

# 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:

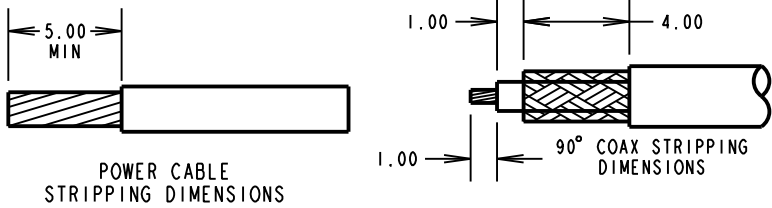
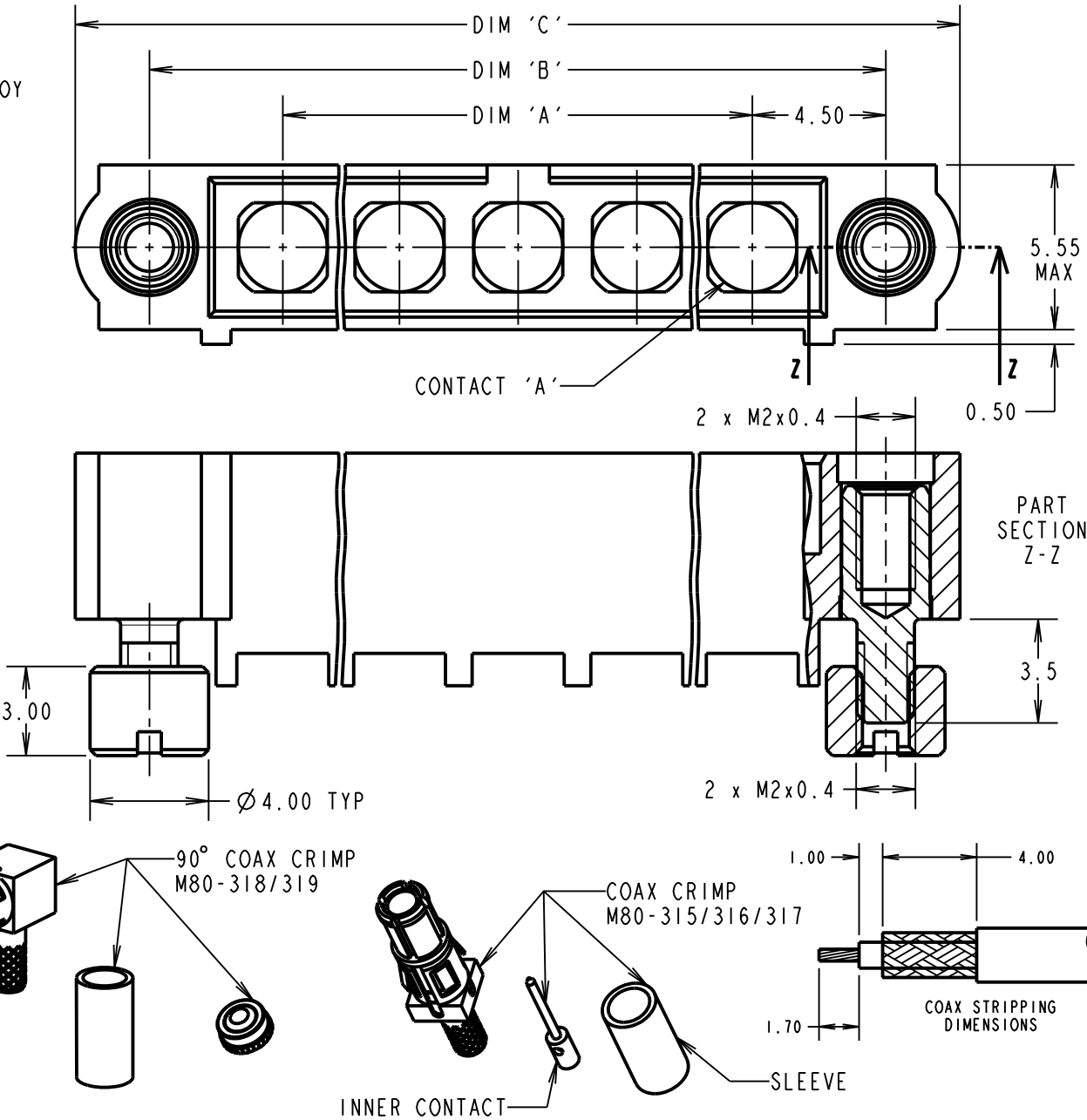
**MATERIAL:**  
MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX & POWER CONTACT:**  
BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
LATCHING COLLAR = BERYLLIUM COPPER  
INSULATOR = PTFE  
JACKSCREWS, NUTS: STAINLESS STEEL  
**FINISH:**  
COAX & POWER CONTACT:  
BODY, SLEEVE, INNER CONTACT, 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 = 10<sup>6</sup>MΩ @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,<br>M80-5000000M2-08-315-00-000<br>DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm  |                             |
| EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,<br>M80-5000000M2-10-335-00-000<br>DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm |                             |

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www.harwin.com  
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:** mm<sup>2</sup>

**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 = 100M $\Omega$  MIN

**POWER CONTACT:**  
CONTACT RESISTANCE 6m $\Omega$  MAX  
CURRENT RATING = 20A MAX

**COAX CONTACT:**  
FREQUENCY RANGE = 6GHz  
IMPEDANCE = 50  $\Omega$   
V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
CONTACT RESISTANCE 6 m $\Omega$  MAX

INSULATION RESISTANCE = 10<sup>6</sup>M $\Omega$  @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  $\varnothing$ 2.20 MIN

DIM 'A'

4.50 TYP

4.00 TYP

$\varnothing$ 1.60 MIN TYP

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

1.00 TYP

DIM 'A'

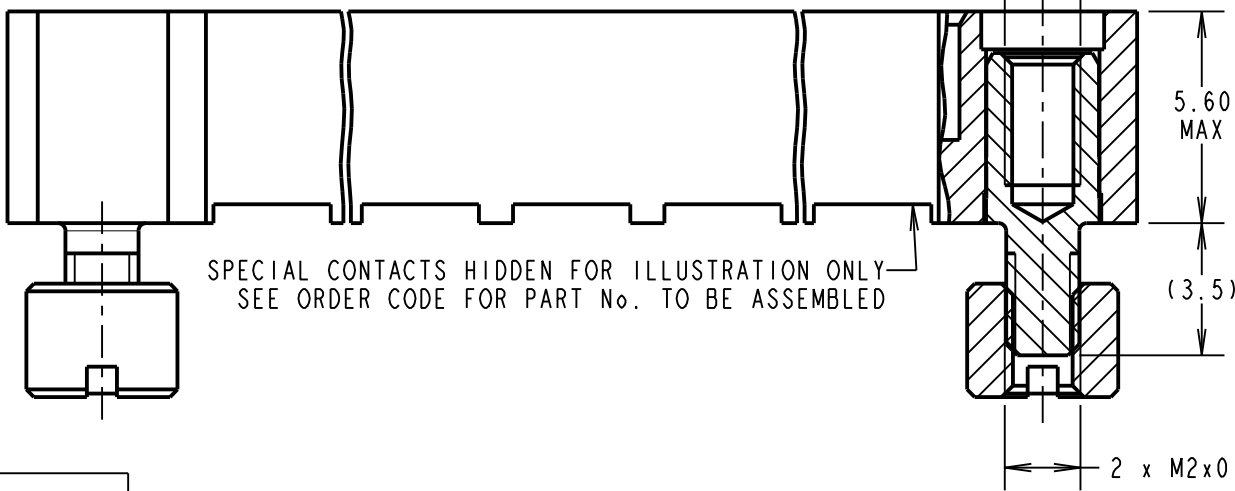
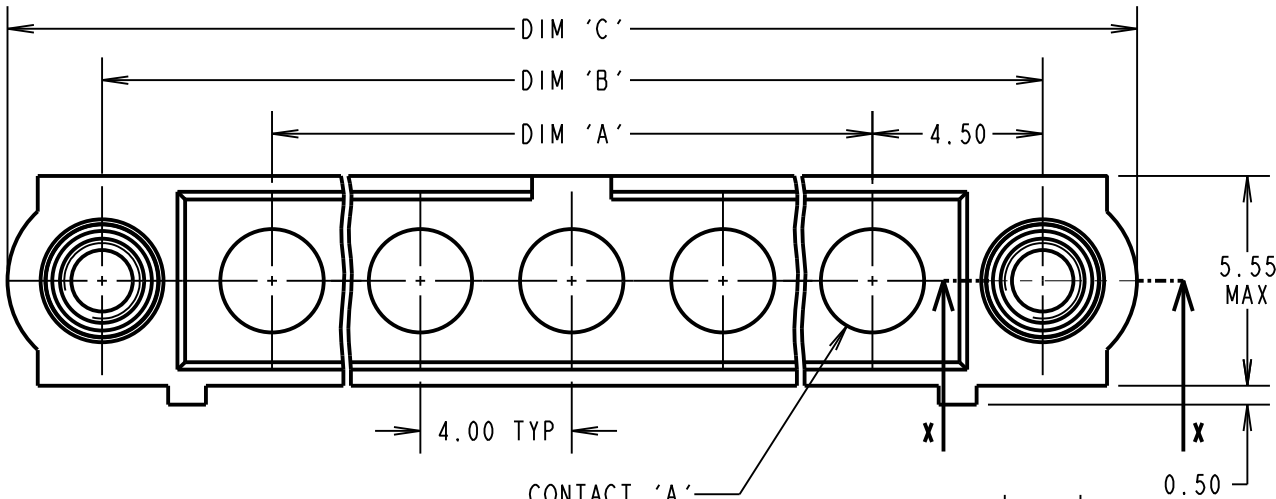
4.50 TYP

4.00 TYP

2 x  $\varnothing$ 2.20 MIN

$\varnothing$ 0.60 MIN TYP

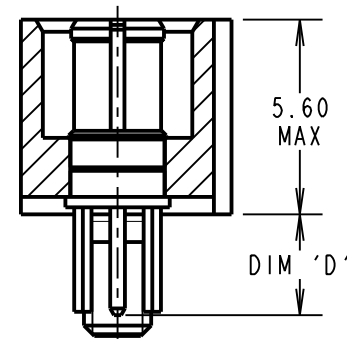
2.00



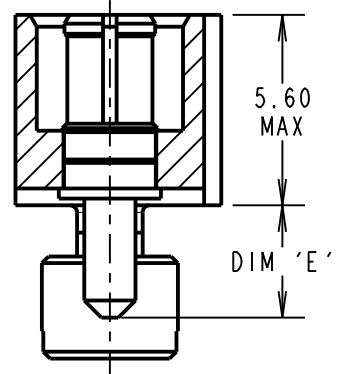
SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY  
SEE ORDER CODE FOR PART No. TO BE ASSEMBLED

PART SECTION  
X-X

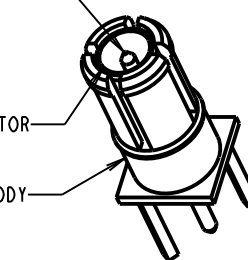
M80-311/312  
x No. OF CONTACTS



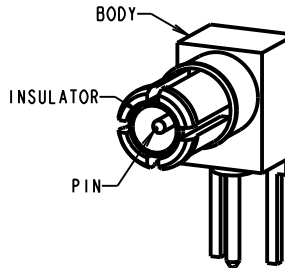
M80-331/332  
x No. OF CONTACTS



VIEW OF  
COAX CONTACT



VIEW OF  
COAX CONTACT



| 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

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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THEIR WRITTEN PERMISSION.

TOLERANCES  
X. =  $\pm$ 1mm  
X.X =  $\pm$ 0.25mm  
X.XX =  $\pm$ 0.10mm  
X.XXX =  $\pm$ 0.01mm  
ANGLES =  $\pm$ 5°  
UNLESS STATED

MATERIAL:

SEE ABOVE

FINISH:

SEE ABOVE

S/AREA:

mm<sup>2</sup>

TITLE: DATAMATE MIX-TEK  
MALE ASSEMBLY  
WITH BOARD MOUNT J-SCREW

DRAWING NUMBER:

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

SHT  
4 OF 4

|                  |      |          |        |
|------------------|------|----------|--------|
| MGP              | 4    | 16.01.13 | 11898  |
| NAME             | ISS. | DATE     | C/NOTE |
| APPROVED: MGP    |      |          |        |
| CHECKED: SB      |      |          |        |
| DRAWN: C.PENROSE |      |          |        |
| CUSTOMER REF.:   |      |          |        |
| ASSEMBLY DRG:    |      |          |        |