

Customer Information Sheet

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

SHEET 4 OF 6

IF IN DOUBT - ASK

(C)

NOT TO SCALE

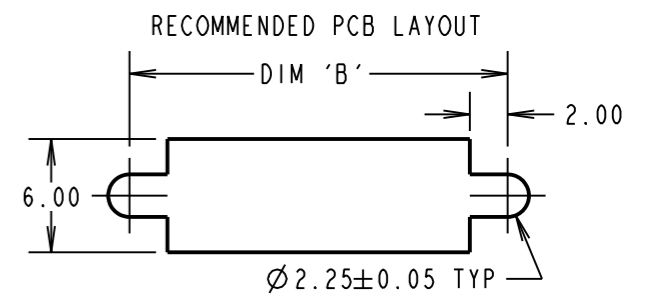
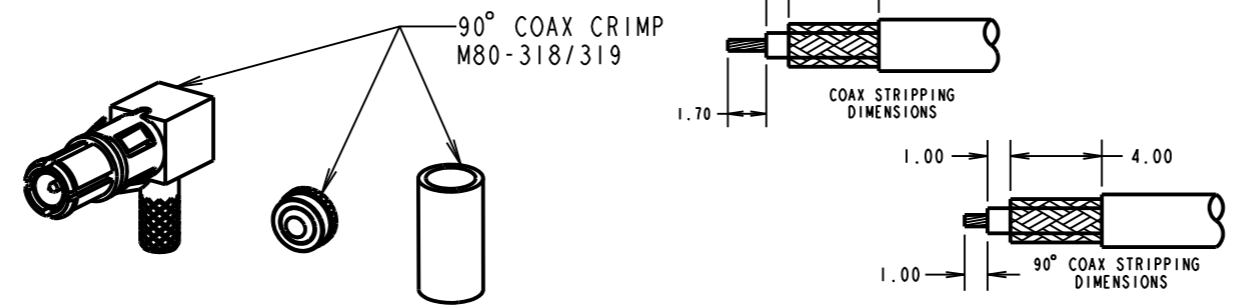
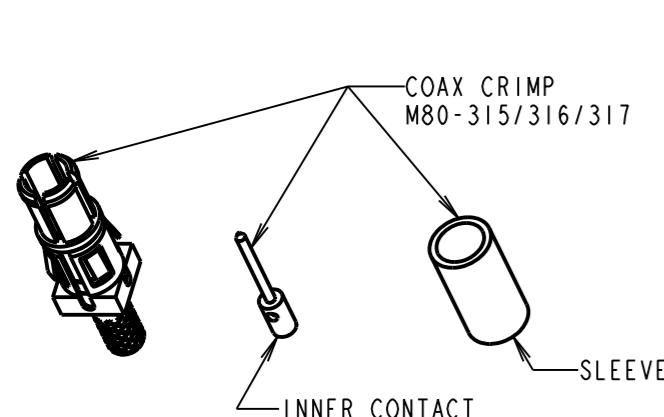
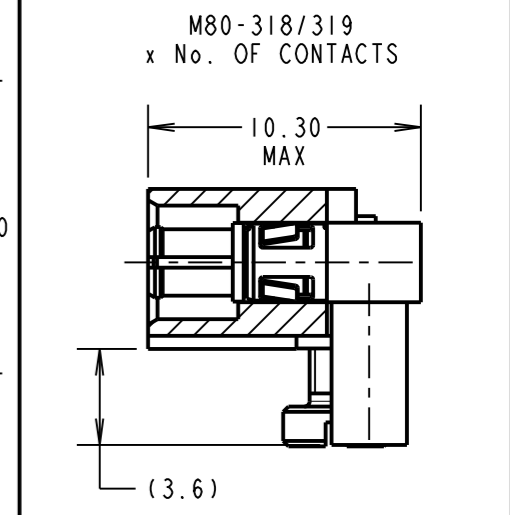
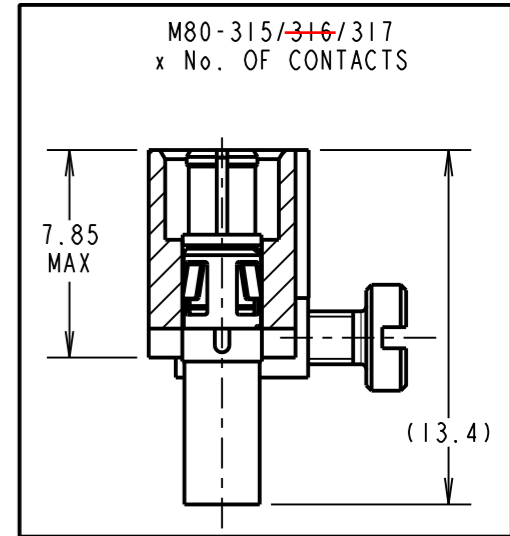
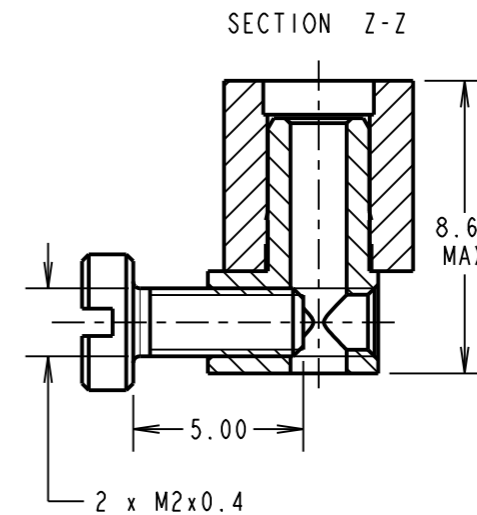
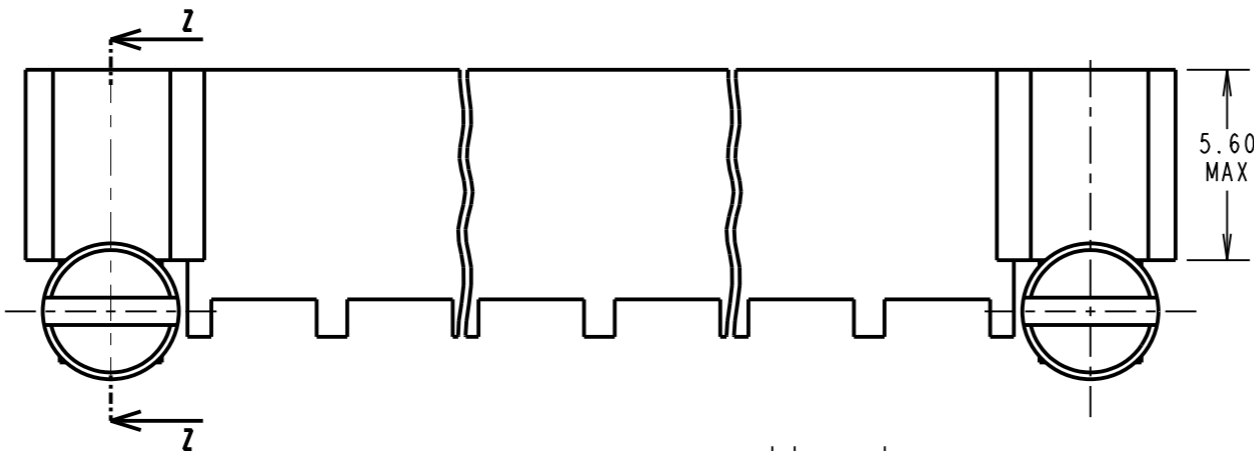
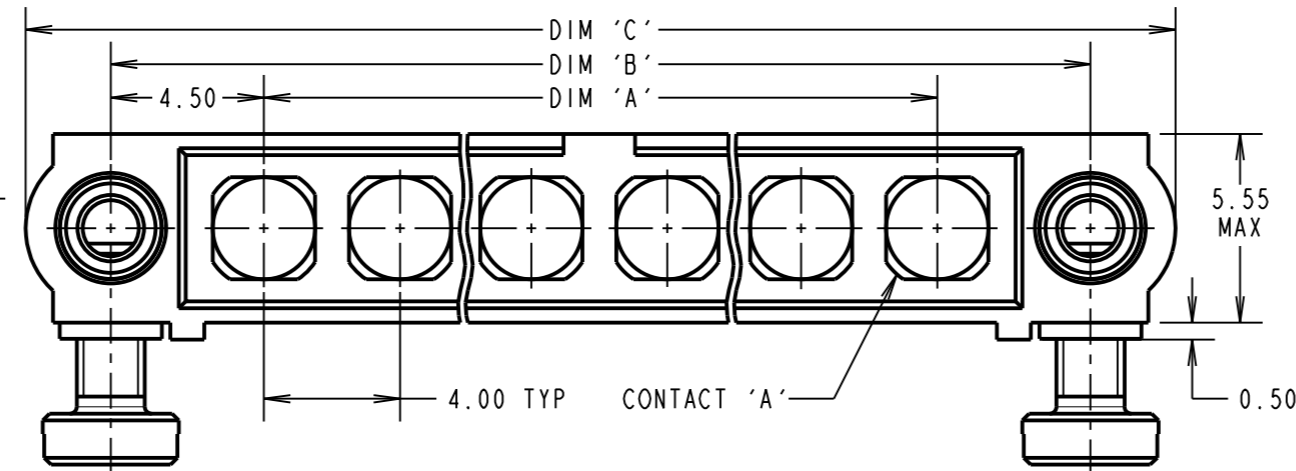
THIRD ANGLE PROJECTION

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
 BOARDMOUNT JACKSCREW, SCREW = 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 = 10⁶MΩ @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 SCREWS LOOSE.
 - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, MAIN INSULATOR, INNER CONTACT AND LATCHING COLLAR ARE PRE-ASSEMBLED. 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.
 - THIS ASSEMBLY CAN ONLY MATE WITH FP FEMALE FIXINGS.

ORDER CODE: (COAX CRIMP CONTACTS)
M80-500000MP-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	08.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED: F. MCGOWAN			
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 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-500000MP-08-315-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm

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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: mm²

TITLE: DATAMATE MIX-TEK PC TAIL MALE ASSY WITH BOARD MOUNT J/SCREWS
DRAWING NUMBER: M80-500000MP-XX-XXX-00-000
 SHT 4 OF 6

Customer Information Sheet

DRAWING No.: M80-500000MP-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
 BOARDMOUNT JACKSCREW, SCREW = 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

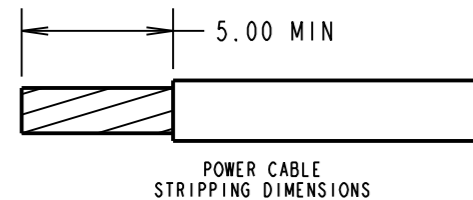
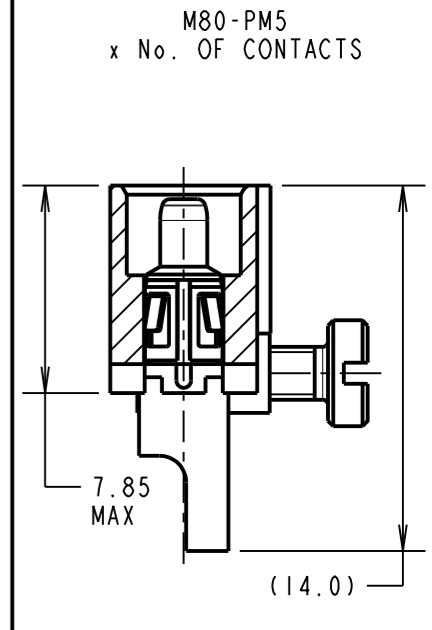
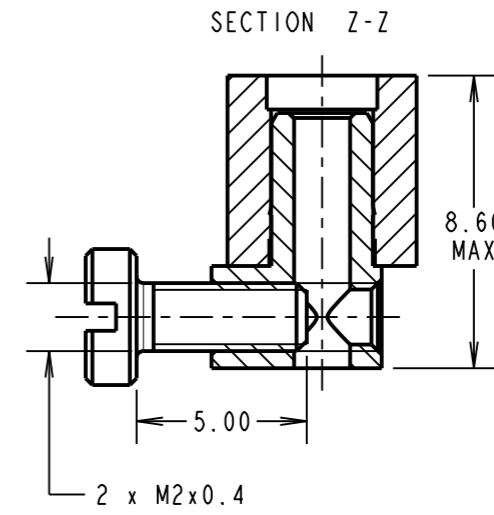
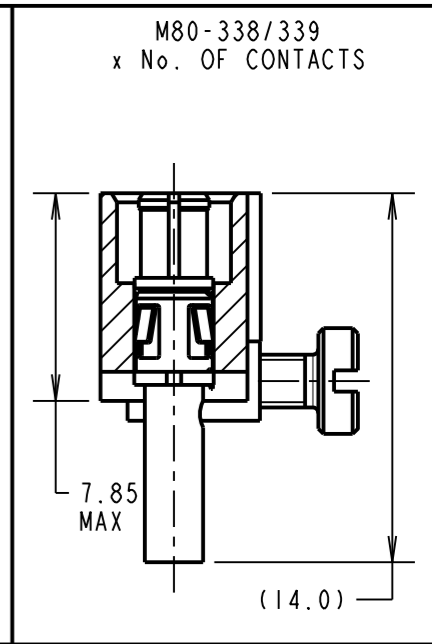
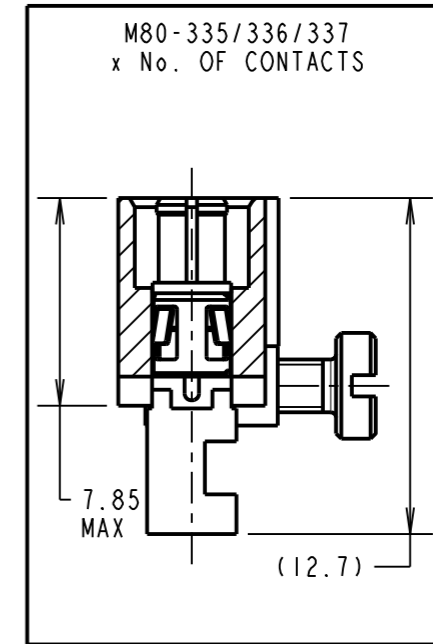
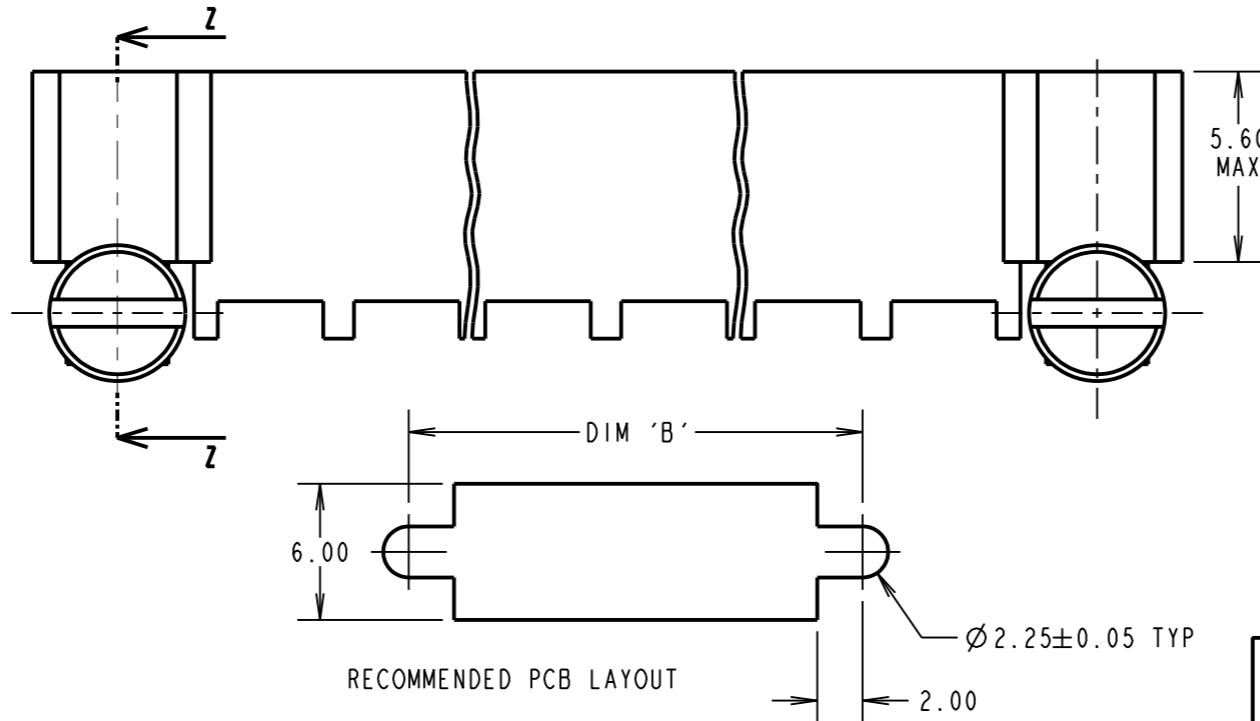
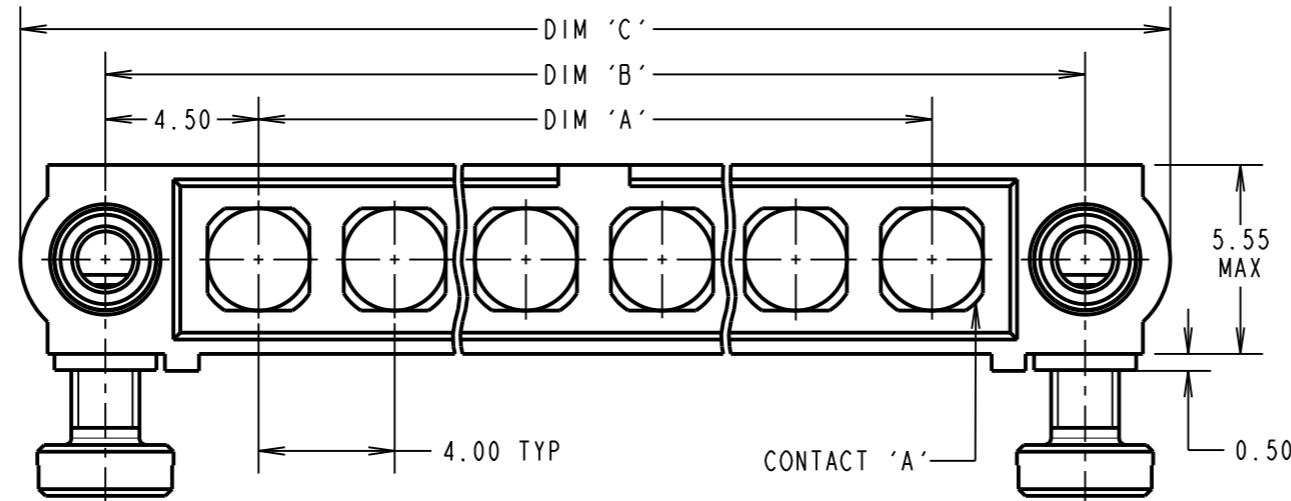
POWER CONTACT:
 CONTACT RESISTANCE = 6mΩ MAX
 CURRENT RATING = M80-335 = 20A MAX WITH 12AWG
 M80-336 = 15A MAX WITH 14AWG
 M80-337 = 10A MAX WITH 16AWG
 M80-338 = 8A MAX WITH 18AWG
 M80-339 = 5A MAX WITH 20AWG
 M80-PM5 = 40A MAX WITH 10AWG
 CONTACT AS SPECIFIED

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



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,
 M80-500000MP-10-335-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm

- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS AND SCREWS LOOSE.
 - FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339/PM5.
 - COAX & POWER CONTACT EXTRACTION TOOL = Z80-290.
 - RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-290, AND POSITIONER Z80-295.
 - INSTRUCTION SHEETS ARE AVAILABLE.
 - THIS ASSEMBLY CAN ONLY MATE WITH FP FEMALE FIXINGS.

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)
M80-500000MP-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

FM	4	08.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED:		F. MCGOWAN	
CHECKED:		S. BENNETT	
DRAWN:		R. ADDE	
CUSTOMER REF.:			
ASSEMBLY DRG:			

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		X. = ±1mm X.X = ±0.50mm X.XX = ±0.10mm X.XXX = ±0.01mm ANGLES = ±5° UNLESS STATED	SEE ABOVE	DATAMATE MIX-TEK PC TAIL MALE ASSY WITH BOARD MOUNT J/SCREWS
		FINISH:	SEE ABOVE	DRAWING NUMBER:
		S/AREA:	mm ²	M80-500000MP-XX-XXX-00-000

Customer Information Sheet

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

SHEET 6 OF 6

IF IN DOUBT - ASK

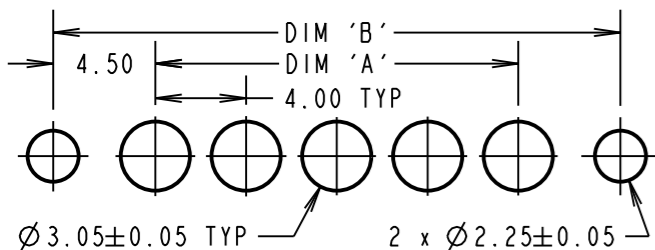
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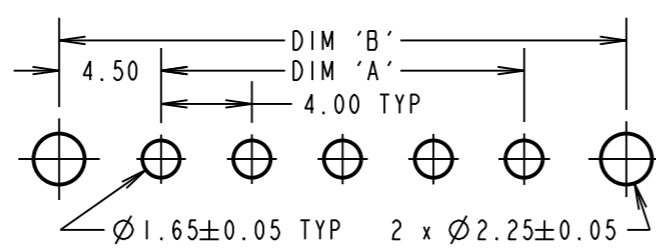
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

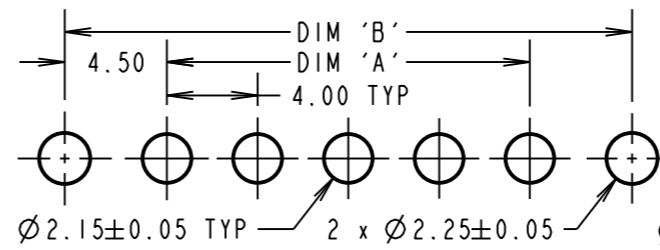
RECOMMENDED PCB LAYOUT FOR POWER SMT



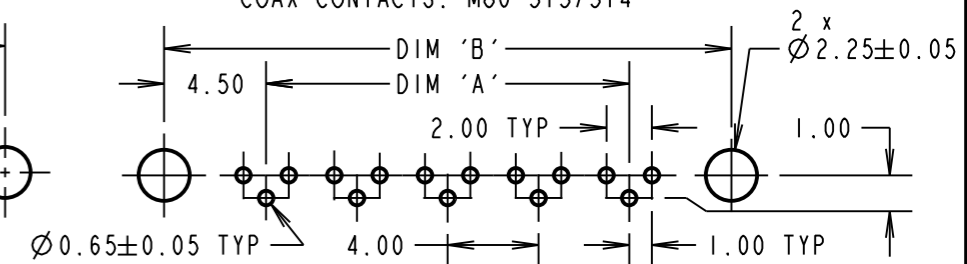
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332



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
 BOARDMOUNT JACKSCREW, SCREW = 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

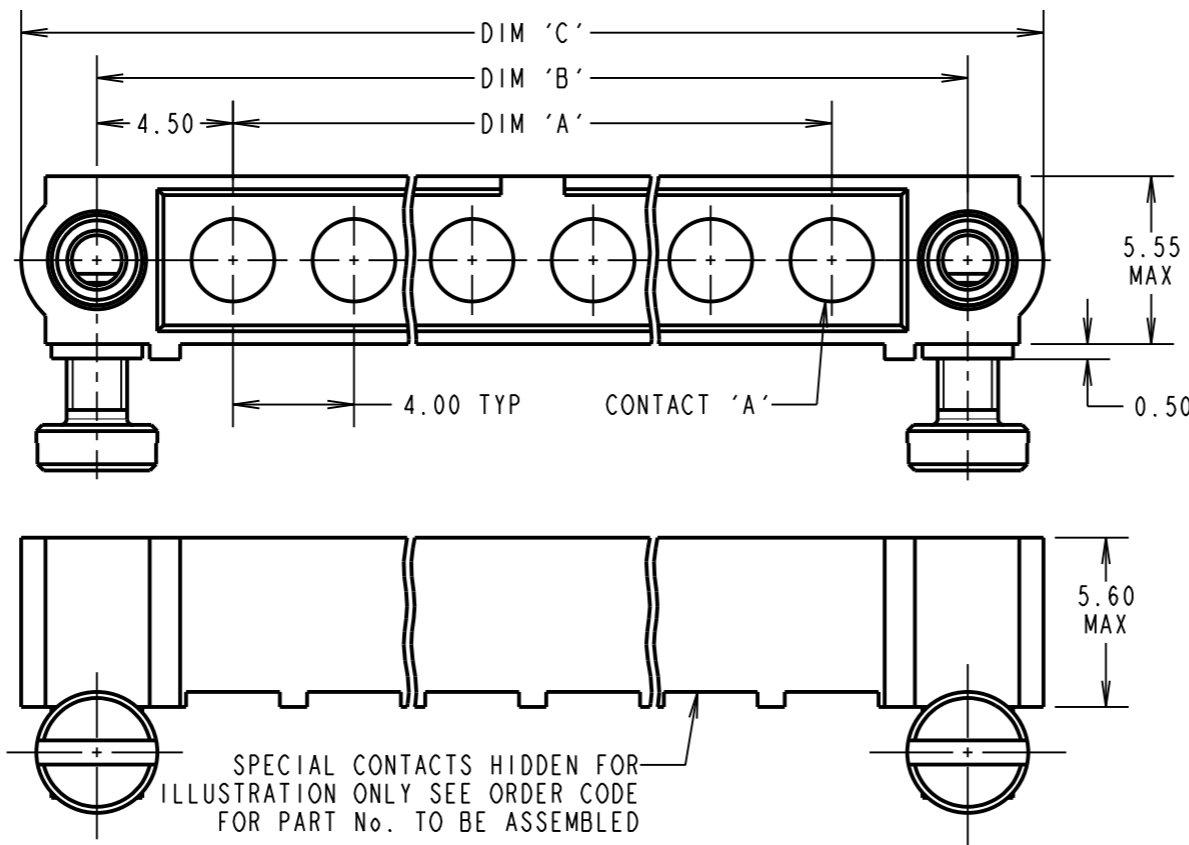
INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500ma
 MAXIMUM VOLTAGE = 1000V AC

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)

HORIZONTAL PC TAIL & SMT CONTACTS ONLY

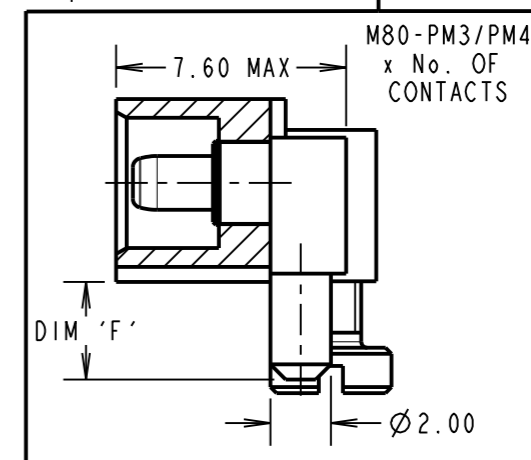
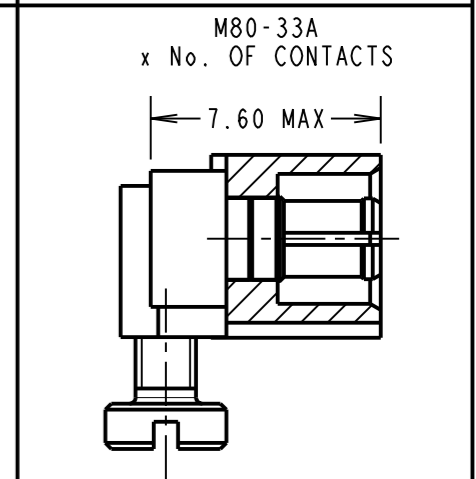
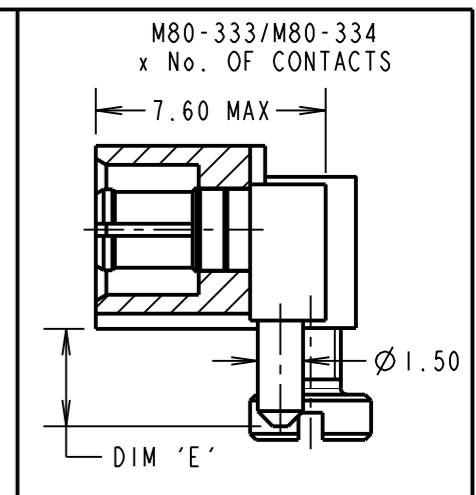
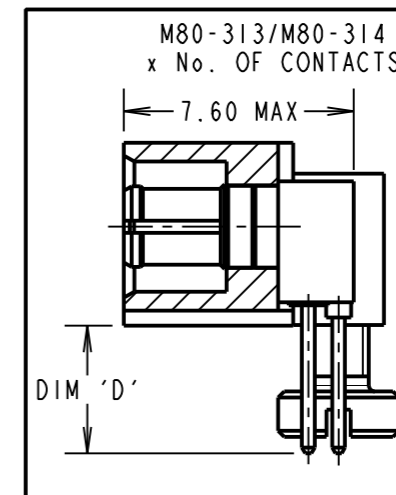
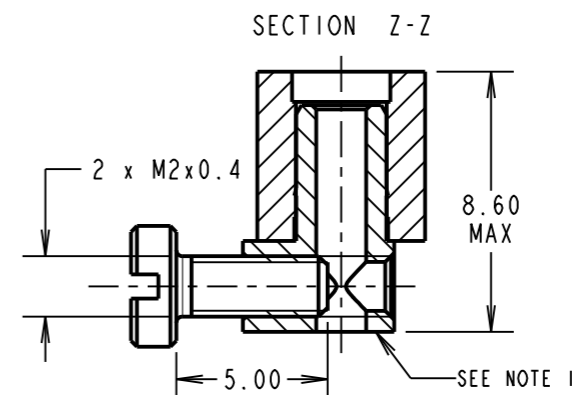
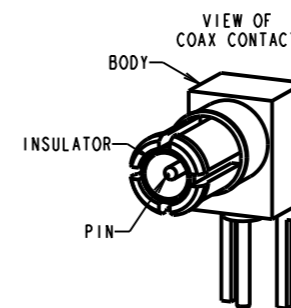


- PC TAIL NOTES:**
1. THIS ASSEMBLY CAN ONLY MATE WITH FP FEMALE FIXINGS.
 2. CONNECTORS ARE SUPPLIED WITH SCREWS LOOSE.

ORDER CODE: (PC TAIL CONTACTS ONLY)
M80-500000MP-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 = 3.5mm, M80-334 = 5.0mm
DIM 'F'	M80-PM3 = 3.5mm, M80-PM4 = 5.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-500000MP-10-333-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'E' = 3.5mm

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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: mm²

TITLE: DATAMATE MIX-TEK
 PC TAIL MALE ASSY WITH BOARD MOUNT J/SCREWS
DRAWING NUMBER: M80-500000MP-XX-XXX-00-000
 SHT 6 OF 6

FM	4	08.09.17	13269
NAME	ISS.	DATE	C/NOTE
APPROVED: F. MCGOWAN			
CHECKED: S. BENNETT			
DRAWN: R. ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			