Customer Information Sheet

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

COAX CRIMP AND SOLDER CONTACTS ONLY

SPECIFICATIONS:
MATERIAL:
- MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
- COAX CONTACT:
  - BODY, SLEEVE, END PLUG = COPPER ALLOY
  - INNER CONTACT,LATCHING COLLAR = BERYLLIUM COPPER
  - INSULATOR = PTFE
- JACKSCREW, CIRCLIP = STAINLESS STEEL

FINISH:
- COAX CONTACT
  - BODY,SLEEVE, INNER CONTACT, END PLUG = GOLD
  - LATCHING COLLAR: = NICKEL

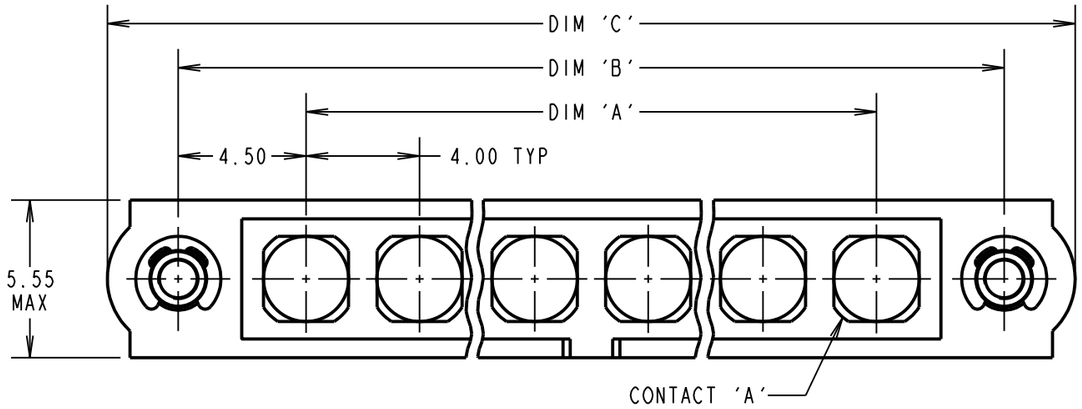
ELECTRICAL:
- INSULATION RESISTANCE = 100MΩ MIN
- COAX CONTACT:
  - FREQUENCY RANGE = 6GHz
  - IMPEDANCE = 50Ω
  - V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
  - CONTACT RESISTANCE = 6mΩ MAX
  - INSULATION RESISTANCE = 10^6MΩ @250V AC
  - OPERATING VOLTAGE = 180V AC @ 500mA
  - MAXIMUM VOLTAGE = 1000V AC

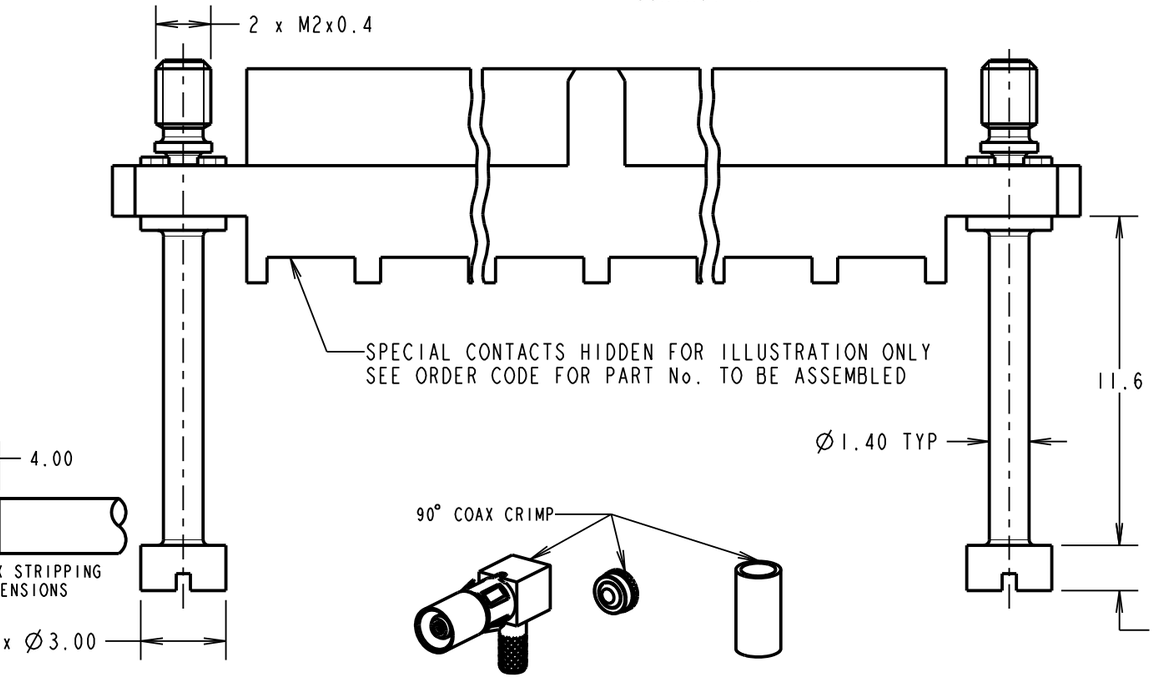
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

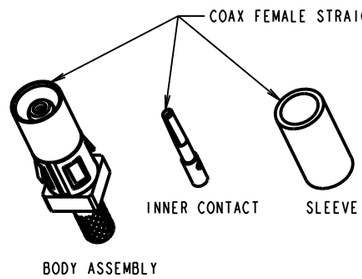
ENVIRONMENTAL:
- TEMPERATURE RANGE = -55°C TO +125°C

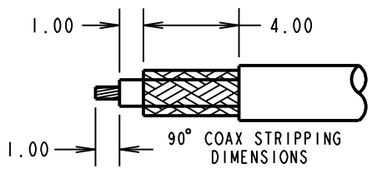
PACKING:
- BAG

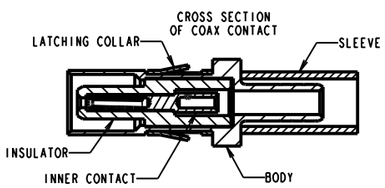
FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

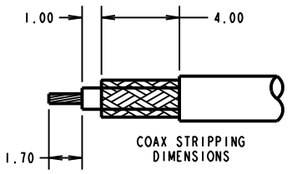




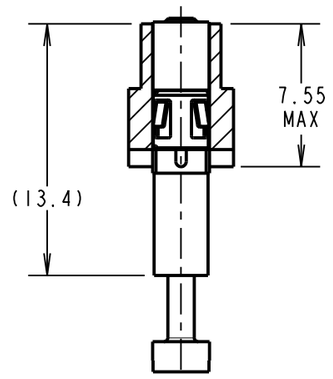




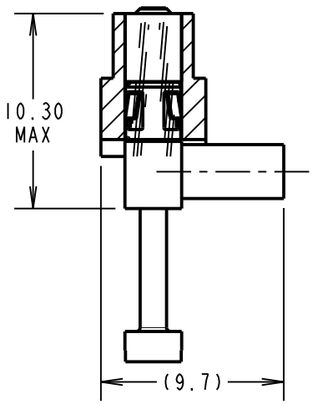




M80-305/~~306~~/307
x No. OF CONTACTS



M80-308/309
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: CONNNECTOR WITH 08 COAX CONTACTS, M80-4000000FS-08-305-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm	

ORDER CODE:(COAX CRIMP/SOLDER)

M80-4000000FS-XX-XXX-00-000

TOTAL No. OF CONTACTS:
02 TO 12

SPECIAL CONTACTS:
- 305 = COAX CONTACT CRIMP 2.0mm M80-305
- ~~306 = COAX CONTACT CRIMP 2.4mm M80-306~~
- 307 = COAX CONTACT CRIMP 2.7mm M80-307
- 308 = 90° COAX CONTACT CRIMP/SOLDER 2.0mm M80-308
- 309 = 90° COAX CONTACT CRIMP/SOLDER 2.7mm M80-309

NOTES:
1. CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
2. COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, INSULATOR AND LATCHING COLLAR ARE PRE-ASSEMBLED. SLEEVE AND INNER CONTACT ARE SEPARATE.
3. FOR EXTRA COAX CONTACTS, USE PART NUMBER M80-305/~~306~~/307/308/309.
4. RECOMMENDED HAND CRIMP TOOL FOR COAX INNER CONTACT = Z80-292 WITH POSITIONER Z80-291 AND RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR COAX SLEEVE = Z80-293.
5. COAX CONTACT EXTRACTION TOOL = Z80-290.
6. INSTRUCTION SHEETS ARE AVAILABLE.

MGP	3	9.12.19	21540
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: RP
DRAWN: M.G.PLESTED
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 FEMALE ASSY WITH EXTENDED JACKSCREW

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

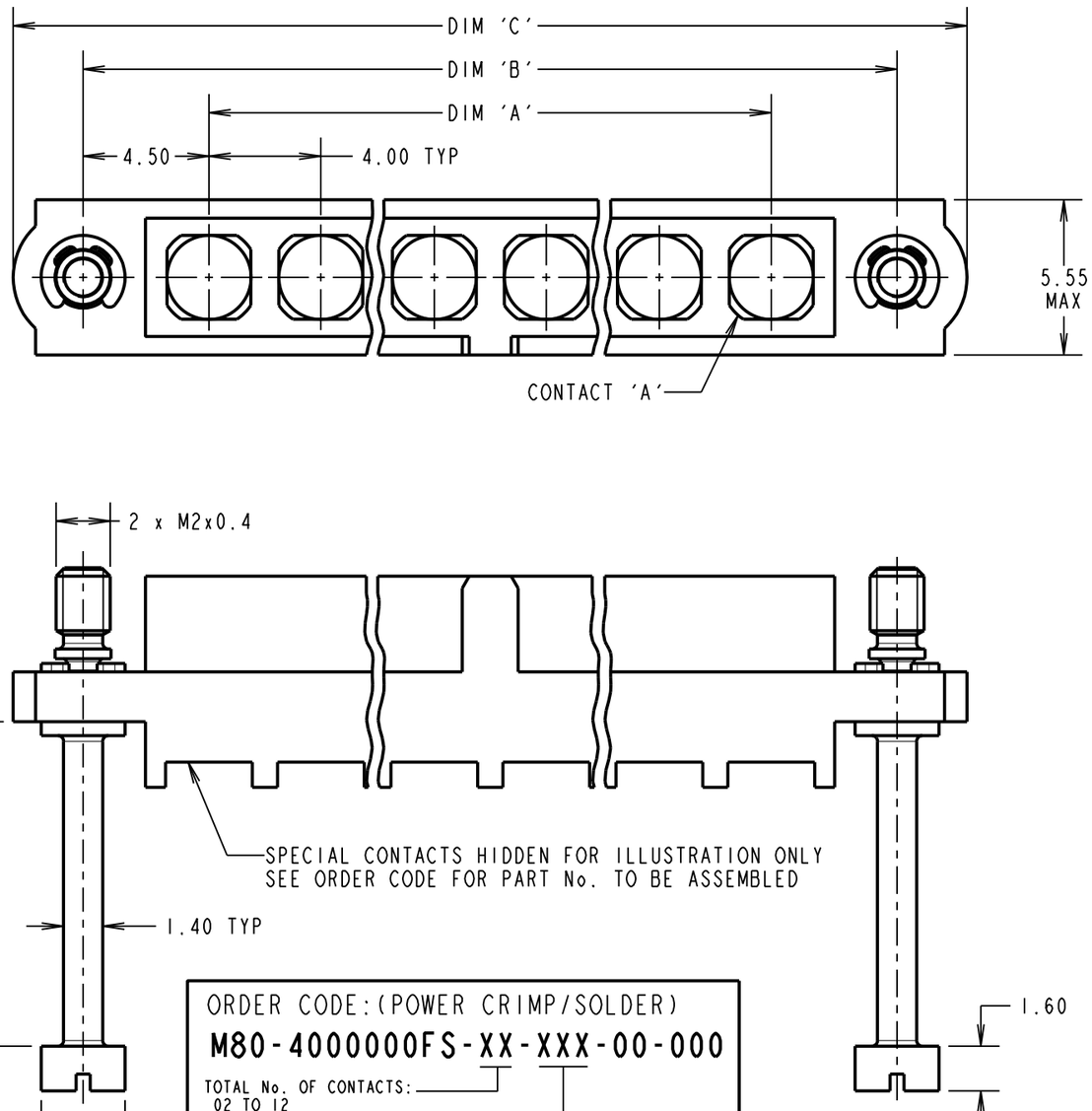
SHT 5 OF 8

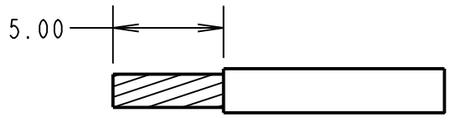
Customer Information Sheet

DRAWING No.: M80-4000000FS-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:
  BODY = COPPER ALLOY
  LATCHING COLLAR = BERYLLIUM COPPER
 JACKSCREW, CIRCLIP = 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 CRIMP AND SOLDER CONTACTS ONLY





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: CONNNECTOR WITH 08 POWER CONTACTS, M80-4000000FS-08-305-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm	

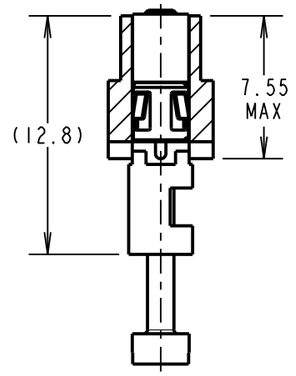
ORDER CODE:(POWER CRIMP/SOLDER)
M80-4000000FS-XX-XXX-00-000

TOTAL No. OF CONTACTS:
02 TO 12

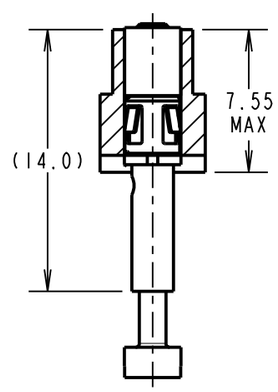
SPECIAL CONTACTS:
325 = POWER CONTACT SOLDER 12AWG M80-325
326 = POWER CONTACT SOLDER 14AWG M80-326
327 = POWER CONTACT SOLDER 16AWG M80-327
328 = POWER CONTACT SOLDER OR CRIMP 18AWG M80-328
329 = POWER CONTACT SOLDER OR CRIMP 20AWG M80-329
32A = 90° POWER CONTACT SOLDER 12AWG M80-32A
32B = 90° POWER CONTACT SOLDER 14AWG M80-32B
32C = 90° POWER CONTACT SOLDER 16AWG M80-32C
PF5 = POWER CONTACT SOLDER 10AWG M80-PF5

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/PF5.
3. POWER CONTACT EXTRACTION TOOL = Z80-290.
4. INSTRUCTION SHEETS ARE AVAILABLE.
5. RECOMMENDED HAND CRIMP TOOL FOR CONTACTS M80-328/329 = Z80-294 WITH POSITIONER Z80-295.
6. POWER CONTACT WIRE, STRIP BY 5.00mm MINIMUM.

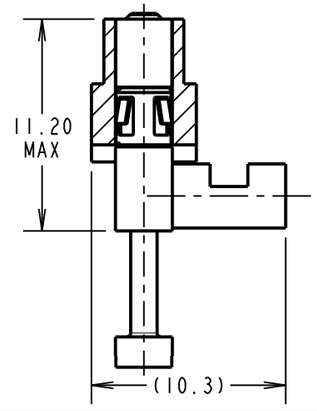
M80-325/326/327
x No. OF CONTACTS



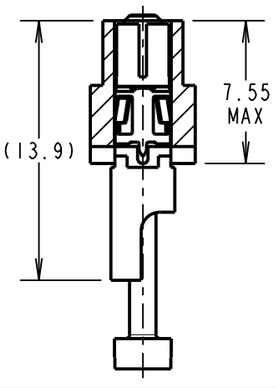
M80-328/329
x No. OF CONTACTS



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



M80-PF5
x No. OF CONTACTS



MGP	3	9.12.19	21540
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: RP
DRAWN: M.G.PLESTED
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 FEMALE ASSY WITH EXTENDED JACKSCREW
DRAWING NUMBER: M80-4000000FS-XX-XXX-00-000
SHT 6 OF 8

Customer Information Sheet

DRAWING No.: M80-4000000FS-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
- JACKSCREW, CIRCLIP = 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

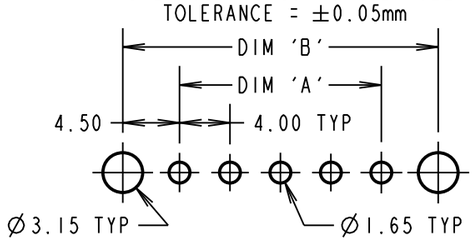
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-321/322 = 8N MAX
    - M80-PF1/PF2 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN
- COAX CONTACT:
  - INSERTION FORCE = 8N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

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

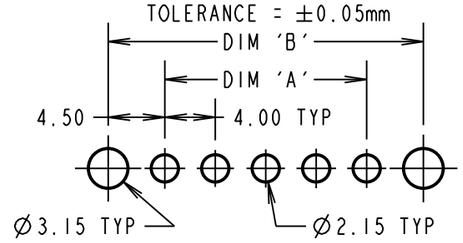
PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

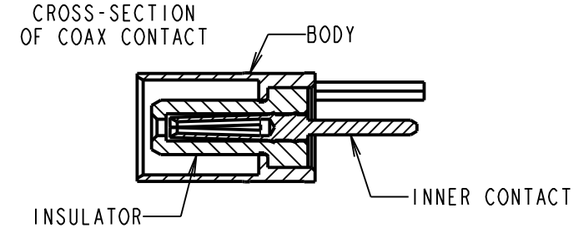
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-321/322
TOLERANCE = ±0.05mm



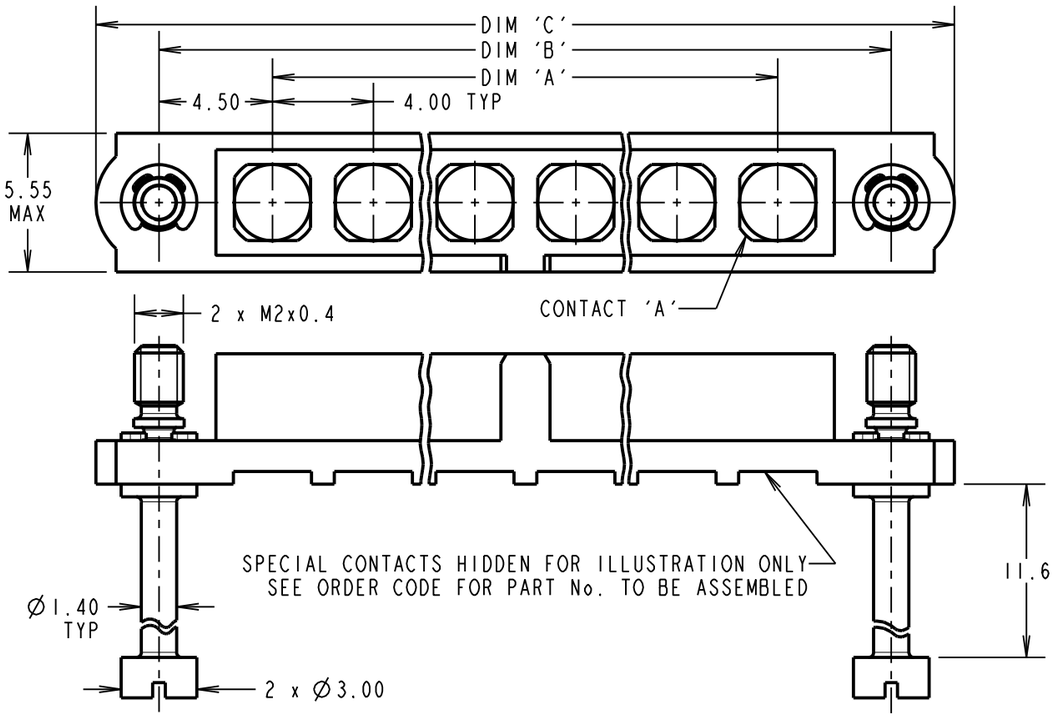
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PF1/PF2
TOLERANCE = ±0.05mm



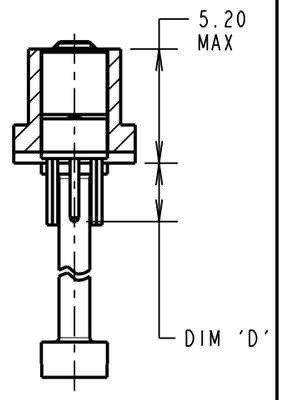
CROSS-SECTION OF COAX CONTACT



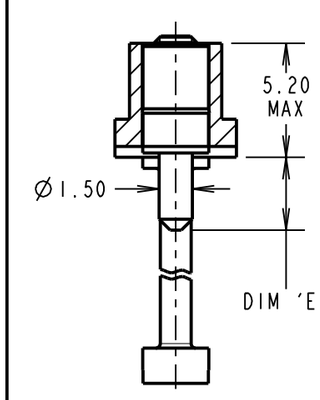
PC TAIL VERTICAL CONTACTS ONLY



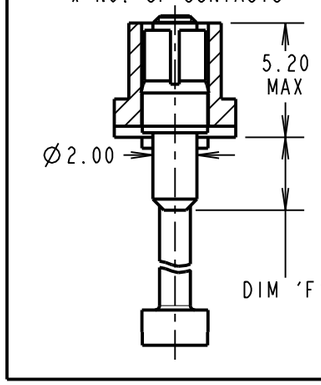
M80-301/302
x No. OF CONTACTS



M80-321/322
x No. OF CONTACTS



M80-PF1/PF2
x No. OF CONTACTS

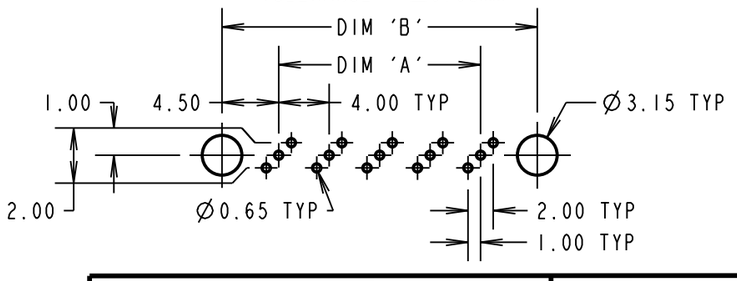


DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS -4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.0
DIM 'D'	M80-301 = 3.00mm, M80-302 = 4.50mm
DIM 'E'	M80-321 = 3.50mm, M80-322 = 5.00mm
DIM 'F'	M80-PF1 = 3.50mm, M80-PF2 = 5.00mm

EXAMPLE 1: CONNNECTOR WITH 08 COAX CONTACTS,
M80-4000000FS-08-301-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm
DIM 'D' = 3.00mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-4000000FS-10-321-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
DIM 'E' = 3.50mm

RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-301/302
TOLERANCE = ±0.05mm



ORDER CODE: (PC TAIL CONTACTS ONLY)

M80-4000000FS-XX-XXX-00-000

TOTAL No. OF CONTACTS:
02 TO 12

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

NAME	ISS.	DATE	C/NOTE
MGP	3	9.12.19	21540
APPROVED: MGP			
CHECKED: RP			
DRAWN: M.G.PLESTED			
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 FEMALE ASSY WITH EXTENDED JACKSCREW

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

SHT 7 OF 8

Customer Information Sheet

DRAWING No.: M80-4000000FS-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
- JACKSCREW, CIRCLIP = 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:
    - M80-323/324 = 20A MAX
    - M80-PF3/PF4 = 40A MAX

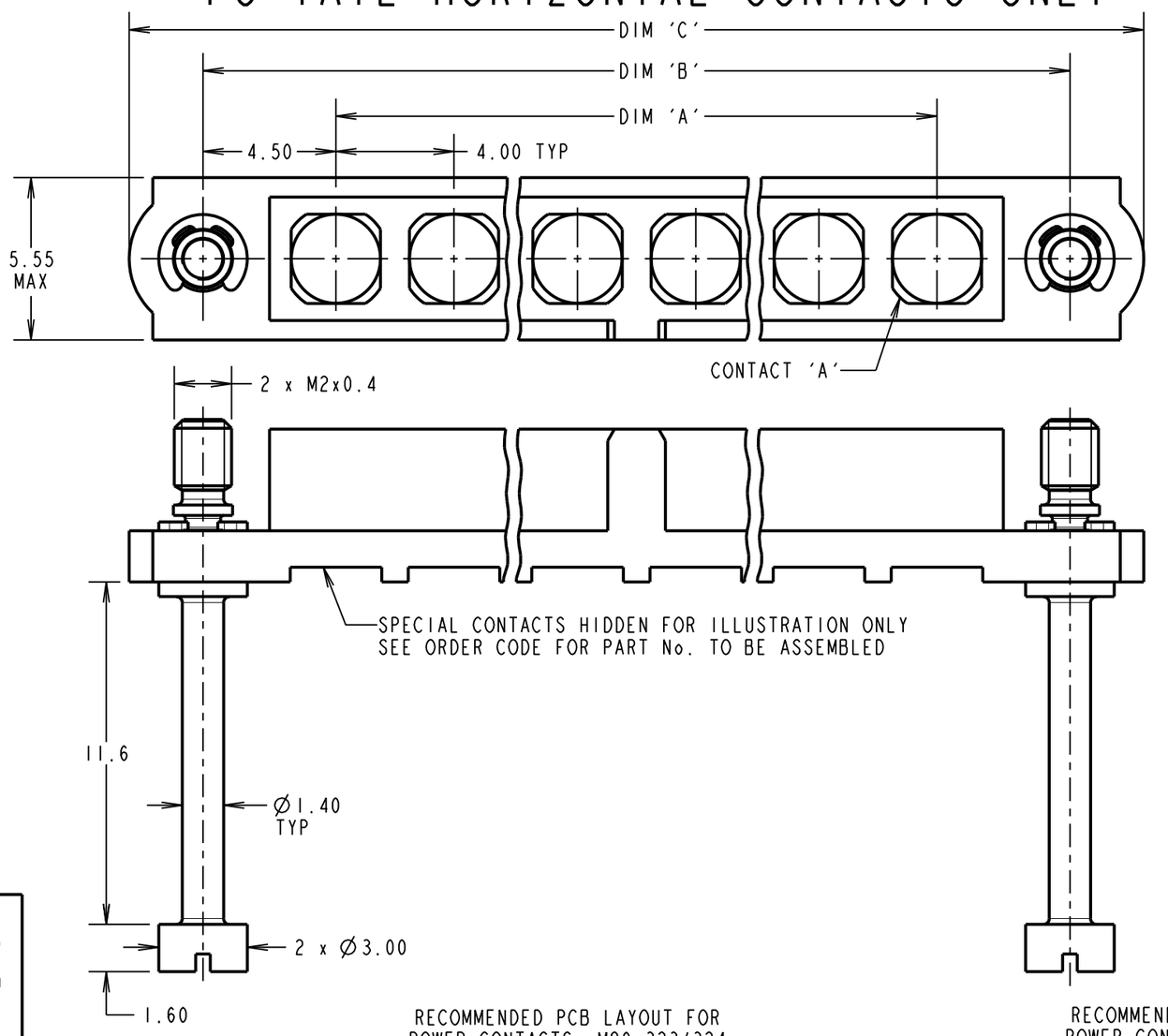
MECHANICAL:
- DURABILITY = 500 OPERATIONS
- POWER CONTACT:
  - INSERTION FORCE:
    - M80-323/324 = 8N MAX
    - M80-PF3/PF4 = 15N MAX
  - WITHDRAWAL FORCE = 0.5N MIN

ENVIRONMENTAL:
- TEMPERATURE RANGE:
  - M80-323/324 = -55°C TO +125°C
  - M80-PF3/PF4 = -55°C TO +150°C

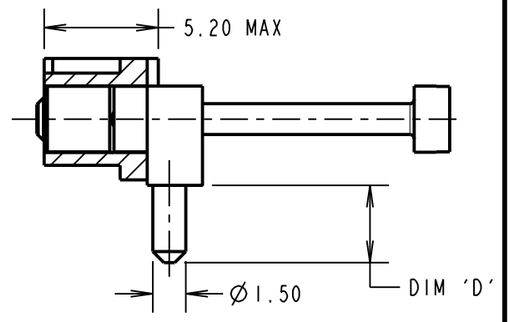
PACKING:
- TUBE

FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

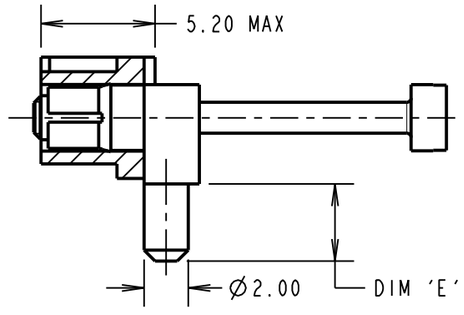
PC TAIL HORIZONTAL CONTACTS ONLY



M80-323/324
x No. OF CONTACTS



M80-PF3/PF4
x No. OF CONTACTS



ORDER CODE:
(FEMALE HORIZONTAL POWER CONTACTS ONLY)

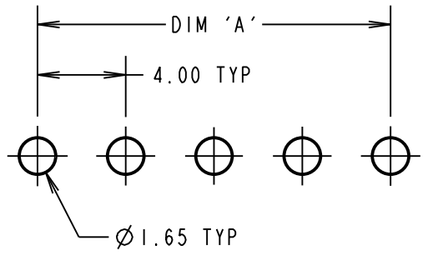
M80-4000000FS-XX-XXX-00-000

TOTAL No. OF CONTACTS: 02 TO 12

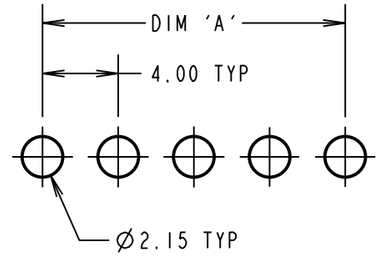
FEMALE HORIZONTAL POWER CONTACTS:
- 323 = 20A POWER CONTACT PC TAIL 3.5mm M80-323
- 324 = 20A POWER CONTACT PC TAIL 5.0mm M80-324
- PF3 = 40A POWER CONTACT PC TAIL 3.5mm M80-PF3
- PF4 = 40A POWER CONTACT PC TAIL 5.0mm M80-PF4

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'	M80-323 = 3.50mm, M80-324 = 5.00mm
DIM 'E'	M80-PF3 = 3.50mm, M80-PF4 = 5.00mm
EXAMPLE 1: CONNECTOR WITH 10 POWER CONTACTS 3.5mm, M80-4000000FS-10-323-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm DIM 'D' = 3.50mm	

RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-323/324
TOLERANCE = ±0.05mm



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PF3/PF4
TOLERANCE = ±0.05mm



MGP	3	9.12.19	21540
NAME	ISS.	DATE	C/NOTE

APPROVED: MGP
CHECKED: RP
DRAWN: M.G.PLESTED
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 FEMALE ASSY WITH EXTENDED JACKSCREW

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

SHT 8 OF 8