



## Mixed Signal & Power Connectors

### Product description

Mixed power & signal PCB connector

### Approvals

Qualified at a system level on both civil and military programs

### Features

- Rugged design
- Signal & power contacts
- High reliability contacts

### Markets

Mil/Aero Space, Marine, Rail & Industrial

## HPW PART NUMBER CONFIGURATOR

PERFORMANCE/SPECIFICATION			
<b>MATERIAL</b>		<b>CURRENT RATING</b>	Size 22: 5 Amp Size 16: 15 Amp
<b>Insulator</b>	Polyphenylene sulphide	<b>INSULATION</b>	5 Gigohms minimum at 500Vdc
<b>Contact pin &amp; socket</b>	Copper alloy	<b>MECHANICAL ENDURANCE</b>	In excess of 2000 operations
<b>Socket wires</b>	Beryllium copper	<b>ENGAGEMENT/WITHDRAWAL FORCES</b>	0.42 N (1.5 oz) nominal per contact
		<b>TEMPERATURE RANGE</b>	-55°C to +125°C
<b>Guides</b>	Stainless steel	<b>VOLTAGE RATING</b>	400 V dc or ac peak nominal (@sealevel)
<b>Contact Plating</b>	MIL-G-45204 gold plate	<b>MALE PIN DIAMETER</b>	Size 22: 0.75 mm nominal Size 16: 1.56 mm nominal
<b>Contact Resistance</b>	Size 22: 11.0 milliohms maximum Size 16: 4.5 milliohms maximum		

ORDERING INFORMATION



**PREFIX**

**No. of CAVITIES**  
63, 92, 100, 107

**CONTACT PLATING**  
U = See below  
S = U Plating with tin dipped termination

**CONTACT GENDER**  
M = Male  
F = Female

**CONTACT TERMINATION**  
0 = No contacts  
C = Crimp bucket  
X = Through board solder - 180°  
B = Through board solder - 90°  
M = Mixed  
Note: not all combinations are available

**STANDARD VARIATIONS**

000 = Standard  
0P0 = Back potting  
Non Readable Code = Contact mix configuraion etc.

**POLARISING/GUIDES**

CA = Male jacking, polarised, free rotating  
TA = Female jacking, polarised, vertical mount  
NB = Male polarised, vertical mount  
FE = Female polarised, vertical mount  
FB = Female polarised, float mount  
NC = Male polarised, transverse mount  
FF = Female polarised, transverse mount

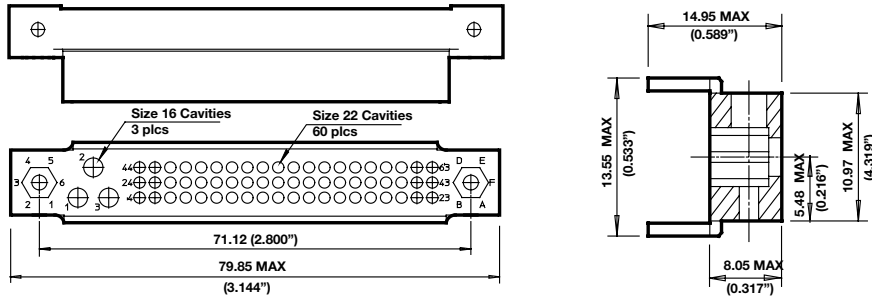
CONTACT PLATING FINISHES

Connector Finish Ordering Code	Description	Component	Component Finish Ordering Code	Conforms to	Plating Thickness*
U	Gold Plate	Socket	-/9	MIL-G-45204 (Type II, Grade C, Class 1)	1.27 µm gold plate 50 µin gold plate <i>minimum</i>
		Pin	-/7	MIL-G-45204 (Type II, Grade C, Class 1)	1.27 µm gold plate 50 µin gold plate <i>minimum</i>

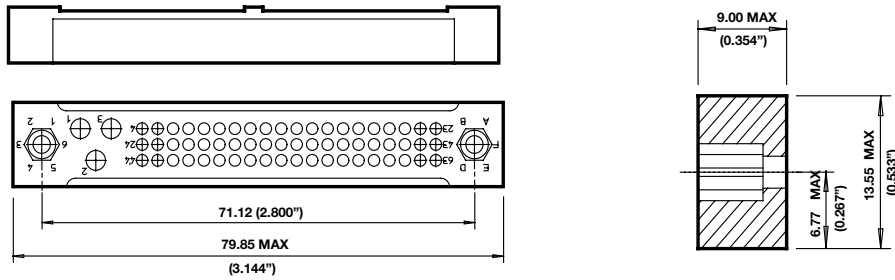
\*PLATING THICKNESS  
These values apply to mating surfaces.

**HPW STANDARD INSULATORS**

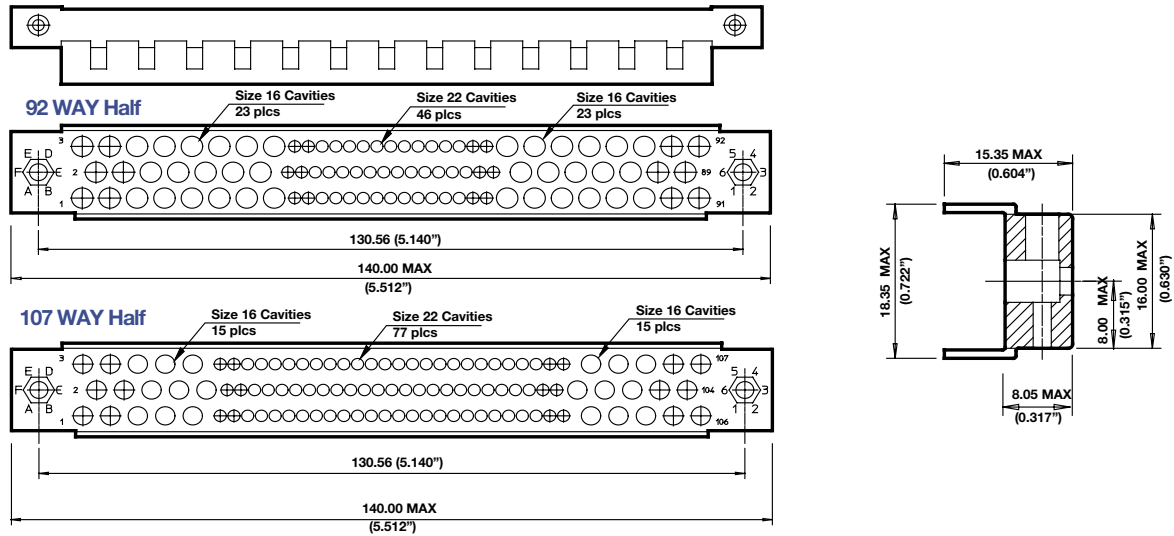
**63 WAY Male Half**



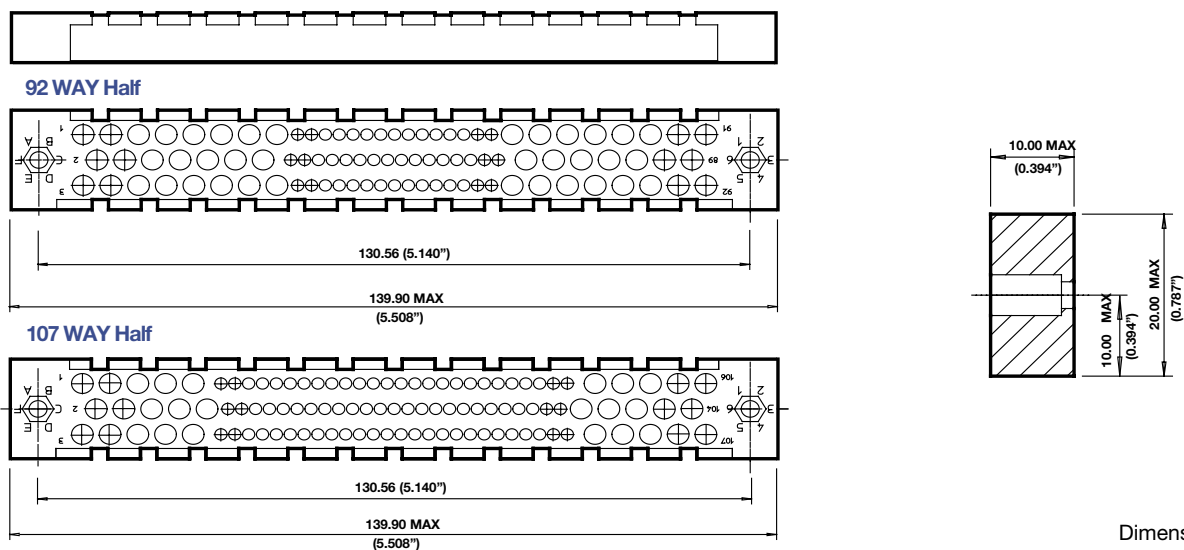
**63 WAY Female Half**



**92;107 WAY Male Halves**



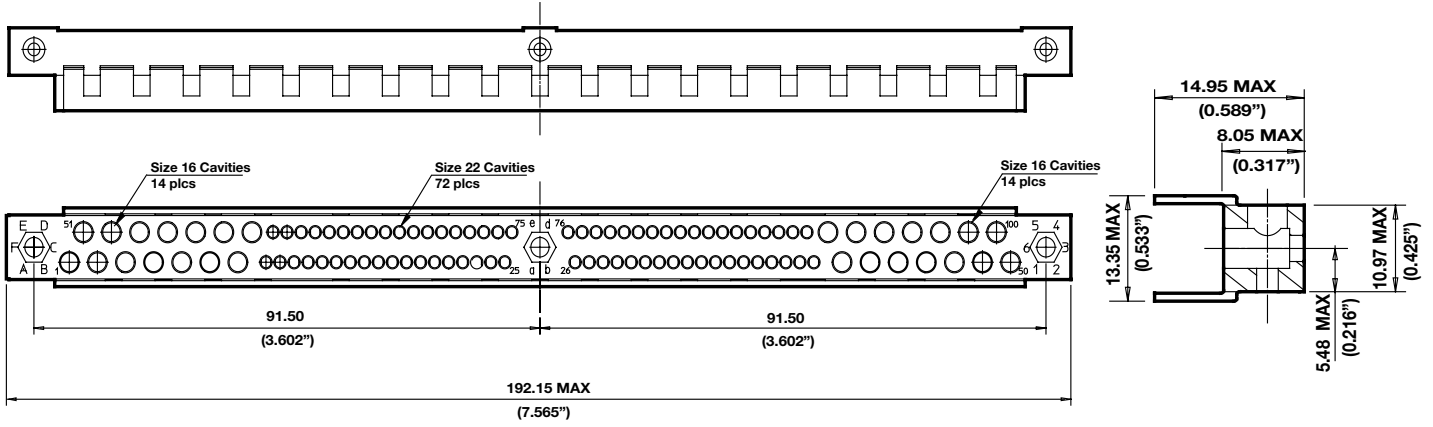
**92;107 WAY Female Halves**



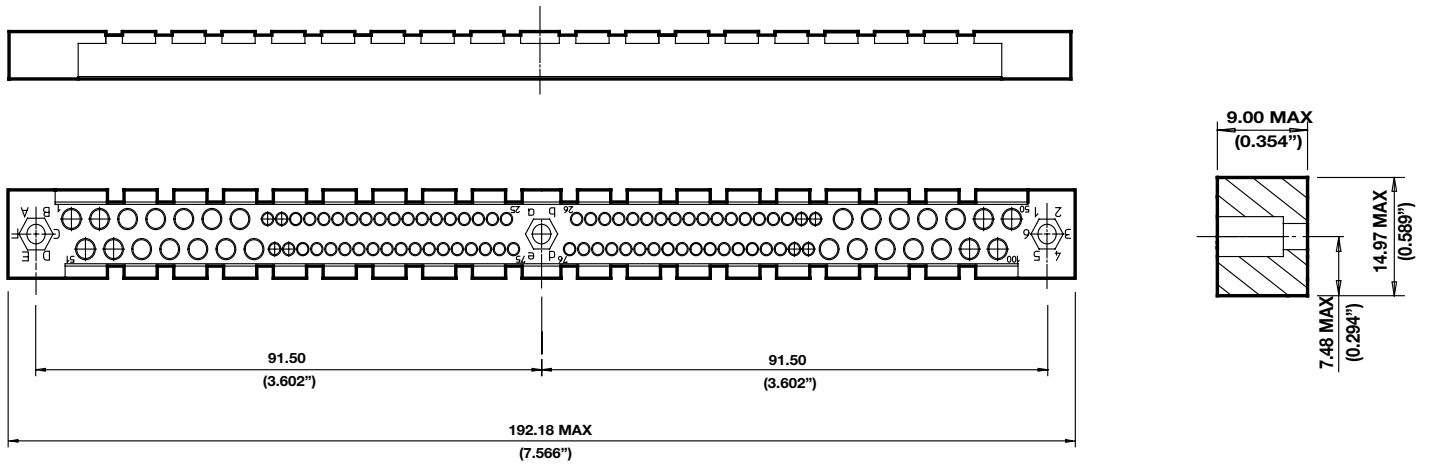
Dimensions are in mm

## HPW STANDARD INSULATORS / TOOLING

### 100 WAY Male Half



### 100 WAY Female Half



### Tooling

	Crimp Tool (Mil Specification)	Positioner	Extraction Tool	Insertion Tool
Size 22 Contacts	M22520/2-01	HPW-501	HPW-521	Pair of Non-ferrous Tweezers
Size 16 Contacts	M22520/1-01	HPW-502	HPW-512	Pair of Non-ferrous Tweezers

Dimensions are in mm

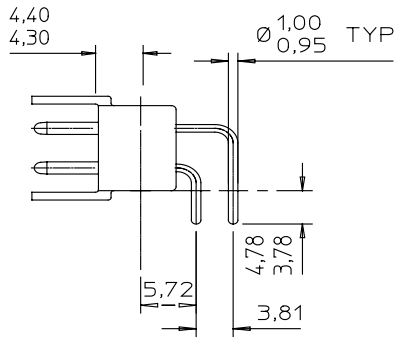
# HPW STANDARD PCB TERMINATIONS

## MALE HALF

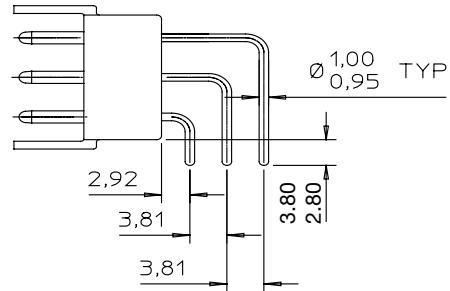
### TERMINATION B: Through Board Solder 90°

Size 16

63 Way & 100 Way

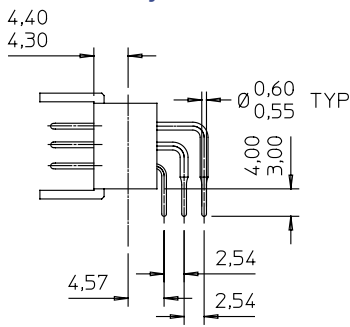


92 Way & 107 Way

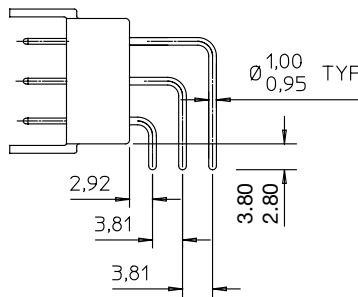


Size 22

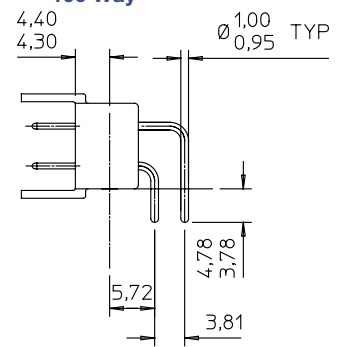
63 Way



92 Way & 107 Way



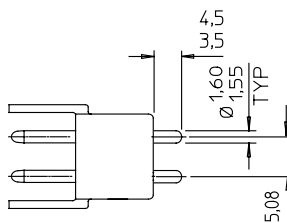
100 Way



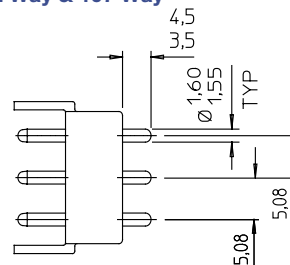
### TERMINATION X: Through Board Solder 180°

Size 16

63 Way & 100 Way

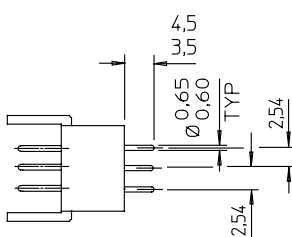


92 Way & 107 Way

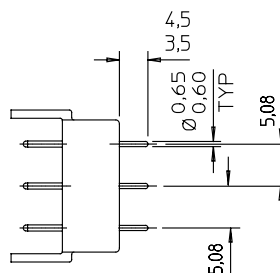


Size 22

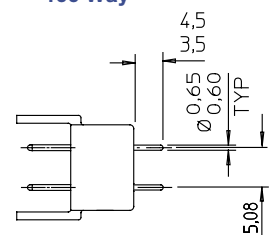
63 Way



92 Way & 107 Way



100 Way



Dimensions are in mm

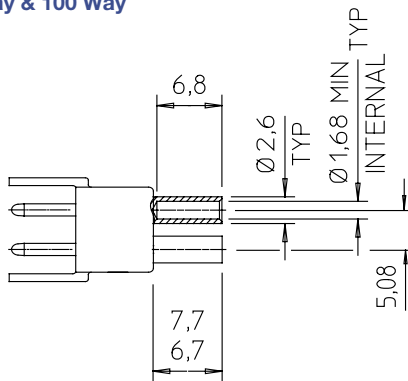
## HPW STANDARD PCB TERMINATIONS

### MALE HALF

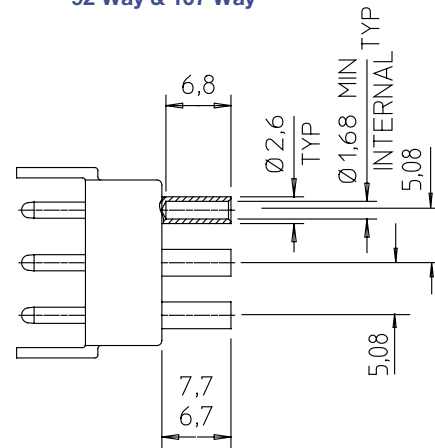
#### TERMINATION C: Crimp Bucket

#### Size 16

63 Way & 100 Way

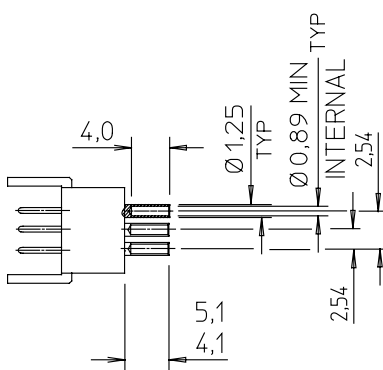


92 Way & 107 Way

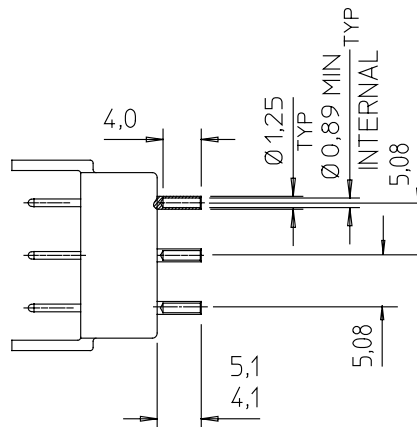


#### Size 22

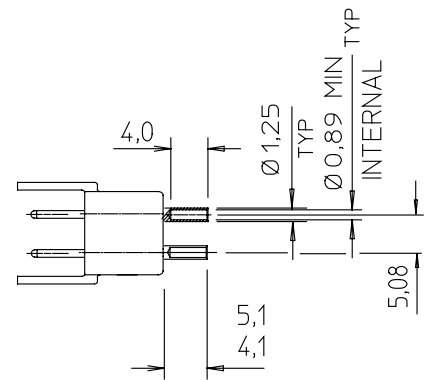
63 Way



92 Way & 107 Way



100 Way



Dimensions are in mm

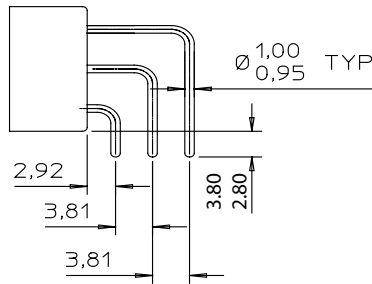
## HPW STANDARD PCB TERMINATIONS

### FEMALE HALF

#### TERMINATION B: Through Board Solder 90°

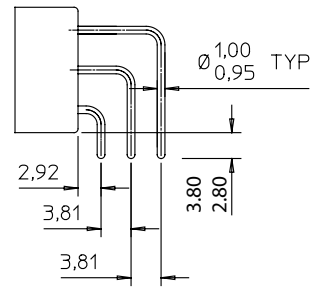
Size 16

92 Way & 107 Way



Size 22

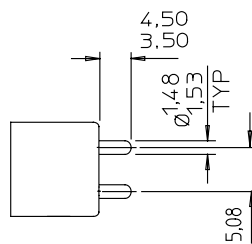
92 Way & 107 WAY



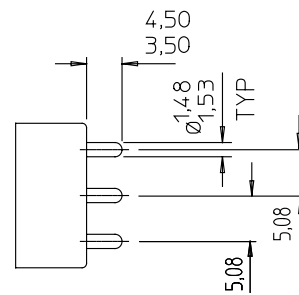
#### TERMINATION X: Through Board Solder 180°

Size 16

63 Way & 100 Way

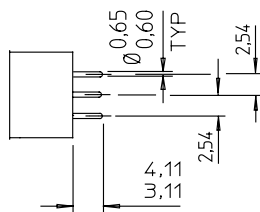


92 Way & 107 Way

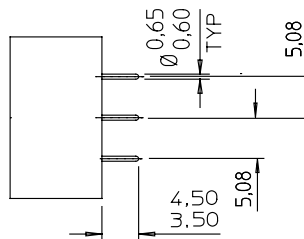


Size 22

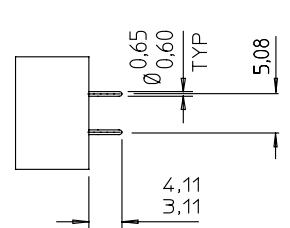
63 Way



92 Way & 107 Way



100 Way



Dimensions are in mm

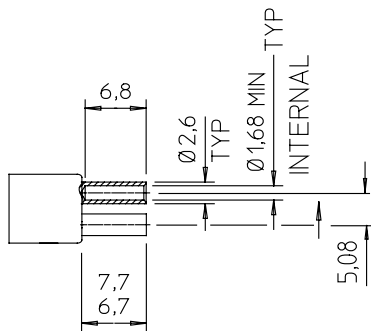
## HPW STANDARD PCB TERMINATIONS

### FEMALE HALF

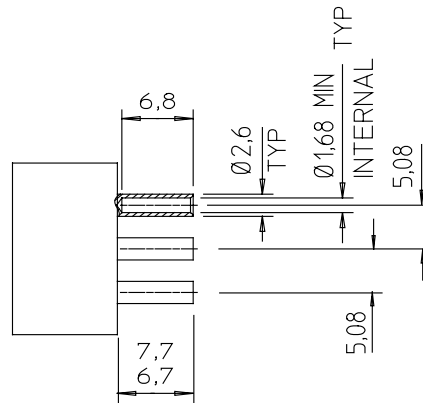
#### TERMINATION C: Crimp Bucket

#### Size 16

##### 63 Way & 100 Way

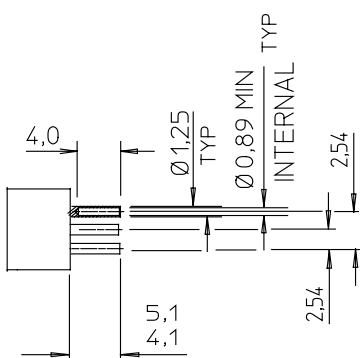


##### 92 Way & 107 Way

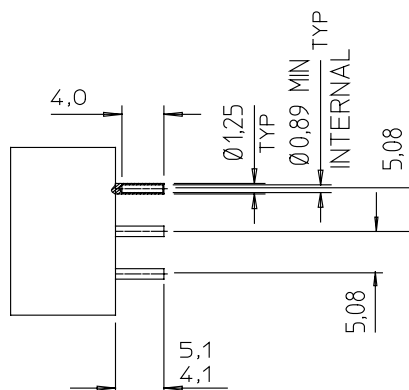


#### Size 22

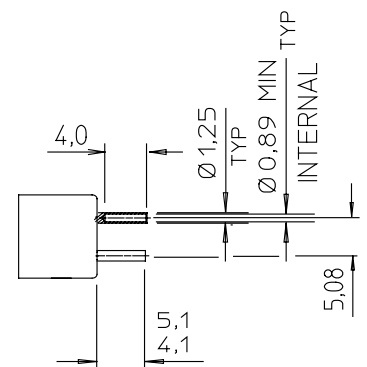
##### 63 Way



##### 92 Way & 107 Way



##### 100 Way



Dimensions are in mm



## HPW STANDARD GUIDES MALE/FEMALE

### MALE GUIDE INDEX

<b>Style CA</b>	Jacking, free rotating;	Polarised;	Vertical mounting;
<b>Style NB</b>		Polarised;	Vertical mounting;
<b>Style NC</b>	Bracket (92; 107 Way only)	Polarised;	Transverse mounting;

### FEMALE GUIDE INDEX

<b>Style FB</b>	Float;	Polarised;	Vertical mounting;
<b>Style FE</b>		Polarised;	Vertical mounting;
<b>Style FF</b>	Bracket;	Polarised;	Transverse mounting;
<b>Style TA</b>	Jack Socket;	Polarised;	Vertical mounting;

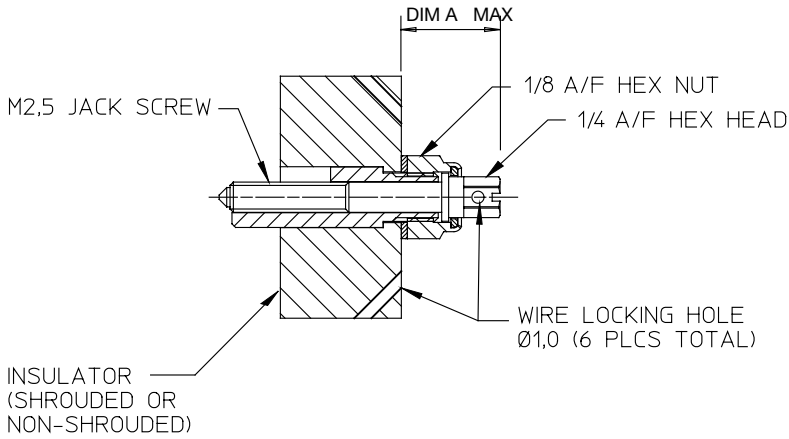
### MALE GUIDES

	<b>CA</b>	<b>NB</b>	<b>NC</b>
<b>FEMALE GUIDES</b>	<b>FB</b>		
	<b>FE</b>		
	<b>FF</b>		
	<b>TA</b>		

Dimensions are in mm

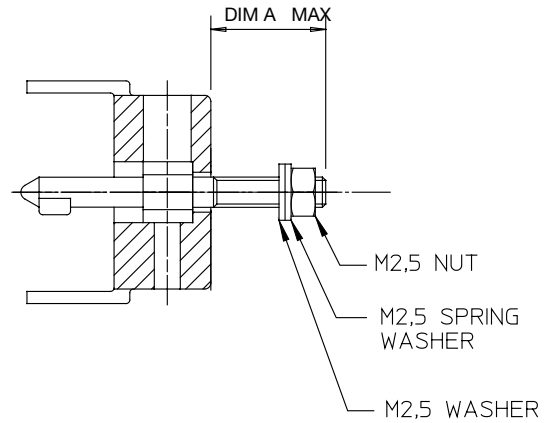
## HPW STANDARD GUIDES MALE

### Style CA (92; 107 Way) Jacking Polarised, Free Rotating



Style	Dim A Max (Mated)	Dim A Max (Free)
CA	8.60 0.339"	8.25 0.325"

### Style NB (63; 92; 100; 107 Way) Polarised, Vertical Mount

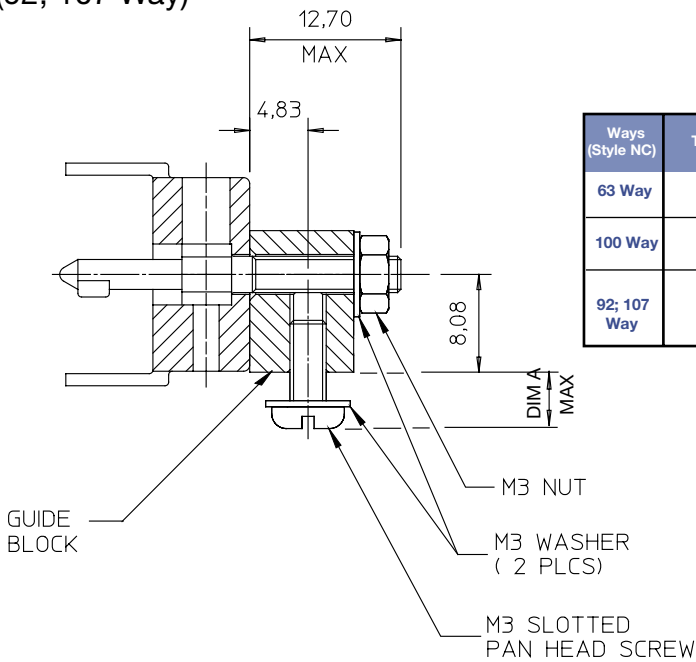


Style	Board Thickness Max	Dim A Max
NB	5.60 0.220"	9.75 0.384"

### Style NC

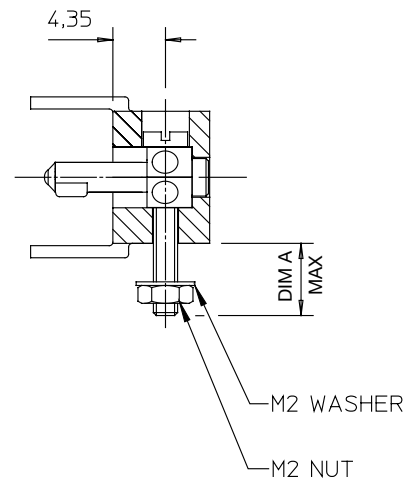
#### Polarised, Transverse Mount

(92; 107 Way)



Ways (Style NC)	Board Thickness Max	Dim A Max
63 Way	2.00 0.079	5.40 0.213"
100 Way	5.00 0.197"	8.40 0.331"
92; 107 Way	3.10 0.122"	5.50 0.217"

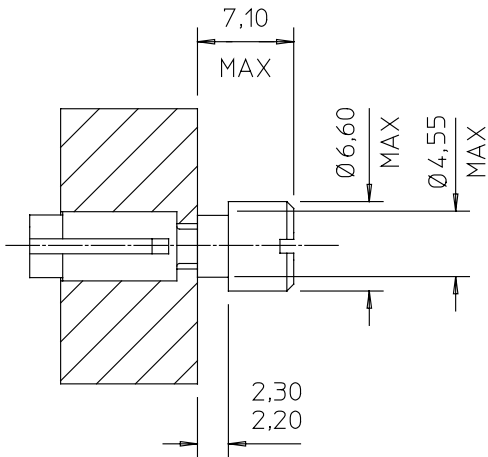
(63; 100 Way)



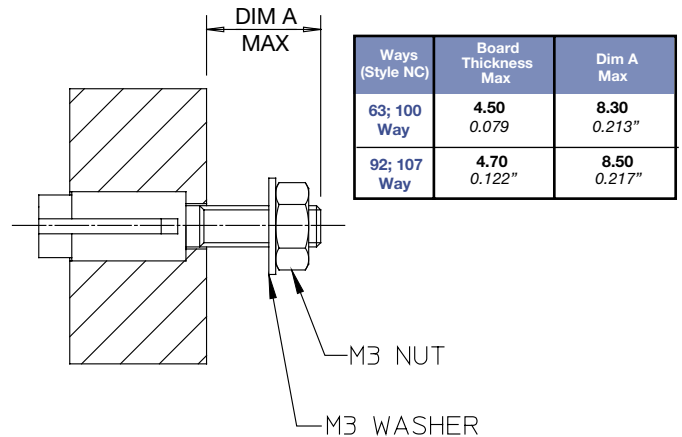
Dimensions are in mm

**HPW STANDARD GUIDES FEMALE**

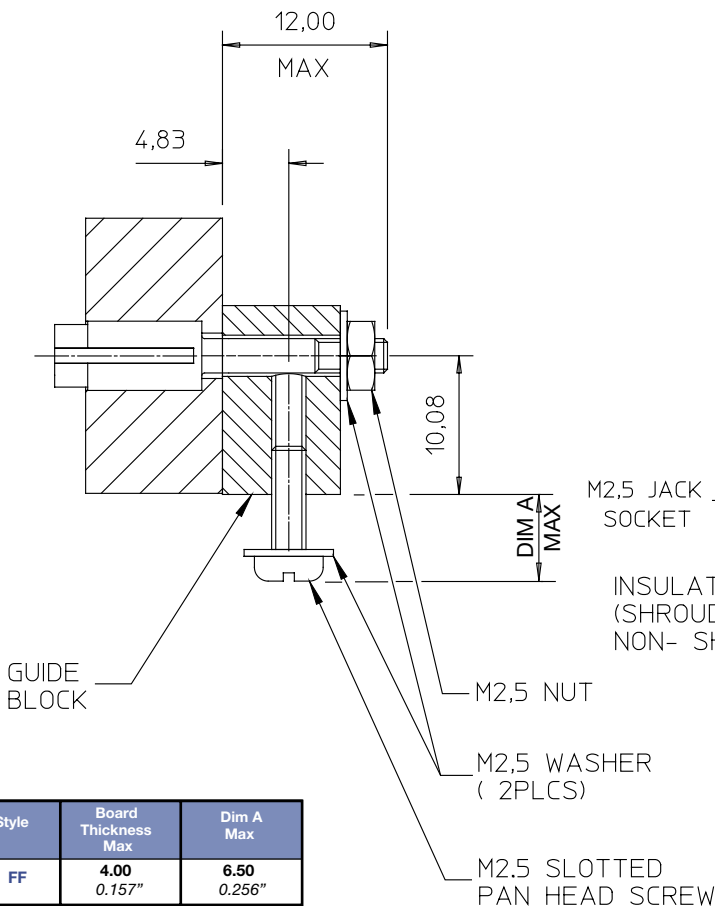
**Style FB** (92;107 Way)  
Polarised Float Mount Socket, Vertical



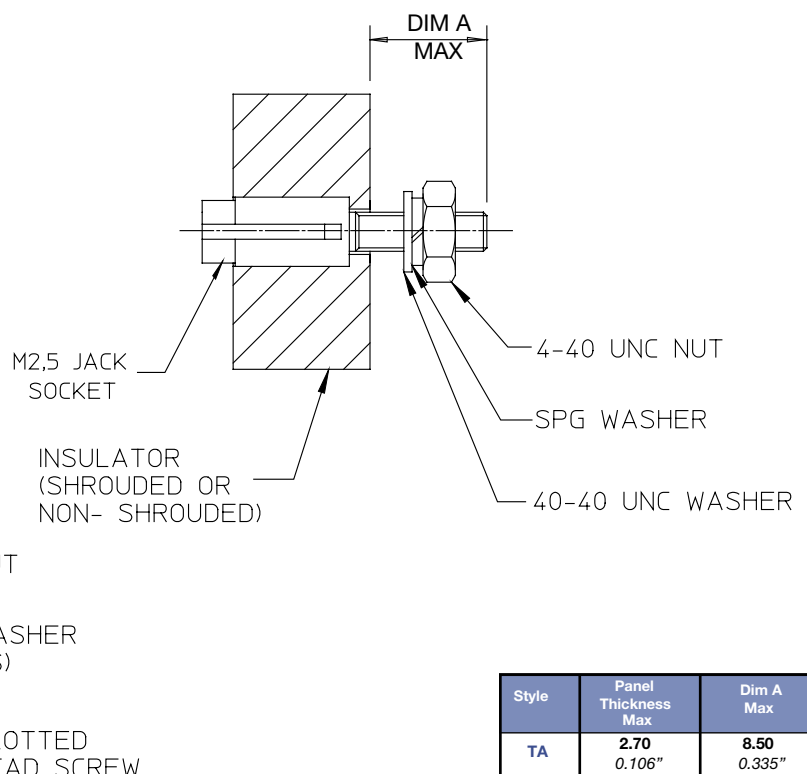
**Style FE** (63; 92; 100; 107 Way)  
Polarised Socket, Vertical Mount



**Style FF** (92;107 Way)  
Polarised Socket, Transverse Mount



**Style TA** (92;107 Way)  
Polarised Jack Socket, Vertical Mount

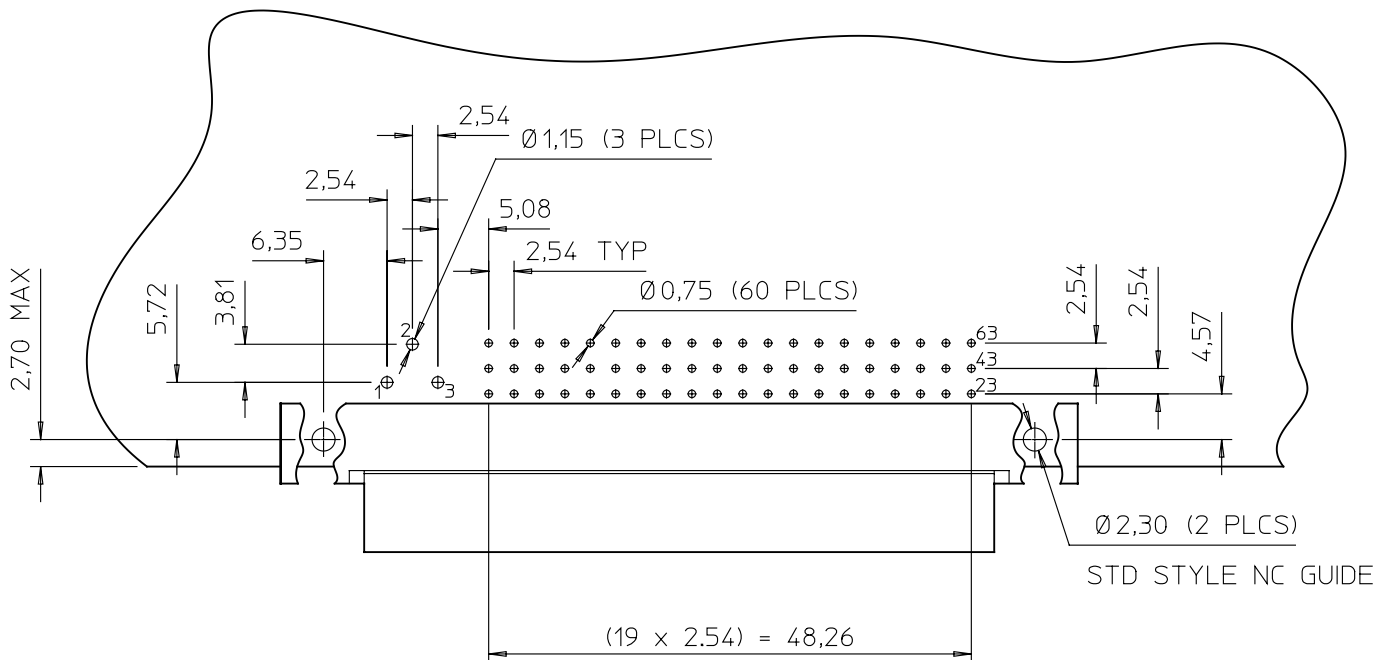


Dimensions are in mm

HPW PCB STANDARD 90° PREPARATIONS DETAILS

63 WAY 90° PCB LAYOUT

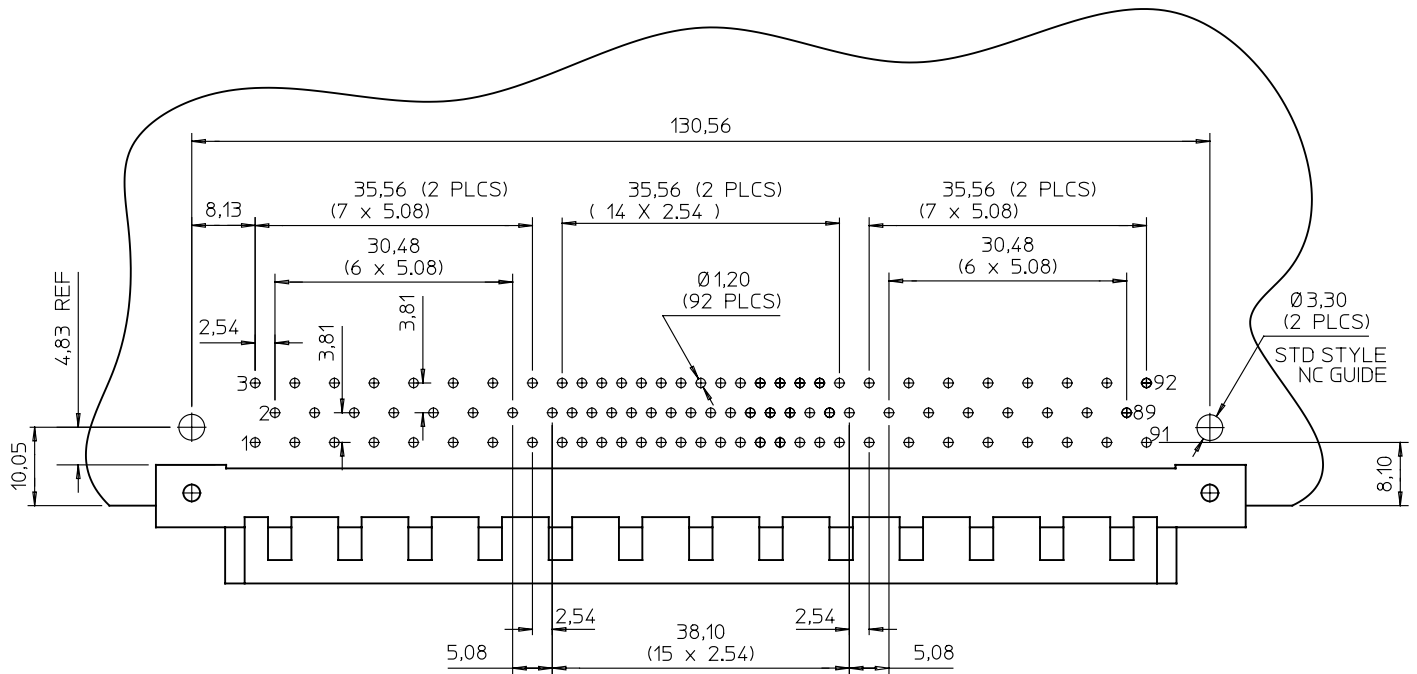
MALE



**HPW PCB STANDARD 90° PREPARATIONS DETAILS**

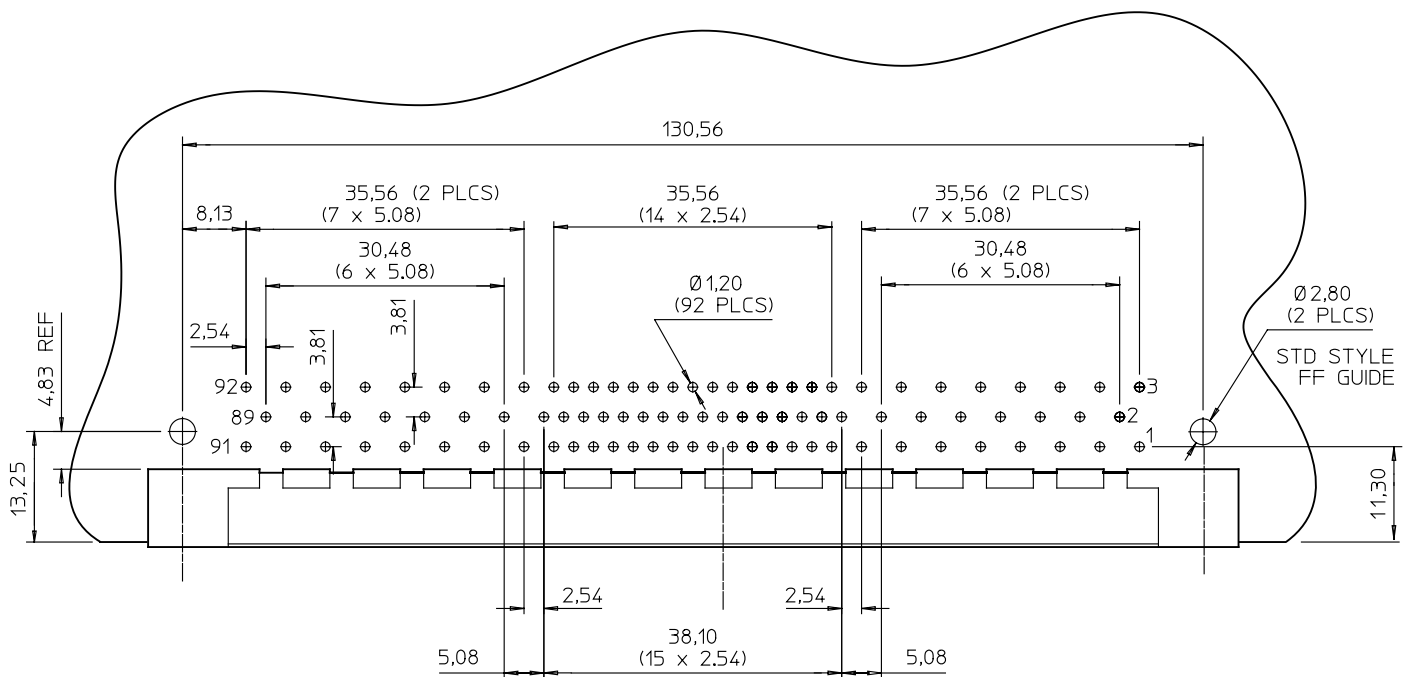
**92 WAY 90° PCB LAYOUT**

**MALE**



**92 WAY 90° PCB LAYOUT**

**FEMALE**

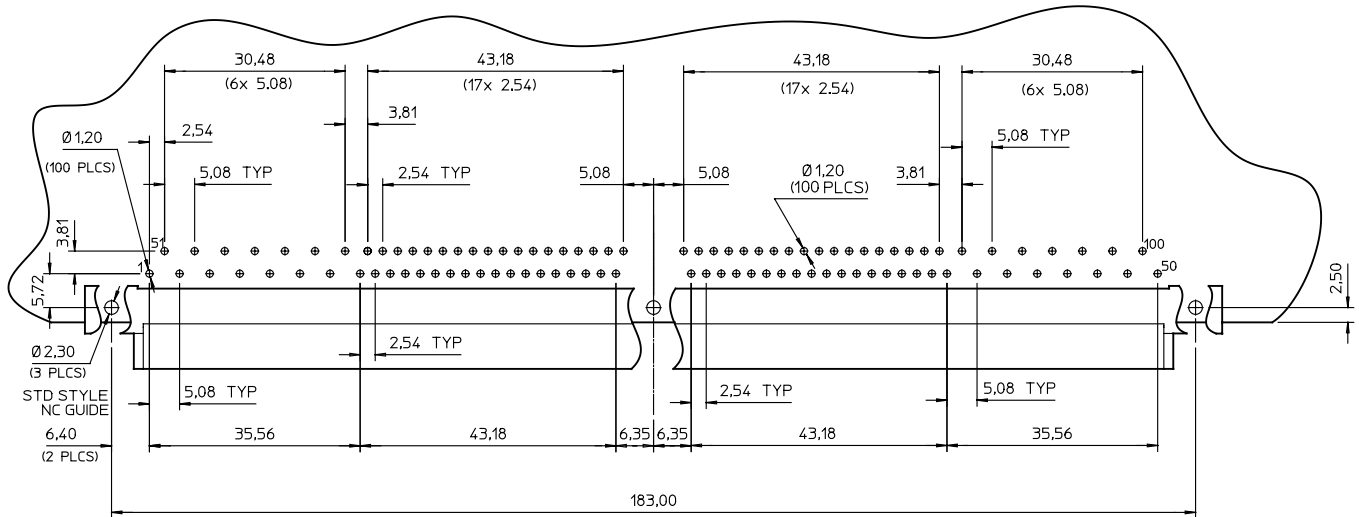


Dimensions are in mm

HPW PCB STANDARD 90° PREPARATIONS DETAILS

100 WAY 90° PCB LAYOUT

MALE

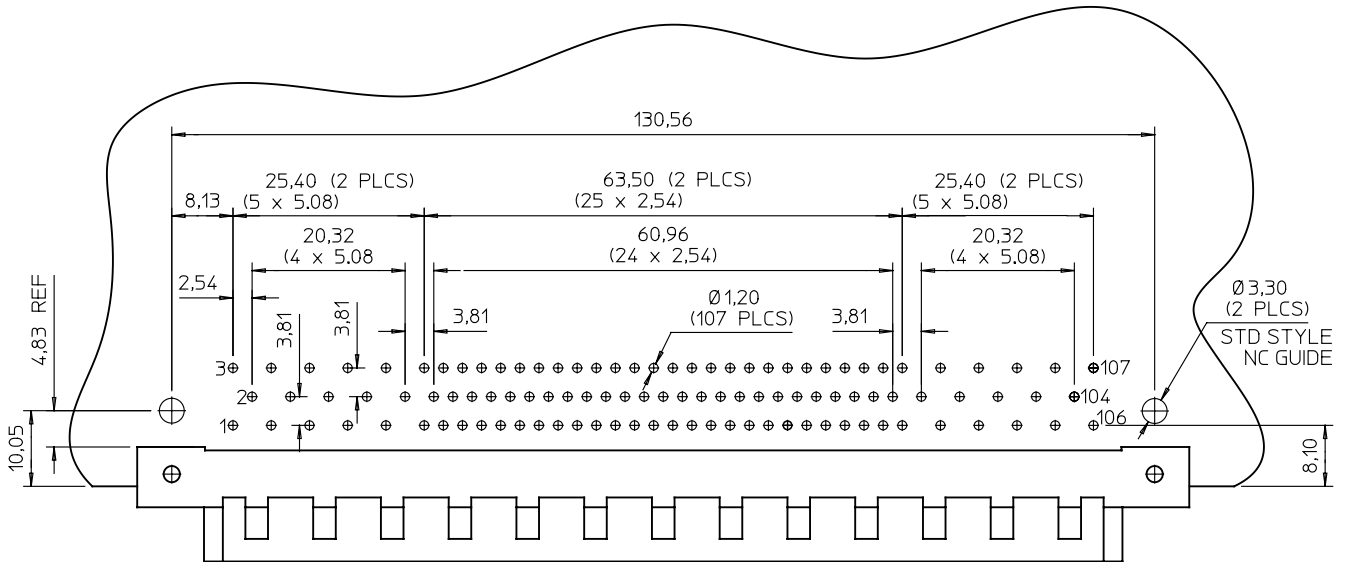


Dimensions are in mm

**HPW PCB STANDARD 90° PREPARATIONS DETAILS**

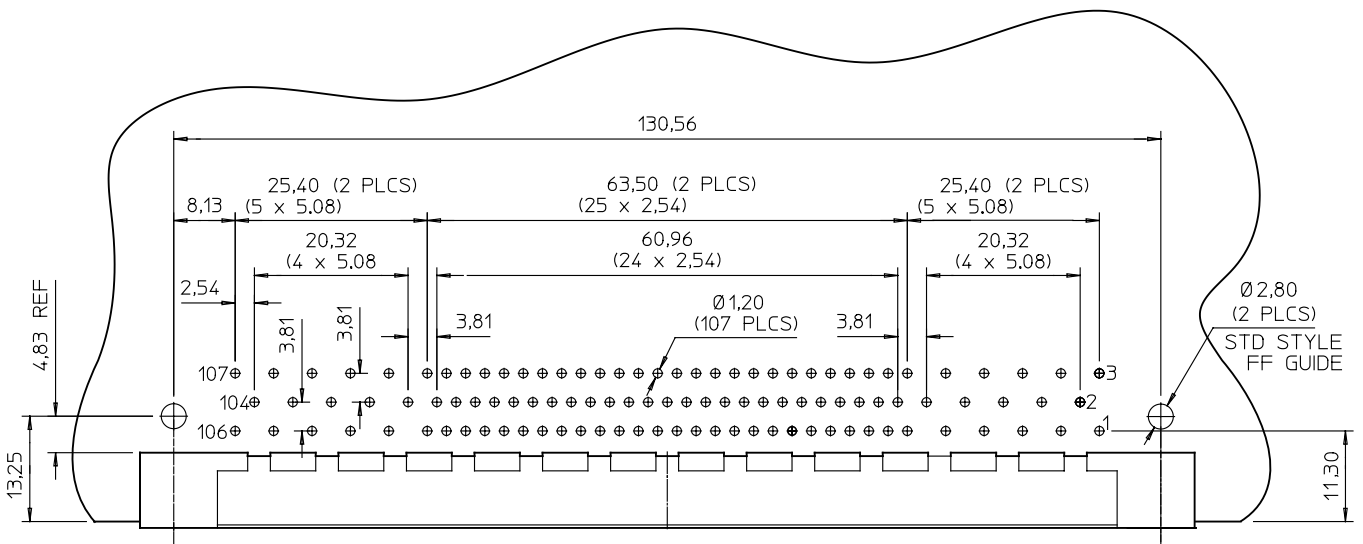
**107 WAY 90° PCB LAYOUT**

**MALE**



**107 WAY 90° PCB LAYOUT**

**FEMALE**

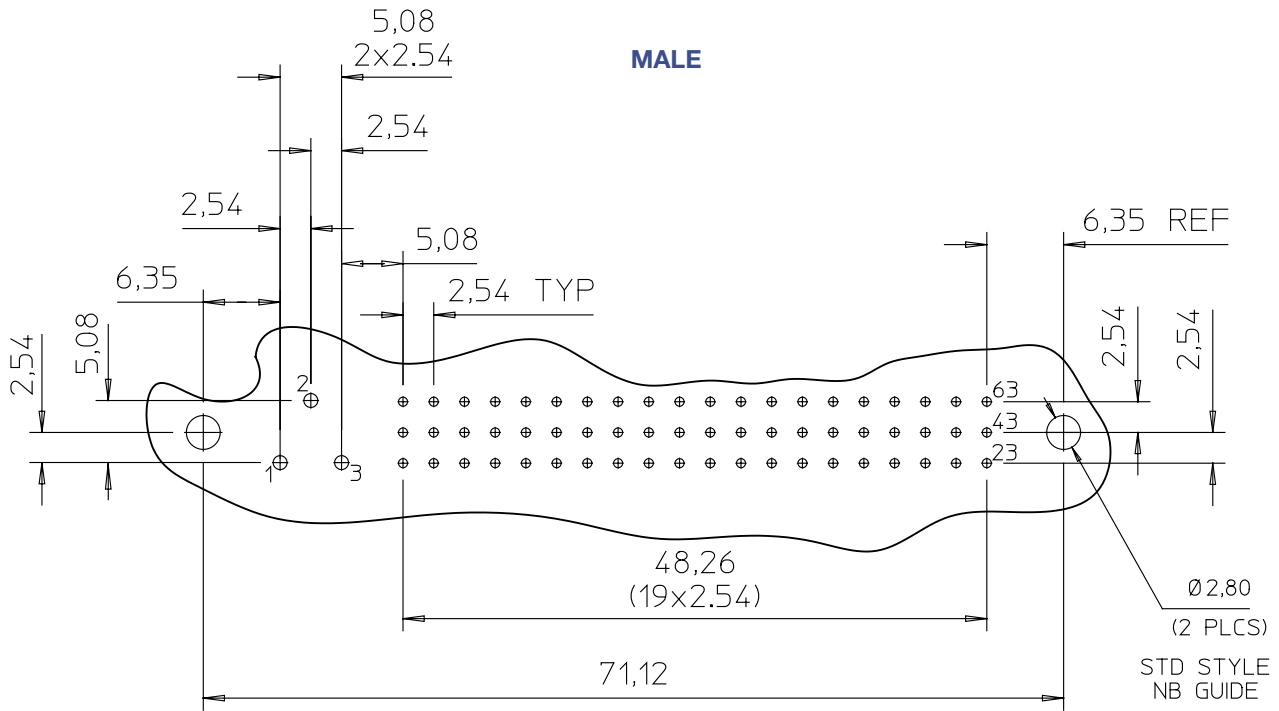


Dimensions are in mm

HPW PCB STANDARD 180° PREPARATIONS DETAILS

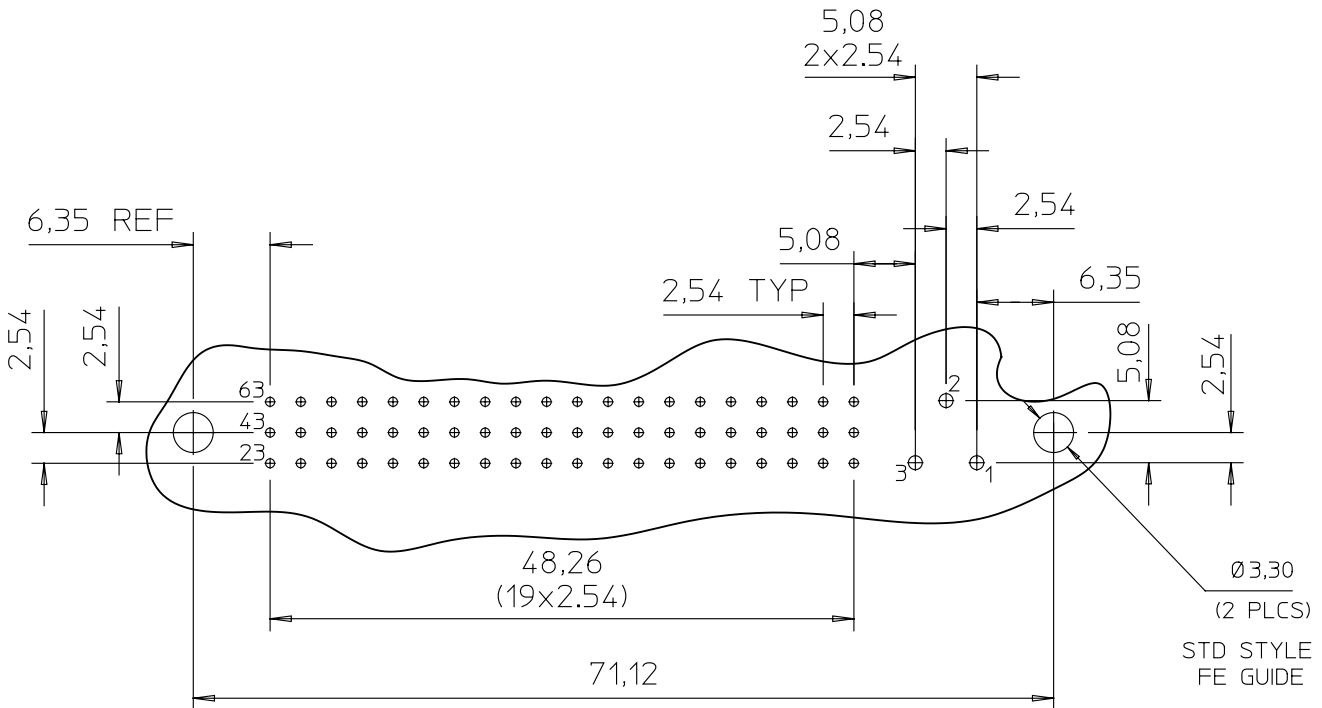
63 WAY 180° PCB LAYOUT

MALE



63 WAY 180° PCB LAYOUT

FEMALE



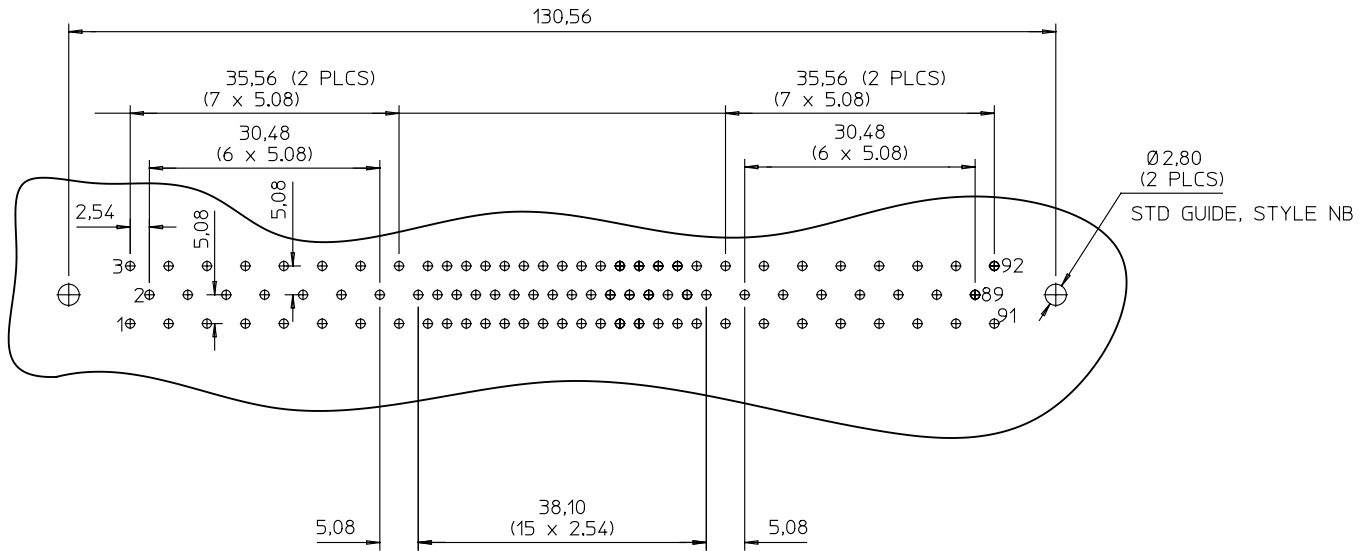
Dimensions are in mm



**HPW PCB STANDARD 180° PREPARATIONS DETAILS**

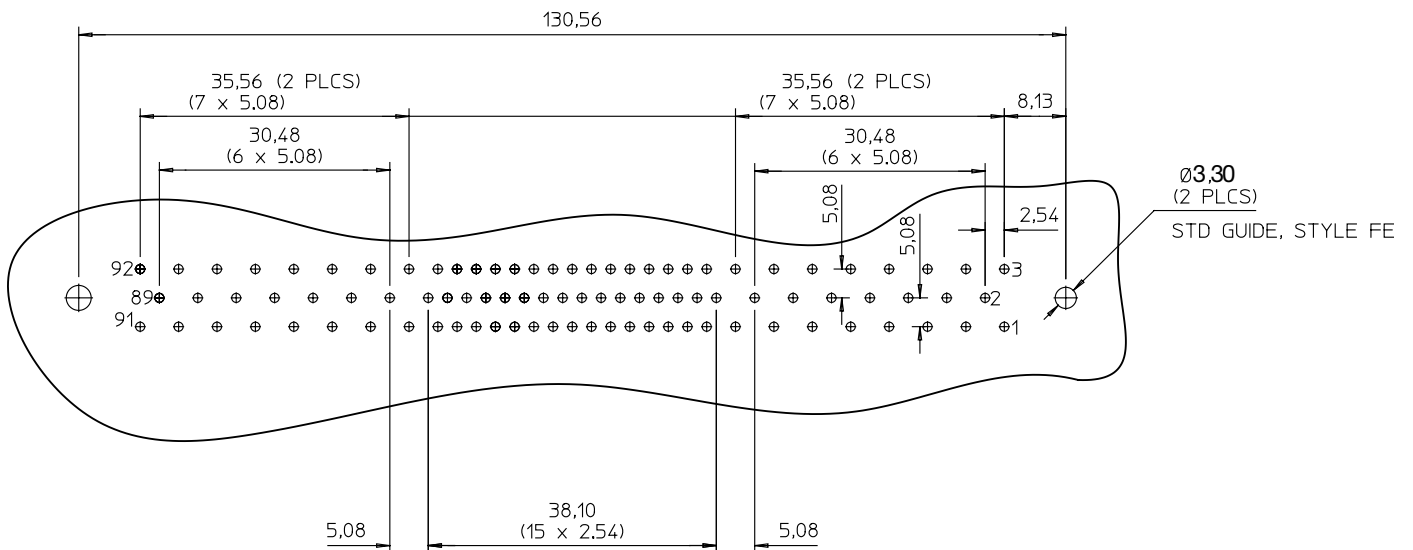
**92 WAY 180° PCB LAYOUT**

**MALE**



**92 WAY 180° PCB LAYOUT**

**FEMALE**

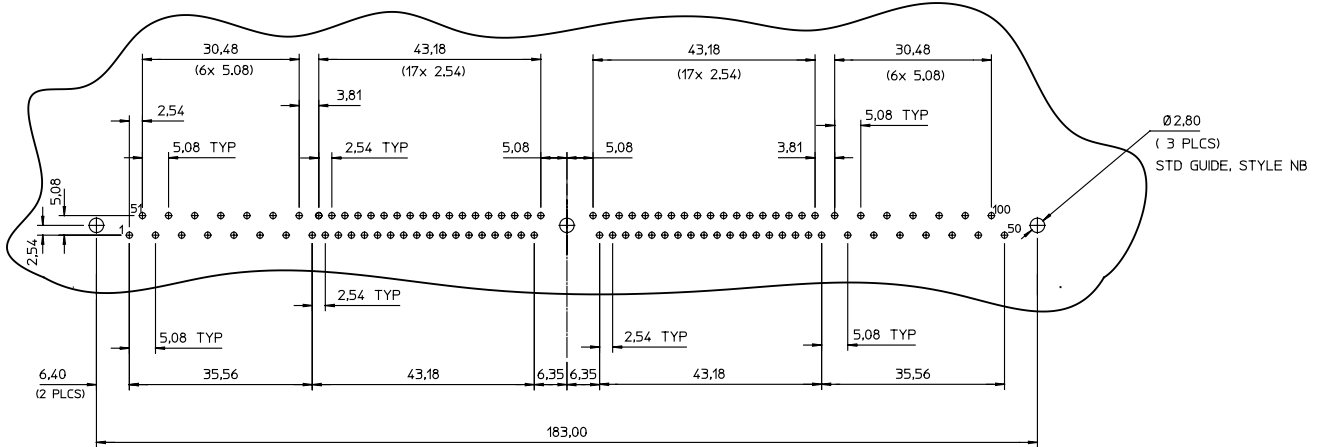


Dimensions are in mm

## HPW PCB STANDARD 180° PREPARATIONS DETAILS

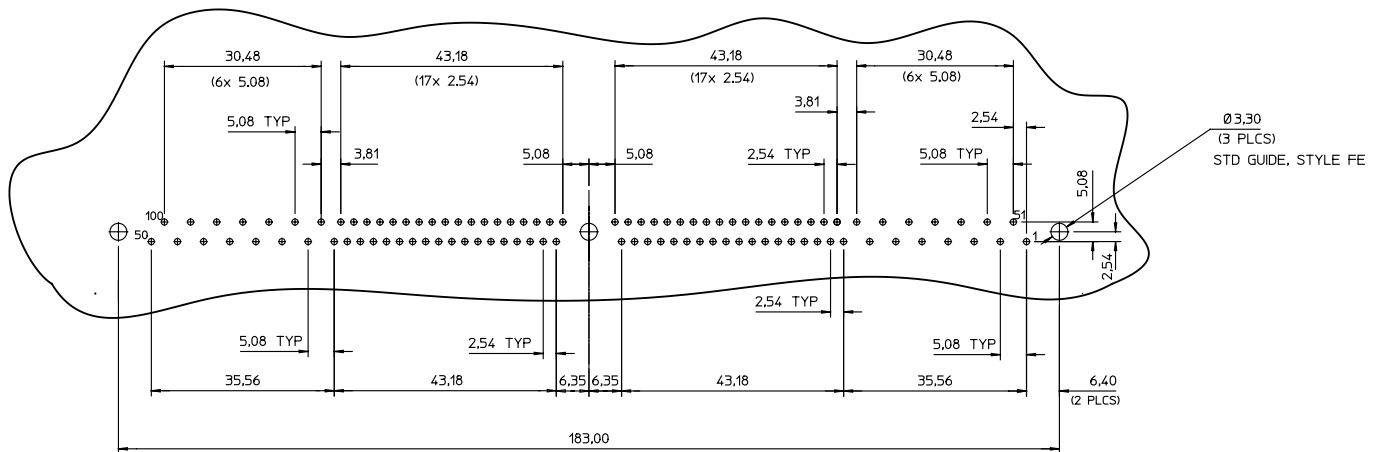
### 100 WAY 180° PCB LAYOUT

#### MALE



### 100 WAY 180° PCB LAYOUT

#### FEMALE

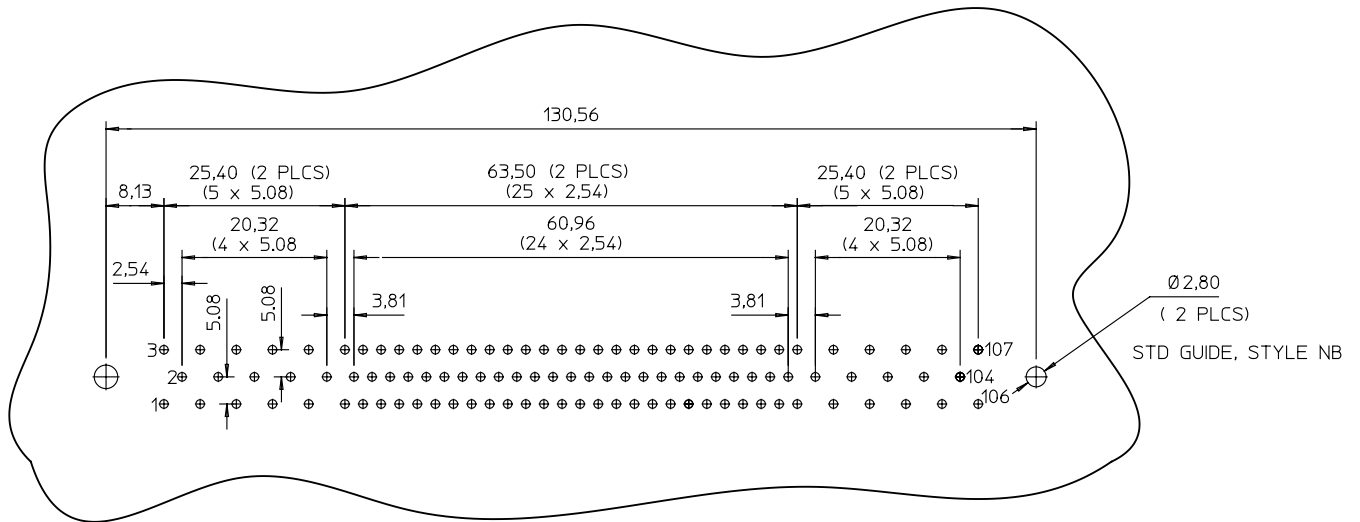


Dimensions are in mm

**HPW PCB STANDARD 180° PREPARATIONS DETAILS**

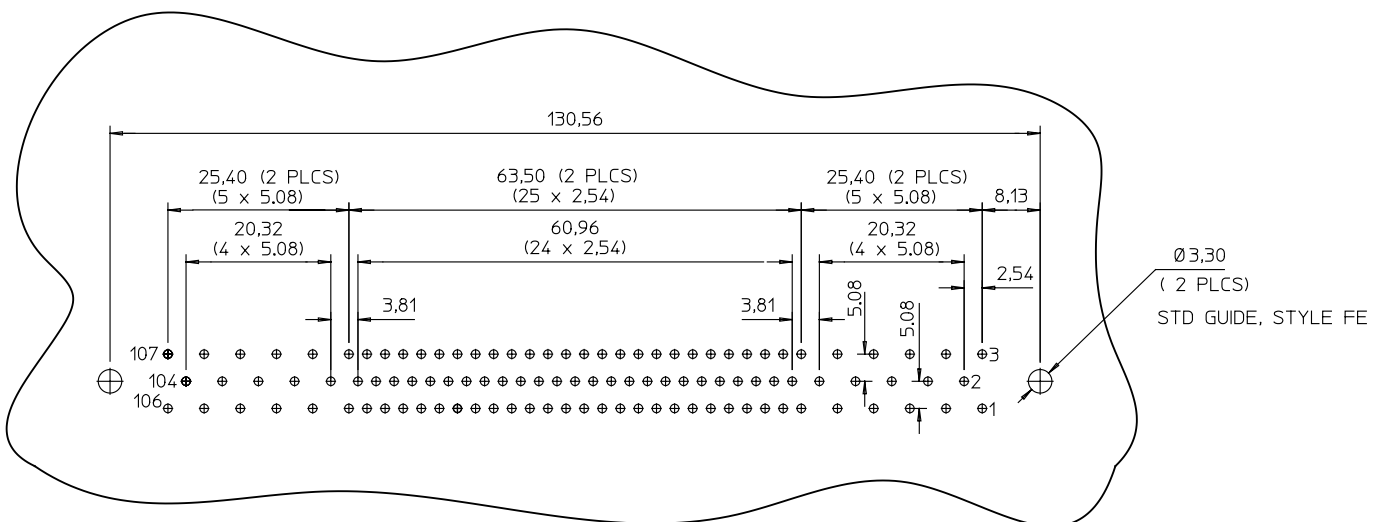
**107 WAY 180° PCB LAYOUT**

**MALE**



**107 WAY 180° PCB LAYOUT**

**FEMALE**



Dimensions are in mm