

# TECHNICAL CHARACTERISTICS

<b>Contact diameter</b>	HYPERTAC® type Ø 0.50 mm rear removable
<b>Number of contact</b>	Up to 162
<b>Pitch</b>	1.905mm between rows 1.27mm between quicuncial contacts
<b>Rows</b>	3

## MATERIALS & PLATINGS

<b>Contact</b>	Brass or bronze	
<b>Moulding</b>	Glass fiber filled diallyl - Phtalate	
<b>Guides</b>	Stainless steel or nickel plated brass	
	Standard	ESA
<b>Pin body</b>	0.25 µm Gold / 1.27 µm Ni	1.27 µm Gold / 1.27 µm Ni (min)
<b>Socket body</b>	0.25 µm Gold / 1.27 µm Ni on activ area 1.27 µm Ni on non activ area	0.25 µm Gold / 1.27 µm Ni (min)
<b>Socket wires</b>	1 µm Gold / 0.20 µm Ni	1.27 µm Gold / 0.20 µm Ni (min)

## ELECTRICAL

<b>Current rating (at 25°C)</b>	3 A max
<b>Dielectric withstanding voltage</b>	800 Vrms
<b>Contact resistance</b>	≤ 8 mΩ
<b>Insulation resistance</b>	> 10 <sup>4</sup> mΩ (500 Vcc)

## MECHANICAL

<b>Mating &amp; unmating cycle</b>	5000
<b>Guiding</b>	By two outside guides (2 guiding styles) and one central guide (3 guidind styles)
<b>Keying</b>	By rotating of outside polarised guides (up to 16 keying)

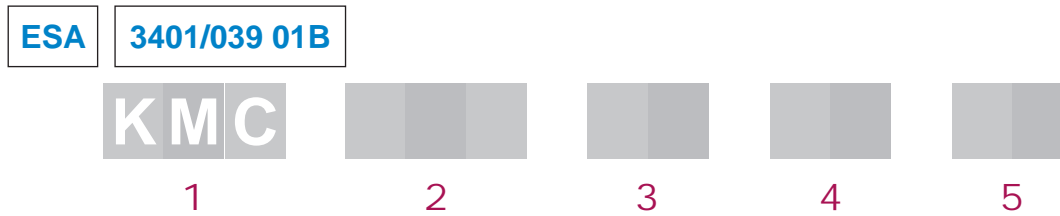
## ENVIRONMENTAL

<b>Temperature range</b>	-55° C + 125° C
<b>Conformity</b>	ESA/ESCC 3401/039, NF C-UTE C 93-424

Dimension are in mm

# HOW TO ORDER

## HYPERTAC & ESA CORRESPONDANCE TABLE



### 1 ▶ SERIES

### 2 ▶ NUMBER OF CONTACTS

0 2 6   0 4 4   0 6 2   0 8 0   0 9 8   1 4 4   1 6 2

### 3 ▶ MOULDING POLARITY

NF C-UTE C 93-424   ESA/ESCC 3401/03901B   SPACE GRADE

12	-	54	Female plug	1A	-	-	Tinned female plug**	26	-	46	Tinned female receptacle*
13	55	55	Male plug	1B	-	-	Tinned male plug**	27	-	47	Tinned male receptacle*
16	-	56	Tinned female plug*	22	44	44	Female receptacle	2A	-	-	Tinned female receptacle**
17	-	57	Tinned male plug*	23	-	45	Male receptacle	2B	-	-	Tinned male receptacle**

### 4 ▶ TERMINATION STYLES

1 0	90° length 3 mm ("A" moulding)	3 0	Through board solder - straight - length 4.5 mm	5 1	Wire wrap (3 wrapping levels)
1 0	90° length 3 mm ("B" moulding)	3 1	Through board solder - straight - length 5.6 mm	9 0	Male - male
1 1	90° length 4 mm ("A" moulding)	4 0	Solder bucket	9 1	Female - male
1 3	90° length 5.5 mm ("B" moulding)	5 0	Wire wrap (2 wrapping levels)		

### 5 ▶ MOUNTING HARDWARE

GUIDE STYLES (consult us for special guides)

1 10	Male polarised, transverse mount <sup>(1)</sup>	1 27	Male unpolarised, vertical mount <sup>(2)</sup>	1 56	Male unpolarised, transverse mount <sup>(2)</sup>
1 11	Male polarised, vertical mount <sup>(2)</sup>	1 28	Male unpolarised, float mount <sup>(2)</sup>	1 73	Female unpolarised, transverse mount <sup>(1)</sup>
1 12	Male polarised, vertical mount <sup>(2)</sup>	1 30	Female unpolarised, vertical mount <sup>(2)</sup>	1 74	Female polarised, transverse mount <sup>(1)</sup>
1 13	Male polarised, float mount <sup>(2)</sup>	1 33	Female unpolarised, transverse mount <sup>(2)</sup>	1 90	Female power or mass contact, vertical mount <sup>(2)</sup>
1 21	Female polarised, vertical mount <sup>(2)</sup>	1 43	Female polarised, vertical mount <sup>(2)</sup>	1 91	Male power or mass contact, transverse mount <sup>(1)</sup>
1 23	Female polarised, float mount <sup>(2)</sup>	1 53	Female unpolarised, transverse mount <sup>(2)</sup>	7 03	Female - male unpolarised guide <sup>(2)</sup>
1 24	Female polarised, transverse mount <sup>(2)</sup>	1 54	Female polarised, transverse mount <sup>(2)</sup>		
1 25	Male unpolarised, transverse mount <sup>(1)</sup>	1 55	Male unpolarised, transverse mount <sup>(2)</sup>		

### LOCKING STYLES

FEMALE		MALE	
2 02	Jackscrew, vertical mount <sup>(2)</sup>	2 01	Jackscrew, free connector <sup>(2)</sup>
2 03	Jackscrew, transverse mount <sup>(1)</sup>	2 05	Jackscrew, transverse mount <sup>(1)</sup>
2 04	Jackscrew, transverse mount <sup>(2)</sup>	2 06	Jackscrew, free connector <sup>(2)</sup>
2 07	Jackscrew, vertical mount <sup>(2)</sup>		

<sup>(1)</sup> Moulding A - <sup>(2)</sup> Moulding B

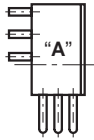
\* For 90° & straight terminations (splicing on PCB)  
 \*\* RoHS conform for 90° & straight terminations (splicing on PCB)

► MOULDING STYLES

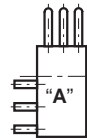
PLUG

RECEPTACLE

ONE PART (moulding A)

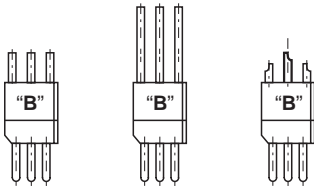


**Fitted with male contacts**  
 ► 90° through board solder

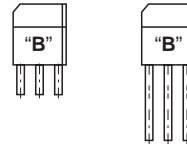


**Fitted with male contacts**  
 ► 90° through board solder  
 (same design as the "A" plug type but printed as receptacle)

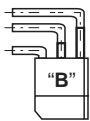
TWO PARTS (moulding B)



**Fitted with male contacts (pins)**  
 ► Straight through board solder  
 ► Wire wrap type  
 (2 and 3 wrapping levels)  
 ► Solder bucket



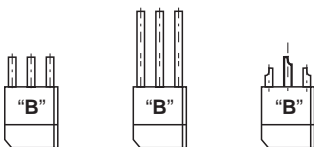
**Fitted with female contacts**  
 ► Straight through board solder  
 ► Wire wrap type  
 (2 and 3 wrapping levels)  
 ► Solder bucket  
 (same design as the "B" plug type but printed as receptacle)



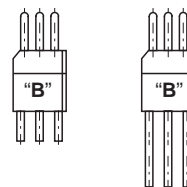
**Fitted with female contacts (sockets)**  
 ► 90° through board solder  
 Note: the spacing of the rows for board preparation is different to the spacing of the plug fitted with the 90° termination



**Fitted with female contacts (sockets)**  
 ► 90° through board solder  
 Note: the spacing of the rows for board preparation is different to the spacing of the plug fitted with the 90° termination



► Straight through board solder  
 ► Wire wrap type  
 (2 and 3 wrapping levels)  
 ► Solder bucket



**Fitted with male contacts (pins)**  
 ► Straight through board solder  
 ► Wire wrap type  
 (2 and 3 wrapping levels)  
 ► Solder bucket  
 (same design as the "B" plug type but printed as receptacle)

CONTACT TERMINATIONS

PLUG

RECEPTACLE

MALE

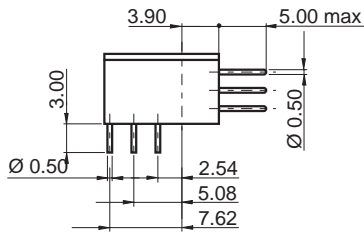
FEMALE

FEMALE

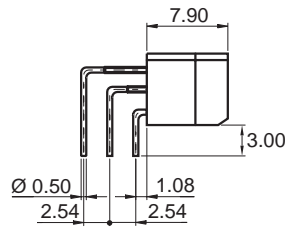
MALE

90° THROUGH BOARD SOLDER

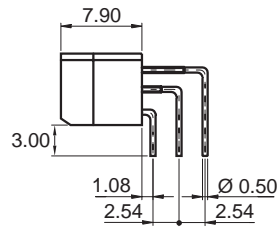
Ref: 10 Ref : 10 (only A Moulding)



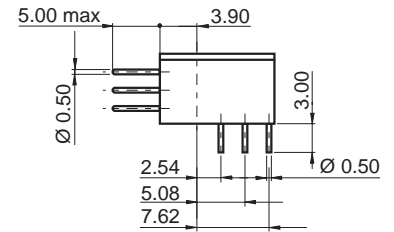
Moulding "A"



Moulding "B"



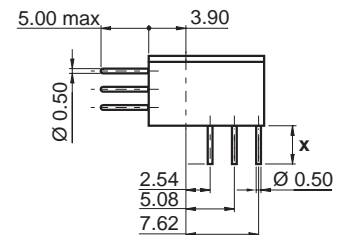
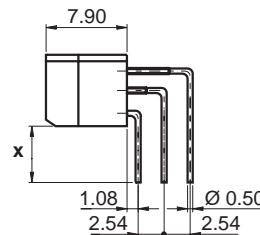
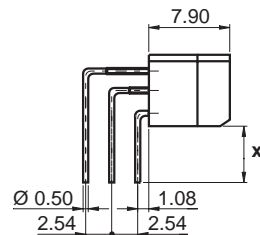
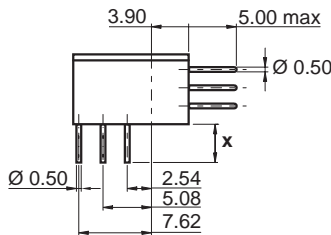
Moulding "B"



Moulding "A"

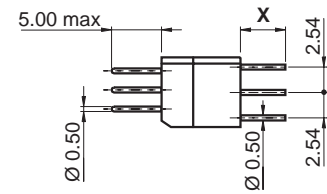
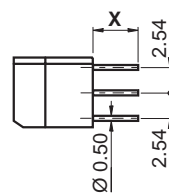
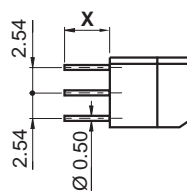
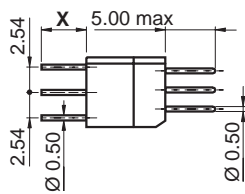
90° THROUGH BOARD SOLDER

Moulding A Ref: 11 (X=4.00) Moulding B Ref: 13 (X=5.50)



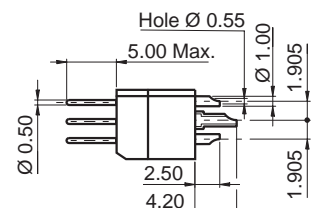
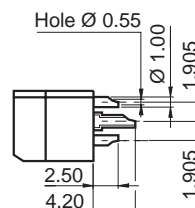
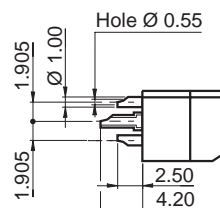
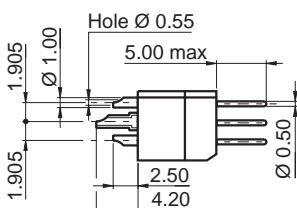
STRAIGHT THROUGH BOARD SOLDER

Ref: 30 (X=4.50) Ref : 30 Ref: 31 (X=5.60) Ref : 31



SOLDER BUCKET (AWG 26 max)

Ref: 40 Ref : 40



Note: moulding A and B need different preparation board details for 90° tail termination.

CONTACT TERMINATIONS

PLUG

RECEPTACLE

MALE

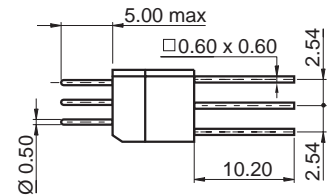
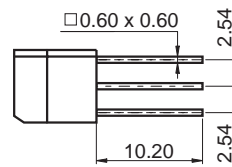
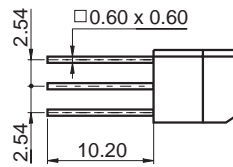
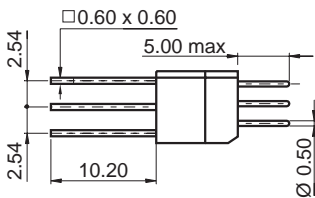
FEMALE

FEMALE

MALE

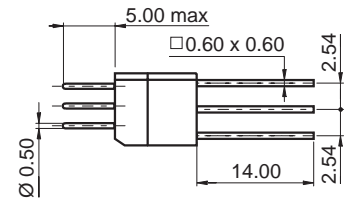
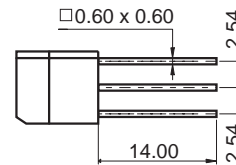
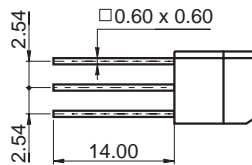
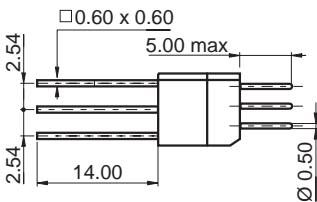
WIRE WRAP (2 wrapping levels)

Ref: 50 Ref: 50



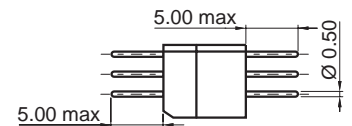
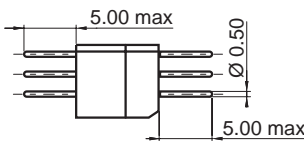
WIRE WRAP (3 wrapping levels)

Ref: 51 Ref: 51



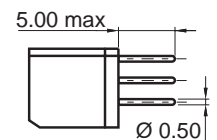
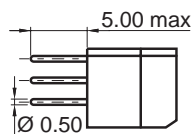
SAVER (Male-Male)

Ref: 90



SAVER (Female-Male)

Ref: 91 Ref: 91



Note: moulding A and B need different preparation board details for 90° tail termination.

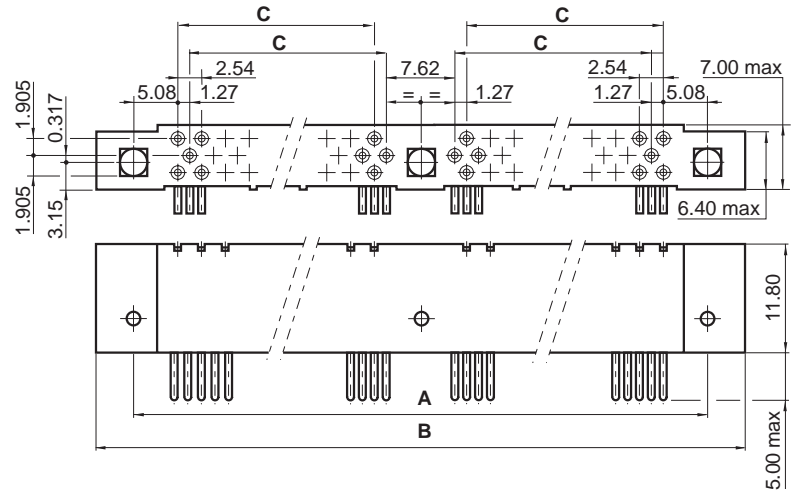
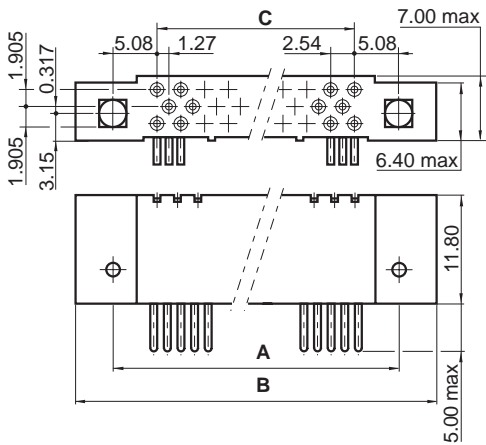
► DIMENSIONS

26 TO 98 CONTACTS

144 TO 162 CONTACTS

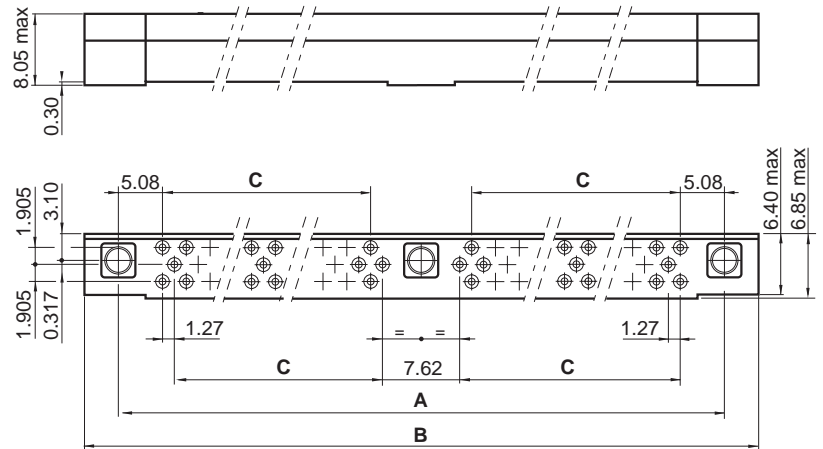
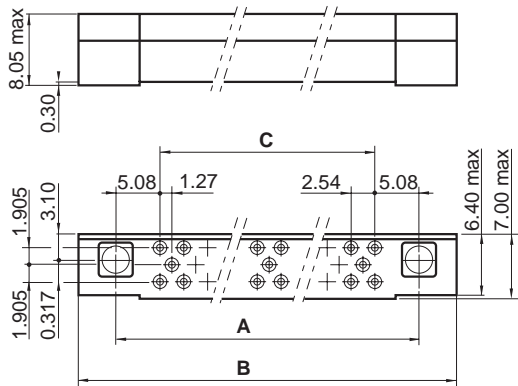
ONE PART (moulding A)

90° male plug                    KMC ... 13 10 ...  
 90° male receptacle            KMC ... 23 10 ...



TWO PARTS (moulding B)

Female or male receptacle    KMC ... 2. ...  
 Female or male plug            KMC ... 1. ...



No. of contacts	26	44	62	80	98	144	162
<b>A</b>	30.48	45.72	60.96	76.20	91.44	137.16	152.40
<b>B max</b>	38.50	53.70	69.00	84.20	99.50	145.20	160.40
<b>C</b>	20.32	35.56	50.80	66.04	81.28	58.42	66.04



FR 22	FP 12	FR 22	FP 12	MR 23	FR 22	FP 12	MP 13	MR 23	FR 22	FP 12	MP 13	FR 22	FP 12	MR 23	FR 22	FP 12	MP 13	Polarity					
																		All pinning	A			Moulding	
																		All pinning	B				
																		90°	13F	11M	10	Contact	
																		Straight		31	30		Male or female
																		Solder bucket			40		
																		Wire wrap		51	50		
																		Female/male	Male/male	91	90		

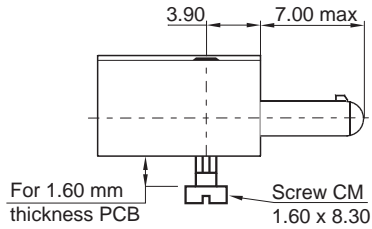
																			703	Guide devices
																			191	
																			156	
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Guide devices																				



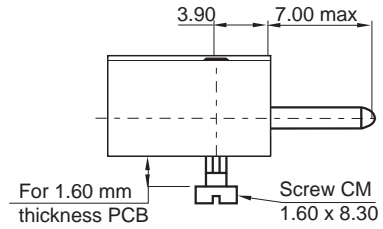
▶ MALE GUIDE STYLES

**POLARISED TRANSVERSE MOUNT (moulding A)**

Ref: 110 Ref:  110

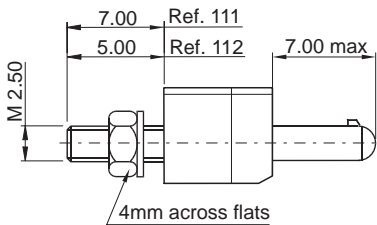


**UNPOLARISED TRANSVERSE MOUNT (moulding A) CENTRAL GUIDE (KMC 144-162)**

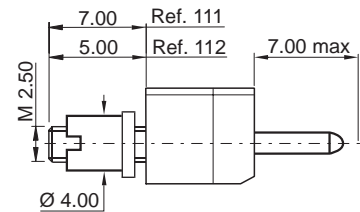


**POLARISED VERTICAL MOUNT (moulding B)**

Ref: 111 Ref: 112

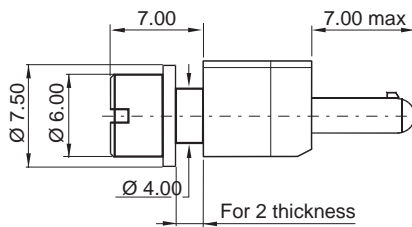


**UNPOLARISED VERTICAL MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**

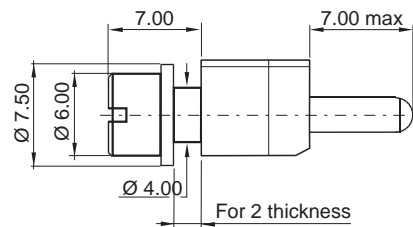


**POLARISED VERTICAL FLOAT MOUNT (moulding B)**

Ref: 113

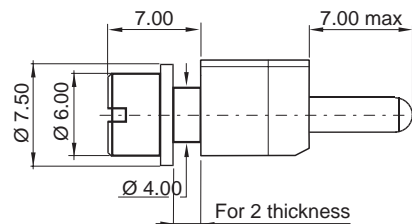


**UNPOLARISED VERTICAL FLOAT MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**



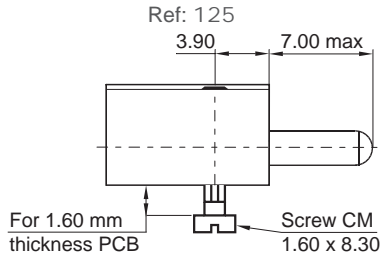
**POLARISED VERTICAL FLOAT MOUNT (moulding B)**

Ref: 128

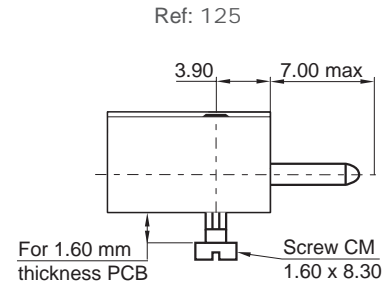


▶ MALE GUIDE STYLES

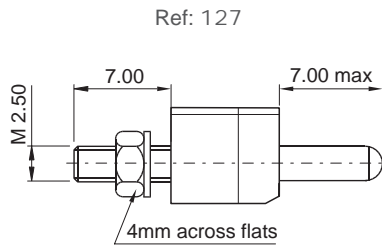
**UNPOLARISED TRANSVERSE MOUNT (moulding A)**



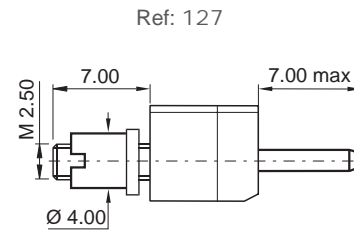
**UNPOLARISED TRANSVERSE MOUNT (moulding A) CENTRAL GUIDE (KMC 144-162)**



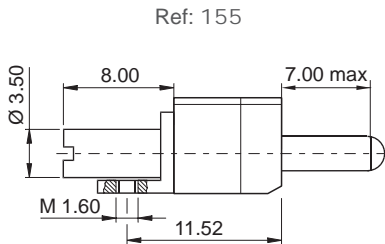
**UNPOLARISED VERTICAL MOUNT (moulding B)**



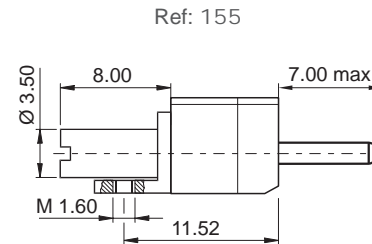
**UNPOLARISED VERTICAL MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**



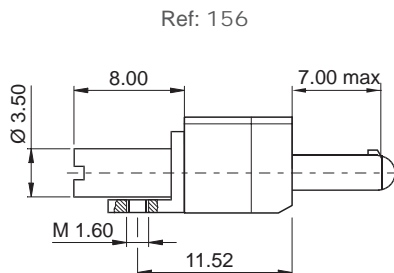
**UNPOLARISED TRANSVERSE MOUNT (moulding B)**



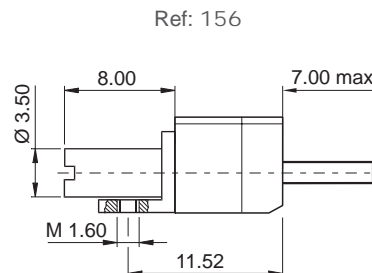
**UNPOLARISED TRANSVERSE MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**



**POLARISED TRANSVERSE MOUNT (moulding B)**



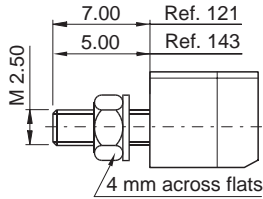
**UNPOLARISED TRANSVERSE MOUNT (Moulding B) CENTRAL GUIDE (KMC 144-162)**



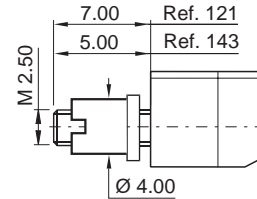
► FEMALE GUIDE STYLES

**POLARISED VERTICAL MOUNT (moulding B)**

Ref. 121 Ref. 143 Ref. 143

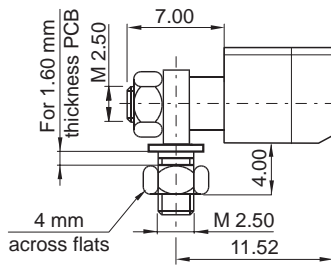


**UNPOLARISED VERTICAL MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**

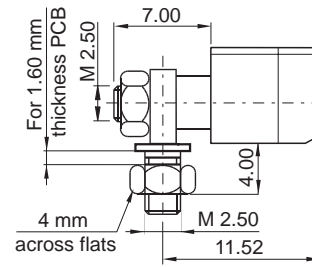


**POLARISED TRANSVERSE MOUNT (moulding B)**

Ref: 124

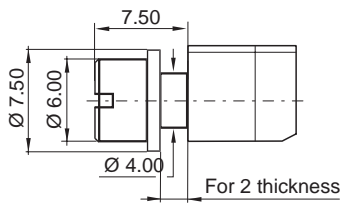


**UNPOLARISED TRANSVERSE MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)**



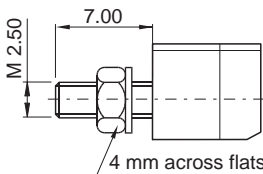
**POLARISED VERTICAL FLOAT MOUNT (moulding B)**

Ref: 123

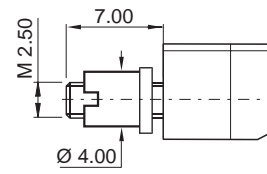


**ALL KEYING TYPES (moulding B)**

Ref: 130



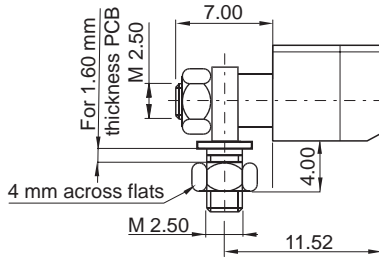
**ALL KEYING TYPES (moulding B) CENTRAL GUIDE (KMC 144-162)**



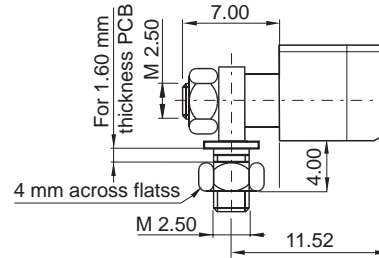
► FEMALE GUIDE STYLES

**ALL KEYING TYPES  
(moulding B)**

Ref: 133

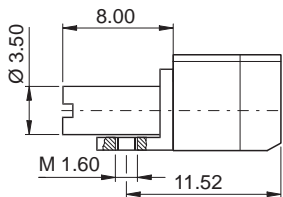


**ALL KEYING TYPES (moulding B)  
CENTRAL GUIDE (KMC 144-162)**

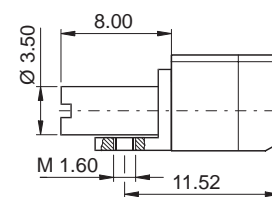


**ALL KEYING TYPES  
(moulding B)**

Ref: 153

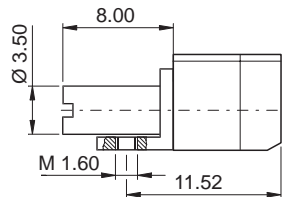


**ALL KEYING TYPES (moulding B)  
CENTRAL GUIDE (KMC 144-162)**

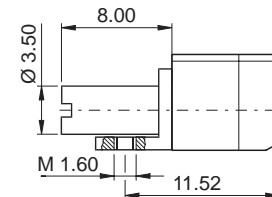


**POLARISED TRANSVERSE MOUNT  
(moulding B)**

Ref: 154



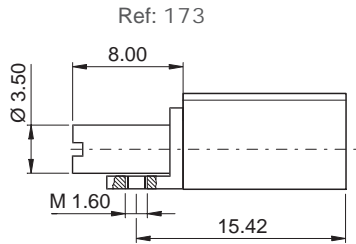
**UNPOLARISED TRANSVERSE MOUNT (moulding B)  
CENTRAL GUIDE (KMC 144-162)**



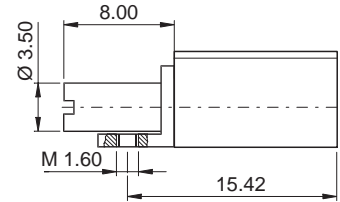
GUIDE STYLES

FEMALE

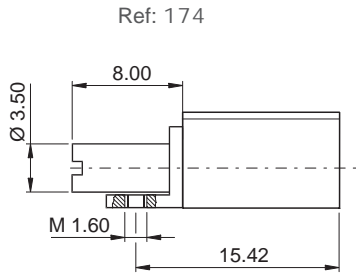
UNPOLARISED TRANSVERSE MOUNT (moulding A)



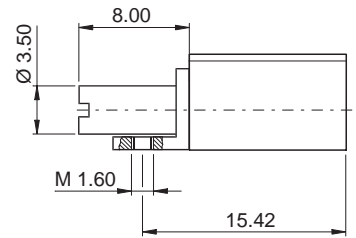
UNPOLARISED TRANSVERSE MOUNT (moulding A) CENTRAL GUIDE (KMC 144-162)



POLARISED TRANSVERSE MOUNT (moulding A)



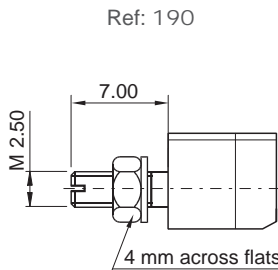
UNPOLARISED TRANSVERSE MOUNT (moulding A) CENTRAL GUIDE (KMC 144-162)



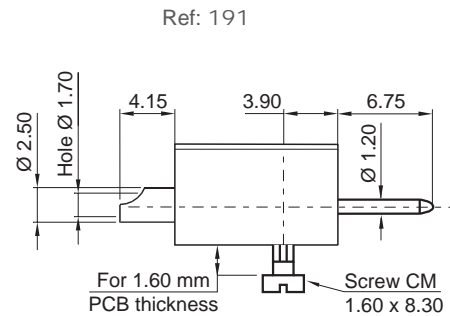
FEMALE

MALE

MASS AND POWER CONTACT (moulding B)



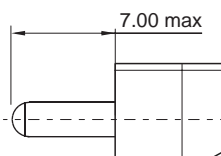
MASS AND POWER CONTACT (moulding A)



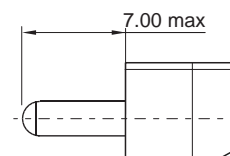
FEMALE - MALE

UNPOLARISED TRANSVERSE MOUNT (moulding B)



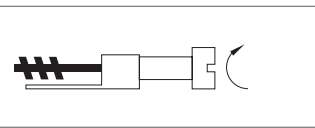
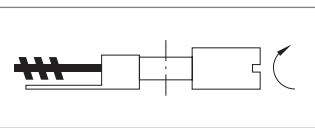
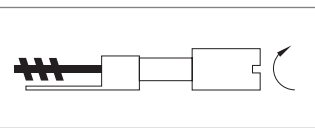
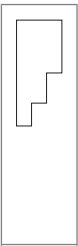
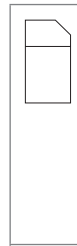
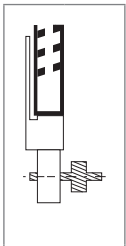
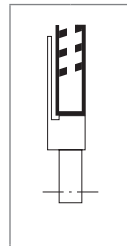
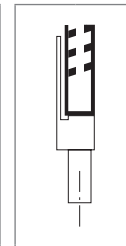
Ref: 703 Ref: 703



UNPOLARISED TRANSVERSE MOUNT (moulding B) CENTRAL GUIDE (KMC 144-162)



▶ LOCKING DEVICE COMPATIBILITY CHART

						A	Moulding
						B	
							206
							205
							201
					Male locking devices		
A	B	204	203	202/207	Female locking devices		
Moulding							

 Compatible


NOTE: the connector must be fitted with its locking devices before soldering on the PCB (straight through board solder):

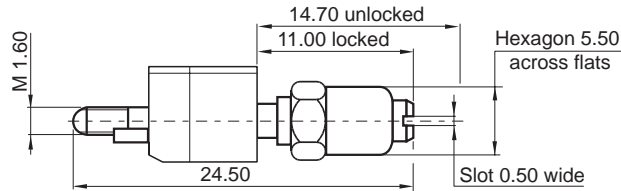
- ▶ Connector on PCB: impossibility to change the keying.
  - ▶ If you need to change the keying:
    - pierce PCB through Ø 3.70, fixing devices
    - use 054826.000R shouldered washer
- } (for 202 and 207)

▶ LOCKING STYLES

**MALE**

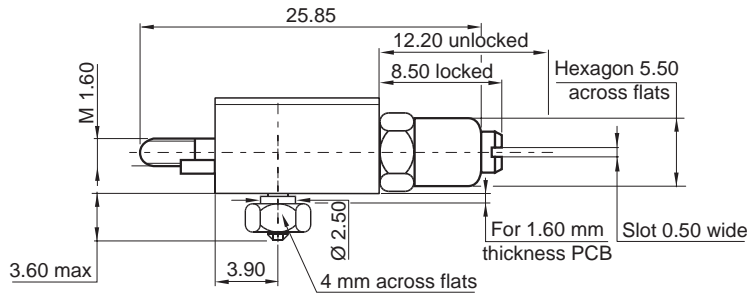
**JACKSCREW, FREE CONNECTOR (moulding B)**

Ref: 201 Ref : 201  
 For KMC 144-162 the supplied central guide is Ref: 111




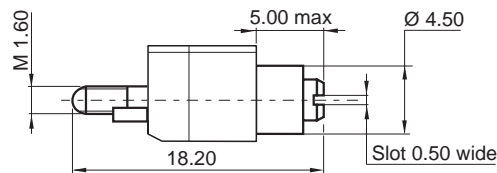
**JACKSCREW, TRANSVERSE MOUNT (moulding A)**

Ref: 205  
 For KMC 144-162 the supplied central guide is Ref: 110



**JACKSCREW, FREE CONNECTOR (moulding B)**

Ref: 206 Ref : 206  
 For KMC 144-162 the supplied central guide is Ref: 112



▶ LOCKING STYLES

**FEMALE**

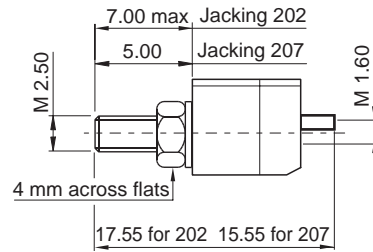
**NON ROTATING JACKSCREW, VERTICAL MOUNT (moulding B)**

Ref: 202 Ref: 207

For KMC 144-162 jackscrew 202 the supplied central guide is Ref: 121

Ref: 207

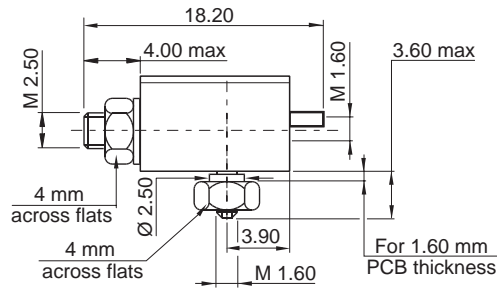
jackscrew 207 the supplied central guide is Ref: 143



**NON ROTATING JACKSCREW, TRANSVERSE MOUNT (moulding A)**

Ref: 203

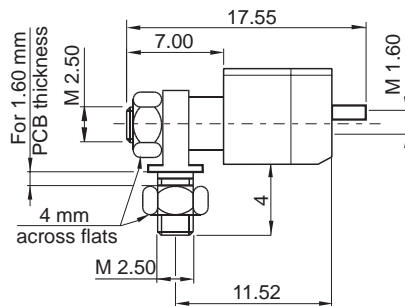
For KMC 144-162 jackscrew 202 the supplied central guide is Ref: 173



**NON ROTATING JACKSCREW, TRANSVERSE MOUNT (moulding B)**

Ref: 204 Ref: 204

For KMC 144-162 the supplied central guide is Ref: 111



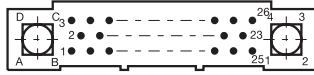


▶ MATING SIDE LAYOUT VIEW

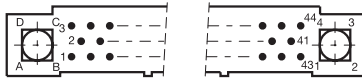
MOULDING A

PLUG

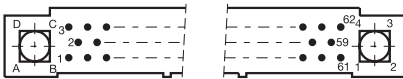
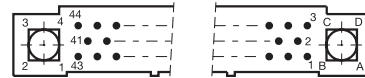
RECEPTACLE



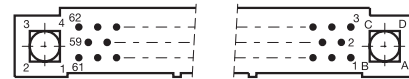
026



044



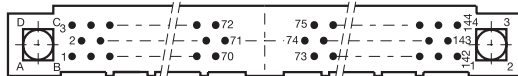
062



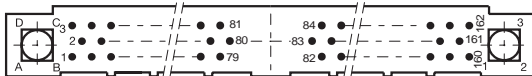
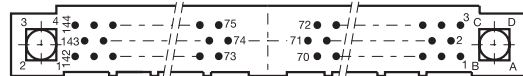
080



098



144



162

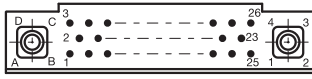


▶ MATING SIDE LAYOUT VIEW

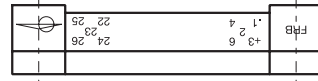
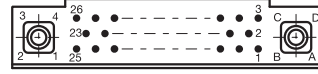
MOULDING B

PLUG

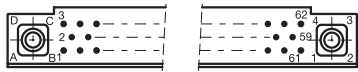
RECEPTACLE



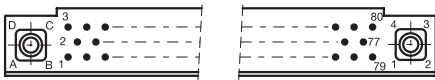
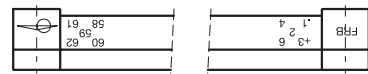
026



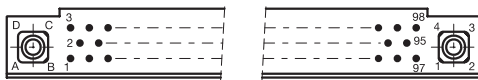
044



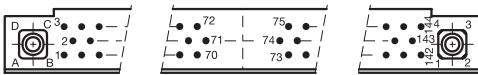
062



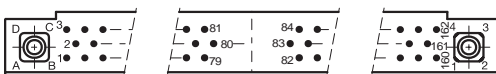
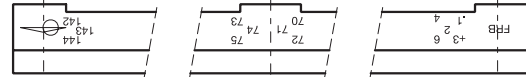
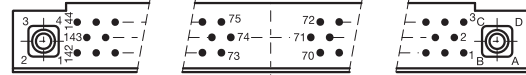
080



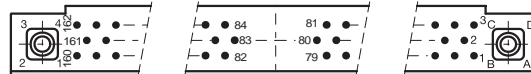
098



144



162



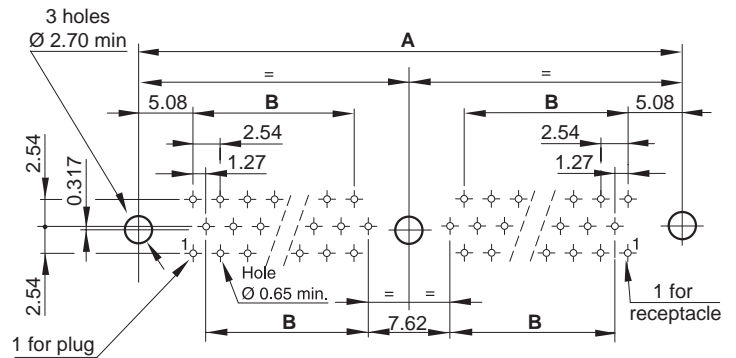
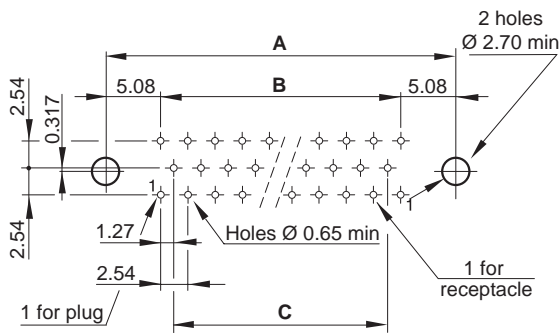
▶ BOARD PREPARATION DETAILS

TWO PARTS (moulding B)

26 TO 98 CONTACTS

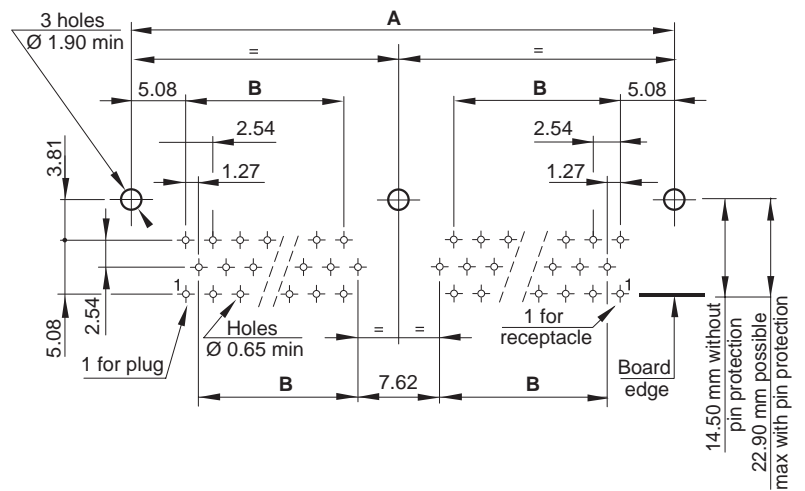
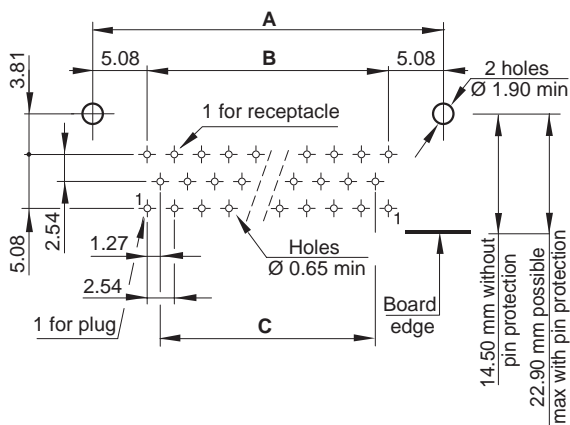
144 TO 162 CONTACTS

MOTHER BOARD



Female or male, plug or receptacle, straight solder terminations 30 or 31  
 Guide styles: 111 - 112 - 121 - 127 - 130 - 143 - 190

DAUGHTER BOARD



Female or male, plug or receptacle, 90° termination  
 Guide styles: 153 - 154 - 155 - 156

No. of contacts	26	44	62	80	98	144	162
A	30.48	45.72	60.96	76.20	91.44	137.16	152.40
B	20.32	35.56	50.80	66.04	81.28	58.42	66.04
C	17.78	33.02	48.26	63.50	78.74	-	-

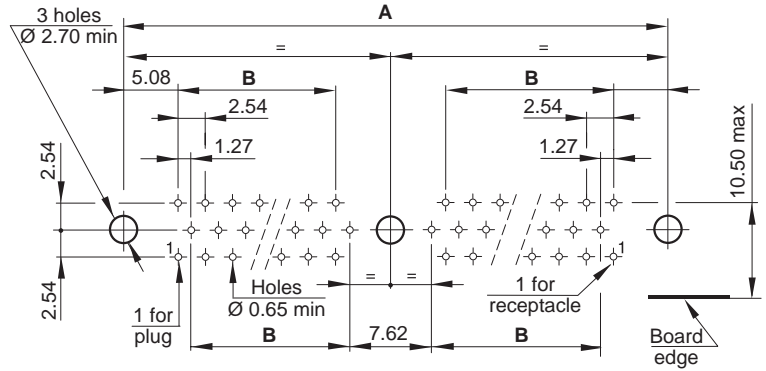
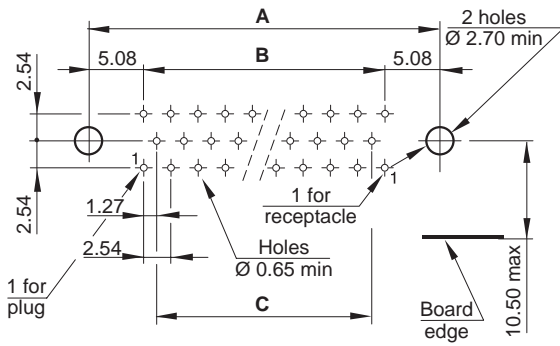
▶ BOARD PREPARATION DETAILS

TWO PARTS (moulding B)

26 TO 98 CONTACTS

144 TO 162 CONTACTS

DAUGHTER BOARD



Female or male, plug or receptacle, 90° termination  
Guide styles: 124 - 133

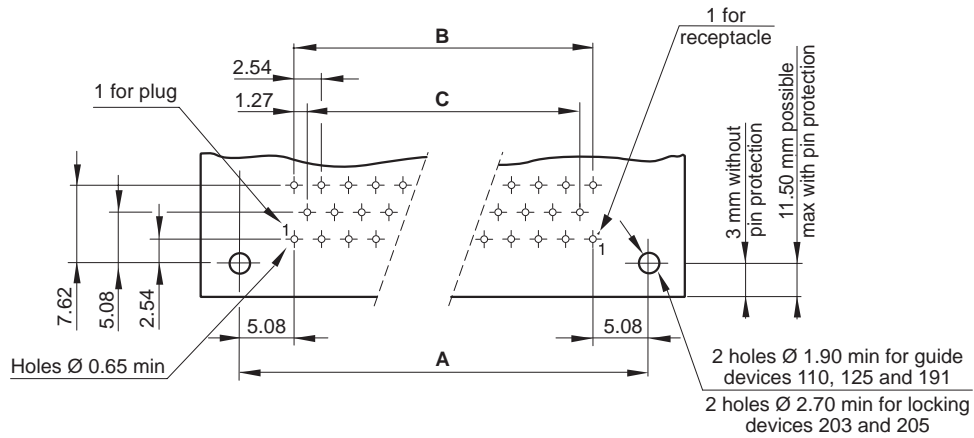
No. of contacts	26	44	62	80	98	144	162
A	30.48	45.72	60.96	76.20	91.44	137.16	152.40
B	20.32	35.56	50.80	66.04	81.28	58.42	66.04
C	17.78	33.02	48.26	63.50	78.74	-	-

▶ BOARD PREPARATION DETAILS

ONE PART (moulding A)

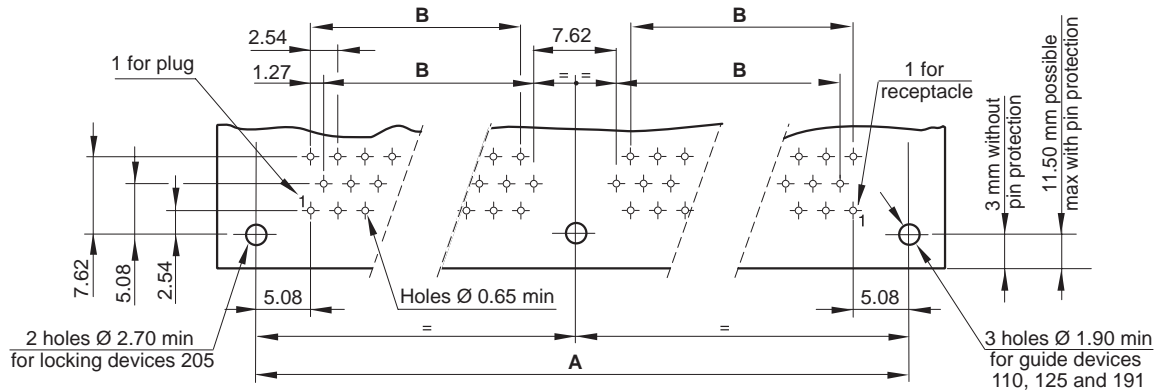
DAUGHTER BOARD

26 TO 98 CONTACTS



Male, plug or receptacle, 90° termination  
Guide styles: 110 - 125 - 191 - 203 - 205

144 TO 162 CONTACTS



Male, plug or receptacle, 90° termination  
Guide styles: 110 - 125 - 191 - 205

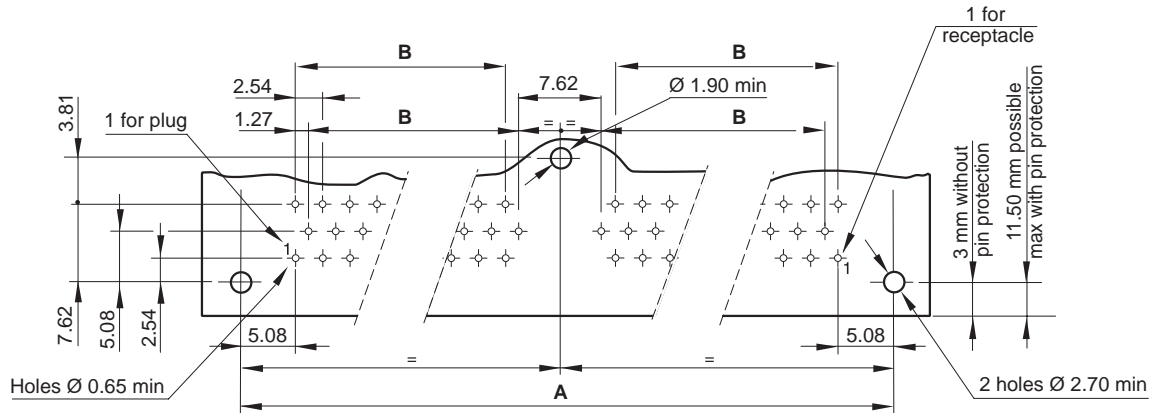
No. of contacts	26	44	62	80	98	144	162
A	30.48	45.72	60.96	76.20	91.44	137.16	152.40
B	20.32	35.56	50.80	66.04	81.28	58.42	66.04
C	17.78	33.02	48.26	63.50	78.74	-	-

▶ BOARD PREPARATION DETAILS

ONE PART (moulding A)

DAUGHTER BOARD

144 TO 162 CONTACTS



Male, plug or receptacle, 90° termination  
Locking styles: 203

No. of contacts	26	44	62	80	98	144	162
<b>A</b>	30.48	45.72	60.96	76.20	91.44	137.16	152.40
<b>B</b>	20.32	35.56	50.80	66.04	81.28	58.42	66.04
<b>C</b>	17.78	33.02	48.26	63.50	78.74	–	–

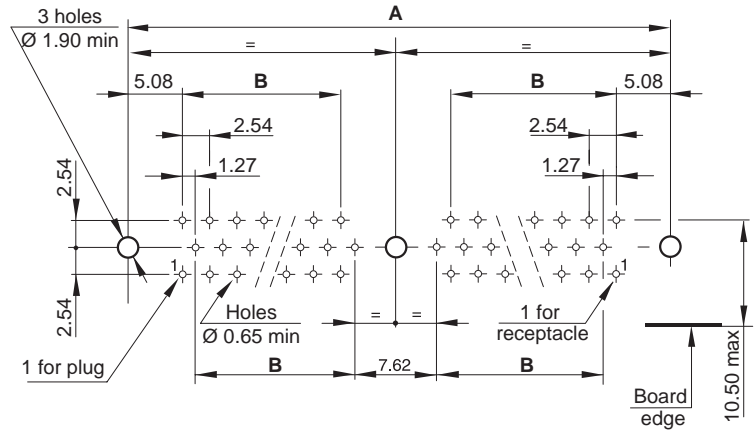
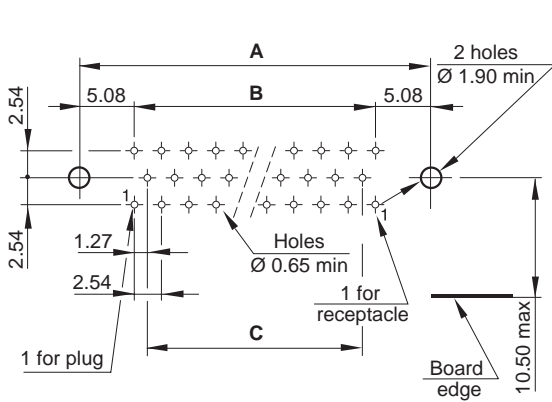
▶ PANEL PREPARATION DETAILS

TWO PARTS (moulding B)

26 TO 98 CONTACTS

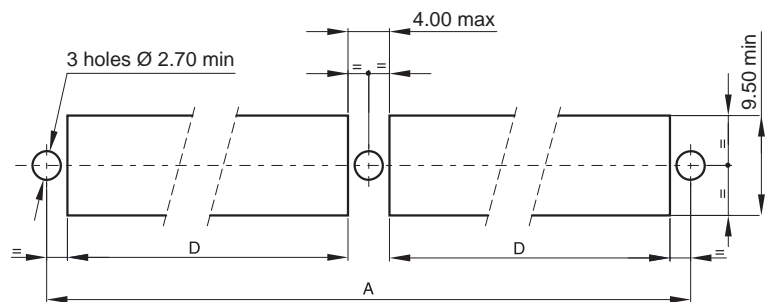
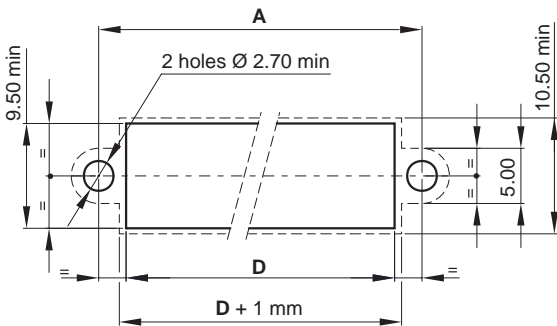
144 TO 162 CONTACTS

MOTHER BOARD



Plug or receptacle, 90° termination  
Guide styles: 153 - 154 - 155 - 156

DAUGHTER BOARD



Female or male, plug or receptacle, 90° termination 40 - 50 - 51  
Guide styles: 111 - 112 - 121 - 127 - 130 - 143 - 190 - (Fixed Mount)  
Guide styles: 113 - 123 - 128 - (Float Mount)  
Locking Styles: 202 - 207

No. of contacts	26	44	62	80	98	144	162
A	30.48	45.72	60.96	76.20	91.44	137.16	152.40
B	20.32	35.56	50.80	66.04	81.28	58.42	66.04
C	17.78	33.02	48.26	63.50	78.74	-	-
D	25.90	41.20	56.40	71.60	86.90	63.60	71.60