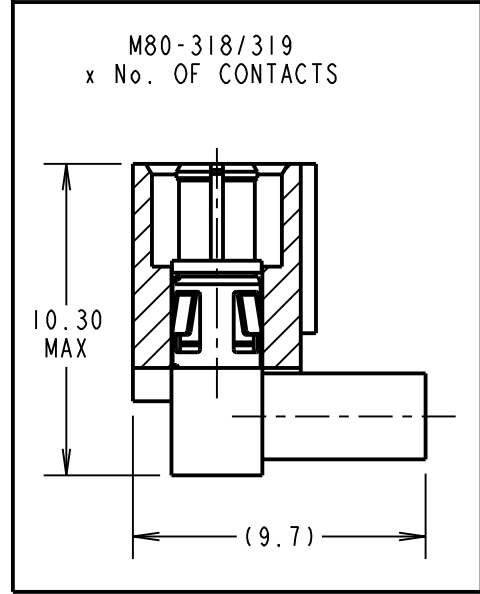
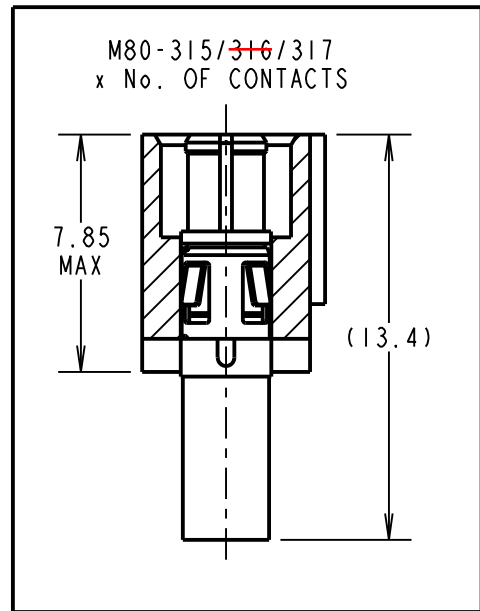
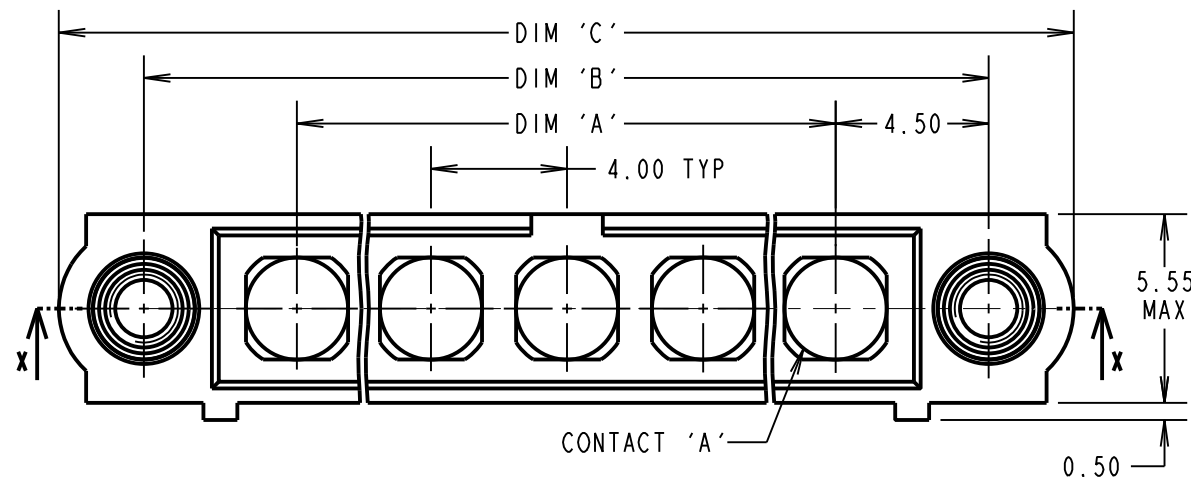
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

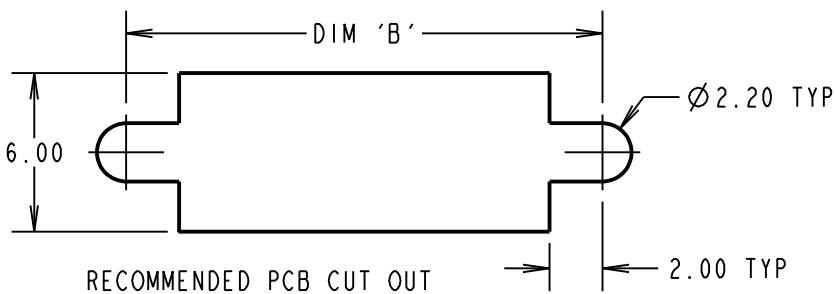
**SPECIFICATIONS:**

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE  
 JACKSCREW, NUT = 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 CO05XX (LATEST ISSUE)

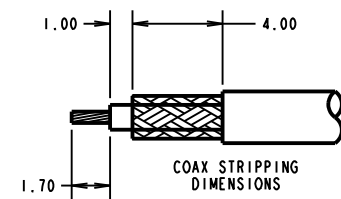
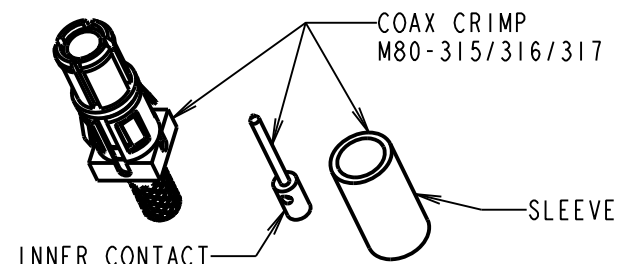
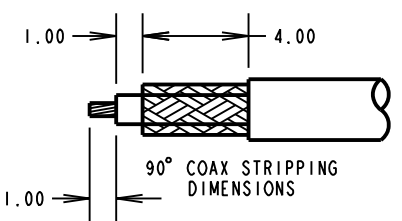
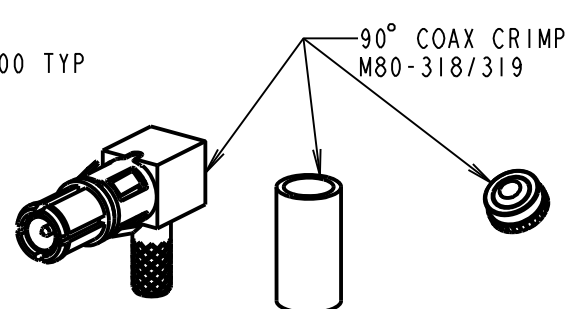
## COAX CRIMP/SOLDER CONTACTS ONLY



PART SECTION X-X



ORDER CODE: (COAX CRIMP/SOLDER CONTACTS)  
**M80-5000000M2-XX-XXX-00-000**  
 TOTAL No. OF CONTACTS  
 02 TO 12  
 SPECIAL CONTACTS (CRIMP)  
 315 = COAX CONTACT 2.0mm CRIMP M80-315  
~~316 = COAX CONTACT 2.4mm CRIMP M80-316~~  
 317 = COAX CONTACT 2.7mm CRIMP M80-317  
 318 = COAX CONTACT 2.0mm HORZ' CRIMP M80-318  
 319 = COAX CONTACT 2.7mm HORZ' CRIMP M80-319



- 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.
  - 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.

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, M80-5000000M2-08-315-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm	

**HARWIN**  
 www.harwin.com  
 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 ASSEMBLY WITH BOARD MOUNT J-SCREW  
**DRAWING NUMBER:** M80-5000000M2-XX-XXX-00-000  
 SHT 4 OF 6

SB	8	29.08.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED:		S.BENNETT	
CHECKED:		M.PLESTED	
DRAWN:		C.PENROSE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

# Customer Information Sheet

DRAWING No.: M80-5000000M2-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, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY

LATCHING COLLAR = BERYLLIUM COPPER

INSULATOR = PTFE

IOILOK RETAINER = 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

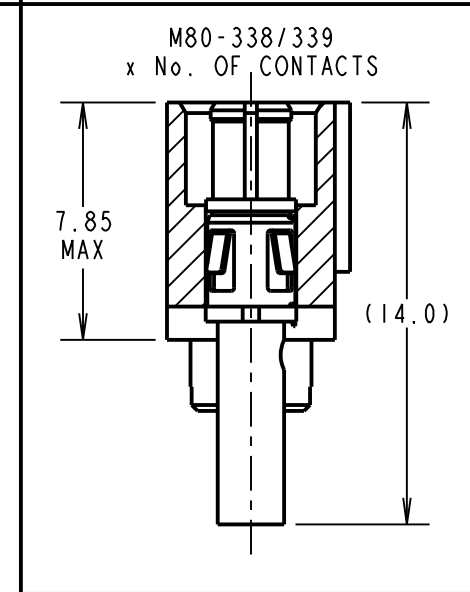
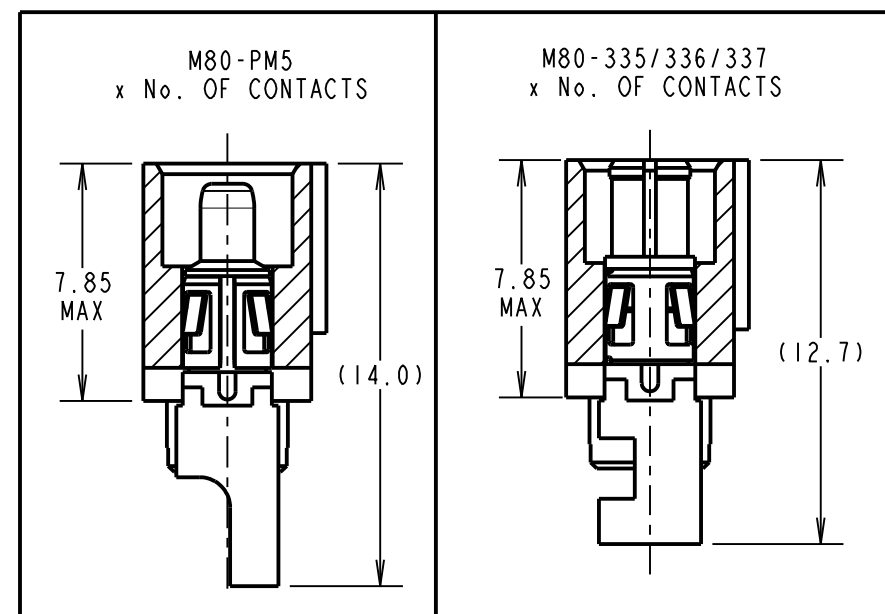
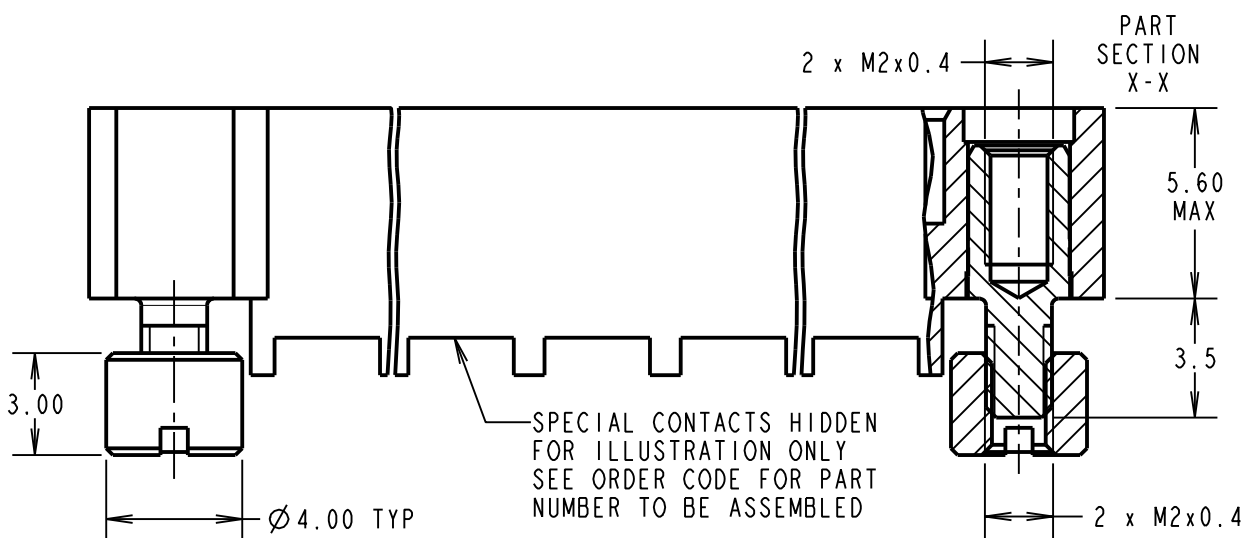
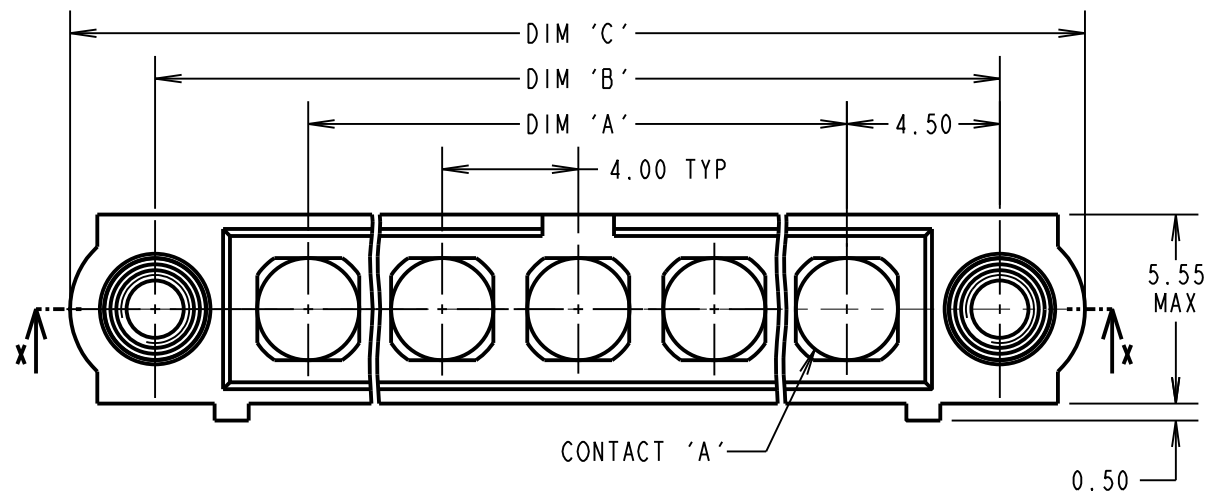
M80-PM5 = -55°C TO +150°C

### PACKING:

BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

## POWER CRIMP/SOLDER CONTACTS ONLY



ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)

**M80-5000000M2-XX-XXX-00-000**

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

SPECIAL CONTACTS (CRIMP)

335 = POWER CONTACT 12AWG SOLDER M80-335

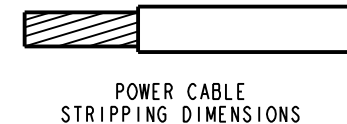
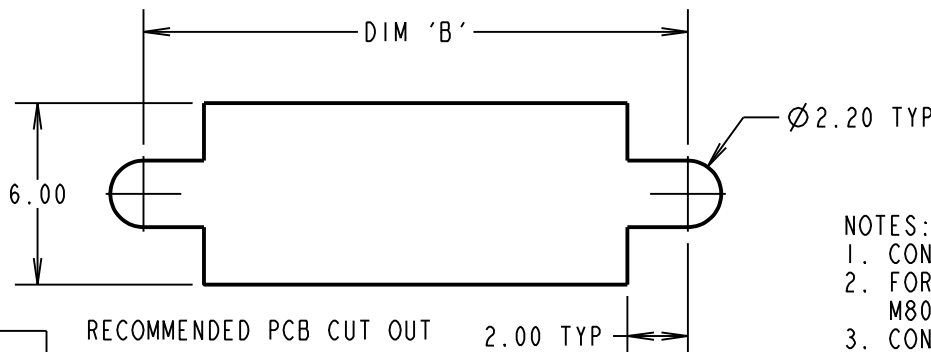
336 = POWER CONTACT 14AWG SOLDER M80-336

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



### NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS AND NUTS LOOSE.
- FOR EXTRA POWER CONTACTS USE PART NUMBERS: M80-335/336/337/338/339/PF5.
- CONTACT EXTRACTION TOOL = Z80-290.
- 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 + 10.00
EXAMPLE: CONNECTOR WITH 10 POWER CONTACTS, M80-5000000M2-10-335-00-000	
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm	

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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 ASSEMBLY  
WITH BOARD MOUNT J-SCREW

### DRAWING NUMBER:

**M80-5000000M2-XX-XXX-00-000**

### SHT

5 OF 6

SB	8	29.08.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED:		S.BENNETT	
CHECKED:		M.PLESTED	
DRAWN:		C.PENROSE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

# Customer Information Sheet

DRAWING No.: M80-500000M2-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  
 IOILOK RETAINER = 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:  
 M80-311/312 = 20A MAX  
 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

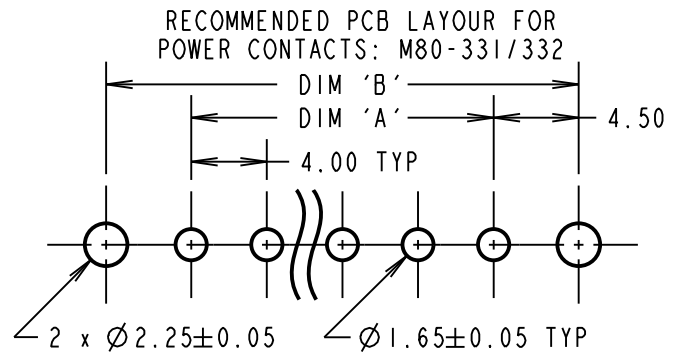
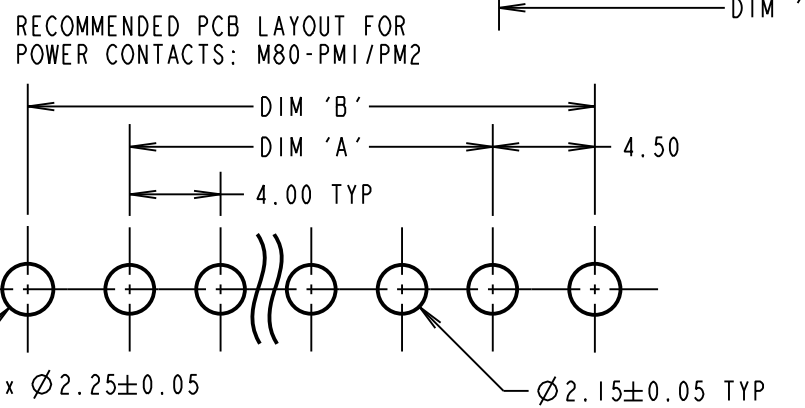
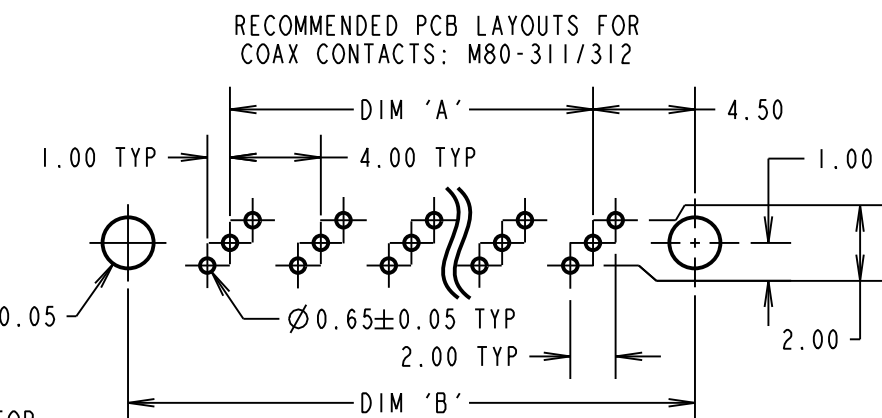
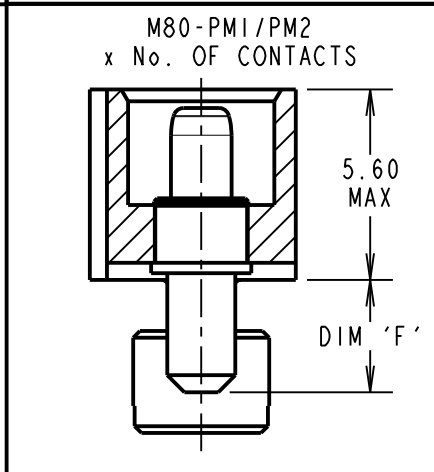
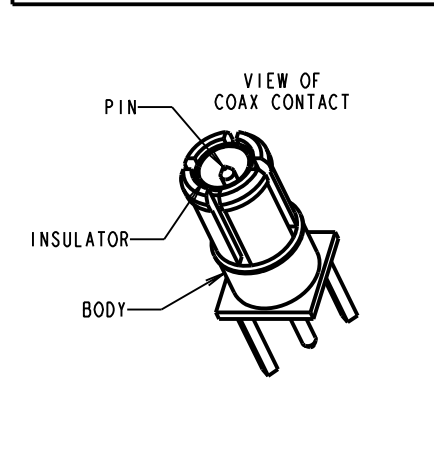
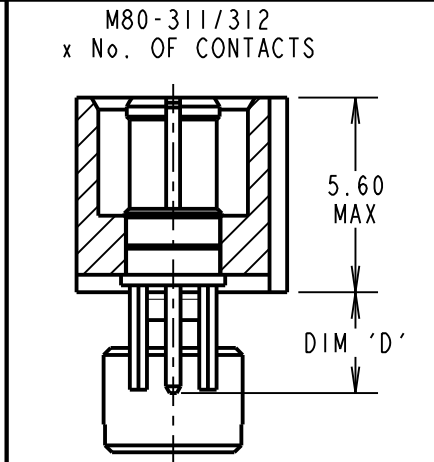
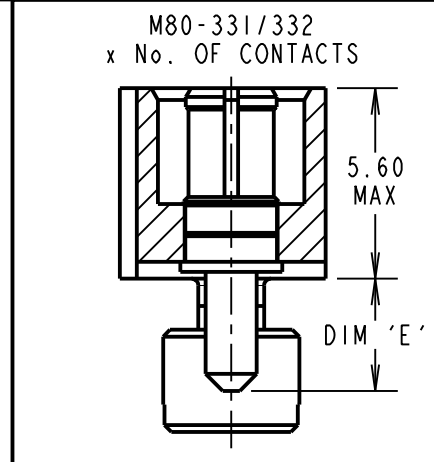
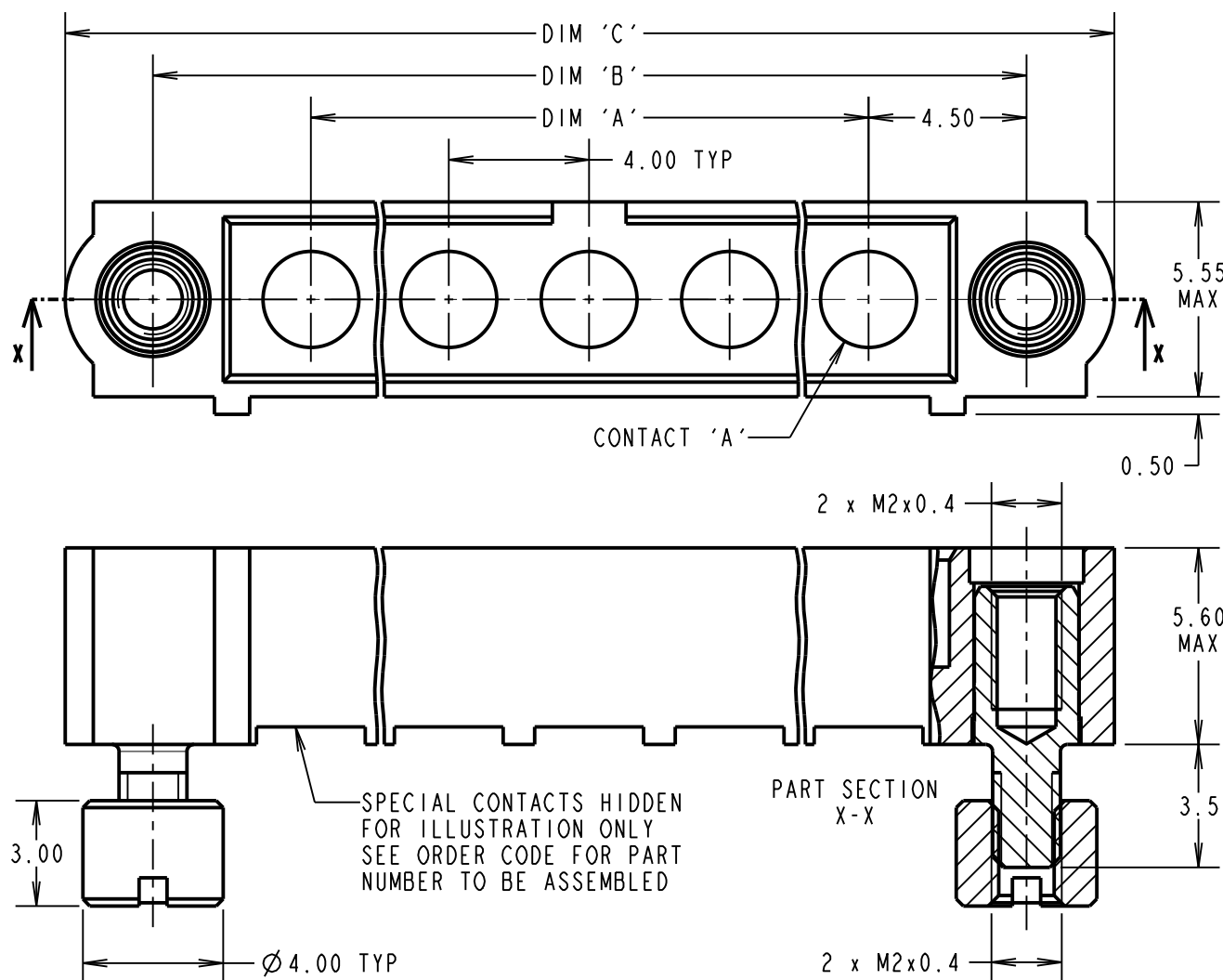
INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC

**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)

## VERTICAL PC TAIL CONTACTS ONLY



ORDER CODE: (COAX PC TAIL CONTACTS ONLY)  
**M80-500000M2-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

SPECIAL CONTACTS (PC TAIL)  
 311 = COAX CONTACT 3.0mm VERT' PC TAIL M80-311  
 312 = COAX CONTACT 4.5mm VERT' 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

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: CONNECTOR WITH 10 VERTICAL CONTACTS,  
 M80-500000M2-10-332-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm  
 DIM 'D' = 5.0mm

NOTE:  
 1, CONNECTORS ARE SUPPLIED WITH NUTS LOOSE.



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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 ASSEMBLY WITH BOARD MOUNT J-SCREW  
**DRAWING NUMBER:** M80-500000M2-XX-XXX-00-000  
 SB 8 29.08.17 13269  
 NAME ISS. DATE C/NOTE  
 APPROVED: S.BENNETT  
 CHECKED: M.PLESTED  
 DRAWN: C.PENROSE  
 CUSTOMER REF.:  
 ASSEMBLY DRG:  
 SHT 6 OF 6