Customer Information Sheet

DRAWING No.: M80-500000000-XX-XXX-00-000	SHEET 5 OF 8	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

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

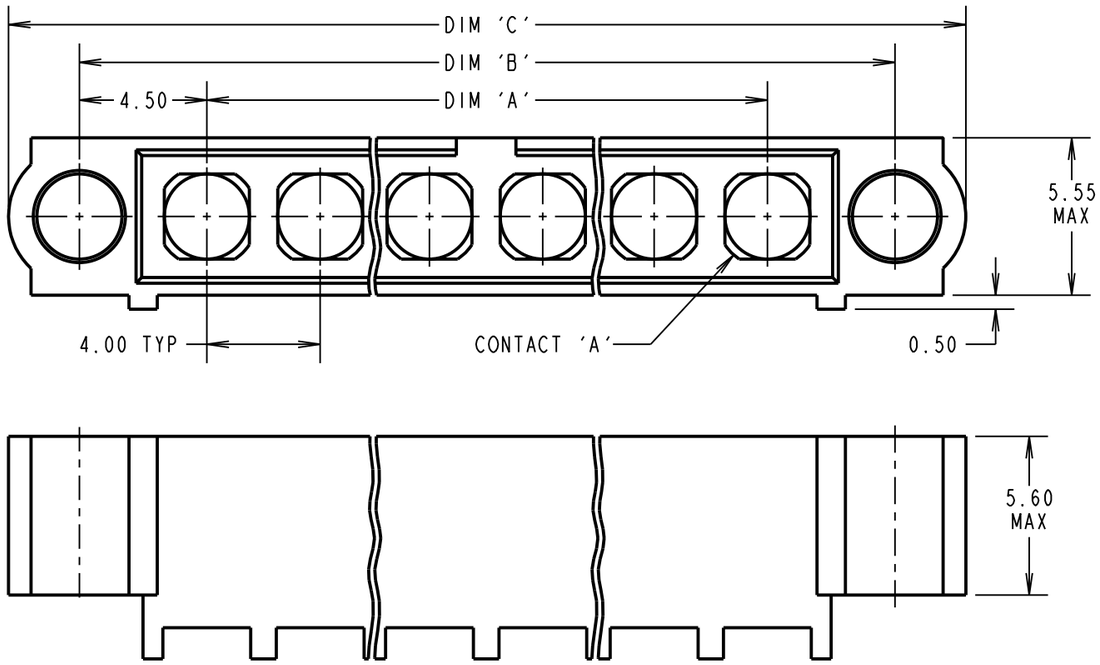
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

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

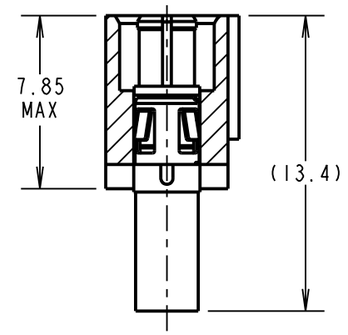
PACKING:
- BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

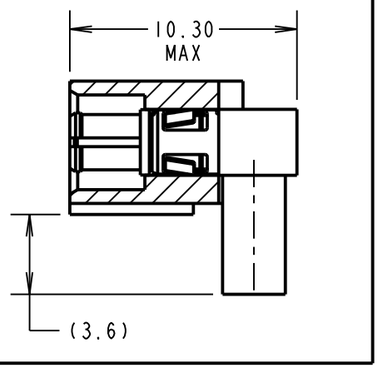
COAX CRIMP CONTACTS ONLY

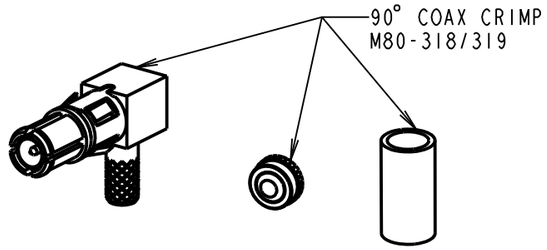


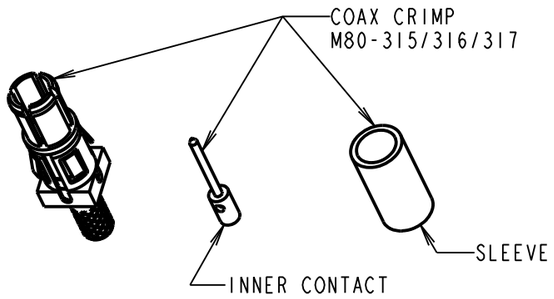
M80-315/316/317
x No. OF CONTACTS

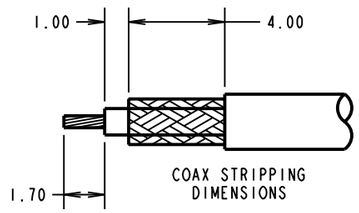


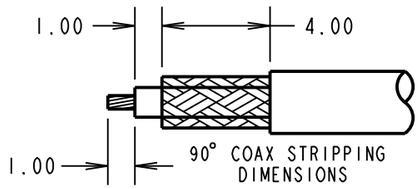
M80-318/319
x No. OF CONTACTS











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 + 10.00
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS, M80-500000000-08-315-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm	

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 SEPARATE.
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)

M80-500000000-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
SB	3	08.01.15	12566
APPROVED:	S.BENNETT		
CHECKED:	M.PLESTED		
DRAWN:	C.PENROSE		
CUSTOMER REF.:			
ASSEMBLY DRG:			

HARWIN
www.harwin.com
technical@harwin.com

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 MALE ASSEMBLY

DRAWING NUMBER: M80-500000000-XX-XXX-00-000

SHT 5 OF 8

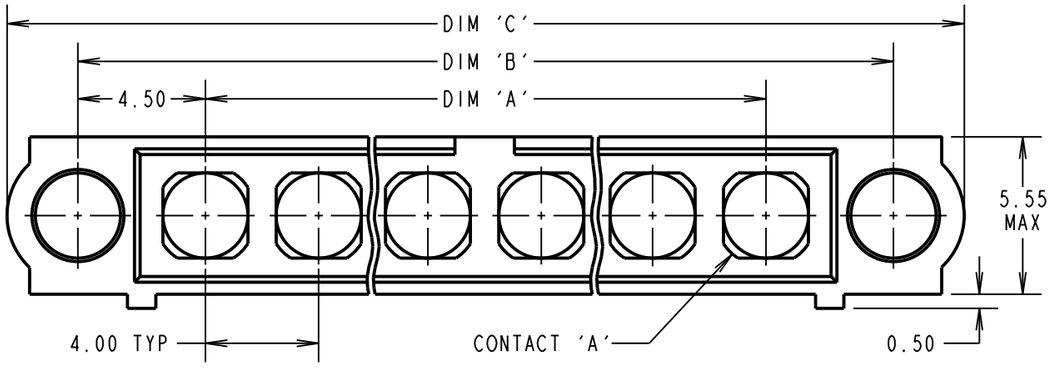
Customer Information Sheet

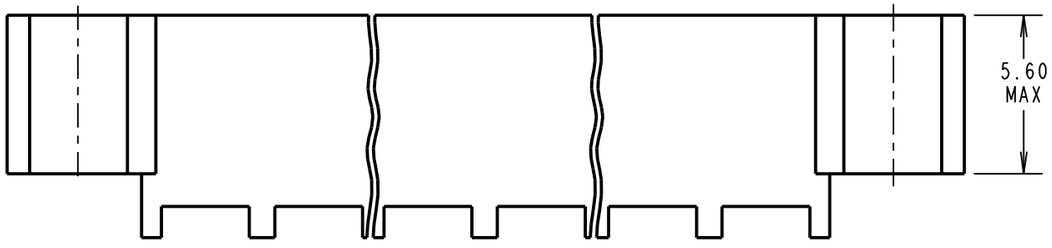
DRAWING No.: M80-500000000-XX-XXX-00-000	SHEET 6 OF 8	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

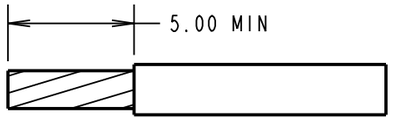
SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 POWER CONTACT:
  BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
  LATCHING COLLAR = BERYLLIUM COPPER
  INSULATOR = PTFE
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

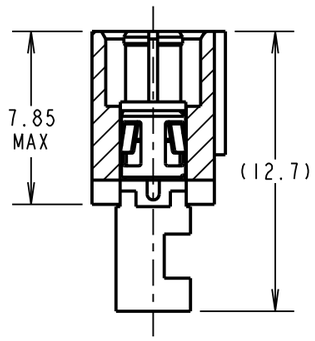




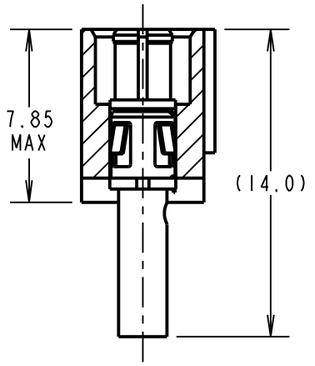


POWER CABLE
STRIPPING DIMENSIONS

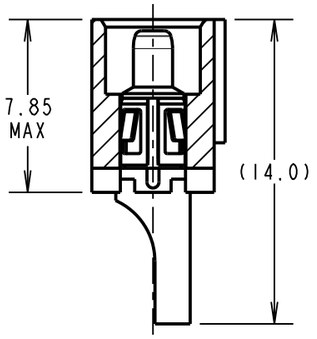
M80-335/336/337
x No. OF CONTACTS



M80-338/339
x No. OF CONTACTS



M80-PM5
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 + 10.00

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-500000000-10-335-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm

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)

M80-500000000-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

NAME	ISS.	DATE	C/NOTE
SB	3	08.01.15	12566

APPROVED:	S.BENNETT
CHECKED:	M.PLESTED
DRAWN:	C.PENROSE
CUSTOMER REF.:	
ASSEMBLY DRG:	

HARWIN
www.harwin.com
technical@harwin.com

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 MALE ASSEMBLY

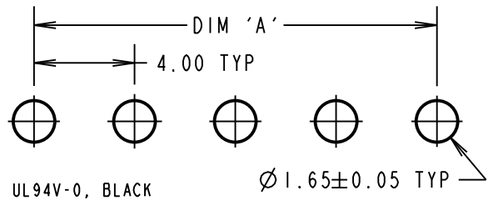
DRAWING NUMBER: M80-500000000-XX-XXX-00-000

SHT 6 OF 8

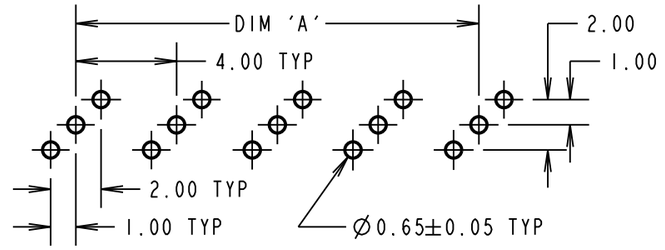
Customer Information Sheet

DRAWING No.: M80-500000000-XX-XXX-00-000	SHEET 7 OF 8	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

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



RECOMMENDED PCB LAYOUT FOR
COAX CONTACTS: M80-311/312



SPECIFICATIONS:

MATERIAL:
- MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
- POWER CONTACT: COPPER ALLOY
- COAX CONTACT:
  - BODY = COPPER ALLOY
  - INNER CONTACT = COPPER ALLOY
  - INSULATOR = PTFE

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-PMI/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

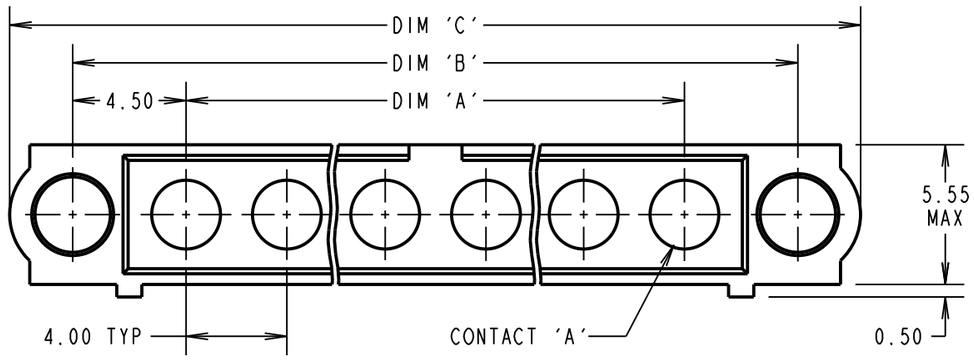
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-331/332 = 8N MAX
    - M80-PMI/PM2 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

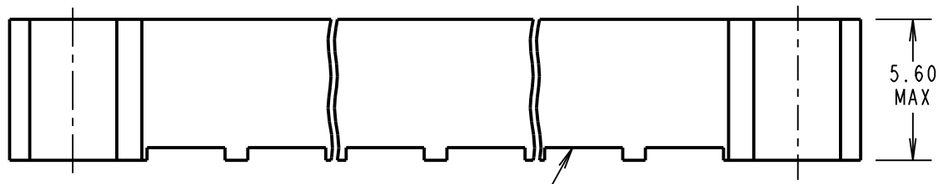
ENVIRONMENTAL:
- TEMPERATURE RANGE:
  - M80-311/312/331/332 = -55°C TO +125°C
  - M80-PMI/PM2 = -55°C TO +150°C

PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

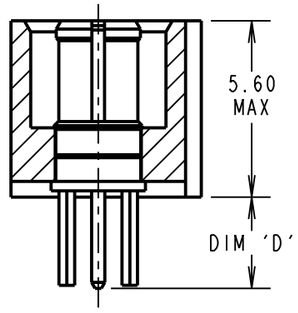
VERTICAL PC TAIL CONTACTS ONLY



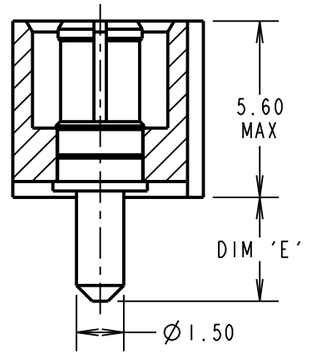


SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

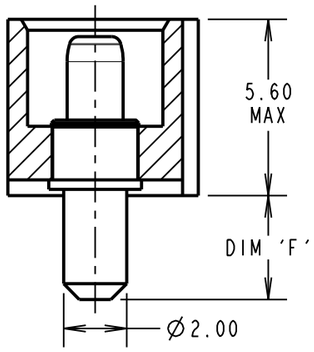
M80-311/M80-312
x No. OF CONTACTS



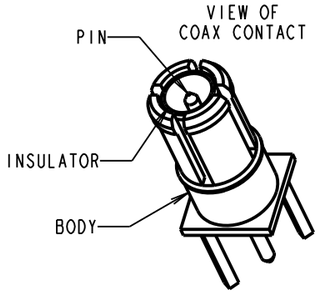
M80-331/332
x No. OF CONTACTS



M80-PMI/PM2
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 + 10.00
DIM 'D'	M80-311 = 3.0mm, M80-312 = 4.5mm
DIM 'E'	M80-331 = 3.5mm, M80-332 = 5.0mm
DIM 'F'	M80-PMI = 3.5mm, M80-PM2 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
M80-500000000-08-311-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm
DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-500000000-10-PMI-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
DIM 'F' = 3.5mm

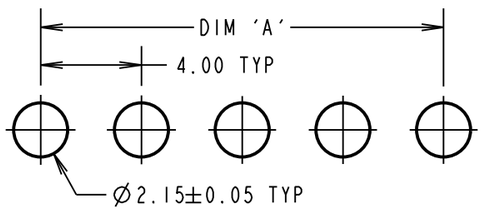
ORDER CODE: (PC TAIL CONTACTS ONLY)

M80-500000000-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
- PMI = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PMI
- PM2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PM2

RECOMMENDED PCB LAYOUT FOR
POWER CONTACTS: M80-PMI/PM2



SB	3	08.01.15	12566
NAME	ISS.	DATE	C/NOTE
APPROVED:	S.BENNETT		
CHECKED:	M.PLESTED		
DRAWN:	C.PENROSE		
CUSTOMER REF.:			
ASSEMBLY DRG:			

HARWiN
www.harwin.com
technical@harwin.com

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 MALE ASSEMBLY

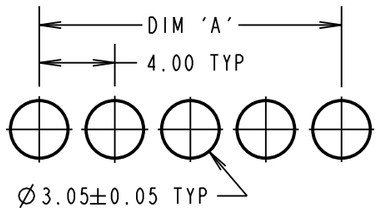
DRAWING NUMBER: M80-500000000-XX-XXX-00-000

SHT 7 OF 8

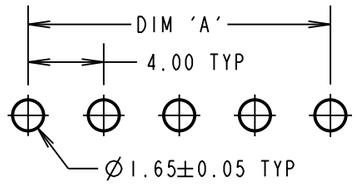
Customer Information Sheet

DRAWING No.: M80-500000000-XX-XXX-00-000	SHEET 8 OF 8	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

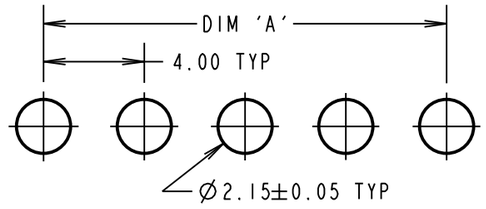
RECOMMENDED PCB LAYOUT FOR POWER SMT



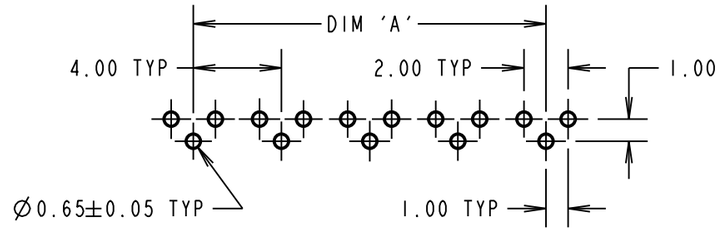
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332



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

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

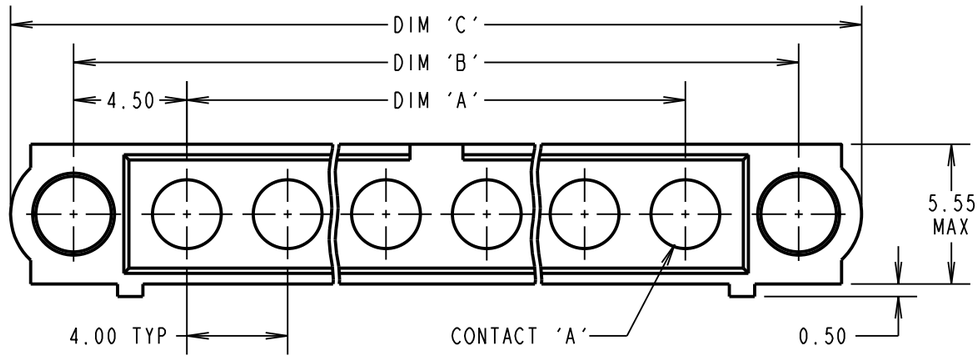
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-333/334/33A = 8N MAX
    - M80-PM3/PM4 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

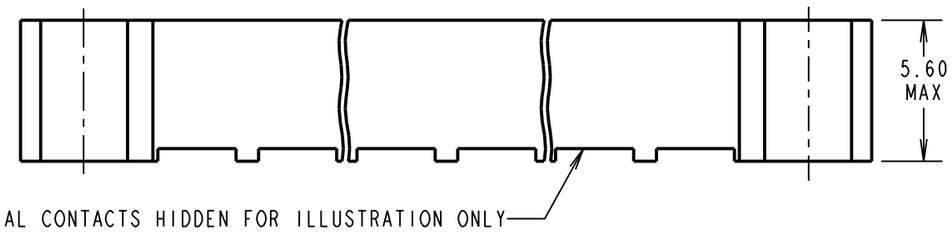
ENVIRONMENTAL:
- TEMPERATURE RANGE:
  - M80-313/314/333/334/33A = -55°C TO +125°C
  - M80-PM3/PM4 = -55°C TO +150°C

PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

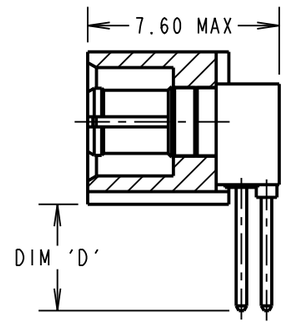
HORIZONTAL PC TAIL & SMT CONTACTS ONLY



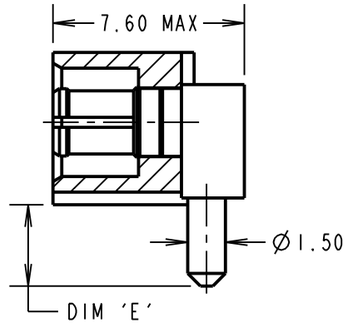


SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

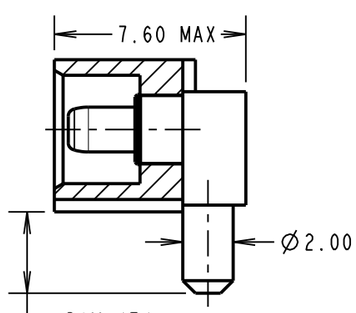
M80-313/314
x No. OF CONTACTS



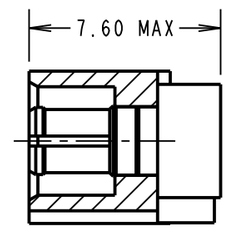
M80-333/334
x No. OF CONTACTS



M80-PM3/PM4
x No. OF CONTACTS



M80-33A
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 + 10.00
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, M80-500000000-10-333-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm DIM 'E' = 3.0mm	

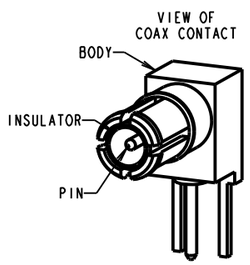
ORDER CODE:(PC TAIL CONTACTS ONLY)

M80-500000000-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

VIEW OF COAX CONTACT



NAME	ISS.	DATE	C/NOTE
SB	3	08.01.15	12566
APPROVED:	S.BENNETT		
CHECKED:	M.PLESTED		
DRAWN:	C.PENROSE		
CUSTOMER REF.:			
ASSEMBLY DRG:			

HARWIN

www.harwin.com
technical@harwin.com

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 MALE ASSEMBLY

DRAWING NUMBER: M80-500000000-XX-XXX-00-000

SHT 8 OF 8