Customer Information Sheet

DRAWING No.: M80-4000000FP-XX-XXX-00-000	SHEET 4 OF 6	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
- 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 = 10^6MΩ @ 250V AC
  - OPERATING VOLTAGE = 180V AC @ 500mA
  - MAXIMUM VOLTAGE = 1000V AC

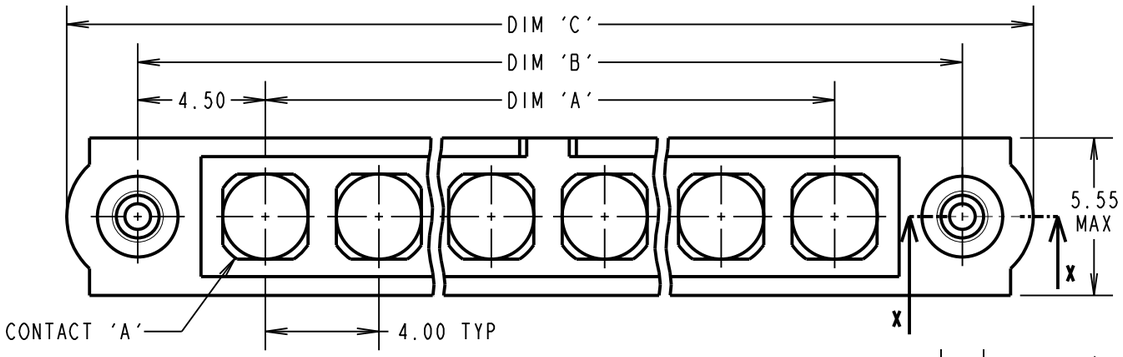
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

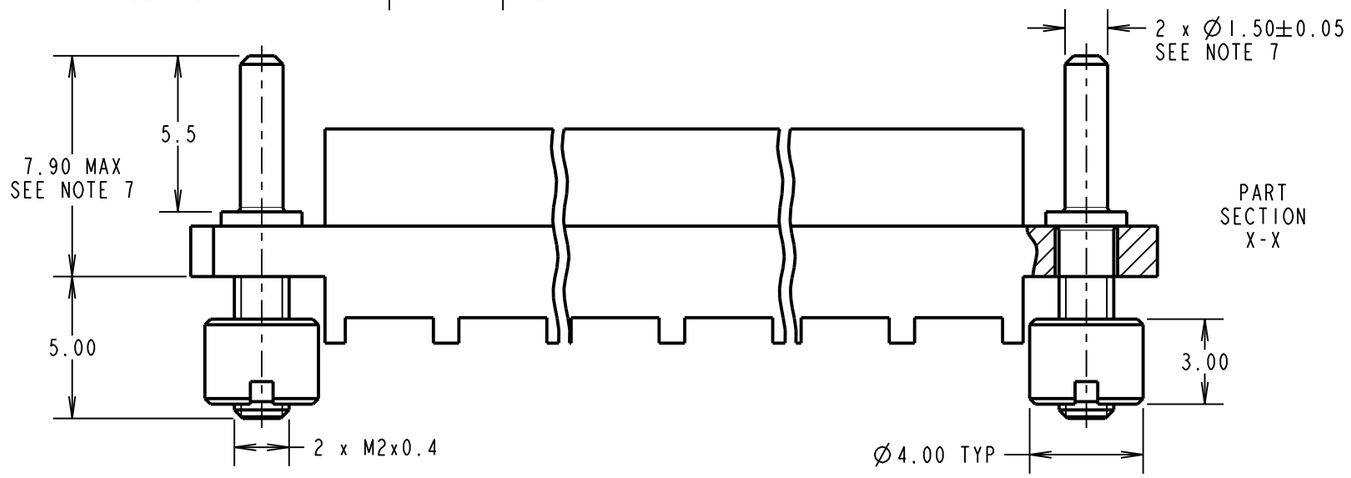
ENVIRONMENTAL:
- TEMPERATURE RANGE = -55°C TO +125°C

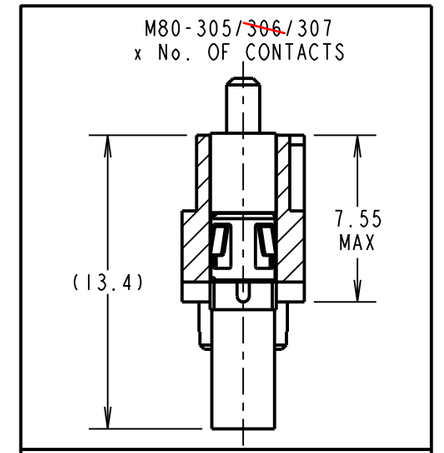
PACKING:
- BAG

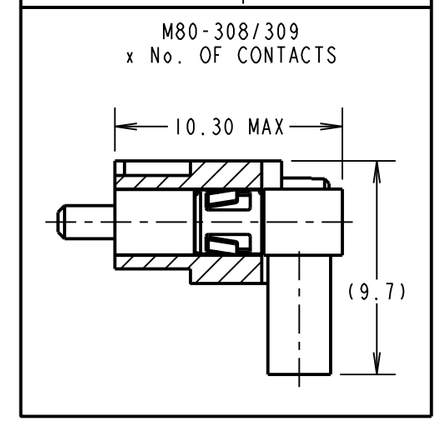
FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

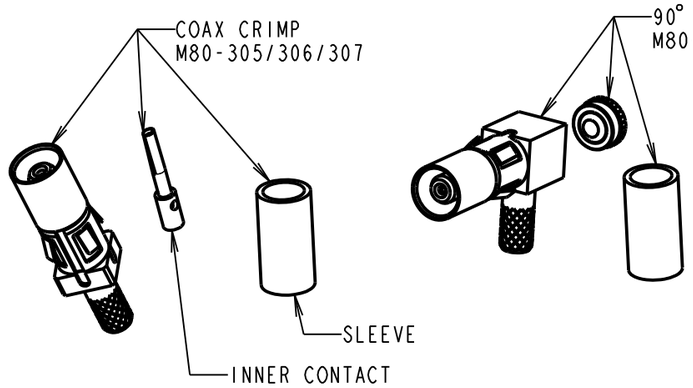
COAX CRIMP CONTACTS ONLY

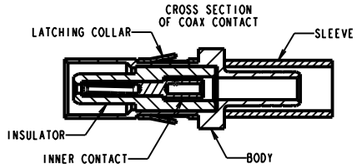


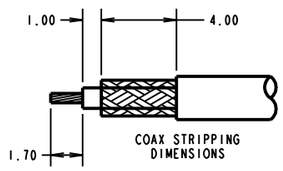


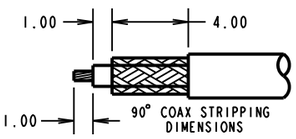




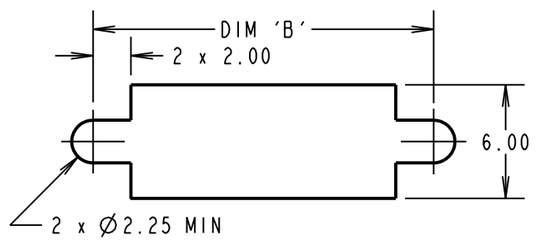








RECOMMENDED PCB LAYOUT



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 M80-305/~~306~~/307/308/309.
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.
7. THIS ASSEMBLY CAN ONLY MATE WITH MP MALE FIXINGS.
8. GUIDE PINS AND NUTS ARE SUPPLIED BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.

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,
M80-4000000FP-08-305-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm

ORDER CODE: (COAX CRIMP CONTACTS ONLY)

M80-4000000FP-XX-XXX-00-000

TOTAL No. OF CONTACTS
02 TO 12

SPECIAL CONTACTS
- 305 = COAX CONTACT 2.00mm CRIMP M80-305
- ~~306 = COAX CONTACT 2.40mm CRIMP M80-306~~
- 307 = COAX CONTACT 2.70mm CRIMP M80-307
- 308 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-308
- 309 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-309

MGP	4	16.01.18	21020
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: SB
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 FEMALE ASSEMBLY WITH BOARDMOUNT GUIDE PINS

DRAWING NUMBER: M80-4000000FP-XX-XXX-00-000

SHT 4 OF 6

Customer Information Sheet

DRAWING No.: M80-4000000FP-XX-XXX-00-000	SHEET 5 OF 6	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
- 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

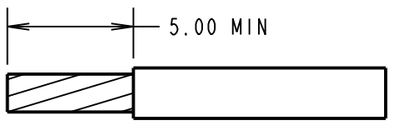
POWER CONTACT:
- CONTACT RESISTANCE = 6mΩ MAX
- CURRENT RATING = M80-325 = 20A MAX WITH 12AWG
  M80-326 = 15A MAX WITH 14AWG
  M80-327 = 10A MAX WITH 16AWG
  M80-328 = 8A MAX WITH 18AWG
  M80-329 = 5A MAX WITH 20AWG
  M80-32A = 20A MAX WITH 12AWG
  M80-32B = 15A MAX WITH 14AWG
  M80-32C = 10A MAX WITH 16AWG
  M80-PF5 = 40A MAX WITH 10AWG
  CONTACT AS SPECIFIED

MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    M80-325/326/327/328/329/
    32A/32B/32C = 8N MAX
    M80-PF5 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
- TEMPERATURE RANGE:
  M80-325/326/327/328/329/
  32A/32B/32C = -55°C TO +125°C
  M80-PF5 = -55°C TO +150°C

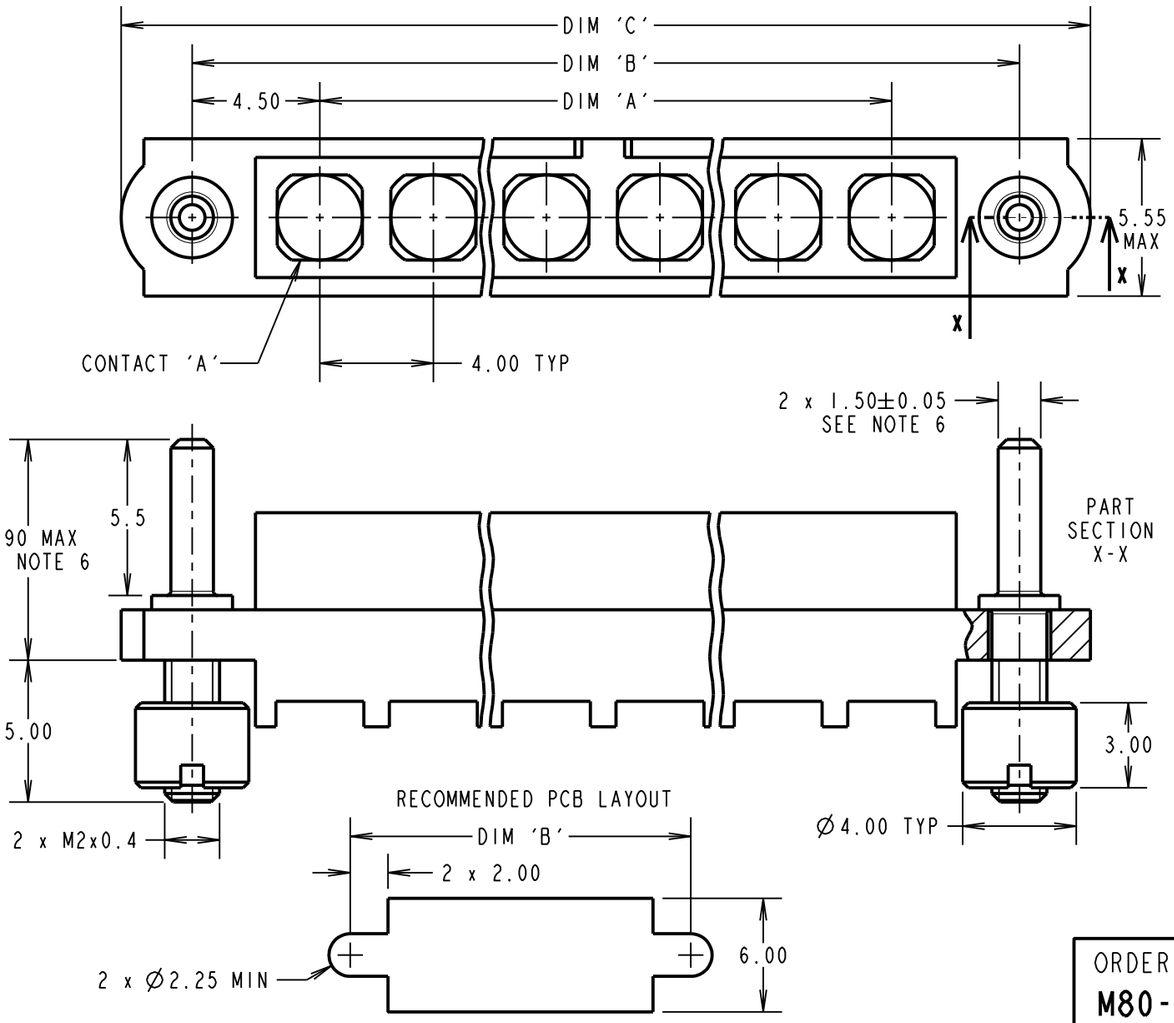
PACKING:
- BAG

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

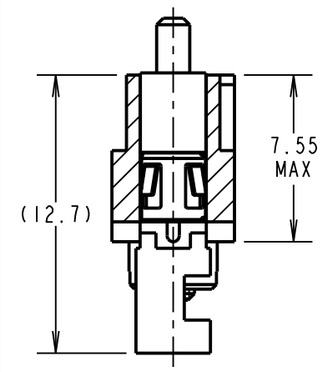


POWER CABLE STRIPPING DIMENSIONS

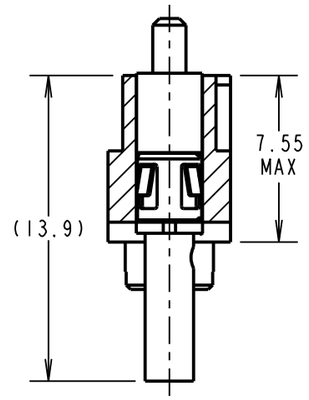
POWER CRIMP & SOLDER CONTACTS ONLY



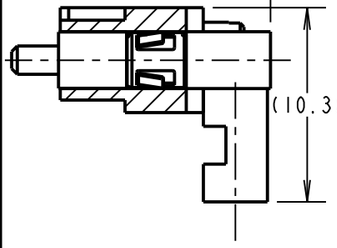
M80-325/326/327 x No. OF CONTACTS



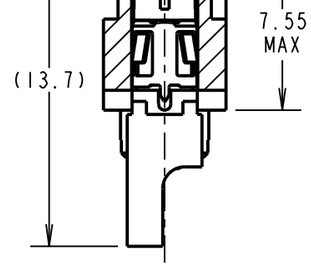
M80-328/329 x No. OF CONTACTS



M80-32A/32B/32C x No. OF CONTACTS



M80-PF5 x No. OF CONTACTS



CRIMP/SOLDER NOTES:
1. CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
2. FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-325/326/327/328/329/32A/32B/32C/PM5.
3. POWER CONTACT EXTRACTION TOOL = Z80-290.
4. RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 328/329 = Z80-294 AND POSITIONER Z80-295.
5. INSTRUCTION SHEETS ARE AVAILABLE.
6. THIS ASSEMBLY CAN ONLY MATE WITH MP MALE FIXINGS.
7. GUIDE PINS AND NUTS ARE SUPPLIED BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.

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, M80-5000000FP-10-325-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm	

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS ONLY)

M80-4000000FP-XX-XXX-00-000

TOTAL No. OF CONTACTS 02 TO 12

SPECIAL CONTACTS
- 325 = POWER CONTACT 12AWG SOLDER M80-325
- 326 = POWER CONTACT 14AWG SOLDER M80-326
- 327 = POWER CONTACT 16AWG SOLDER M80-327
- 328 = POWER CONTACT 18AWG SOLDER/CRIMP M80-328
- 329 = POWER CONTACT 20AWG SOLDER/CRIMP M80-329
- 32A = POWER CONTACT 12AWG HORIZ' SOLDER M80-32A
- 32B = POWER CONTACT 14AWG HORIZ' SOLDER M80-32B
- 32C = POWER CONTACT 16AWG HORIZ' SOLDER M80-32C
- PF5 = POWER CONTACT 10AWG SOLDER M80-PF5

NAME	ISS.	DATE	C/NOTE
MGP	4	16.01.18	21020
APPROVED: MGP			
CHECKED: SB			
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 FEMALE ASSEMBLY WITH BOARDMOUNT GUIDE PINS

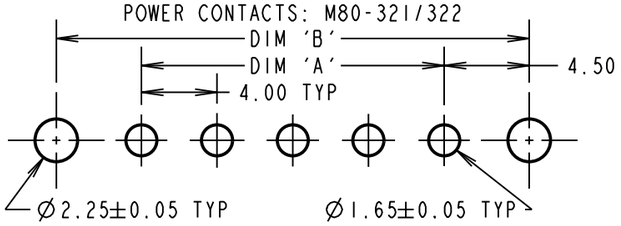
DRAWING NUMBER: M80-4000000FP-XX-XXX-00-000

SHT 5 OF 6

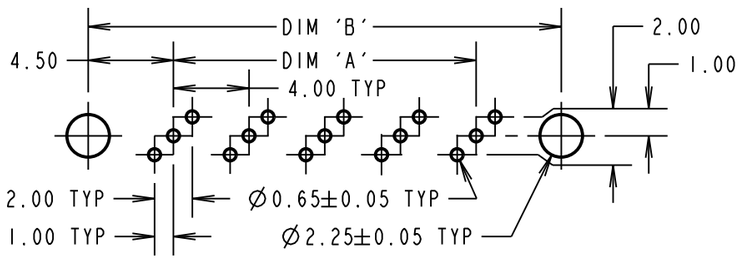
Customer Information Sheet

DRAWING No.: M80-4000000FP-XX-XXX-00-000	SHEET 6 OF 6	IF IN DOUBT - ASK	©	NOT TO SCALE	THIRD ANGLE PROJECTION	ALL DIMENSIONS IN mm

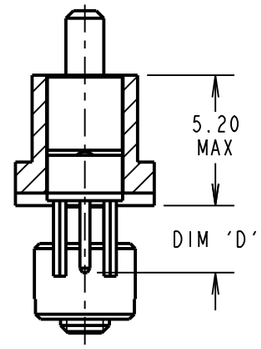
RECOMMENDED PCB LAYOUT FOR
POWER CONTACTS: M80-321/322



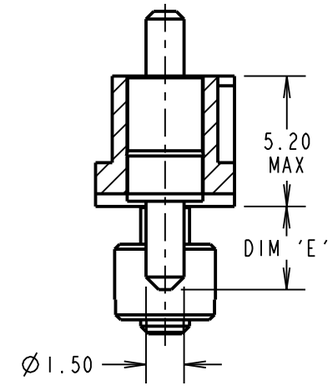
RECOMMENDED PCB LAYOUT FOR
COAX CONTACTS: M80-301/302



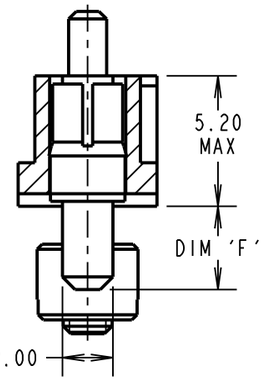
M80-301/302
x No. OF CONTACTS



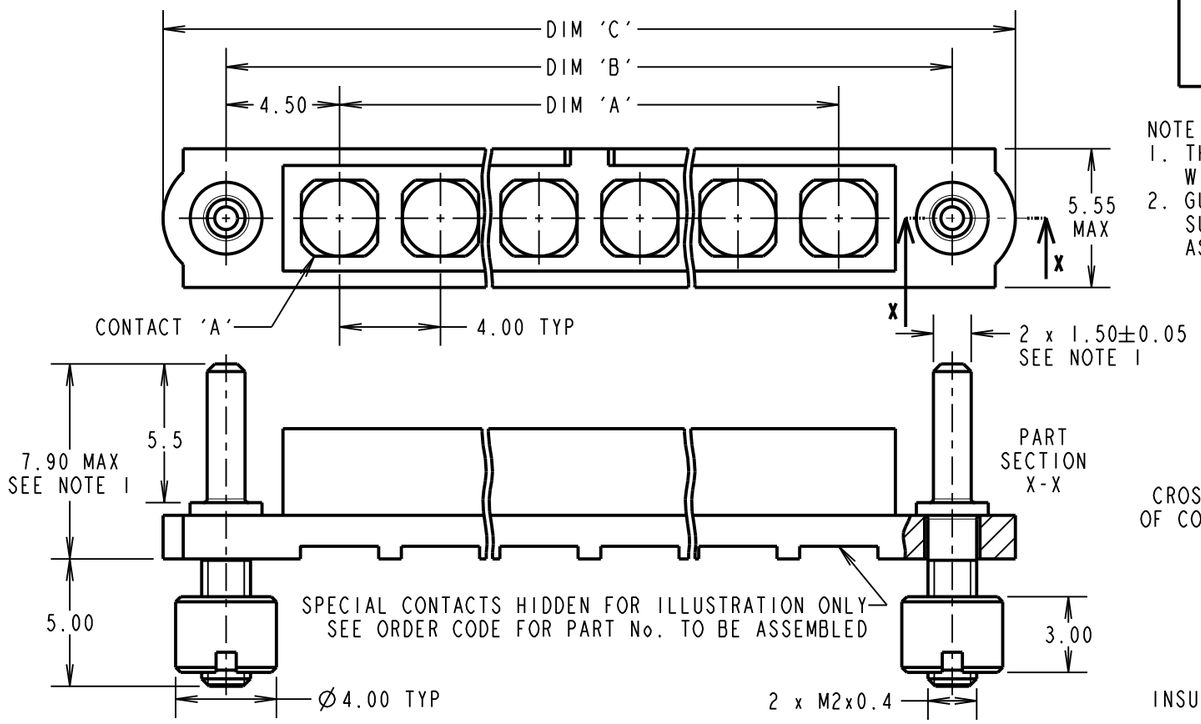
M80-321/322
x No. OF CONTACTS



M80-PF1/PF2
x No. OF CONTACTS

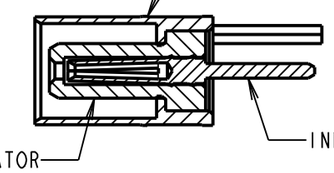


VERTICAL PC TAIL CONTACTS ONLY



NOTE:
1. THIS ASSEMBLY CAN ONLY MATE WITH MP MALE FIXINGS.
2. GUIDE PINS AND NUTS ARE SUPPLIED BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.

CROSS-SECTION
OF COAX CONTACT



SPECIFICATIONS:

MATERIAL:
- MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
- POWER CONTACT: COPPER ALLOY
- COAX CONTACT:
  - BODY = COPPER ALLOY
  - INNER CONTACT = COPPER ALLOY
  - INSULATOR = PTFE
- 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:
    - M80-321/322 = 20A MAX
    - M80-PF1/PF2 = 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:
    - M80-321/322 = 8N MAX
    - M80-PF1/PF2 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
- TEMPERATURE RANGE:
  - M80-301/302/321/322 = -55°C TO +125°C
  - M80-PF1/PF2 = -55°C TO +150°C

PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

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'	M80-301 = 3.0mm, M80-302 = 4.5mm
DIM 'E'	M80-321 = 3.5mm, M80-322 = 5.0mm
DIM 'F'	M80-PF1 = 3.5mm, M80-PF2 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
M80-4000000FP-08-301-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm
DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-4000000FP-10-PF1-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
DIM 'F' = 3.5mm

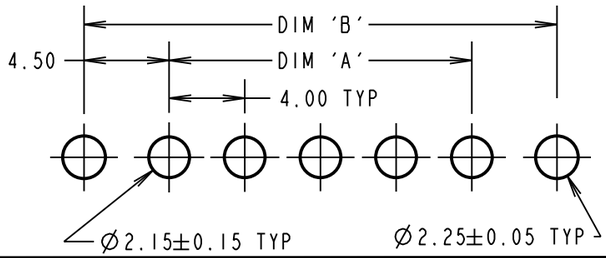
ORDER CODE: (PC TAIL CONTACTS ONLY)

M80-4000000FP-XX-XXX-00-000

TOTAL No. OF CONTACTS
02 TO 12

SPECIAL CONTACTS
- 301 = COAX CONTACT 3.0mm PC TAIL M80-301
- 302 = COAX CONTACT 4.5mm PC TAIL M80-302
- 321 = 20A POWER CONTACT 3.5mm VERT' PC TAIL M80-321
- 322 = 20A POWER CONTACT 5.0mm VERT' PC TAIL M80-322
- PF1 = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PF1
- PF2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PF2

RECOMMENDED PCB LAYOUT FOR
POWER CONTACTS: M80-PF1/PF2



MGP	4	16.01.18	21020
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: SB
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 FEMALE ASSEMBLY WITH BOARDMOUNT GUIDE PINS

DRAWING NUMBER: M80-4000000FP-XX-XXX-00-000

SHT 6 OF 6