

Customer Information Sheet

DRAWING No.: M80-400000FC-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
 POWER & COAX CONTACT:
 BODY = COPPER ALLOY
 INNER CONTACT, LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE

101 SCREW, COLLAR = STAINLESS STEEL
 SPRING = MUSIC WIRE

FINISH:

POWER & COAX CONTACT
 BODY, SLEEVE, INNER CONTACT = GOLD
 LATCHING COLLAR = NICKEL
 SPRING = NICKEL

ELECTRICAL:

WORKING VOLTAGE = 120V AC/DC
 VOLTAGE PROOF = 360V 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 = 5N MAX
 WITHDRAWAL FORCE = 0.5N MIN

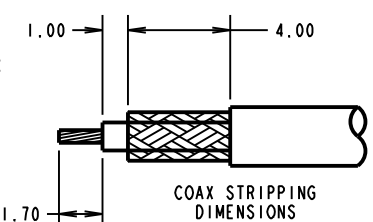
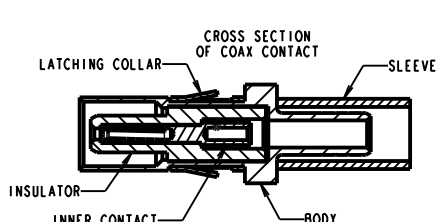
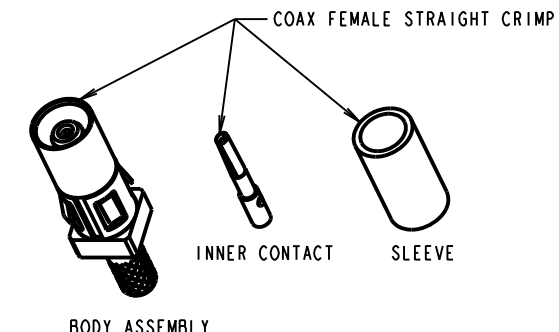
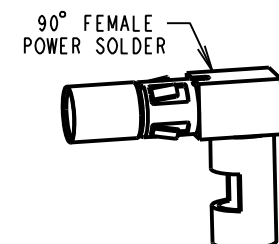
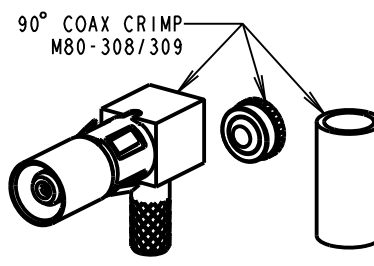
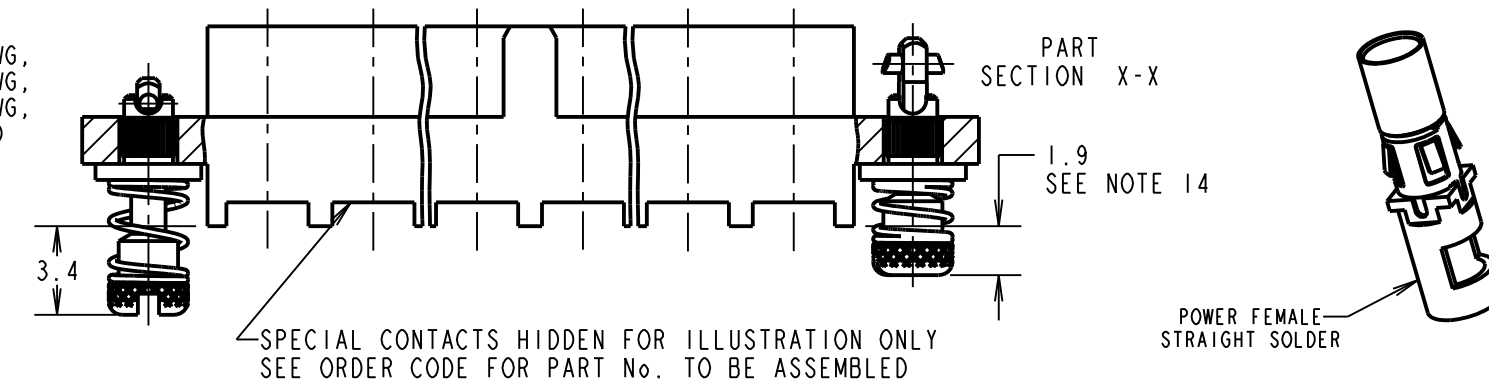
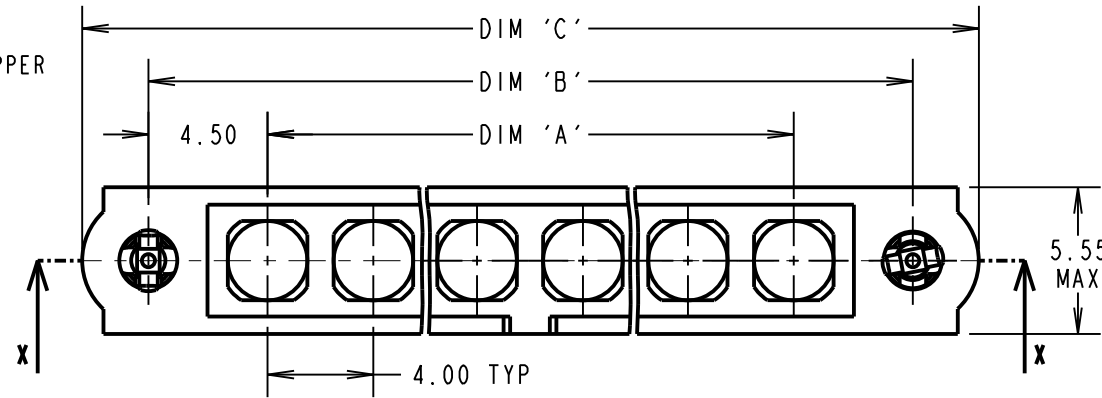
ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

PACKING:

BAG
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

CRIMP AND SOLDER CONTACTS ONLY



<p>M80-328/329 x No. OF CONTACTS</p> <p>7.55 (DIM 'H')</p> <p>ALL POWER CONTACTS ONLY</p>	<p>M80-305/306/307 x No. OF CONTACTS</p> <p>7.55 MAX (DIM 'D')</p> <p>ALL COAX CONTACTS ONLY</p>	<p>M80-325/326/327 x No. OF CONTACTS</p> <p>7.55 MAX (DIM 'E')</p> <p>ALL POWER CONTACTS ONLY</p>
<p>M80-308/309 x No. OF CONTACTS</p> <p>7.55 MAX (DIM 'F')</p> <p>ALL 90° COAX CONTACTS ONLY</p>	<p>M80-32A/32B/32C x No. OF CONTACTS</p> <p>7.55 MAX (DIM 'G')</p> <p>ALL 90° POWER CONTACTS ONLY</p>	

ORDER CODE: (CRIMP/SOLDER)
M80-400000FC-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 CRIMP/SOLDER 18AWG M80-328
- 329 = POWER CONTACT CRIMP/SOLDER 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

- NOTES:
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
 - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, INSULATOR AND LATCHING COLLAR ARE PRE-ASSEMBLED AND SLEEVE AND INNER CONTACT ARE SEPARATE.
 - FOR EXTRA POWER CONTACTS, USE PART NUMBER M80-325/326/327/328/329/32A/32B/32C. FOR EXTRA COAX CONTACTS, USE PART NUMBER M80-305/306/307/308/309
 - 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.
 - RECOMMENDED HAND CRIMP TOOL FOR CONTACTS M80-328/329 = Z80-294 AND POSITIONER Z80-295.
 - POWER AND COAX CONTACT EXTRACTION TOOL = Z80-290
 - POWER CONTACT WIRE, STRIP BY 5.00mm MINIMUM
 - 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.
 - RECOMMENDED PANEL/PCB THICKNESS = 1.3 - 1.6mm.
 - RECOMMENDED WIRE TYPE = BS 3G 210 TYPE A, PTFE INSULATED 24-28 AWG. MAX INSULATION DIAMETER = Ø1.10mm, STRIP WIRE BY 2.00mm.
 - SPRING LOAD WHEN SOLID = 2.642N. SPRING RATE = 1.32N/mm.
 - LENGTH WILL BE 1.9mm WHEN 10ILOK SCREWS ARE ENGAGED WITH RETAINERS IN MATING CONNECTOR.

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'	M80-305/306/307 = 13.4mm
DIM 'E'	M80-325/326/327 = 12.7mm
DIM 'F'	M80-308/309 = 9.7mm
DIM 'G'	M80-32A/32B/32C = 10.3mm
DIM 'H'	M80-328/329 = 13.9mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-400000FC-08-305-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm,
 DIM 'C' = 42.00mm, DIM 'D' = 13.4mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-400000FC-10-325-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm,
 DIM 'C' = 50.00mm, DIM 'E' = 12.7mm

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HARWIN USA TEL: 603 893 5376 FAX: 603 893 5396 mis@harwin.com	HARWIN Europe (UK) TEL: 023 9231 4545 FAX: 023 9231 4590 mis@harwin.co.uk	HARWIN Asia TEL: +65 6 779 4909 FAX: +65 6 779 3868 mis@harwin.com.sg		ANGLES = ±5° UNLESS STATED	FINISH: SEE ABOVE S/AREA: mm ²	DRAWING NUMBER: M80-400000FC-XX-XXX-00-000

SM	4	07.04.11	11222
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: M. G. PLESTED			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

Customer Information Sheet

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

SHEET 5 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 = BERYLLIUM COPPER
 INSULATOR = PTFE
 101 SCREW, COLLAR = STAINLESS STEEL
 SPRING = MUSIC WIRE

FINISH:

POWER & COAX CONTACT
 BODY, SLEEVE, INNER CONTACT = GOLD
 SPRING = NICKEL

ELECTRICAL:

WORKING VOLTAGE = 120V AC/DC
 VOLTAGE PROOF = 360V 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 = 5N MAX
 WITHDRAWAL FORCE = 0.5N MIN

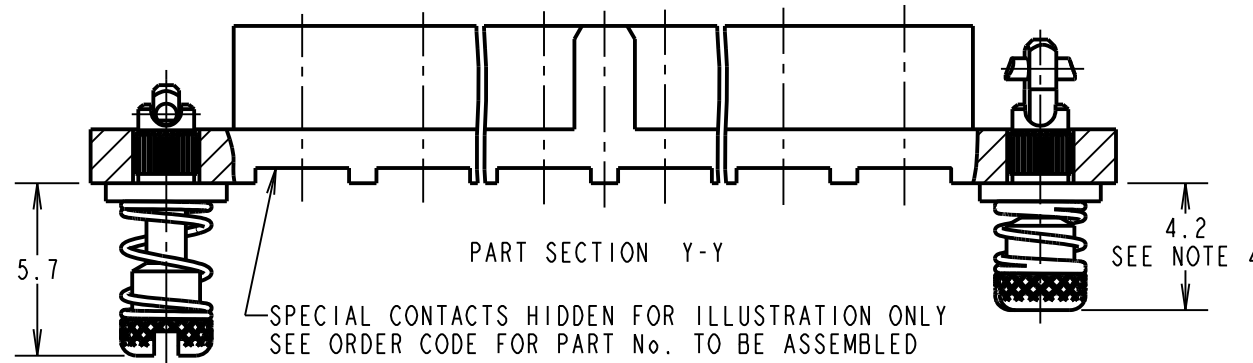
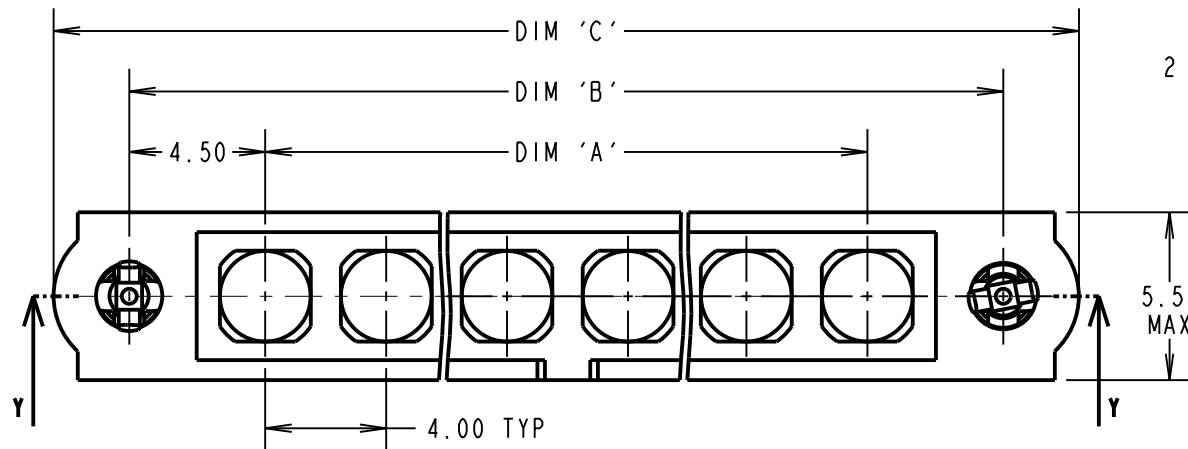
ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

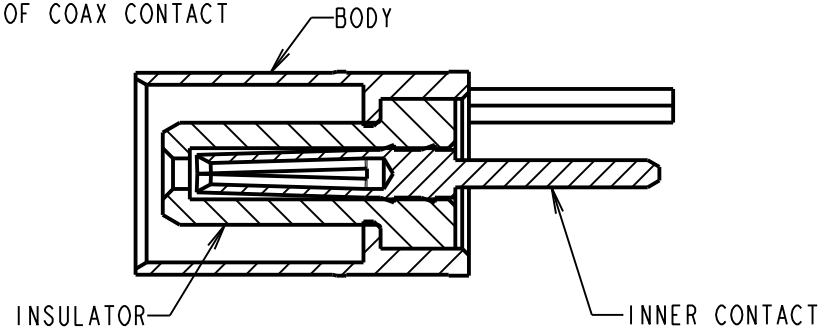
PACKING:

TUBE
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

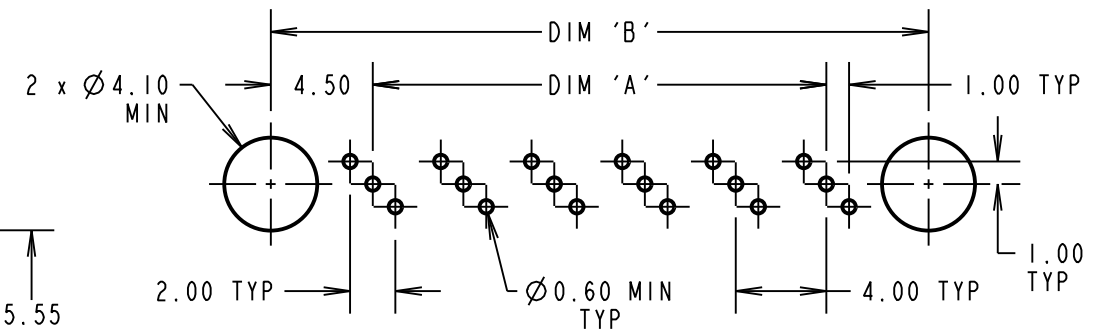
PC TAIL VERTICAL CONTACTS ONLY



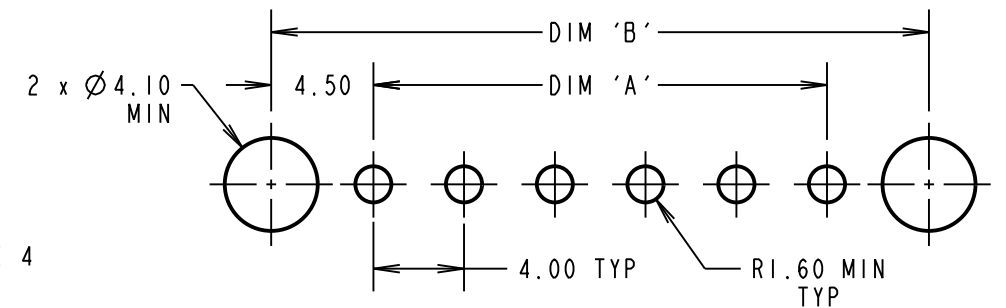
CROSS-SECTION OF COAX CONTACT



RECOMMENDED PCB LAYOUT FOR ALL COAX CONTACTS ONLY



RECOMMENDED PCB LAYOUT FOR ALL POWER CONTACTS ONLY



NOTES:

- 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.
- SPRING LOAD WHEN SOLID = 2.642N. SPRING RATE = 1.32N/mm.
- LENGTH WILL BE 4.2mm WHEN 101LOK SCREWS ARE ENGAGED WITH RETAINERS IN MATING CONNECTOR.

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,
 M80-400000FC-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,
 M80-400000FC-10-321-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
 DIM 'E' = 3.50mm

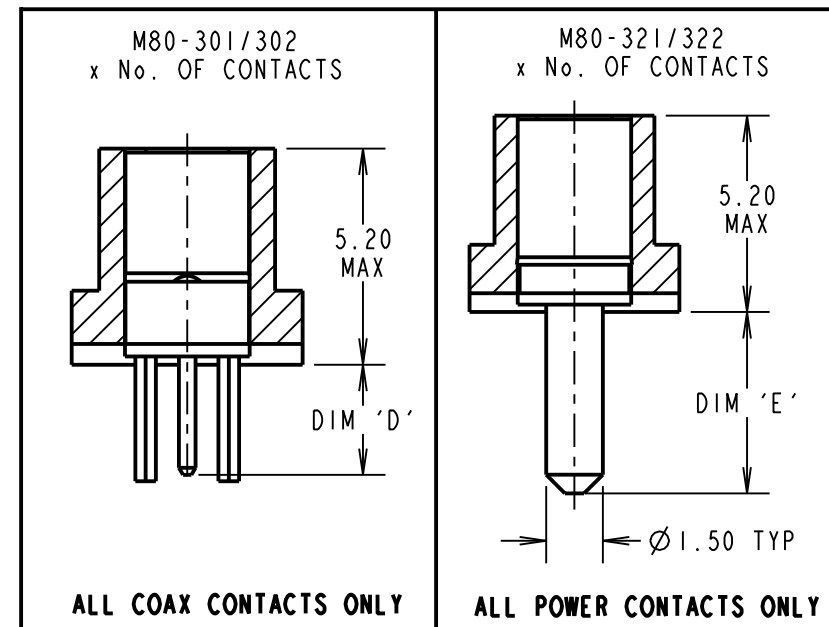
ORDER CODE:(PC TAIL VERTICAL CONTACTS ONLY)

M80-400000FC-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



SM	4	07.04.11	11222
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: M. G. PLESTED			
DRAWN: C.PENROSE			
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: JACKSCREW DATAMATE MIXED TECHNOLOGY FEMALE ASSY WITH 101LOK J/S
DRAWING NUMBER:
M80-400000FC-XX-XXX-00-000
 SHT 5 OF 6

Customer Information Sheet

DRAWING No.: M80-400000FC-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

SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
 POWER CONTACT: COPPER ALLOY
 101 SCREW, COLLAR = STAINLESS STEEL
 SPRING = MUSIC WIRE

FINISH:
 POWER CONTACT = GOLD
 SPRING = NICKEL

ELECTRICAL:
 WORKING VOLTAGE = 120V AC/DC
 VOLTAGE PROOF = 360V AC/DC
 INSULATION RESISTANCE = 100MΩ MIN

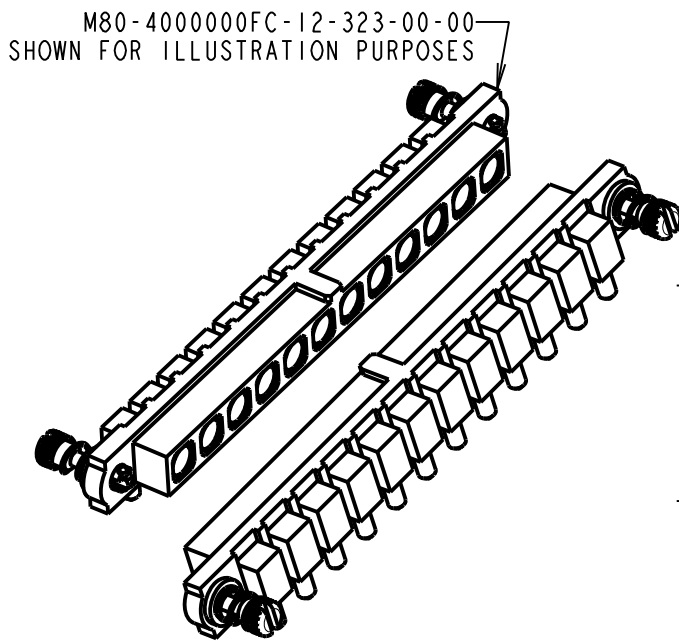
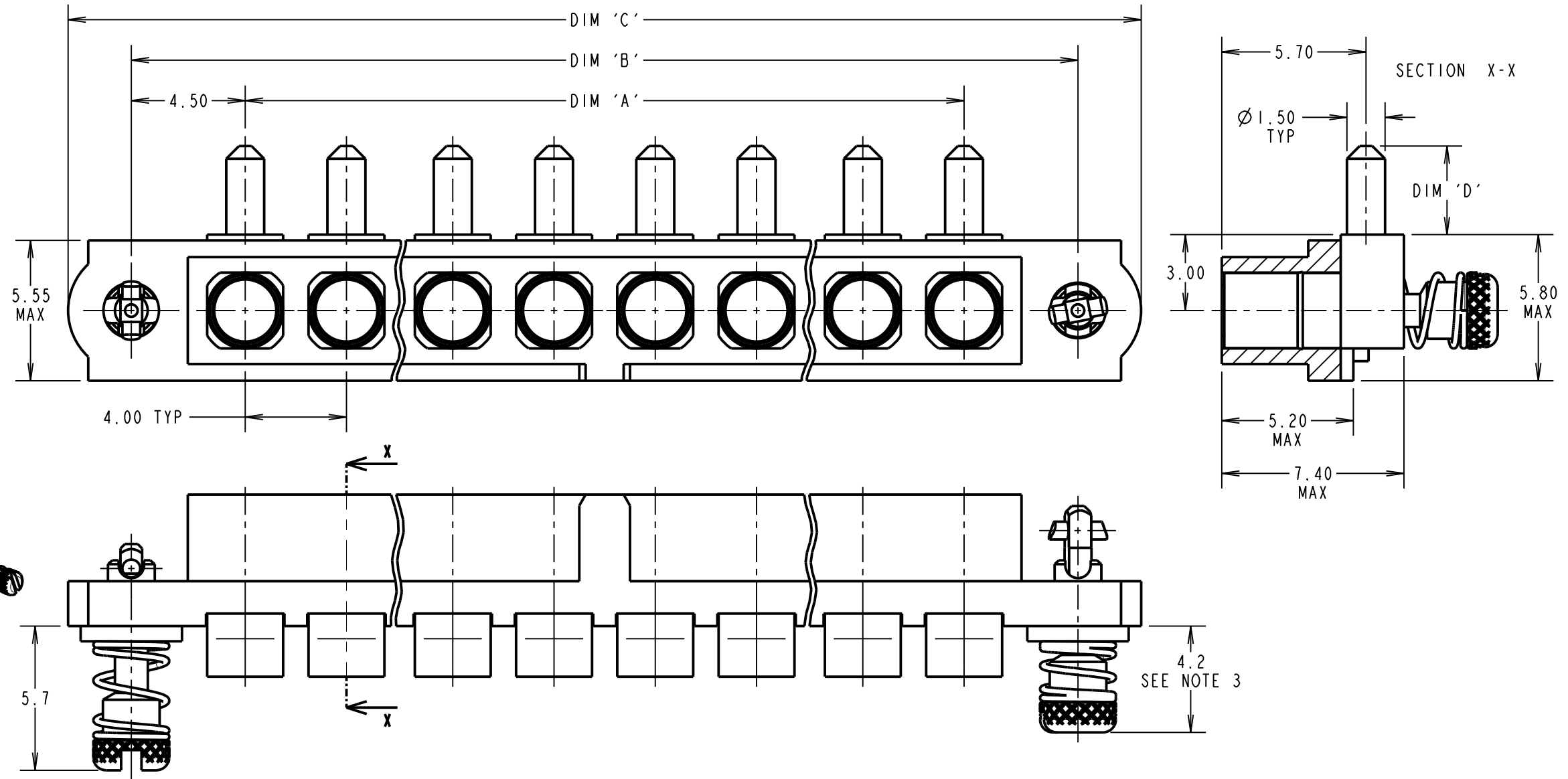
POWER CONTACT:
 CONTACT RESISTANCE = 6 mΩ MAX
 CURRENT RATING = 20A MAX

MECHANICAL:
 DURABILITY = 500 OPERATIONS
 POWER CONTACT:
 INSERTION FORCE = 5N 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



NOTES:

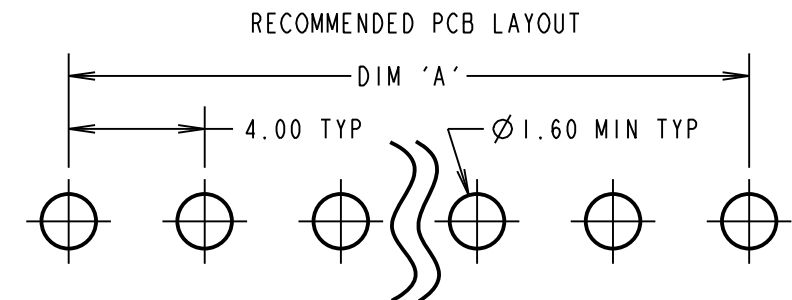
- FOR EXAMPLE OF ALL POWER SPECIAL CONTACTS ORDER CODE SEE EXAMPLES IN TABLE.
- SPRING LOAD WHEN SOLID = 2.642N. SPRING RATE = 1.32N/mm.
- LENGTH WILL BE 4.2mm WHEN 101LOK SCREWS ARE ENGAGED WITH RETAINERS IN MATING CONNECTOR.

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, M80-400000FC-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, M80-400000FC-10-324-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm, DIM 'D' = 5.00mm	

ORDER CODE:
 (FEMALE HORIZONTAL POWER CONTACTS ONLY)
M80-400000FC-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



SM	4	07.04.11	11222
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: M. G. PLESTED			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

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HARWIN USA TEL: 603 893 5376 FAX: 603 893 5396 mis@harwin.com	HARWIN Europe (UK) TEL: 023 9231 4545 FAX: 023 9231 4590 mis@harwin.co.uk	HARWIN Asia TEL: +65 6 779 4909 FAX: +65 6 779 3868 mis@harwin.com.sg					