

Customer Information Sheet

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

SHEET 4 OF 6

IF IN DOUBT - ASK

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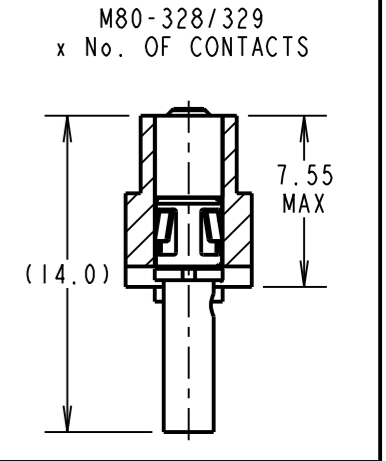
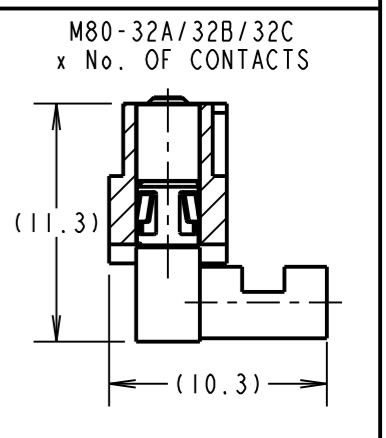
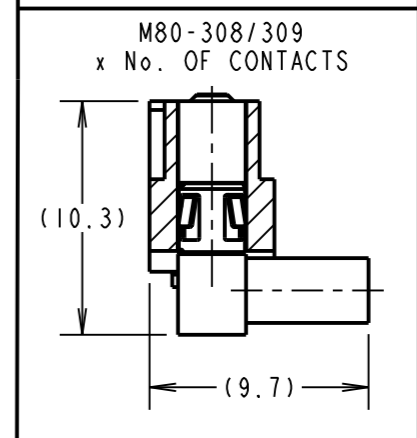
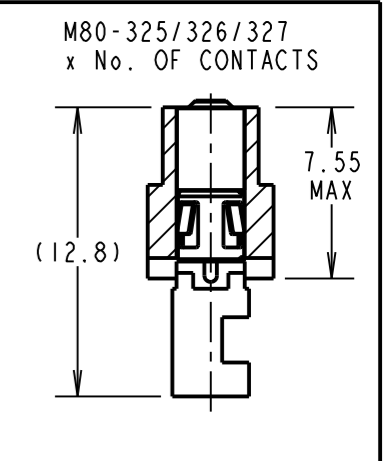
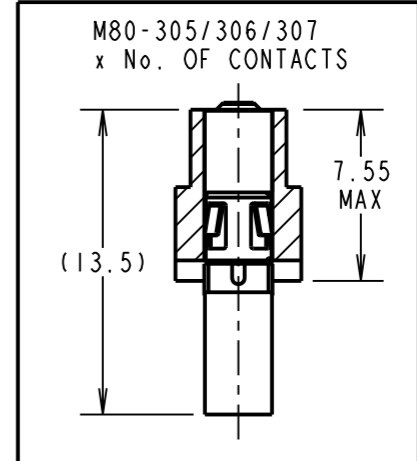
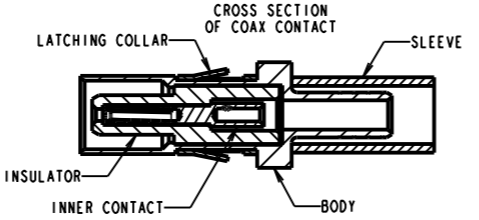
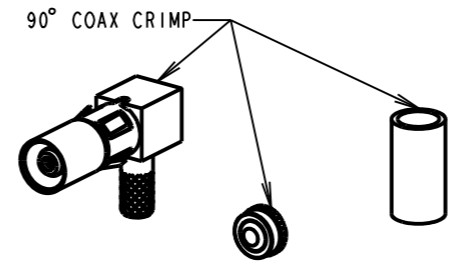
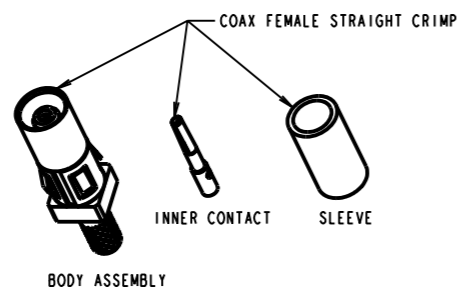
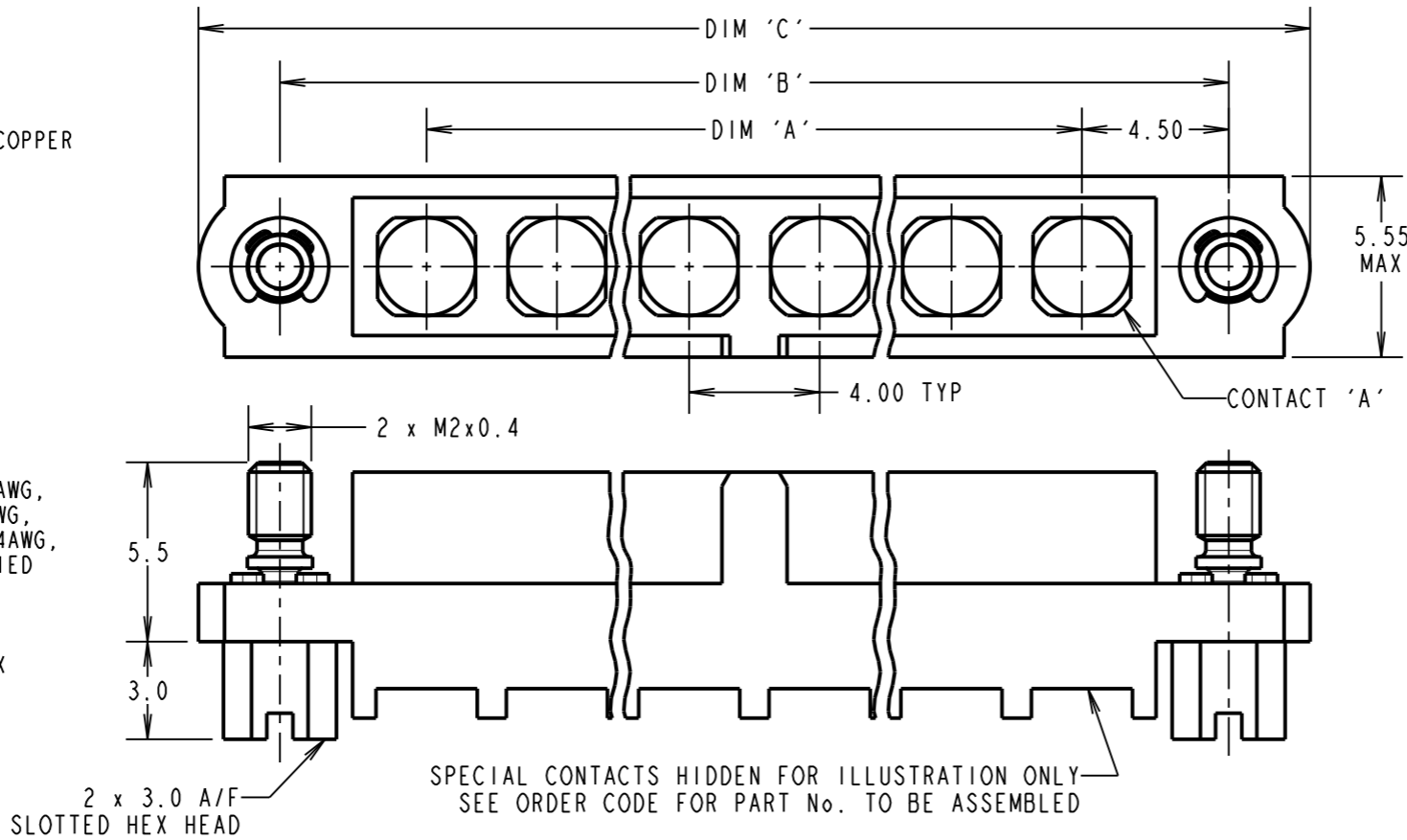
NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
POWER & COAX CONTACT:
 BODY = COPPER ALLOY
 INNER CONTACT, LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE
 JACKSCREW, CIRCLIP: STAINLESS STEEL
FINISH:
 POWER & COAX CONTACT
 BODY, SLEEVE, INNER CONTACT = 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 12AWG,
 M80-326 15A MAX 14AWG, M80-327 10A MAX 16AWG,
 M80-328 8A MAX 18AWG, M80-329 5A MAX 20AWG,
 M80-32A 20A MAX 12AWG, M80-32B 15A MAX 14AWG,
 M80-32C 10A MAX 16AWG, CONTACT AS SPECIFIED
COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50 Ω
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
 CONTACT RESISTANCE 6 mΩ MAX
 INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC
MECHANICAL:
 DURABILITY = 500 OPERATIONS
POWER & 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/SOLDER CONTACTS ONLY

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,
 M80-400000FI-08-305-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm,
 DIM 'C' = 42.00mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-400000FI-10-325-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm,
 DIM 'C' = 50.00mm

- NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
 - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, INSULATOR AND LATCHING COLLAR ARE PRE-ASSEMBLED. SLEEVE AND INNER CONTACT ARE SEPARATE.
 - FOR EXTRA COAX CONTACTS, USE PART NUMBER M80-305/306/307/308/309 FOR EXTRA POWER CONTACTS, USE PART NUMBER M80-325/326/327/328/329/32A/32B/32C.
 - 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.
 - POWER AND COAX CONTACT EXTRACTION TOOL = Z80-290
 - INSTRUCTION SHEETS ARE AVAILABLE.
 - FOR EXAMPLE OF ALL COAX SPECIAL CONTACTS ORDER CODE SEE EXAMPLE 1 IN TABLE
 - FOR EXAMPLE OF ALL POWER SPECIAL CONTACTS ORDER CODE SEE EXAMPLE 2 IN TABLE.

ORDER CODE: (CRIMP/SOLDER)
M80-400000FI-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 2.0mm M80-308
 309 = 90° COAX CONTACT CRIMP 2.7mm M80-309
 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

MGP	5	07.01.12	11898
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: R. ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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 technical@harwin.com

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TOLERANCES
 X. = ±1mm
 X.X = ±0.25mm
 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 JACKSCREW
DRAWING NUMBER:
M80-400000FI-XX-XXX-00-000
 SHT 4 OF 6

Customer Information Sheet

DRAWING No.: M80-400000F1-XX-XXX-00-000

SHEET 5 OF 6

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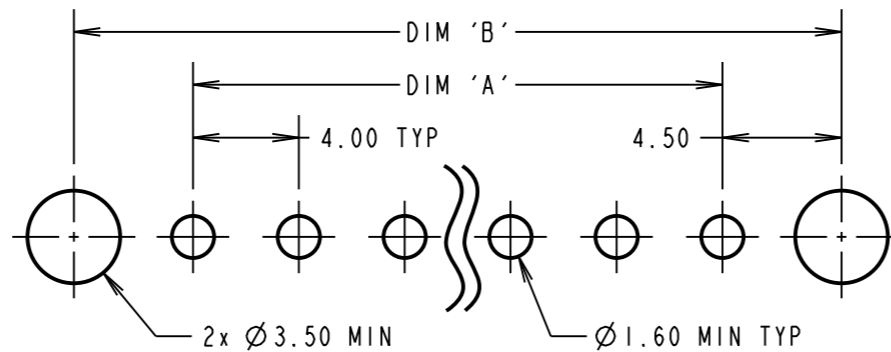
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

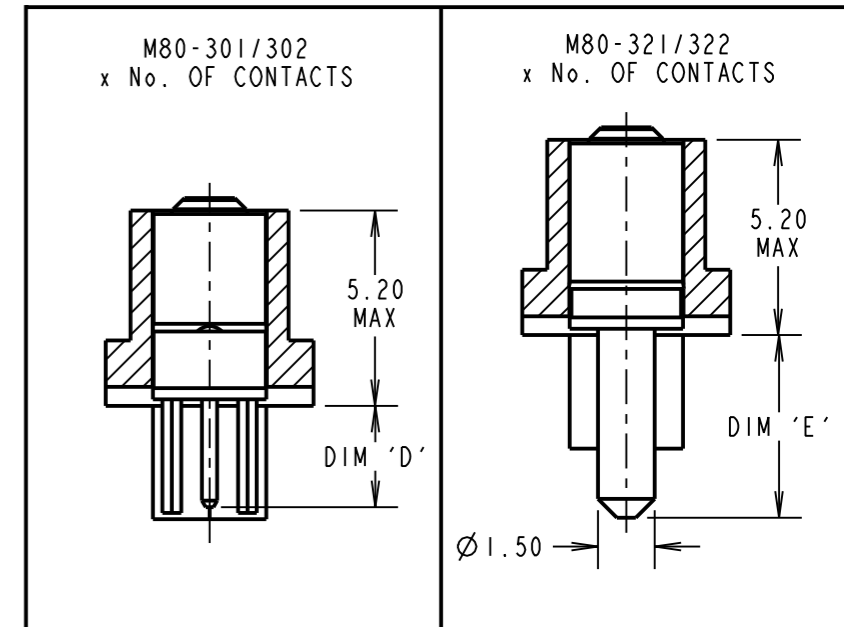
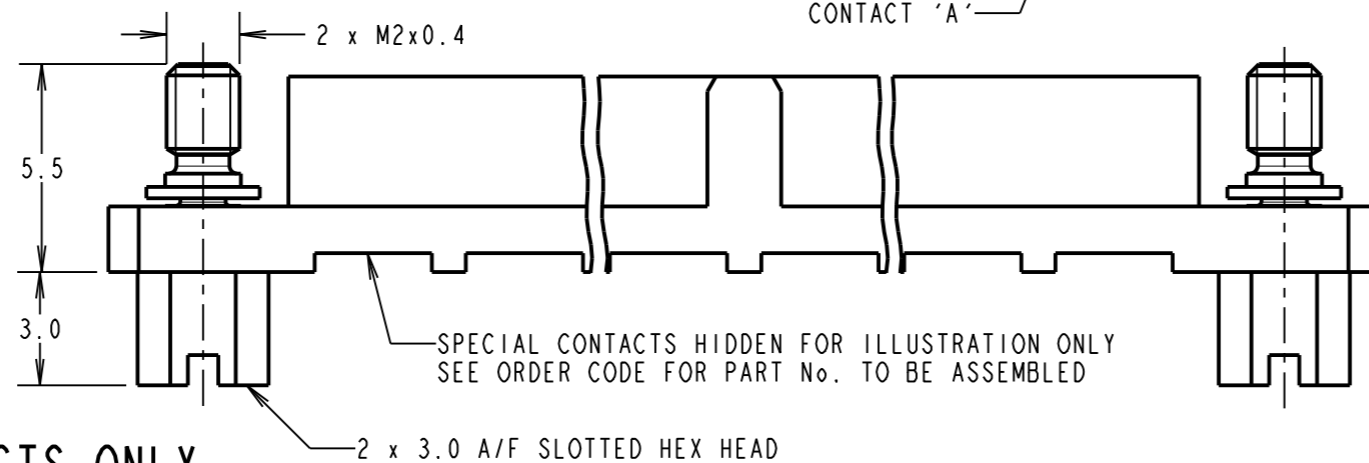
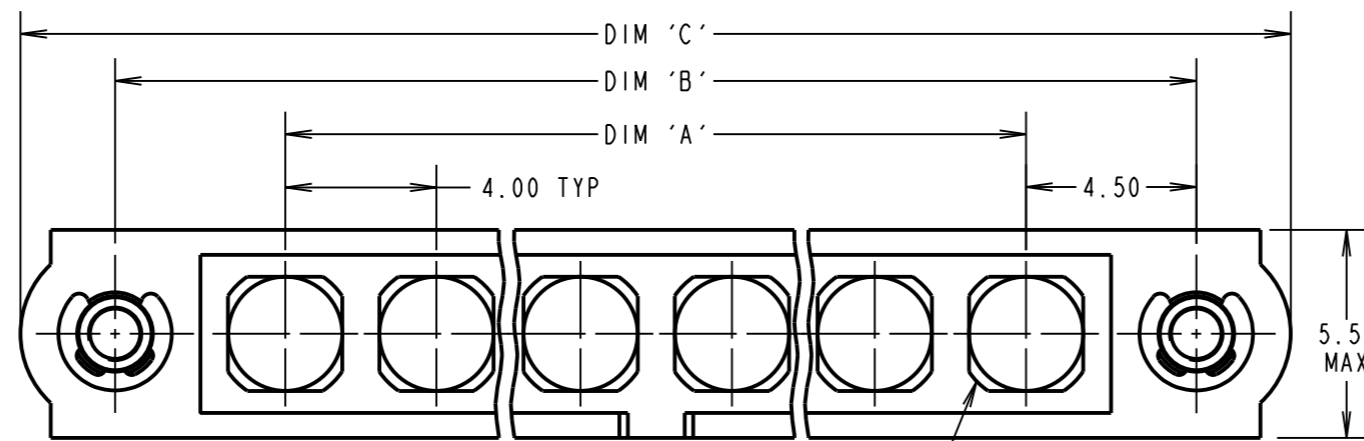
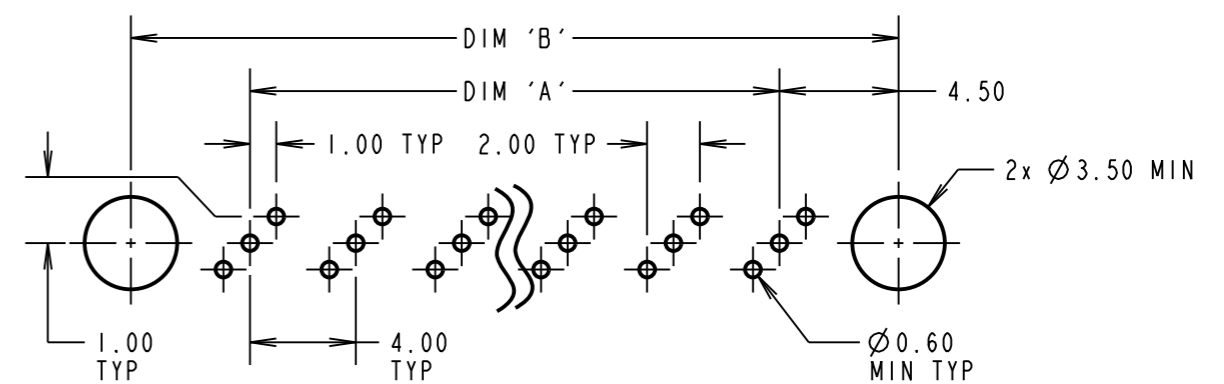
SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
POWER & COAX CONTACT:
 BODY = COPPER ALLOY
 INNER CONTACT = BERYLLIUM COPPER
 INSULATOR = PTFE
 JACKSCREW, CIRCLIP: STAINLESS STEEL
FINISH:
 POWER & COAX CONTACT
 BODY, SLEEVE, 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 = 20A MAX
COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50 Ω
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
 CONTACT RESISTANCE 6 mΩ MAX
 INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC
MECHANICAL:
 DURABILITY = 500 OPERATIONS
POWER & COAX CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN
ENVIRONMENTAL:
 TEMPERATURE RANGE = -55°C TO +125°C
PACKING:
 TUBE
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

RECOMMENDED PCB LAYOUT FOR POWER CONTACTS



RECOMMENDED PCB LAYOUT FOR COAX CONTACTS



PC TAIL VERTICAL CONTACTS ONLY

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'	M80-301 = 3.00mm, M80-302 = 4.50mm
DIM 'E'	M80-321 = 3.50mm, M80-322 = 5.00mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-400000F1-08-301-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm,
 DIM 'C' = 42.00mm, DIM 'D' = 3.00mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-400000F1-10-321-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm,
 DIM 'C' = 50.00mm, DIM 'E' = 3.50mm

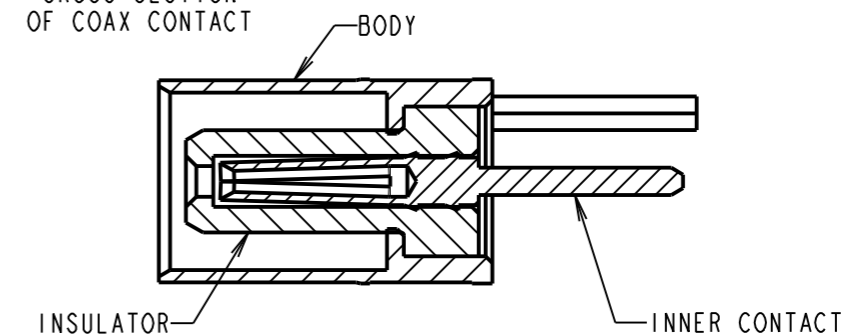
ORDER CODE: (PC TAIL VERTICAL CONTACTS ONLY)

M80-400000F1-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 = POWER CONTACT PC TAIL 3.5mm M80-321
 322 = POWER CONTACT PC TAIL 5.0mm M80-322

CROSS-SECTION OF COAX CONTACT



MGP	5	07.01.13	11898
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: R.ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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TOLERANCES
 X. = ±1mm
 X.X = ±0.25mm
 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 JACKSCREW

DRAWING NUMBER: **M80-400000F1-XX-XXX-00-000**

SHT 5 OF 6

Customer Information Sheet

DRAWING No.: M80-400000F1-XX-XXX-00-000

SHEET 6 OF 6

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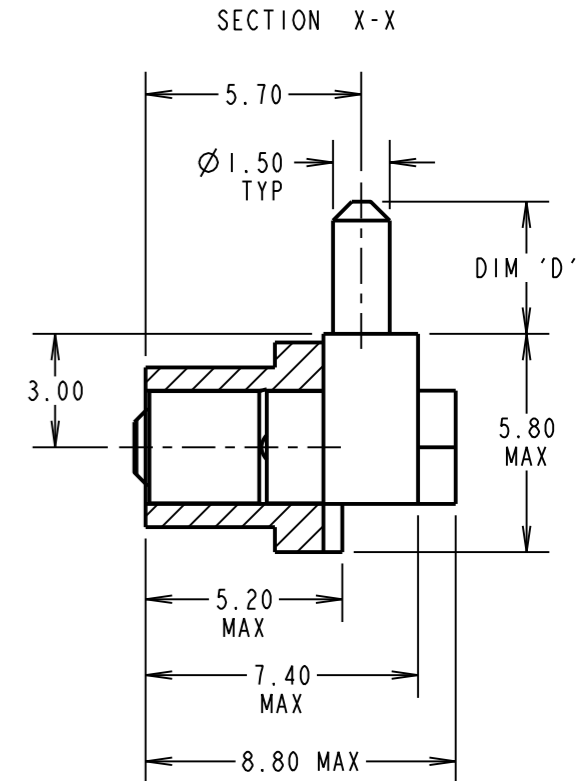
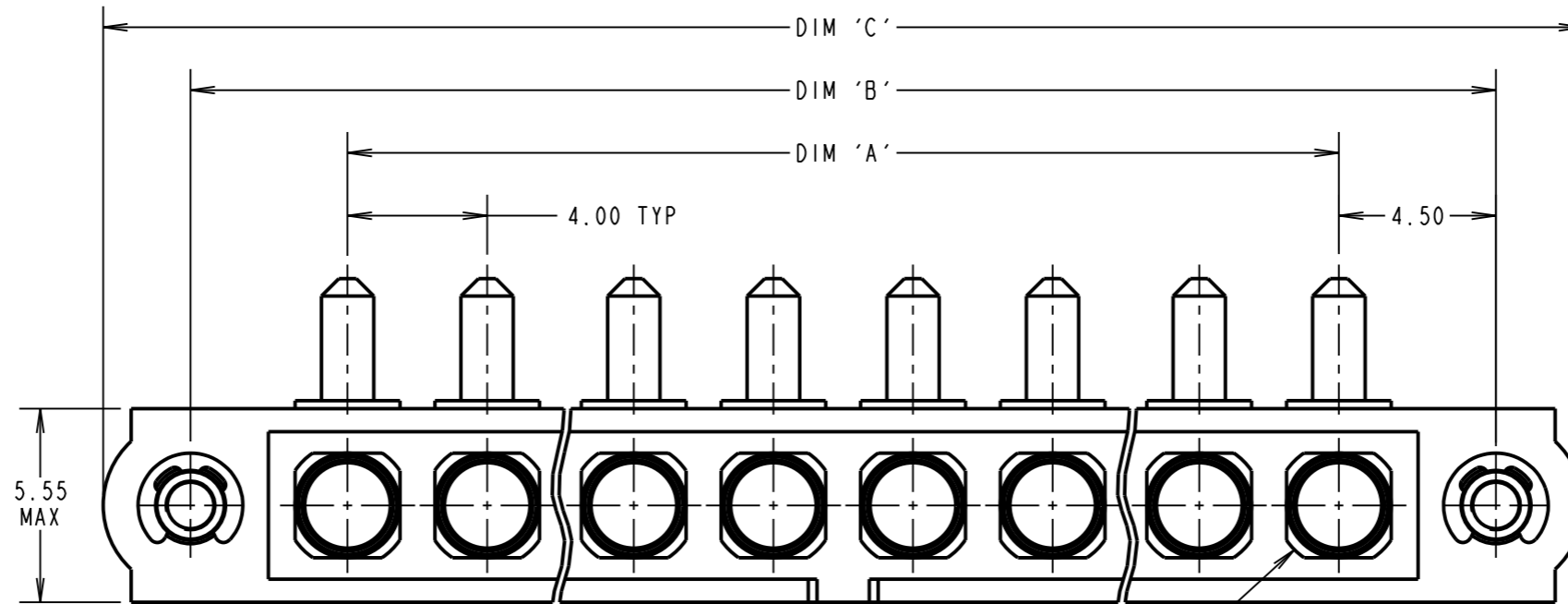
THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

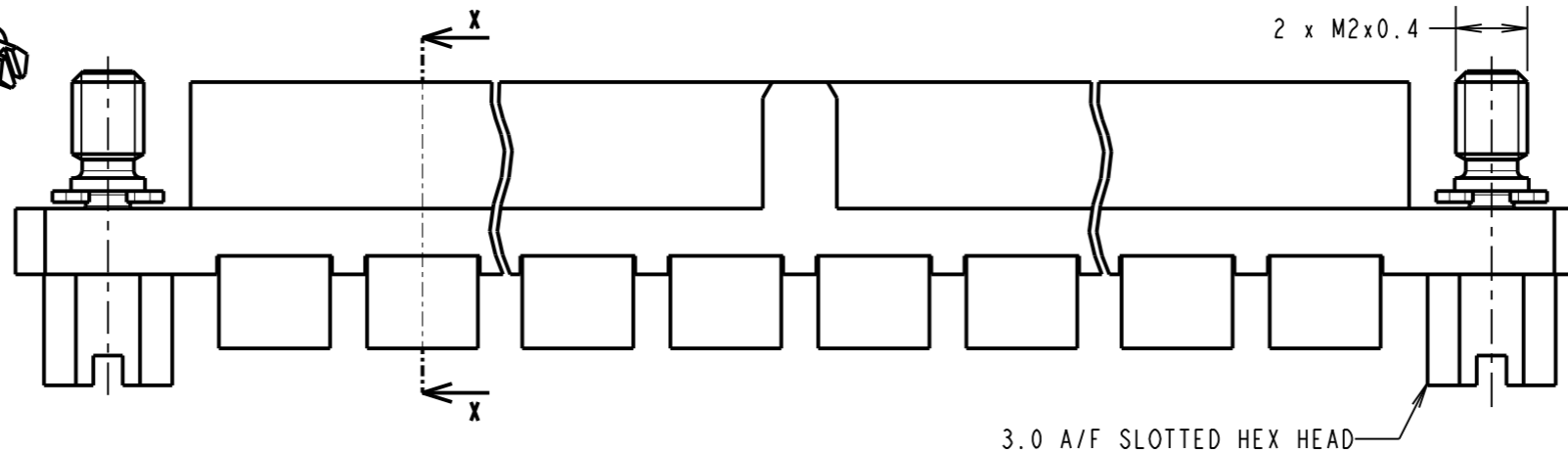
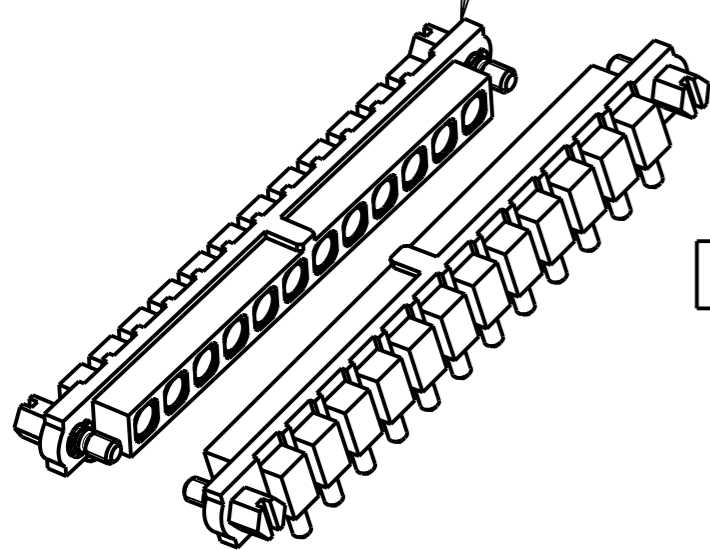
SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 POWER CONTACT: COPPER ALLOY
 JACKSCREW, CIRCLIP: STAINLESS STEEL
FINISH:
 POWER CONTACT: GOLD
ELECTRICAL:
 WORKING VOLTAGE = 800V AC/DC
 VOLTAGE PROOF = 1200V AC/DC
 INSULATION RESISTANCE = 100MΩ MIN
POWER CONTACT:
 CONTACT RESISTANCE = 6 mΩ MAX
 CURRENT RATING = 20A MAX
MECHANICAL:
 DURABILITY = 500 OPERATIONS
POWER CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN
ENVIRONMENTAL:
 TEMPERATURE RANGE = -55°C TO +125°C
PACKING:
 TUBE
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

PC TAIL HORIZONTAL CONTACTS ONLY



M80-400000F1-12-323-00-00
 SHOWN FOR ILLUSTRATION PURPOSES



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'	M80-323 = 3.50mm, M80-324 = 5.00mm

EXAMPLE 1: CONNECTOR WITH 10 POWER CONTACTS 3.5mm,
 M80-400000F1-10-323-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'D' = 3.50mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS 5.0mm,
 M80-400000F1-10-324-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'D' = 5.00mm

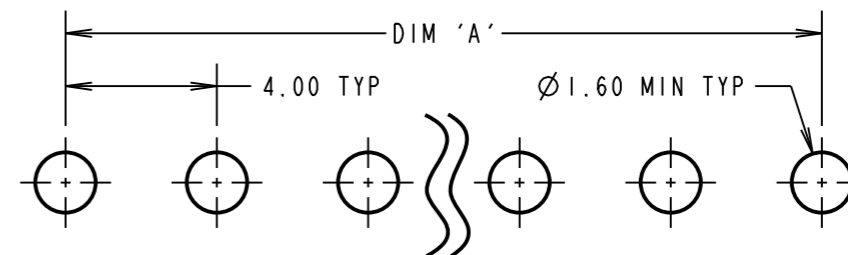
ORDER CODE:
 (PC TAIL HORIZONTAL CONTACTS ONLY)

M80-400000F1-XX-XXX-00-000

TOTAL No. OF CONTACTS
 02 TO 12

FEMALE HORIZONTAL POWER CONTACTS
 323 = POWER CONTACT PC TAIL 3.5mm M80-323
 324 = POWER CONTACT PC TAIL 5.0mm M80-324

RECOMMENDED PCB LAYOUT



MGP	5	07.01.13	11898
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: SB			
DRAWN: R. ADDE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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 X. = ±1mm
 X.X = ±0.25mm
 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 JACKSCREW

DRAWING NUMBER: **M80-400000F1-XX-XXX-00-000**

SHT 6 OF 6