

Customer Information Sheet

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

IF IN DOUBT - ASK

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NOT TO SCALE

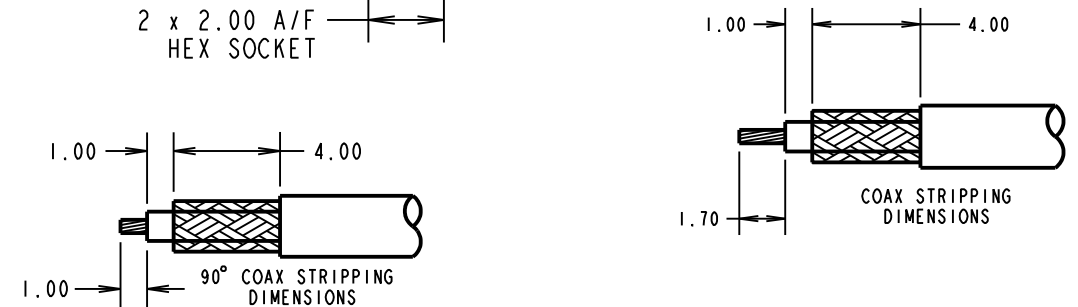
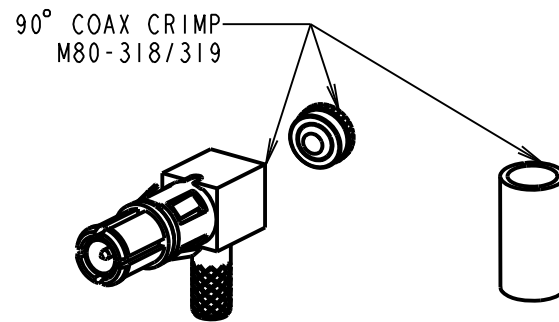
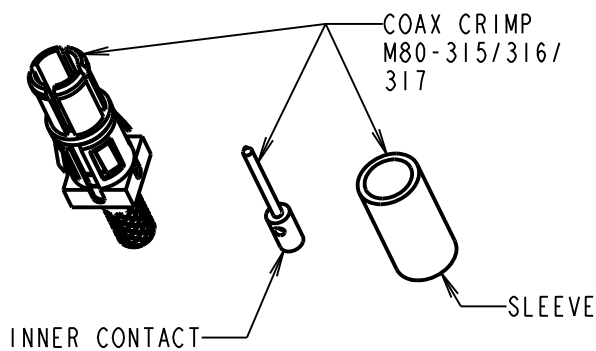
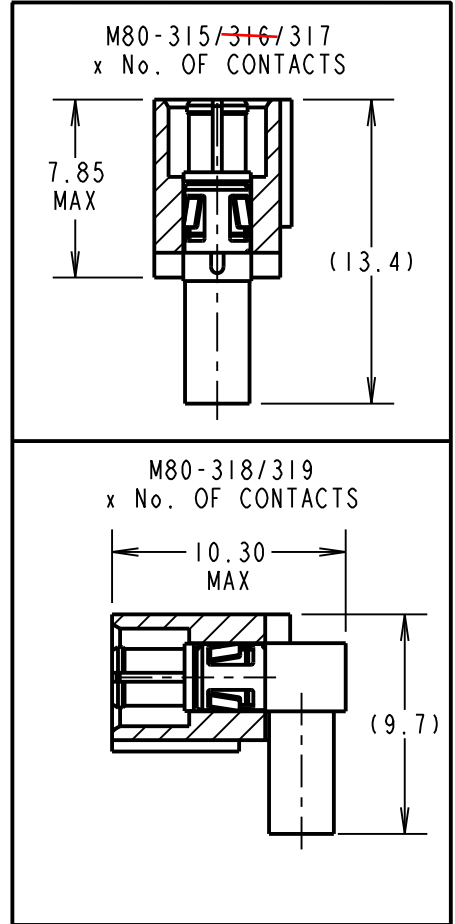
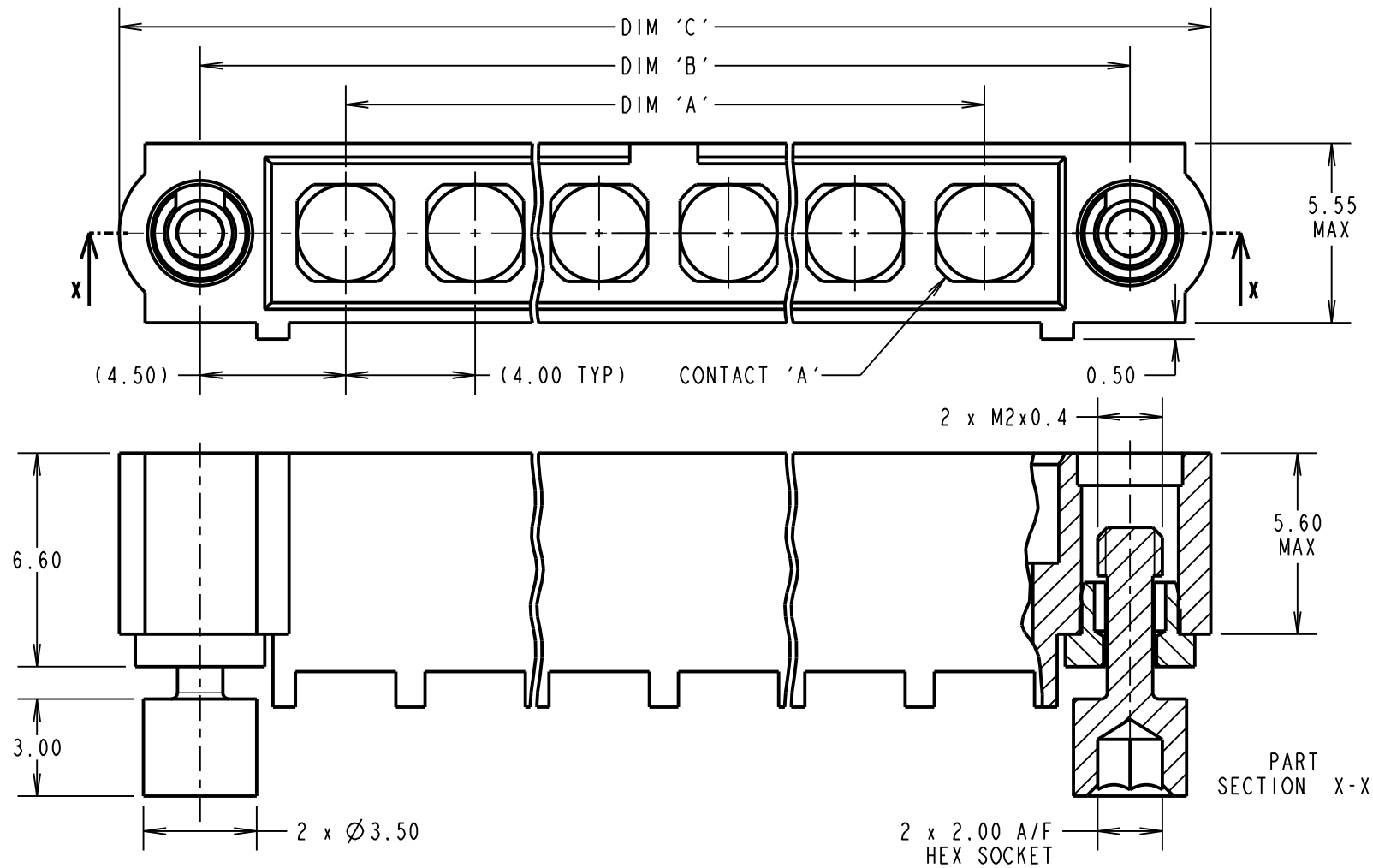
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

- MATERIAL:**
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 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 = 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)

CRIMP AND SOLDER CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
 - 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:
M80-500000MB-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

MGP	4	17.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: MR			
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 + 10.0

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-500000MB-08-315-00-000
 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 = ±0.20mm
 X.XXX = ±0.01mm
ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH REVERSE FIX HEX SOCKET JACKSCREW
DRAWING NUMBER: M80-500000MB-XX-XXX-00-000
 SHT 5 OF 8

Customer Information Sheet

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

IF IN DOUBT - ASK

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NOT TO SCALE

THIRD ANGLE PROJECTION

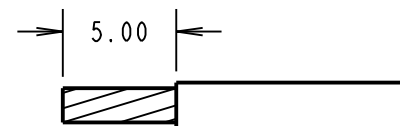
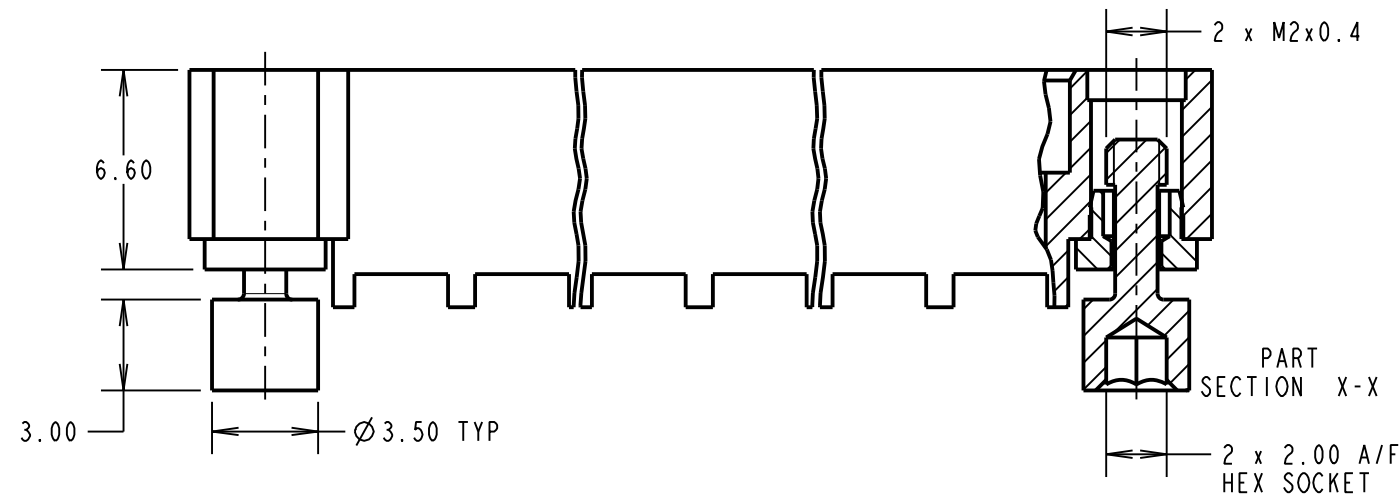
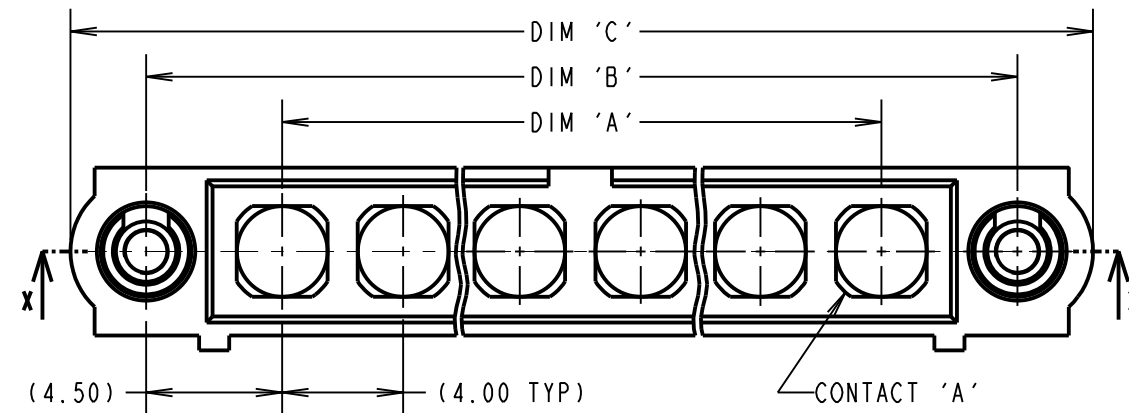
ALL DIMENSIONS IN mm

SPECIFICATIONS:

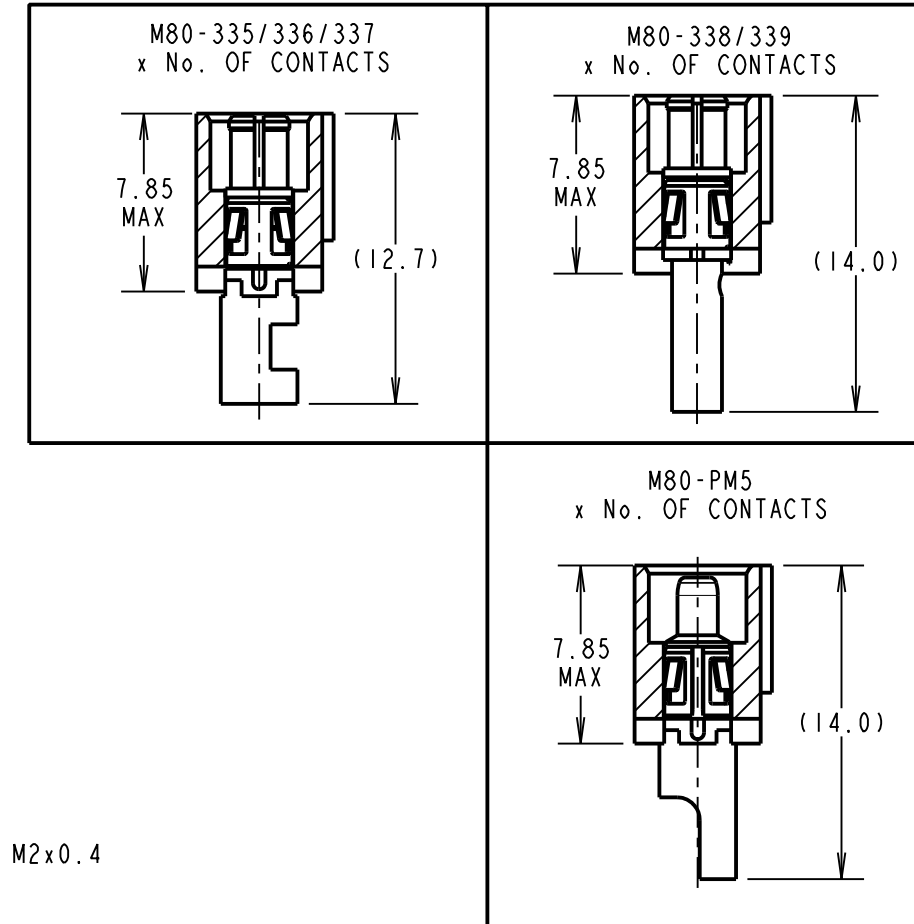
MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
POWER CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
 LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE
 BOARD MOUNT JACKSCREW, NUT = STAINLESS STEEL
FINISH:
POWER CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD
 LATCHING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

CRIMP AND SOLDER CONTACTS ONLY



POWER CABLE STRIPPING DIMENSIONS



CRIMP/SOLDER NOTES:

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

ORDER CODE:

M80-500000MB-XX-XXX-00-000

TOTAL No. OF CONTACTS _____
 02 TO 12

SPECIAL CONTACTS _____

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

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, M80-500000MB-10-335-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm	

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www.harwin.com
 technical@harwin.com

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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.20mm
 X.XXX = ±0.01mm
ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH REVERSE FIX HEX SOCKET JACKSCREW

DRAWING NUMBER: M80-500000MB-XX-XXX-00-000
 SHT 6 OF 8

MGP	4	17.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: MR			
DRAWN: R. ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

Customer Information Sheet

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

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: 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

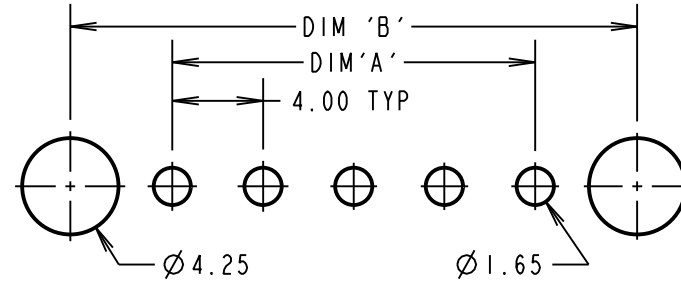
INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC

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

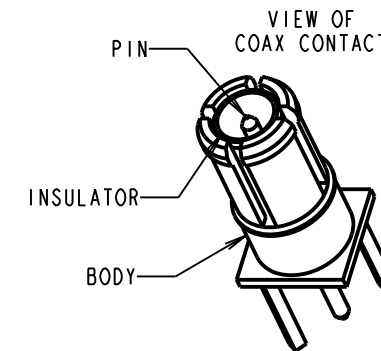
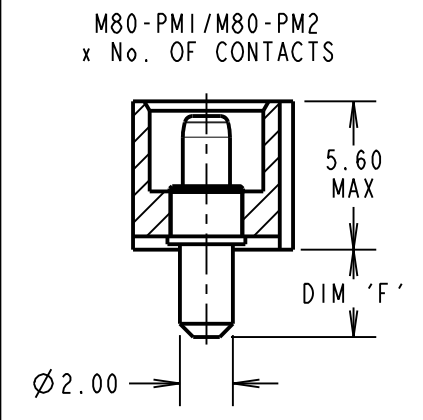
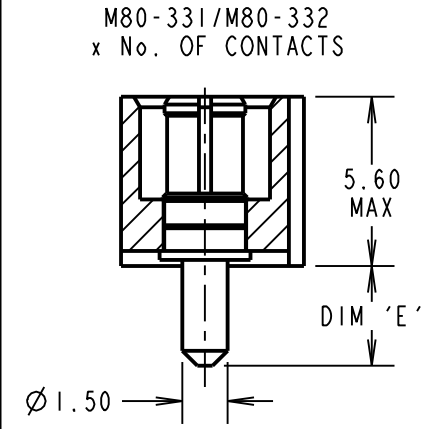
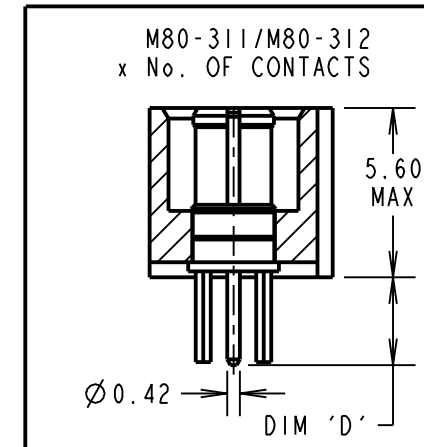
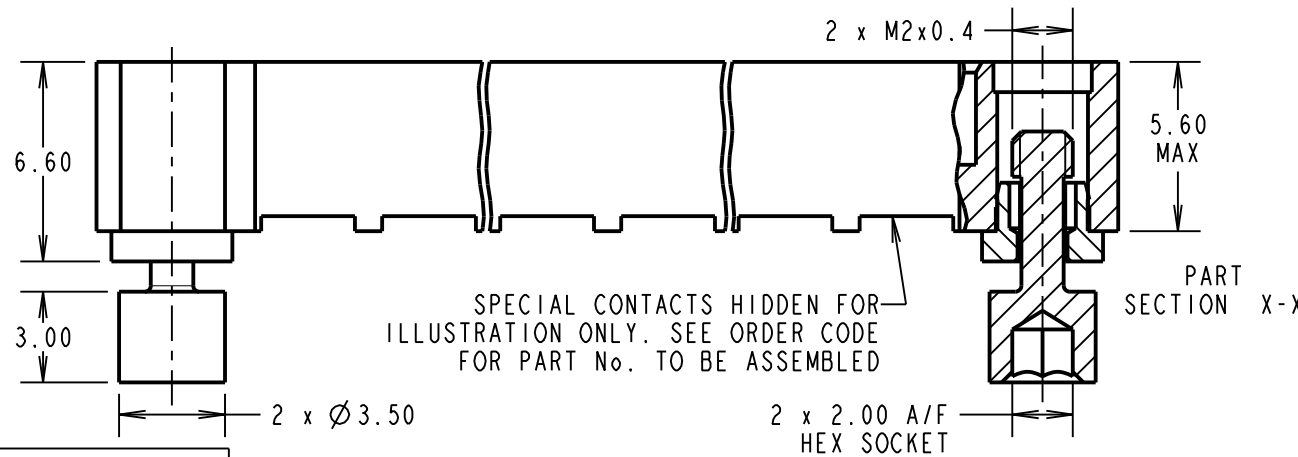
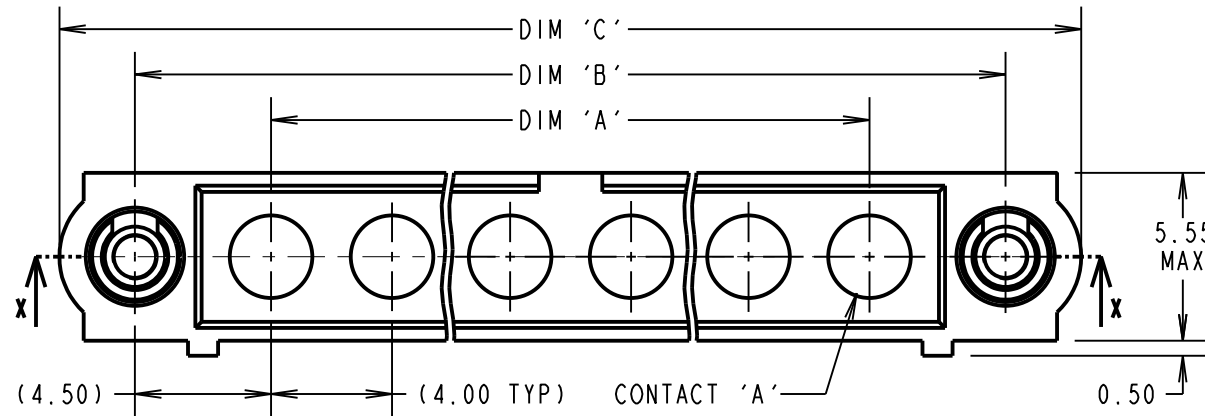
ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-311/312/331/332 = -55°C TO +125°C
 M80-PM1/PM2 = -55°C TO +150°C

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

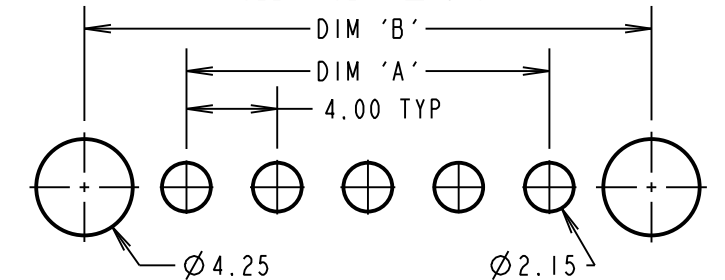
RECOMMENDED PCB LAYOUT FOR
 POWER CONTACTS: M80-331/332
 TOLERANCE = ±0.05mm



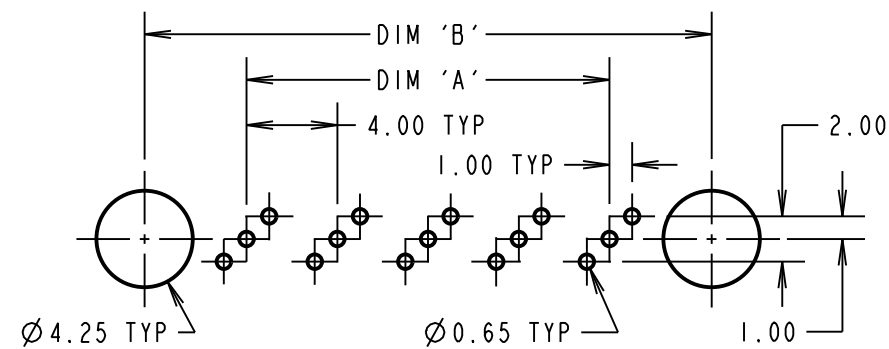
PC TAIL CONTACTS ONLY



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1/PM2
 TOLERANCE = ±0.05mm



RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-311/312
 TOLERANCE = ±0.05mm



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,
 M80-5000000MB-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,
 M80-5000000MB-10-PM1-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
 DIM 'F' = 3.5mm

ORDER CODE:
M80-5000000MB-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

SPECIAL CONTACTS
 311 = COAX CONTACT 3.00mm PC TAIL M80-311
 312 = COAX CONTACT 4.50mm PC TAIL M80-312
 331 = POWER CONTACT 3.50mm VERT' PC TAIL M80-331
 332 = POWER CONTACT 5.00mm VERT' PC TAIL M80-332
 PM1 = POWER CONTACT 3.50mm VERT' PC TAIL M80-PM1
 PM2 = POWER CONTACT 5.00mm VERT' PC TAIL M80-PM2



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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.20mm
 X.XXX = ±0.01mm
 ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH REVERSE FIX HEX SOCKET JACKSCREW
DRAWING NUMBER: M80-5000000MB-XX-XXX-00-000
 SHT 7 OF 8

MGP	4	17.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: MR			
DRAWN: R.ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

Customer Information Sheet

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

IF IN DOUBT - ASK

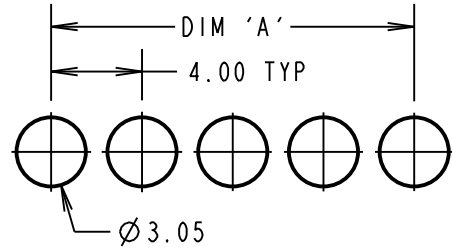
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NOT TO SCALE

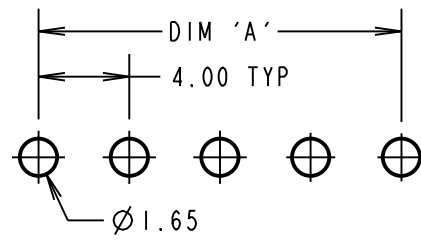
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

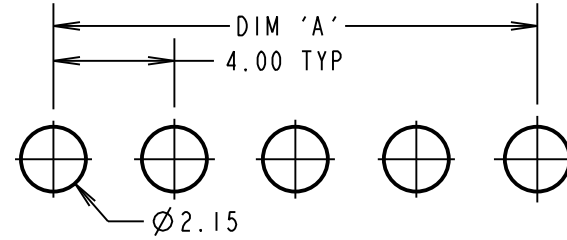
RECOMMENDED PCB LAYOUT FOR POWER CONTACT M80-33A
TOLERANCE = ±0.05mm



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS M80-333/M80-334
TOLERANCE = ±0.05mm



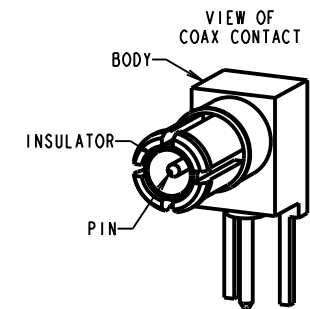
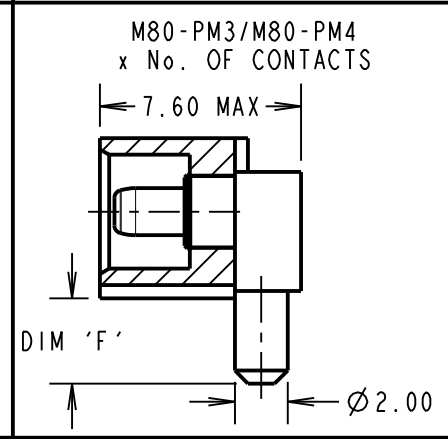
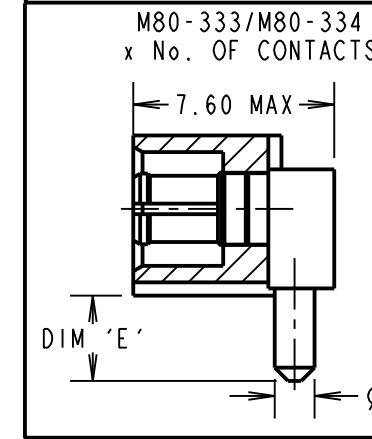
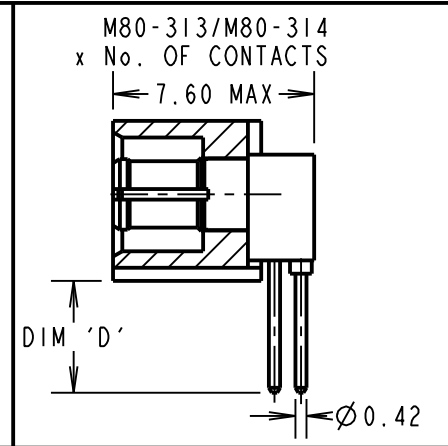
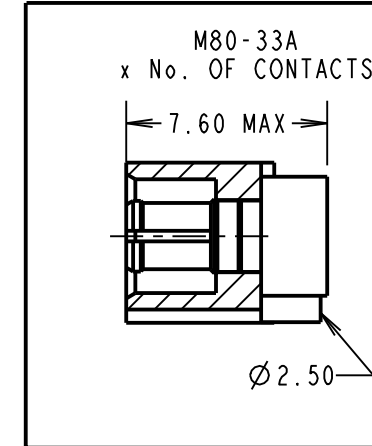
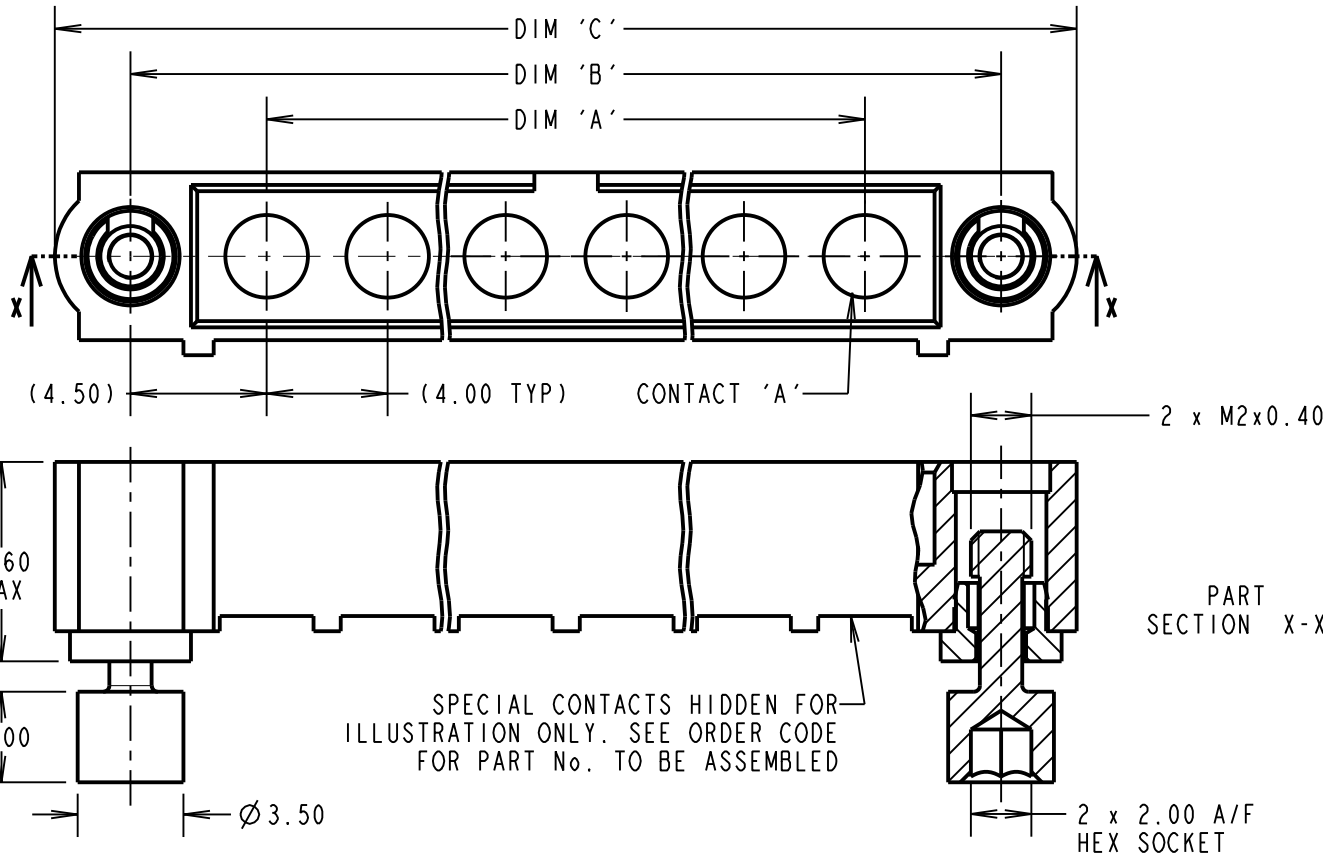
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM3/PM4
TOLERANCE = ±0.05mm



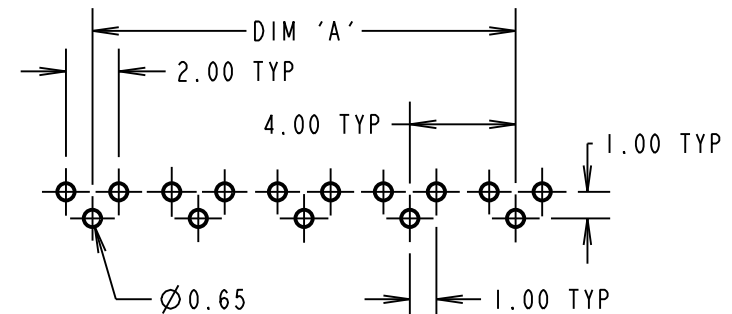
SPECIFICATIONS:

- 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 = 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)

PC TAIL + SMT CONTACTS ONLY



RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-313/314
TOLERANCE = ±0.05mm



ORDER CODE:

M80-500000MB-XX-XXX-00-000

TOTAL No. OF CONTACTS
02 TO 12

SPECIAL CONTACTS

- 313 = COAX CONTACT 3.00mm HORIZ' PC TAIL M80-313
- 314 = COAX CONTACT 4.50mm HORIZ' PC TAIL M80-314
- 333 = POWER CONTACT 3.00mm HORIZ' PC TAIL M80-333
- 334 = POWER CONTACT 4.50mm HORIZ' PC TAIL M80-334
- 33A = POWER CONTACT HORIZ' SMT M80-33A
- PM3 = POWER CONTACT 3.50mm HORIZ' PC TAIL M80-PM3
- PM4 = POWER CONTACT 5.00mm HORIZ' PC TAIL M80-PM4

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'	M80-313 = 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,
M80-500000MB-10-333-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
DIM 'E' = 3.0mm

HARWIN

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TOLERANCES
 X. = ±1mm
 X.X = ±0.50mm
 X.XX = ±0.20mm
 X.XXX = ±0.01mm
ANGLES = ±5°
 UNLESS STATED

MATERIAL:
 SEE ABOVE
FINISH: SEE ABOVE
S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH REVERSE FIX HEX SOCKET JACKSCREW

DRAWING NUMBER: M80-500000MB-XX-XXX-00-000

SHT 8 OF 8

MGP	4	17.12.19	21540
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: MR			
DRAWN: R.ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			