

# Customer Information Sheet

DRAWING No.: M80-4XXXXXXXX-XX-XXX-XX-XXX

SHEET 1 OF 3

IF IN DOUBT - ASK



NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

**MIX-TEK Part Number: M80-4XXXXXXXX-XX-XXX-XX-XXX**

**Product Range** \_\_\_\_\_  
DATAMATE - M80 Series

**Gender** \_\_\_\_\_  
4 = FEMALE

**Signal Contact Style** \_\_\_\_\_  
00 = ZERO signal contacts  
T1 = VERTICAL PC TAIL, 3mm tail  
T2 = VERTICAL PC TAIL, 4.5mm tail  
C1 = CRIMP 24-28 AWG (small bore)  
D1 = CRIMP 22 AWG (large bore)  
S1 = VERTICAL SURFACE MOUNT

**Number of Signal Contacts** \_\_\_\_\_  
00-50 (must be EVEN number)

**Signal contact Finish** \_\_\_\_\_  
00 = ZERO Signal Contacts  
01 = GOLD + TIN/LEAD (PC Tail only)  
05 = GOLD  
42 = GOLD + 100% TIN

**Jackscrew Variant** \_\_\_\_\_  
00 = NONE assembled  
F1 = HEXAGONAL SLOTTED JACKSCREW  
F2 = HEXAGONAL SOCKET JACKSCREW  
F3 = GUIDE WITH BOARD MOUNT

**No. of Special contacts BEFORE Signal Contact No.1** \_\_\_\_\_  
00-12

**Part No. of Special contact BEFORE Signal Contact No.1** \_\_\_\_\_  
See Table on the Right

**No. of Special contacts AFTER Signal Contact No.1** \_\_\_\_\_  
00-12

**Part No. of Special contact BEFORE Signal Contact No.1** \_\_\_\_\_  
See Table on the Right

## Special Contact Part No:

- 301 = COAX - FEMALE, Vertical PC Tail, 3.0mm tail
- 302 = COAX - FEMALE, Vertical PC Tail, 4.5mm tail
- 305 = COAX - FEMALE, Crimp Straight, Ø2.0mm cable
- 306 = COAX - FEMALE, Crimp Straight, Ø2.4mm cable
- 307 = COAX - FEMALE, Crimp Straight, Ø2.7mm cable
- 308 = COAX - FEMALE, Crimp/Solder 90°, Ø2.0mm cable
- 309 = COAX - FEMALE, Crimp/Solder 90°, Ø2.7mm cable

- 321 = POWER - FEMALE, Vertical PC Tail, 3.5mm tail
- 322 = POWER - FEMALE, Vertical PC Tail, 5.0mm tail
- 325 = POWER - FEMALE, Solder Straight, 12 AWG cable
- 326 = POWER - FEMALE, Solder Straight, 14 AWG cable
- 327 = POWER - FEMALE, Solder Straight, 16 AWG cable

**Part No. where only Special Contact is required:**

**M80-XXX** Replace XXX with the above 3-digit code

MGP	2	13.04.07	9736
NAME	ISS.	DATE	C/NOTE
APPROVED: MGP			
CHECKED: BMK			
DRAWN: JM BROOKES			
CUSTOMER REF.:			
ASSEMBLY DRG:			

**HARWIN**

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

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**TOLERANCES**  
X. = ±1mm  
X.X = ±0.25mm  
X.XX = ±0.10mm  
X.XXX = ±0.01mm  
ANGLES = ±5°  
UNLESS STATED

**MATERIAL:**  
**FINISH:**  
**S/AREA:** mm<sup>2</sup>

**TITLE:**  
DATAMATE FEMALE MIX-TEK  
(GENERIC DRAWING)

**DRAWING NUMBER:**  
M80-4XXXXXXXX-XX-XXX-XX-XXX

SHT  
1 OF 3

# Customer Information Sheet

DRAWING No.: M80-4XXXXXXXX-XX-XX-XX-XXX SHT 2

IF IN DOUBT - ASK



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THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

### MATERIAL:

MOULDING = GLASS-FILLED PPS, UL94V-0, BLACK  
 JACKSCREW = STAINLESS STEEL  
 CIRCLIP = STAINLESS STEEL

### SIGNAL CONTACT:

CLIP = BERYLLIUM COPPER  
 SHELL = BRASS

### COAX CONTACT:

BODY & SLEEVE = BRASS  
 INSULATOR(S) = PTFE  
 INNER CONTACT = BERYLLIUM COPPER  
 LATCHING COLLAR = BERYLLIUM COPPER

### POWER CONTACT:

BODY = BRASS  
 LATCHING COLLAR = BERYLLIUM COPPER

### FINISH:

#### SIGNAL CONTACT (01 FINISH CODE):

CLIP = 0.3µ GOLD / SHELL = 3.5-5.0µ TIN/LEAD

#### SIGNAL CONTACT (05 FINISH CODE):

CLIP = 0.3µ GOLD / SHELL = 0.3µ GOLD

#### SIGNAL CONTACT (42 FINISH CODE):

CLIP = 0.3µ GOLD / SHELL = 3.5-5.0µ 100% TIN

#### COAX CONTACT:

BODY, SLEEVE, INNER CONTACT = GOLD  
 LATCHING COLLAR = NICKEL

#### POWER CONTACT:

BODY = GOLD  
 LATCHING COLLAR = NICKEL

### ELECTRICAL:

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

#### SIGNAL CONTACT:

CURRENT RATING AT 25°C = 3.0A MAX  
 CURRENT RATING AT 85°C = 2.2A MAX  
 CONTACT RESISTANCE = 25 mΩ 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 = 10<sup>6</sup>MΩ @ 250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1,000V AC

#### POWER CONTACT:

CURRENT RATING = 20A  
 CONTACT RESISTANCE = 6mΩ MAX

### MECHANICAL:

DURABILITY = 500 OPERATIONS

#### SIGNAL CONTACT:

INSERTION FORCE = 2.8N MAX  
 WITHDRAWAL FORCE = 0.2N MIN

#### COAX & POWER CONTACT:

INSERTION FORCE = 5.0N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

### ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

## NOTES:

1. FOR A COMPLETE TECHNICAL SPECIFICATION, INCLUDING CONTACT NUMBERING AND COAX CRIMPING INSTRUCTIONS, SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE).
2. PLEASE SEE INDIVIDUAL DRAWINGS FOR DIMENSIONS AND WIRING INFORMATION ON COAX AND POWER CONTACTS.
3. CRIMP AND CABLE SOLDER CONTACTS ARE SUPPLIED LOOSE, OTHER CONTACTS AND JACKSCREW VARIANTS ARE SUPPLIED ASSEMBLED.

## SIGNAL CRIMP CONTACT NOTES:

1. RECOMMENDED WIRE TYPE = BS 3G 210 TYPE A, PTFE INSULATED. MAX INSULATION DIA =  $\varnothing$  1.10mm, STRIP WIRE BY 2mm.
2. RECOMMENDED HAND CRIMP TOOL = M22520/2-01 WITH POSITIONER T5747.
3. CONTACT INSERTION AND EXTRACTION TOOL = Z80-280.
4. FOR EXTRA CONTACTS, USE PART NUMBER M80-01100XX (LARGE BORE) OR M80-01300XX (SMALL BORE). WHERE XX = 01 FOR 100% TIN OR 05 FOR GOLD.
5. INSTRUCTION SHEETS ARE AVAILABLE.

## COAX CABLE CONTACT NOTES:

1. STRAIGHT COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, INSULATOR AND LATCHING COLLAR ARE PRE-ASSEMBLED AND SLEEVE AND INNER CONTACT ARE SEPARATE.
2. 90° COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: INSULATOR, INNER CONTACT AND LATCHING COLLAR ARE PRE-ASSEMBLED, SLEEVE AND INSULATED END PLUG ASSEMBLY ARE SEPARATE.
3. RECOMMENDED HAND CRIMP TOOL FOR STRAIGHT COAX INNER CONTACT = Z80-292 WITH POSITIONER Z80-291.
4. RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR COAX SLEEVE = Z80-293.
5. COAX (& POWER) CONTACT EXTRACTION TOOL = Z80-290
6. INSTRUCTION SHEETS ARE AVAILABLE.

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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						

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DRAWING No.: M80-4XXXXXXXX-XX-XXX-XX-XXX

SHEET 3 OF 3

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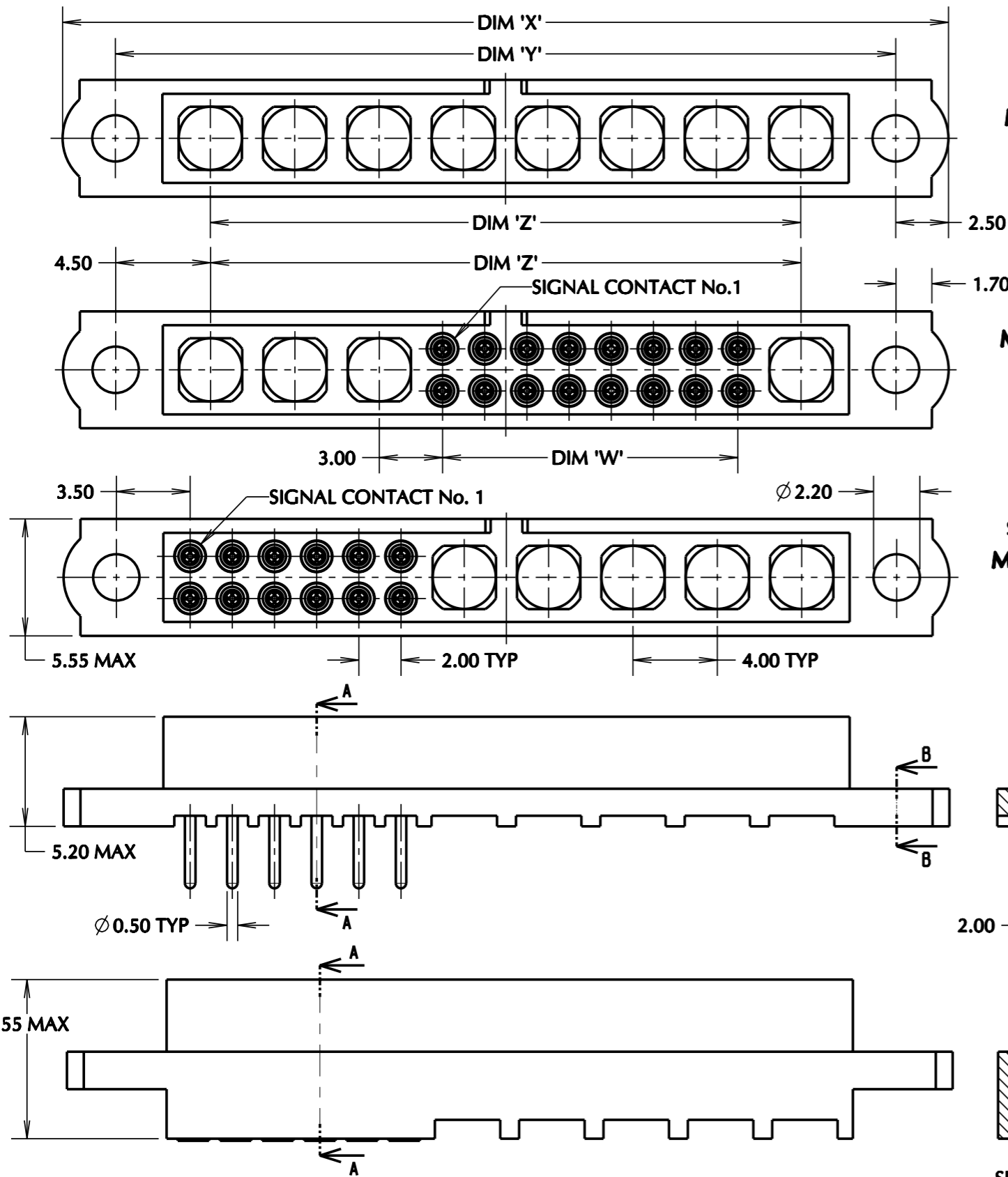
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NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## CONNECTOR DIMENSIONS



PART NUMBERS ARE EXAMPLES FOR THE LAYOUTS SHOWN

SPECIAL CONTACTS ONLY  
M80-4000000XX-08-XXX-00-000

$$\begin{aligned} \text{DIM 'Z'} &= (T - 1) \times 4 \\ \text{DIM 'Y'} &= \text{DIM 'Z'} + 9 \\ \text{DIM 'X'} &= \text{DIM 'Y'} + 5 \end{aligned}$$

SPECIAL CONTACTS ON BOTH SIDES  
M80-4XX16XXXX-03-XXX-01-XXX

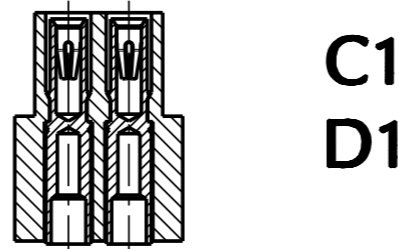
$$\begin{aligned} \text{DIM 'W'} &= S - 2 \\ \text{DIM 'Z'} &= \text{DIM 'W'} + (T \times 4) - 2 \\ \text{DIM 'Y'} &= \text{DIM 'Z'} + 9 \\ \text{DIM 'X'} &= \text{DIM 'Y'} + 5 \end{aligned}$$

SPECIAL CONTACTS ON ONE SIDE  
M80-4XX12XXXX-00-000-05-XXX

$$\begin{aligned} \text{DIM 'W'} &= S - 2 \\ \text{DIM 'Z'} &= \text{DIM 'W'} + (T \times 4) - 1 \\ \text{DIM 'Y'} &= \text{DIM 'Z'} + 8 \\ \text{DIM 'X'} &= \text{DIM 'Y'} + 5 \end{aligned}$$

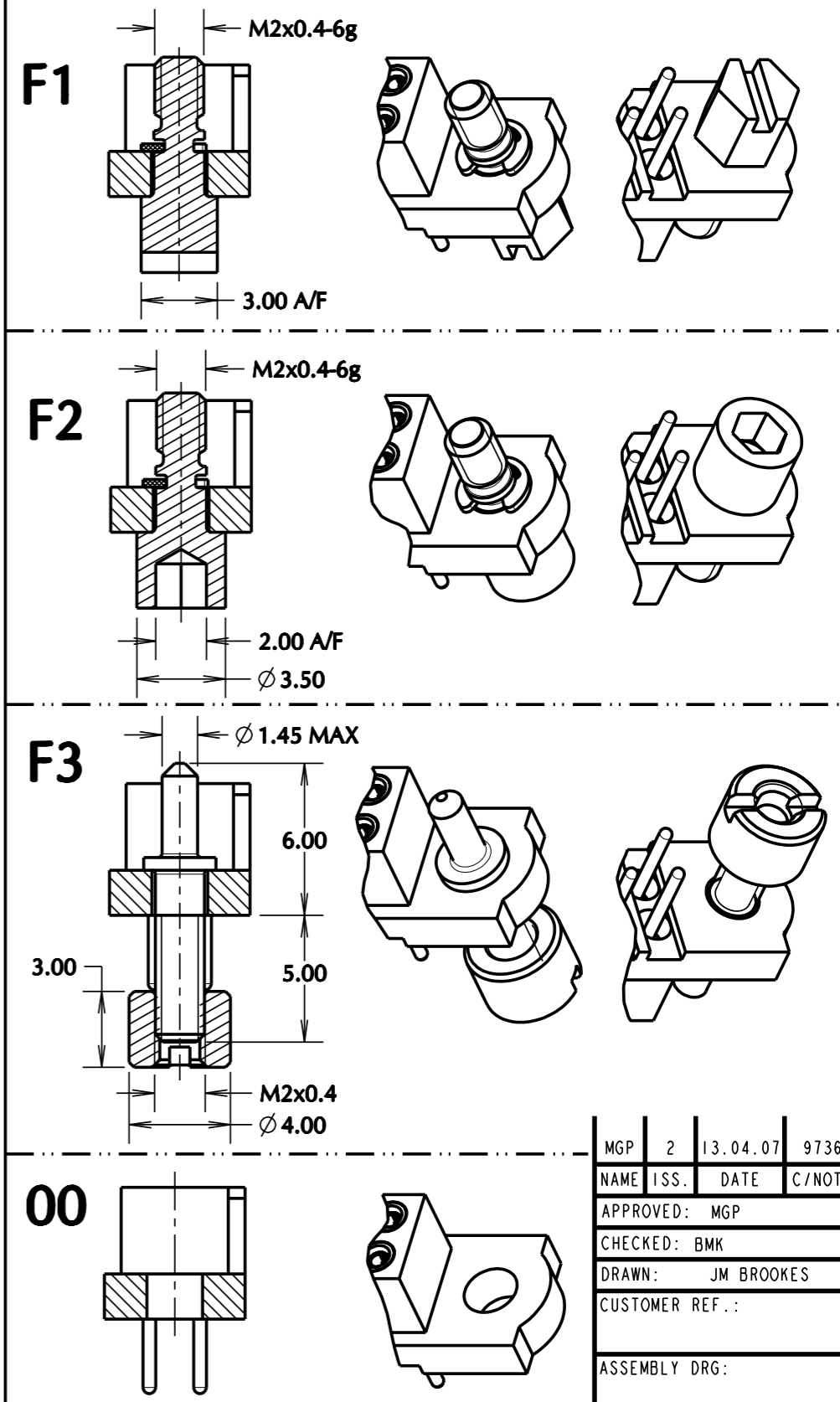


2.00 Tail



SECTION A-A

## JACKSCREW VARIANTS



S = TOTAL NUMBER OF SIGNAL CONTACTS  
T = TOTAL NUMBER OF SPECIAL CONTACTS

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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

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X.XXX = ±0.01mm  
ANGLES = ±5°  
UNLESS STATED

MATERIAL:

SEE ABOVE

FINISH:

SEE ABOVE

S/AREA:

mm<sup>2</sup>

TITLE:

DATAMATE FEMALE MIX-TEK  
(GENERIC DRAWING)

DRAWING NUMBER:

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3  
OF 3

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