

Customer Information Sheet

DRAWING No.: M80-500000MF-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
COAX CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
 LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE
 BOARD MOUNT JACKSCREW, NUT = STAINLESS STEEL

FINISH:
COAX CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD
 LATCHING COLLAR = NICKEL

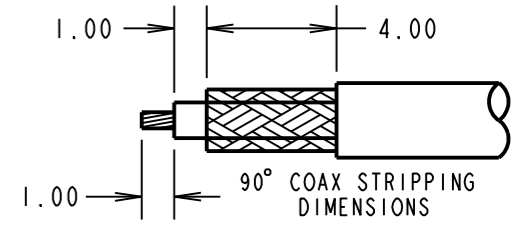
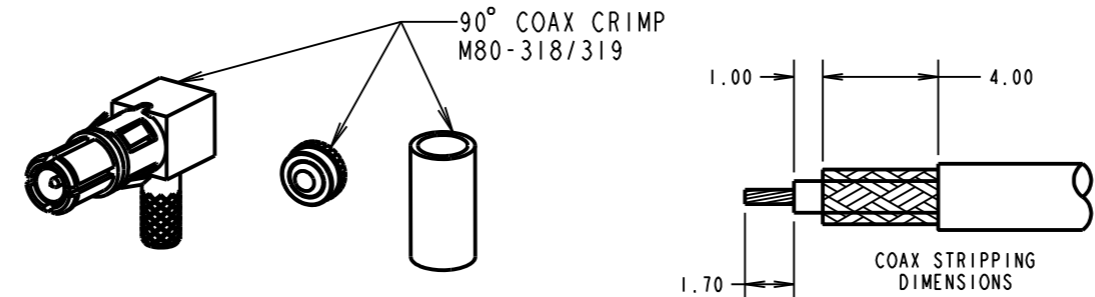
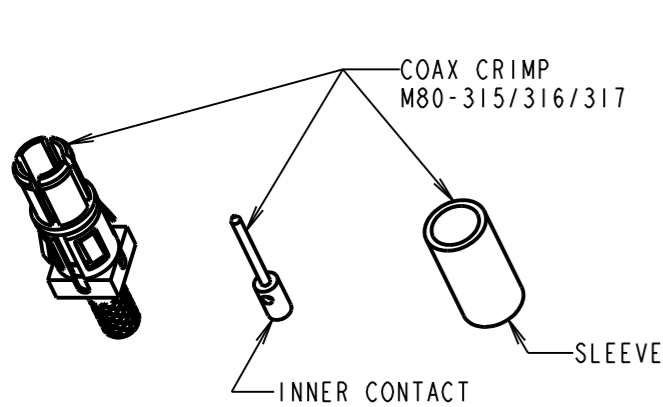
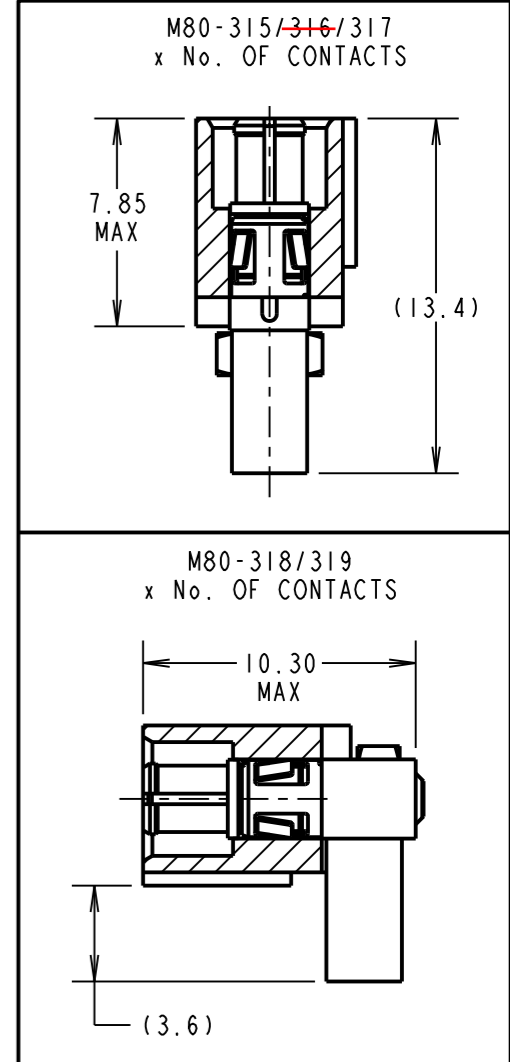
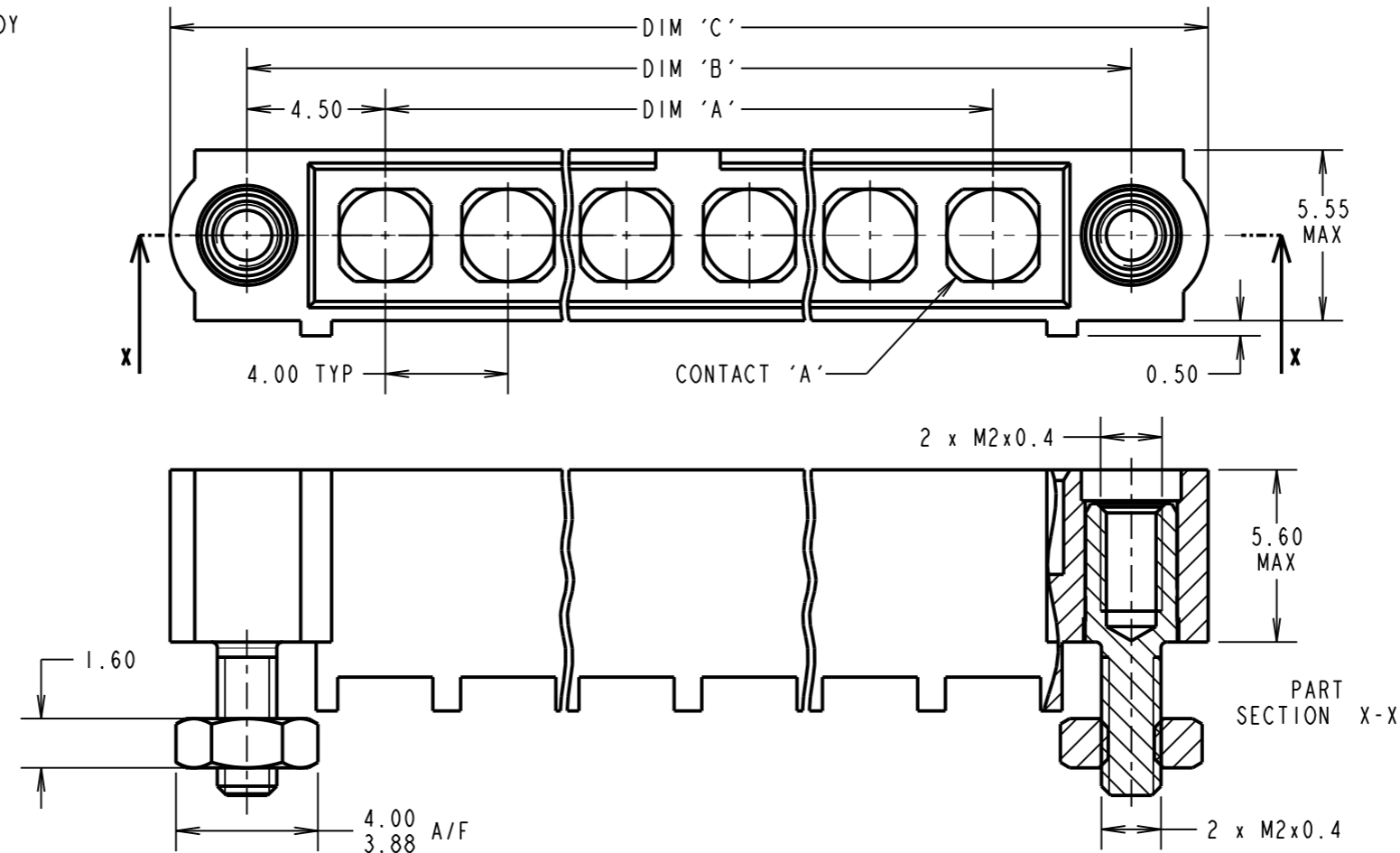
ELECTRICAL:
 WORKING VOLTAGE = 800V AC/DC
 VOLTAGE PROOF = 1200V AC/DC
 INSULATION RESISTANCE = 100MΩ MIN
COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50Ω
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
 CONTACT RESISTANCE = 6mΩ MAX
 INSULATION RESISTANCE = 10⁶MΩ @250V AC
 OPERATING VOLTAGE = 180V AC @ 500mA
 MAXIMUM VOLTAGE = 1000V AC

MECHANICAL:
 DURABILITY = 500 OPERATIONS
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)

COAX CRIMP CONTACTS ONLY



- CRIMP/SOLDER NOTES:**
- CONNECTORS ARE SUPPLIED WITH CONTACTS AND NUTS 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.
 - 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)
M80-500000MF-XX-XXX-00-000

TOTAL No. OF CONTACTS _____
 02 TO 12

SPECIAL CONTACTS _____
 315 = COAX CONTACT 2.00mm CRIMP M80-315
~~316 = COAX CONTACT 2.40mm CRIMP M80-316~~
 317 = COAX CONTACT 2.70mm CRIMP M80-317
 318 = COAX CONTACT 2.00mm HORIZ' CRIMP M80-318
 319 = COAX CONTACT 2.70mm HORIZ' CRIMP M80-319

| | | | |
|----------------------|------|----------|--------|
| FM | 4 | 18.09.17 | 13269 |
| NAME | ISS. | DATE | C/NOTE |
| APPROVED: F. MCGOWAN | | | |
| CHECKED: S. BENNETT | | | |
| 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,
 M80-500000MF-08-315-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm

HARWIN
 www.harwin.com
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

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
 MALE ASSY WITH
 BOARD MOUNT J/SCREW
DRAWING NUMBER:
M80-500000MF-XX-XXX-00-000
 SHT 4 OF 6

Customer Information Sheet

DRAWING No.: M80-500000MF-XX-XXX-00-000

SHEET 5 OF 6

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

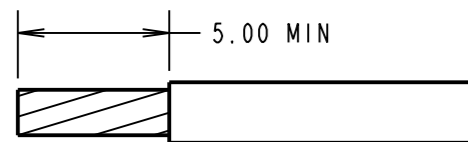
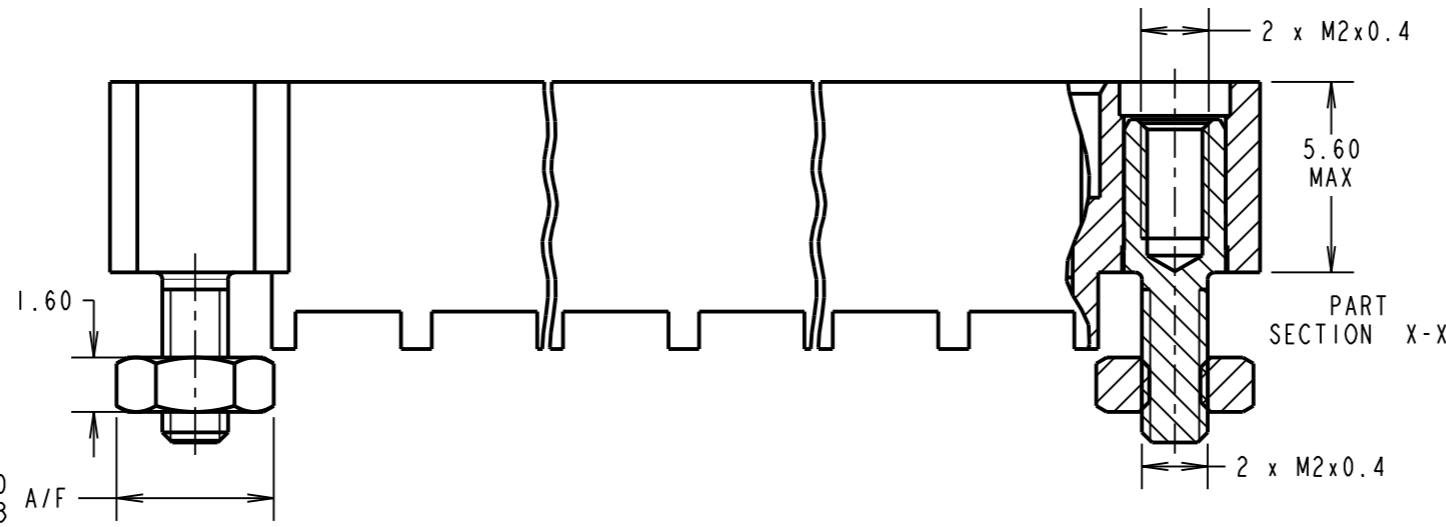
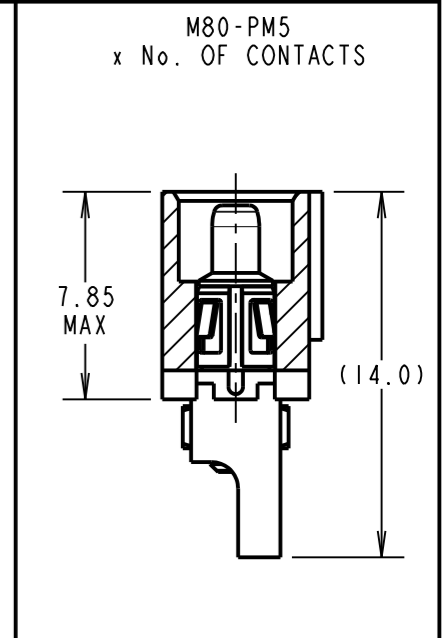
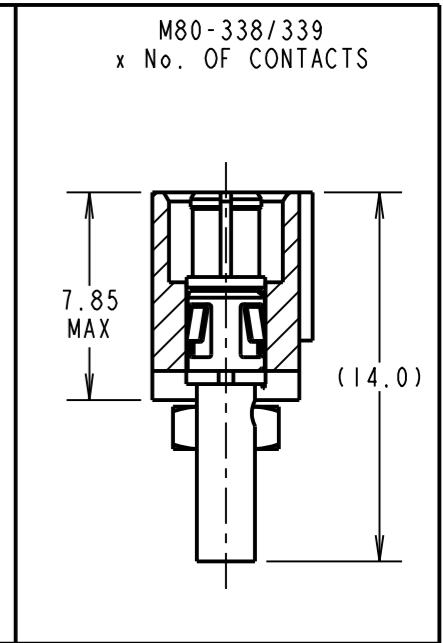
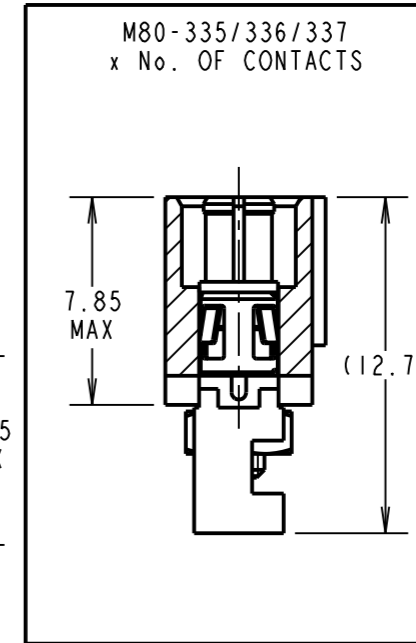
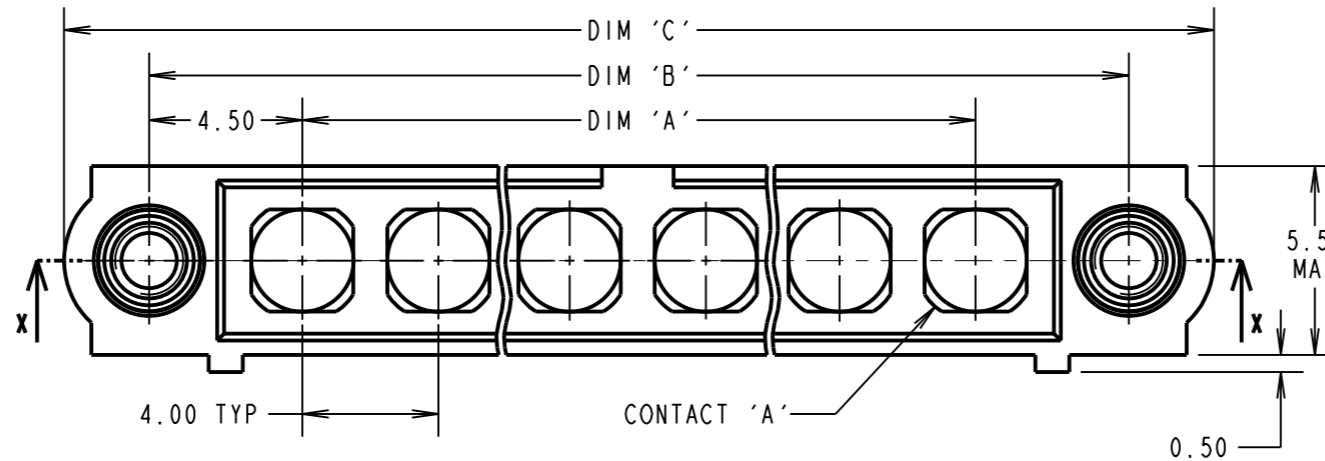
ALL DIMENSIONS IN mm

SPECIFICATIONS:

MATERIAL:
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK
POWER CONTACT:
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY
 LATCHING COLLAR = BERYLLIUM COPPER
 INSULATOR = PTFE
 BOARD MOUNT 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 = M80-335 = 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
 M80-PM5 = 40A MAX WITH 10AWG
 CONTACT AS SPECIFIED

MECHANICAL:
 DURABILITY = 500 OPERATIONS
POWER CONTACT:
 INSERTION FORCE:
 M80-335/336/337/338/339 = 8N MAX
 M80-PM5 = 15N MAX
 WITHDRAWAL FORCE = 0.5N MIN
ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-335/336/337/338/339 = -55°C TO +125°C
 M80-PM5 = -55°C TO +150°C
PACKING:
 BAG
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

POWER CRIMP & SOLDER CONTACTS ONLY



POWER CABLE STRIPPING DIMENSIONS

ORDER CODE: (POWER CRIMP/SOLDER CONTACTS)

M80-500000MF-XX-XXX-00-000

TOTAL No. OF CONTACTS _____
 02 TO 12

SPECIAL CONTACTS _____

335 = POWER CONTACT 12AWG SOLDER M80-335
 336 = POWER CONTACT 14AWG SOLDER M80-336
 337 = POWER CONTACT 16AWG SOLDER M80-337
 338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338
 339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339
 PM5 = POWER CONTACT 10AWG SOLDER M80-PM5

CRIMP/SOLDER NOTES:

- CONNECTORS ARE SUPPLIED WITH CONTACTS AND NUTS LOOSE.
- POWER CONTACT EXTRACTION TOOL: Z80-290.
- FOR EXTRA POWER CONTACTS, USE PART NUMBERS M80-335/336/337/338/339/PM5.
- RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
- 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,
 M80-500000MF-10-335-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm

HARWIN

www.harwin.com
 technical@harwin.com

THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

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 MALE ASSY WITH BOARD MOUNT J/SCREW

DRAWING NUMBER: M80-500000MF-XX-XXX-00-000

| | | | |
|----------------------|------|----------|--------|
| FM | 4 | 18.09.17 | 13269 |
| NAME | ISS. | DATE | C/NOTE |
| APPROVED: F. MCGOWAN | | | |
| CHECKED: S. BENNETT | | | |
| DRAWN: C. PENROSE | | | |
| CUSTOMER REF.: | | | |
| ASSEMBLY DRG: | | | |

Customer Information Sheet

DRAWING No.: M80-500000MF-XX-XXX-00-000

SHEET 6 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 CONTACT: COPPER ALLOY
 COAX CONTACT:
 BODY = COPPER ALLOY
 INNER CONTACT = COPPER ALLOY
 INSULATOR = PTFE
 BOARD MOUNT 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 = 100MΩ MIN
 POWER CONTACT:
 CONTACT RESISTANCE = 6mΩ MAX
 CURRENT RATING:
 M80-331/332 = 20A MAX
 M80-PM1/PM2 = 40A MAX

COAX CONTACT:
 FREQUENCY RANGE = 6GHz
 IMPEDANCE = 50Ω
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX
 CONTACT RESISTANCE = 6mΩ MAX

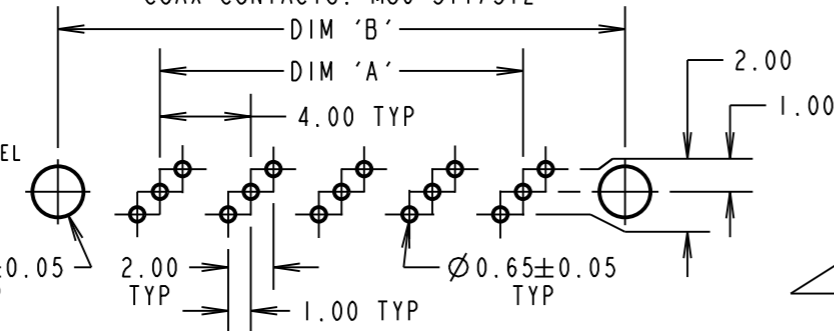
INSULATION RESISTANCE = 10⁶MΩ @250V AC
OPERATING VOLTAGE = 180V AC @ 500mA
MAXIMUM VOLTAGE = 1000V AC

MECHANICAL:
 DURABILITY = 500 OPERATIONS
 POWER CONTACT:
 INSERTION FORCE:
 M80-331/332 = 8N MAX
 M80-PM1/PM2 = 15N MAX
 WITHDRAWAL FORCE = 0.5N MIN
 COAX CONTACT:
 INSERTION FORCE = 8N MAX
 WITHDRAWAL FORCE = 0.5N MIN

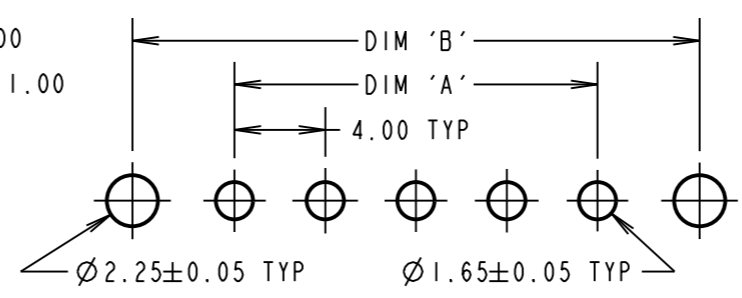
ENVIRONMENTAL:
 TEMPERATURE RANGE:
 M80-311/312/331/332 = -55°C TO +125°C
 M80-PM1/PM2 = -55°C TO +150°C

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

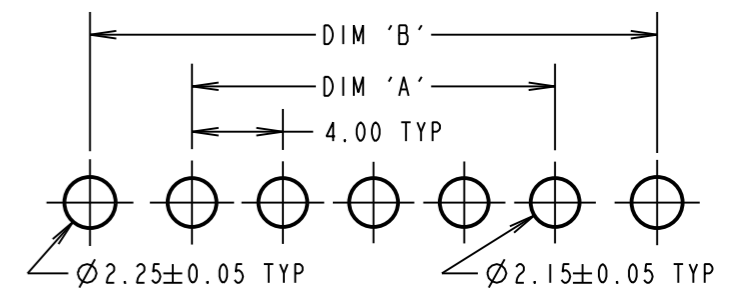
RECOMMENDED PCB LAYOUT FOR COAX CONTACTS: M80-311/312



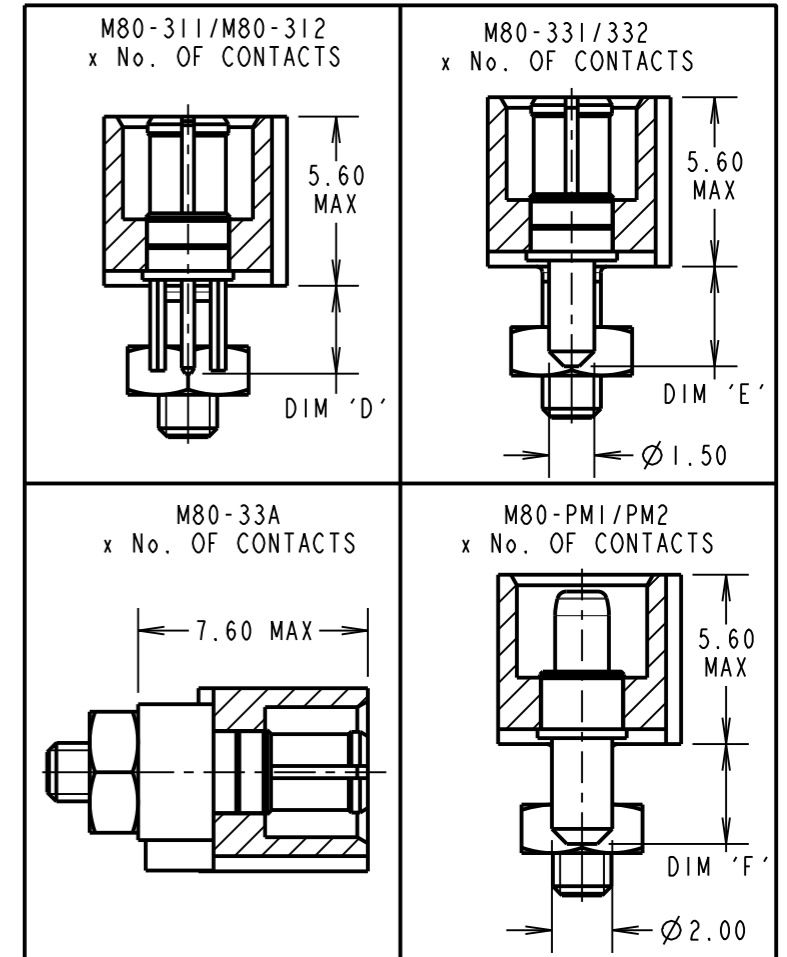
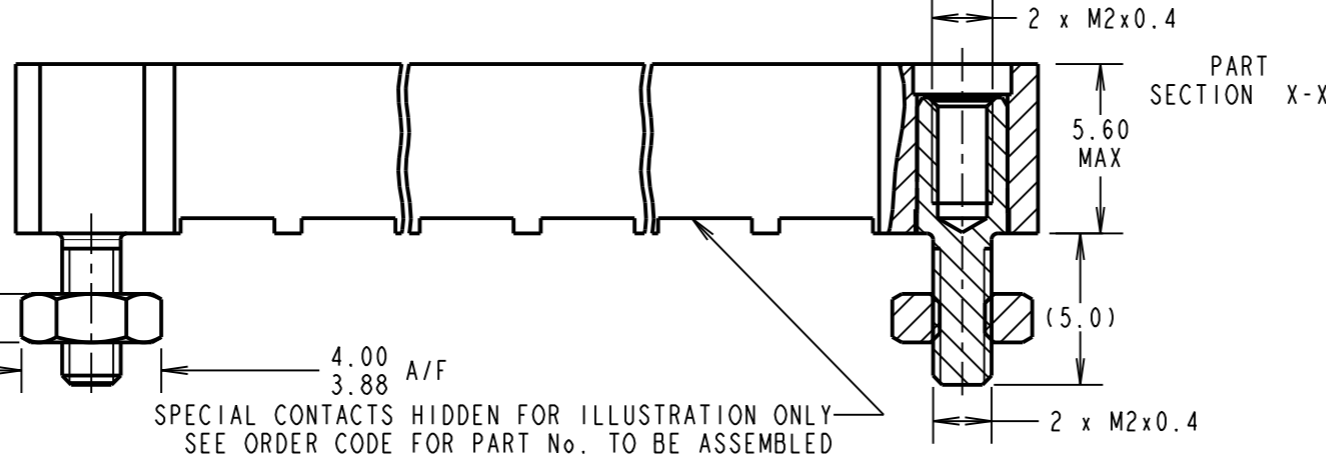
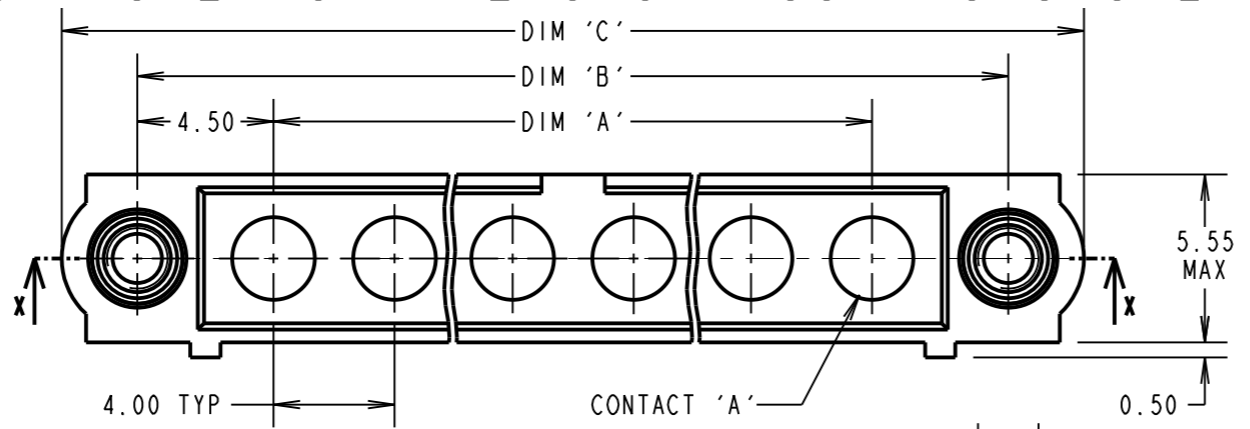
RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-331/332



RECOMMENDED PCB LAYOUT FOR POWER CONTACTS: M80-PM1/PM2



VERTICAL PC TAIL & SMT 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 + 10.0 |
| DIM 'D' | M80-311 = 3.0mm, M80-312 = 4.5mm |
| DIM 'E' | M80-331 = 3.5mm, M80-332 = 5.0mm |
| DIM 'F' | M80-PM1 = 3.5mm, M80-PM2 = 5.0mm |

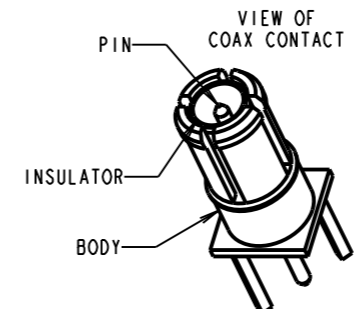
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,
 M80-500000MF-08-311-00-000
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.0mm
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,
 M80-500000MF-10-PM1-00-000
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.0mm
 DIM 'F' = 3.5mm

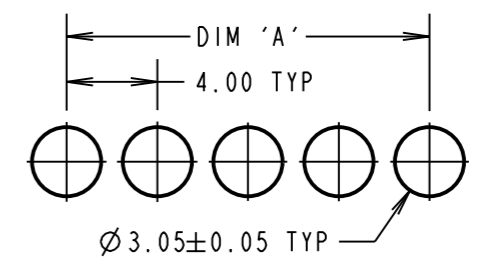
ORDER CODE: (PC TAIL CONTACTS ONLY)
M80-500000MF-XX-XXX-00-000

TOTAL No. OF CONTACTS _____
 02 TO 12

SPECIAL CONTACTS _____
 311 = COAX CONTACT 3.0mm PC TAIL M80-311
 312 = COAX CONTACT 4.5mm PC TAIL M80-312
 331 = 20A POWER CONTACT 3.5mm VERT' PC TAIL M80-331
 332 = 20A POWER CONTACT 5.0mm VERT' PC TAIL M80-332
 PM1 = 40A POWER CONTACT 3.5mm VERT' PC TAIL M80-PM1
 PM2 = 40A POWER CONTACT 5.0mm VERT' PC TAIL M80-PM2
 33A = POWER CONTACT HORZ' SMT M80-33A



RECOMMENDED PCB LAYOUT FOR POWER SMT



| | | | |
|----------------------|------|----------|--------|
| FM | 4 | 18.09.17 | 13269 |
| NAME | ISS. | DATE | C/NOTE |
| APPROVED: F. MCGOWAN | | | |
| CHECKED: S. BENNETT | | | |
| DRAWN: C. PENROSE | | | |
| CUSTOMER REF.: | | | |
| ASSEMBLY DRG: | | | |



THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER SET OUT HEREON ARE CONFIDENTIAL AND COPYRIGHT PROPERTY OF THE HARWIN GROUP AND MUST NOT BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING, TENDERING OR FOR ANY OTHER PURPOSE WITHOUT THEIR WRITTEN PERMISSION.

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 MALE ASSY WITH BOARD MOUNT J/SCREW
 DRAWING NUMBER: M80-500000MF-XX-XXX-00-000
 SHT 6 OF 6