

Customer Information Sheet

DRAWING No.: M80-5000000M2-XX-XXX-00-000

SHEET 3 OF 4

IF IN DOUBT - ASK

(C)

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

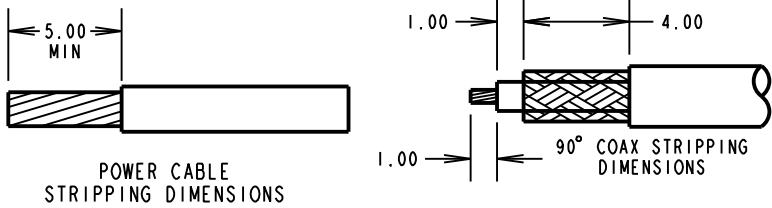
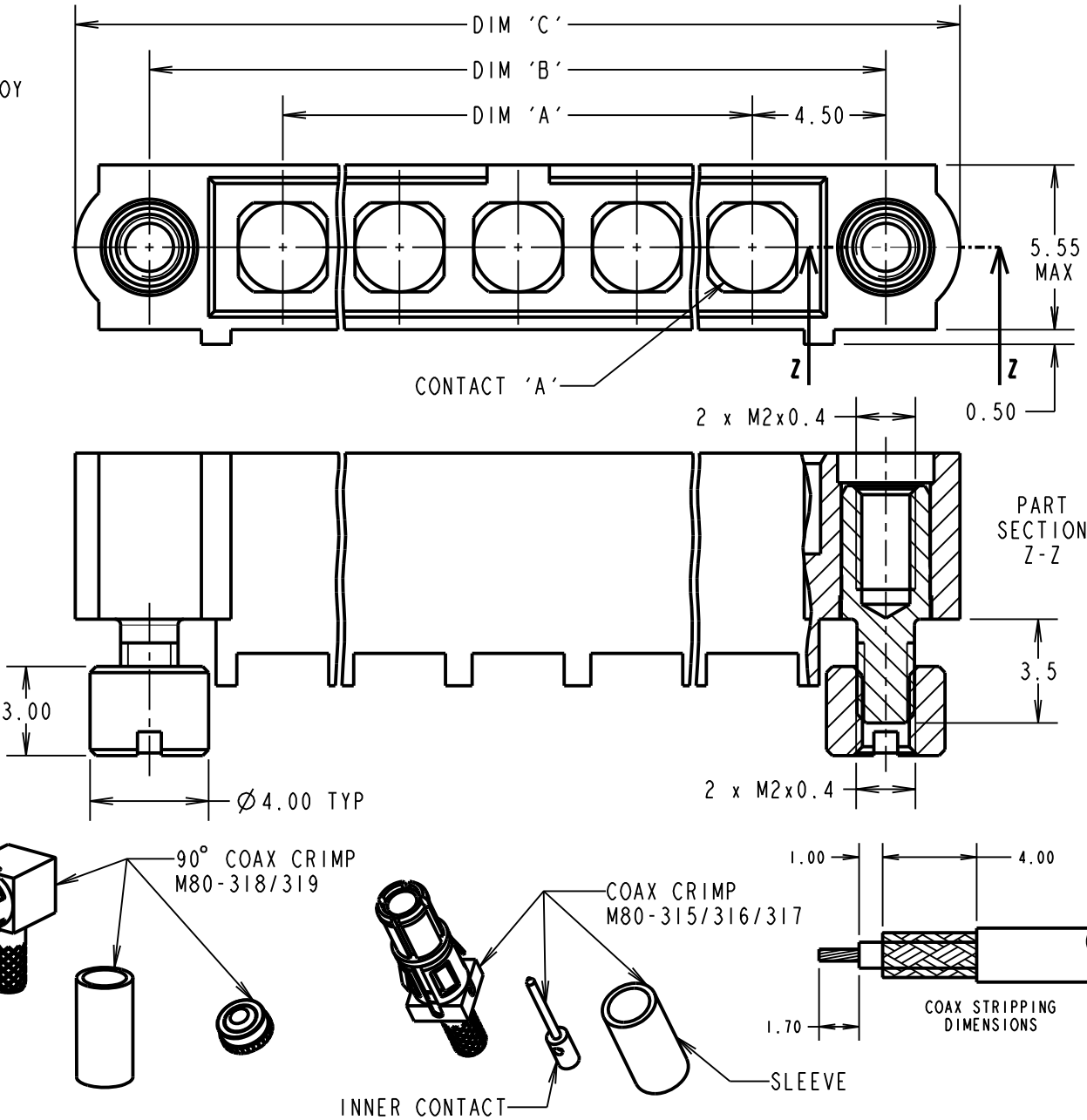
MATERIAL:
MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
COAX & POWER CONTACT:
BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
LATCHING COLLAR = BERYLLIUM COPPER
INSULATOR = PTFE
JACKSCREWS, NUTS: STAINLESS STEEL
FINISH:
COAX & POWER CONTACT:
BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD
LATCHING COLLAR = NICKEL
ELECTRICAL:
WORKING VOLTAGE = 800V AC/DC
VOLTAGE PROOF = 1200V AC/DC
INSULATION RESISTANCE = 100MΩ MIN
POWER CONTACT:
CONTACT RESISTANCE 6mΩ MAX
CURRENT RATING = M80-335 = 20A MAX WITH 12AWG
M80-336 = 15A MAX WITH 14AWG
M80-337 = 10A MAX WITH 16AWG
M80-338 = 8A MAX WITH 18AWG
M80-339 = 5A MAX WITH 20AWG
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
COAX & POWER 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)



ORDER CODE: (CRIMP/SOLDER CONTACTS)
M80-5000000M2-XX-XXX-00-000

TOTAL No. OF CONTACTS
02 TO 12

SPECIAL CONTACTS (CRIMP)

315 = COAX CONTACT 2.0mm CRIMP M80-315
316 = COAX CONTACT 2.4mm CRIMP M80-316
317 = COAX CONTACT 2.7mm CRIMP M80-317
318 = COAX CONTACT 2.0mm HORZ' CRIMP M80-318
319 = COAX CONTACT 2.7mm HORZ' CRIMP M80-319
335 = POWER CONTACT 12AWG SOLDER
336 = POWER CONTACT 14AWG SOLDER
337 = POWER CONTACT 16AWG SOLDER
338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338
339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339

NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
- 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 M80-315/316/317/318/319.
- FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339.
- COAX & POWER CONTACT EXTRACTION TOOL = Z80-290.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
- 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.

MGP	4	16.01.13	11898
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 + 10.00
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS, M80-5000000M2-08-315-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm	
EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS, M80-5000000M2-10-335-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm	

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technical@harwin.com

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OTHER PURPOSE WITHOUT
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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
MALE ASSEMBLY
WITH BOARD MOUNT J-SCREW
DRAWING NUMBER:
M80-5000000M2-XX-XXX-00-000
SHT 3 OF 4

Customer Information Sheet

DRAWING No.: M80-5000000M2-XX-XXX-00-000

SHEET 4 OF 4

IF IN DOUBT - ASK

(C)

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

SPECIFICATIONS:

MATERIAL:
MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
COAX & POWER CONTACT:
BODY, INNER CONTACT, = COPPER ALLOY
INSULATOR = PTFE
JACKSCREW: STAINLESS STEEL

FINISH:
COAX & POWER 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 = 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
COAX & 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)

RECOMMENDED PCB LAYOUT FOR
POWER CONTACTS: M80-331/332

2 x Ø2.20 MIN

DIM 'A'

4.00 TYP

4.50 TYP

Ø1.60 MIN TYP

RECOMMENDED PCB LAYOUTS FOR
COAX CONTACTS: M80-311/312

1.00 TYP

DIM 'A'

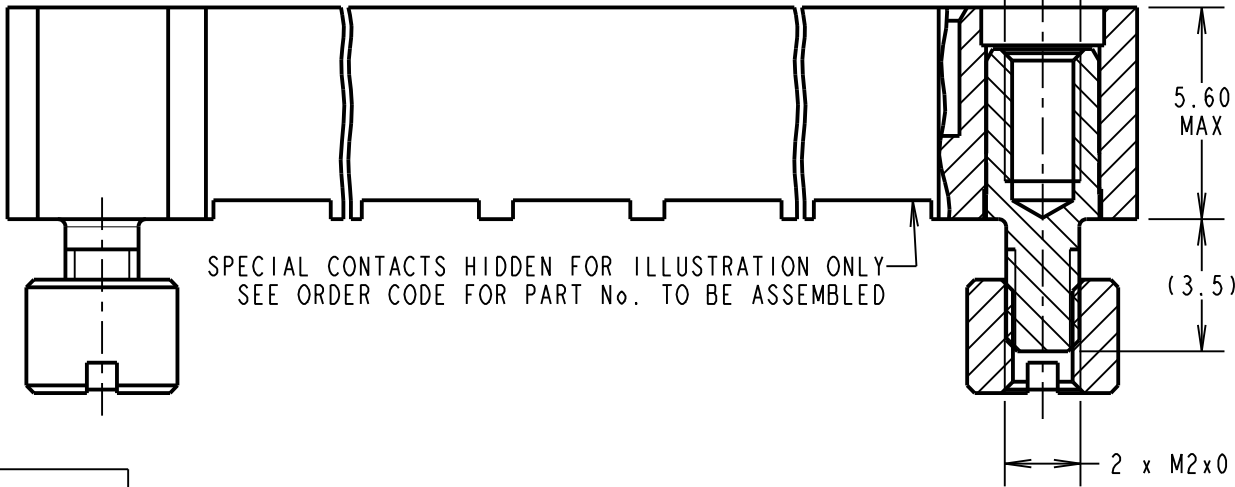
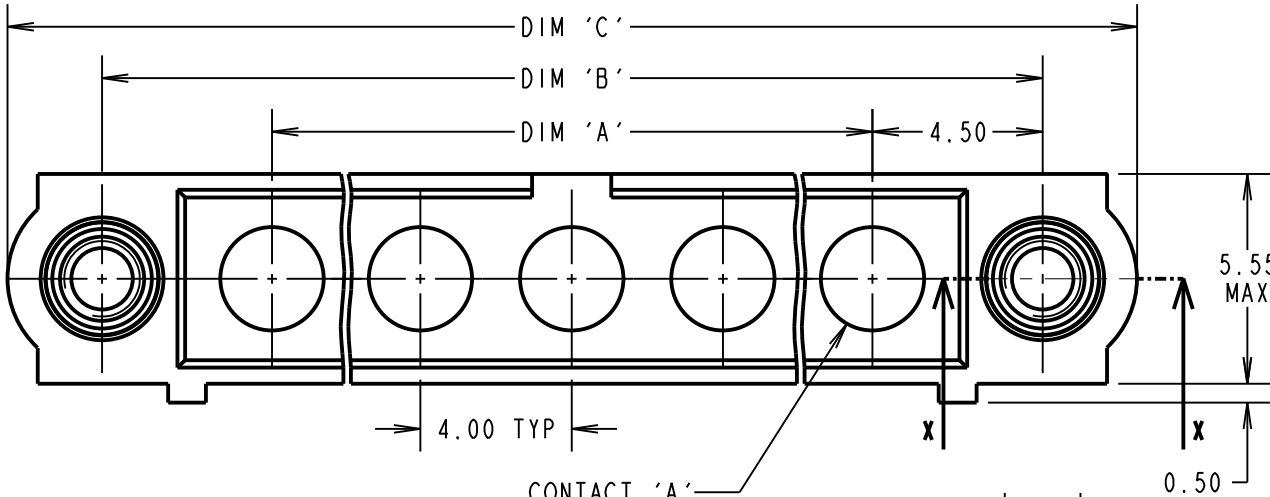
4.00 TYP

4.50 TYP

2 x Ø2.20 MIN

Ø0.60 MIN TYP

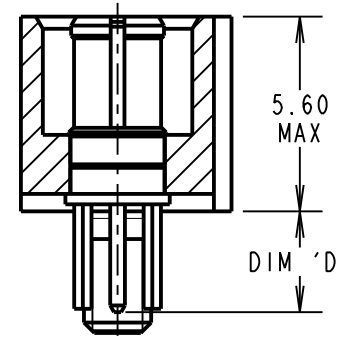
2.00



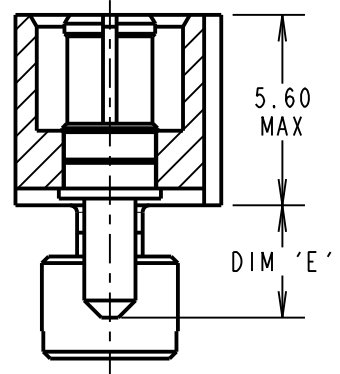
SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

PART SECTION
X-X

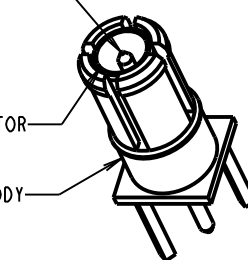
M80-311/312
x No. OF CONTACTS



M80-331/332
x No. OF CONTACTS



VIEW OF
COAX CONTACT



INSULATOR

BODY

VIEW OF
COAX CONTACT

BODY

INSULATOR

PIN

ORDER CODE:(PC TAIL CONTACTS ONLY)

M80-5000000M2-XX-XXX-00-000

TOTAL No. OF CONTACTS
02 TO 12

SPECIAL CONTACTS (PC TAIL)

311= COAX CONTACT 3.0mm PC TAIL M80-311
312 = COAX CONTACT 4.5mm PC TAIL M80-312
331 = POWER CONTACT 3.5mm VERT' PC TAIL M80-331
332 = POWER CONTACT 5.0mm VERT' PC TAIL M80-332

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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
MALE ASSEMBLY
WITH BOARD MOUNT J-SCREW

DRAWING NUMBER:

M80-5000000M2-XX-XXX-00-000

SHT

4 OF 4

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' M80-311 = 3.0mm, M80-312 = 4.5mm

DIM 'E' M80-331 = 3.5mm, M80-332 = 5.0mm

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
M80-5000000M2-08-311-00-000

DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm
DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
M80-5000000M2-10-332-00-000

DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm
DIM 'E' = 5.0mm