

2 & 3 Contact Row Signal Connectors

Product description

Standard-density signal PCB connector
(2,54 mm x 2,54 mm pitch)

Approvals

BS 9525 N0001, Mil-C-55302 & ESA SCC 3401

Features

- Large number of pin count options
- Large number of termination options
- Large number of guide options
- High reliability contacts

Advantages

Versatile range covering Cardfile, Stacking and Flying-lead applications

Markets

Mil/Aero Space, Marine, Rail & Industrial

Technical Characteristics

Contact Number	17, 29, 33, 41, 48, 53, 62, 65, 72, 80, 84, 96, 98, 119, 120, 149 & 160
Contact Diameter	0,60 mm
Current Rating	4 A
Contact Resistance	7 Milli-Ohm (max)
Contact mating force	0,28 N (average)
Contact Life Cycle	> 2000
Breakdown Voltage Between Contacts	1920 V AC (min) [sea level]
Dielectric Withstanding Voltage	1400 V AC (min) [sea level]
Temperature Rating	-55 to +125 Degree C
Insulation Resistance	5 Gigo-Ohm @ 500 V DC (min)
Insulator Material	DAP
Contact - Material - Plating (Mating surfaces)	Copper alloy 1,27 micro-metres Gold Plate (min)
Guide Hardware - Material - Plating	Stainless steel BS 303 Passivated
Plating Reference	N/A

The following unshrouded sizes are qualified to:

MIL-C-55302/159 and 162 17, 29, 41, 53 and 65 position

MIL-C-55302/160 and 163 72, 84, 96 and 120 position

MIL-C-55302/161 and 164 160 position

BS 9525 N0001/1982 17, 29, 33, 41, 53, 65, 72, 84, 96 and 120 position

BS 9525 F0041/1989 17, 29, 33, 41, 53, 65, 72, 84, and 96 position

Incorporates BS 9525 N0001 testing but includes Gunfire vibration test.

BS 9525 F0053/1995 Additional specification to BS 9525 N0001 with extra terminations.

BS 9525-F-0016/1995 48, 62, 80, 98, 119, 149 and 160 (Solid insulator) position

The following shrouded sizes are qualified to:

BS 9525-F-0016/1995 48, 98, 119 and 160 position

Space qualification: ESA/SCC 5401/016/017

HPD connectors summary

Number of Positions	Overall Length mm	Contact Rating at s.t.p. Amps	Number of Contact Rows	Contact Pitch mm	Contact Pin Diameter mm	Connector Prefix	Shrouded/ Unshrouded
17	38.50	4.0	2	2.54	0.6	HPD	Unshrouded
29	53.70	4.0	2	2.54	0.6	HPD	Unshrouded
33	58.80	4.0	2	2.54	0.6	HPD	Unshrouded
33	62.70	4.0	2	2.54	0.6	HPP	Shrouded
41	69.00	4.0	2	2.54	0.6	HPD	Unshrouded
41	72.90	4.0	2	2.54	0.6	HPP	Shrouded
48	58.30	4.0	3	2.54	0.6	HPF	Unshrouded
48	61.00	4.0	3	2.54	0.6	HPM	Shrouded
53	84.20	4.0	2	2.54	0.6	HPD	Unshrouded
53	88.10	4.0	2	2.54	0.6	HPP	Shrouded
62	69.00	4.0	3	2.54	0.6	HPF	Unshrouded
65	99.50	4.0	3	2.54	0.6	HPD	Unshrouded
65	103.12	4.0	2	2.54	0.6	HPP	Shrouded
72	114.70	4.0	2	2.54	0.6	HPD	Unshrouded
80	84.20	4.0	3	2.54	0.6	HPF	Unshrouded
84	129.60	4.0	2	2.54	0.6	HPD	Unshrouded
96	145.20	4.0	2	2.54	0.6	HPD	Unshrouded
96	148.82	4.0	2	2.54	0.6	HPP	Shrouded
98	99.50	4.0	3	2.54	0.6	HPF	Unshrouded
119	117.26	4.0	3	2.54	0.6	HPF	Unshrouded
120	175.50	4.0	2	2.54	0.6	HPD	Unshrouded
120	161.40	4.0	2	2.54	0.6	HPP	Shrouded
149	142.55	4.0	3	2.54	0.6	HPF	Unshrouded
160	158.00	4.0	3	2.54	0.6	HPF	Unshrouded
160	161.30	4.0	3	2.54	0.6	HPM	Shrouded

HPD connectors summary

Hypertac offers a wide range of termination and guide styles. A 'Preferred Options' list, as illustrated below, has been prepared. These options utilise the more common piece parts and selections have been made from across the range. To benefit from standard price/lead time reductions a connector must be assembled from parts within the Preferred Listings.

TERMINATION STYLES

(see HPD contact termination and codes for further details)

Term Type	Part No.		Description
B	HPD-488-7	MALE 1st ROW	THROUGH BOARD SOLDER-90 DEGREE
B	HPD-489-7	MALE 2nd ROW	THROUGH BOARD SOLDER-90 DEGREE
B	HPD-462-7	MALE 3rd ROW	THROUGH BOARD SOLDER-90 DEGREE
B	HPD-596-9	FEMALE 1st ROW	THROUGH BOARD SOLDER-90 DEGREE
B	HPD-598-9	FEMALE 2nd ROW	THROUGH BOARD SOLDER-90 DEGREE
B	HPD-599-9	FEMALE 3rd ROW	THROUGH BOARD SOLDER-90 DEGREE
C	HPD-486-7	MALE	CRIMP
C	HPD-526-9	FEMALE	CRIMP
L	HPD-685-7	MALE 1st ROW	THROUGH BOARD SOLDER-90 DEGREE
L	HPD-688-7	MALE 2nd ROW	THROUGH BOARD SOLDER-90 DEGREE
L	HPD-691-7	MALE 3rd ROW	THROUGH BOARD SOLDER-90 DEGREE
L	HPD-708-9	FEMALE 1st ROW	THROUGH BOARD SOLDER-90 DEGREE
L	HPD-712-9	FEMALE 2nd ROW	THROUGH BOARD SOLDER-90 DEGREE
L	HPD-716-9	FEMALE 3rd ROW	THROUGH BOARD SOLDER-90 DEGREE
P	HPD-487-7	MALE	THROUGH BOARD SOLDER-STRAIGHT
P	HPD-522-9	FEMALE	THROUGH BOARD SOLDER-STRAIGHT

GUIDE STYLES

(see dedicated chapters for further details)

Style	Style	Style	Style	Style	Style
AO	HO	LB	NC	RA	VL
BO	JO	LO	NO	RO	ZO
EO	KB	LV	PO	UO	
GO	KO	NC	QO	VO	

PLATING FINISH

U-Gold Plate (ASTM-B-488)

Ordering Information

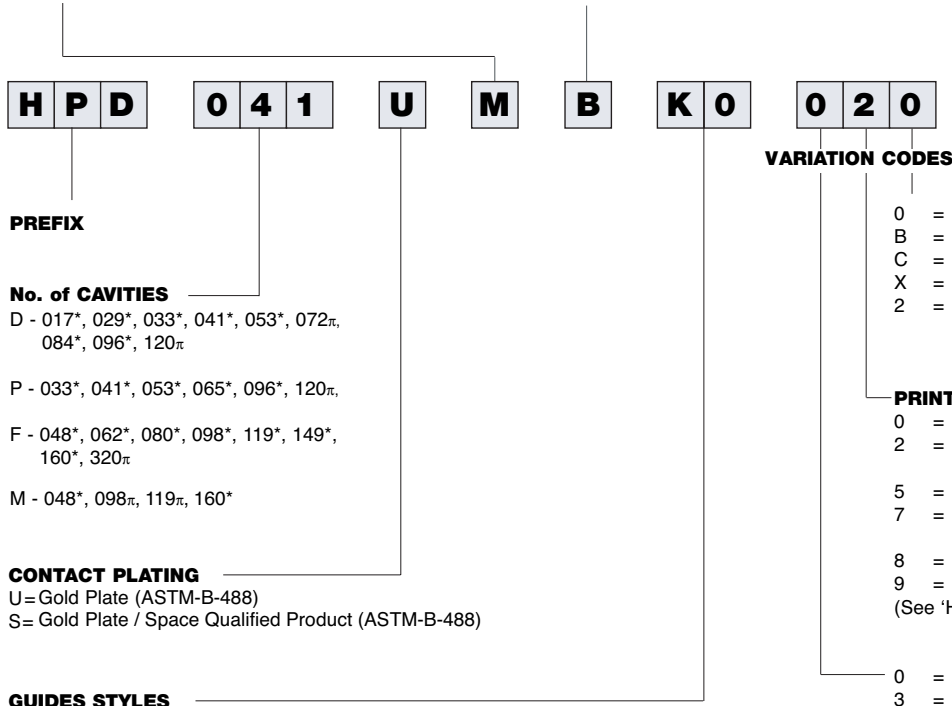
SOLID INSULATOR

CONTACT GENDER

M = Male
 F = Female
 O = Contacts not supplied
 C* = Pin Carrier - HPD & HPF only

CONTACT TERMINATION

Styles: A, B*, C*, D, F, G, L*, M, P*, Q, R, S, T, W, X*, Y, Z,
 1, 2, 3, 4, 5, and 9 (See 'HPD contact termination and codes' for details)
 or 0* - Contacts not supplied



PREFIX

No. of CAVITIES

D - 017*, 029*, 033*, 041*, 053*, 072π,
 084*, 096*, 120π
 P - 033*, 041*, 053*, 065*, 096*, 120π,
 F - 048*, 062*, 080*, 098*, 119*, 149*,
 160*, 320π
 M - 048*, 098π, 119π, 160*

CONTACT PLATING

U=Gold Plate (ASTM-B-488)
 S= Gold Plate / Space Qualified Product (ASTM-B-488)

GUIDES STYLES

(See 'HPD guide style index' and 'HPD guide styles' for details) or 00=Guides not supplied

VARIATION CODES

0 = No variations
 B = 90° termination tinned and potted
 C = 90° termination potted
 X = Termination tinned
 2 = Strengthened insulator 84 and 96 position vertical mounting only

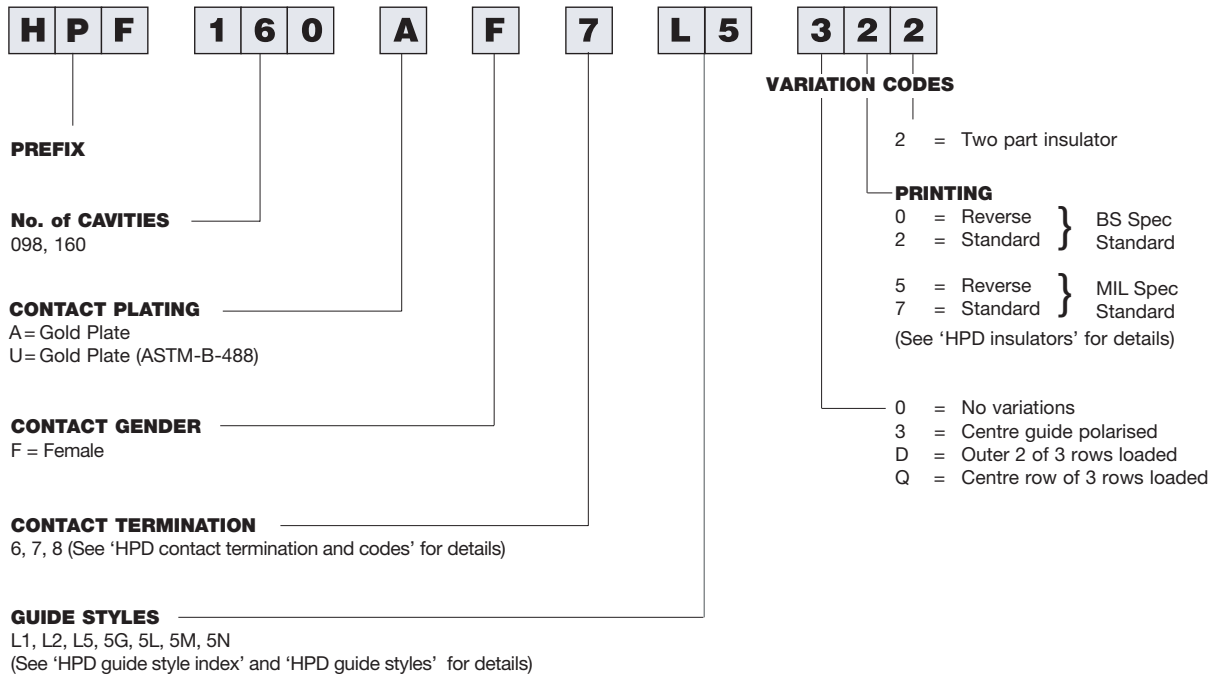
PRINTING

0 = Reverse } BS Spec
 2 = Standard } Standard
 5 = Reverse } MIL Spec
 7 = Standard } Standard
 8 = Reverse } (80 position cut
 9 = Standard } from 160 position)
 (See 'HPD insulators' for details)
 0 = No variations
 3 = Centre guide polarised
 D = Outer 2 of 3 rows loaded
 Q = Centre row of 3 rows loaded

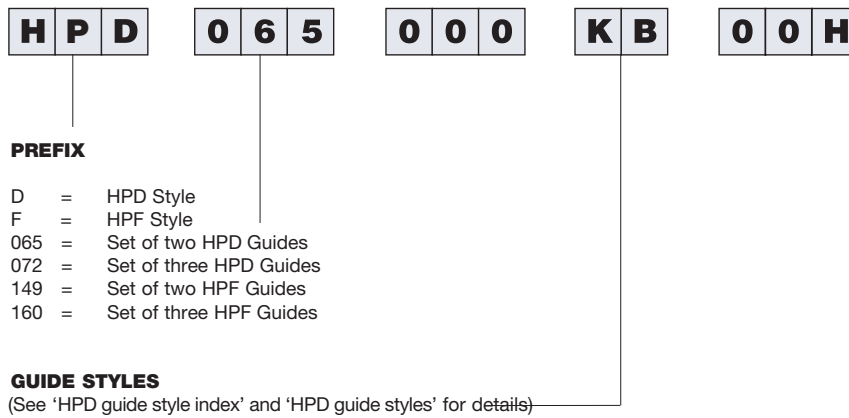
* Off the shelf π Made to order

Ordering Information

Two part insulator



If additional guides are required

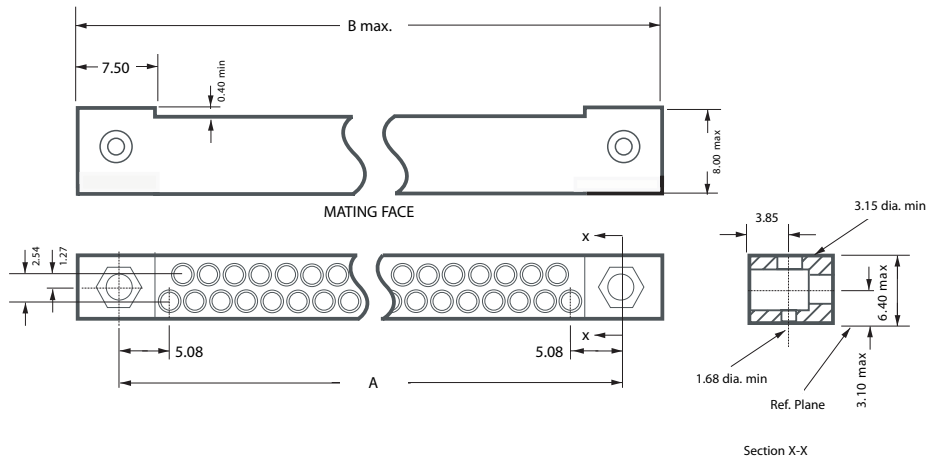


EXAMPLE GUIDE STYLES KS (MALE POLARISED) IS REQUIRED		
HPD06500KS00H	=	TWO (HPD KS) GUIDES
	<i>or</i>	
HPD072000KS00H	=	TWO (HPD KS) GUIDES + ONE (HPD AS) UNPOLARISED GUIDE.
	<i>or</i>	
HPF149000KS00H	=	TWO (HPF KS) GUIDES
	<i>or</i>	
HPF160000KS00H	=	TWO (HPF KS) GUIDES + ONE (HPF AS) UNPOLARISED GUIDE

HPD insulators

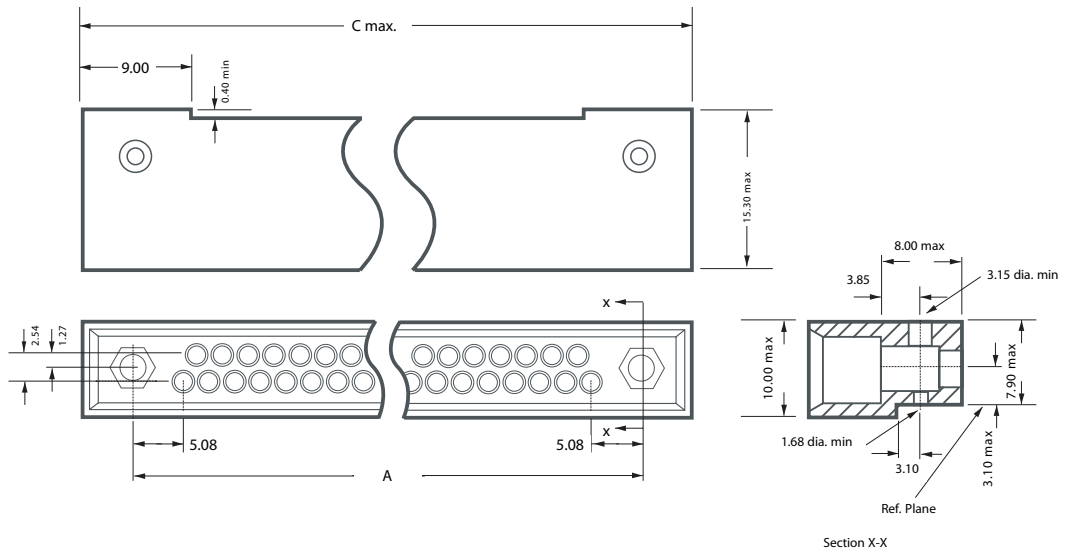
TWO ROW - STYLE HPD

17 to 65 Position Unshrouded



TWO ROW - STYLE HPP

33 to 65 Position Shrouded (fitted with male contacts only)



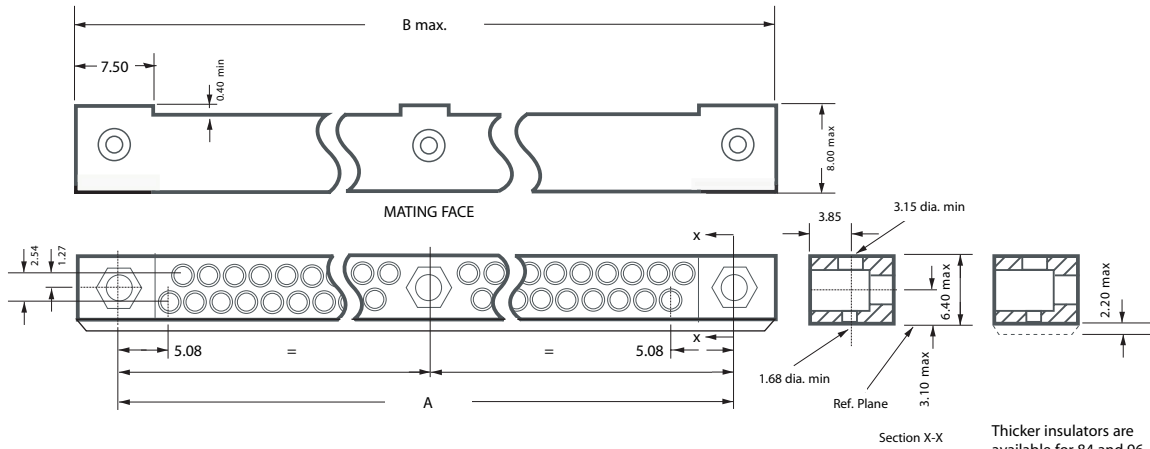
No. of Positions	17	29	33	41	53	65
DIMENSION A	30.48	45.72	50.80	60.96	76.20	91.44
DIMENSION B	38.50	53.70	58.80	69.00	84.20	99.50
DIMENSION C	N/A	N/A	62.70	72.90	88.10	103.42

All diagrams are shown in 3rd angle projection with dimensions in millimetres

HPD insulators

TWO ROW - STYLE HPD

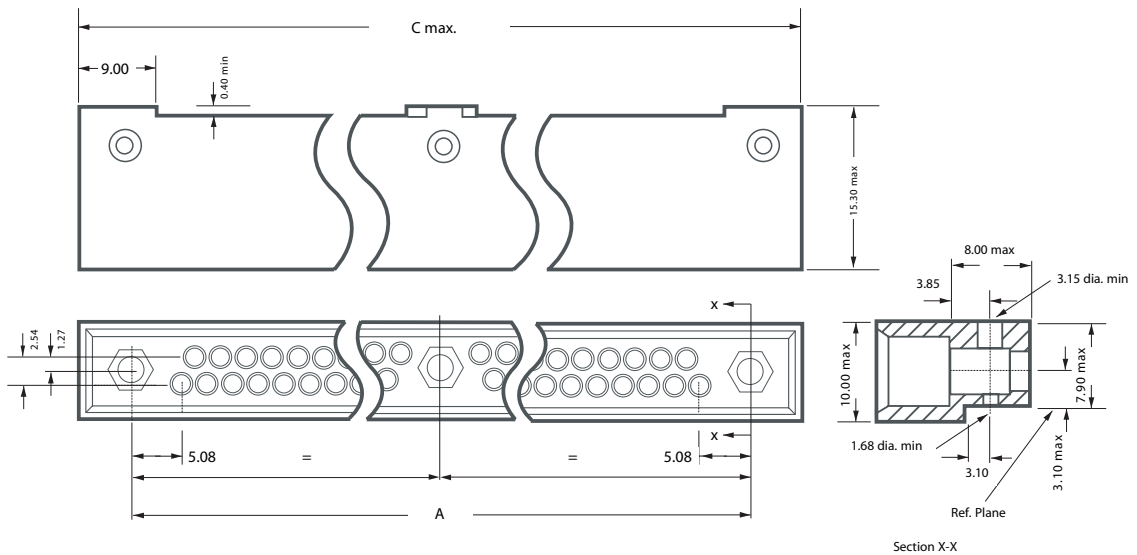
72 to 120 Position Unshrouded



Thicker insulators are available for 84 and 96 positions for vertical applications only. They cannot be used in conjunction with shrouded insulators.

TWO ROW - STYLE HPP

96 to 120 Position Shrouded (fitted with male contacts only)



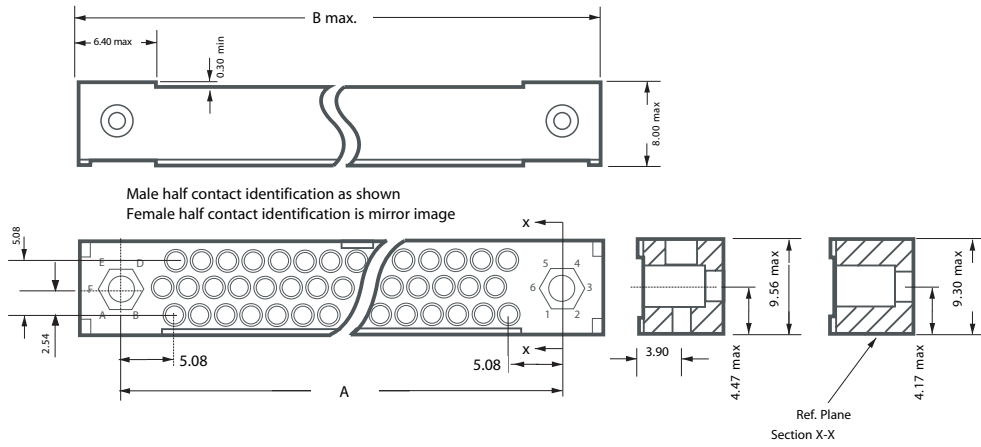
No. of Positions	72	84	96	120
DIMENSION A	106.68	121.92	137.16	167.64
DIMENSION B	114.70	129.90	145.20	175.60
DIMENSION C	N/A	N/A	149.12	179.50

All diagrams are shown in 3rd angle projection with dimensions in millimetres

HPD insulators

THREE ROW - STYLE HPF

62 to 80 Position Unshrouded

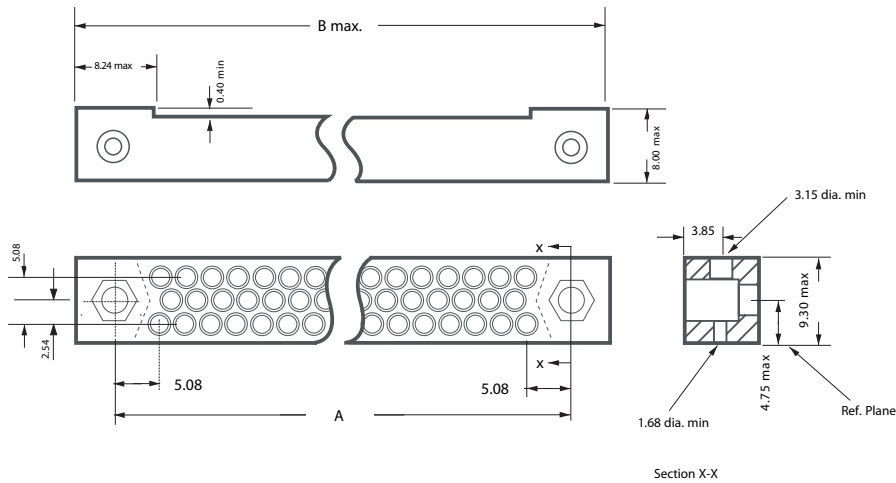


Male half use with transverse or vertical mount hardware.

Female half use with transverse or vertical mount hardware.

THREE ROW - STYLE HPF

98 to 149 Position Unshrouded



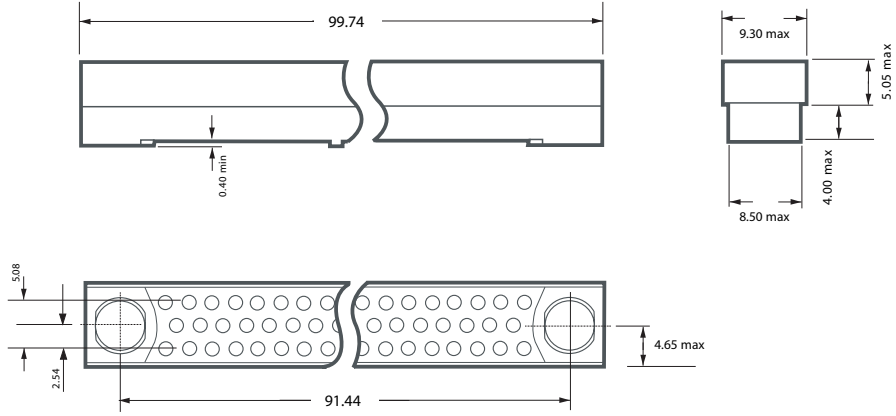
No. of Positions	62	80	98	119	149
DIMENSION A	60.96	76.20	91.44	109.22	134.62
DIMENSION B	68.90	84.10	99.50	117.26	142.66

All diagrams are shown in 3rd angle projection with dimensions in millimetres

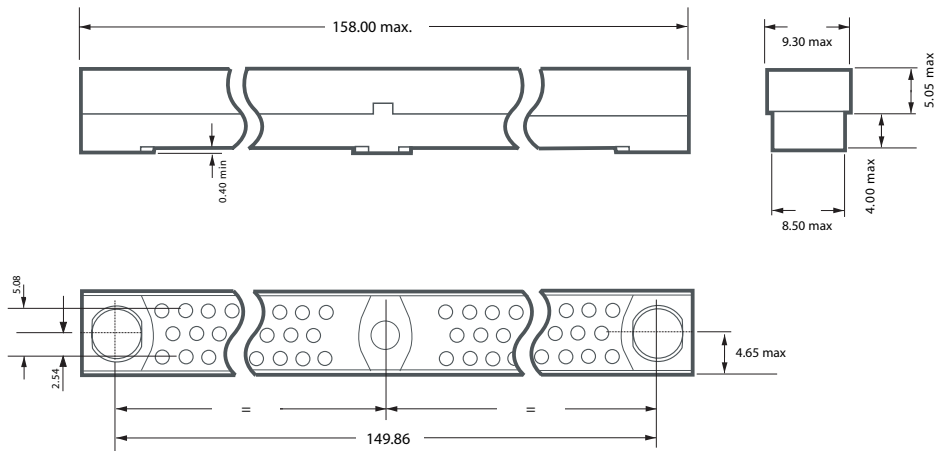
HPD insulators

TWO PART INSULATORS

(with front removable socket contacts for vertical mounting applications only)
 98 Position Unshrouded - HPF



160 Position Unshrouded - HPF

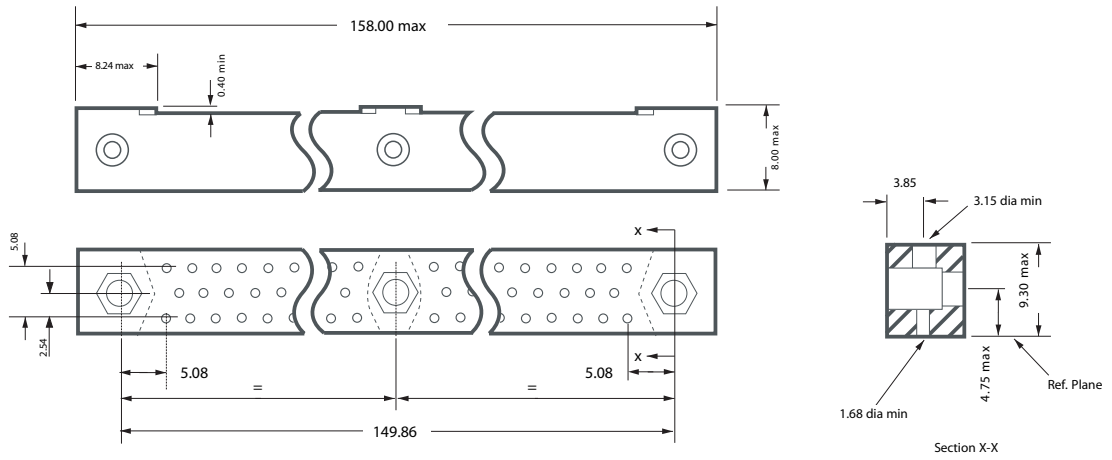


Dimensions are in mm

HPD insulators

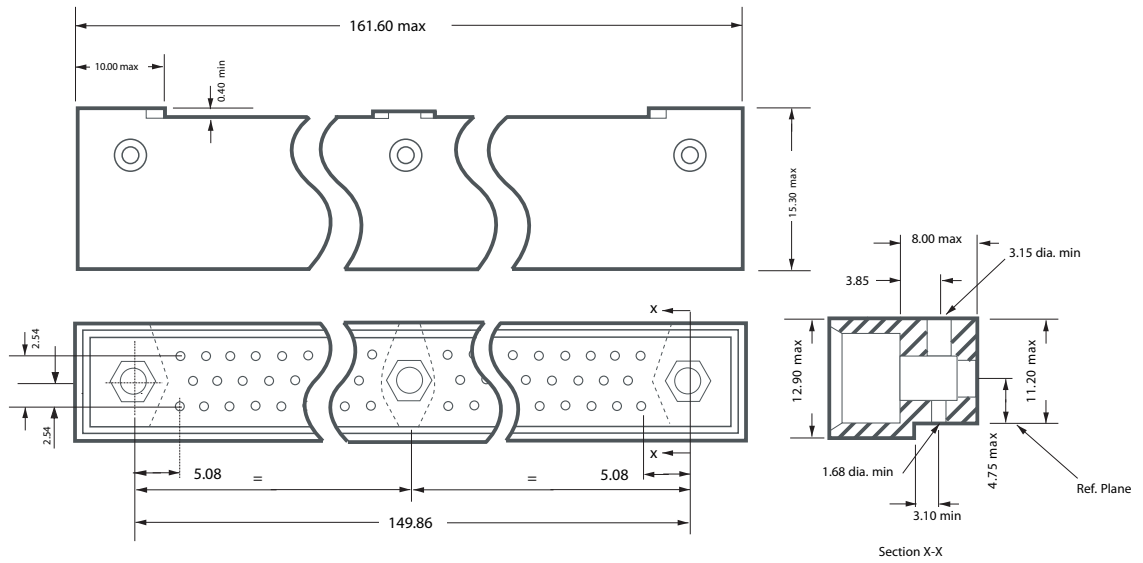
THREE ROW - STYLE HPF

160 Position Unshrouded



THREE ROW - STYLE HPM

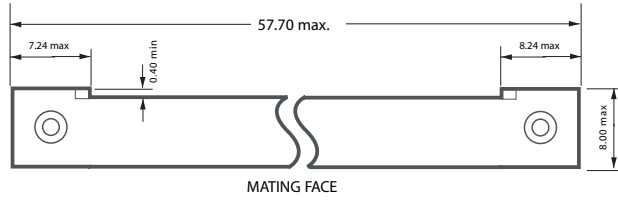
160 Position Shrouded (fitted with male contacts only)



Dimensions are in mm

HPD insulators

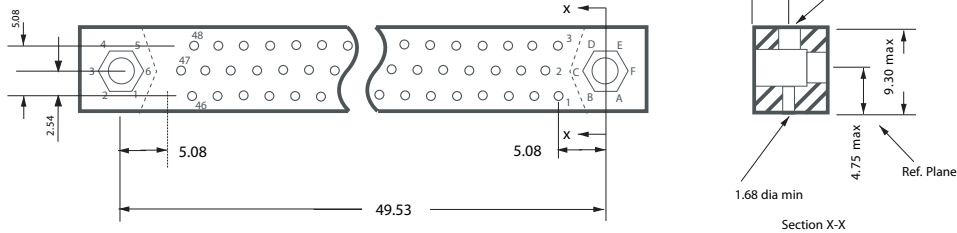
THREE ROW - STYLE HPF
48 Position Unshrouded



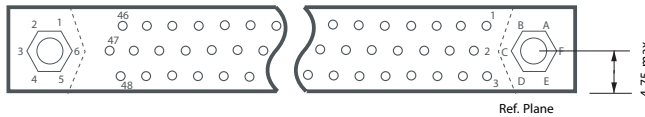
Please note the 048 way is the only non-symmetrical connector in this range. Therefore care should be taken to ensure correct identification code.

CONTACT IDENTIFICATION

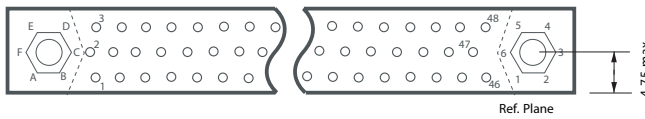
(13th Digit in Ordering Code) Views on Mating Face
Female Contact: BS Spec. *2*; MIL Spec. *7*
(not MIL Spec. qualified)



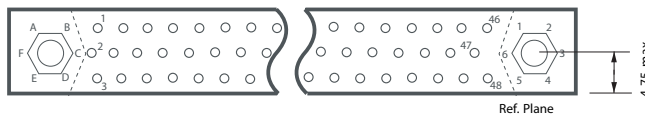
Male Contact: BS Spec. *2*; MIL Spec. *7* (not MIL Spec. qualified)



Female Contact: BS Spec. *0*; MIL Spec. *5* (not MIL Spec. qualified)



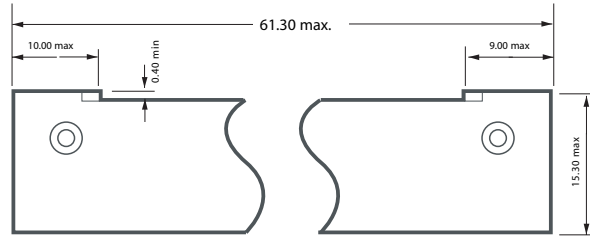
Male Contact: BS Spec. *0*; MIL Spec. *5* (not MIL Spec. qualified)



HPD insulators

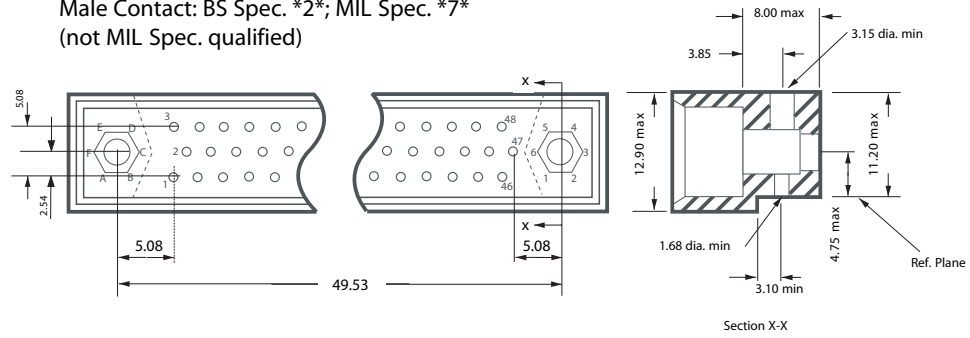
THREE ROW - STYLE HPM

48 Position Shrouded (Fitted with male contacts only)

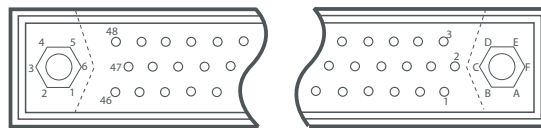


CONTACT IDENTIFICATION

(13th Digit in Ordering Code) Views on Mating Face
 Male Contact: BS Spec. *2*; MIL Spec. *7*
 (not MIL Spec. qualified)



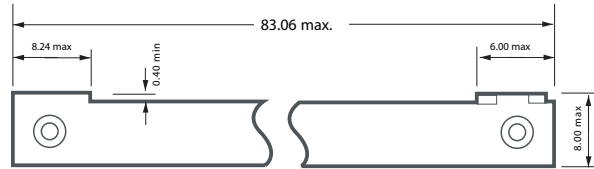
Male Contact: BS Spec. *0*; MIL Spec. *5*
 (not MIL Spec. qualified)



HPD insulators

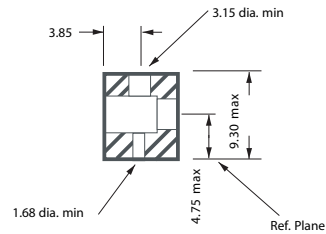
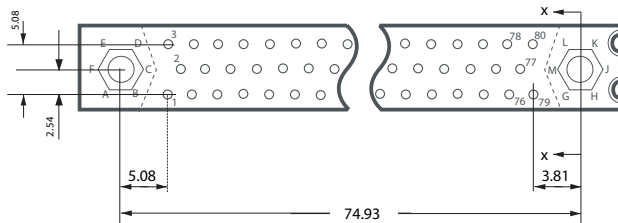
THREE ROW - STYLE HPF

80 Position Unshrouded (Cut from 160 Position)



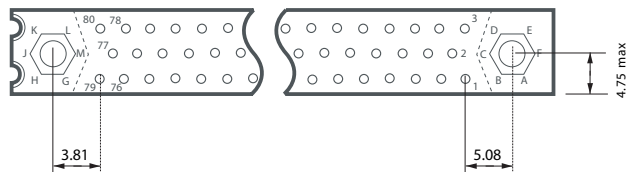
CONTACT IDENTIFICATION

(13th Digit in Ordering Code) Views on Mating Face
Use with Transverse Mounting Hardware Only
Male Contact *9*; Female Contact *8*



Section X-X

Use with Vertical Mounting Hardware Only
Male Contact *9*; Female Contact *8*



HPD insulators polarising data

2 ROW CONTACTS

(96 Position illustrated)

	CODE (13th Digit)	CONTACT GENDER	VIEWS ON MATING FACE		
			Left hand guide/polarising positions	Centre guide/polarising positions	Right hand guide/polarising positions
BS SPEC. STANDARD	*2*	FEMALE			
	0	MALE		Ref. Plane	
	2	MALE			
	0	FEMALE		Ref. Plane	
MIL SPEC. STANDARD	*7*	FEMALE			
	5	MALE		Ref. Plane	
	7	MALE			
	5	FEMALE		Ref. Plane	

3 ROW CONTACTS

(160 Position illustrated)

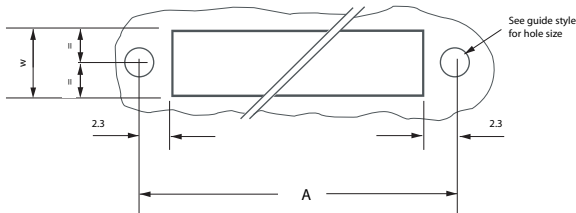
	CODE (13th Digit)	CONTACT GENDER	VIEWS ON MATING FACE		
			Left hand guide/polarising positions	Centre guide/polarising positions	Right hand guide/polarising positions
BS SPEC. STANDARD	*2*	FEMALE			
	0	MALE		Ref. Plane	
	2	MALE			
	0	FEMALE		Ref. Plane	
MIL SPEC. STANDARD	*7*	FEMALE			
	5	MALE		Ref. Plane	
	7	MALE			
	5	FEMALE		Ref. Plane	

HPD insulators

Panel preparation details

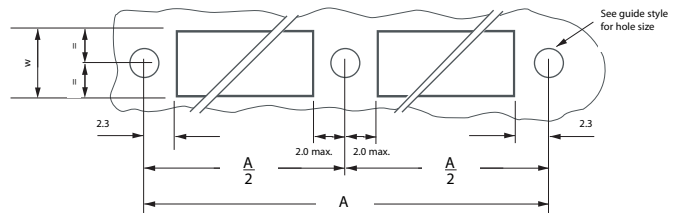
TWO FIXING POSITIONS

17, 29, 33, 41, 48, 53, 62, 65, 80, 98, 119 and 149 positions

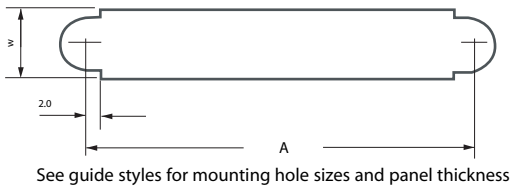


THREE FIXING POSITIONS

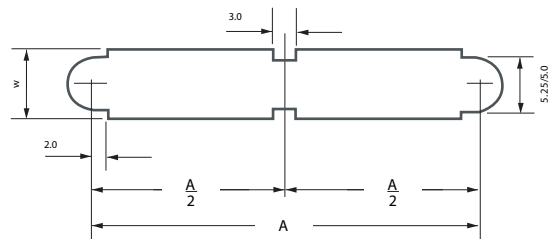
72, 84, 96, 120 and 160 positions



FLOATING MOUNT STYLE



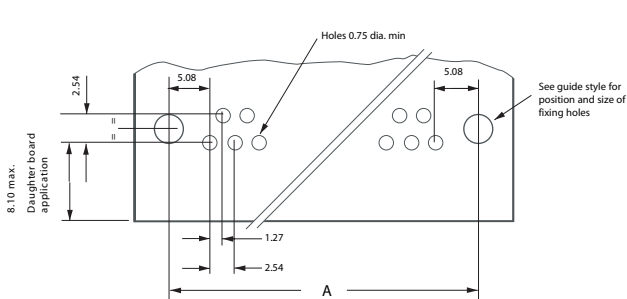
FLOATING MOUNT STYLE



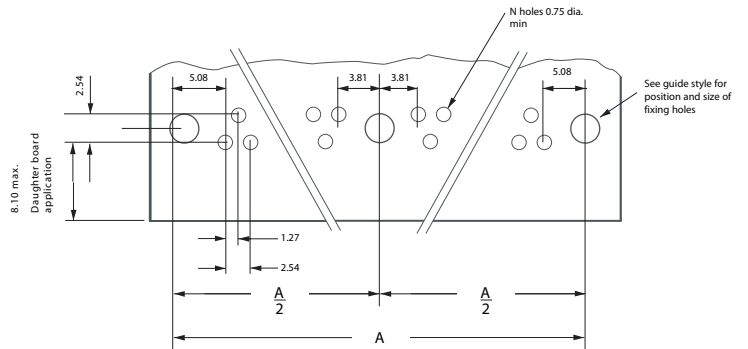
FIXED MOUNT STYLE				
	HPD/P	HPF/M	HPD/P	HPF/M
DIMENSION W	9.50	12.00	9.00	12.00

Board preparation details

17, 29, 33, 41, 48, 53, and 65 positions



72, 84, 96 and 120 positions

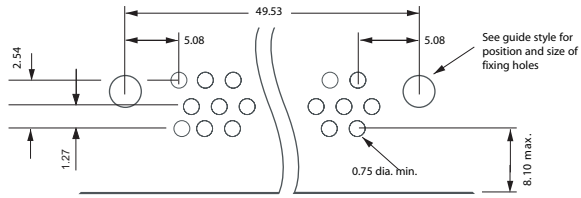


Dimensions are in mm

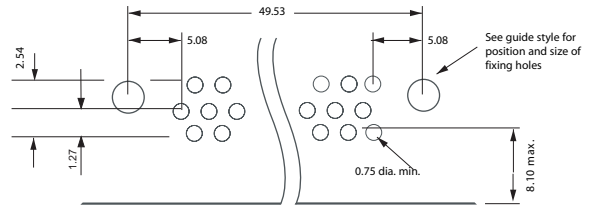
HPD insulators board preparation details

48 POSITIONS (VIEWS ON COMPONENT SIDE OF BOARD)

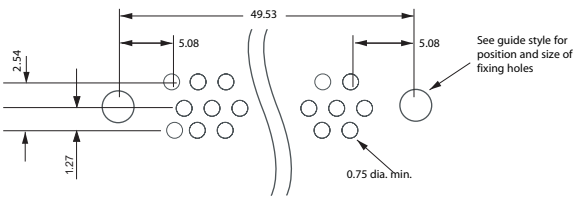
HPM/HPF Combination
Daughter Board - HPM shrouded moulding



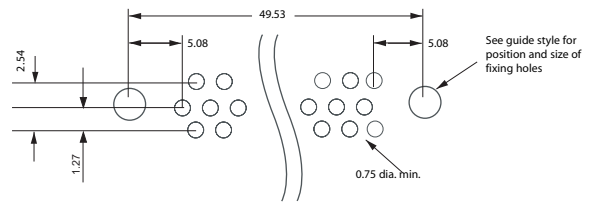
HPF/HPF Combination
Daughter Board - HPF unshrouded moulding



Mother Board - HPF unshrouded moulding

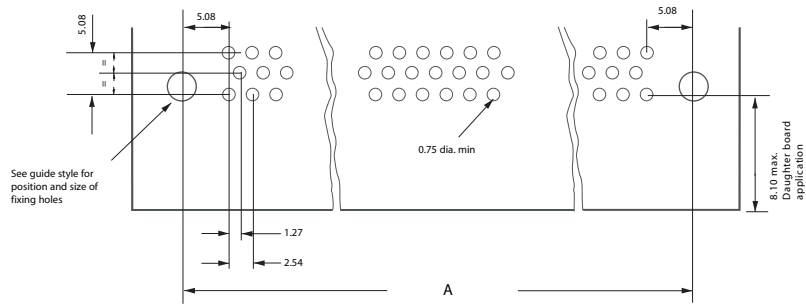


Mother Board - HPF unshrouded moulding

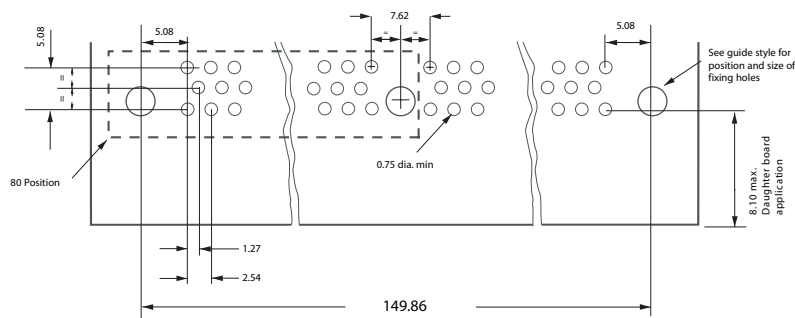


HPD insulators board preparation details

62, 80, 98, 119 and 149 Positions
(except 80 Position cut from 160 Position)



160 Positions and 80 Position (cut from 160 Position)



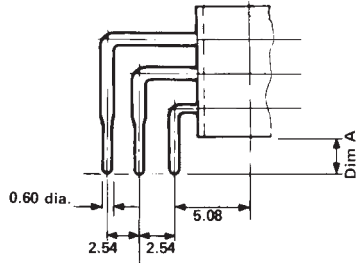
NO. OF POSITIONS	17	29	33	41	53	62	65
DIMENSION A NOM.	30.48	45.72	50.80	60.96	76.20	60.96	91.44

NO. OF POSITIONS	72	80	84	96	98	119	120	149
DIMENSION A NOM.	106.68	76.20	121.92	137.16	91.44	109.22	167.64	134.62

Dimensions are in mm

HPD contact termination and codes

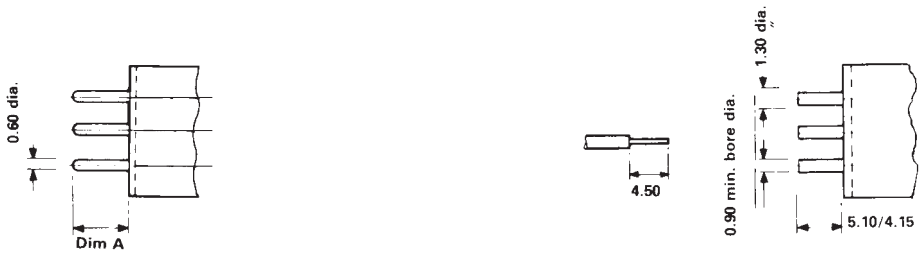
This Section includes details of the standard contact terminations used in most applications. Details of other available contact terminations can be obtained from the sales office of Hypertac.



STYLE B/L

Through Board Solder - 90°

TERM. STYLE	DIMENSION A				PART No.					
	2 ROW		3 ROW		MALE			FEMALE		
	MAX	MIN	MAX	MIN	1st ROW	2nd ROW	3rd ROW	1st ROW	2nd ROW	3rd ROW
B	3.50	2.50	3.10	2.10	HPD 488/*	HPD 489/*	HPD 462/*	HPD 596/*	HPD 598/*	HPD 599/*
L	4.85	3.85	4.45	3.45	HPD 685/*	HPD 688/*	HPD 691/*	HPD 708/*	HPD 712/*	HPD 716/*



STYLE X/P

Through Board Solder - Straight

TERM. STYLE	DIMENSION A		PART No.	
	MALE	FEMALE	MAX	MIN
X	5.10	4.15	HPD 720/*	HPD 548/*
P	6.20	5.30	HPD 487/*	HPD 522/*

STYLE C SUPPLIED UNASSEMBLED

Crimp Barrel Showing Cable Preparation

TERM. STYLE	PART No.	
	MALE	FEMALE
C	HPD 486/*	HPD 526/*
FOR 22, 24, 26 AW WIRE		

HPD / HPF Guide torque information

**HPD/HPF torque values
Stainless Steel Guide**

RANGE	DESCRIPTION	TORQUE
HPD/HPF	M2.5 MM VERTICAL FIXING (Styles EO, LO, and similar)	3lbfIN Max
HPD/HPF	M1.6 MM TRANSVERSE FIXING NON-COUNTER SINK (Styles KO, AO, and similar)	1lbfIN Max
HPD/HPF	JACKSCREW WITH CROSS PIN FITTED (Styles PO and similar)	1lbfIN Max

HPD intermatability charts

Unpolarised guides intermatability chart

FEMALE		MALE																											
MIL SPEC	STYLE																												
BS	HPD																												
	STYLE	AB	AC	AD	AE	AG	AH	AK	AL	AO	AP	AQ	AS	AV	AW	AZ	A4	A5	A6	A8	HO	QG	QH	QN	QO	QT	Q6	9K	
23	BB																												
	BD																												
	BE																												
	BF																												
	BN																												
	BO																												
	BU																												
	BW																												
	BX																												
	B3																												
38	B4																												
24	B6																												
39	B7																												
	B8																												
	B9																												
	MC																												
	MT																												
	M4																												
	M5																												
	M7																												
	M8																												
	OD																												
	5A																												
	5B																												
	5D																												
	5G																												

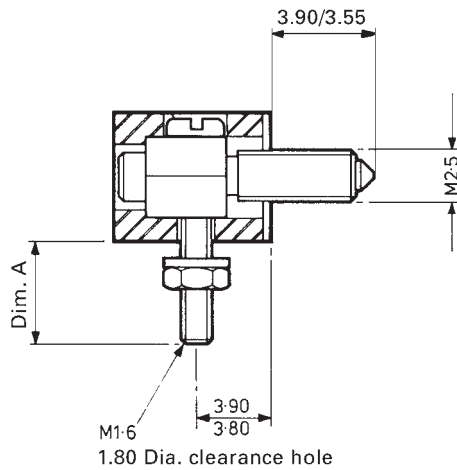
Quarter turn lock polarised guides intermatability chart

FEMALE		MALE																
MIL SPEC	STYLE																	
BS	HPD																	
	STYLE	CH	CS	CT	SJ	SK	SL	SN	SO	ST	SX	S2	S3	S5	S6	S9	8K	8O
G	ZG																	
	ZK																	
	ZL																	
	ZM																	
	ZN																	
	22	ZO																
	37	ZT																
	34	ZW																
		ZX																
		ZZ																
F	Z4																	
	Z5																	
	Z6																	
	36	Z8																
	35	1A																
	21	1B																
		1M																
	1T																	

HPD guide style

This Section includes details of the standard guide styles used in most applications. Details of other available guide styles can be obtained from Hypertac sales offices.

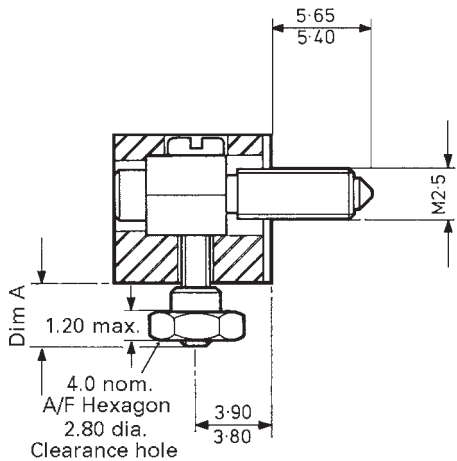
NON ROTATING TRANSVERSE GUIDES (MALE) - UNPOLARISED



STYLE NC/NH

STYLE	DIMENSION A			
	2 ROW		3 ROW	
	MAX	MIN	MAX	MIN
NC	6.36	5.53	6.60	6.09
NH	5.30	4.59	5.71	4.88

When used in 62 & 80 position insulators add 0.28mm to Dimension A (3 Row)



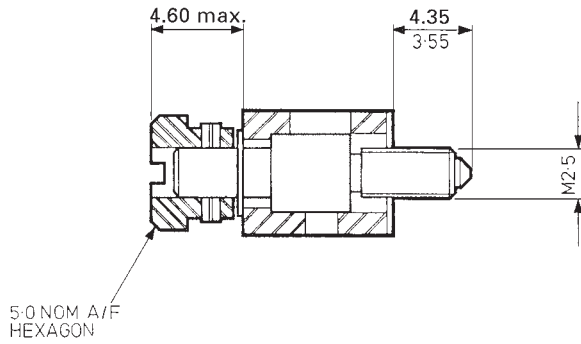
STYLE NO

STYLE	DIMENSION A			
	2 ROW		3 ROW	
	MAX	MIN	MAX	MIN
NO	3.30	2.59	3.65	2.94

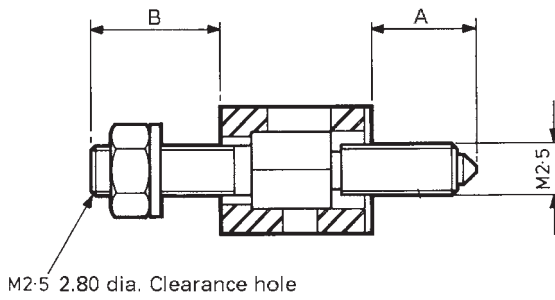
When used in 62 & 80 position insulators add 0.28mm to Dimension A (3 Row)

HPD guide style

Jack guides (male) - Unpolarised



STYLE P0
Rotating Free Connector

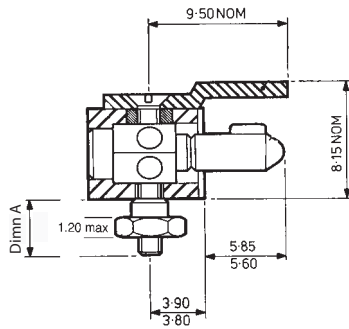


STYLE RA/RO
Non Rotating Transverse Mounting

STYLE	DIMENSION A		DIMENSION B	
	MAX	MIN	MAX	MIN
RA	3.80	3.55	7.15	6.75
RO	5.65	5.40	7.15	6.75

HPD guide style

Guides (male) - Polarised

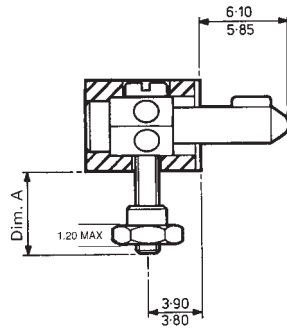


STYLE KB

Transverse Mounting with Pin Protector
For use with HPD/HPF only

STYLE	DIMENSION A			
	2 ROW		3 ROW	
	MAX	MIN	MAX	MIN
KB	5.30	4.59	5.71	4.88

When used in 62 & 80 position insulators deduct 0.25mm to Dimension A (3 Row)

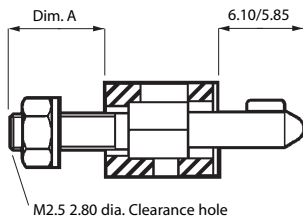


STYLE KO

Transverse Mounting

STYLE	DIMENSION A			
	2 ROW		3 ROW	
	MAX	MIN	MAX	MIN
KO	3.30	2.59	3.65	2.94

When used in 62 & 80 position insulators add 0.28mm to Dimension A (3 Row)



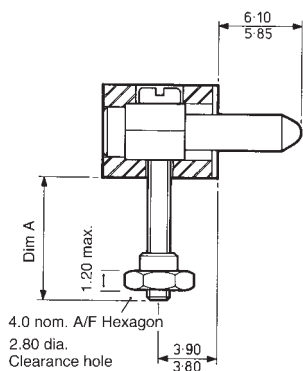
STYLE UO

Vertical Mounting

STYLE	DIMENSION A	
	MAX	MIN
UO	7.15	6.75

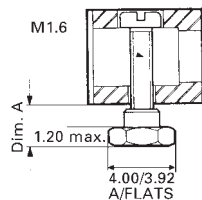
HPD guide style

Guides (male) - Unpolarised



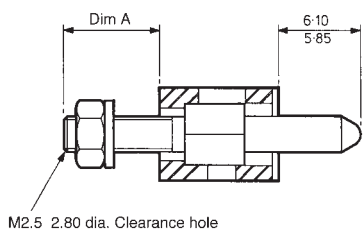
STYLE AO
Transverse Mounting

STYLE	DIMENSION A			
	MAX	MIN	MAX	MIN
AO	3.30	2.59	3.65	2.94



STYLE HO
Transverse Mounting

STYLE	DIMENSION A			
	MAX	MIN	MAX	MIN
HO	3.30	2.59	3.65	2.94

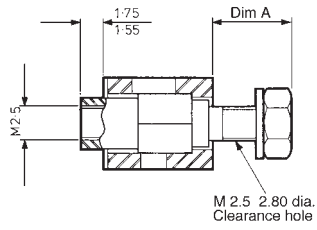


STYLE QO
Vertical Mounting

STYLE	DIMENSION A	
	MAX	MIN
QO	7.15	6.75

HPD guide style

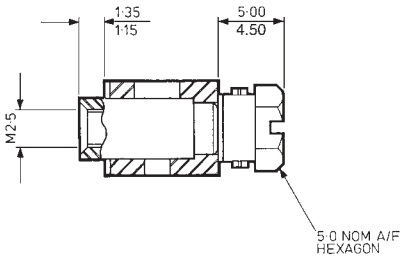
Jack guides (female) - Unpolarised



STYLE JO

Non Rotating Vertical Mounting

STYLE	DIMENSION A	
	MAX	MIN
JO	6.85	6.25



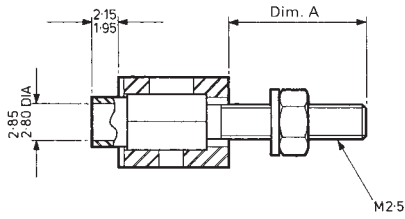
STYLE VO/VU

Rotating Free Connector

VO assembled
VU unassembled

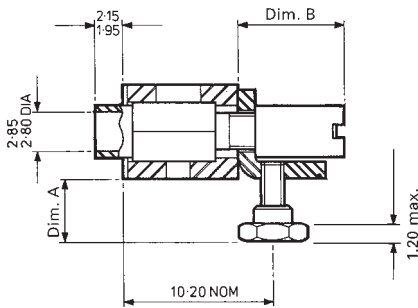
HPD guide style

Guides (female) - Unpolarised



STYLE BO
Vertical Mounting

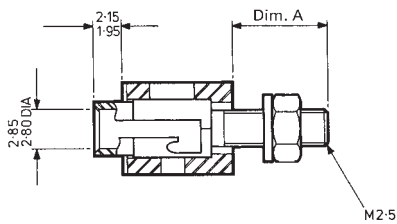
STYLE	DIMENSION A	
	MAX	MIN
BO	7.15	6.75



STYLE BU
Transverse Mounting

STYLE	DIMENSION A		DIMENSION B			
			2 ROW		3 ROW	
	MAX	MIN	MAX	MIN	MAX	MIN
BU	5.60	5.20	7.30	6.90	7.50	7.10

Guides (female) quarter turn lock-polarised



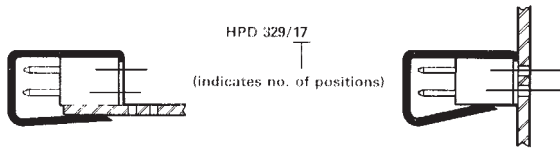
STYLE ZO
Vertical Mounting

STYLE	DIMENSION A	
	MAX	MIN
ZO	7.15	6.75

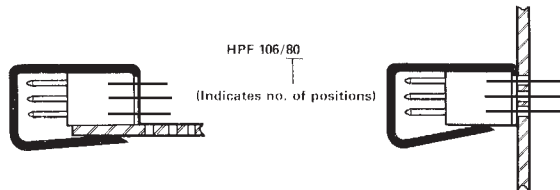
HPD accessories

PIN PROTECTOR (extruded polypropylene)

For plug assemblies HPD style insulator. Available to fit all sizes.

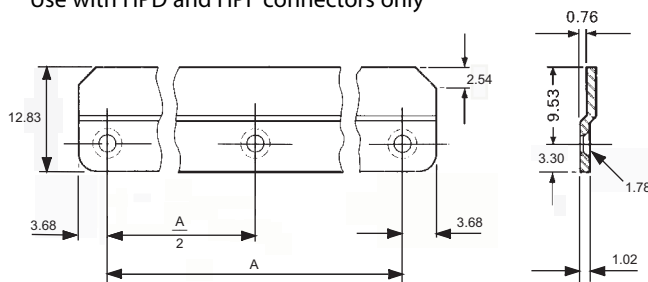


For plug assemblies HPF style insulator. Available to fit all sizes.



PIN PROTECTOR METAL PLATE (blue anodised aluminium alloy)

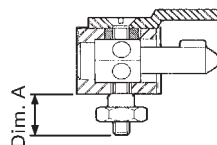
Use with HPD and HPF connectors only



NO. OF POSITIONS	17	29	33	41	48	53	62	65	80	98	119	149
DIMENSION A	30.48	45.72	50.80	60.96	49.53	76.20	60.96	91.44	76.20	91.44	109.22	134.62
PROTECTOR PART NO.	HPD 630	HPD 631	HPD 632	HPD 633	HPD 1059	HPD 634	HPD 1030	HPD 635	HPD 634	HPD 640	HPD 947	HPD 1178
SPACER PART NO. QTY. 2 PER	HPD 654	HPD 654	HPD 654	HPD 654	HPD 655	HPD 654	HPD 655	HPD 654	HPD 655	HPD 655	HPD 655	HPD 655

NO. OF POSITION	72	84	96	120	160
DIMENSION A	106.68	121.92	137.16	167.64	149.86
DIMENSION A/2	53.34	60.96	68.86	83.82	74.93
PROTECTOR PART NO.	HPD 636	HPD 637	HPD 638	HPD 639	HPD 641
SPACER PART NO. QTY. 3 PER	HPD 654	HPD 654	HPD 654	HPD 654	HPD 655

Order countersunk head screws from following table, same quantity as spacers.



STYLE	DIMENSION A			
	2 ROW		3 ROW	
	MAX	MIN	MAX	MIN
20-234-2047-01	3.53	2.18		
20-234-2048-01	4.59	3.12		
20-234-2049-01	5.59	4.12		
HPD 1131	6.59	5.12	3.69	2.22
20-234-2050-01	7.59	6.12	4.69	3.22
HPD 1132	3.59	7.12	5.69	4.22
20-234-2051-01	9.59	8.12	6.69	5.22

When using in 62 & 80 position insulators deduct 0.25mm to Dimension A (3 Row)

HPD accessories

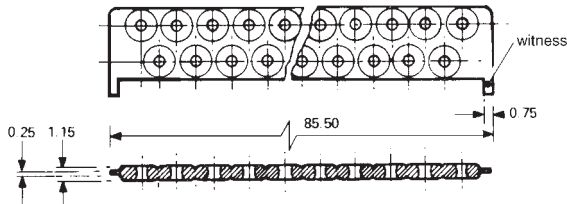
SEALING GASKETS

Code No. HPD 751 (Fluorosilicone) 2 Row Gasket

May be cut to suit all sizes by the user, above 65 positions two gaskets are required per connector.

Code No. HPF 197 (Silicone) 3 Row Gasket

May be cut to suit all sizes by the user, above 98 positions two gaskets are required per connector. Similar to that illustrated but with three row configuration.



**ALIGNMENT COMB
For European market**

Connector halves having 90° through board terminations are supplied fitted with an alignment comb to facilitate mounting to the board or panel. Code HPD 354/No. of positions
Code HPF 107/No. of positions
Code HPM 111/No. of positions

CRIMP INFORMATION

AWG	NUMBER AND NOMINAL DIAMETER OF WIRES	CRIMP TOOL SELECTOR POSITION
22	19/0.15mm	5
24	7/0.20mm	5
24	19/0.118mm	4
26	7/0.15mm	4

TOOLS

- Contact extraction tool : HPD 286
- Spare tips for above : HPD 280
- Contact insertion tool : Use non ferrous long pointed tweezers
- Crimp tool positioner : HPD 309
- Crimp tool : MIL-C-22520/2.01