

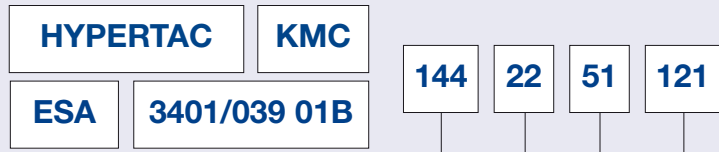
High Density PCB Connectors ESA/ESCC 3401/039 NF C-UTE C 93-424

- Equipped with 0.50mm contacts
- High density interconnection
- Up to 162 signal contacts / 3 rows
- 1.905mm between rows
- 1.27 mm between contacts quincuncial
- Low contact insertion
- Low contact resistance
- Polarization by guiding or locking devices
- 5000 mating and unmating cycles

Technical Characteristics

MATERIALS		
Moulding	Glass fiber filled diallyl - phtalate	
Contacts	Brass or bronze	
Guides - coding styles - screws	Stainless steel or nickel plated brass or ARCAP	
PLATING	Standard	ESA
Pin	0.25µm Gold/1.27µm Ni	1.27µm Gold/1.27µm Ni (min)
Socket body	0.25µm Gold/1.27µm Ni on activ area 1.27µm Ni on non activ area	0.25µm Gold/1.27µm Ni (min)
Socket wires	1µm Gold/0.20µm Ni	1.27µm Gold/0.20µm Ni (min)
Guides (brass)	Ni	Ni
DIELECTRIC WITHSTANDING VOLTAGE	800Vrms	
CURRENT RATING (at 25 °C)	3A Max (25°C)	
INSULATION RESISTANCE	> 10 ⁴ MΩ (500Vcc)	
CONTACT RESISTANCE	≤ 8mΩ	
TEMPERATURE RANGE	-55°C, +125°C	
CONTACTS	HYPERTAC® type Ø 0.50mm	
PITCH	1.905mm between rows 1.27mm between quincuncial contacts	
GUIDING	By two outside guides (2 guiding styles) and one central guide (3 guiding styles)	
KEYING	By rotating of outside polarised guides (Up to 16 keyings)	
MASS & POWER CONTACTS	HYPERTAC® type can be used instead of outside guides	

Ordering Information



SERIES

NUMBER OF CONTACTS

026 044 062 080 098 144 162

MOULDING POLARITY

NF C-UTE C 93-424			NF C-UTE C 93-424				
Ⓢ ESA/ESCC 3401/03901B			Ⓢ ESA/ESCC 3401/03901B				
SPACE GRADE			SPACE GRADE				
12	54	54	Female plug	22	44	44	Female receptacle
13	55	55	Male plug	23	45	45	Male receptacle
16	-	56	Tinned female plug*	26	-	46	Tinned female receptacle*
17	-	57	Tinned male plug*	27	-	47	Tinned male receptacle*
1A	-	-	Tinned female plug**	2A	-	-	Tinned female receptacle**
1B	-	-	Tinned male plug**	2B	-	-	Tinned male receptacle**

* For 90° & straight terminations (splicing on PCB)

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

TERMINATION STYLES

Ⓢ 10	90° length 3mm ("A" or "B" moulding)	Ⓢ 40	Solder bucket
11	90° length 4mm ("A" moulding)	Ⓢ 50	Wire wrap (2 wrapping levels)
13	90° length 5.5mm ("B" moulding)	Ⓢ 51	Wire wrap (3 wrapping levels)
Ⓢ 30	Through board solder - straight - length 4.5mm	90	Male - male
Ⓢ 31	Through board solder - straight - length 5.6mm	Ⓢ 91	Female - male

MOUNTING HARDWARE

GUIDE STYLES (see p. 44-46) - (Consult us for special guides)

Ⓢ 110	Male polarised, transverse mount ⁽¹⁾	133	Female unpolarised, transverse mount ⁽²⁾
111	Male polarised, vertical mount ⁽²⁾	Ⓢ 143	Female polarised, vertical mount ⁽²⁾
112	Male polarised, vertical mount ⁽²⁾	153	Female unpolarised, transverse mount ⁽²⁾
113	Male polarised, float mount ⁽²⁾	154	Female polarised, transverse mount ⁽²⁾
Ⓢ 121	Female polarised, vertical mount ⁽²⁾	155	Male unpolarised, transverse mount ⁽²⁾
123	Female polarised, float mount ⁽²⁾	156	Male unpolarised, transverse mount ⁽²⁾
124	Female polarised, transverse mount ⁽²⁾	173	Female unpolarised, transverse mount ⁽¹⁾
125	Male unpolarised, transverse mount ⁽¹⁾	174	Female polarised, transverse mount ⁽¹⁾
127	Male unpolarised, vertical mount ⁽²⁾	190	Female power or mass contact, vertical mount ⁽²⁾
128	Male unpolarised, float mount ⁽²⁾	191	Male power or mass contact, transverse mount ⁽¹⁾
130	Female unpolarised, vertical mount ⁽²⁾	Ⓢ 703	Female - male unpolarised guide ⁽²⁾

LOCKING STYLES (see p. 48)

Female

Ⓢ 202	Jackscrew, vertical mount ⁽²⁾	Ⓢ 201	Jackscrew, free connector ⁽²⁾
203	Jackscrew, transverse mount ⁽¹⁾	205	Jackscrew, transverse mount ⁽¹⁾
Ⓢ 204	Jackscrew, transverse mount ⁽²⁾	Ⓢ 206	Jackscrew, free connector ⁽²⁾
207	Jackscrew, vertical mount ⁽²⁾		

Male

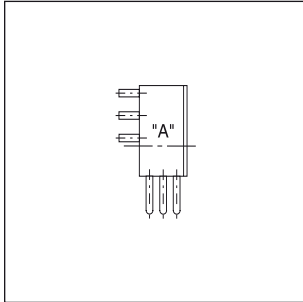
(1): "A" moulding - (2): "B" moulding

Moulding Styles

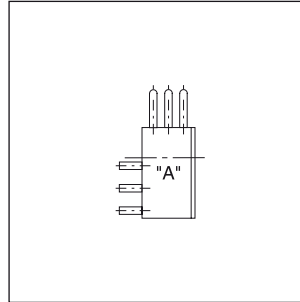
Plugs

Receptacles

One part moulding "A"

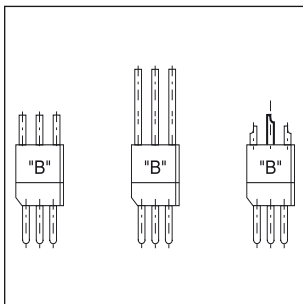


Fitted with male contacts
 ■ 90° through board solder

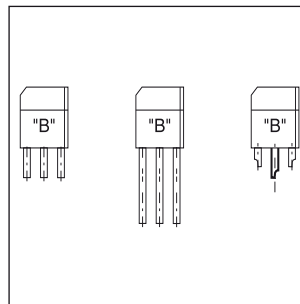


Fitted with male contacts
 ■ 90° through board solder
 (same design as the "A" plug type but printed as receptacle)

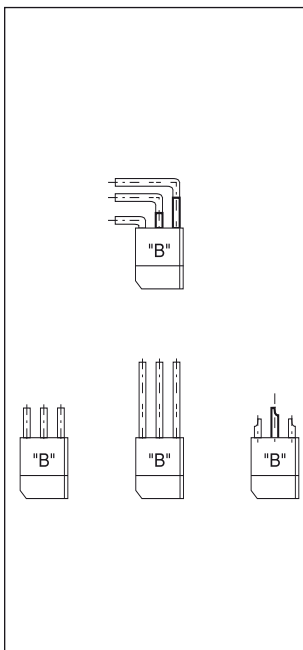
Two parts moulding "B"



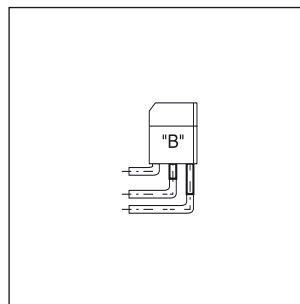
Fitted with male contacts (pins)
 ■ straight through board solder
 ■ wire wrap type
 (2 and 3 wrapping levels)
 ■ solder bucket



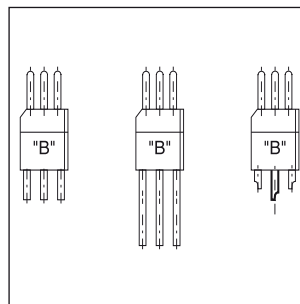
Fitted with female contacts
 ■ straight through board solder
 ■ wire wrap type
 (2 and 3 wrapping levels)
 ■ solder bucket
 (same design as the "B" plug type but printed as receptacle)



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
 ■ straight through board solder
 ■ wire wrap type
 (2 and 3 wrapping levels)
 ■ solder bucket



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 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

Plugs

Receptacles

Male

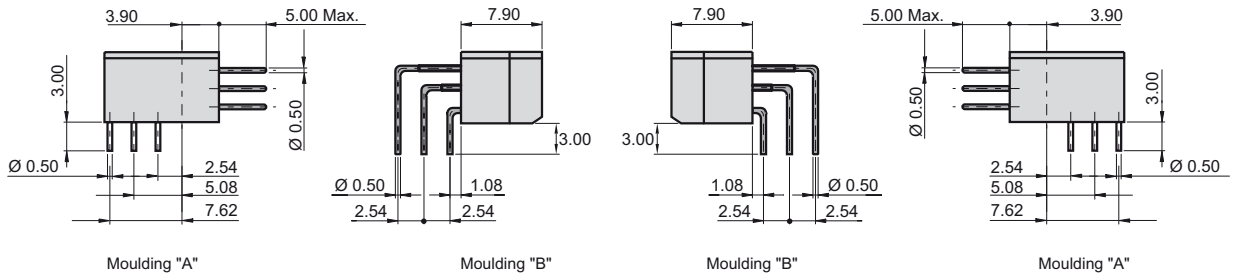
Female

Female

Male

90° through board solder

Ref: **10**
Ref ©: **10**



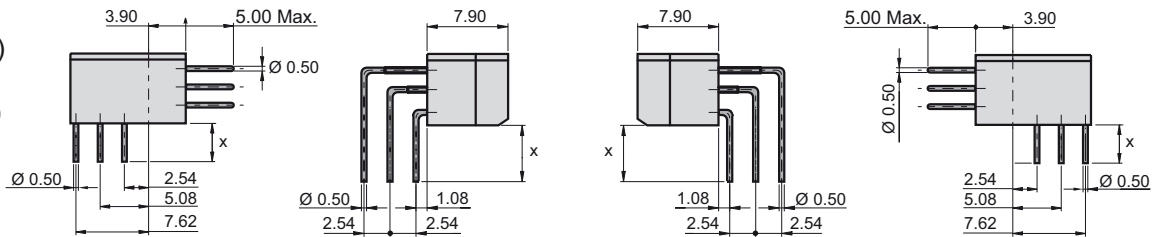
90° through board solder

Moulding A

Ref: **11** (X= 4.00)

Moulding B

Ref: **13** (X= 5.50)



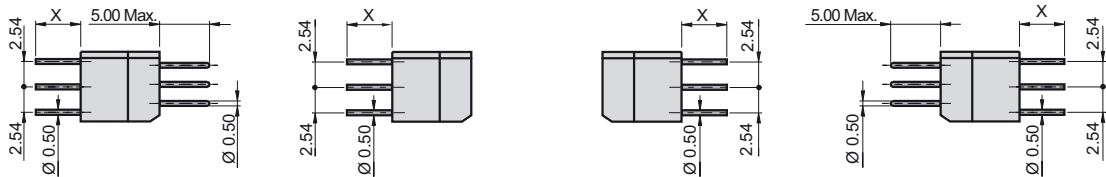
Straight through board solder

Ref: **30** (X= 4.50)

Ref ©: **30**

Ref: **31** (X= 5.60)

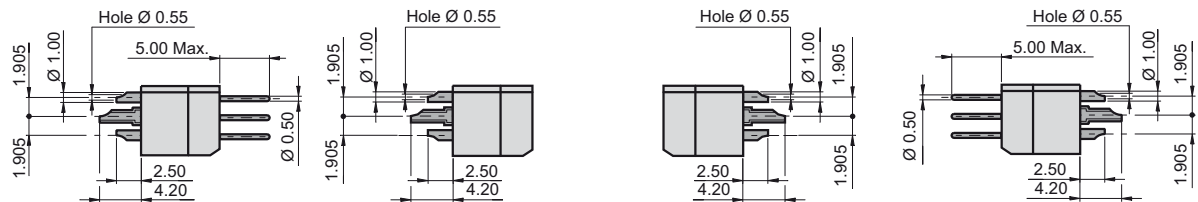
Ref ©: **31**



Solder bucket (AWG 26 Max.)

Ref: **40**

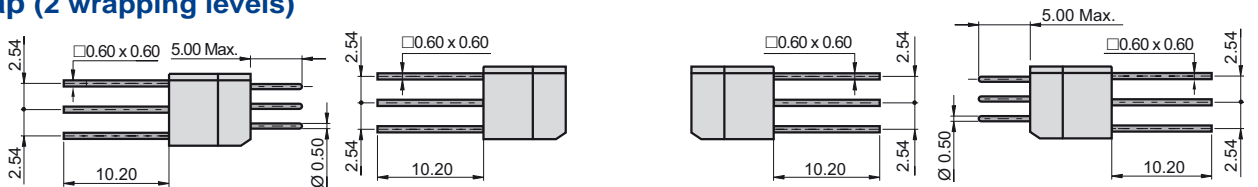
Ref ©: **40**



Wire wrap (2 wrapping levels)

Ref: **50**

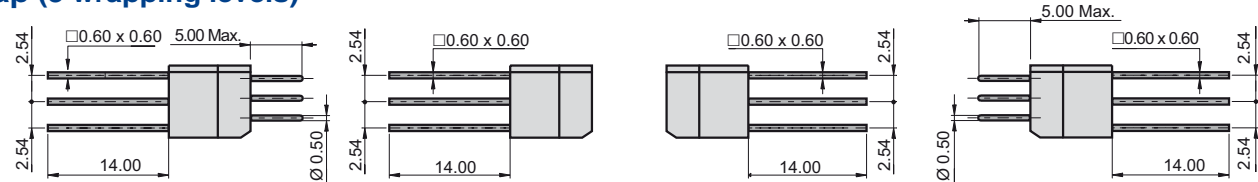
Ref ©: **50**



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 terminations

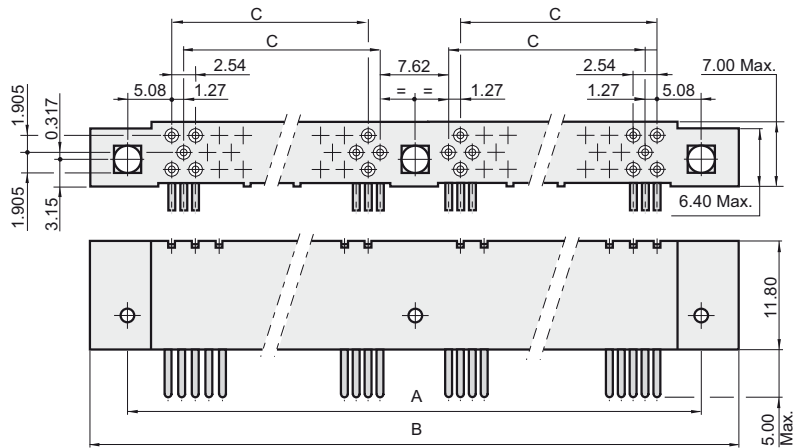
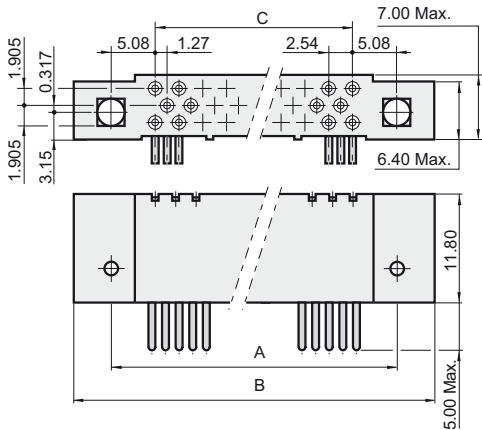
Dimensions

26 to 98 Contacts

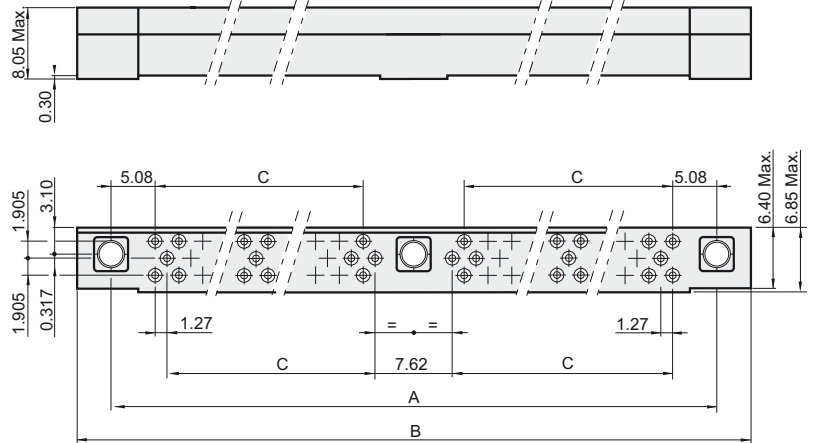
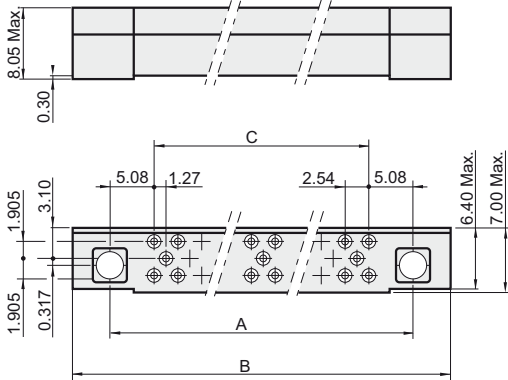
144 to 162 Contacts

One part moulding "A"

 90° male plugs **KMC ... 13 10 ...**

 90° male receptacles **KMC ... 23 10 ...**

Two parts moulding "B"

 Female or male receptacles **KMC ... 2. ...**

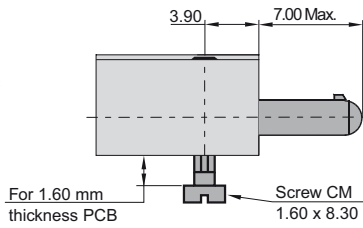
 Female or male plugs **KMC ... 1. ...**


Nb. 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 Max.	38.50	53.70	69	84.20	99.50	145.20	160.40
C	20.32	35.56	50.80	66.04	81.28	58.42	66.04

Male Guide Styles

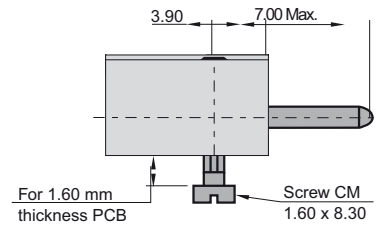
Polarised transverse mount (moulding A)

Ref: 110 { to use for Hypertac & }



Unpolarised transverse mount (moulding A) central guide (KMC 144-162)

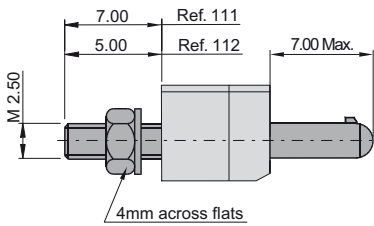
Ref: 110 { to use for Hypertac & }



Polarised vertical mount (moulding B)

Ref: 111

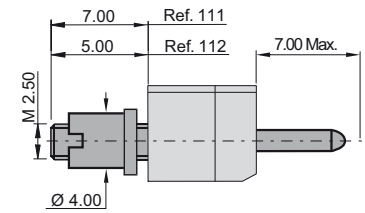
Ref: 112



Unpolarised vertical mount (moulding B) central guide (KMC 144-162)

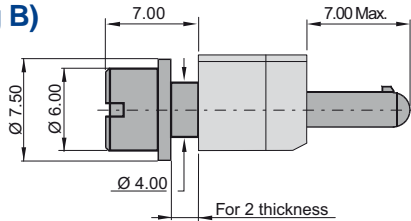
Ref: 111

Ref: 112



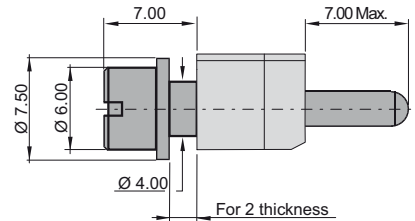
Polarised vertical float mount (moulding B)

Ref: 113



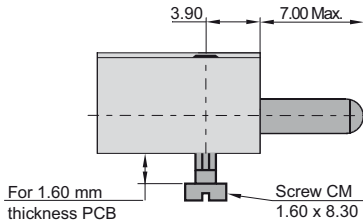
Unpolarised vertical float mount (moulding B)

Ref: 128



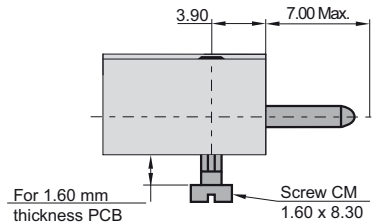
Unpolarised transverse mount (moulding A)

Ref: 125



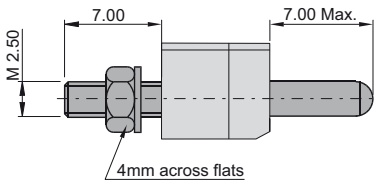
Unpolarised transverse mount (moulding A) central guide (KMC 144-162)

Ref: 125



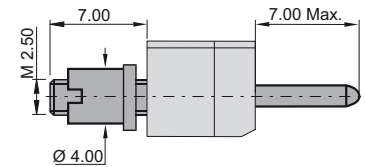
Unpolarised vertical mount (moulding B)

Ref: 127



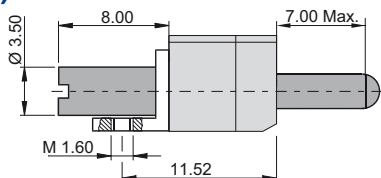
Unpolarised vertical mount (moulding B) central guide (KMC 144-162)

Ref: 127



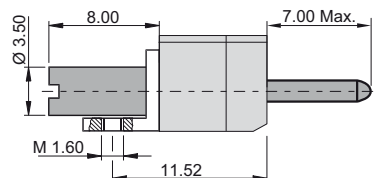
Unpolarised transverse mount (moulding B)

Ref: 155



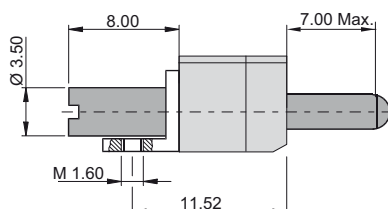
Unpolarised transverse mount (moulding B) central guide (KMC 144-162)

Ref: 155



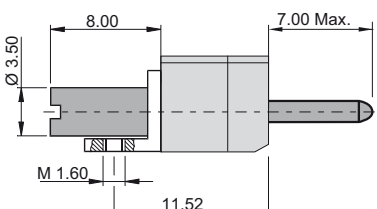
Unpolarised transverse mount (moulding B)

Ref: 156



Unpolarised transverse mount (moulding B) central guide (KMC 144-162)

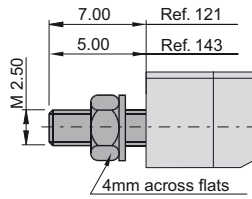
Ref: 156



Female Guide Styles

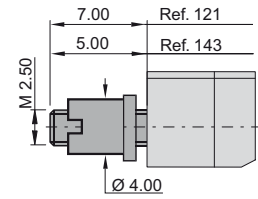
Polarised vertical mount (moulding B)

Ref: 121 } to use for Hypertac & ©
Ref: 143 }



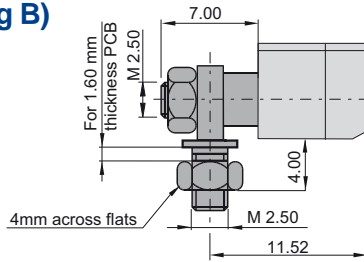
Unpolarised vertical mount (moulding B) central guide (KMC 144-162)

Ref: 121 } to use for Hypertac & ©
Ref: 143 }



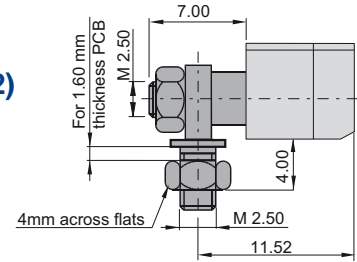
Polarised transverse mount (moulding B)

Ref: 124



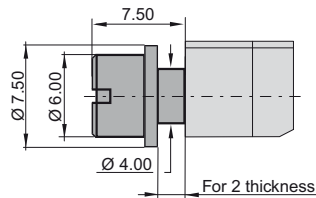
Unpolarised transverse mount (moulding B) central guide (KMC 144-162)

Ref: 124



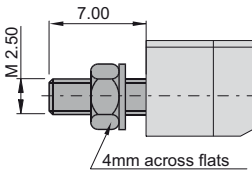
Polarised vertical float mount (moulding B)

Ref: 123



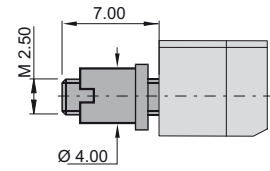
All keying types (moulding B)

Ref: 130



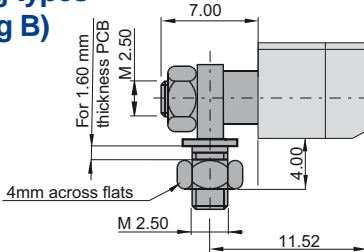
All keying types (moulding B) central guide (KMC 144-162)

Ref: 130



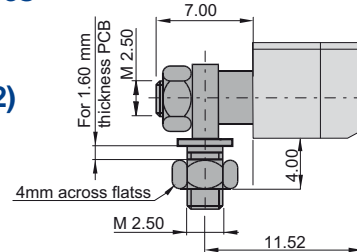
All keying types (moulding B)

Ref: 133



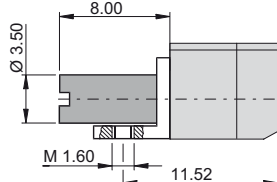
All keying types (moulding B) central guide (KMC 144-162)

Ref: 133



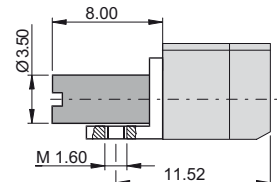
All keying types (moulding B)

Ref: 153



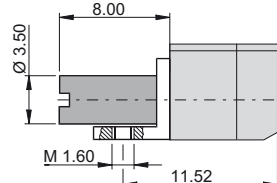
All keying types (moulding B) central guide (KMC 144-162)

Ref: 153



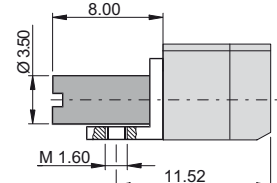
Polarised transverse mount (moulding B)

Ref: 154



Unpolarised transverse mount (moulding B) central guide

Ref: 154



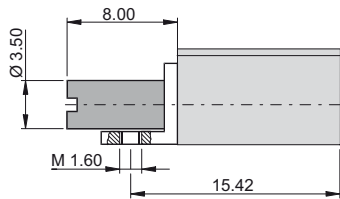
Dimensions are in mm

Guide Styles

Female

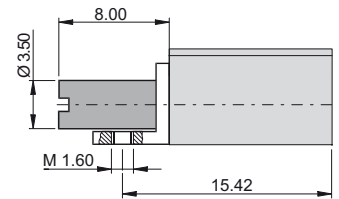
Unpolarised transverse mount (moulding A)

Ref: 173



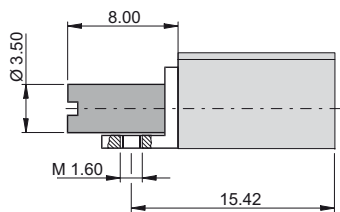
Unpolarised transverse mount (moulding A) central guide (KMC 144-162)

Ref: 173



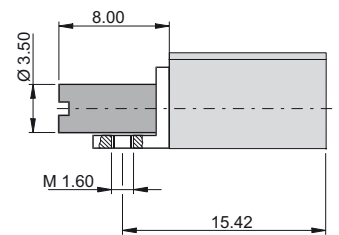
Polarised transverse mount (moulding A)

Ref: 174



Unpolarised transverse mount (moulding A) central guide (KMC 144-162)

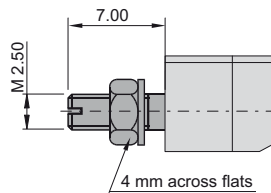
Ref: 174



Female

Mass and power contact (moulding B)

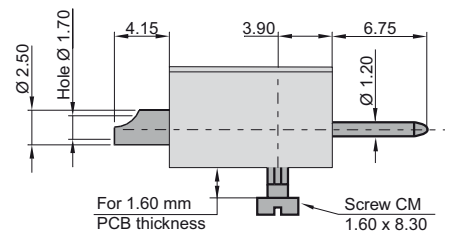
Ref: 190



Male

Mass and power contact (moulding A)

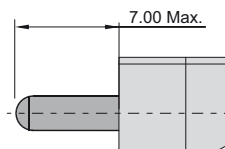
Ref: 190



Female - Male

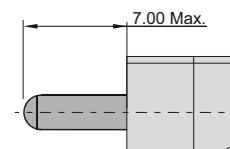
Unpolarised transverse mount (moulding B)

Ref: 703 { to use for Hypertac & Ⓢ



Unpolarised transverse mount (moulding B) central guide (KMC 144-162)

Ref: 703 { to use for Hypertac & Ⓢ



Locking Device Compatibility Chart

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

Compatible

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

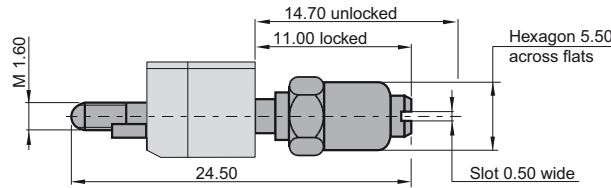
- Connector on PCB: impossibility to change the keying.
 - If you need to change the keying:
 - pierce PCB through Ø 3.70, fixing devices
 - use 054826.000R shouldered washer
- } (for 202 and 207)

Locking Styles

Male

Jackscrew, free connector (moulding B)

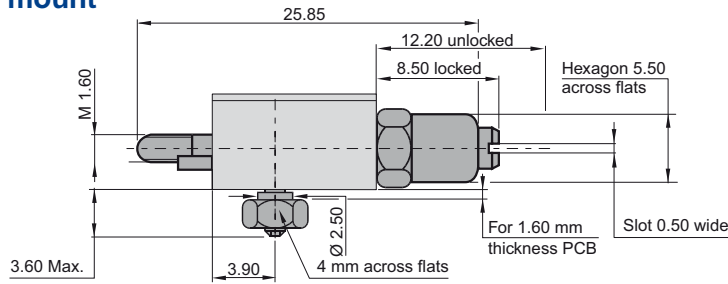
Ref: 201 { to use for Hypertac & Ⓢ



For KMC 144-162 the supplied central guide is ref 111

Jackscrew, transverse mount (moulding A)

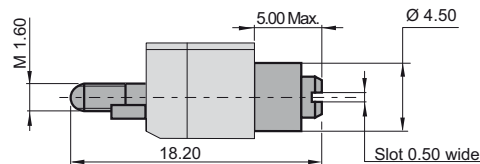
Ref: 205



For KMC 144-162 the supplied central guide is ref 110

Jackscrew, free connector (moulding B)

Ref: 206 { to use for Hypertac & Ⓢ



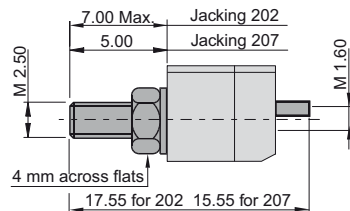
For KMC 144-162 the supplied central guide is ref 112

Female

Non rotating jackscrew, vertical mount (moulding B)

Ref: 202 { to use for Hypertac & Ⓢ

Ref: 207

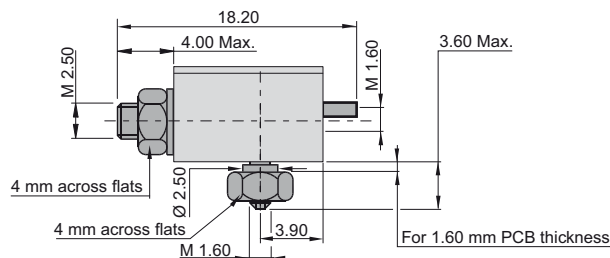


For KMC 144-162 jackscrew 202 the supplied central guide is ref 121

jackscrew 207 the supplied central guide is ref 143

Non rotating jackscrew, transverse mount (moulding A)

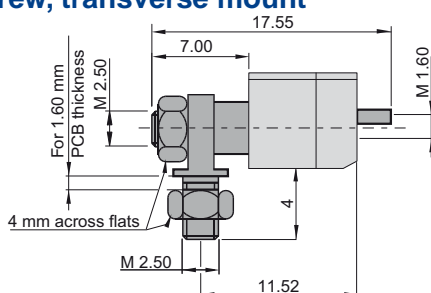
Ref: 203



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

Non rotating jackscrew, transverse mount (moulding B)

Ref: 204 { to use for Hypertac & Ⓢ



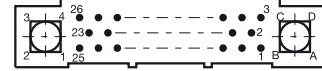
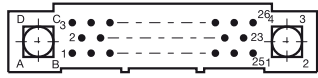
For KMC 144-162 the supplied central guide is ref 111

**Mating Side Layout View
Moulding A**

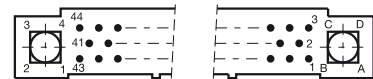
Plugs

Receptacles

026



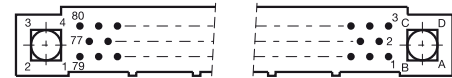
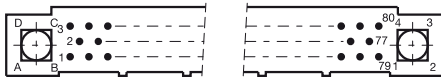
044



062



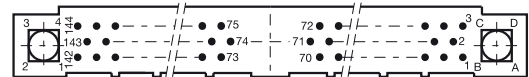
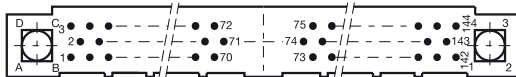
080



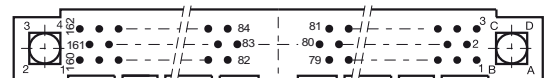
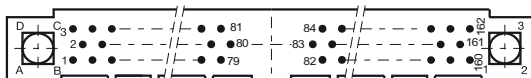
098



144



162

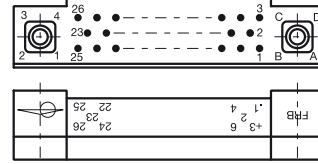
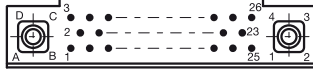


Mating Side Layout View Moulding B

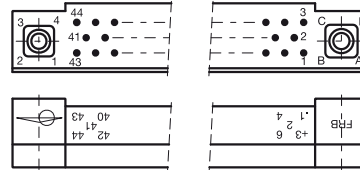
Plugs

Receptacles

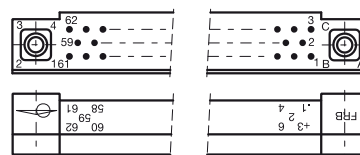
026



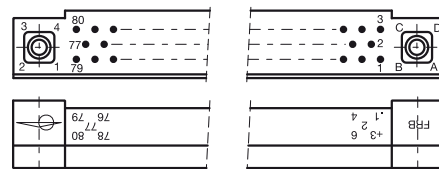
044



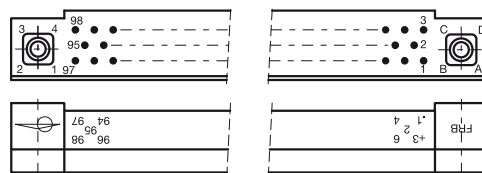
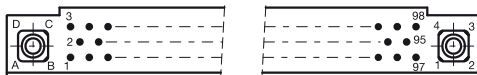
062



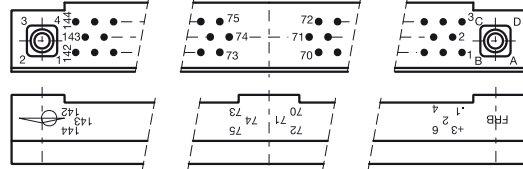
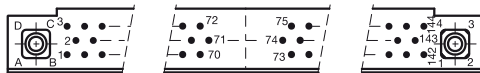
080



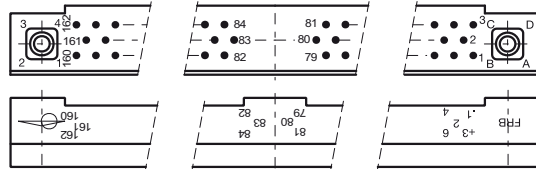
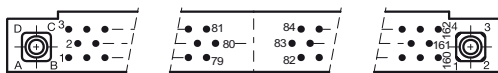
098



144



162

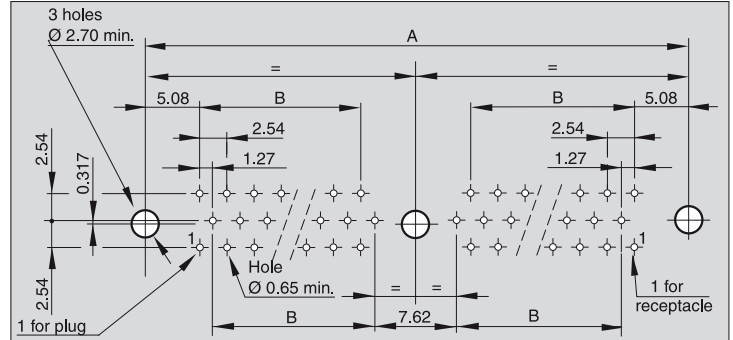
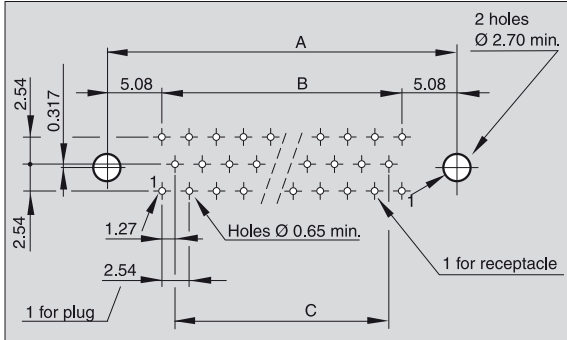


Board Preparation Details
Two parts moulding "B"

26 to 98 Contacts

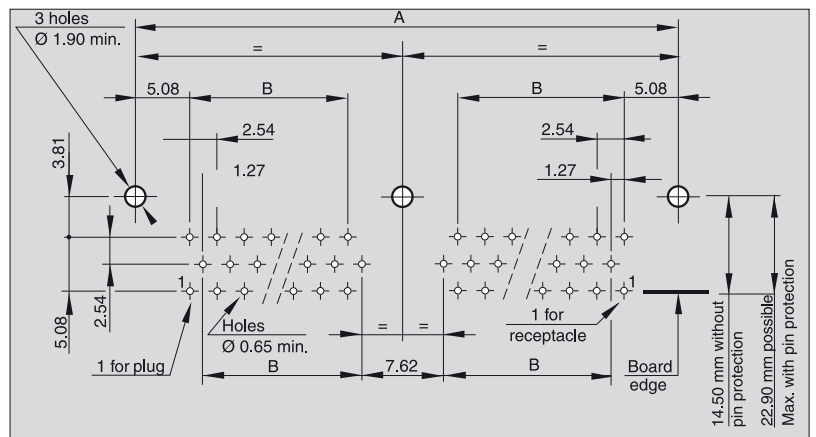
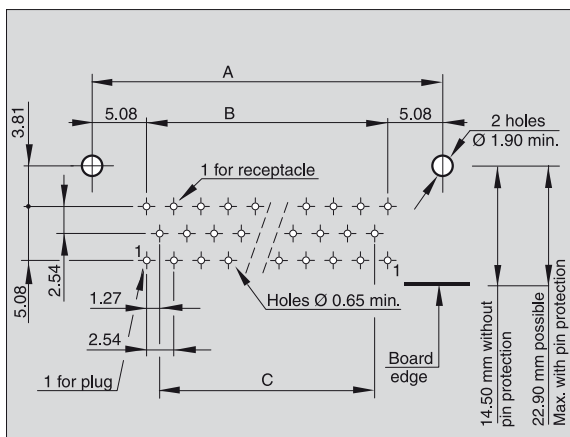
144 to 162 Contacts

Mother Board

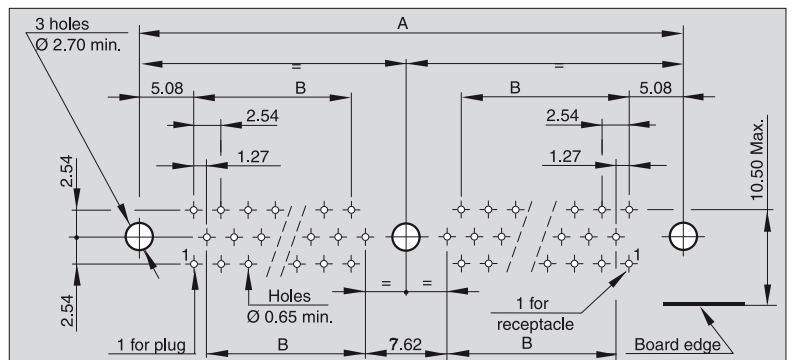
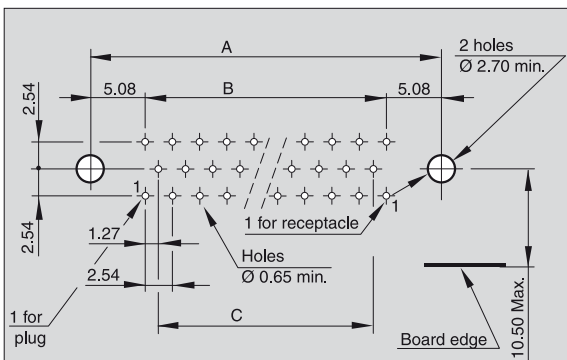


Female or Male, plugs or receptacles, straight solder terminations 30 or 31 -
Guide Styles: 111 - 112 - 121 - 127 - 130 - 143 - 190

Daughter Board



Female or Male, plugs or receptacles 90° terminations - Guide Styles: 153 - 154 - 155 - 156



Female or Male, plugs or receptacles 90° terminations - Guide Styles: 124 - 133

Nb. 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	-	-

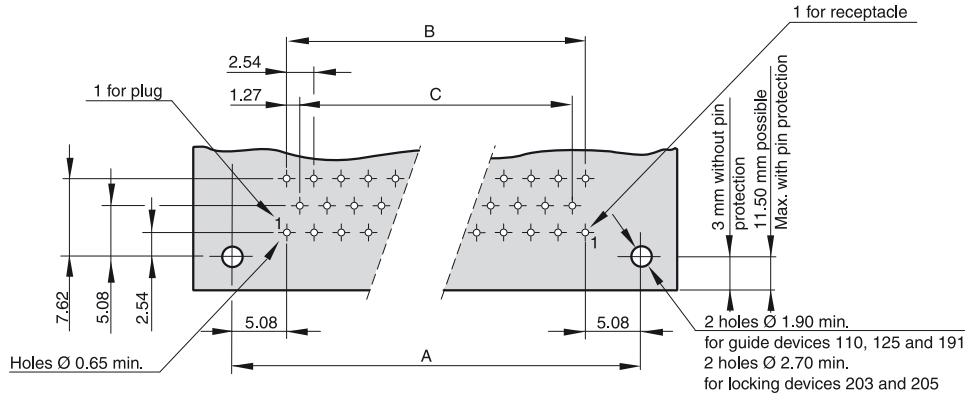
Dimensions are in mm

Board Preparation Details

One part moulding "A"

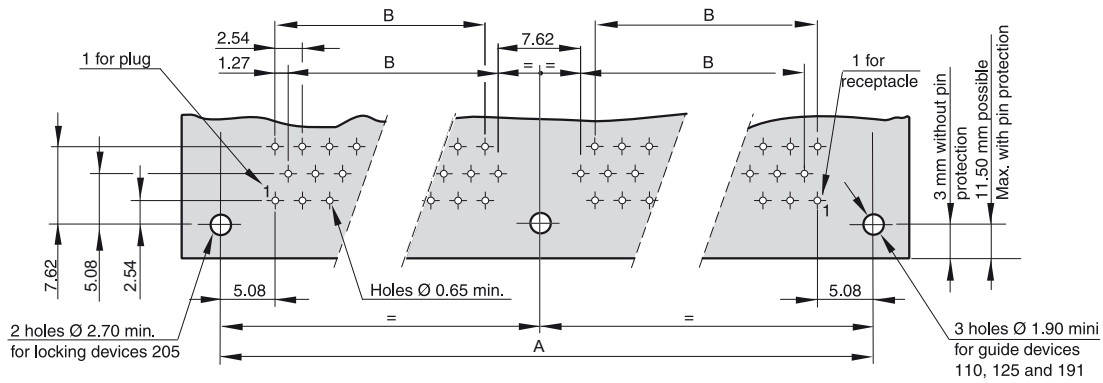
Daughter Board

26 to 98 Contacts

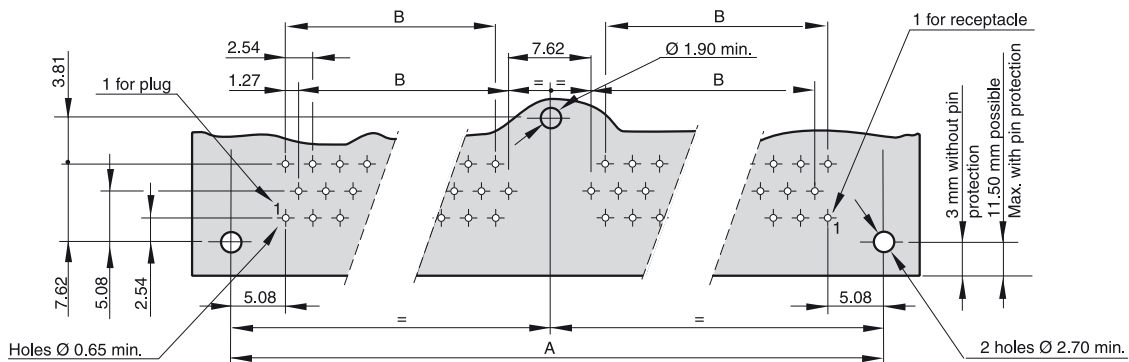


Male plugs or receptacles 90° terminations - Guide Styles: 110 - 125 - 191 - 203 - 205

144 to 162 Contacts



Male plugs or receptacles 90° terminations - Guide Styles: 110 - 125 - 191 - 205



Male plugs or receptacles 90° terminations - Locking Styles: 203

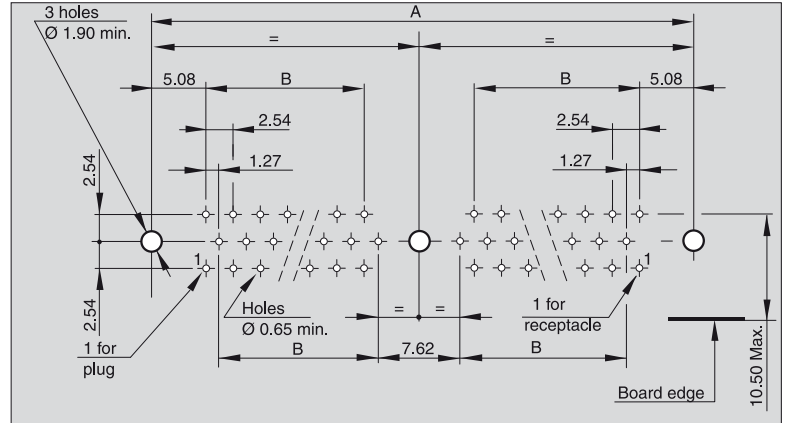
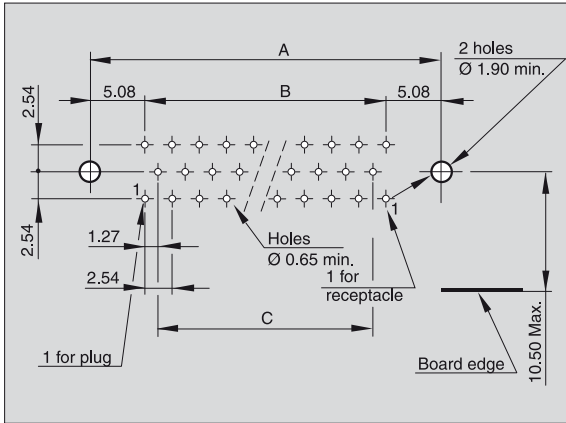
Nb. of contacts	26	44	62	80	98	144	162
A	30.48	45.72	60.96	76.20	91.44	137.16	152.40
B	20.32	35.56	50.80	66.04	81.28	58.42	66.04
C	17.78	33.02	48.26	63.50	78.74	-	-

Panel Preparation Details
Two parts moulding "B"

26 to 98 Contacts

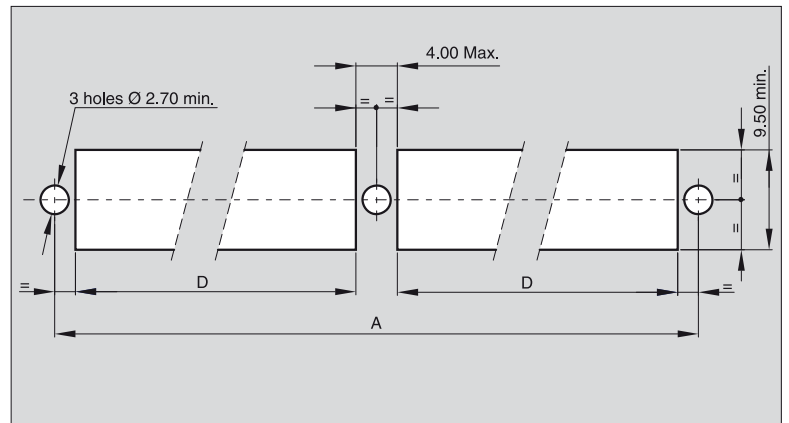
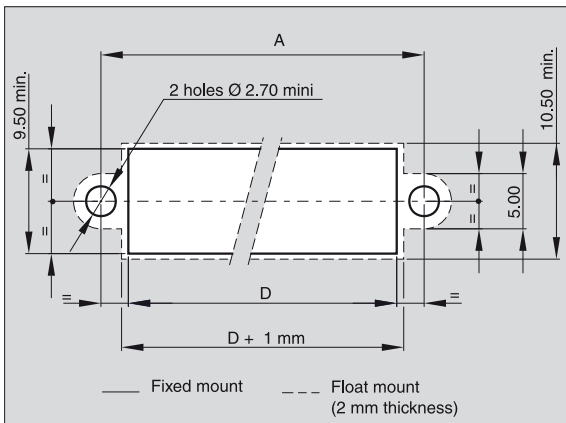
144 to 162 Contacts

Mother Board



Plugs or Receptacles 90° terminations - Guide Styles: 153 - 154 - 155 - 156

Daughter Board



Female or Male, plugs or receptacles 90° terminations 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

Nb. 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