

Customer Information Sheet

DRAWING No.: M80-400000F9-XX-XXX-00-000

SHEET 4 OF 6

IF IN DOUBT - ASK

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NOT TO SCALE

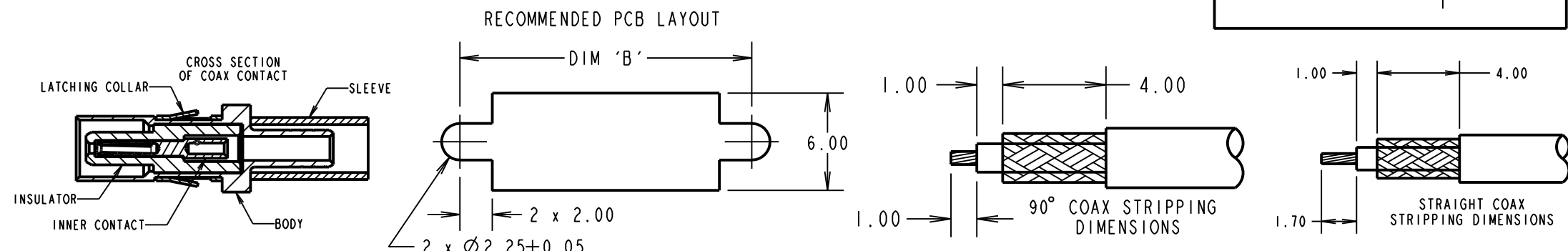
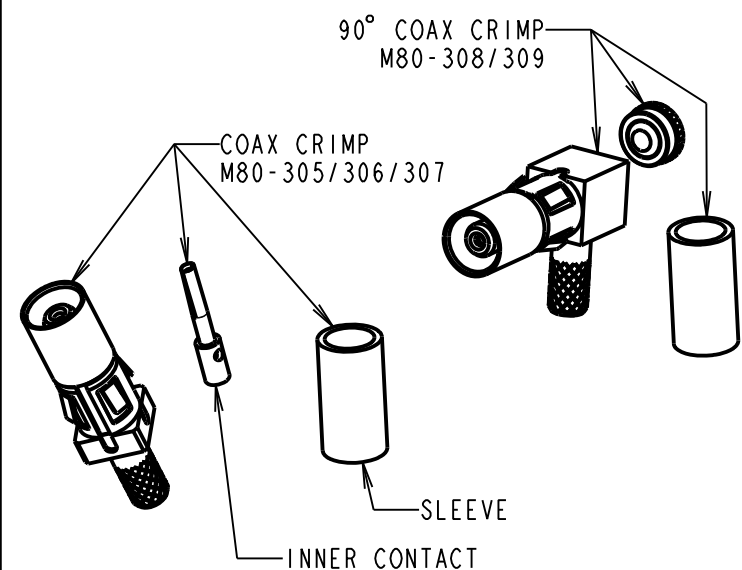
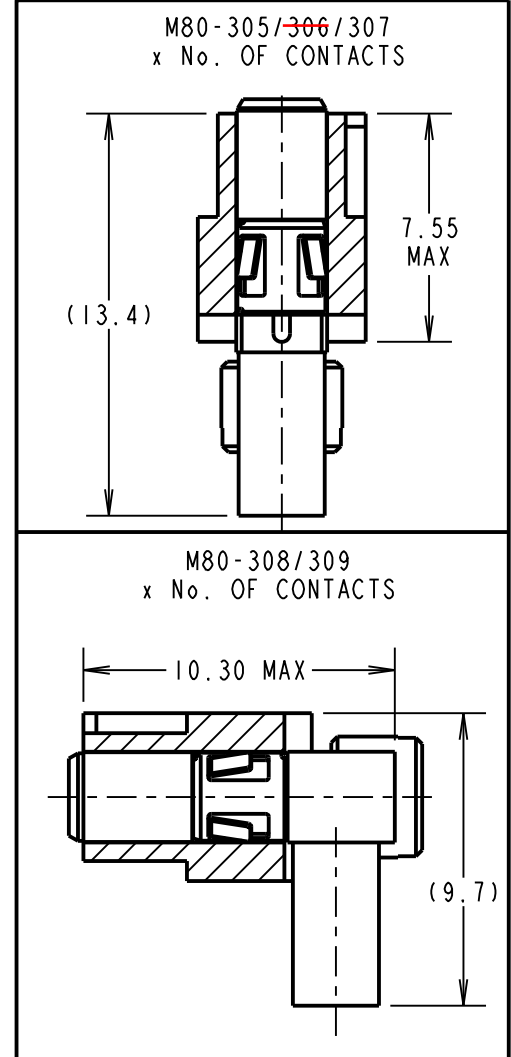
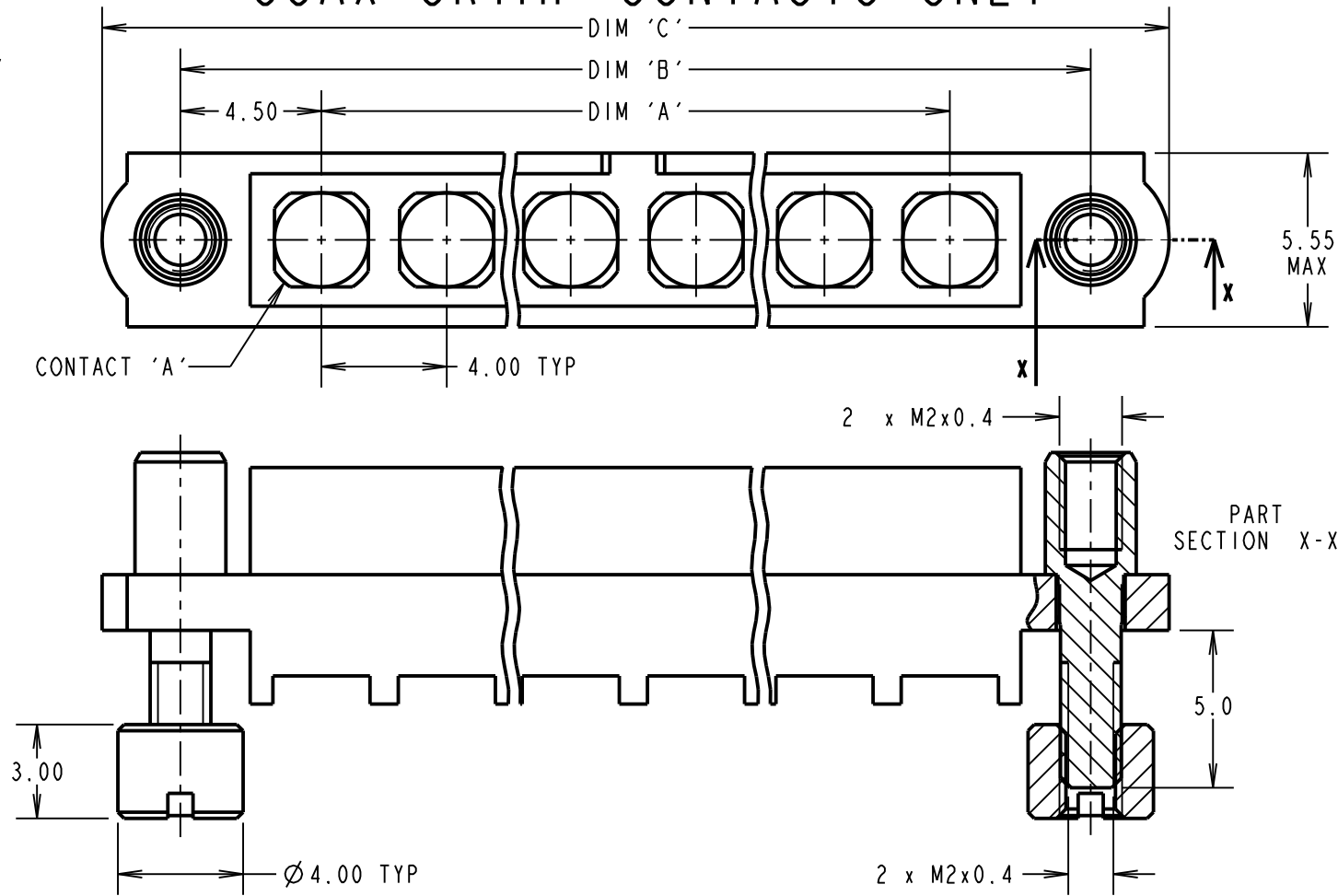
THIRD ANGLE PROJECTION

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
 JACKSCREW, NUT = STAINLESS STEEL.
FINISH:
COAX CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD
 LATCHING COLLAR = NICKEL
ELECTRICAL:
COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50Ω
 V.S.W.R = $1.05 + (0.04 \times \text{FREQUENCY}) \text{ GHz MAX}$
 CONTACT RESISTANCE = $6m\Omega \text{ MAX}$
 INSULATION RESISTANCE = $10^6 M\Omega @ 250V \text{ AC}$
 OPERATING VOLTAGE = $180V \text{ AC @ } 500mA$
 MAXIMUM VOLTAGE = $1000V \text{ AC}$
MECHANICAL:
 DURABILITY = 500 OPERATIONS
COAX CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN
ENVIRONMENTAL:
 TEMPERATURE RANGE = $-55^\circ\text{C TO } +125^\circ\text{C}$
PACKING:
 BAG
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

COAX CRIMP CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONTACTS AND BOARD MOUNT NUTS ARE SUPPLIED WITH CONNECTOR, BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.
 - 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.
 - FOR EXTRA COAX CONTACTS, USE PART NUMBERS M80-305/~~306~~/307/308/309.
 - 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: (COAX CRIMP CONTACTS ONLY)
M80-400000F9-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	5	10.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
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,
 M80-400000F9-08-305-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm



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TOLERANCES
 X. = $\pm 1mm$
 X.X = $\pm 0.50mm$
 X.XX = $\pm 0.10mm$
 X.XXX = $\pm 0.01mm$
ANGLES = $\pm 5^\circ$
UNLESS STATED

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

TITLE: DATAMATE MIX-TEK FEMALE ASSEMBLY WITH BOARDMOUNT JACKSCREWS
DRAWING NUMBER: M80-400000F9-XX-XXX-00-000
 SHT 4 OF 6

Customer Information Sheet

DRAWING No.: M80-400000F9-XX-XXX-00-000

SHEET 5 OF 6

IF IN DOUBT - ASK

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THIRD ANGLE PROJECTION

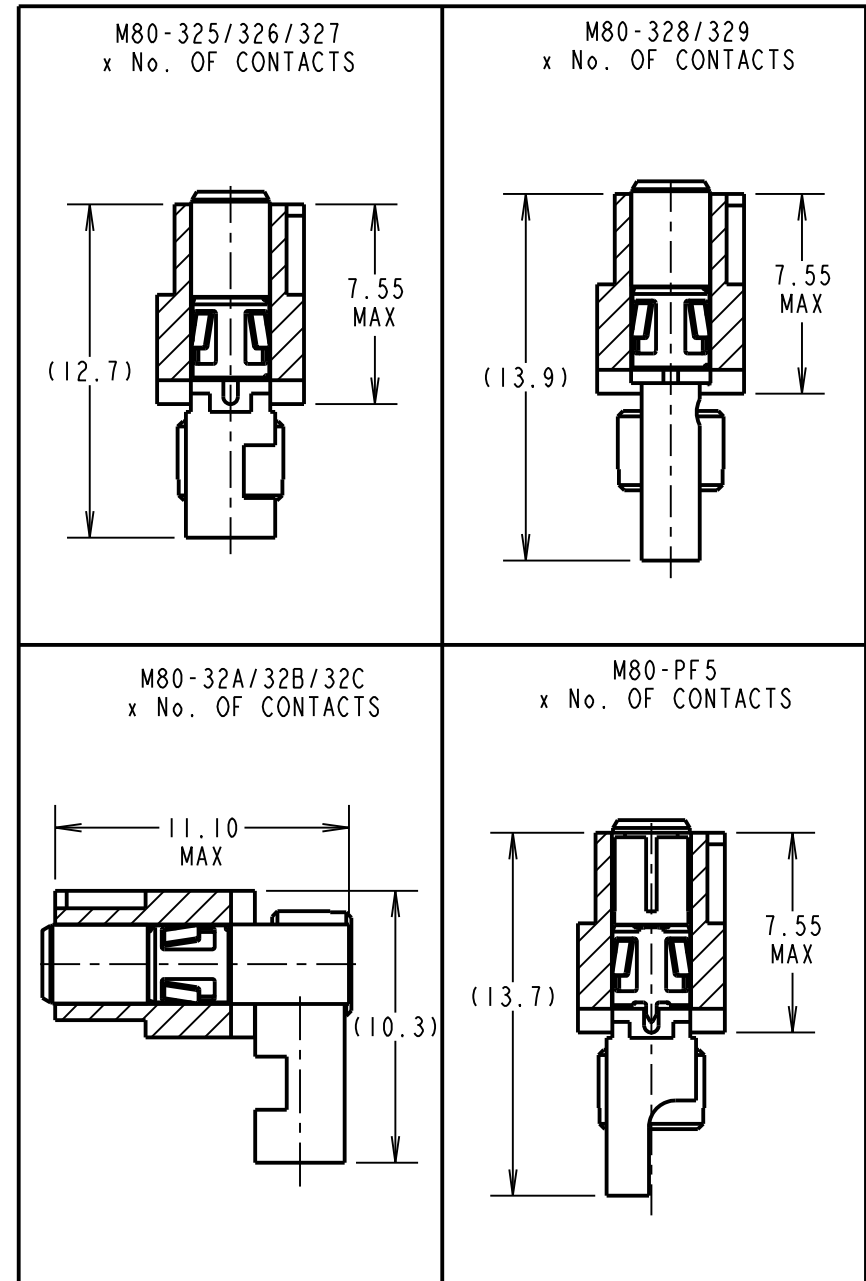
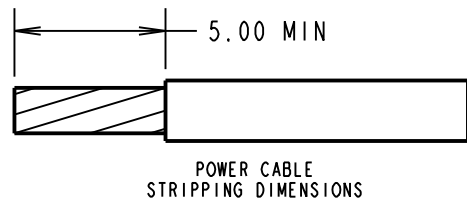
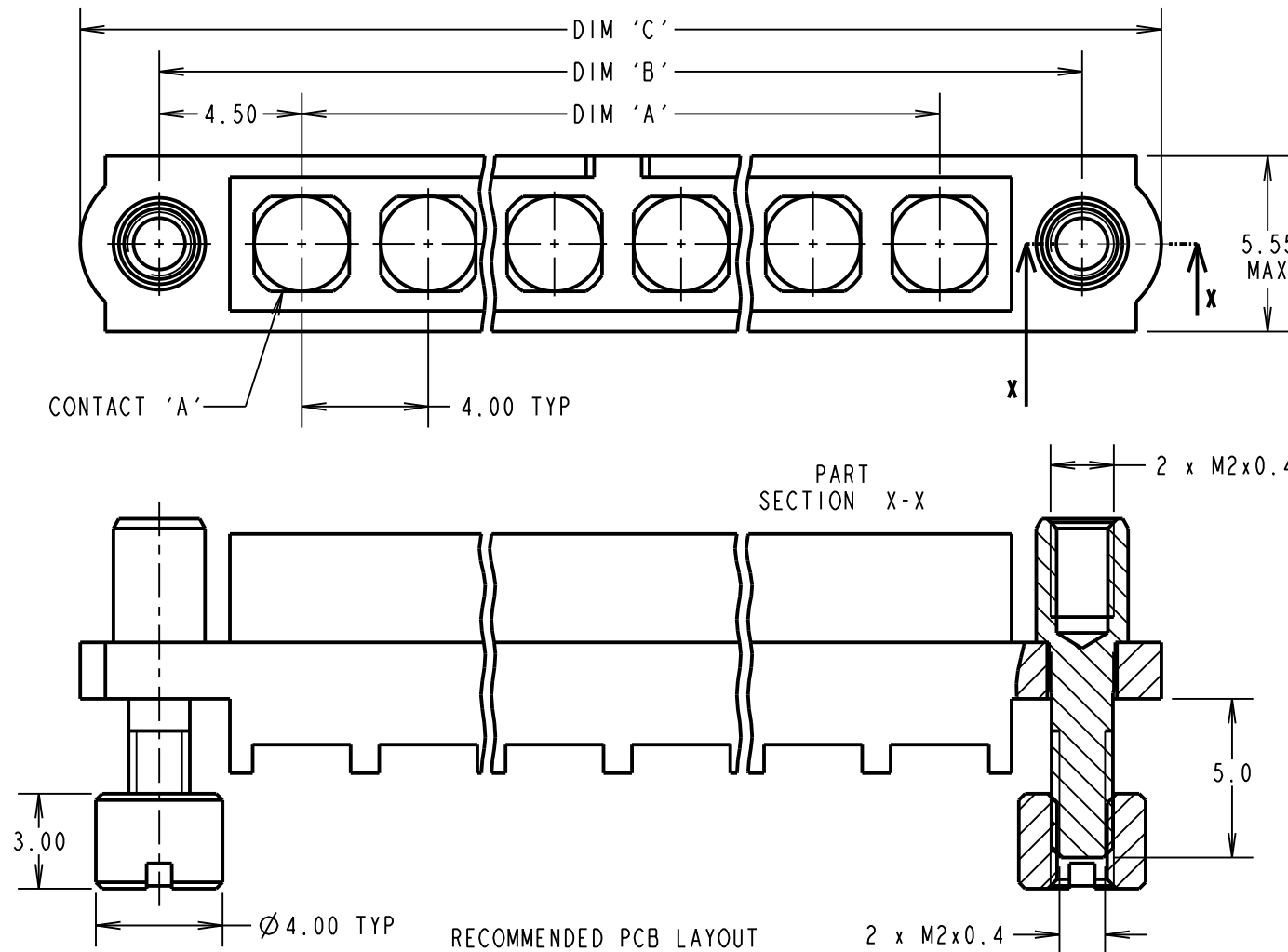
ALL DIMENSIONS IN mm

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 CRIMP & SOLDER CONTACTS ONLY



ORDER CODE: (POWER CRIMP/SOLDER CONTACTS ONLY)
M80-400000F9-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

- CRIMP/SOLDER NOTES:**
1. CONTACTS AND BOARD MOUNT NUTS ARE SUPPLIED WITH CONNECTOR, BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.
 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.

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,
 M80-400000F9-10-325-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm



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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 JACKSCREWS
DRAWING NUMBER:
M80-400000F9-XX-XXX-00-000
 SHT 5 OF 6

MGP	5	10.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

Customer Information Sheet

DRAWING No.: M80-400000F9-XX-XXX-00-000

SHEET 6 OF 6

IF IN DOUBT - ASK

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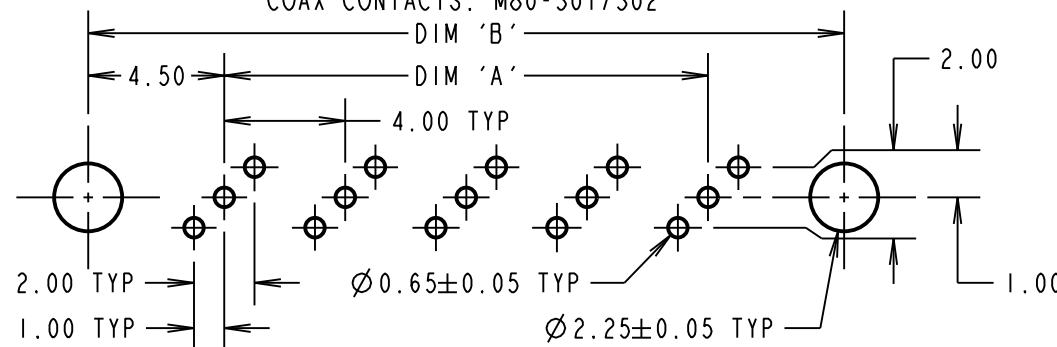
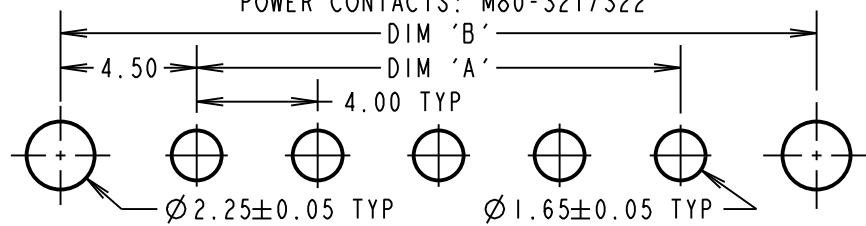
NOT TO SCALE

THIRD ANGLE PROJECTION

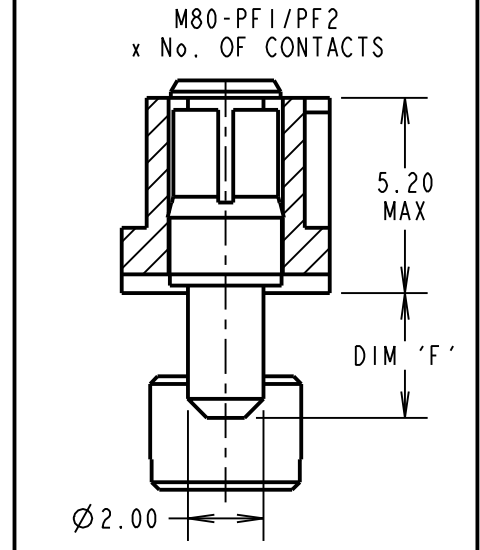
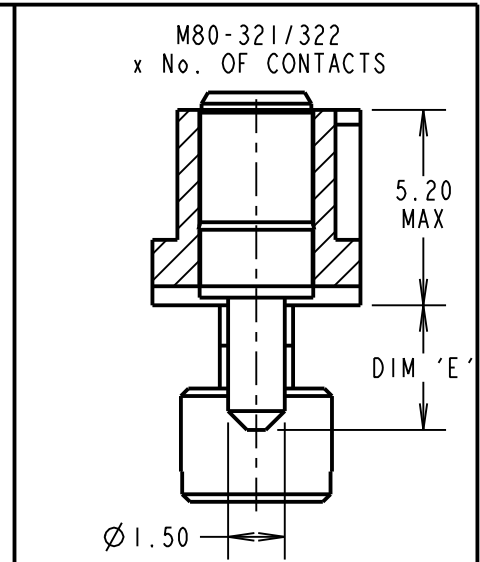
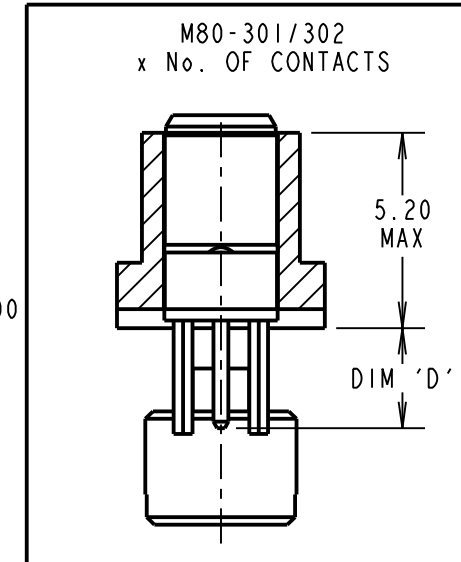
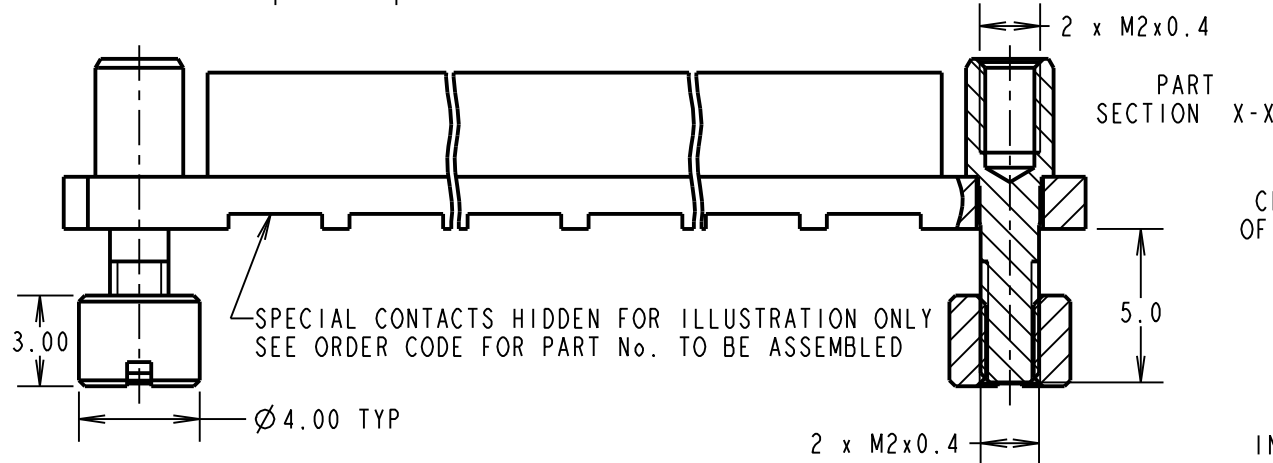
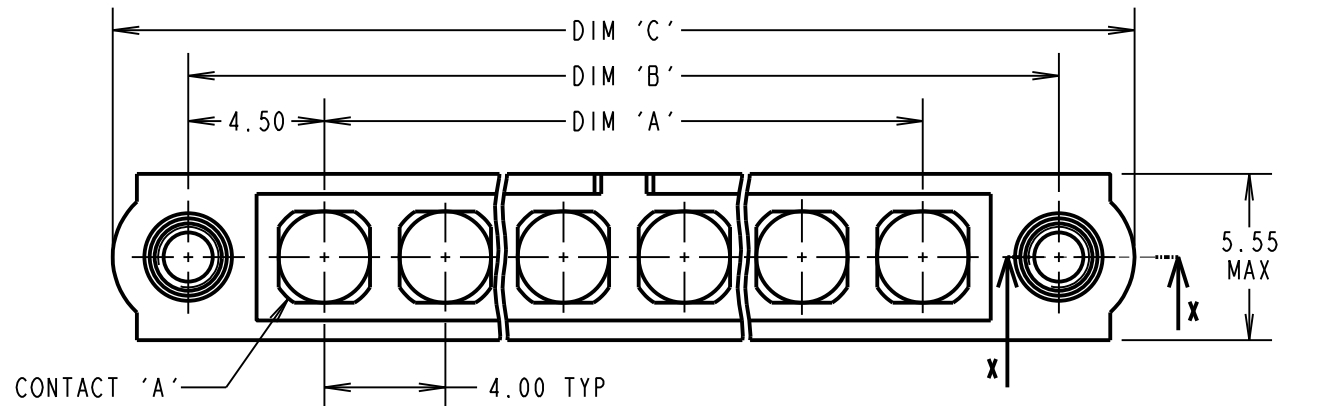
ALL DIMENSIONS IN mm

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

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



VERTICAL PC TAIL CONTACTS ONLY



NOTE:
1. BOARD MOUNT NUTS ARE SUPPLIED WITH CONNECTOR, BUT NOT ASSEMBLED AS SHOWN FOR ILLUSTRATION.

- 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 = 100M Ω MIN
POWER CONTACT:
CONTACT RESISTANCE = 6m Ω MAX
CURRENT RATING:
M80-321/322 = 20A MAX
M80-PF1/PF2 = 40A MAX
COAX CONTACT:
FREQUENCY RANGE = 6GHz
IMPEDANCE = 50 Ω
V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
CONTACT RESISTANCE = 6m Ω MAX
INSULATION RESISTANCE = 10⁶M Ω @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,
M80-400000F9-08-301-00-000
DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm
DIM 'D' = 3.0mm

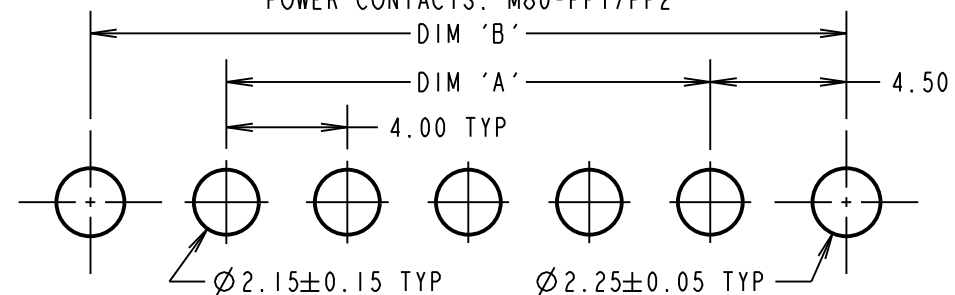
EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-400000F9-10-PF1-00-000
DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
DIM 'F' = 3.5mm

ORDER CODE: (PC TAIL CONTACTS ONLY)
M80-400000F9-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



HARWIN

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TOLERANCES
X. = ± 1 mm
X.X = ± 0.50 mm
X.XX = ± 0.10 mm
X.XXX = ± 0.01 mm
ANGLES = $\pm 5^\circ$
UNLESS STATED

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

TITLE: DATAMATE MIX-TEK FEMALE ASSEMBLY WITH BOARDMOUNT JACKSCREWS

DRAWING NUMBER: M80-400000F9-XX-XXX-00-000
SHT 6 OF 6

MGP	5	10.01.18	21020
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: C.PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			