Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000	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
  - 101LOK RETAINER = 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 = 10^6MΩ @250V AC
  - OPERATING VOLTAGE = 180V AC @ 500mA
  - MAXIMUM VOLTAGE = 1000V AC

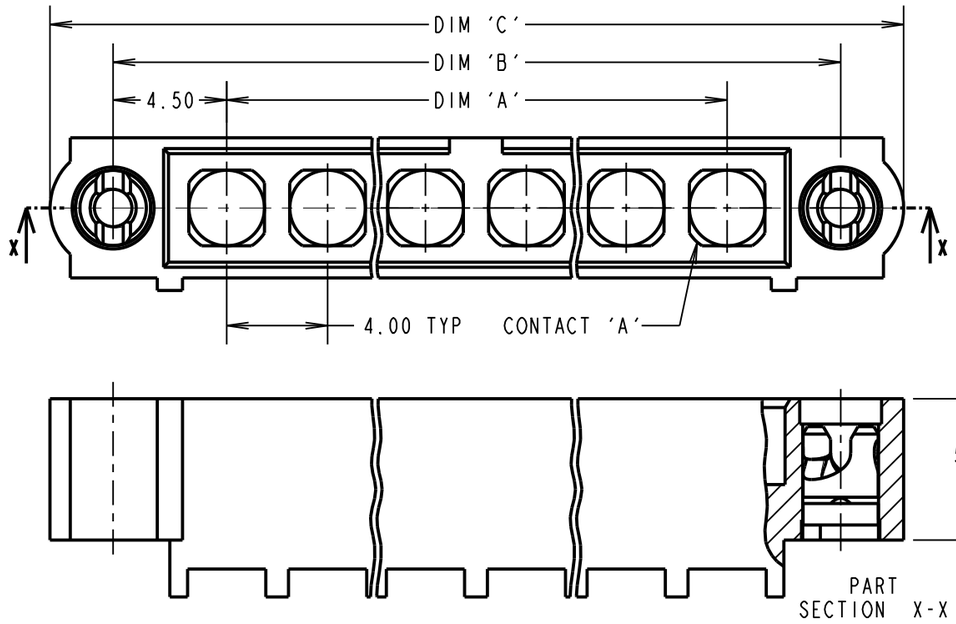
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
- TEMPERATURE RANGE = -55°C TO +125°C

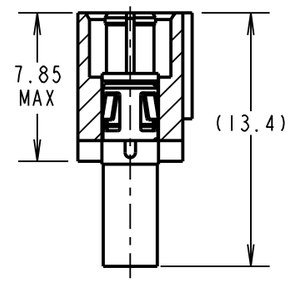
PACKING:
- BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

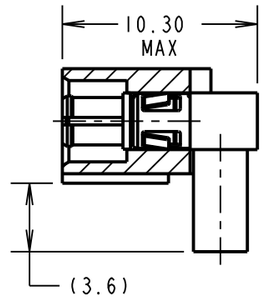
CRIMP AND SOLDER CONTACTS ONLY

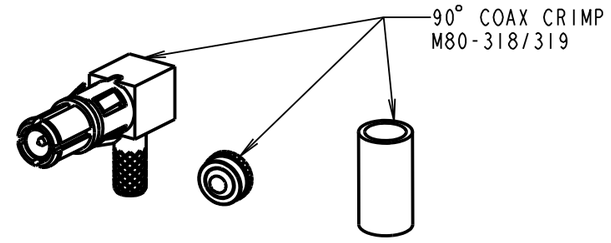


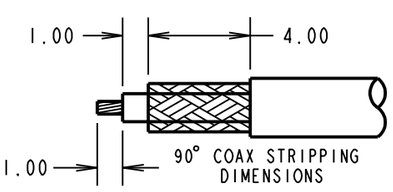
M80-315/~~316~~/317
x No. OF CONTACTS

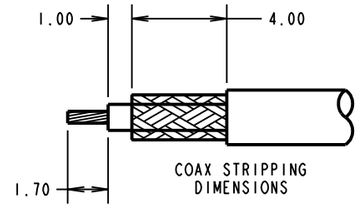


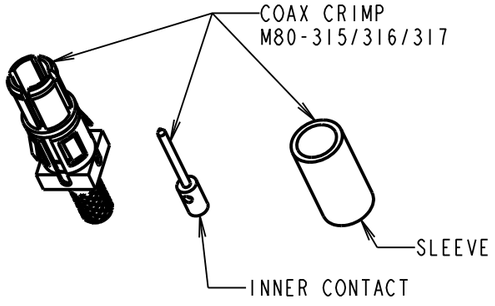
M80-318/319
x No. OF CONTACTS











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,
M80-5000000MC-08-315-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm

CRIMP/SOLDER NOTES:
1. CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
2. 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 SEPERATE.
3. FOR EXTRA COAX CONTACTS , USE PART NUMBERS M80-315/~~316~~/317/318/319
4. COAX CONTACT EXTRACTION TOOL = Z80-290.
5. 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
6. INSTRUCTION SHEETS ARE AVAILABLE.

ORDER CODE: (COAX CRIMP CONTACTS)

M80-5000000MC-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

NAME	ISS.	DATE	C/NOTE
MGP	6	19.12.19	21540

APPROVED: MGP
CHECKED: RP
DRAWN: R.ADDE
CUSTOMER REF.:
ASSEMBLY DRG:

HARWIN
www.harwin.com
technical@harwin.com

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 101LOK RETAINER

DRAWING NUMBER: M80-5000000MC-XX-XXX-00-000

SHT 5 OF 8

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

CRIMP AND SOLDER CONTACTS ONLY

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

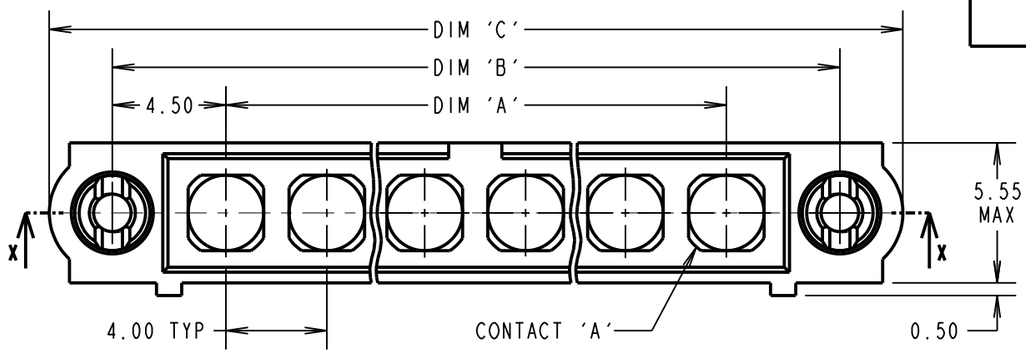
POWER CONTACT:
- CONTACT RESISTANCE = 6mΩ MAX
- CURRENT RATING = M80-335 = 20A MAX WITH 12AWG
  M80-336 = 15A MAX WITH 14AWG
  M80-337 = 10A MAX WITH 16AWG
  M80-338 = 8A MAX WITH 18AWG
  M80-339 = 5A MAX WITH 20AWG
  M80-PM5 = 40A MAX WITH 10AWG
  CONTACT AS SPECIFIED

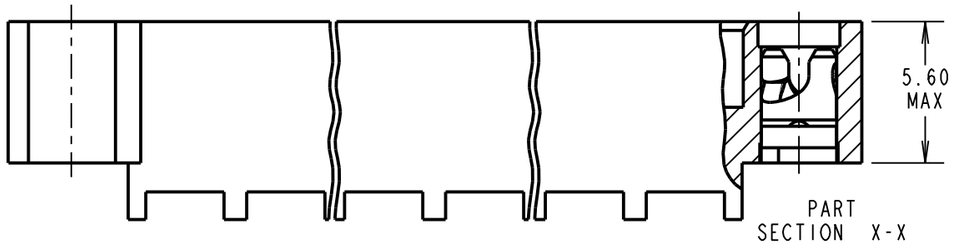
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    M80-335/336/337/338/339 = 8N MAX
    M80-PM5 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
- TEMPERATURE RANGE:
  - M80-335/336/337/338/339 = -55°C TO +125°C
  - M80-PM5 = -55°C TO +150°C

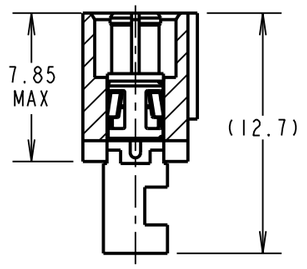
PACKING:
- BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

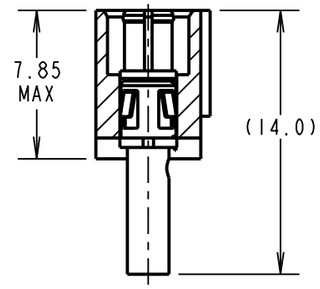




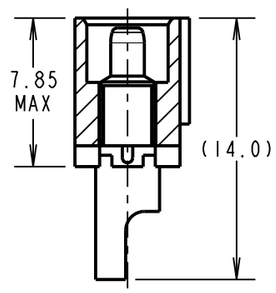
M80-335/336/337
x No. OF CONTACTS

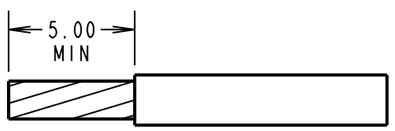


M80-338/339
x No. OF CONTACTS



M80-PM5
x No. OF CONTACTS





POWER CABLE
STRIPPING DIMENSIONS

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,
M80-5000000MC-10-335-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm

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

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)

M80-5000000MC-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

MGP	6	19.12.19	21540
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: RP
DRAWN: R.ADDE
CUSTOMER REF.:
ASSEMBLY DRG:

HARWIN
www.harwin.com
technical@harwin.com

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 IOILOK RETAINER

DRAWING NUMBER: M80-5000000MC-XX-XXX-00-000

SHT 6 OF 8

Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000	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
  - 101LOK 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:
    - M80-331/332 = 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 = 10^6MΩ @250V AC
  - OPERATING VOLTAGE = 180V AC @ 500mA
  - MAXIMUM VOLTAGE = 1000V AC

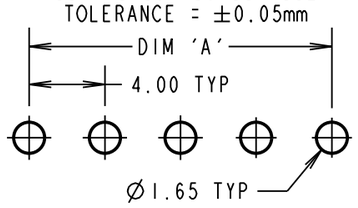
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-331/332 = 8N MAX
    - M80-PM1/PM2 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

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

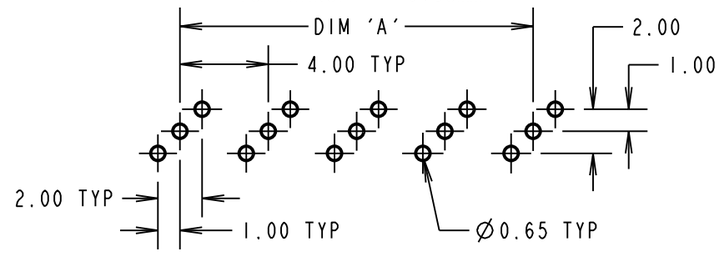
PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

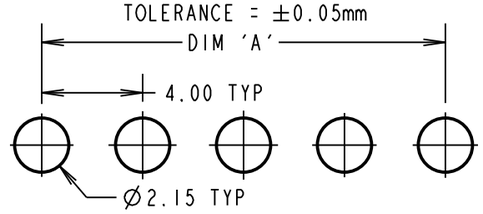
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332
TOLERANCE = ±0.05mm



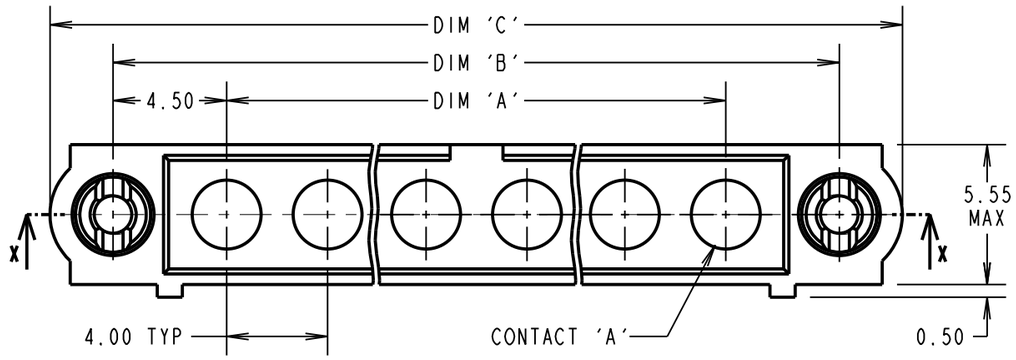
RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-311/312
TOLERANCE = ±0.05mm

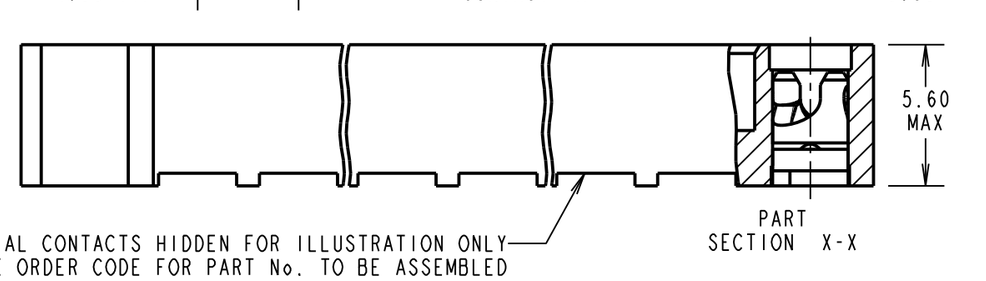


RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1/PM2
TOLERANCE = ±0.05mm



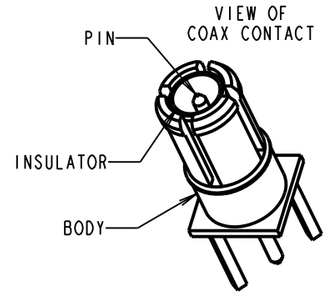
PC TAIL CONTACTS ONLY



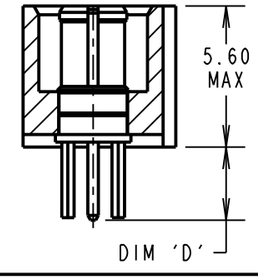


SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

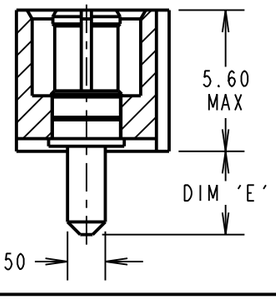
VIEW OF COAX CONTACT



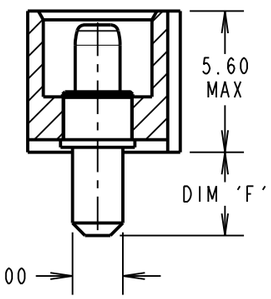
M80-311/M80-312
x No. OF CONTACTS



M80-331/332
x No. OF CONTACTS



M80-PM1/PM2
x No. OF CONTACTS



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,
M80-5000000MC-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,
M80-5000000MC-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)

M80-5000000MC-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

NAME	ISS.	DATE	C/NOTE
MGP	6	19.12.19	21540

APPROVED:	MGP
CHECKED:	RP
DRAWN:	R.ADDE
CUSTOMER REF.:	
ASSEMBLY DRG:	

HARWIN
www.harwin.com
technical@harwin.com

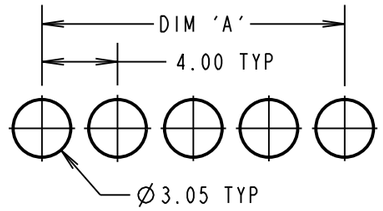
TOLERANCES
X. = ±1mm
X.X = ±0.50mm
X.XX = ±0.20mm
X.XXX = ±0.01mm
ANGLES = ±5°
UNLESS STATED

MATERIAL:	SEE ABOVE
FINISH:	SEE ABOVE
S/AREA:	mm²
TITLE:	DATAMATE MIX-TEK MALE ASSY WITH 101LOK RETAINER
DRAWING NUMBER:	M80-5000000MC-XX-XXX-00-000
SHT	7 OF 8

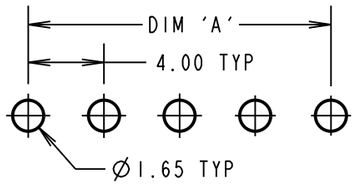
Customer Information Sheet

DRAWING No.: M80-5000000MC-XX-XXX-00-000	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

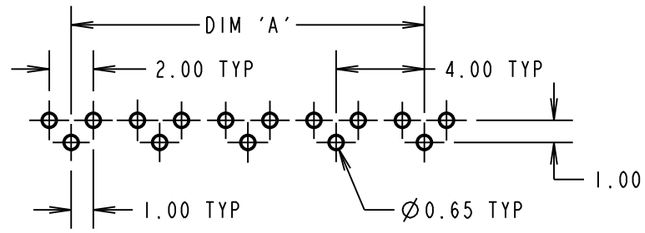
RECOMMENDED PCB LAYOUT FOR POWER SMT
TOLERANCE = ±0.05mm



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



RECOMMENDED PCB LAYOUT FOR
COAX CONTACTS: M80-313/314
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
  - 101LOK 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:
    - M80-333/334/33A = 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 = 10^6MΩ @250V AC
  - OPERATING VOLTAGE = 180V AC @ 500mA
  - MAXIMUM VOLTAGE = 1000V AC

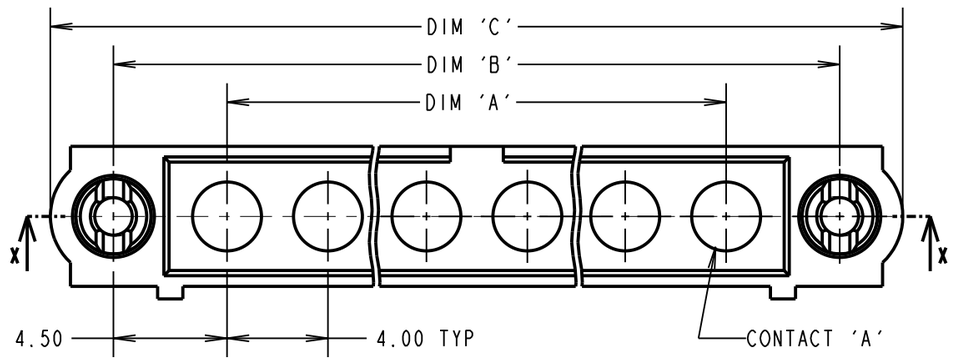
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-333/334/33A = 8N MAX
    - M80-PM3/PM4 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

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

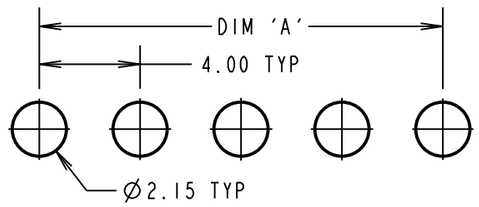
PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT
SPECIFICATION C005XX (LATEST ISSUE)

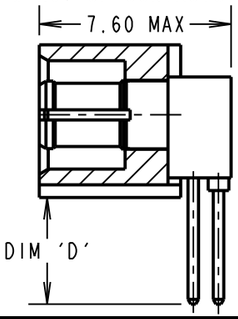
PC TAIL + SMT CONTACTS ONLY



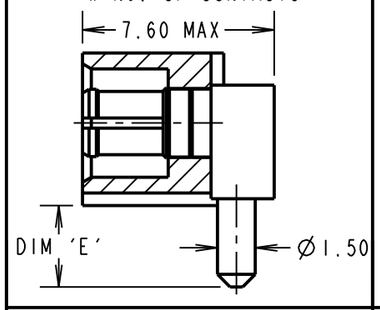
RECOMMENDED PCB LAYOUT FOR
POWER CONTACTS: M80-PM3/PM4
TOLERANCE = ±0.05mm



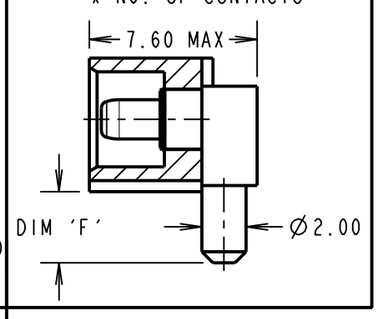
M80-313/M80-314
x No. OF CONTACTS



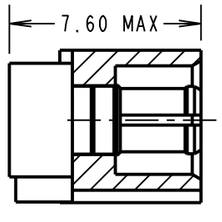
M80-333/M80-334
x No. OF CONTACTS



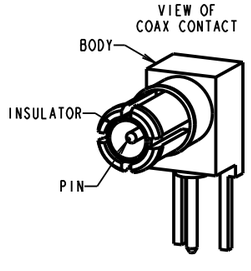
M80-PM3/PM4
x No. OF CONTACTS



M80-33A
x No. OF CONTACTS



VIEW OF
COAX CONTACT



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 = 3.5mm, M80-334 = 5.0mm
DIM 'F'	M80-PM3 = 3.5mm, M80-PM4 = 5.0mm
EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS, M80-5000000MC-10-333-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm DIM 'E' = 3.5mm	

ORDER CODE: (PC TAIL CONTACTS ONLY)

M80-5000000MC-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

HARWiN
www.harwin.com
technical@harwin.com

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

NAME	ISS.	DATE	C/NOTE
MGP	6	19.12.19	21540
APPROVED: MGP			
CHECKED: RP			
DRAWN: R.ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

MATERIAL: SEE ABOVE

FINISH: SEE ABOVE

S/AREA: mm²

TITLE: DATAMATE MIX-TEK MALE ASSY WITH 101LOK RETAINER

DRAWING NUMBER: M80-5000000MC-XX-XXX-00-000

SHT 8 OF 8

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Harwin:

M80-5000000MC-02-333-00-000 M80-5000000MC-05-331-00-000