

# D-SUB & I/O CONNECTORS

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SHF-xxx-F900-55/FHJ	47	SKF-xxx-S201-95/T	16	USS-B04-SBS0-95	78
SHF-xxx-F900-55/FNJ	47	SKF-xxx-S201-95/T0	16	USS-B04-TA01-95	74
SHF-xxx-F900-55/FNJ	47	SKF-xxx-S202-95/T	17	USS-B04-TB01-95	78
SHF-xxx-F900-55/H	37	SKF-xxx-S202-95/T0	17	USS-B04-UB01-95	78
SHF-xxx-F900-55/HJ	37	SKM-xxx-S201-95/T	16	USS-B04-VA01-95	74
SHF-xxx-F900-55/N	37	SKM-xxx-S201-95/T0	16	USS-B08-TA02-95	75
SHF-xxx-F900-55/NJ	37	SKM-xxx-S202-95/T	17	USS-B12-RA03-95	75
SHF-xxx-S101-95/T	36	SKM-xxx-S202-95/T0	17	USS-BU09-RA31-95	76
SHF-xxx-S101-95/T0	36	SLO-xxx-T106-NN	70	USS-BU18-RA32-95	76
SHF-xxx-S111-95/BR	32	SSF-015-HU98-95/N	13	USS-W04-RA01-95	74
SHF-xxx-S111-95/BRJ	32	SSF-015-HU98-95/R	13	USS-W04-RA02-95	75
SHF-xxx-S111-95/BW	32	SSF-xxx-U908-95/N	11	USS-W04-RB01-95	78
SHF-xxx-S111-95/BWJ	32	SSF-xxx-U908-95/R	11	USS-W04-SAS0-95	74
SHF-xxx-S111-95/T	32	SSM-xxx-U908-95/N	12	USS-W04-SB01-95	78
SHF-xxx-S111-95/T0	32	SSM-xxx-U908-95/R	12	USS-W04-SBS0-95	78
SHF-xxx-S111-95/TJ	32	ULS-B04-RAS0-95	74	USS-W04-TA01-95	74
SHM-xxx-B111-55/BR	35	ULS-B04-RBS0-95	78	USS-W04-TB01-95	78
SHM-xxx-B111-55/BRJ	35	ULS-B04-SAS0-95	74	USS-W04-UB01-95	78
SHM-xxx-B111-55/T	35	ULS-W04-RAS0-95	74	USS-W04-VA01-95	74
SHM-xxx-B111-55/T0	35	ULS-W04-RBS0-95	78	USS-W08-TA02-95	75
SHM-xxx-B111-55/TJ	35	ULS-W04-SAS0-95	74	USS-W12-RA03-95	75

## General information concerning the E-tec interconnect products

### Specifications

The data contained in this catalog is of general nature and refers to standard products. For example, general tolerances  $\pm 0.25\text{mm}$ , a „Current rating“ at an ambient temperature of  $25^{\circ}\text{C}$  reflects the value per individual contact. Should you require any further data or test reports, you can obtain this information from your nearest E-tec sales office.

The E-tec connectors conform with signal integrity requirements at high data and frequency rates. However we cannot offer a general information about the max. frequency or data transmission rate. For such a statement, it would require more information about the chosen configuration and pin-out, the length of the cable and/or any other specific requirements regarding the application itself and its related signal integrity. E-tec SMT connectors, male or female, are offered with a coplanarity of max.  $0,10\text{mm}$ . They are adapted to all modern SMT soldering processes and they can be handled easily with all currently existing placing techniques. Customers may choose between various packaging options, such as tray, tube and reel.

### GENERAL POLICY

All information contained in this catalog, including illustrations, specifications and dimensions are accurate to the best of our knowledge, and reflect the status as at the date of publication. Due to technical progress, it is subject to change without notice. Application information is informational in nature and shall not be construed to warrant suitability of products for any particular purpose as performance may vary depending on the conditions to which a product is subjected. Unless otherwise confirmed at the time of order, all E-tec products are non cancellable and non returnable items (NCNR). E-tec products are warranted for 30 days and the warranty is limited strictly to replacement of products. This warranty does not cover any claims for natural wear and tear, nor for any compensations, such as loss of production, loss of use, loss of orders, loss of profit, nor any other direct or indirect damages.

**ULTRA SLIM PROFILE**

Standard & HD right angle "solder tail"



Page 8, 9 & 10

Standard & HD right angle "SMT"



Page 11, 12 & 13

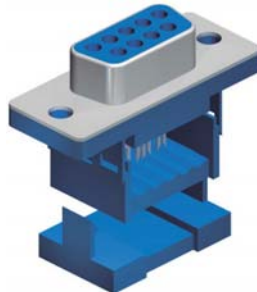
**STANDARD VERSION**

Hand Solder (solder cup) Type



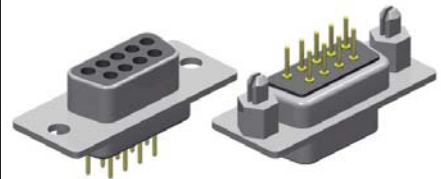
Page 15

IDC Type



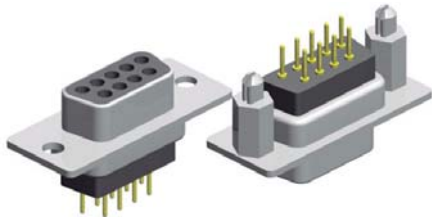
Page 16 & 17

Vertical Solder tail Type



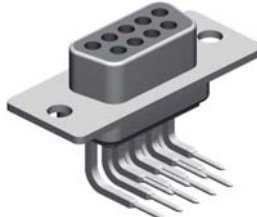
Page 18 & 19

Raised Vertical Solder tail Type



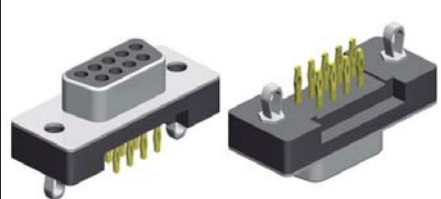
Page 20 & 21

Right Angle "open body" Type



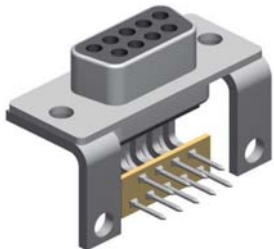
Page 22

Press Fit Type



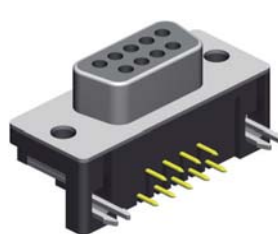
Page 30

Right Angle "open body" Type  
6.30mm & 7.30mm centre



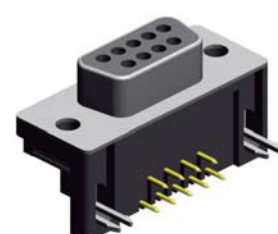
Page 23, 24 & 25

Right Angle "closed body" Type  
**US Style** Footprint 8.08mm



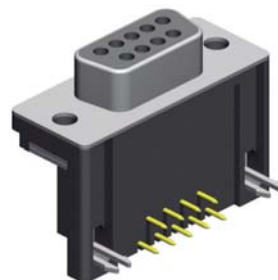
Page 26

Right Angle "closed body" Type  
**Euro Style** Footprint 9.40mm



Page 27

Right Angle "closed body" Type **Long Style** Footprint 15.00mm



Page 28

**HIGH DENSITY**

Vertical Solder-tail Type



Page 32 & 33

**Raised** Vertical Solder-tail Type



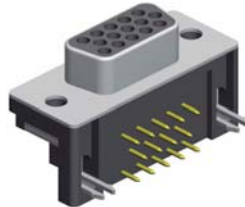
Page 34 & 35

Hand Solder (solder cup) Type



Page 36

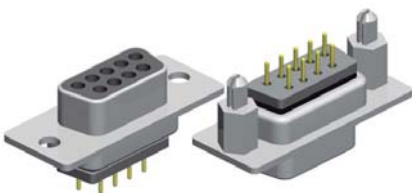
Right Angle "closed body" Type



Page 37

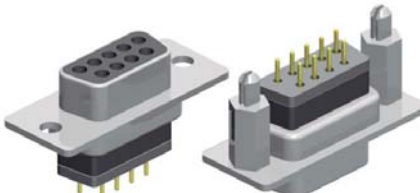
**D-SUB WITH FERRITE FILTER**

Vertical Solder-tail Type



Page 40 & 41

**Raised** Vertical Solder-tail Type



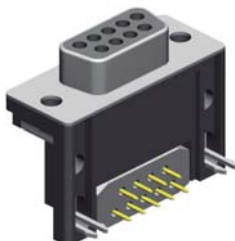
Page 42 & 43

Right Angle "closed body" Type  
**US Style** Footprint 8.08mm



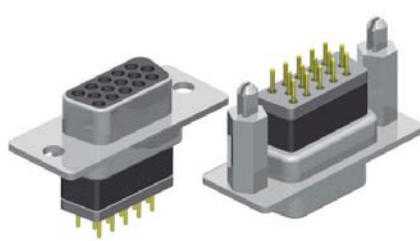
Page 44

Right Angle "closed body" Type  
**Long Style** Footprint 15.00mm



Page 45

**"High Density"**  
**Raised** Vertical Solder-tail Type



Page 46

**"High Density"**  
Right Angle "closed body" Type



Page 47

**Raised & MULTI PORT**

**Raised Type**



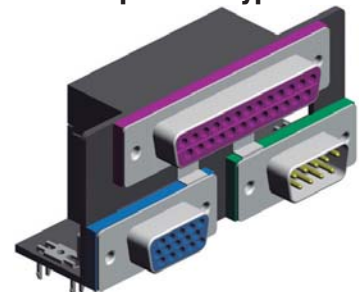
Page 49, 50 & 67

**Dual Port Type**



Page 51 to 67

**Triple Port Type**



Page 68



**D-SUB ACCESSORIES**

Jack Screws and Slide Locking System



Page 70

Hoods



Page 71

**DVI**

Analog & Digital 24+4-contact - Right Angle Type



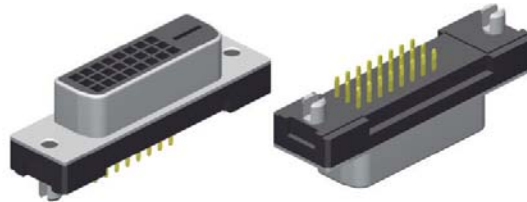
Page 84

Digital 24-contact - Right Angle Type



Page 84

Digital 24-contact - Vertical Type



Page 85

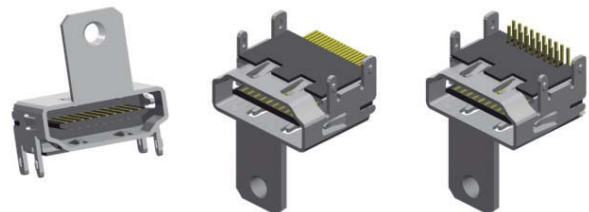
**HDMI**

SMT & Solder Tail without Mounting Flange



Page 94 & 95

SMT & Solder Tail with "top" Mounting Flange






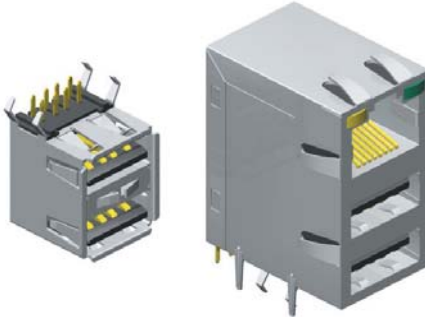
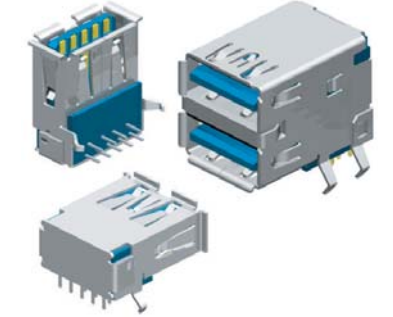

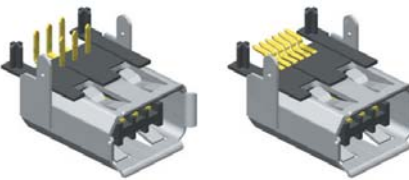
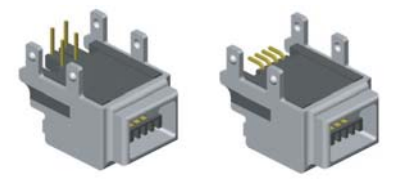

Page 94 & 95

SMT & Solder Tail with "wing" Mounting Flange



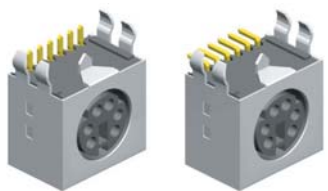
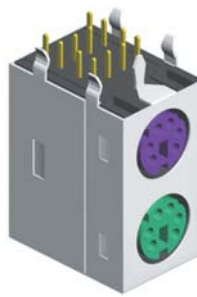
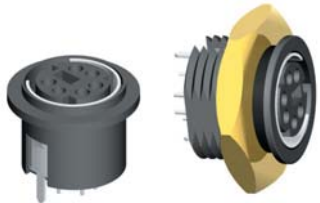



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**USB & IEEE 1394 CONNECTORS**

<p><b>USB</b> Connector Type "A"</p>  <p><b>Page 74</b></p>	<p><b>USB</b> Connector Type "B"</p>  <p><b>Page 78</b></p>	<p><b>Mini USB</b> Connector Type "A" &amp; "B"</p>  <p><b>Page 79</b></p>
<p><b>Multi Port USB</b> Connector Type "A"</p>  <p><b>Page 75</b></p>	<p><b>USB</b> Connector 3.0 Type "A"</p>  <p><b>Page 76</b></p>	<p><b>USB</b> Plug</p>  <p><b>Page 77</b></p>
<p><b>IEEE 1394</b> Connector 6-Contact Type</p>  <p><b>Page 80</b></p>	<p><b>IEEE 1394</b> Connector 4-Contact Type</p>  <p><b>Page 81</b></p>	<p><b>USB &amp; IEEE 1394</b> Connector Cable Assembly</p>  <p><b>Page 82</b></p>

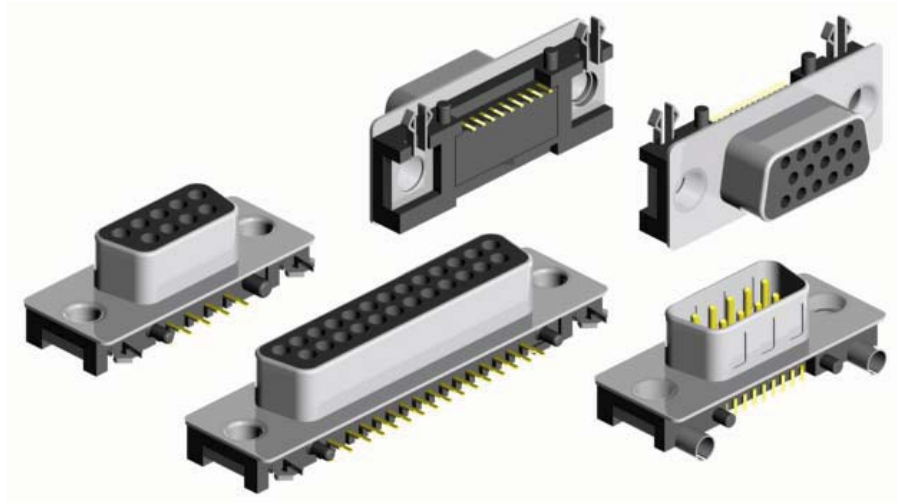
**MINI DIN CONNECTORS**

<p>Non Shielded Type</p>  <p><b>Page 87</b></p>	<p>Shielded Type</p>  <p><b>Page 88</b></p>	<p>Low Profile Type Solder-tail &amp; SMT</p>  <p><b>Page 89</b></p>
<p>Dual Port Type</p>  <p><b>Page 90</b></p>	<p>Straight &amp; Wall Mounting Type</p>  <p><b>Page 91</b></p>	<p>Plugs</p>  <p><b>Page 92</b></p>



# Ultra Slim Profile

## D-Sub

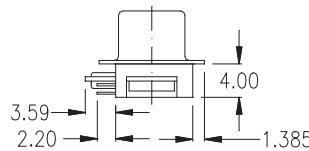
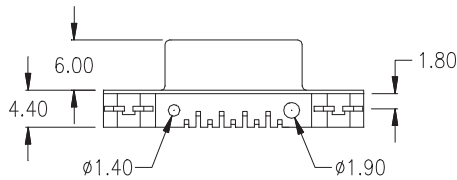
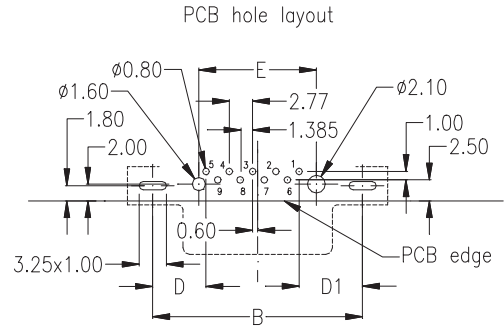
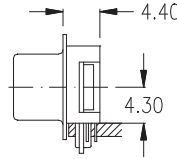
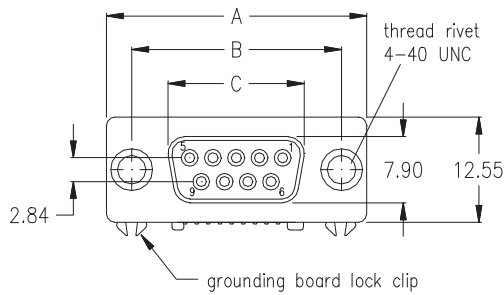


Ultra Slim Profile D-Sub Connectors are designed in order to save space on the PC-Boards.

Standard and High Density versions for through hole “Wave Solder” and “Pin-In-Paste” Technology, as well as regular SMT types, right angle male and female are available.



female



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
009	30.81 1.213	24.99 .984	16.33 .643	6.36 .250	7.56 .298	14.00 .551

Ordering Code

for "Wave Solder" Technology

**SDF - 009 - US91 - 95 / N**

for "Pin-In-Paste" Technology

**SDF - 009 - US91 - 95 / SN**

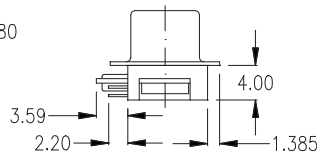
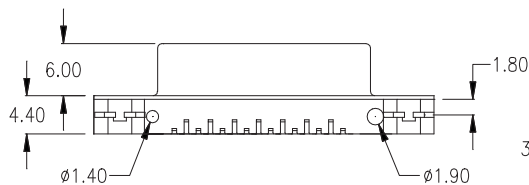
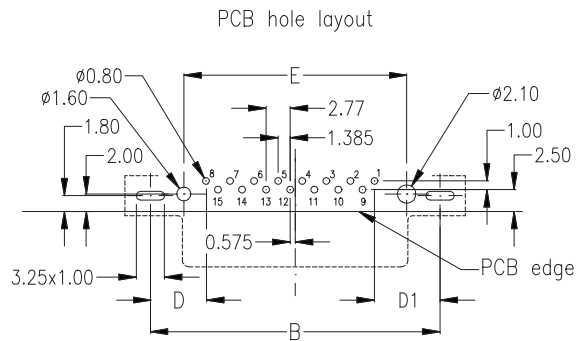
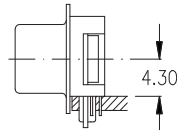
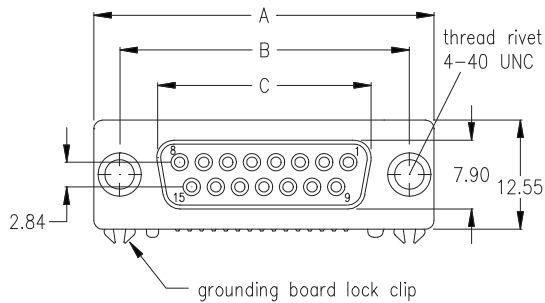
Option:

Jack Screw has to be ordered separately.

See page 70

Plating: -95= tin(leadfree)/gold

female



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
015	39.14 1.541	33.32 1.312	24.66 .971	6.39 .252	7.54 .297	25.64 1.009

Ordering Code

for "Wave Solder" Technology

**SDF - 015 - US91 - 95 / N**

for "Pin-In-Paste" Technology

**SDF - 015 - US91 - 95 / SN**

Option:

Jack Screw has to be ordered separately.

See page 70

Plating: -95= tin(leadfree)/gold

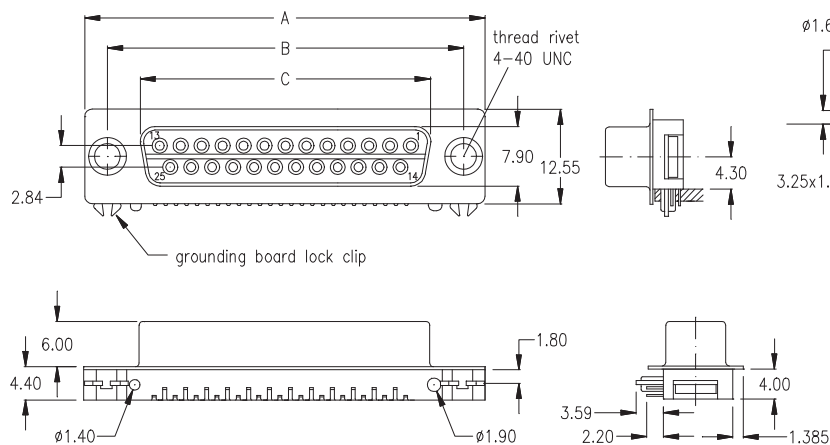
# SD Series - D-Sub 90°

## US91 Ultra Slim Profile

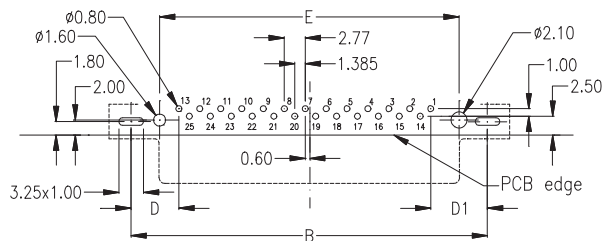
"Wave Solder" & "Pin-In-Paste" Technology



### female



PCB hole layout



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
025	53.04 2.088	47.04 1.852	38.38 1.511	6.30 .248	7.50 .295	39.54 1.557

### Ordering Code

for "Wave Solder" Technology

**SDF - 025 - US91 - 95 / N**

for "Pin-In-Paste" Technology

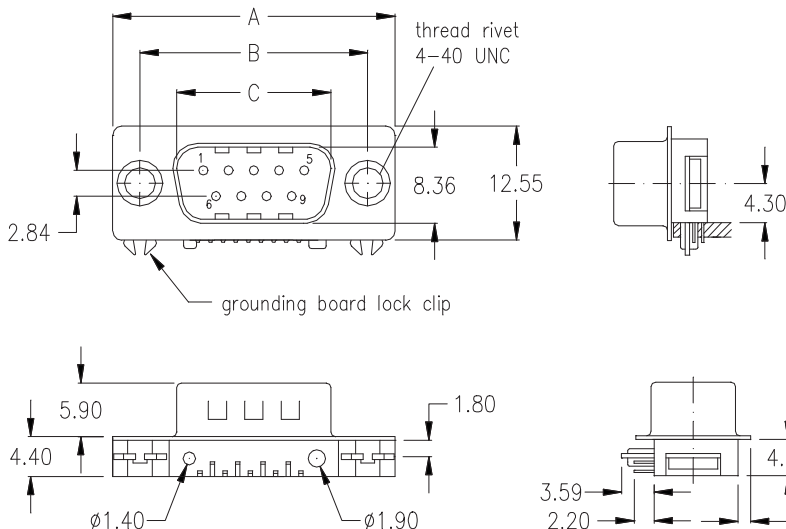
**SDF - 025 - US91 - 95 / SN**

### Option:

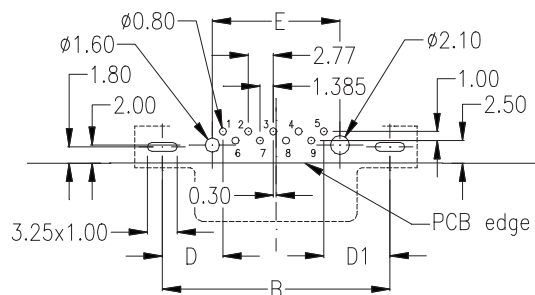
Jack Screw has to be ordered separately.  
See page 70

Plating: -95= tin(leadfree)/gold

### male



PCB hole layout



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
009	30.81 1.213	24.99 .984	16.92 .666	6.66 .262	7.26 .286	14.00 .551

### Ordering Code

for "Wave Solder" Technology

**SDM - 009 - US91 - 95 / N**

for "Pin-In-Paste" Technology

**SDM - 009 - US91 - 95 / SN**

### Option:

Jack Screw has to be ordered separately.  
See page 70

Plating: -95= tin(leadfree)/gold



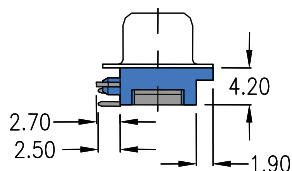
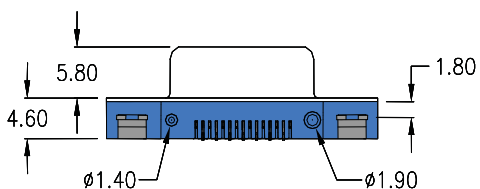
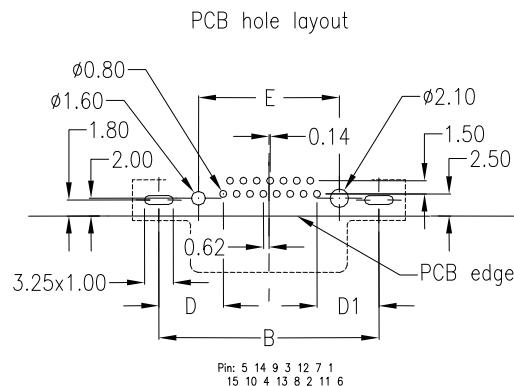
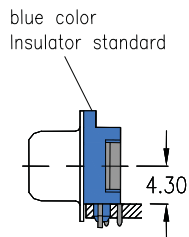
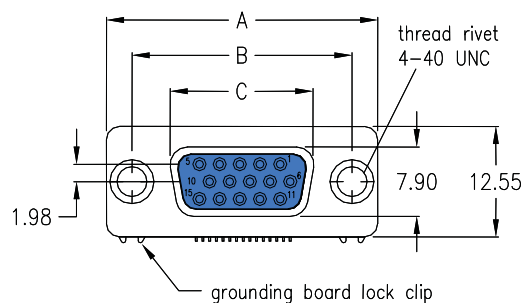
# SH Series - High Density D-Sub 90°

## US98 Ultra Slim Profile

"Wave Solder" & "Pin-In-Paste" Technology



### female



for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
<b>015</b>	<u>30.81</u> 1.213	<u>24.99</u> .984	<u>16.33</u> .643	<u>7.32</u> .288	<u>7.04</u> .277	<u>16.00</u> .630

### Ordering Code

for "Wave Solder" Technology

**SHF - 015 - US98 - 95 / VN**

for "Pin-In-Paste" Technology

**SHF - 015 - US98 - 95 / VSN**

### Option:

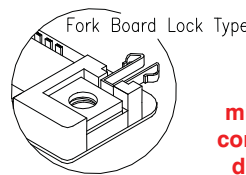
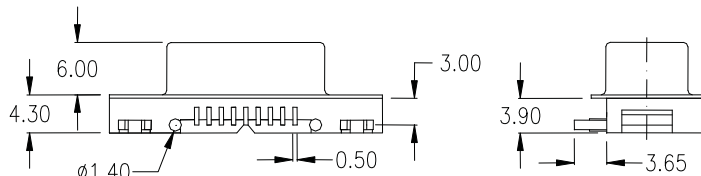
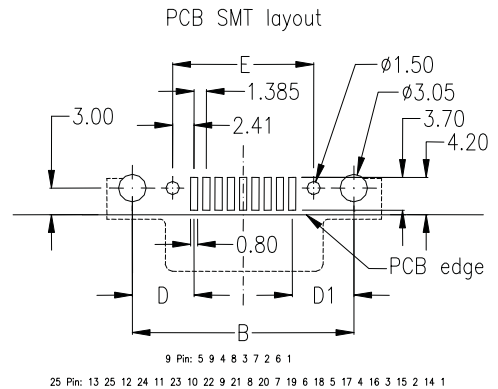
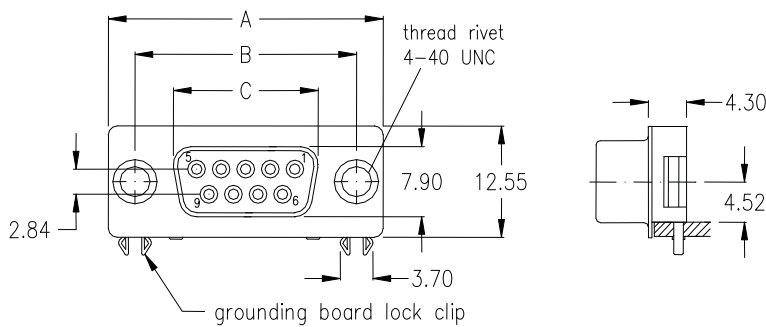
Jack Screw has to be ordered separately.

See page 70

Please ask for black color insulator availability

Plating: -95= tin(/leadfree)/gold

**female** - with fork board lock type -



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643	6.96 .274	6.96 .274	15.90 .626
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511	6.90 .272	6.90 .272	38.06 1.498

**Ordering Code**

**SSF - xxx - U908 - 95 / N**

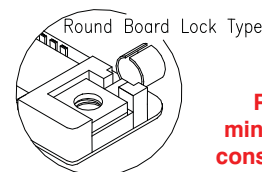
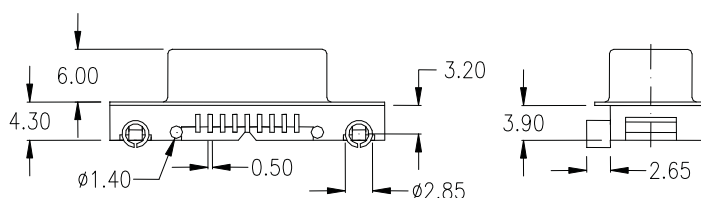
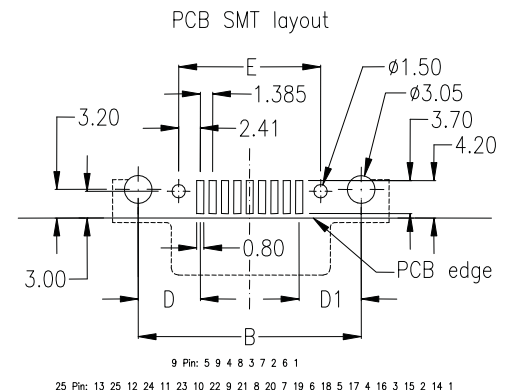
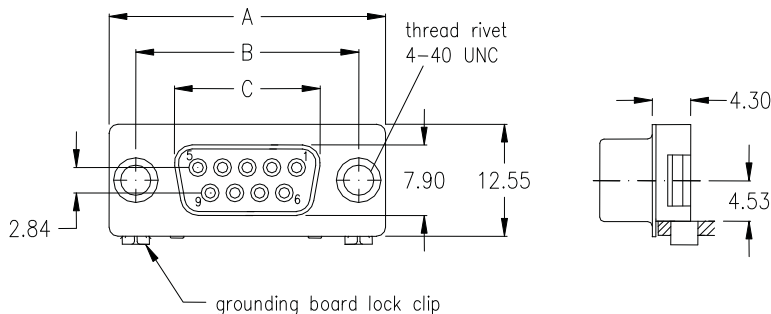
No. of contacts

Plating: -95= tin(leadfree)/gold

**Option:**

Jack Screw has to be ordered separately.  
See page 70

**female** - with round board lock type -



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643	6.96 .274	6.96 .274	15.90 .626
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511	6.90 .272	6.90 .272	38.06 1.498

**Ordering Code**

**SSF - xxx - U908 - 95 / R**

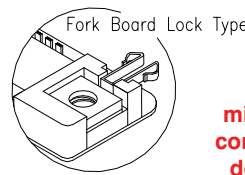
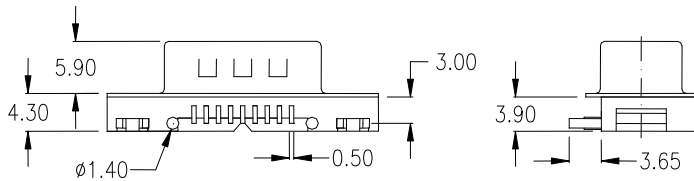
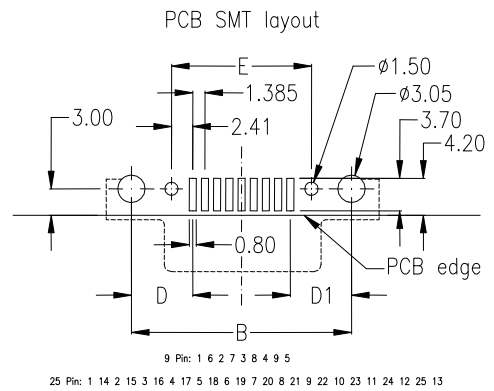
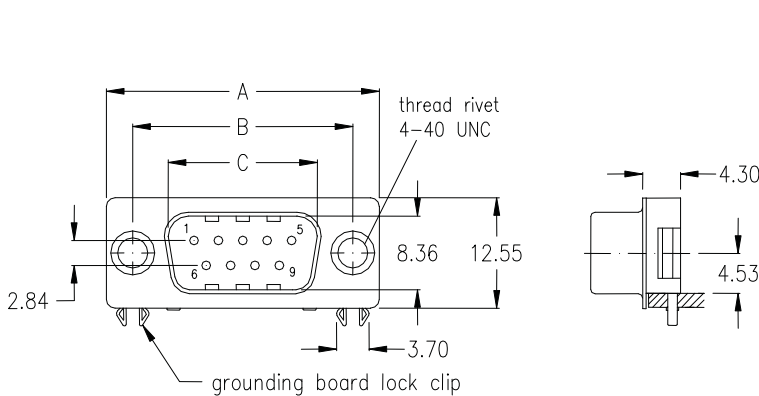
No. of contacts

Plating: -95= tin(leadfree)/gold

**Option:**

Jack Screw has to be ordered separately.  
See page 70

male - with fork board lock type -



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
009	30.81	24.99	16.92	6.96	6.96	15.90
	1.213	.984	.666	.274	.274	.626
025	53.04	47.04	38.96	6.90	6.90	38.06
	2.088	1.852	1.534	.272	.272	1.498

Ordering Code

SSM - xxx - U908 - 95 / N

No. of contacts

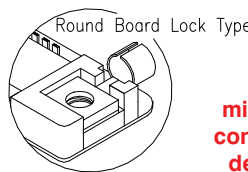
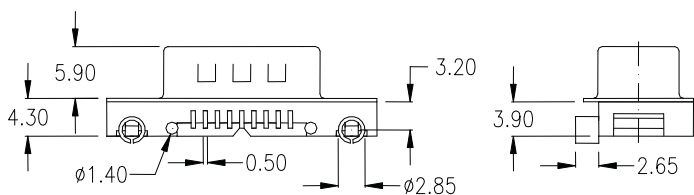
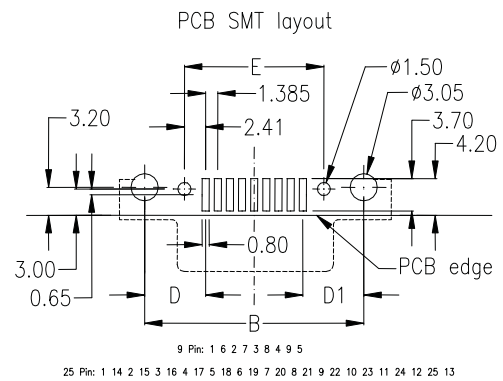
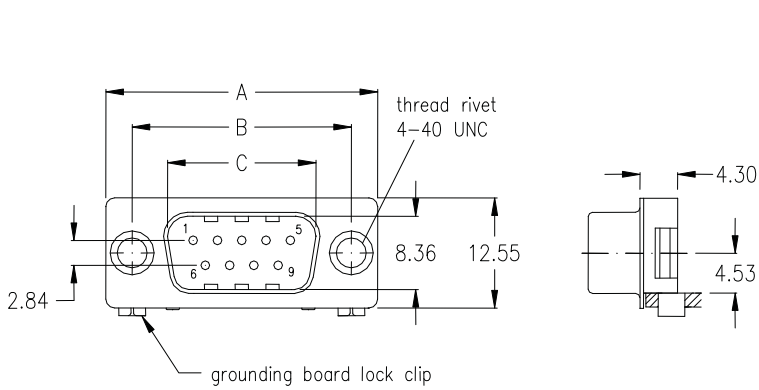
Plating: -95= tin(leadfree)/gold

Option:

Jack Screw has to be ordered separately.

See page 70

male - with round board lock type -



**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

for technical & electrical specification please go to page 72

No. of contacts	Dimension					
	A	B	C	D	D1	E
009	30.81	24.99	16.92	6.96	6.96	15.90
	1.213	.984	.666	.274	.274	.626
025	53.04	47.04	38.96	6.90	6.90	38.06
	2.088	1.852	1.534	.272	.272	1.498

Ordering Code

SSM - xxx - U908 - 95 / R

No. of contacts

Plating: -95= tin(leadfree)/gold

Option:

Jack Screw has to be ordered separately.

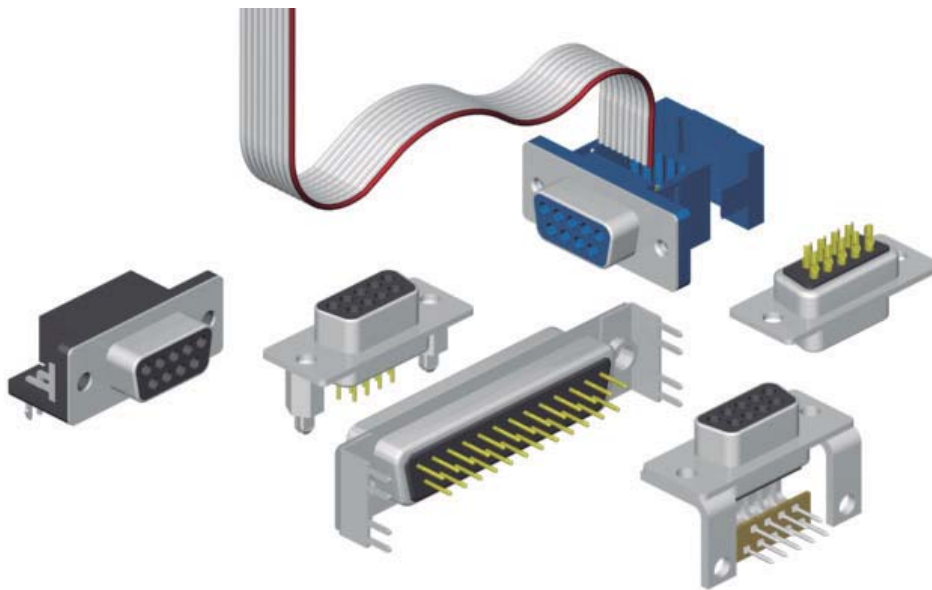
See page 70





# Standard Version

## D-Sub



Our D-Sub Connectors conform to industrial specifications and are compatible with DIN 41 652 norms, IEC 48 B, HE 5 etc.....

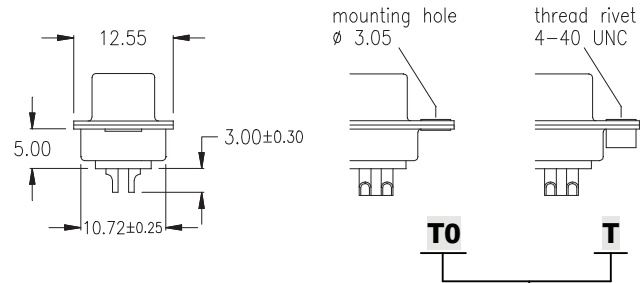
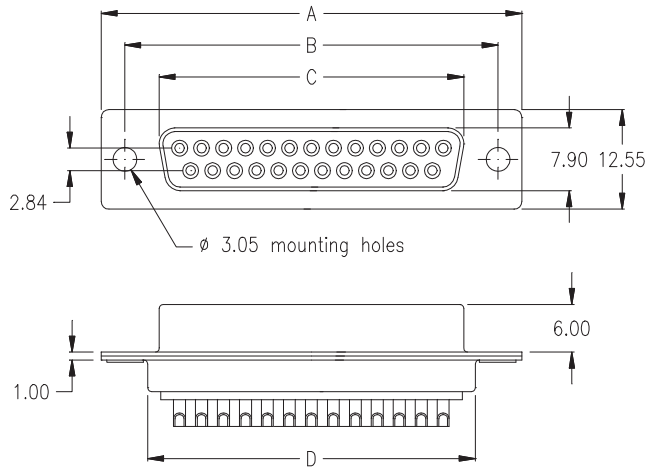
They are compatible with all other D-Sub Connectors available on the market according to these specifications.

Together with a large variety of accessories, the D-Sub Connectors can be used in most applications, such as industrial electronics, data- and telecommunication and others more.

SD Series - D-Sub  
S101 solder cup type



female



No. of contacts	Dimension			
	A	B	C	D
009	30.81	24.99	16.33	19.28
	1.213	.984	.643	.795
015	39.14	33.32	24.66	27.51
	1.541	1.312	.971	1.083
025	53.04	47.04	38.38	41.30
	2.088	1.852	1.511	1.652
037	69.32	63.50	54.84	57.40
	2.729	2.500	2.159	2.272

Option:

Ordering Code

SDF - xxx - S101 - 95 / XX

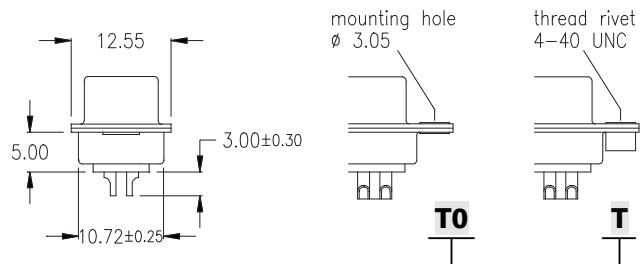
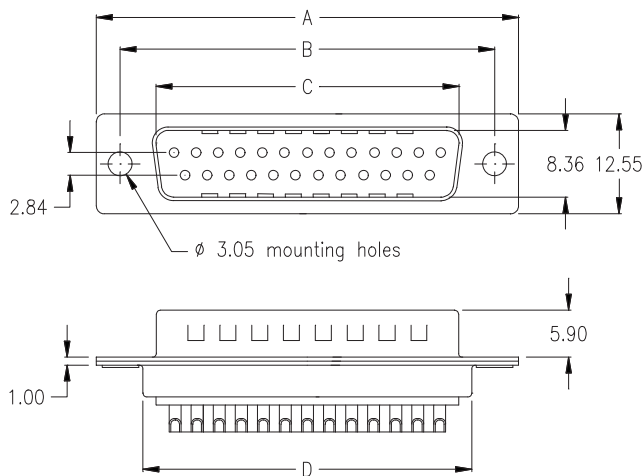
No. of contacts

Option

General Specification page 72

Plating: -95 = tin(leadfree)/gold

male



No. of contacts	Dimension			
	A	B	C	D
009	30.81	24.99	16.92	19.28
	1.213	.984	.666	.795
015	39.14	33.32	25.25	27.51
	1.541	1.312	.994	1.083
025	53.04	47.04	38.96	41.30
	2.088	1.852	1.534	1.652
037	69.32	63.50	55.42	57.40
	2.729	2.500	2.182	2.272

Option:

Ordering Code

SDM - xxx - S101 - 95 / XX

No. of contacts

Option

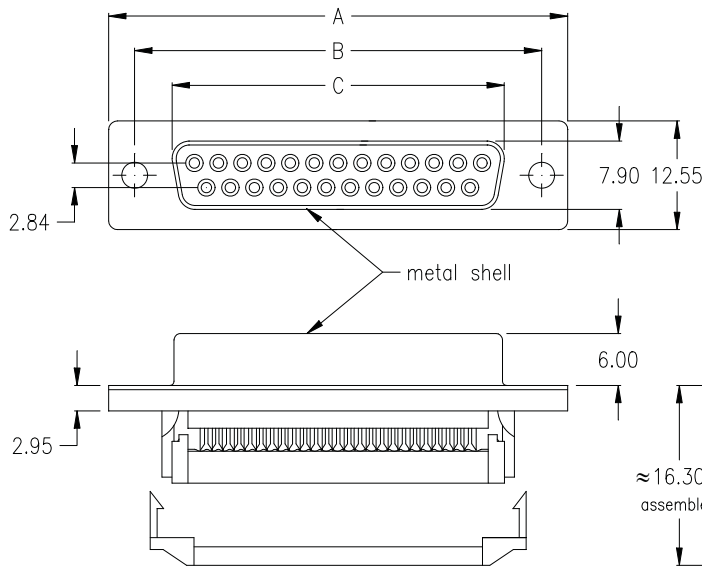
General Specification page 72

Plating: -95 = tin(leadfree)/gold

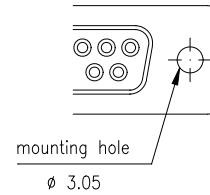




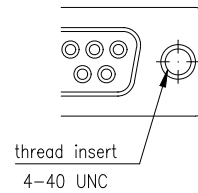
**female**



**Option:**



**T0**



**T**

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643
<b>015</b>	39.14 1.541	33.32 1.312	24.66 .971
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159

Plating: **-95** = tin(leadfree)/gold

General Specification page 72

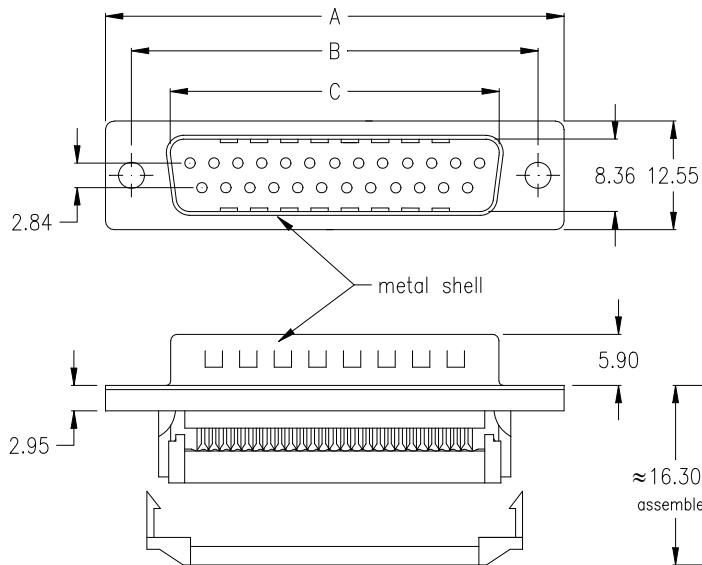
**Ordering Code**

**SKF - xxx - S201 - 95 / XX**

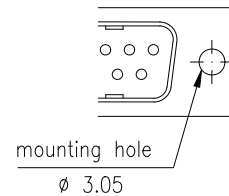
No. of contacts

Option

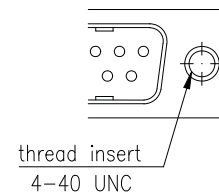
**male**



**Option:**



**T0**



**T**

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.92 .666
<b>015</b>	39.14 1.541	33.32 1.312	25.25 .994
<b>025</b>	53.04 2.088	47.04 1.852	38.96 1.534
<b>037</b>	69.32 2.729	63.50 2.500	55.42 2.182

Plating: **-95** = tin(leadfree)/gold

General Specification page 72

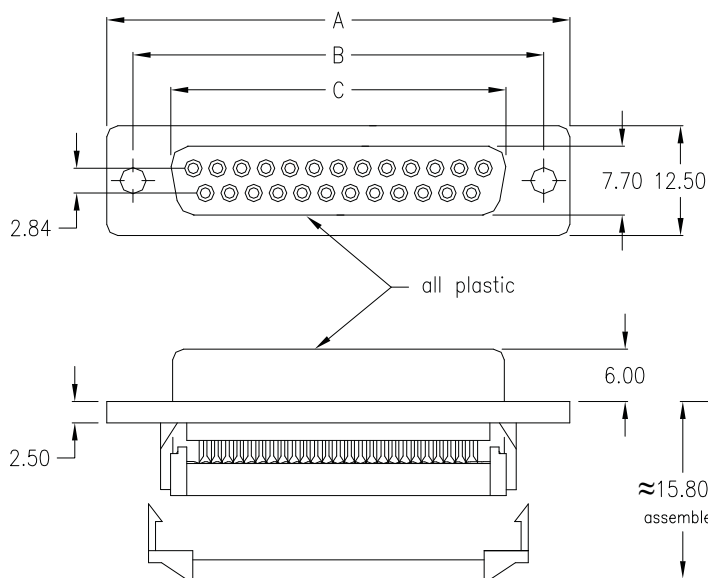
**Ordering Code**

**SKM - xxx - S201 - 95 / XX**

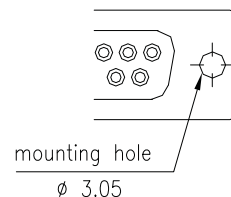
No. of contacts

Option

**female**



**Option:**



**T0**

No. of contacts	Dimension		
	A	B	C
<b>009</b>	31.16	24.99	16.00
	1.227	.984	.630
<b>015</b>	39.42	33.32	24.27
	1.552	1.312	.955
<b>025</b>	53.34	47.04	38.22
	2.100	1.852	1.505
<b>037</b>	69.68	63.50	54.65
	2.743	2.500	2.152

Plating: **-95** = tin(*leadfree*)/gold

General Specification page 72

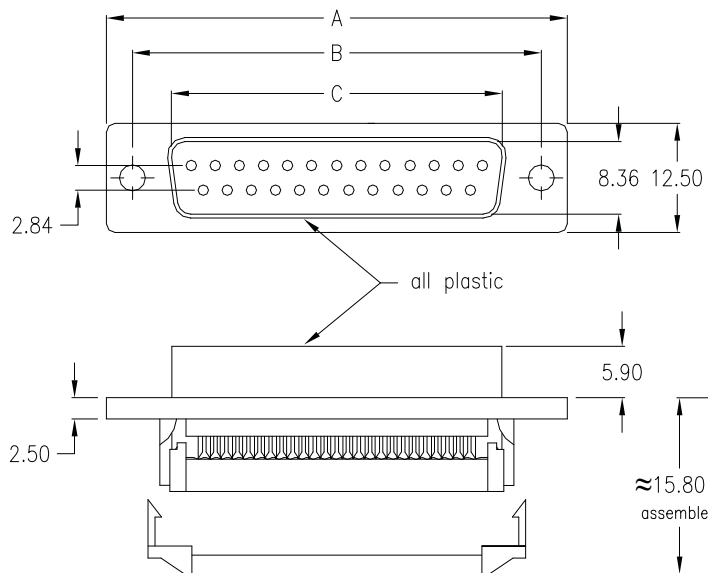
**Ordering Code**

**SKF - xxx - S202 - 95 / XX**

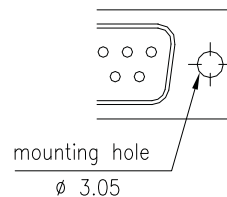
No. of contacts

Option

**male**



**Option:**



**T0**

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>015</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>025</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>037</b>	69.32	63.50	55.42
	2.729	2.500	2.182

Plating: **-95** = tin(*leadfree*)/gold

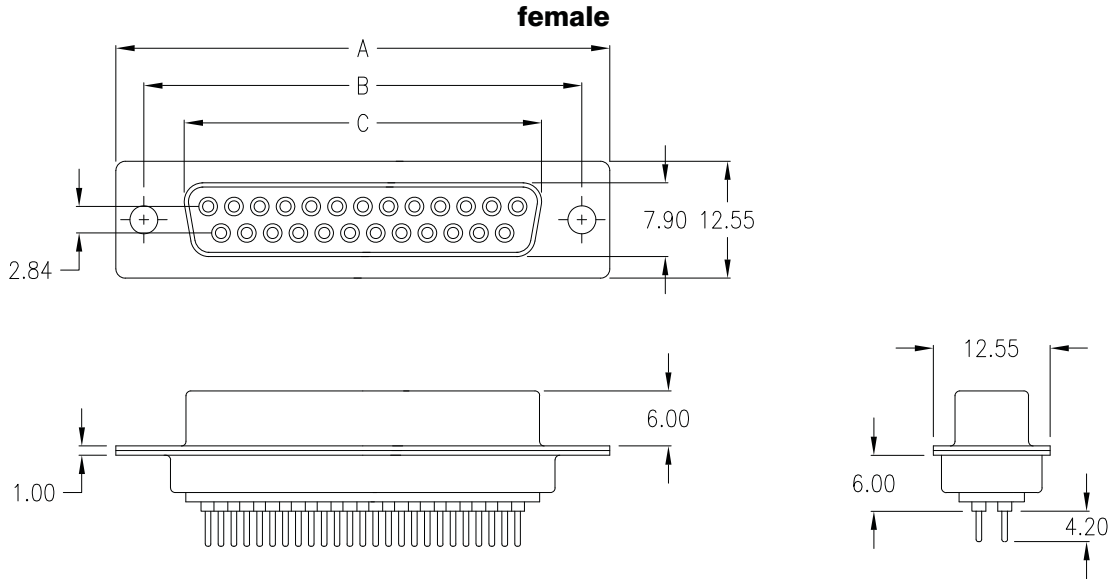
General Specification page 72

**Ordering Code**

**SKM - xxx - S202 - 95 / XX**

No. of contacts

Option



**Ordering Code**

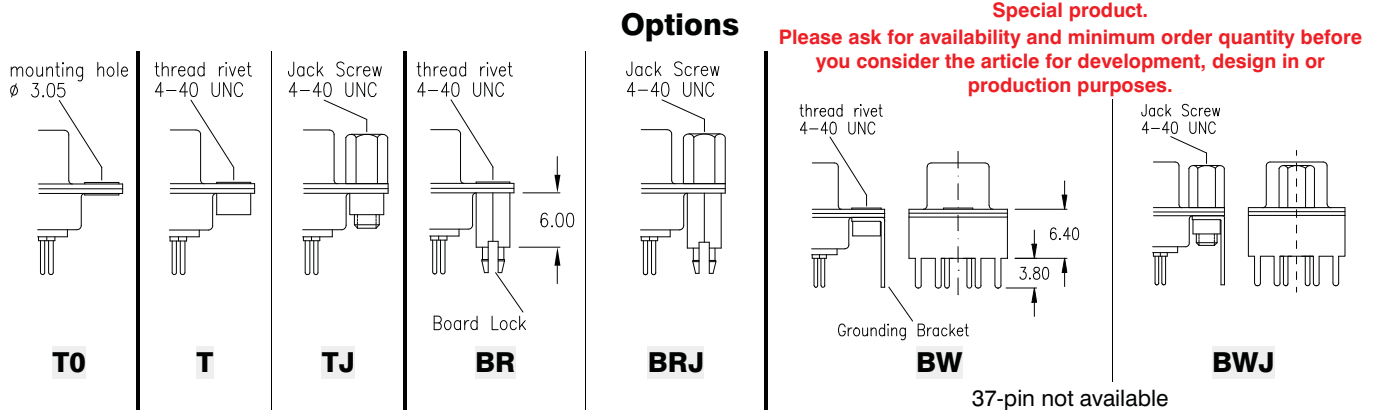
**SDF - xxx - S111 - 95 / XXX**

No. of contacts                      Option

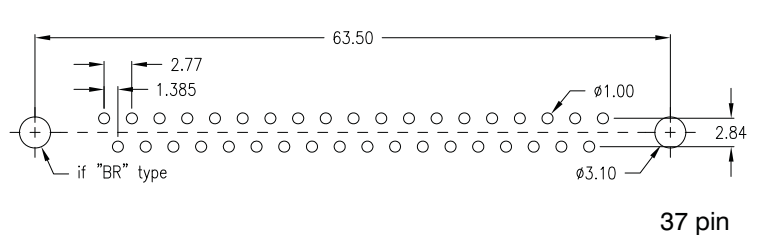
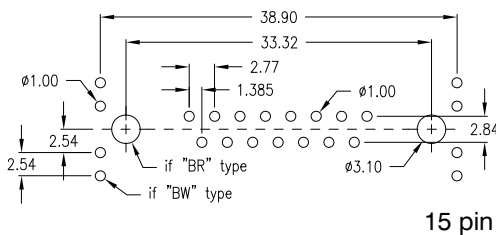
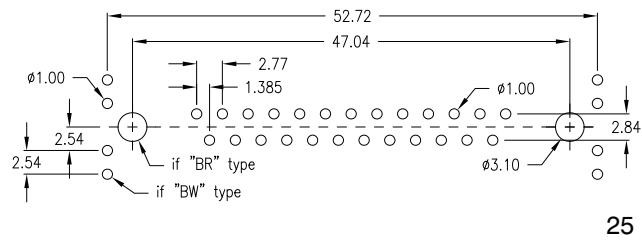
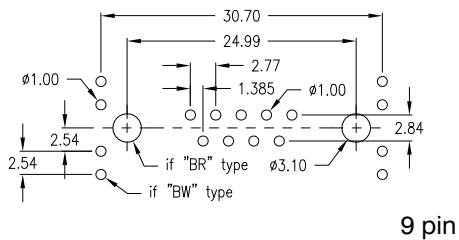
Plating: -95 = tin(leadfree)/gold

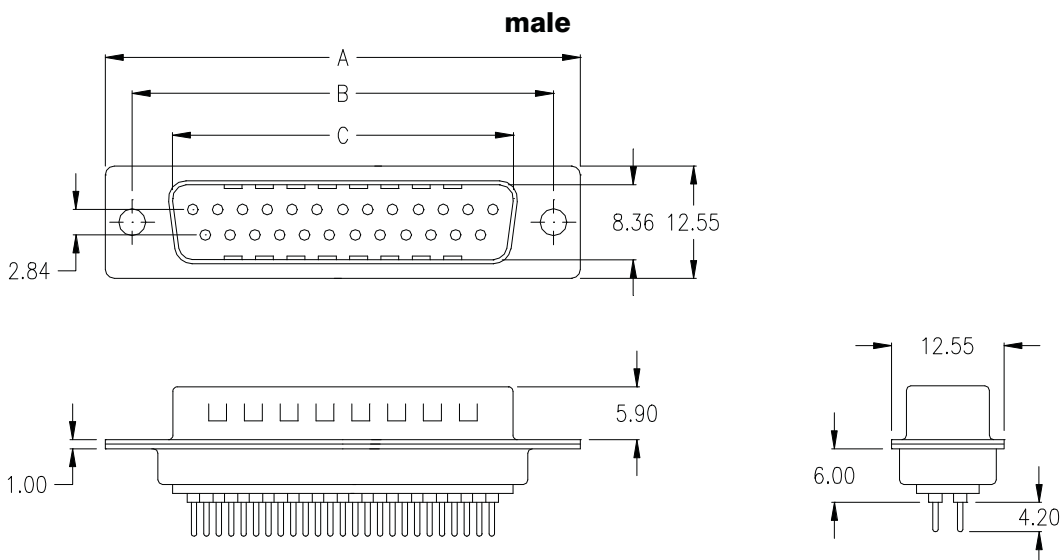
General Specification page 72

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>015</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>025</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>037</b>	69.32	63.50	54.84
	2.729	2.500	2.159



**PCB Layout „female“**





**Ordering Code**

**SDM - xxx - S111 - 95 / XXX**

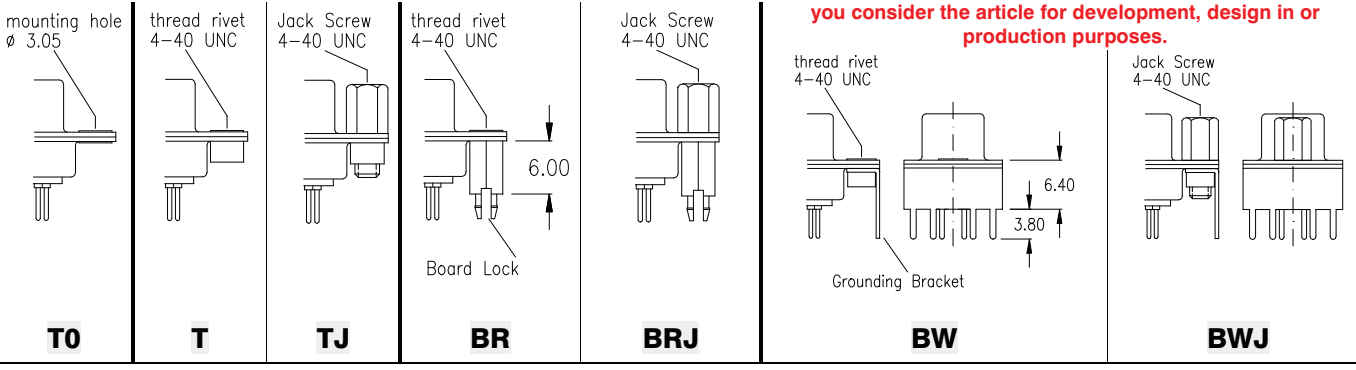
No. of contacts                      Option

Plating: -95 = tin(leadfree)/gold  
General Specification page 72

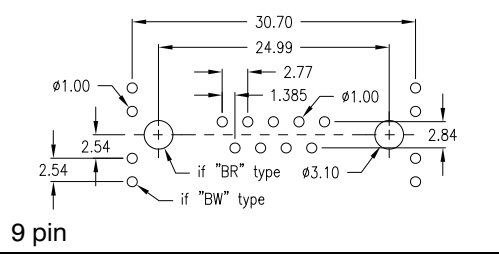
No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.92
	1.213	.984	.666
015	39.14	33.32	25.25
	1.541	1.312	.994
025	53.04	47.04	38.96
	2.088	1.852	1.534
037	69.32	63.50	55.42
	2.729	2.500	2.182

**Options**

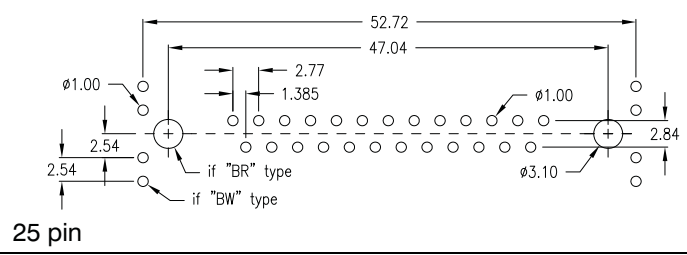
**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.



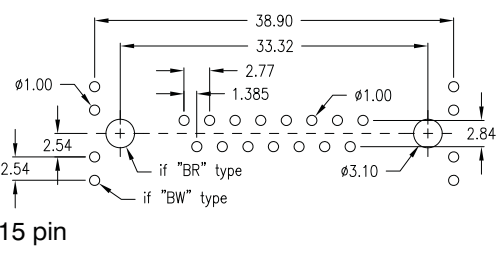
**PCB Layout „male“**



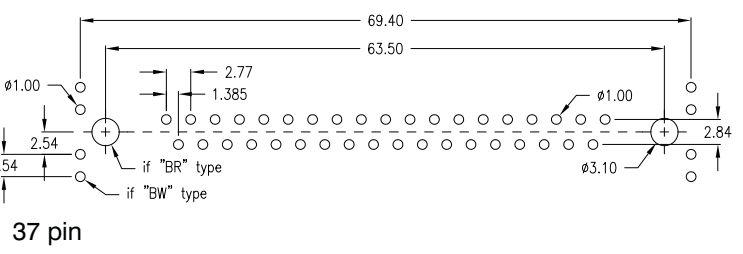
9 pin



25 pin

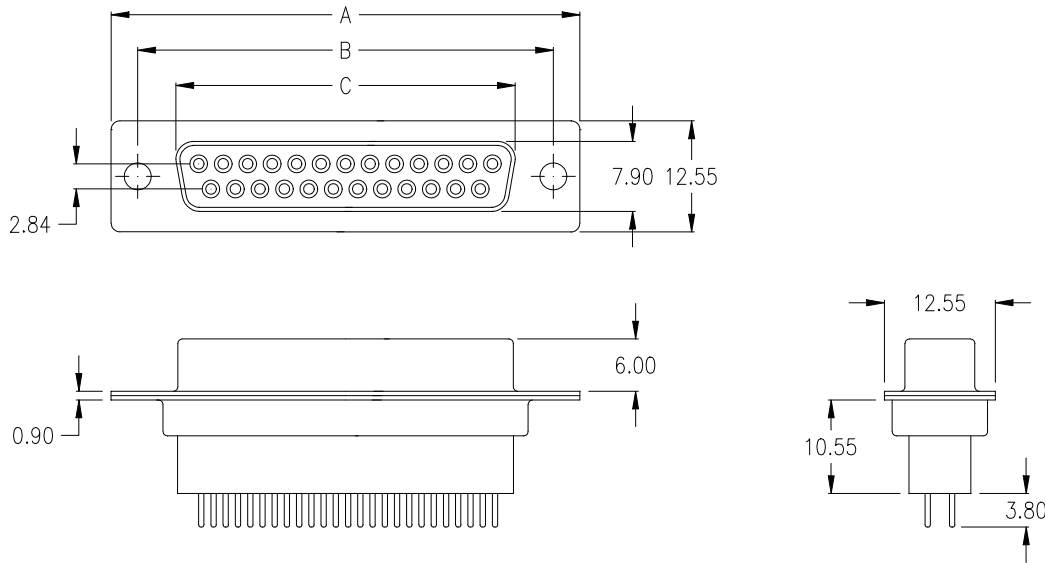


15 pin



37 pin

female



Ordering Code

**SDF - xxx - B111 - 95 / XXX**

No. of contacts

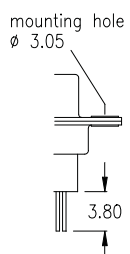
Option

Plating: **-95** = tin(*leadfree*)/gold

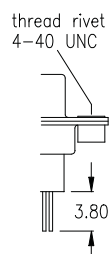
General Specification page 72

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643
<b>015</b>	39.14 1.541	33.32 1.312	24.66 .971
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159

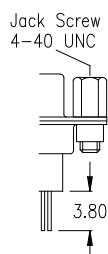
Options



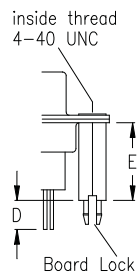
**T0**



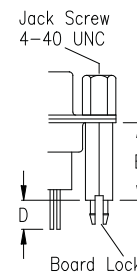
**T**



**TJ**



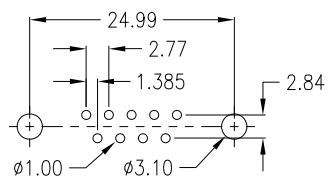
**BR**



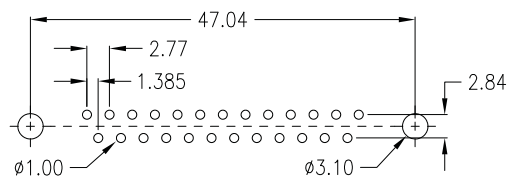
**BR\_J**

D ±0.20	E	Option
3,20	12,70	<b>1</b>
3,50	11,00	<b>2</b>
3,20	14,50	<b>4</b>
4,20	13,50	<b>5</b>

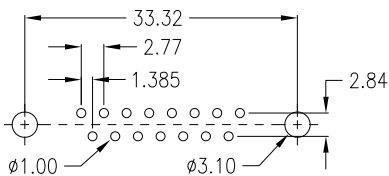
PCB Layout „female“



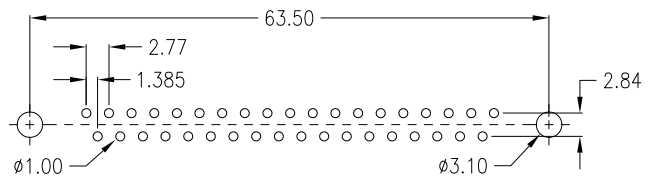
9 pin



25 pin



15 pin



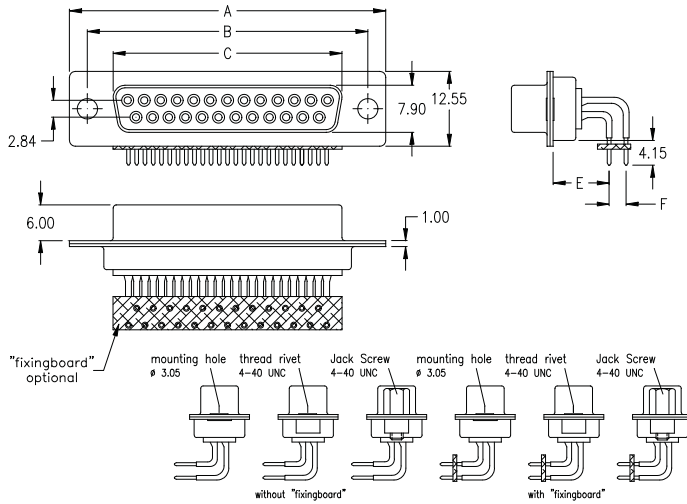
37 pin







**female**



**Option:** **blank (Standard)** **T** **TJ** **K0** **K** **KJ**

No. of contacts	Dimension			
	A	B	C	E
<b>009</b>	30.81	24.99	16.33	7.20
	1.213	.984	.643	.283
<b>015</b>	39.14	33.32	24.66	7.20
	1.541	1.312	.971	.283
<b>025</b>	53.04	47.04	38.38	9.40
	2.088	1.852	1.511	.370
<b>037</b>	69.32	63.50	54.84	9.40
	2.729	2.500	2.159	.370

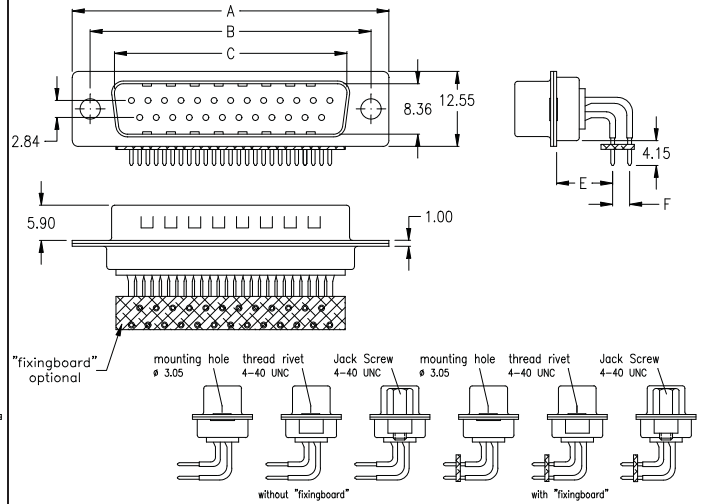
**Ordering Code**

**SDF - xxx - X xxx - 55 / Xx (XX)**

No. of contacts

Dimension "E"	precision contact	Option	Dimension "F"
7.20 mm	<b>N901-55</b>	<b>A1</b>	2,54 mm
9,40 mm	<b>T901-55</b>	<b>A2</b>	2,84 mm

**male**



**Option:** **blank (Standard)** **T** **TJ** **K0** **K** **KJ**

No. of contacts	Dimension			
	A	B	C	E
<b>009</b>	30.81	24.99	16.92	7.20
	1.213	.984	.666	.283
<b>015</b>	39.14	33.32	25.25	7.20
	1.541	1.312	.994	.283
<b>025</b>	53.04	47.04	38.96	9.40
	2.088	1.852	1.534	.370
<b>037</b>	69.32	63.50	55.42	9.40
	2.729	2.500	2.182	.370

**Ordering Code**

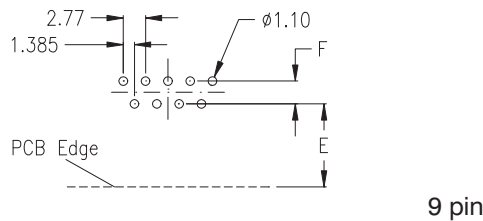
**SDM - xxx - X xxx - 55 / Xx (XX)**

No. of contacts

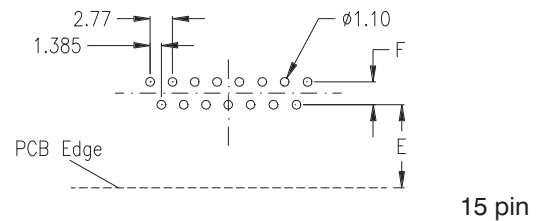
Dimension "E"	precision contact	Option	Dimension "F"
7.20 mm	<b>N901-55</b>	<b>A1</b>	2,54 mm
9,40 mm	<b>T901-55</b>	<b>A2</b>	2,84 mm

-55 = Plating gold all over

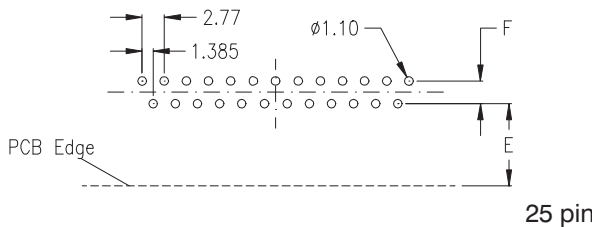
**PCB Layout**



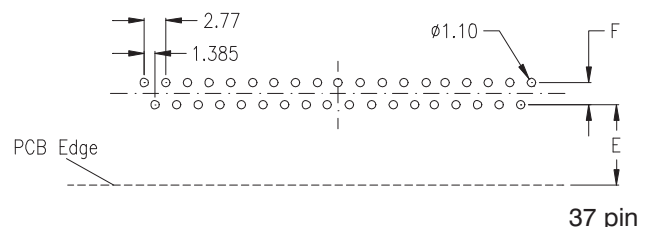
9 pin



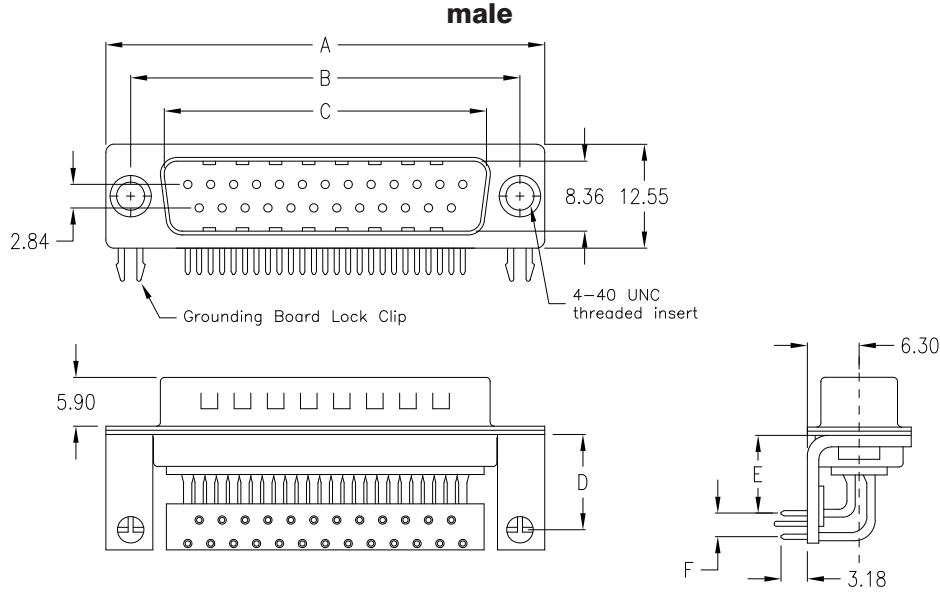
15 pin



25 pin



37 pin



**Ordering Code**

**Special product.**

Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

**SDM - xxx - N 900 - 95/ XxXX**

No. of contacts

Option

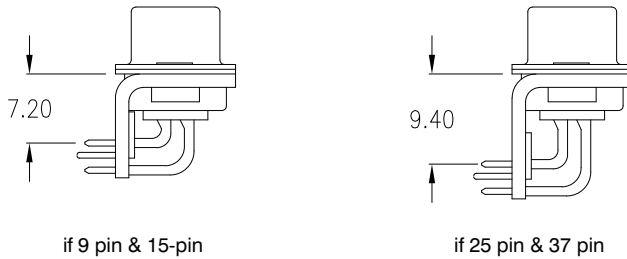
Stamped contact

Plating: -95 = tin(leadfree)/gold

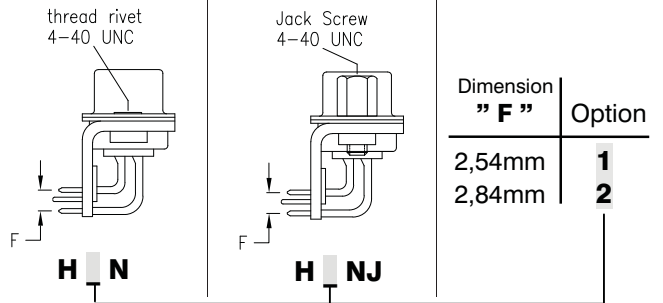
No. of contacts	Dimension				
	A	B	C	D if "F"=2,54	D if "F"=2,84
<b>009</b>	30.81 1.213	24.99 .984	16.92 .666	8.47 .333	8.47 .333
<b>015</b>	39.14 1.541	33.32 1.312	25.25 .994	8.47 .333	8.47 .333
<b>025</b>	53.04 2.088	47.04 1.852	38.96 1.534	10.67 .420	10.67 .420
<b>037</b>	69.32 2.729	63.50 2.500	55.42 2.182	10.67 .420	10.67 .420

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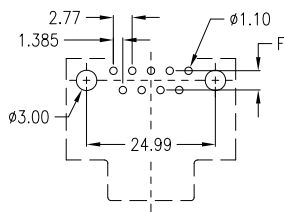
**Dimension "E"**



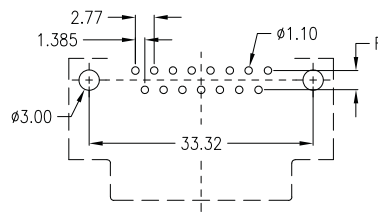
**Options**



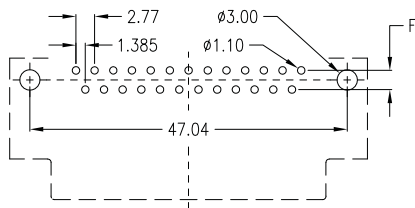
**PCB Layout „male“**



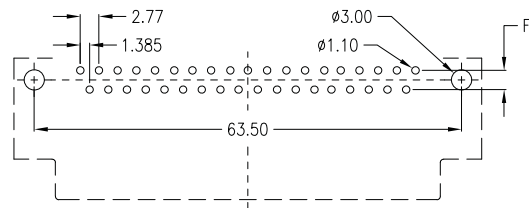
9 pin



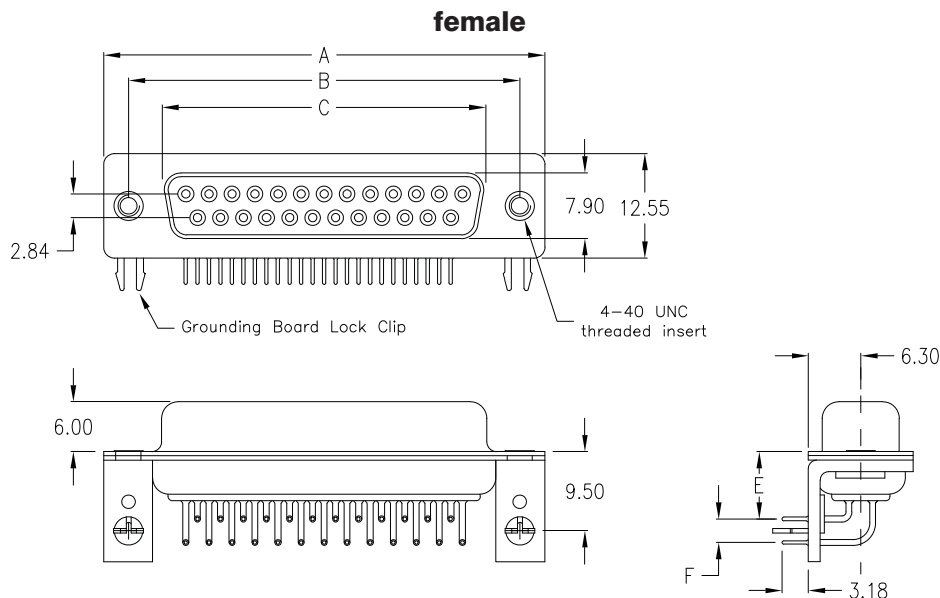
15 pin



25 pin



37 pin



**Ordering Code**

**SDF - xxx - N 901 - 55/ XxXX**

No. of contacts

Option

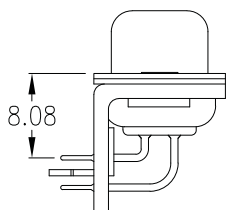
Precision contact

Plating: -55 = Plating gold all over

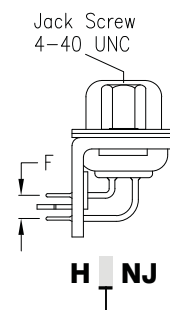
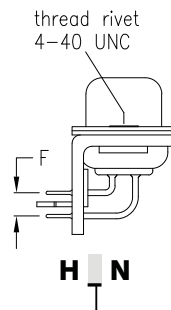
General Specification page 72

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643
<b>015</b>	39.14 1.541	33.32 1.312	24.66 .971
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159

Dimension "E"

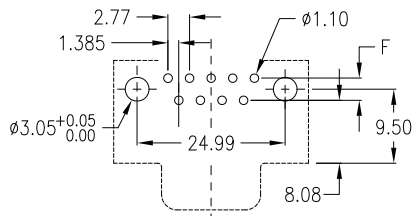


**Options**

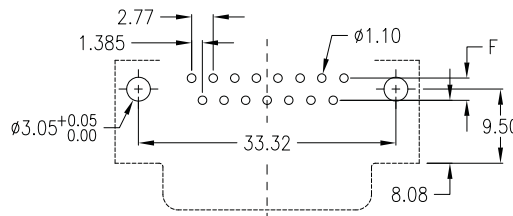


Dimension "F"	Option
2,54mm	<b>1</b>
2,84mm	<b>2</b>

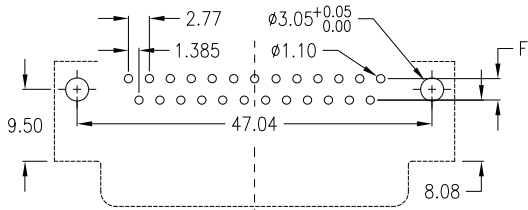
**PCB Layout „female“**



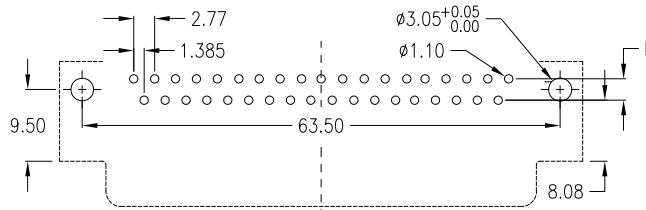
9 pin



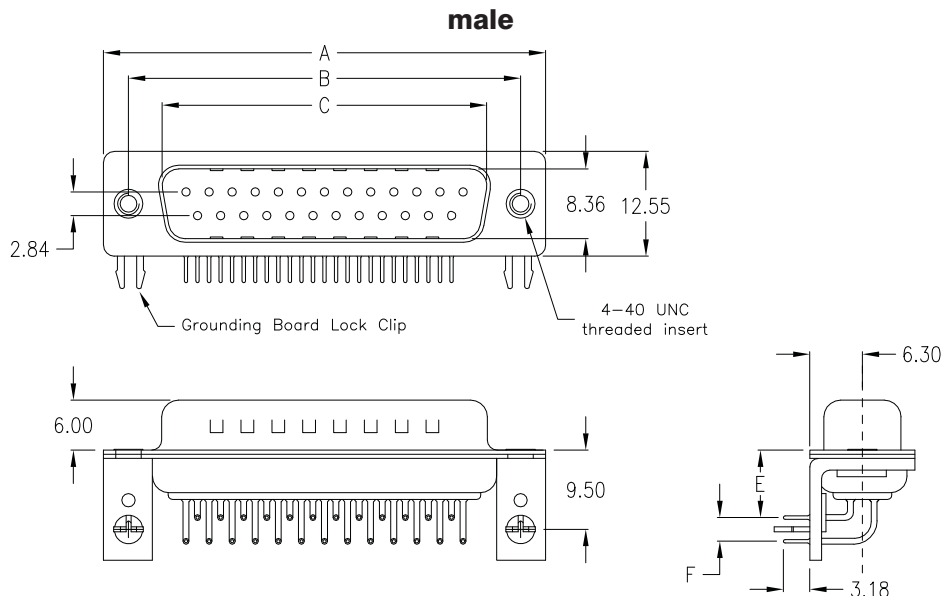
15 pin



25 pin



37 pin



**Ordering Code**

**SDM - xxx - N 901 - 55/ XxXX**

No. of contacts

Option

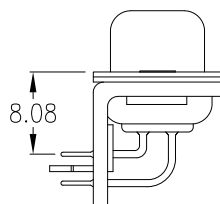
Precision contact

Plating: -55 = Plating gold all over

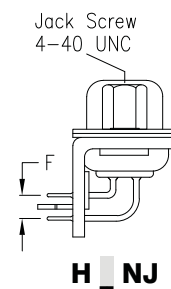
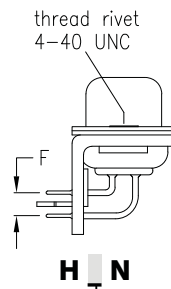
No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.92 .666
<b>015</b>	39.14 1.541	33.32 1.312	25.25 .994
<b>025</b>	53.04 2.088	47.04 1.852	38.96 1.534
<b>037</b>	69.32 2.729	63.50 2.500	55.42 2.182

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Dimension "E"

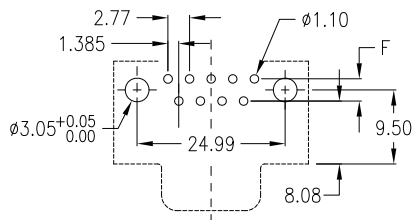


**Options**

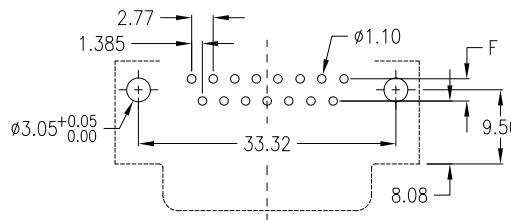


Dimension "F"	Option
2,54mm	<b>1</b>
2,84mm	<b>2</b>

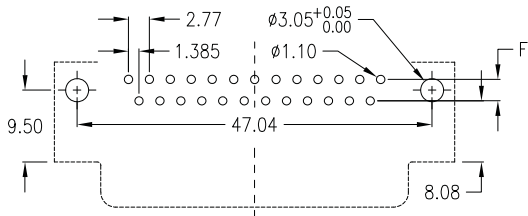
**PCB Layout „male“**



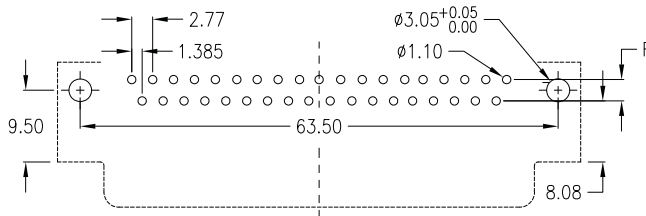
9 pin



15 pin

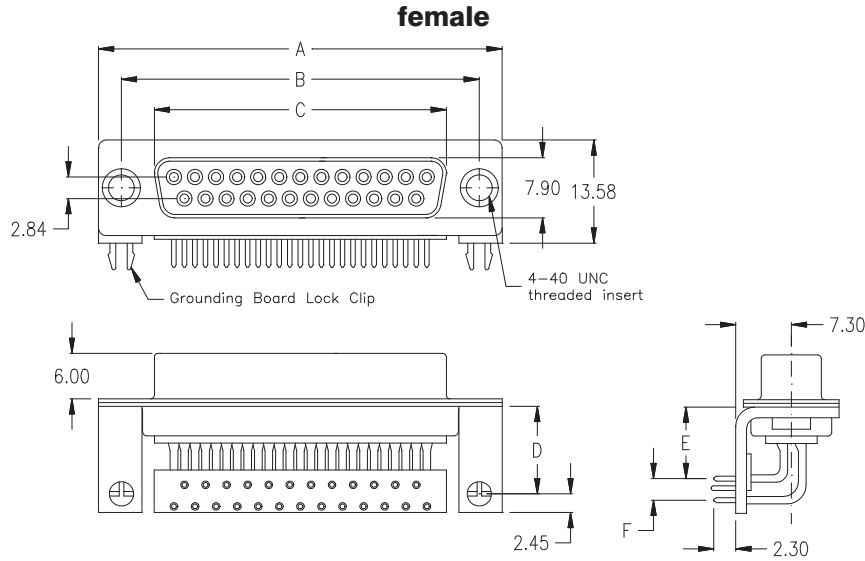


25 pin



37 pin





**Ordering Code**

Special product.

Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

**SDF - xxx - T 970 - 55/ XxXX**

No. of contacts

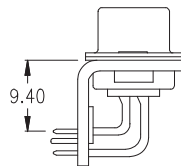
Option

Plating: -55 = gold/gold (-95 = tin(leadfree)/gold on request)

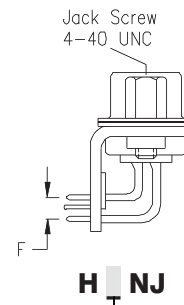
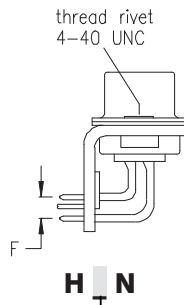
General Specification page 72

No. of contacts	Dimension				
	A	B	C	D if "F"=2,54	D if "F"=2,84
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643	10.07 .396	10.02 .394
<b>015</b>	39.14 1.541	33.32 1.312	24.66 .971	10.07 .396	10.02 .394
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511	10.07 .396	10.02 .394
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159	10.07 .396	10.02 .394

( Dimension "E" )

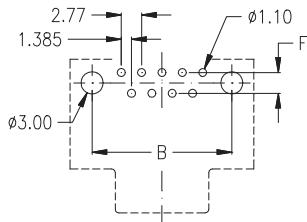


**Options**

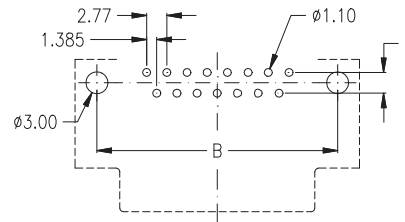


Dimension "F"	Option
2,54mm	<b>1</b>
2,84mm	<b>2</b>

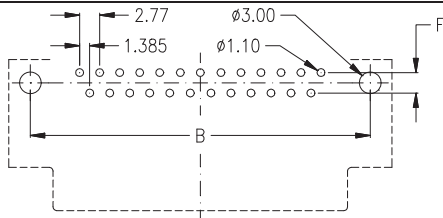
**PCB Layout „female“**



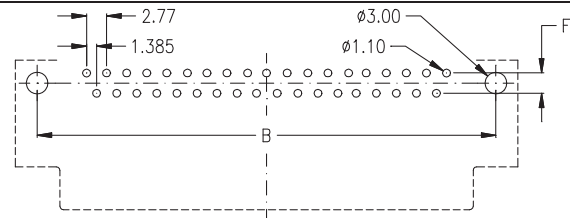
9 pin



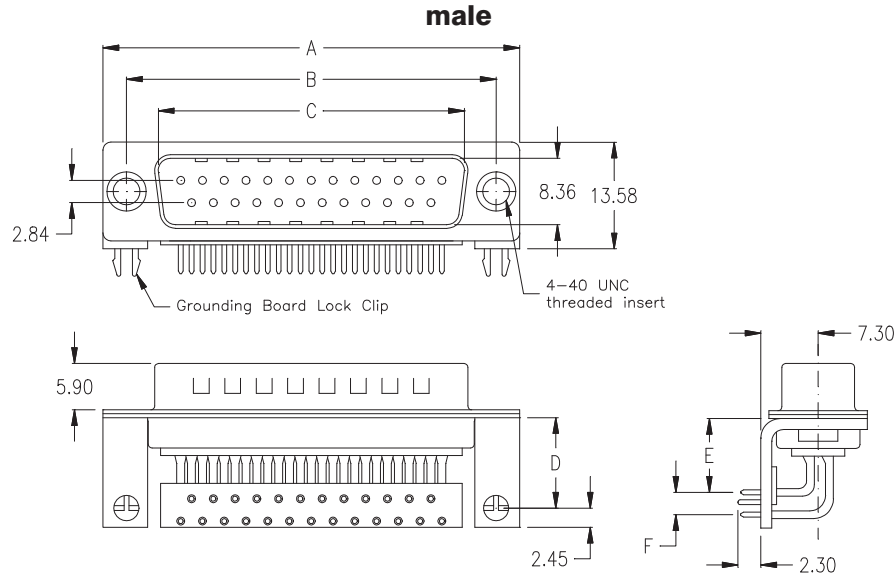
15 pin



25 pin



37 pin



**Ordering Code**

Special product.

Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.

**SDM - xxx - T 970 - 55/ XxXX**

No. of contacts

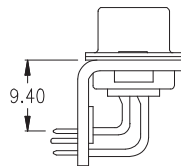
Option

Plating: -55 = gold/gold (-95 = tin(leadfree)/gold on request)

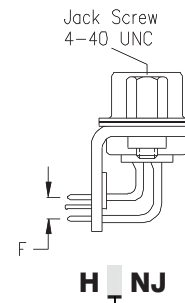
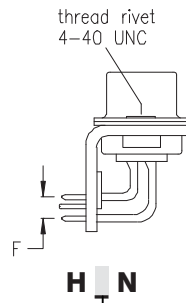
General Specification page 72

No. of contacts	Dimension				
	A	B	C	D if "F"=2,54	D if "F"=2,84
<b>009</b>	30.81 1.213	24.99 .984	16.92 .666	10.07 .396	10.02 .394
<b>015</b>	39.14 1.541	33.32 1.312	25.25 .994	10.07 .396	10.02 .394
<b>025</b>	53.04 2.088	47.04 1.852	38.96 1.534	10.07 .396	10.02 .394
<b>037</b>	69.32 2.729	69.32 2.729	63.50 2.500	55.42 2.182	10.07 .396

( Dimension "E" )

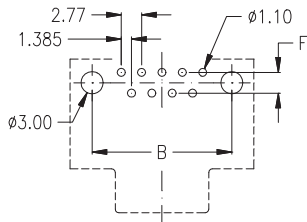


**Options**

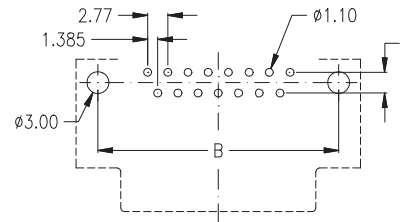


Dimension "F"	Option
2,54mm	<b>1</b>
2,84mm	<b>2</b>

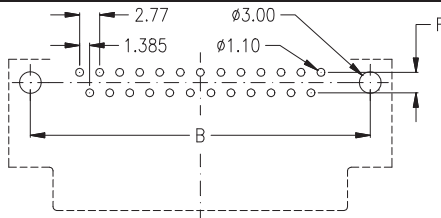
**PCB Layout „male“**



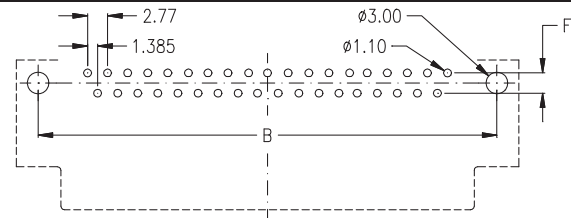
9 pin



15 pin



25 pin



37 pin

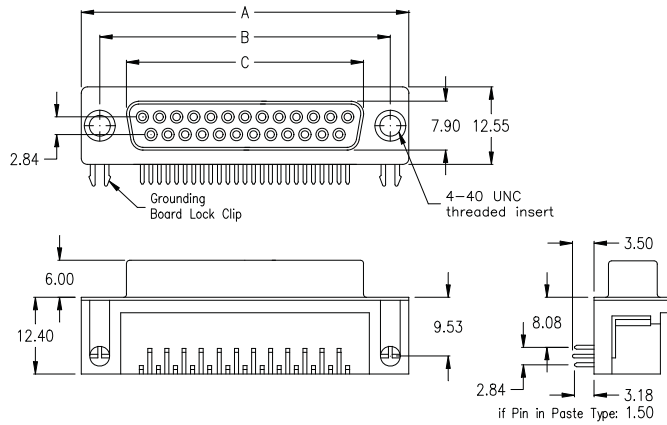
# SD Series - D-Sub 90°

"Wave Solder" & "Pin-In-Paste" Technology

N900 8,08mm / .318" „US Style“ Footprint



## female



PCB hole layout on page 29

No. of contacts	Dimension			Ordering Code
	A	B	C	
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643	<b>SDF-009-N900-95/ XX</b>
<b>015</b>	39.14 1.541	33.32 1.311	24.66 .971	<b>SDF-015-N900-95/ XX</b> <b>SDF-015-N900-95/Y XX</b>
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511	<b>SDF-025-N900-95/ XX</b> <b>SDF-025-N900-95/B XX</b>
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159	<b>SDF-037-N900-95/ XX</b>

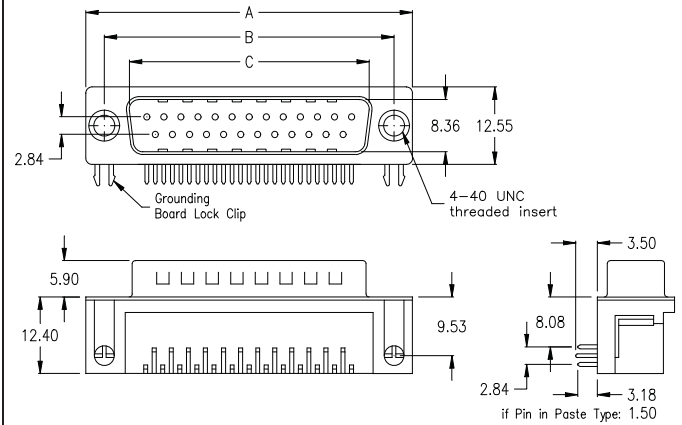
Plating: **-95** = tin(leadfree)/gold  
**-55** = gold/gold on request

Option

**SDF - xxx- N900 - 95/Y XX** = PC99 type yellowish brown  
**SDF - xxx- N900 - 95/B XX** = PC99 type burgundy

Other colour available on request

## male



PCB hole layout on page 29

No. of contacts	Dimension			Ordering Code
	A	B	C	
<b>009</b>	30.81 1.213	24.99 .984	16.92 .666	<b>SDM-009-N900-95/ XX</b> <b>SDM-009-N900-95/T XX</b>
<b>015</b>	39.14 1.541	33.32 1.311	25.25 .994	<b>SDM-015-N900-95/ XX</b>
<b>025</b>	53.04 2.088	47.04 1.852	38.96 1.534	<b>SDM-025-N900-95/ XX</b>
<b>037</b>	69.32 2.729	63.50 2.500	55.42 2.182	<b>SDM-037-N900-95/ XX</b>

Plating: **-95** = tin(leadfree) /gold  
**-55** = gold/gold on request

Option

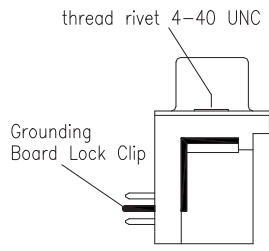
**SDM - xxx- N900 - 95/T XX** = PC99 type teal

Other colour available on request

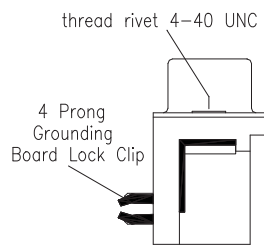
"Pin-In-Paste" Technology - for availability pls. contact [info@e-tec.com](mailto:info@e-tec.com)

General Specification page 72

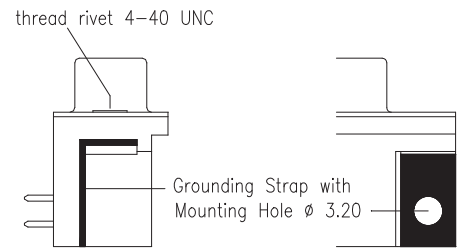
## Options



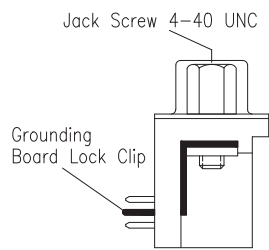
**N**



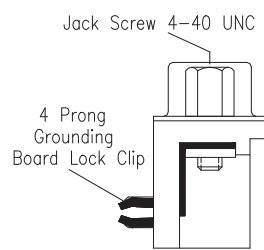
**C4**



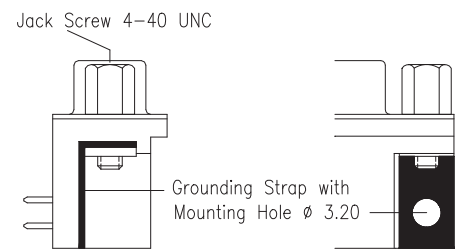
**H**



**NJ**



**C4J**

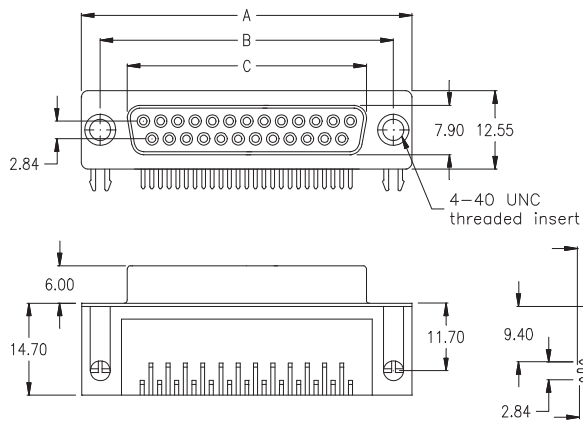


**HJ**

SD Series - D-Sub 90°  
9,40mm / .370" „Euro Style“ Footprint



**female**



PCB hole layout on page 29

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>015</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>025</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>037</b>	69.32	63.50	54.84
	2.729	2.500	2.159

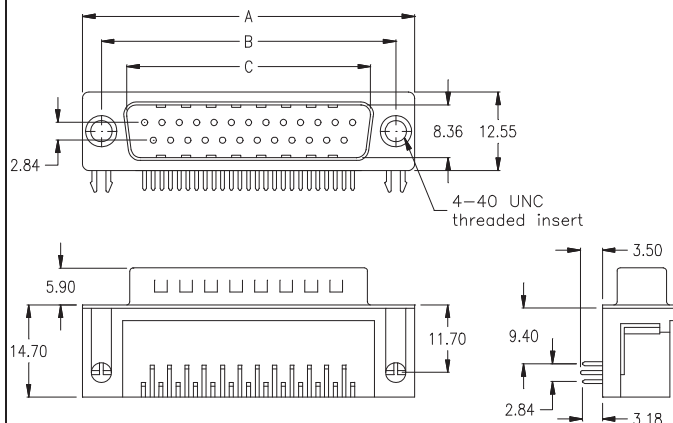
**Ordering Code**

**SDF - xxx - M900 - 55 / XX**

No. of contacts

Option

**male**



PCB hole layout on page 29

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>015</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>025</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>037</b>	69.32	63.50	55.42
	2.729	2.500	2.182

**Ordering Code**

**SDM - xxx - M900 - 55 / XX**

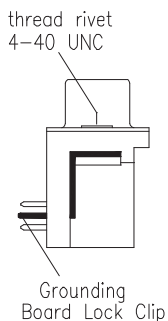
No. of contacts

Option

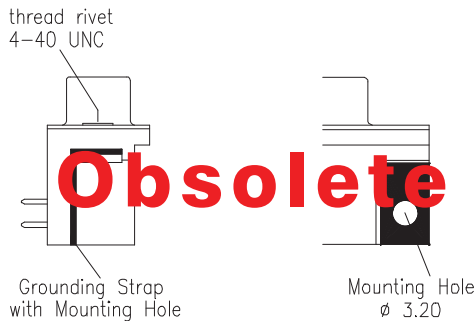
Plating: -55 = gold

General Specification page 72

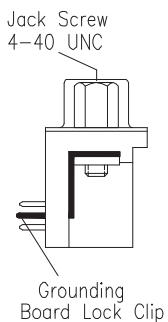
**Options**



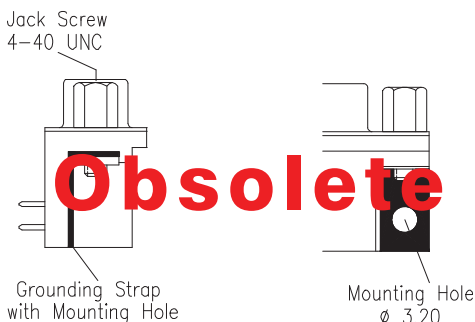
**N**



**H**



**NJ**

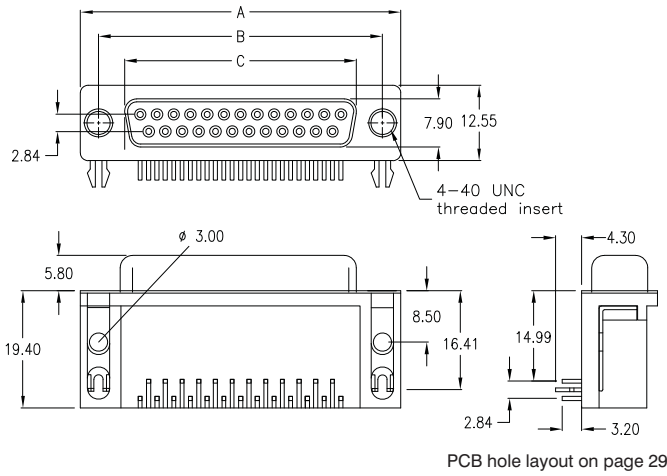


**HJ**

SD Series - D-Sub 90°  
15,00mm / .590" „Long Style“ Footprint



**female**



No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.33
	1.213	.984	.643
015	39.14	33.32	24.66
	1.541	1.312	.971
025	53.04	47.04	38.38
	2.088	1.852	1.511
037	69.32	63.50	54.84
	2.729	2.500	2.159

**Ordering Code**

**SDF - xxx - L900 - 55 / XX**

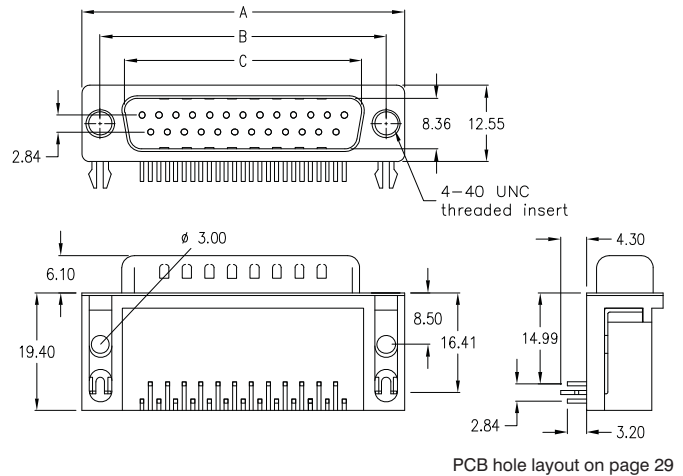
No. of contacts

Option

Plating: -95 = tin(leadfree)/gold

General Specification page 72

**male**



No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.92
	1.213	.984	.666
015	39.14	33.32	25.25
	1.541	1.312	.994
025	53.04	47.04	38.96
	2.088	1.852	1.534
037	69.32	63.50	55.42
	2.729	2.500	2.182

**Ordering Code**

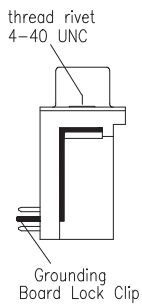
**SDM - xxx - L900 - 55 / XX**

No. of contacts

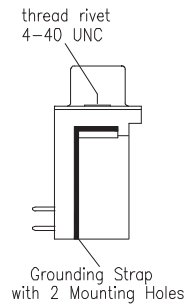
Option

Plating: -95 = tin(leadfree)/gold

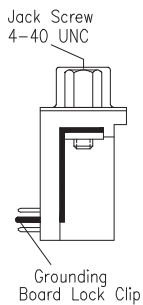
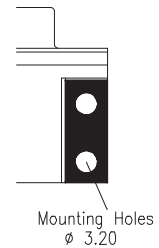
**Options**



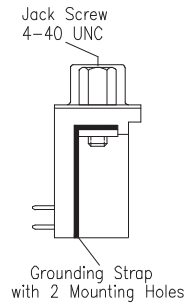
**P**



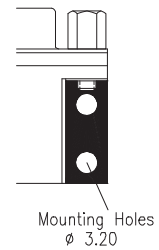
**L**



**PJ**

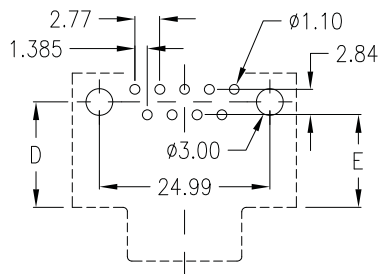


**LJ**

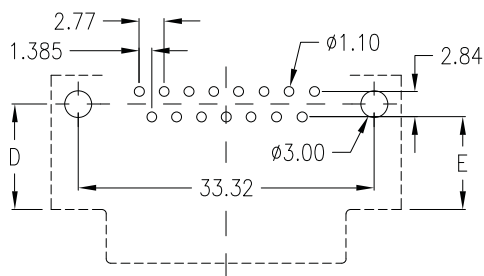




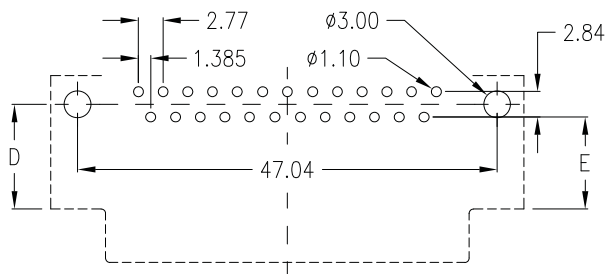
**N900 & M900 Type**



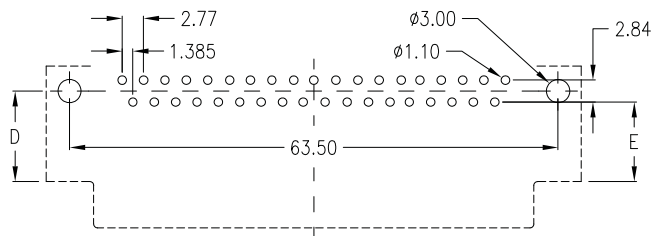
9-pin



15-pin

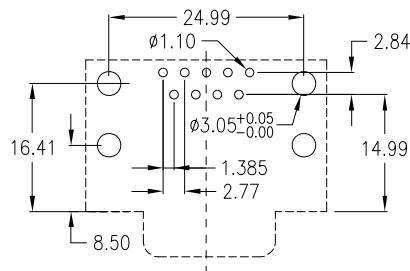


25-pin

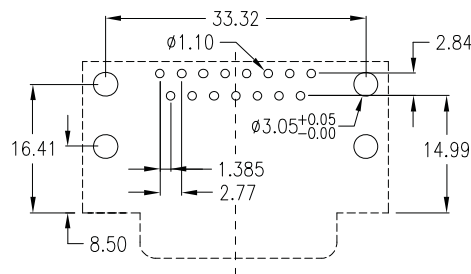


37-pin

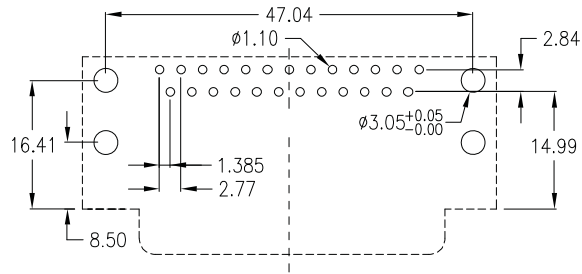
**L900 Type**



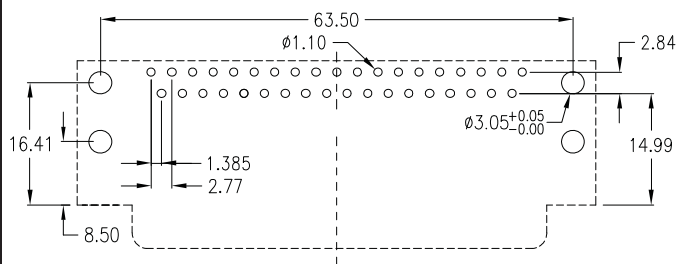
9-pin



15-pin



25-pin

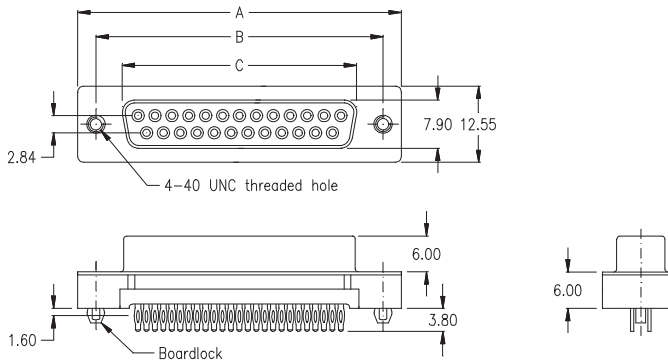


37-pin

D-Sub Type	Dim. "D" ±0.25/±.010	Dim. "E" ±0.25/±.010
<b>N 900</b>	<u>9.50</u> .374	<u>8.08</u> .318
<b>M 900</b>	<u>11.70</u> .461	<u>10.30</u> .406



**female**



No. of contacts	Dimension			
	A	B	C	E
<b>009</b>	30.81	24.99	16.33	7.20
	1.213	.984	.643	.283
<b>015</b>	39.14	33.32	24.66	7.20
	1.541	1.312	.971	.283
<b>025</b>	53.04	47.04	38.38	9.40
	2.088	1.852	1.511	.370
<b>037</b>	69.32	63.50	54.84	9.40
	2.729	2.500	2.159	.370

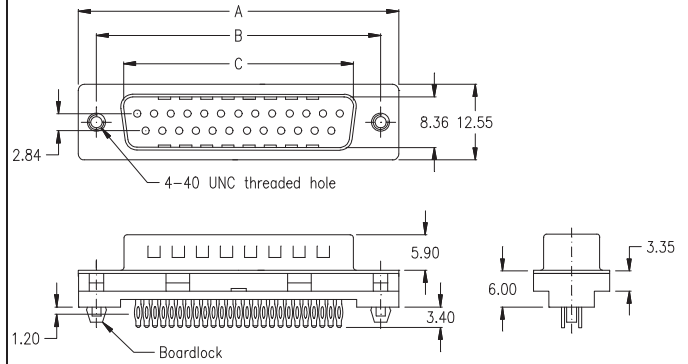
**Ordering Code**

**SDF - xxx - P 150 - 95 / P**

No. of contacts

if with Jack Screw assemble to the connector: **PJ**

**male**



No. of contacts	Dimension			
	A	B	C	E
<b>009</b>	30.81	24.99	16.92	7.20
	1.213	.984	.666	.283
<b>015</b>	39.14	33.32	25.25	7.20
	1.541	1.312	.994	.283
<b>025</b>	53.04	47.04	38.96	9.40
	2.088	1.852	1.534	.370
<b>037</b>	69.32	63.50	55.42	9.40
	2.729	2.500	2.182	.370

**Ordering Code**

**SDM - xxx - P 150 - 95 / P**

No. of contacts

if with Jack Screw assemble to the connector: **PJ**

(for Jack Screw dimension etc. pls. see page 70)

**PCB - Hole Specification**

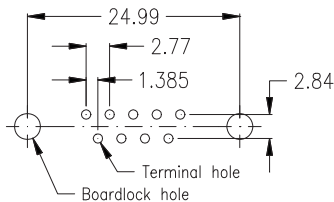
recommended PCB thickness: 1.60mm

terminal hole		boardlock hole	
drilled hole	1.10mm ± 0.02	drilled hole	3.20mm ± 0.02
finished hole	1.00mm ± 0.05	finished hole	3.10mm ± 0.05
Cu	min. 25 μm	Cu	min. 25 μm
Sn	5 - 15 μm	Sn	5 - 15 μm

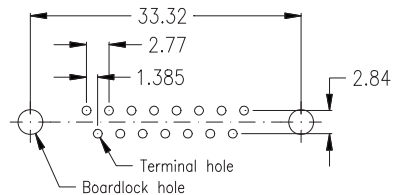
**General Specification**

Current rating	5 A
Contact resistance	30mΩ max.
Insulator resistance	1.000MΩ min. at 500V DC
Withstanding voltage	1.000V AC (rms) for 1 Minute
Contact material (RoHS compliant)	PhBz
Contact plating	tin (leadfree) / gold
Insulator (RoHS compliant)	Nylon 46
Operating temperature	-55° C to +125° C

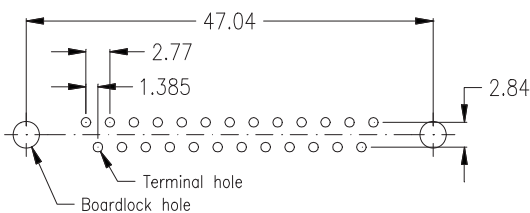
**PCB Layout**



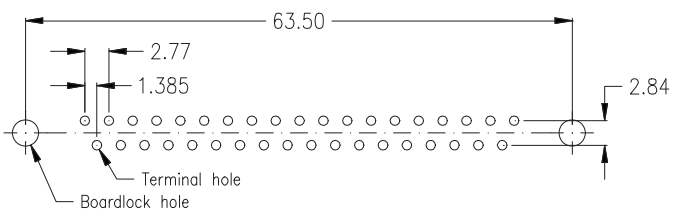
9 pin



15 pin

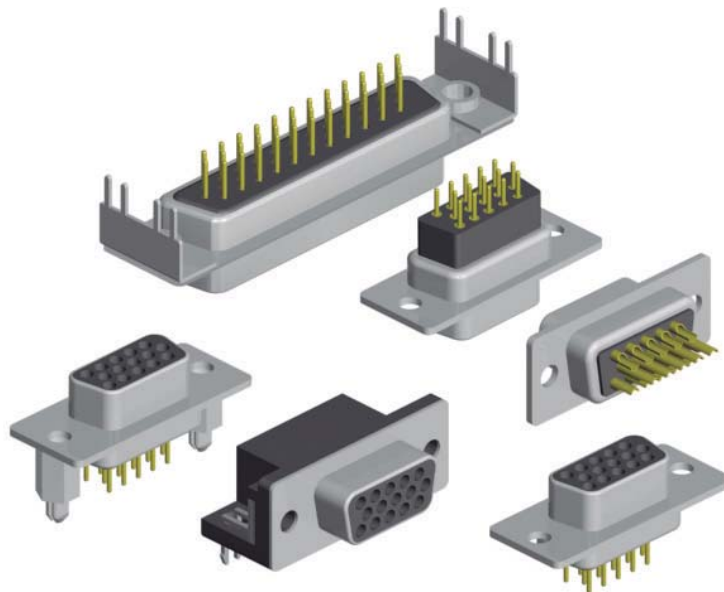


25 pin



37 pin

# High Density D-Sub

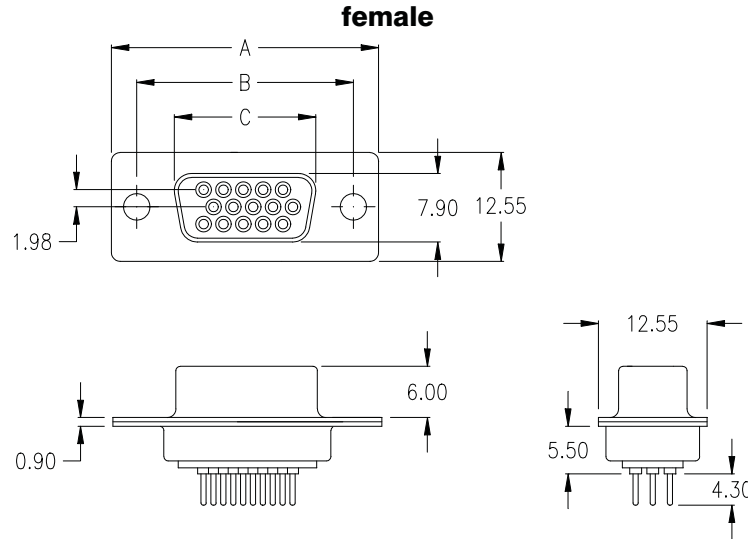


High Density ( 3 - row ) D-Sub family includes hand solder and straight soldertail types.

The right angle types are also available for “Pin-In-Paste” Technology and as “VESA” Type.

A variety of High Density D-Sub Connectors are also available with Ferrite Filter.

# SH Series - High Density D-Sub S111 standard soldertail type



### Ordering Code

**SHF - xxx - S111 - 95 / XXX**

No. of contacts

Option

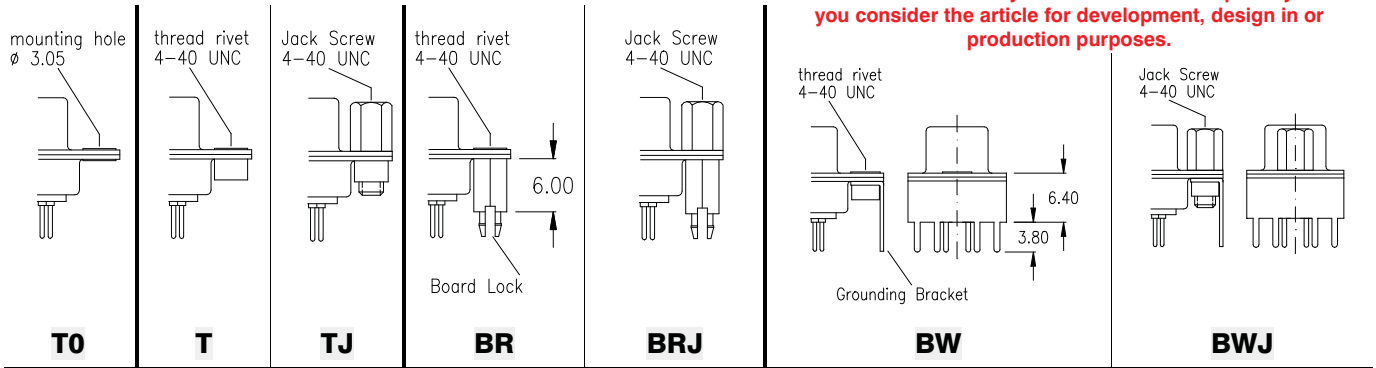
Plating: -95 = tin(leadfree)/gold

General Specification page 72

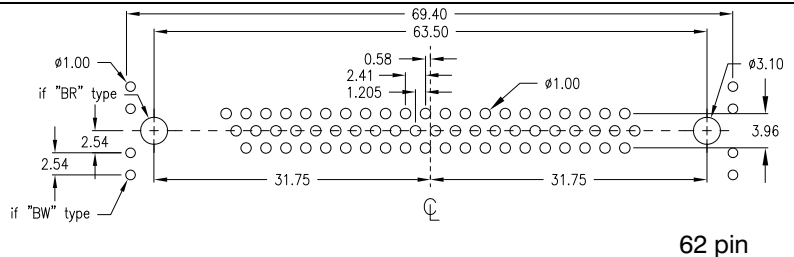
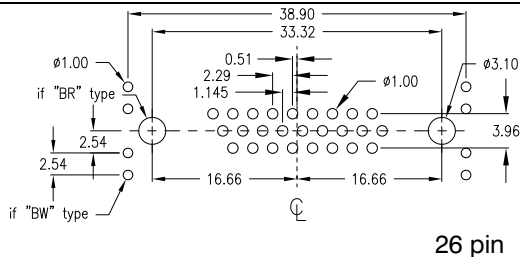
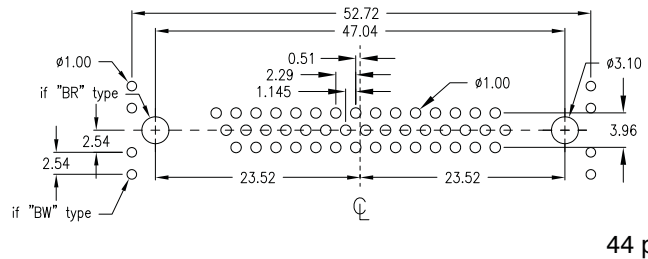
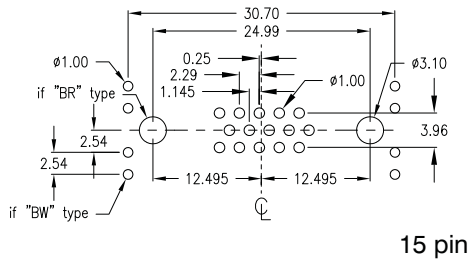
No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81 1.213	24.99 .984	16.33 .643
<b>026</b>	39.14 1.541	33.32 1.312	24.66 .971
<b>044</b>	53.04 2.088	47.04 1.852	38.38 1.511
<b>062</b>	69.32 2.729	63.50 2.500	54.84 2.159

### Options

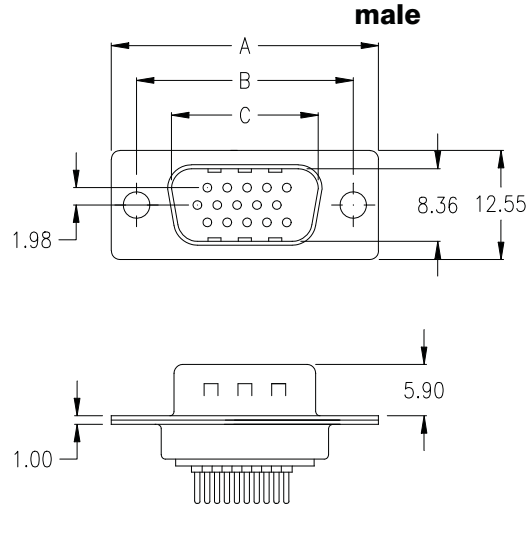
**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.



### PCB Layout „female“



SH Series - High Density D-Sub  
S111 standard soldertail type



No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81 1.213	24.99 .984	16.92 .666
<b>026</b>	39.14 1.541	33.32 1.312	25.25 .994
<b>044</b>	53.04 2.088	47.04 1.852	38.96 1.534
<b>062</b>	69.32 2.729	63.50 2.500	55.42 2.182

**Ordering Code**

**SHM - xxx - S111 - 95 / XXX**

No. of contacts

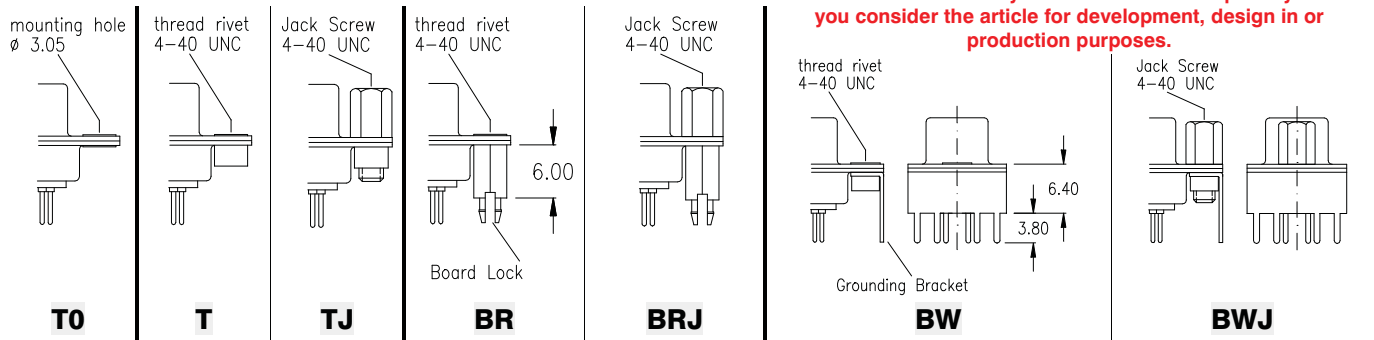
Option

Plating: -95 = tin(leadfree)/gold

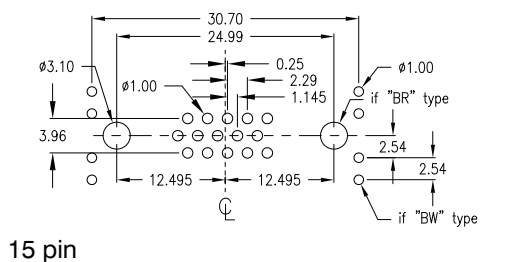
General Specification page 72

**Options**

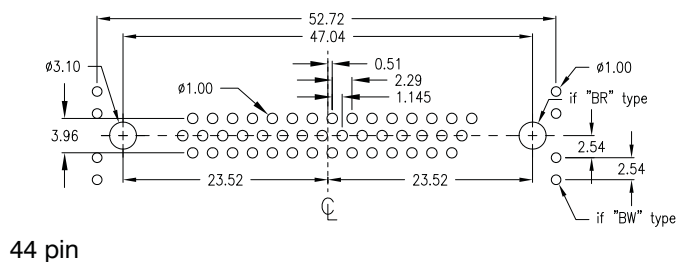
**Special product.**  
Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.



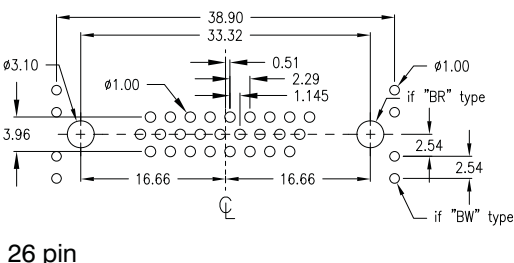
**PCB Layout „male“**



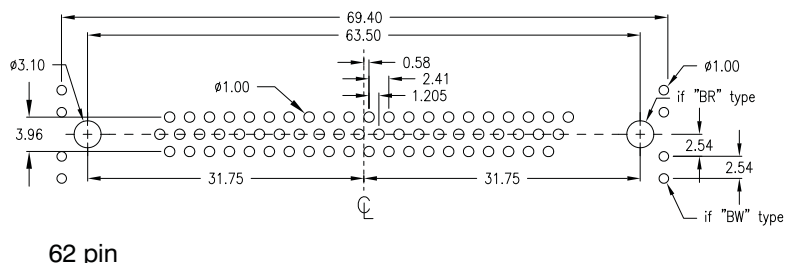
15 pin



44 pin



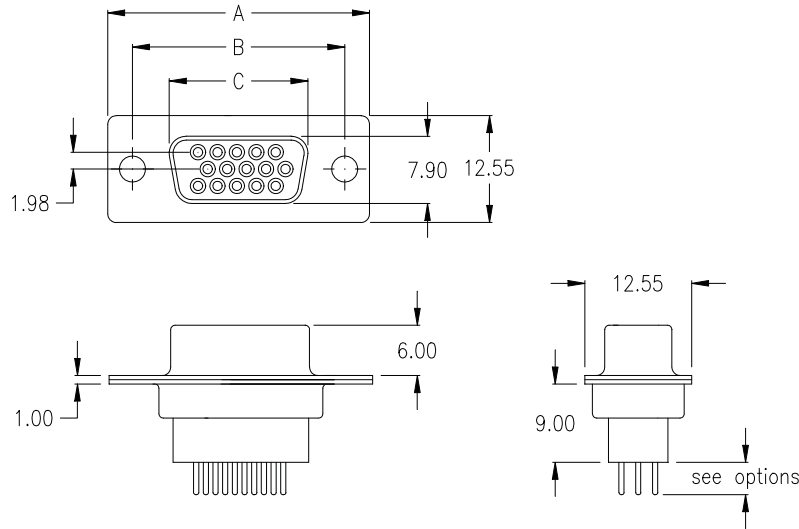
26 pin



62 pin



female



Ordering Code

SHF - xxx - B111 - 95 / XXX

No. of contacts

Option

Plating: -95 = tin (leadfree)/gold

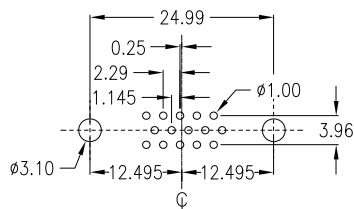
General Specification page 72

No. of contacts	Dimension		
	A	B	C
015	30.81	24.99	16.33
	1.213	.984	.643
026	39.14	33.32	24.66
	1.541	1.312	.971
044	53.04	47.04	38.38
	2.088	1.852	1.511
062	69.32	63.50	54.84
	2.729	2.500	2.159

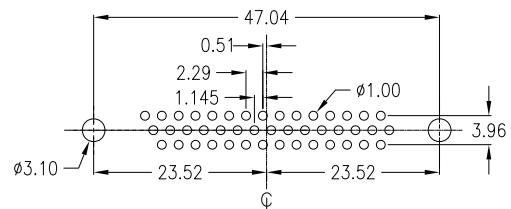
Options

<p>mounting hole ø 3.05</p> <p>Standard: <b>T0</b> if „D“ = 5.30mm On request: <b>T02</b> if „D“ = 3.80mm</p>	<p>thread rivet 4-40 UNC</p> <p>Standard: <b>T</b> if „D“ = 5.30mm On request: <b>T2</b> if „D“ = 3.80mm</p>	<p>Jack Screw 4-40 UNC</p> <p>Standard: <b>TJ</b> if „D“ = 5.30mm On request: <b>TJ2</b> if „D“ = 3.80mm</p>	<p>inside thread 4-40 UNC</p> <p>Board Lock</p> <p><b>BR</b></p>	<p>Jack Screw 4-40 UNC</p> <p>Board Lock</p> <p><b>BR J</b></p>	<table border="1"> <thead> <tr> <th>D</th> <th>E</th> <th>Option</th> </tr> </thead> <tbody> <tr> <td>3,80</td> <td>9,60</td> <td><b>1</b></td> </tr> <tr> <td>5,30</td> <td>11,00</td> <td><b>2</b></td> </tr> <tr> <td>7,20</td> <td>12,70</td> <td><b>3</b></td> </tr> <tr> <td>7,40</td> <td>13,50</td> <td><b>5</b></td> </tr> </tbody> </table>	D	E	Option	3,80	9,60	<b>1</b>	5,30	11,00	<b>2</b>	7,20	12,70	<b>3</b>	7,40	13,50	<b>5</b>
D	E	Option																		
3,80	9,60	<b>1</b>																		
5,30	11,00	<b>2</b>																		
7,20	12,70	<b>3</b>																		
7,40	13,50	<b>5</b>																		

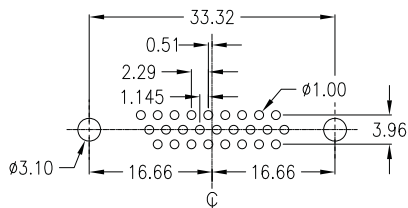
PCB Layout „female“



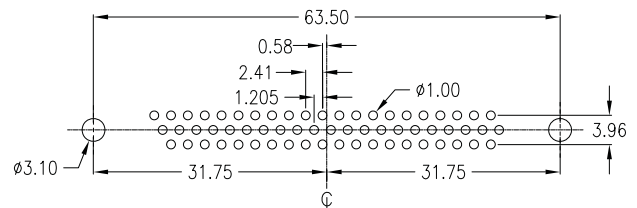
15 pin



44 pin

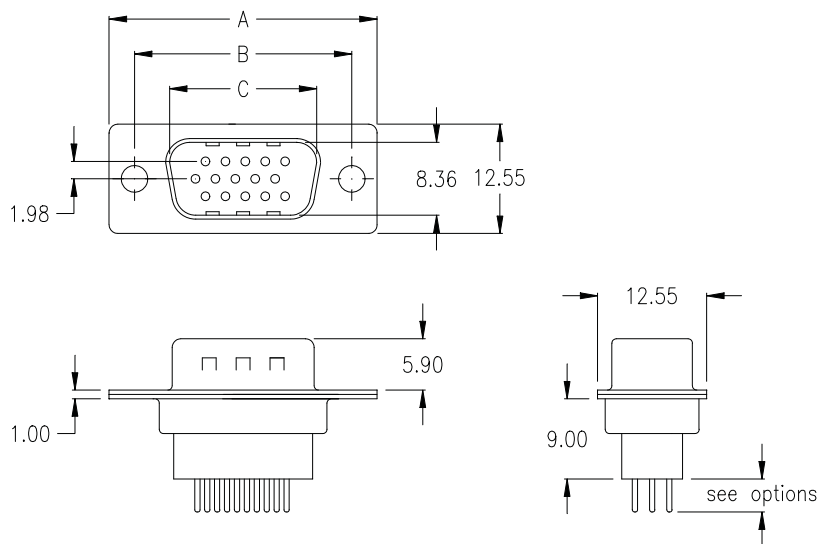


26 pin



62 pin

male



**Ordering Code**

**SHM - xxx - B111 - 55 / XXX**

No. of contacts

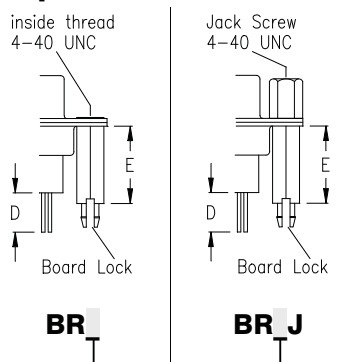
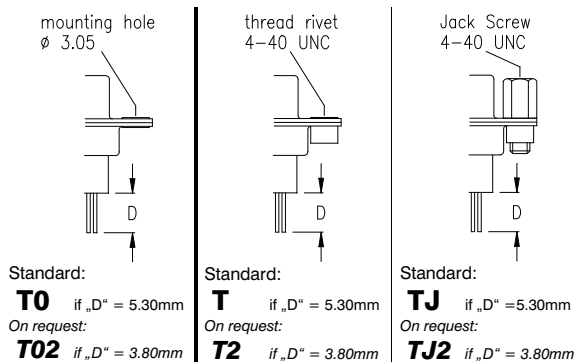
Option

Plating: -55 = gold

General Specification page 72

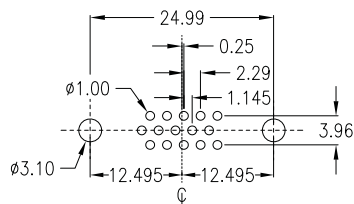
No. of contacts	Dimension		
	A	B	C
<b>015</b>	<u>30.81</u> 1.213	<u>24.99</u> .984	<u>16.92</u> .666
<b>026</b>	<u>39.14</u> 1.541	<u>33.32</u> 1.312	<u>25.25</u> .994
<b>044</b>	<u>53.04</u> 2.088	<u>47.04</u> 1.852	<u>38.96</u> 1.534
<b>062</b>	<u>69.32</u> 2.729	<u>63.50</u> 2.500	<u>55.42</u> 2.182

**Options**

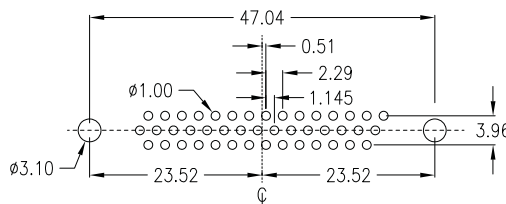


D	E	Option
3,80	9,60	<b>1</b>
5,30	11,00	<b>2</b>
7,20	12,70	<b>3</b>
7,40	13,50	<b>5</b>

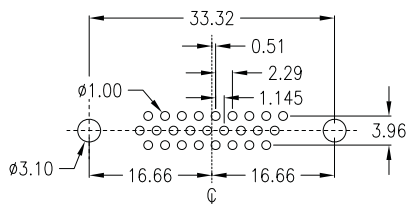
**PCB Layout „male“**



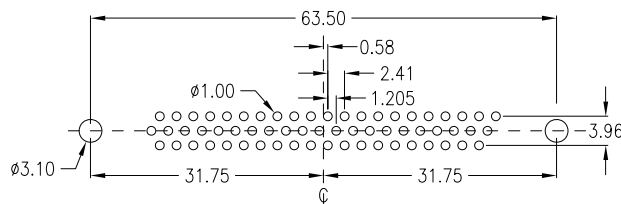
15 pin



44 pin



26 pin



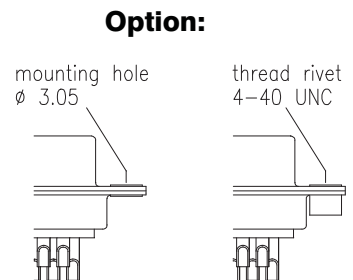
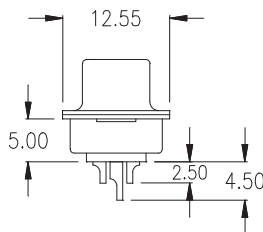
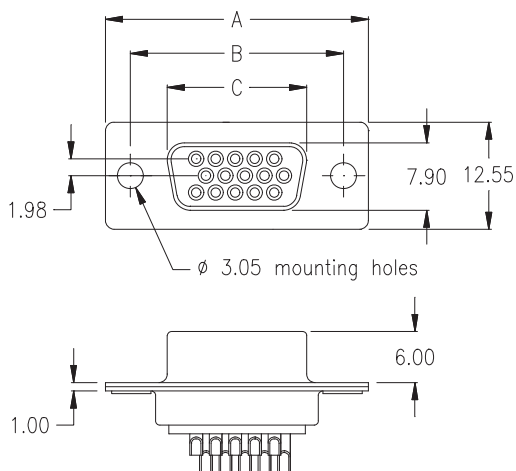
62 pin

# SH Series - High Density D-Sub

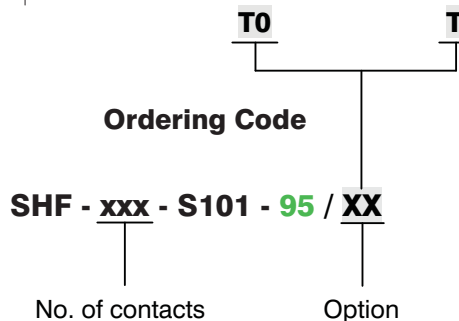
## S101 solder cup type



### female



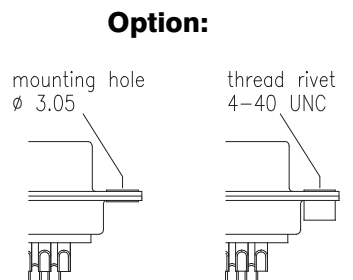
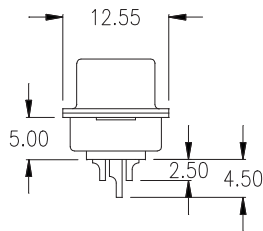
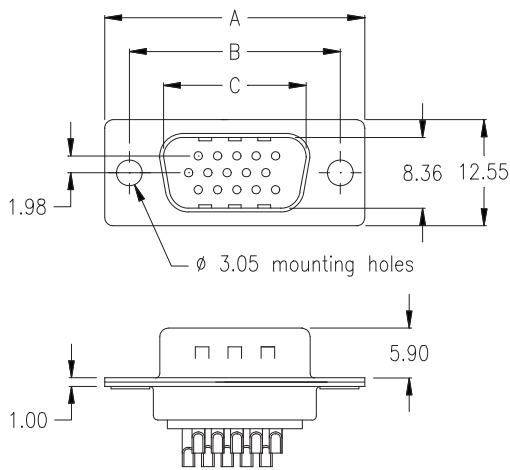
No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>026</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>044</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>062</b>	69.32	63.50	54.84
	2.729	2.500	2.159



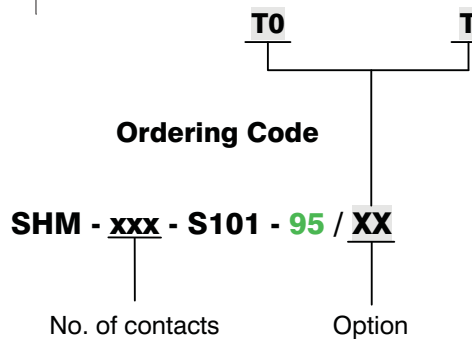
General Specification page 72

Plating: -95 = tin(leadfree)/gold

### male



No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>026</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>044</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>062</b>	69.32	63.50	55.42
	2.729	2.500	2.182

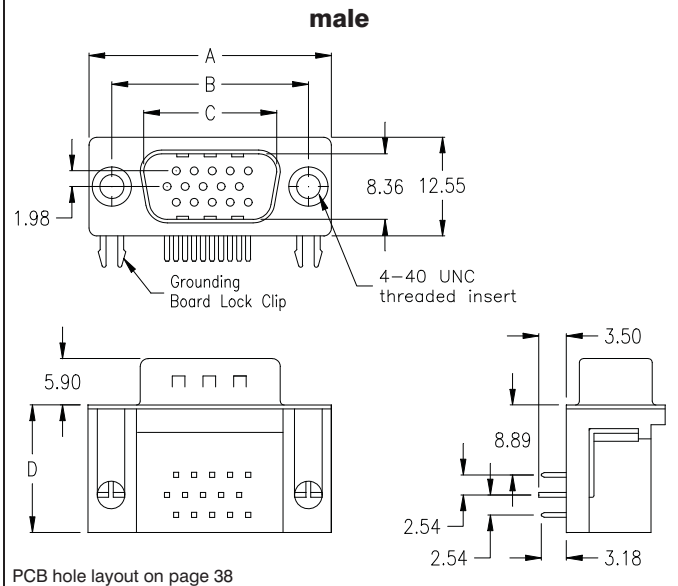
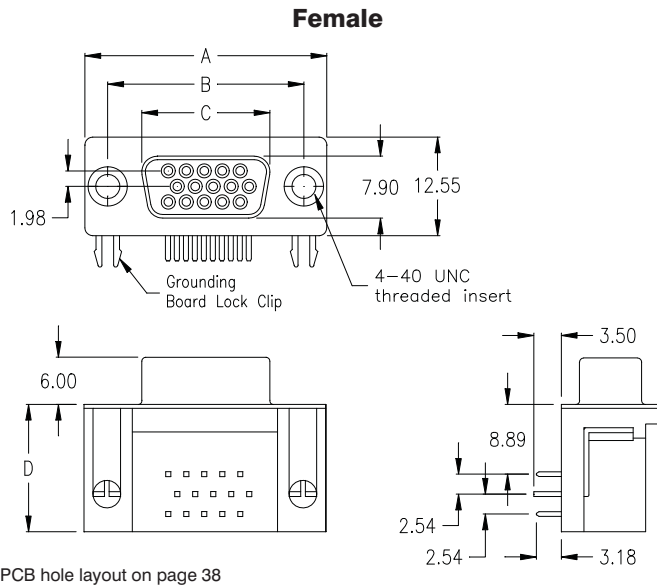


General Specification page 72

Plating: -95 = tin(leadfree)/gold

# SH Series - High Density D-Sub 90°

## F900 "Wave Solder" & "Pin-In-Paste" Technology



No. of contacts	Dimension				Ordering Code
	A	B	C	D	
015	30.81	24.99	16.33	16.22	<b>SHF-015-F900-55/ XX</b> <b>SHF-015-F900-95/V XX</b>
	1.213	.984	.643	.639	
026	39.14	33.32	24.66	16.22	<b>SHF-026-F900-55/ XX</b>
	1.541	1.311	.971	.639	
044	53.04	47.04	38.38	16.22	<b>SHF-044-F900-55/ XX</b>
	2.088	1.852	1.511	.639	
062	69.32	63.50	54.84	16.22	<b>SHF-062-F900-55/ XX</b>
	2.729	2.500	2.159	.639	

No. of contacts	Dimension				Ordering Code
	A	B	C	D	
015	30.81	24.99	16.92	16.22	<b>SHM-015-F900-55/ XX</b>
	1.213	.984	.666	.639	
026	39.14	33.32	25.25	16.22	<b>SHM-026-F900-55/ XX</b>
	1.541	1.311	.994	.639	
044	53.04	47.04	38.96	16.22	<b>SHM-044-F900-55/ XX</b>
	2.088	1.852	1.534	.639	
062	69.32	63.50	55.42	16.22	<b>SHM-062-F900-55/ XX</b>
	2.729	2.500	2.182	.639	

Plating: **-55** = gold/gold (not available for VESA Type)  
**-95** = tin(leadfree)/gold

Option

Plating: **-55** = gold/gold  
**-95** = tin(leadfree)/gold (only on request)

Option

**SHF - xxx - F900 - 95/V XX** = VESA Type – blue colour insulator  
Contact #9 recessed 1.27mm to allow last mate, first break on 5V supply

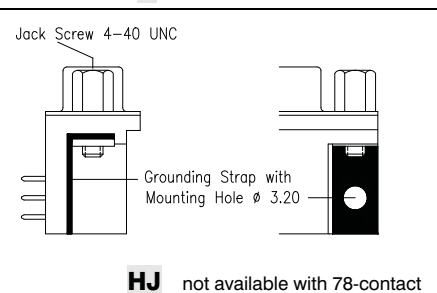
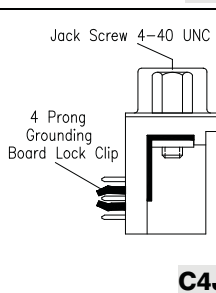
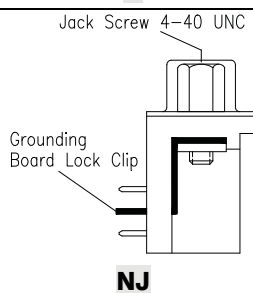
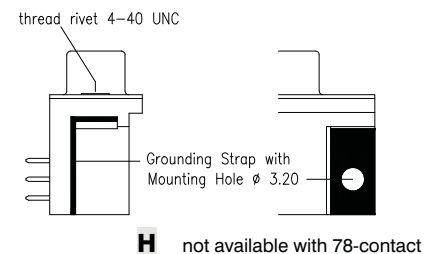
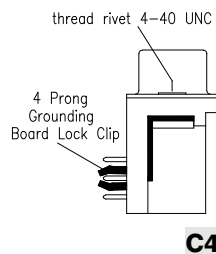
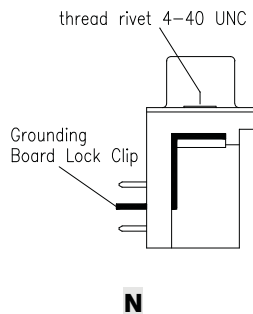
**"Pin-In-Paste" Technology - for availability pls. contact [info@e-tec.com](mailto:info@e-tec.com)**

General Specification page 72

### Options

**Special product.**

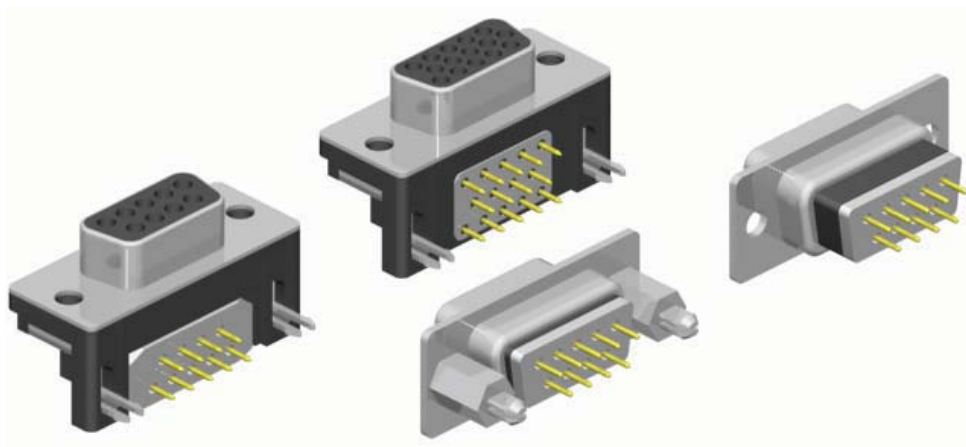
**Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.**





# Ferrite Filter

## D-Sub



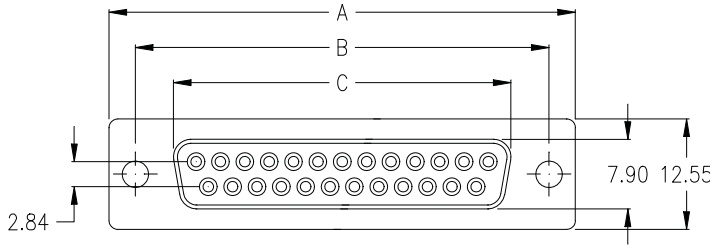
D-Sub Filter Connectors are the ideal solution to reduce or eliminate „electro magnetic interference“ ( EMI ).

Many different types, straight, right angle single and dual port, as well as High Density versions are available.

Capacitance D-Sub Filter Connectors are available on request.

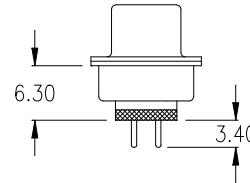
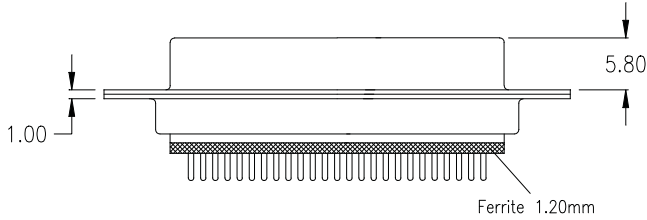


female



FERRITE SPECIFICATION

No of Contact	Measured Value(OHM)	Test Frequency	Ferrite thickness
009	20 min. 40 min.	25 MHz 100 MHz	1.20mm
015	15 min. 35 min.	25 MHz 100 MHz	
025	15 min. 40 min.	25 MHz 100 MHz	
037	20 min. 50 min.	25 MHz 100 MHz	



Ordering Code

**SDF - xxx - S111 - 95 / F XXX**

No. of contacts

Option

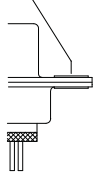
Plating: -95= tin(leadfree)/gold

General Specification page 72

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81 1.213	24.99 .984	16.33 .643
<b>015</b>	39.14 1.541	33.32 1.312	24.66 .971
<b>025</b>	53.04 2.088	47.04 1.852	38.38 1.511
<b>037</b>	69.32 2.729	63.50 2.500	54.84 2.159

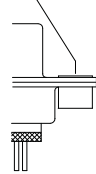
Options

mounting hole  
ø 3.05



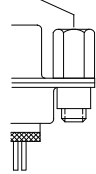
**T0**

thread rivet  
4-40 UNC



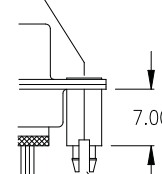
**T**

Jack Screw  
4-40 UNC



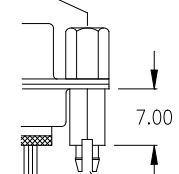
**TJ**

inside thread  
4-40 UNC



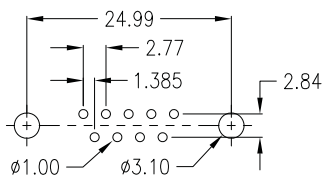
**BR**

Jack Screw  
4-40 UNC

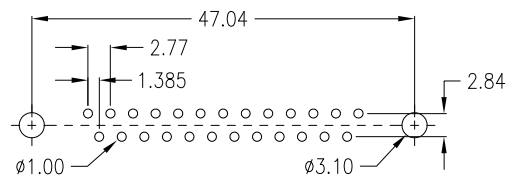


**BRJ**

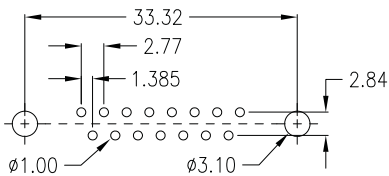
PCB Layout „female“



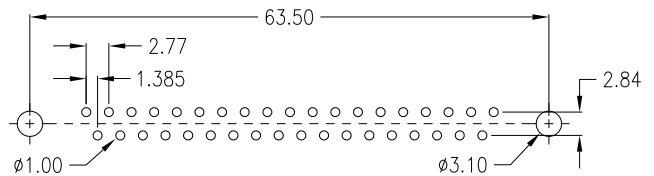
9 pin



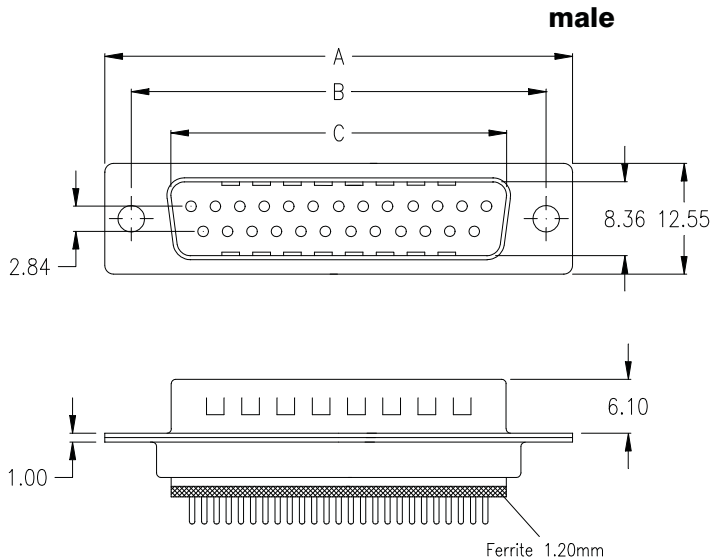
25 pin



15 pin

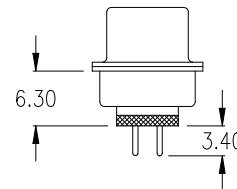
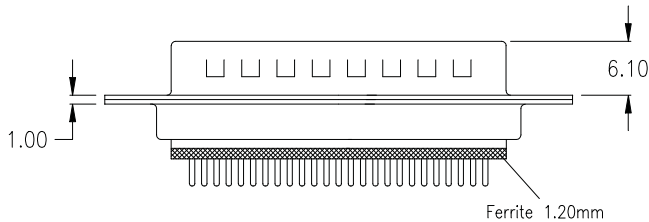


37 pin



FERRITE SPECIFICATION

No of Contact	Measured Value(OHM)	Test Frequency	Ferrite thickness
009	20 min. 40 min.	25 MHz 100 MHz	1.20mm
015	15 min. 35 min.	25 MHz 100 MHz	
025	15 min. 40 min.	25 MHz 100 MHz	
037	20 min. 50 min.	25 MHz 100 MHz	



**Ordering Code**

**SDM - xxx - S111 - 95 / F XXX**

No. of contacts

Option

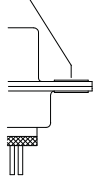
Plating: **-95** = tin(leadfree)/gold

General Specification page 72

No. of contacts	Dimension		
	A	B	C
<b>009</b>	<u>30.81</u> 1.213	<u>24.99</u> .984	<u>16.92</u> .666
<b>015</b>	<u>39.14</u> 1.541	<u>33.32</u> 1.312	<u>25.25</u> .994
<b>025</b>	<u>53.04</u> 2.088	<u>47.04</u> 1.852	<u>38.96</u> 1.534
<b>037</b>	<u>69.32</u> 2.729	<u>63.50</u> 2.500	<u>55.42</u> 2.182

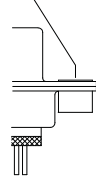
**Options**

mounting hole  
ø 3.05



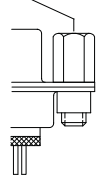
**T0**

thread rivet  
4-40 UNC



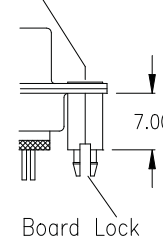
**T**

Jack Screw  
4-40 UNC



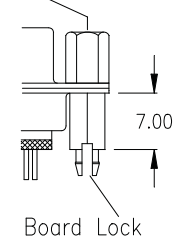
**TJ**

inside thread  
4-40 UNC



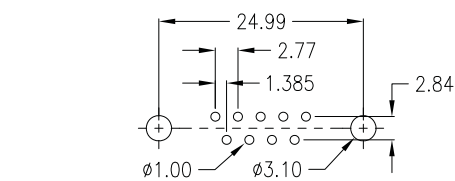
**BR**

Jack Screw  
4-40 UNC

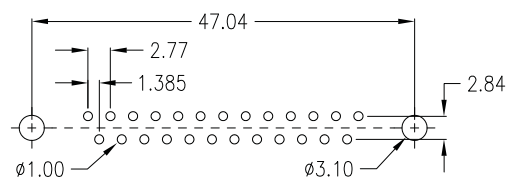


**BRJ**

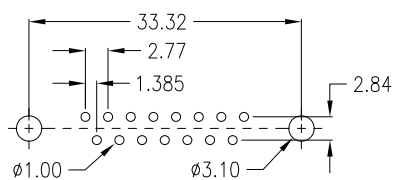
**PCB Layout „male“**



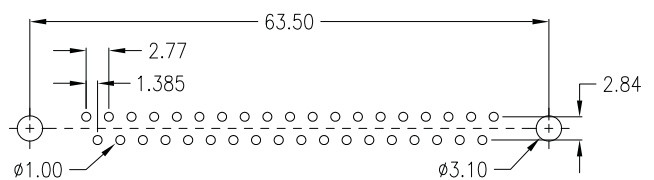
9 pin



25 pin

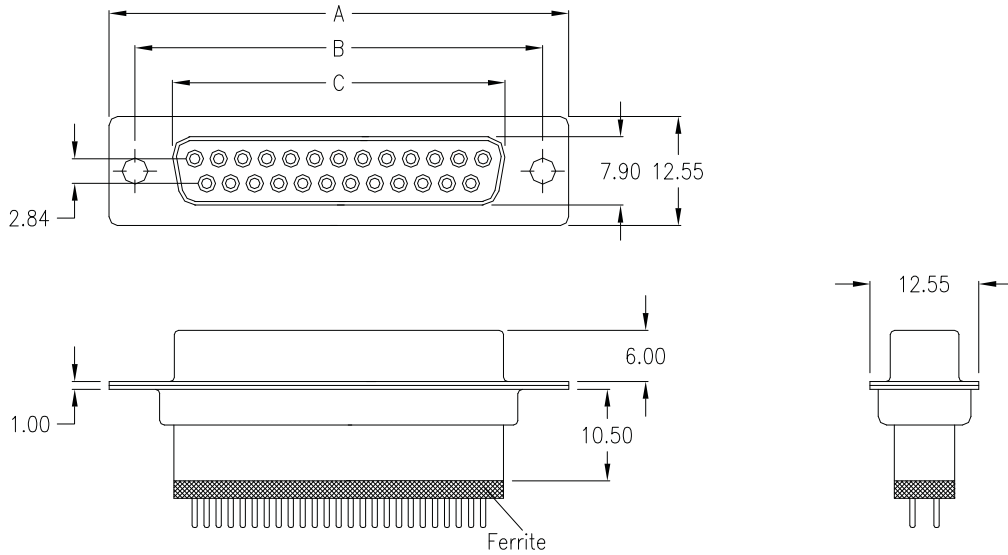


15 pin



37 pin

female



Ordering Code

SDF - xxx - B111 - 95 / F XXX

No. of contacts

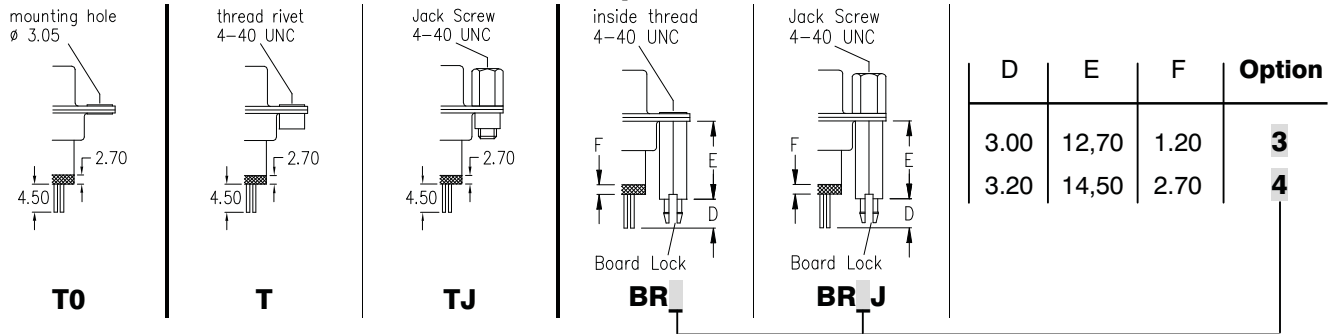
Option

Plating: -95 = tin(leadfree)/gold

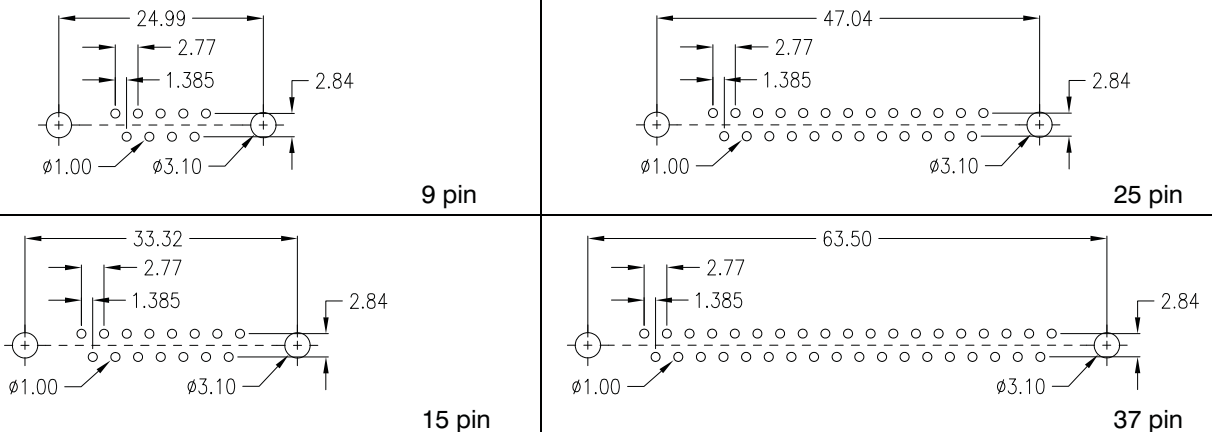
General Specification page 72

No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.33
	1.213	.984	.643
015	39.14	33.32	24.66
	1.541	1.312	.971
025	53.04	47.04	38.38
	2.088	1.852	1.511
037	69.32	63.50	54.84
	2.729	2.500	2.159

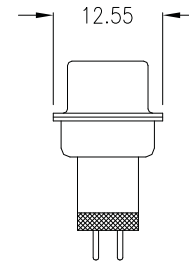
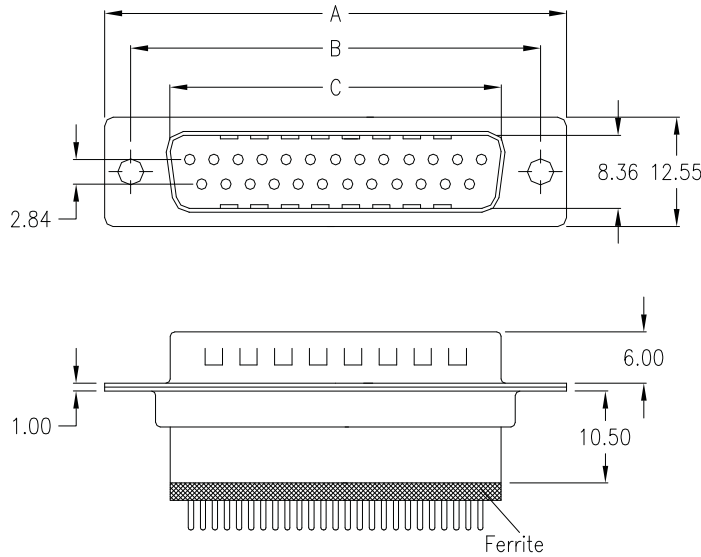
Options



PCB Layout „female“



male



Ordering Code

**SDM - xxx - B111 - 95 / F XXX**

No. of contacts

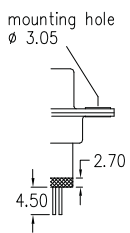
Option

Plating: **-95 = tin(leadfree)/gold**

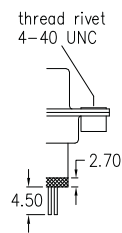
No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>015</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>025</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>037</b>	69.32	63.50	55.42
	2.729	2.500	2.182

General Specification page 72

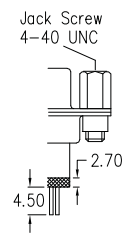
Options



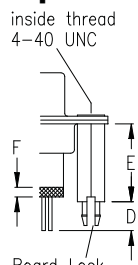
**T0**



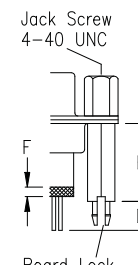
**T**



**TJ**



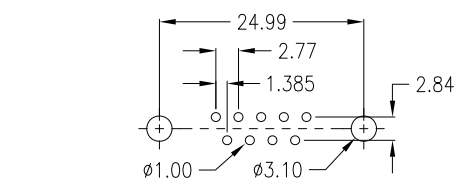
**BR**



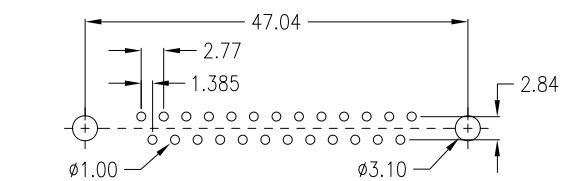
**BRJ**

D	E	F	Option
3.00	12,70	1.20	<b>3</b>
3.20	14,50	2.70	<b>4</b>

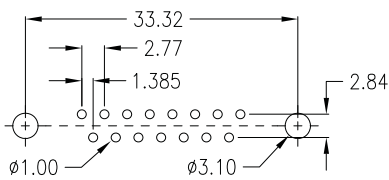
PCB Layout „male“



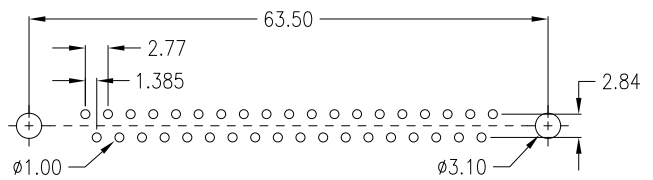
9 pin



25 pin



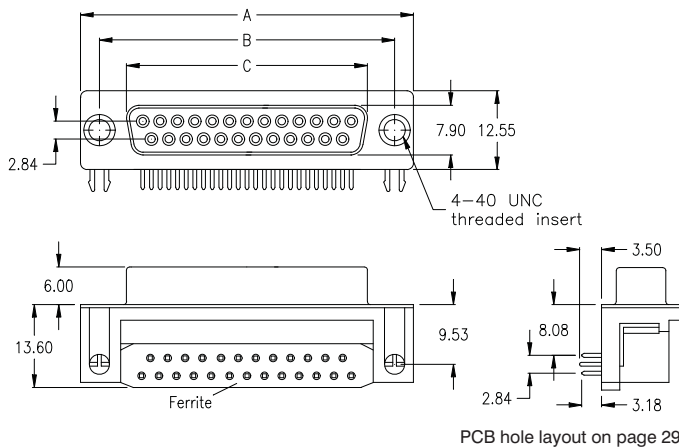
15 pin



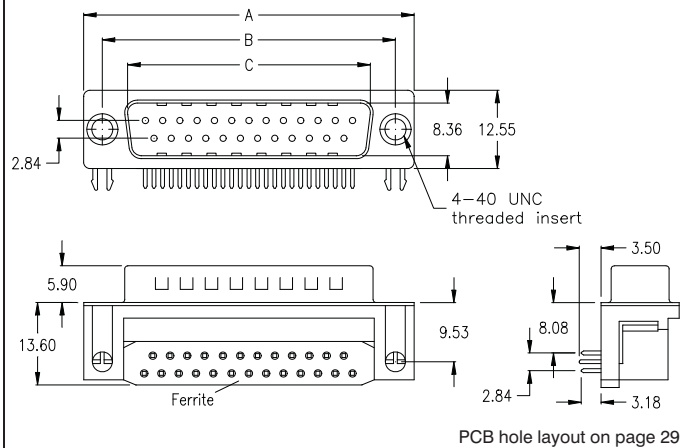
37 pin



**female**



**male**



No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.33
	1.213	.984	.643
015	39.14	33.32	24.66
	1.541	1.312	.971
025	53.04	47.04	38.38
	2.088	1.852	1.511
037	69.32	63.50	54.84
	2.729	2.500	2.159

No. of contacts	Dimension		
	A	B	C
009	30.81	24.99	16.92
	1.213	.984	.666
015	39.14	33.32	25.25
	1.541	1.312	.994
025	53.04	47.04	38.96
	2.088	1.852	1.534
037	69.32	63.50	55.42
	2.729	2.500	2.182

**Ordering Code**

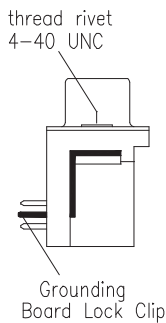
**SFF - xxx - N900 - 95 / XX**  
 No. of contacts                      Option

**Ordering Code**

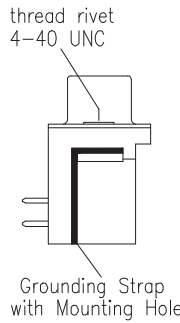
**SFM - xxx - N900 - 95 / XX**  
 No. of contacts                      Option

Plating: -95 = tin(leadfree)/gold      General Specification page 72

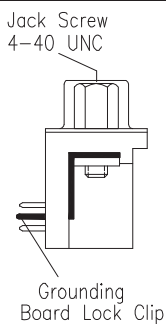
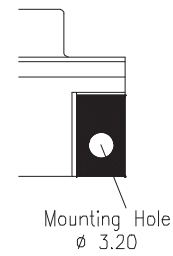
**Options**



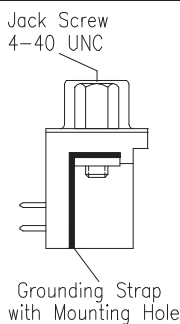
**N**



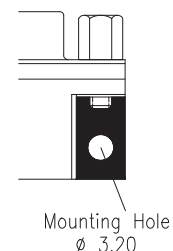
**H**



**NJ**

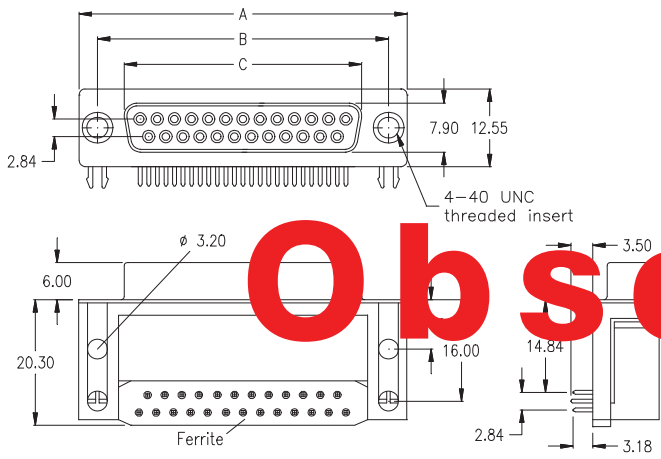


**HJ**





**female**



PCB hole layout on page 29

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>015</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>025</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>037</b>	69.32	63.50	54.84
	2.729	2.500	2.159

**Ordering Code**

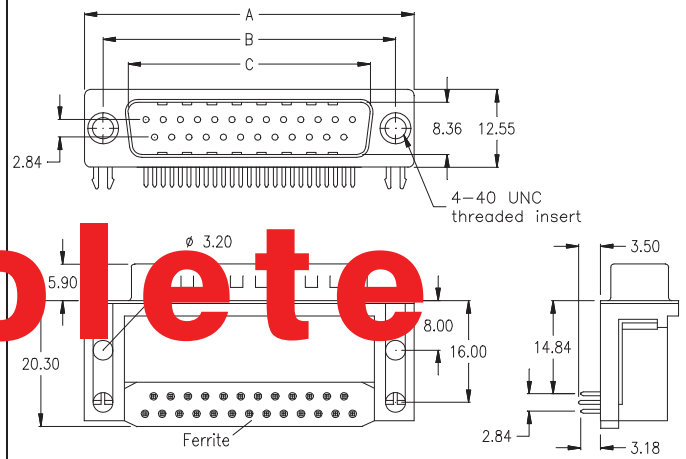
**SFF - xxx - L900 - 95 / XX**

No. of contacts

Option

Plating: -95 = tin(leadfree)/gold

**male**



PCB hole layout on page 29

No. of contacts	Dimension		
	A	B	C
<b>009</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>015</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>025</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>037</b>	69.32	63.50	55.42
	2.729	2.500	2.182

**Ordering Code**

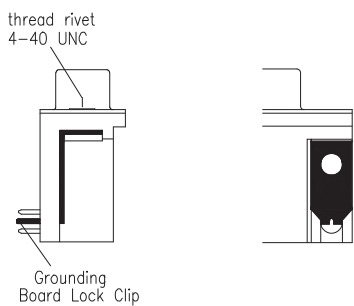
**SFM - xxx - L900 - 95 / XX**

No. of contacts

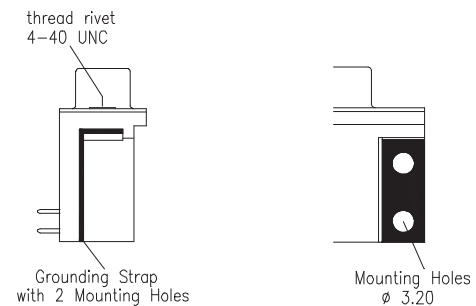
Option

General Specification page 72

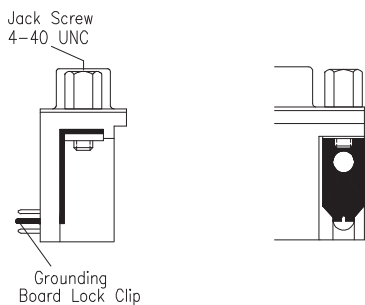
**Options**



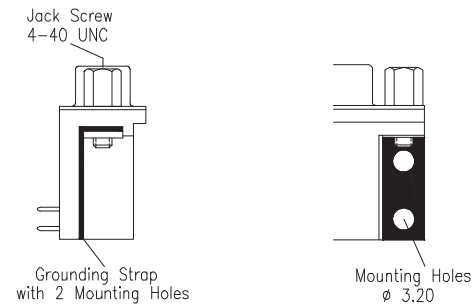
**P**



**L**

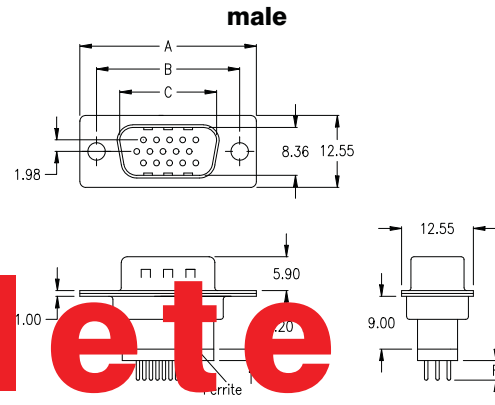
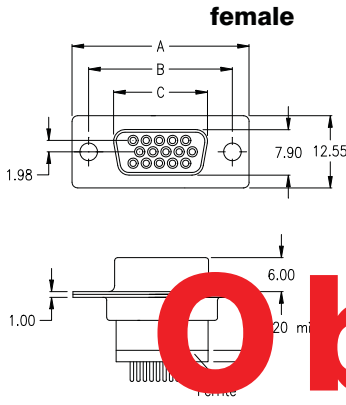


**PJ**



**LJ**





Obsolete

No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>026</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>044</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>062</b>	69.32	63.50	54.84
	2.729	2.500	2.159

No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.92
	1.213	.984	.666

**Ordering Code**  
**SHF - xxx - B 111 - 95 / F XX**

**Ordering Code**  
**SHM - 015 - B 111 - 55 / F XX**

No. of contacts

Option

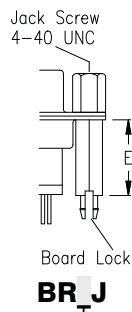
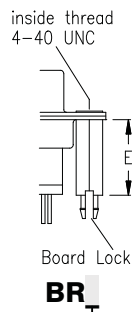
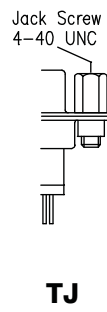
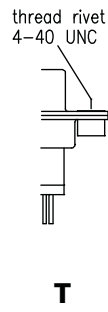
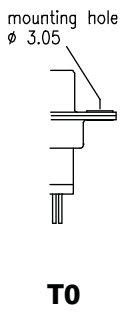
No. of contacts

Option

Plating: **-95** = tin(leadfree)/gold **-55** = gold all over

General Specification page 72

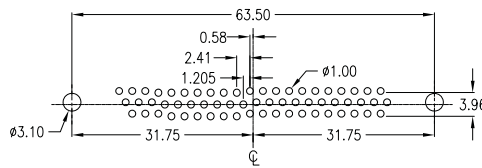
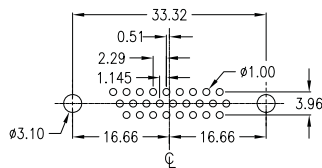
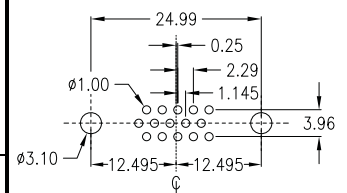
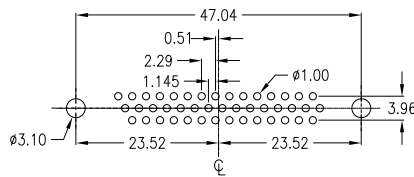
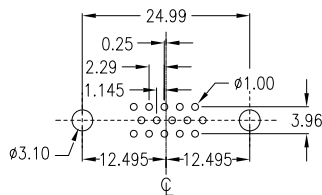
**Options**



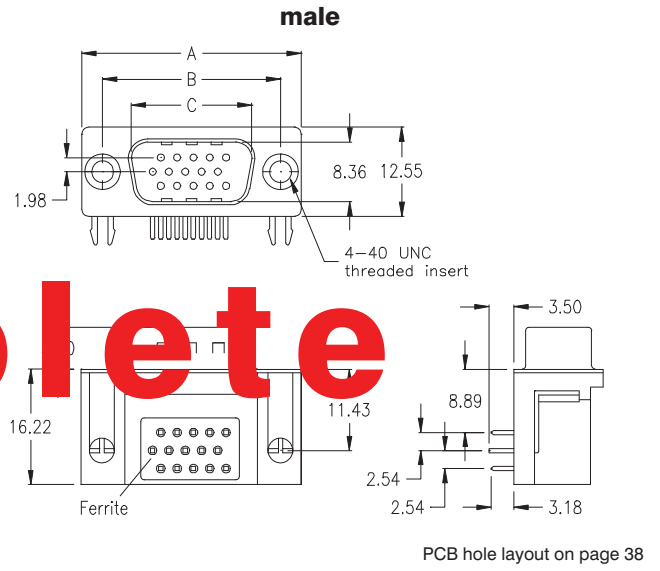
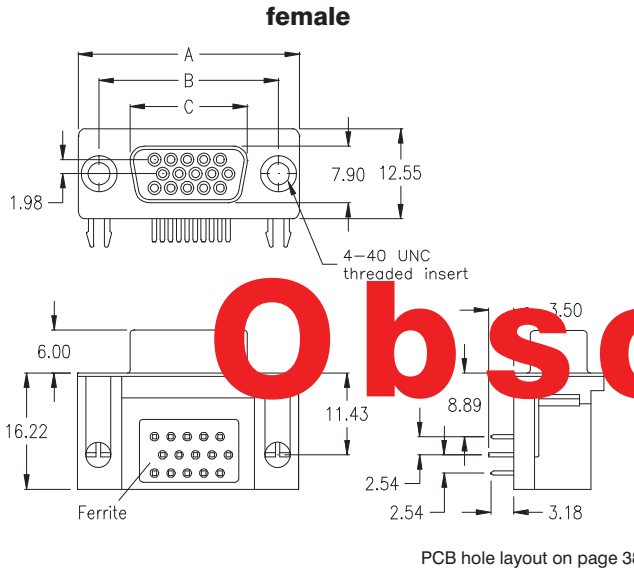
E	F	Option
12,70	4.60	<b>3</b>
14,50	5.20	<b>4</b>

**PCB Layout „female“**

**PCB Layout „male“**



SH Series - High Density D-Sub 90°  
F900 with Ferrite Filter



Obsolete

No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.33
	1.213	.984	.643
<b>026</b>	39.14	33.32	24.66
	1.541	1.312	.971
<b>044</b>	53.04	47.04	38.38
	2.088	1.852	1.511
<b>062</b>	69.32	63.50	54.84
	2.729	2.500	2.159

No. of contacts	Dimension		
	A	B	C
<b>015</b>	30.81	24.99	16.92
	1.213	.984	.666
<b>026</b>	39.14	33.32	25.25
	1.541	1.312	.994
<b>044</b>	53.04	47.04	38.96
	2.088	1.852	1.534
<b>062</b>	69.32	63.50	55.42
	2.729	2.500	2.182

**Ordering Code**

**SHF - xxx - F 900 - 95 / F XX**

No. of contacts

Option

Plating: -95 = tin(leadfree)/gold

**Ordering Code**

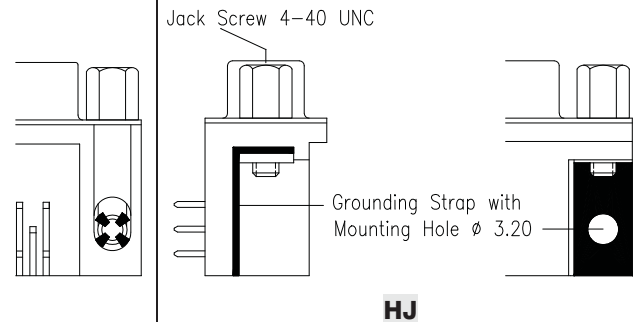
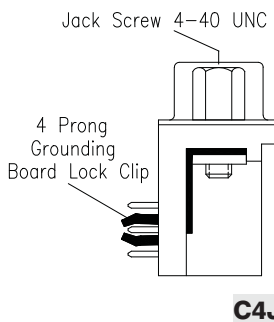
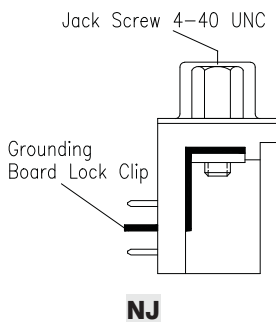
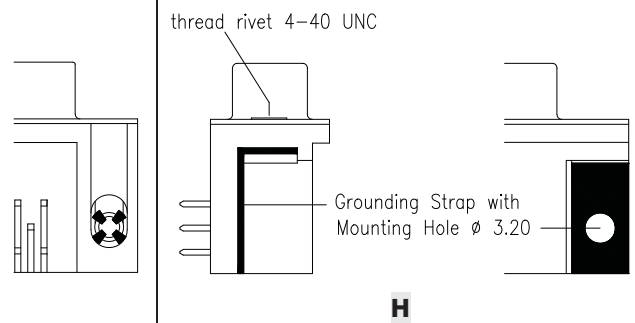
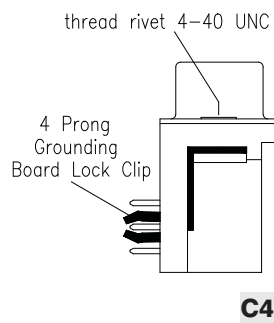
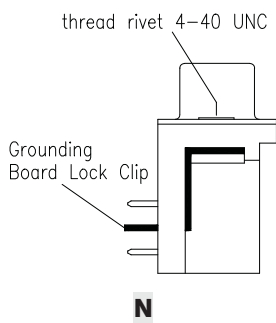
**SHM - xxx - F 900 - 95 / F XX**

No. of contacts

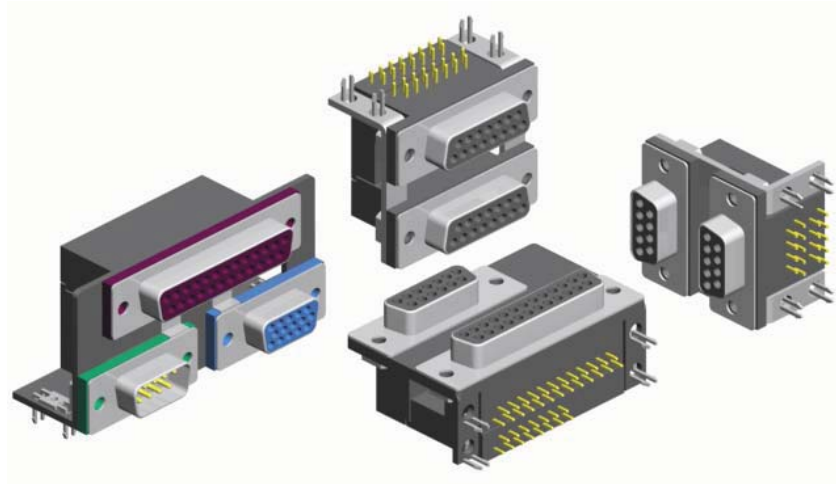
Option

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**Options**



# Multi Port D-Sub



Multi Port D-Sub Connectors are available with a wide combination of different D-Sub types, standard and high density, with and without ferrite filter.

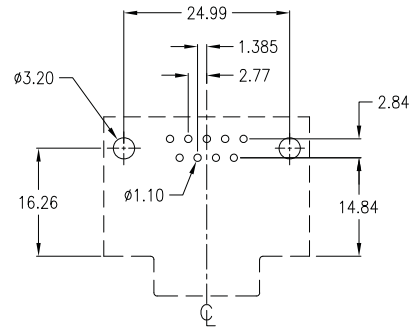
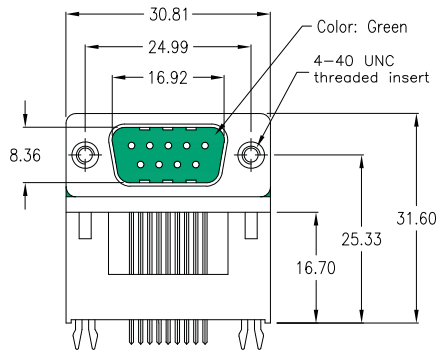
In addition, Triple Port D-Sub's are also available which meet the PC 99 Specification.

These Multi Port D-Sub's can be used on motherboards, as well as for any other electronic design purposes.

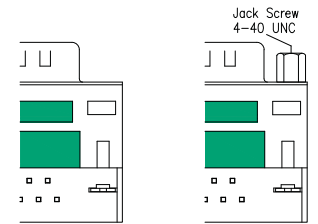
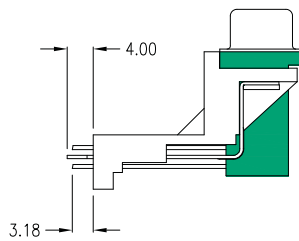
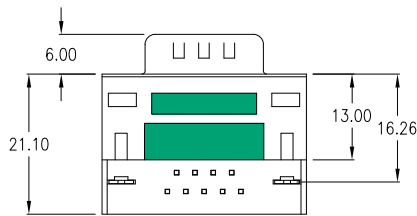
Please contact E-tec for any other Multi Port D-Sub Connector styles not shown in the following pages and/or for any other PCB layout styles.

Certain alternative styles can also be viewed on [www.e-tec.com](http://www.e-tec.com)

**9-pin male raised**



PCB hole layout



Style "-MN"

Style "-MNJ"

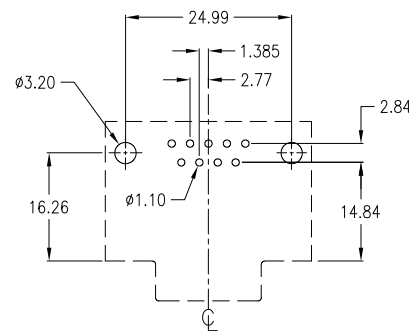
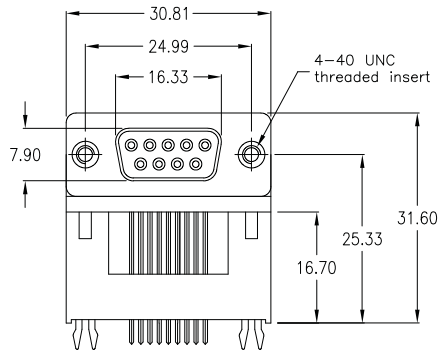
with 2 grounding clips;  
w/o jack screws  
*Standard*  
( as above drawing )

with 2 grounding clips;  
2 jack screws 4-40 UNC  
mounted  
*Option*

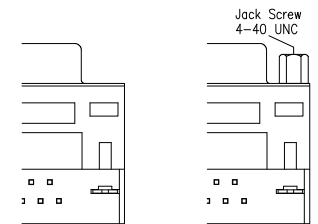
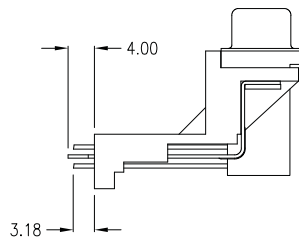
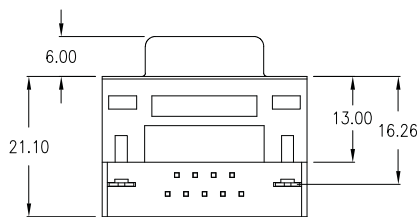
SDD-0900-2-95-MN

SDD-0900-2-95-MNJ

**9-pin female raised**



PCB hole layout



Style "-FN"

Style "-FNJ"

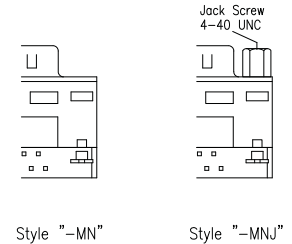
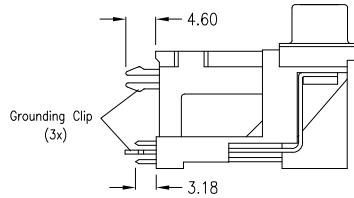
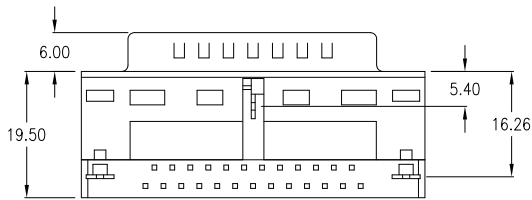
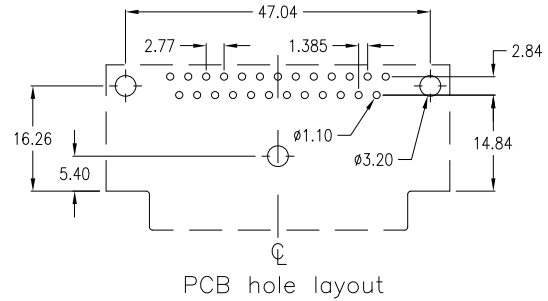
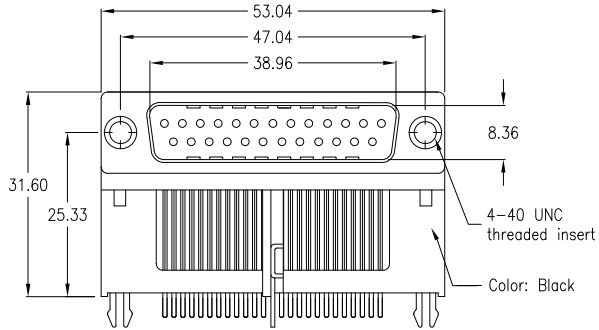
with 2 grounding clips;  
w/o jack screws  
*Standard*  
( as above drawing )

with 2 grounding clips;  
2 jack screws 4-40 UNC  
mounted  
*Option*

SDD-0900-2-95-FN

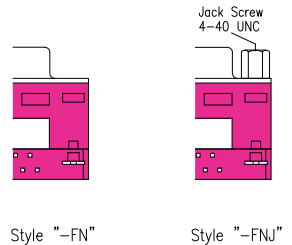
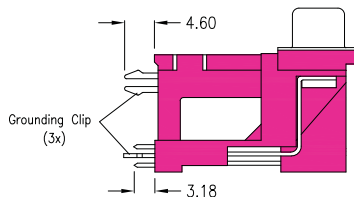
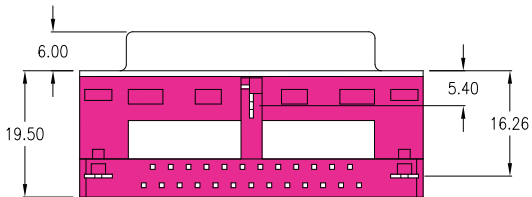
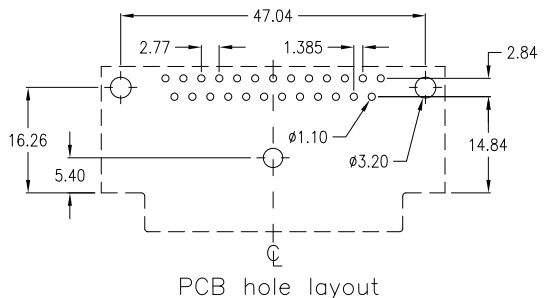
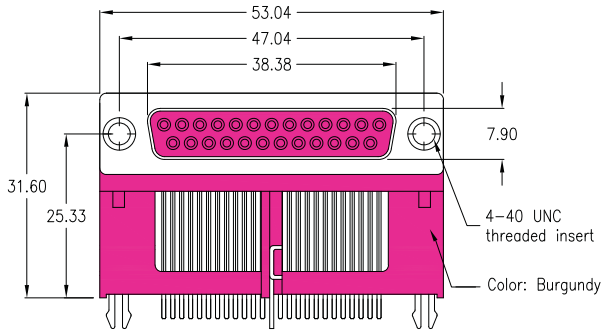
SDD-0900-2-95-FNJ

**25-pin male raised**



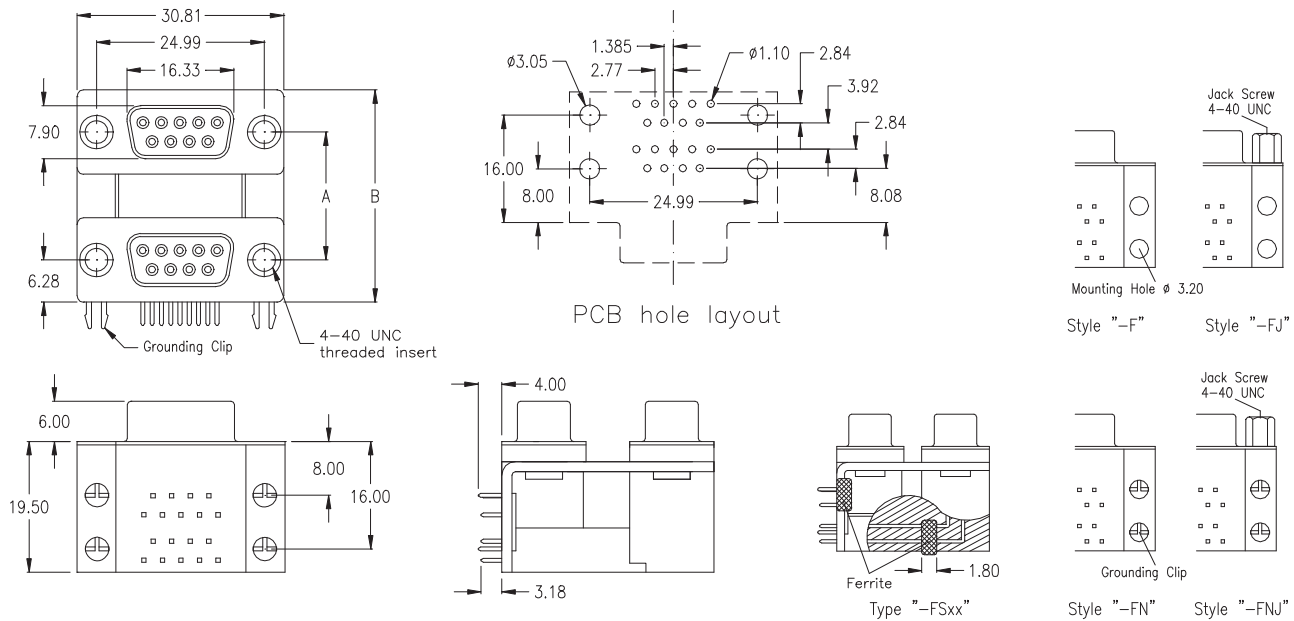
	with 3 grounding clips; w/o jack screws <i>Standard</i> ( as above drawing )	with 3 grounding clips; 2 jack screws 4-40 UNC mounted <i>Option</i>	
	SDD-2500-2-95-MN	SDD-2500-2-95-MNJ	

**25-pin female raised**



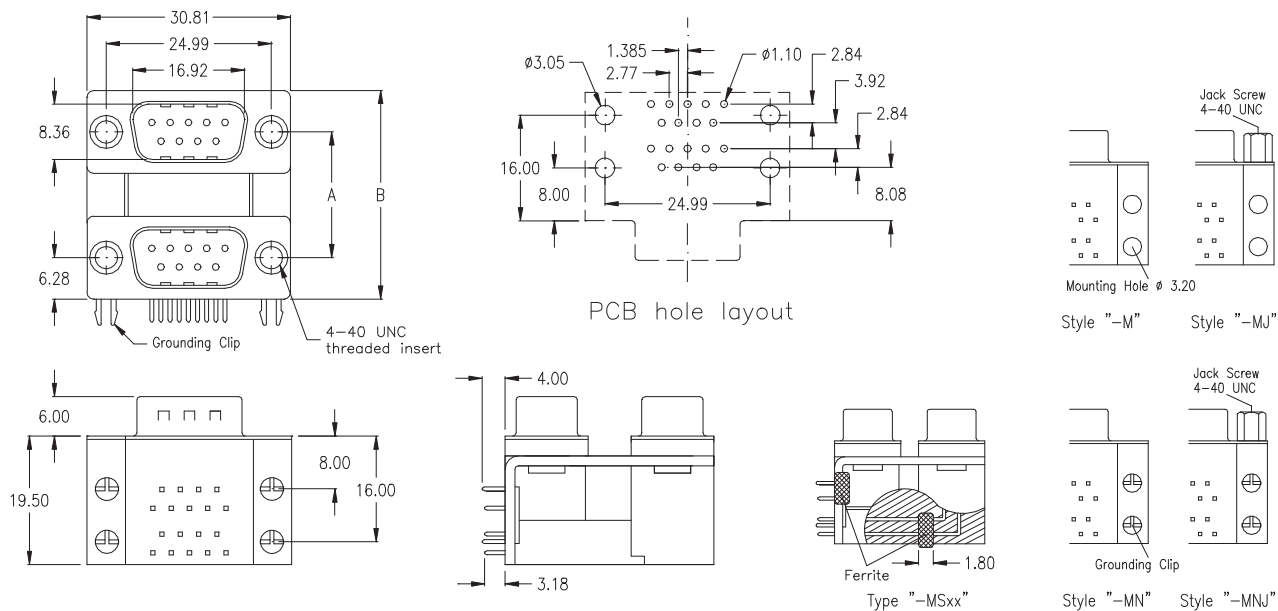
	with 3 grounding clips; w/o jack screws <i>Standard</i> ( as above drawing )	with 3 grounding clips; 2 jack screws 4-40 UNC mounted <i>Option</i>	
	SDD-2500-2-95-FN	SDD-2500-2-95-FNJ	

**9-pin female / 9-pin female**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-0909-1-95-F	SDD-0909-1-95-FJ	SDD-0909-1-95-FN	SDD-0909-1-95-FNJ	„A“ = 22.86 „B“ = 35.41
SDD-0909-2-95-F	SDD-0909-2-95-FJ	SDD-0909-2-95-FN	SDD-0909-2-95-FNJ	„A“ = 19.05 „B“ = 31.60
SDD-0909-3-95-F	SDD-0909-3-95-FJ	SDD-0909-3-95-FN	SDD-0909-3-95-FNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FS	if with Ferrite Filter: -FSJ	if with Ferrite Filter: -FSN	if with Ferrite Filter: -FSNJ	

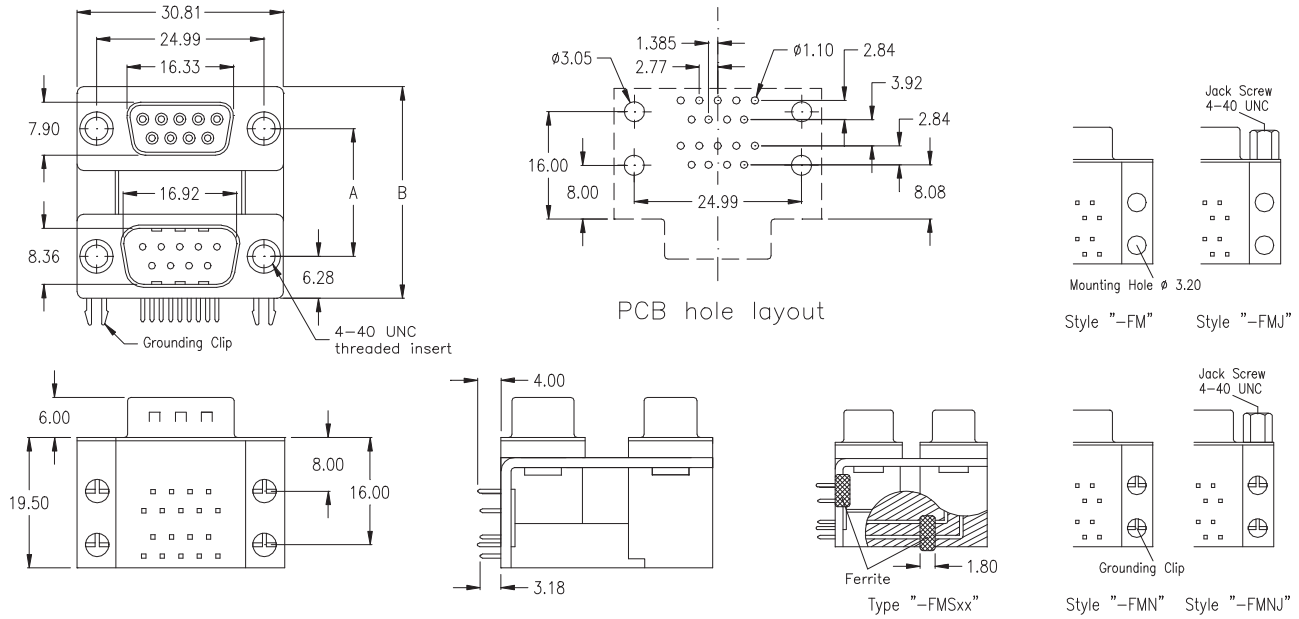
**9-pin male / 9-pin male**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-0909-1-95-M	SDD-0909-1-95-MJ	SDD-0909-1-95-MN	SDD-0909-1-95-MNJ	„A“ = 22.86 „B“ = 35.41
SDD-0909-2-95-M	SDD-0909-2-95-MJ	SDD-0909-2-95-MN	SDD-0909-2-95-MNJ	„A“ = 19.05 „B“ = 31.60
SDD-0909-3-95-M	SDD-0909-3-95-MJ	SDD-0909-3-95-MN	SDD-0909-3-95-MNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MS	if with Ferrite Filter: -MSJ	if with Ferrite Filter: -MSN	if with Ferrite Filter: -MSNJ	

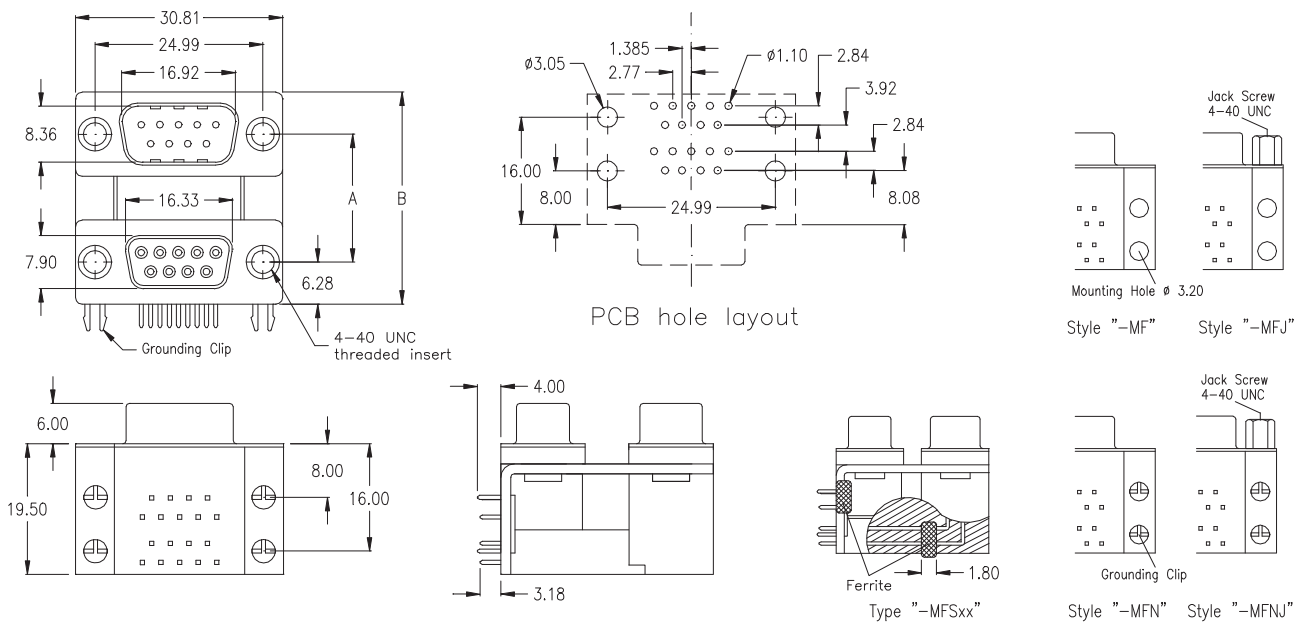


**9-pin female / 9-pin male**



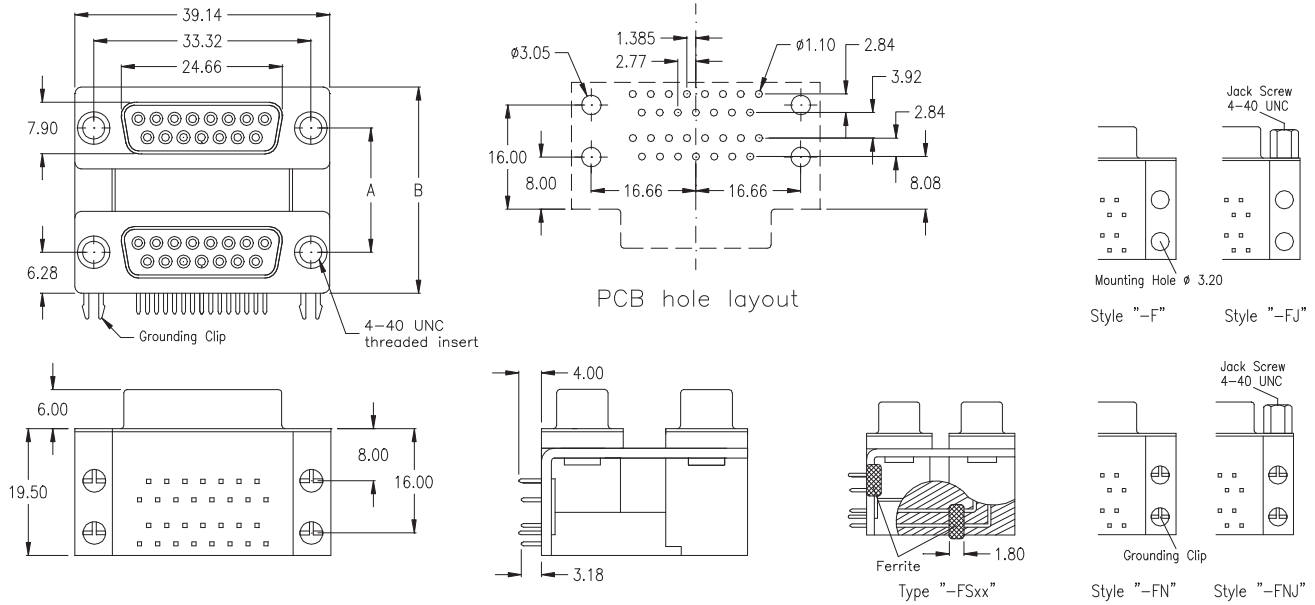
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-0909-1-95-FM	SDD-0909-1-95-FMJ	SDD-0909-1-95-FMN	SDD-0909-1-95-FMNJ	„A“ = 22.86 „B“ = 35.41
SDD-0909-2-95-FM	SDD-0909-2-95-FMJ	SDD-0909-2-95-FMN	SDD-0909-2-95-FMNJ	„A“ = 19.05 „B“ = 31.60
SDD-0909-3-95-FM	SDD-0909-3-95-FMJ	SDD-0909-3-95-FMN	SDD-0909-3-95-FMNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FMS	if with Ferrite Filter: -FMSJ	if with Ferrite Filter: -FMSN	if with Ferrite Filter: -FMSNJ	

**9-pin male / 9-pin female**



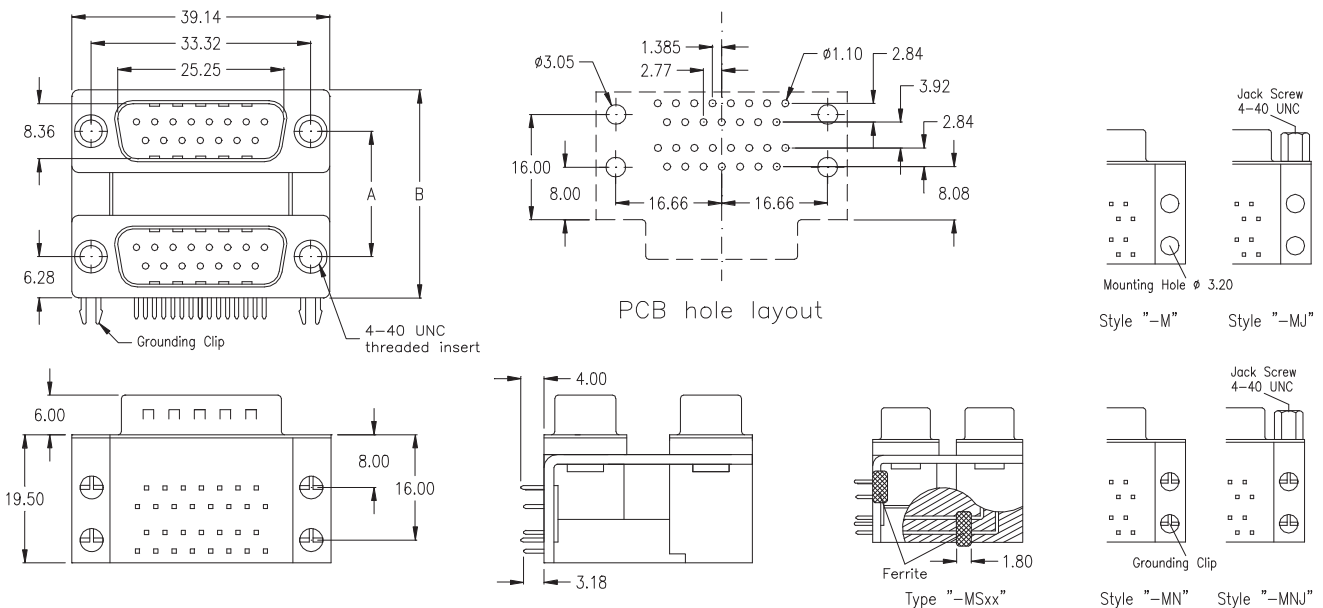
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-0909-1-95-MF	SDD-0909-1-95-MFJ	SDD-0909-1-95-MFN	SDD-0909-1-95-MFNJ	„A“ = 22.86 „B“ = 35.41
SDD-0909-2-95-MF	SDD-0909-2-95-MFJ	SDD-0909-2-95-MFN	SDD-0909-2-95-MFNJ	„A“ = 19.05 „B“ = 31.60
SDD-0909-3-95-MF	SDD-0909-3-95-MFJ	SDD-0909-3-95-MFN	SDD-0909-3-95-MFNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MFS	if with Ferrite Filter: -MFSJ	if with Ferrite Filter: -MFSN	if with Ferrite Filter: -MFSNJ	

**15-pin female / 15-pin female**



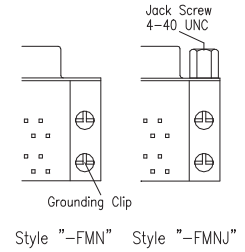
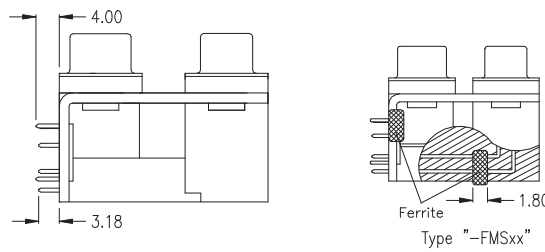
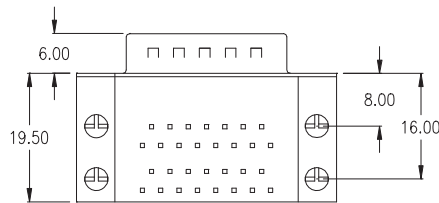
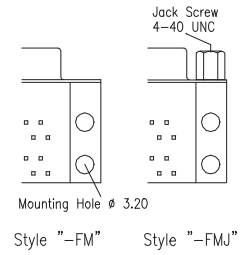
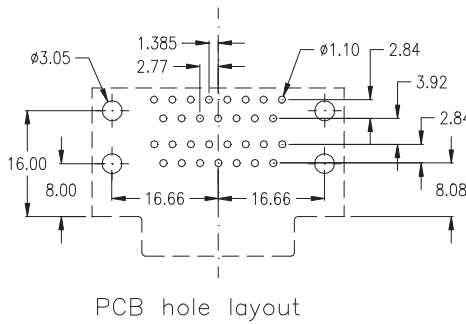
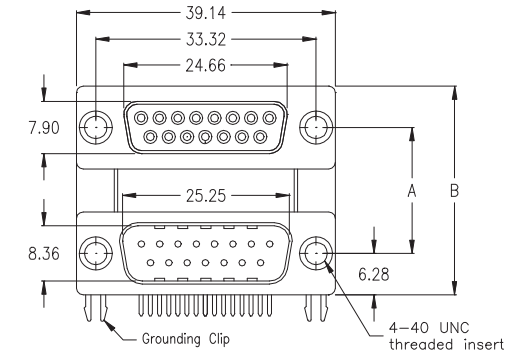
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-1515-1-95-F	SDD-1515-1-95-FJ	SDD-1515-1-95-FN	SDD-1515-1-95-FNJ	„A“ = 22.86 „B“ = 35.41
SDD-1515-2-95-F	SDD-1515-2-95-FJ	SDD-1515-2-95-FN	SDD-1515-2-95-FNJ	„A“ = 19.05 „B“ = 31.60
SDD-1515-3-95-F	SDD-1515-3-95-FJ	SDD-1515-3-95-FN	SDD-1515-3-95-FNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FS	if with Ferrite Filter: -FSJ	if with Ferrite Filter: -FSN	if with Ferrite Filter: -FSNJ	

**15-pin male / 15-pin male**



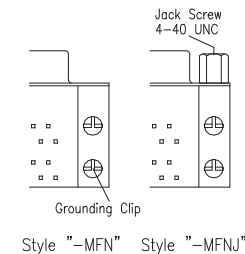
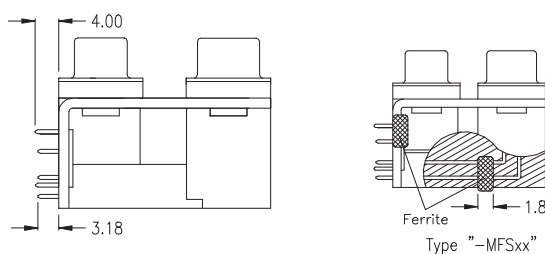
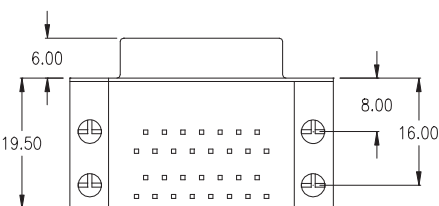
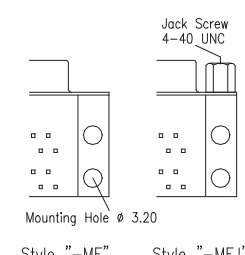
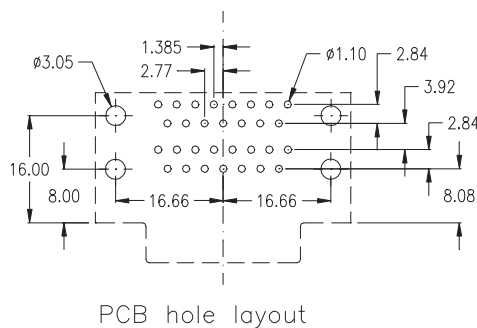
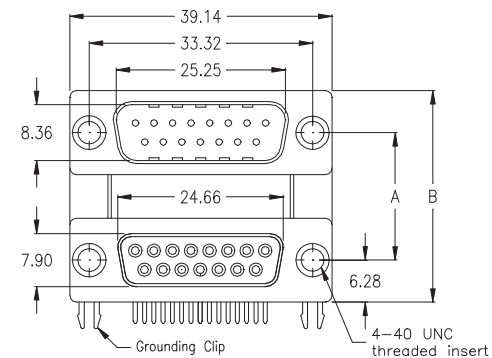
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-1515-1-95-M	SDD-1515-1-95-MJ	SDD-1515-1-95-MN	SDD-1515-1-95-MNJ	„A“ = 22.86 „B“ = 35.41
SDD-1515-2-95-M	SDD-1515-2-95-MJ	SDD-1515-2-95-MN	SDD-1515-2-95-MNJ	„A“ = 19.05 „B“ = 31.60
SDD-1515-3-95-M	SDD-1515-3-95-MJ	SDD-1515-3-95-MN	SDD-1515-3-95-MNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MS	if with Ferrite Filter: -MSJ	if with Ferrite Filter: -MSN	if with Ferrite Filter: -MSNJ	

**15-pin female / 15-pin male**



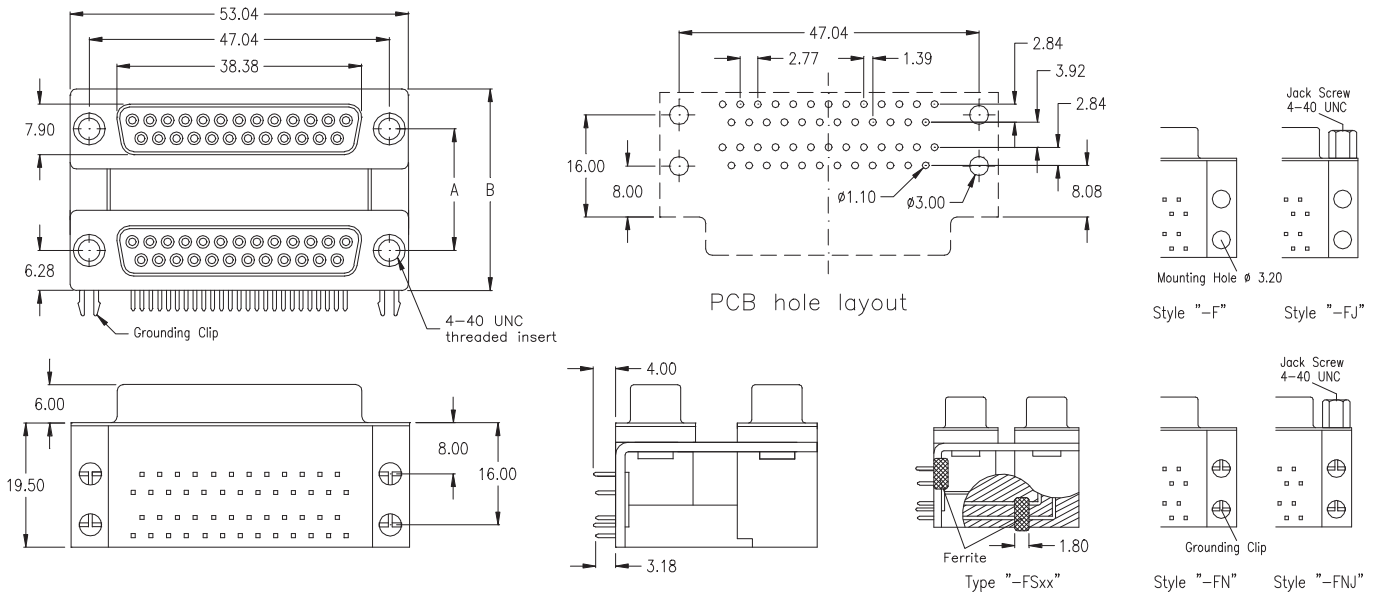
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-1515-1-95-FM	SDD-1515-1-95-FMJ	SDD-1515-1-95-FMN	SDD-1515-1-95-FMNJ	„A“ = 22.86 „B“ = 35.41
SDD-1515-2-95-FM	SDD-1515-2-95-FMJ	SDD-1515-2-95-FMN	SDD-1515-2-95-FMNJ	„A“ = 19.05 „B“ = 31.60
SDD-1515-3-95-FM	SDD-1515-3-95-FMJ	SDD-1515-3-95-FMN	SDD-1515-3-95-FMNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FMS	if with Ferrite Filter: -FMSJ	if with Ferrite Filter: -FMSN	if with Ferrite Filter: -FMSNJ	

**15-pin male / 15-pin female**



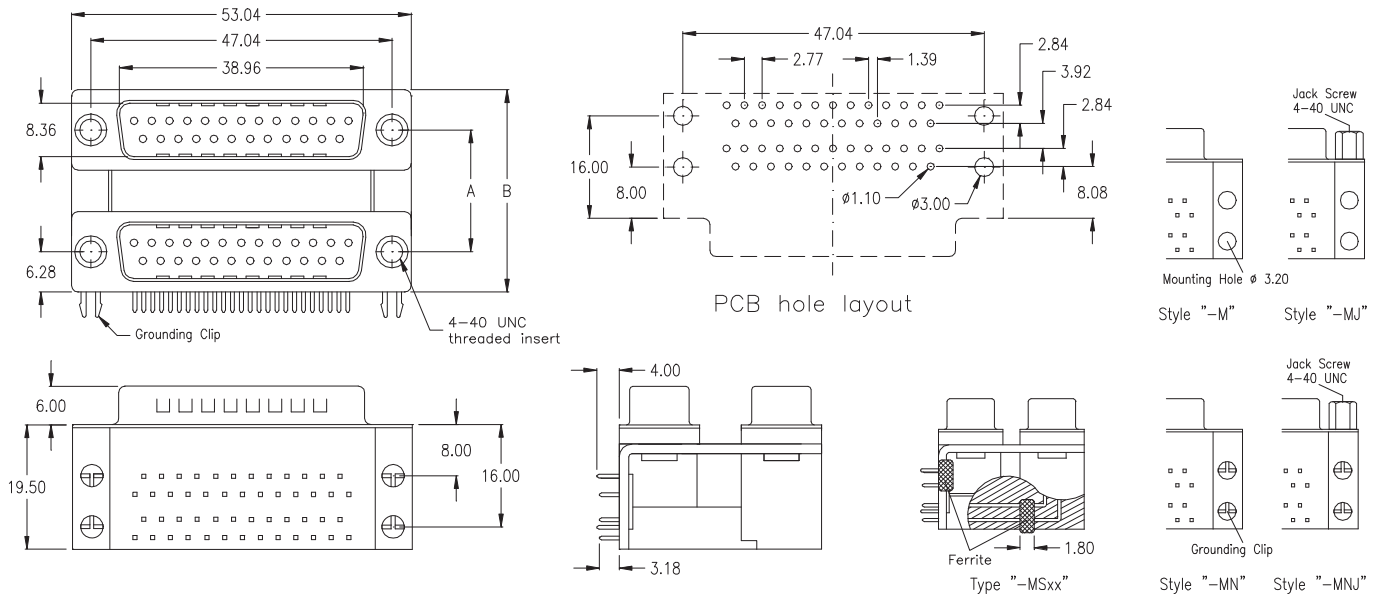
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-1515-1-95-MF	SDD-1515-1-95-MFJ	SDD-1515-1-95-MFN	SDD-1515-1-95-MFNJ	„A“ = 22.86 „B“ = 35.41
SDD-1515-2-95-MF	SDD-1515-2-95-MFJ	SDD-1515-2-95-MFN	SDD-1515-2-95-MFNJ	„A“ = 19.05 „B“ = 31.60
SDD-1515-3-95-MF	SDD-1515-3-95-MFJ	SDD-1515-3-95-MFN	SDD-1515-3-95-MFNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MFS	if with Ferrite Filter: -MFSJ	if with Ferrite Filter: -MFSN	if with Ferrite Filter: -MFSNJ	

**25-pin female / 25-pin female**



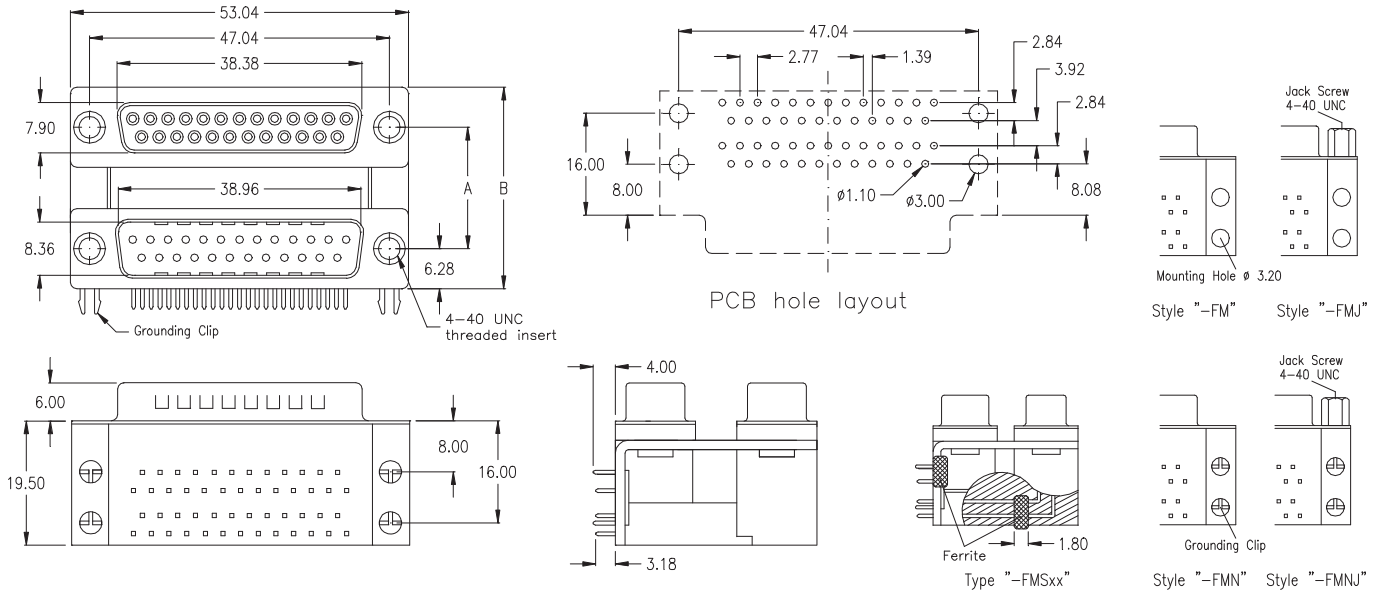
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2525-1-95-F	SDD-2525-1-95-FJ	SDD-2525-1-95-FN	SDD-2525-1-95-FNJ	„A“ = 22.86 „B“ = 35.41
SDD-2525-2-95-F	SDD-2525-2-95-FJ	SDD-2525-2-95-FN	SDD-2525-2-95-FNJ	„A“ = 19.05 „B“ = 31.60
SDD-2525-3-95-F	SDD-2525-3-95-FJ	SDD-2525-3-95-FN	SDD-2525-3-95-FNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FS	if with Ferrite Filter: -FSJ	if with Ferrite Filter: -FSN	if with Ferrite Filter: -FSNJ	

**25-pin male / 25-pin male**



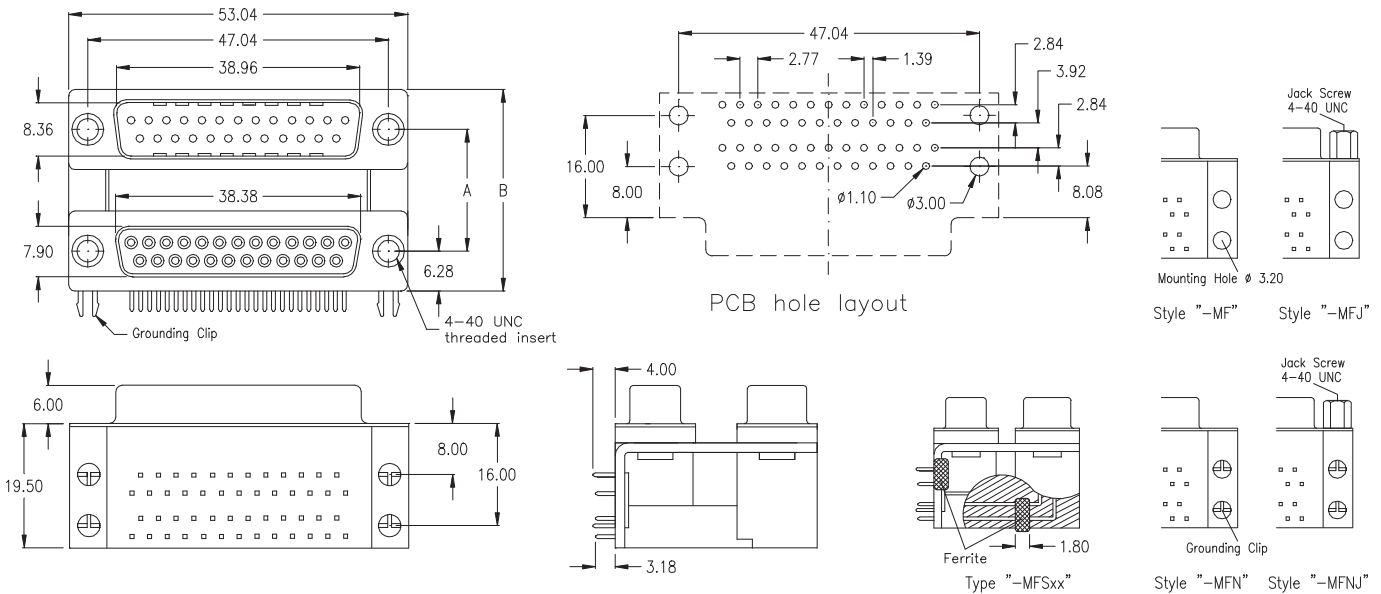
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2525-1-95-M	SDD-2525-1-95-MJ	SDD-2525-1-95-MN	SDD-2525-1-95-MNJ	„A“ = 22.86 „B“ = 35.41
SDD-2525-2-95-M	SDD-2525-2-95-MJ	SDD-2525-2-95-MN	SDD-2525-2-95-MNJ	„A“ = 19.05 „B“ = 31.60
SDD-2525-3-95-M	SDD-2525-3-95-MJ	SDD-2525-3-95-MN	SDD-2525-3-95-MNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MS	if with Ferrite Filter: -MSJ	if with Ferrite Filter: -MSN	if with Ferrite Filter: -MSNJ	

25-pin female / 25-pin male



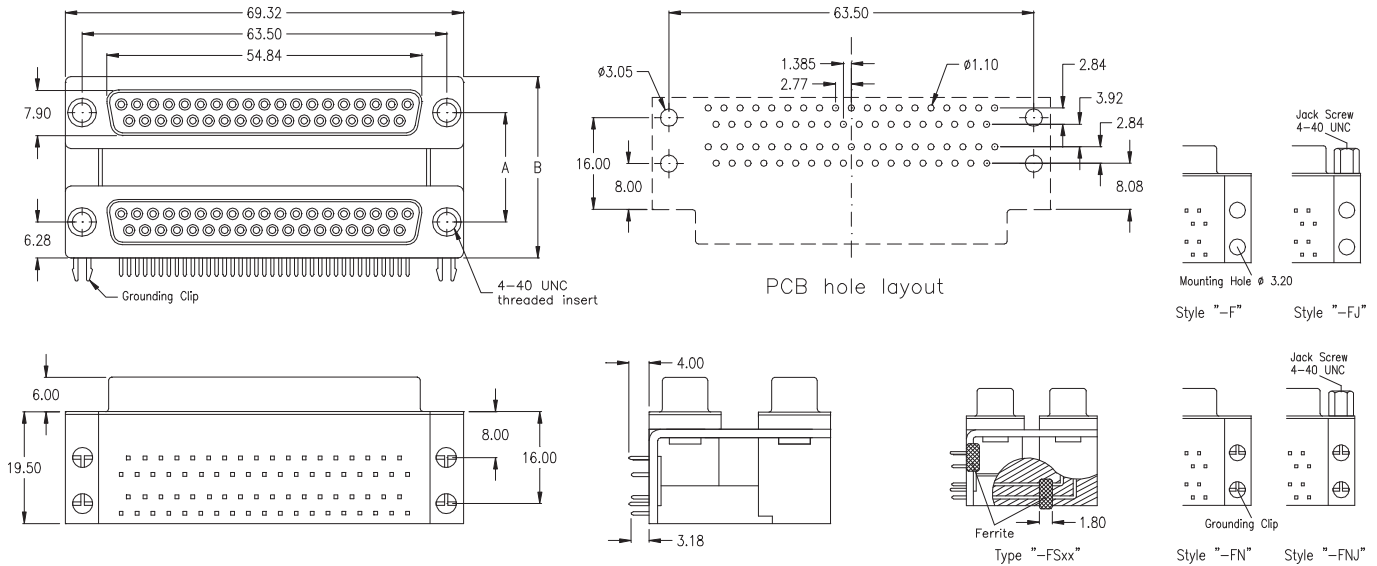
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2525-1-95-FM	SDD-2525-1-95-FMJ	SDD-2525-1-95-FMN	SDD-2525-1-95-FMNJ	„A“ = 22.86 „B“ = 35.41
SDD-2525-2-95-FM	SDD-2525-2-95-FMJ	SDD-2525-2-95-FMN	SDD-2525-2-95-FMNJ	„A“ = 19.05 „B“ = 31.60
SDD-2525-3-95-FM	SDD-2525-3-95-FMJ	SDD-2525-3-95-FMN	SDD-2525-3-95-FMNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FMS	if with Ferrite Filter: -FMSJ	if with Ferrite Filter: -FMSN	if with Ferrite Filter: -FMSNJ	

25-pin male / 25-pin female



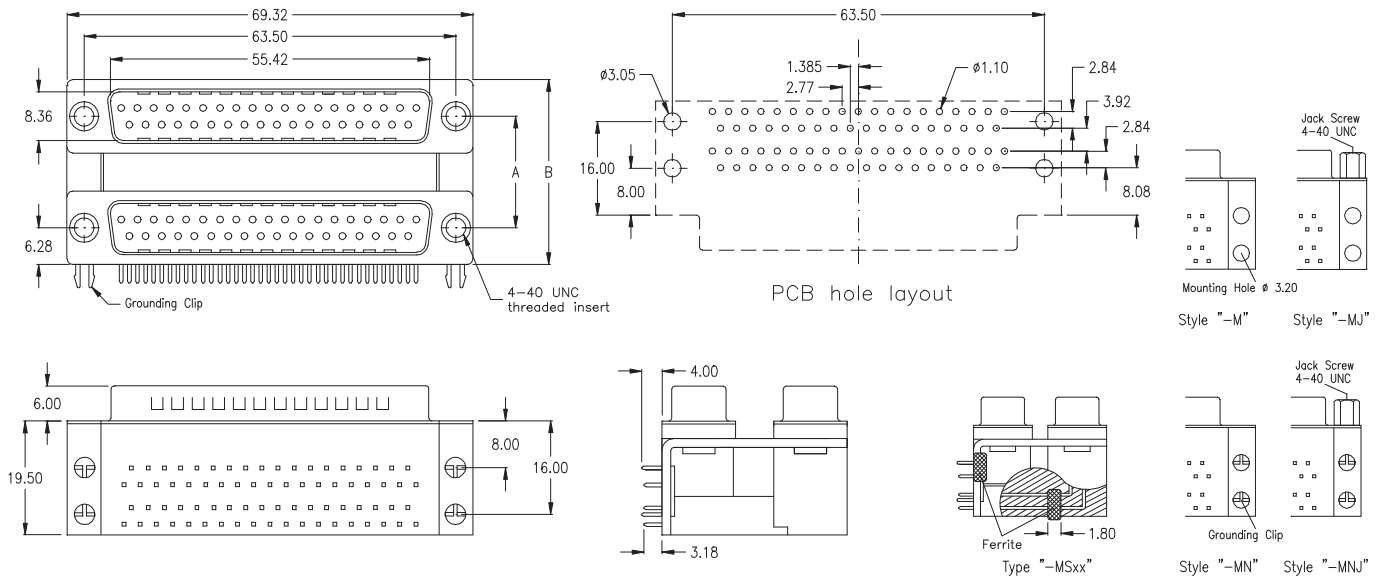
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2525-1-95-MF	SDD-2525-1-95-MFJ	SDD-2525-1-95-MFN	SDD-2525-1-95-MFNJ	„A“ = 22.86 „B“ = 35.41
SDD-2525-2-95-MF	SDD-2525-2-95-MFJ	SDD-2525-2-95-MFN	SDD-2525-2-95-MFNJ	„A“ = 19.05 „B“ = 31.60
SDD-2525-3-95-MF	SDD-2525-3-95-MFJ	SDD-2525-3-95-MFN	SDD-2525-3-95-MFNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MFS	if with Ferrite Filter: -MFSJ	if with Ferrite Filter: -MFSN	if with Ferrite Filter: -MFSNJ	

**37-pin female / 37-pin female**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-3737-1-95-F	SDD-3737-1-95-FJ	SDD-3737-1-95-FN	SDD-3737-1-95-FNJ	„A“ = 22.86 „B“ = 35.41
SDD-3737-2-95-F	SDD-3737-2-95-FJ	SDD-3737-2-95-FN	SDD-3737-2-95-FNJ	„A“ = 19.05 „B“ = 31.60
SDD-3737-3-95-F	SDD-3737-3-95-FJ	SDD-3737-3-95-FN	SDD-3737-3-95-FNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FS	if with Ferrite Filter: -FSJ	if with Ferrite Filter: -FSN	if with Ferrite Filter: -FSNJ	

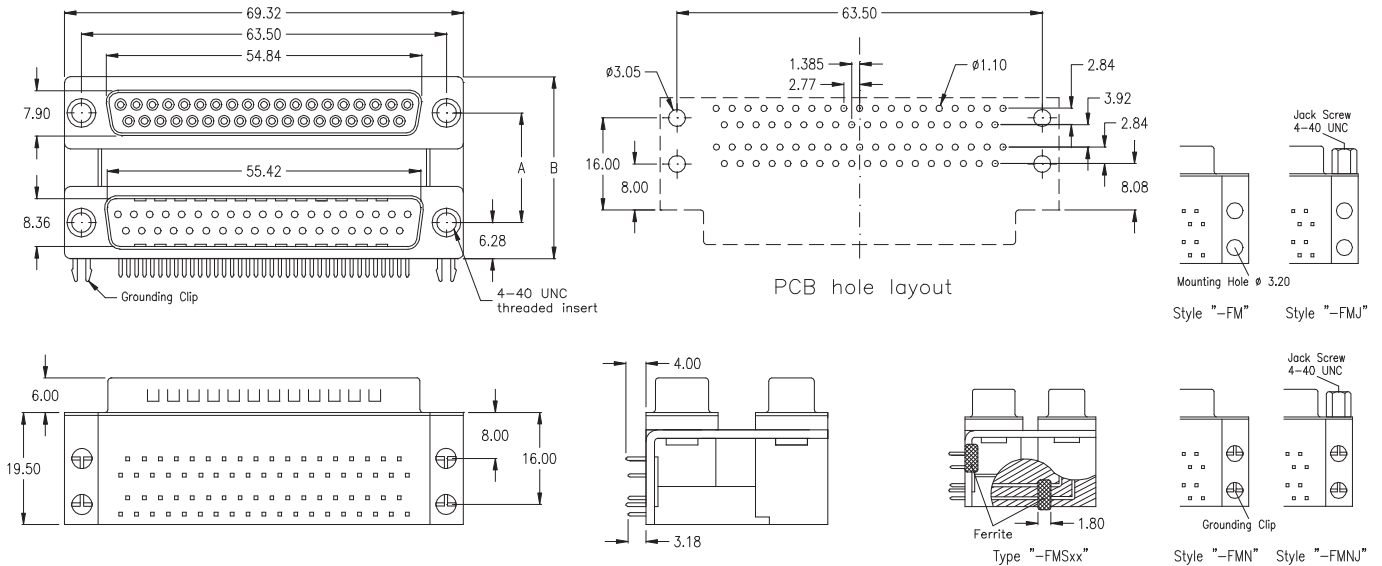
**37-pin male / 37-pin male**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-3737-1-95-M	SDD-3737-1-95-MJ	SDD-3737-1-95-MN	SDD-3737-1-95-MNJ	„A“ = 22.86 „B“ = 35.41
SDD-3737-2-95-M	SDD-3737-2-95-MJ	SDD-3737-2-95-MN	SDD-3737-2-95-MNJ	„A“ = 19.05 „B“ = 31.60
SDD-3737-3-95-M	SDD-3737-3-95-MJ	SDD-3737-3-95-MN	SDD-3737-3-95-MNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MS	if with Ferrite Filter: -MSJ	if with Ferrite Filter: -MSN	if with Ferrite Filter: -MSNJ	

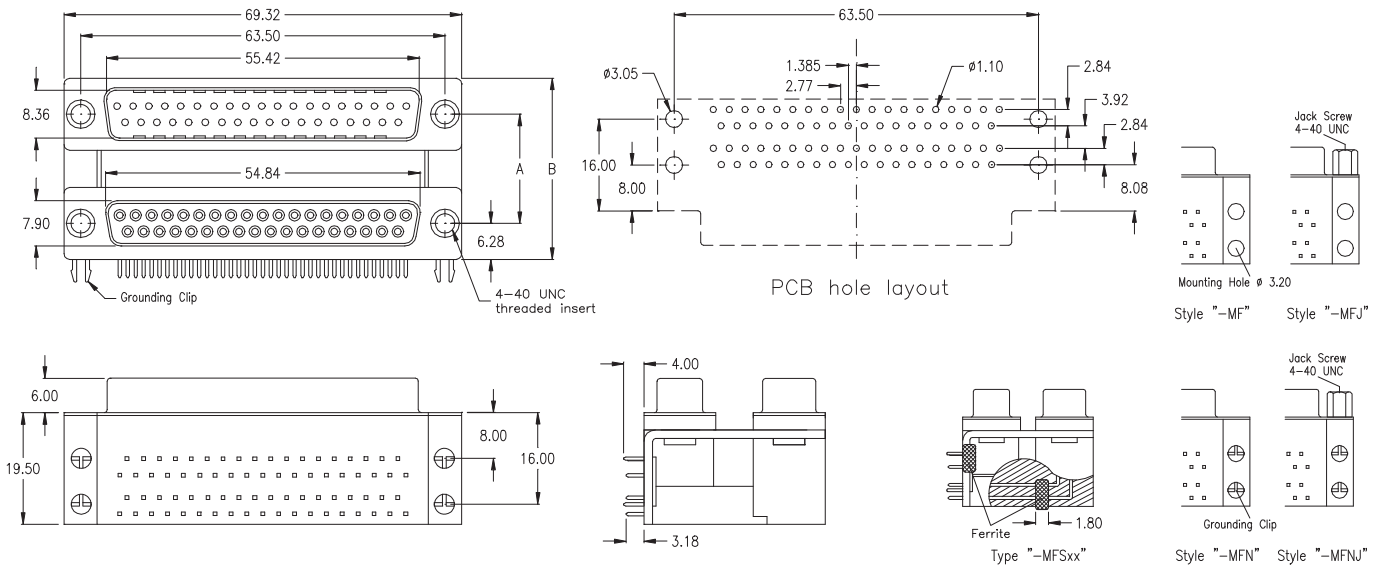


**37-pin female / 37-pin male**



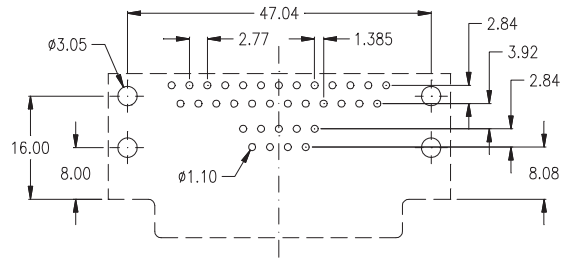
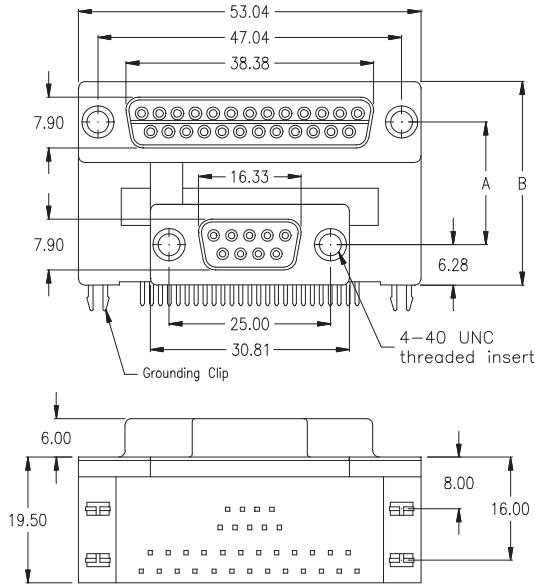
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-3737-1-95-FM	SDD-3737-1-95-FMJ	SDD-3737-1-95-FMN	SDD-3737-1-95-FMNJ	„A“ = 22.86 „B“ = 35.41
SDD-3737-2-95-FM	SDD-3737-2-95-FMJ	SDD-3737-2-95-FMN	SDD-3737-2-95-FMNJ	„A“ = 19.05 „B“ = 31.60
SDD-3737-3-95-FM	SDD-3737-3-95-FMJ	SDD-3737-3-95-FMN	SDD-3737-3-95-FMNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -FMS	if with Ferrite Filter: -FMSJ	if with Ferrite Filter: -FMSN	if with Ferrite Filter: -FMSNJ	

**37-pin male / 37-pin female**

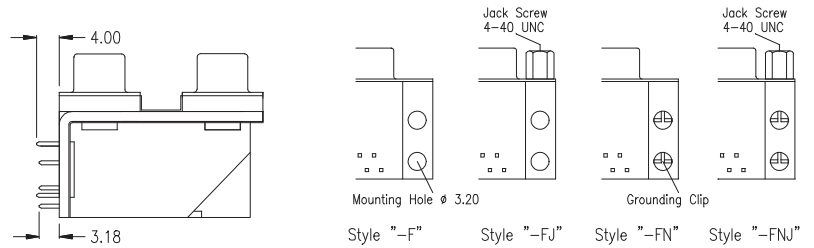


without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-3737-1-95-MF	SDD-3737-1-95-MFJ	SDD-3737-1-95-MFN	SDD-3737-1-95-MFNJ	„A“ = 22.86 „B“ = 35.41
SDD-3737-2-95-MF	SDD-3737-2-95-MFJ	SDD-3737-2-95-MFN	SDD-3737-2-95-MFNJ	„A“ = 19.05 „B“ = 31.60
SDD-3737-3-95-MF	SDD-3737-3-95-MFJ	SDD-3737-3-95-MFN	SDD-3737-3-95-MFNJ	„A“ = 15.87 „B“ = 28.42
if with Ferrite Filter: -MFS	if with Ferrite Filter: -MFSJ	if with Ferrite Filter: -MFSN	if with Ferrite Filter: -MFSNJ	

**25-pin female / 9-pin female**

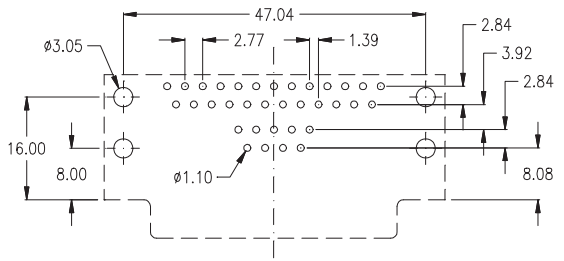
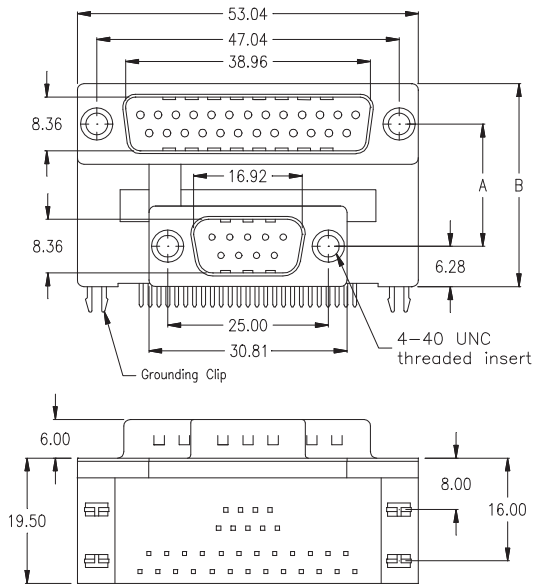


PCB hole layout

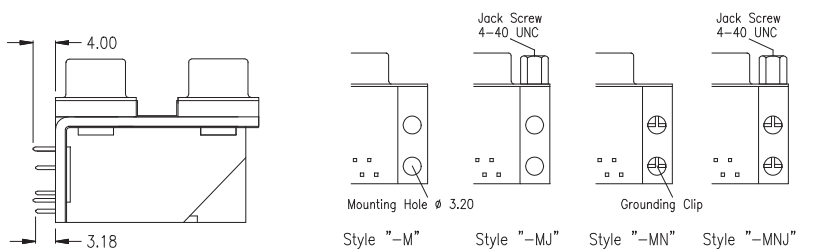


without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2509-2-95-F	SDD-2509-2-95-FJ	SDD-2509-2-95-FN	SDD-2509-2-95-FNJ	„A“ = 19.05 „B“ = 31.60

**25-pin male / 9-pin male**

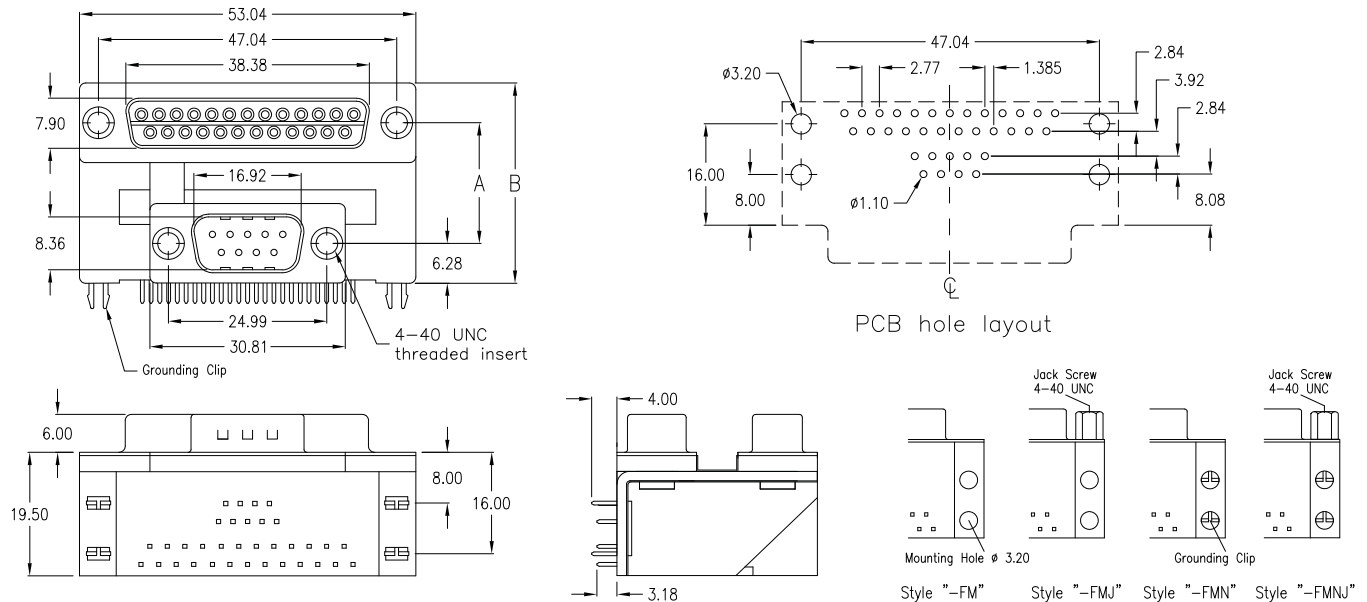


PCB hole layout



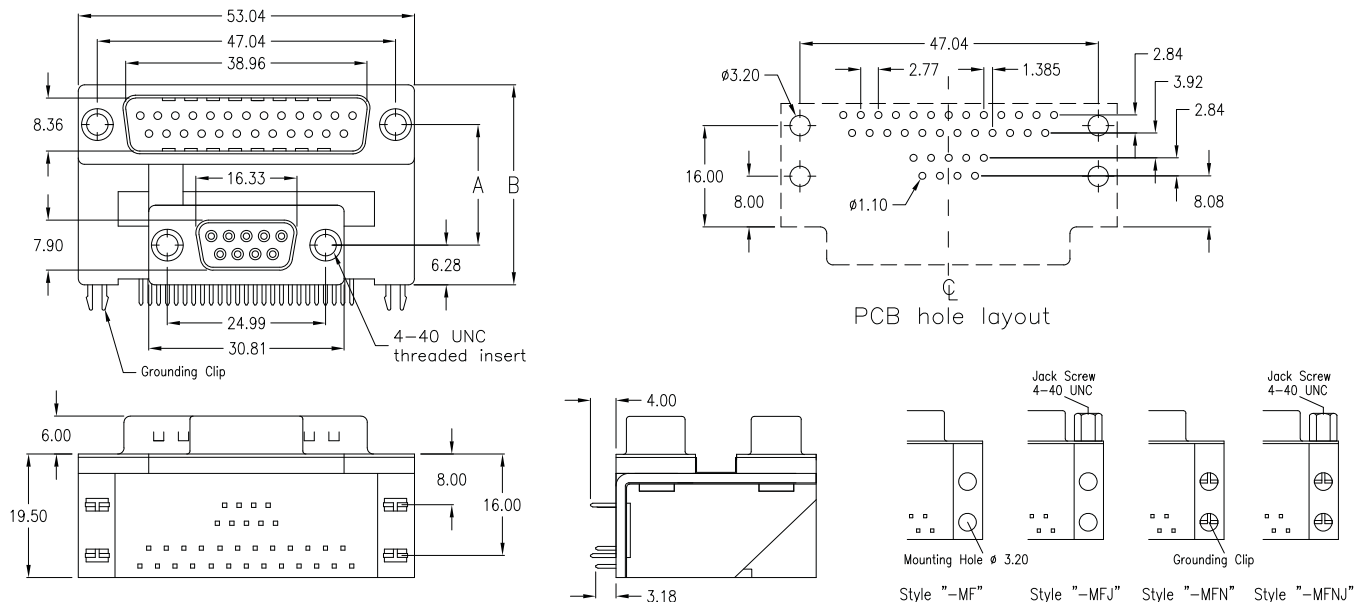
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions
SDD-2509-2-95-M	SDD-2509-2-95-MJ	SDD-2509-2-95-MN	SDD-2509-2-95-MNJ	„A“ = 19.05 „B“ = 31.60

**25-pin female / 9-pin male**



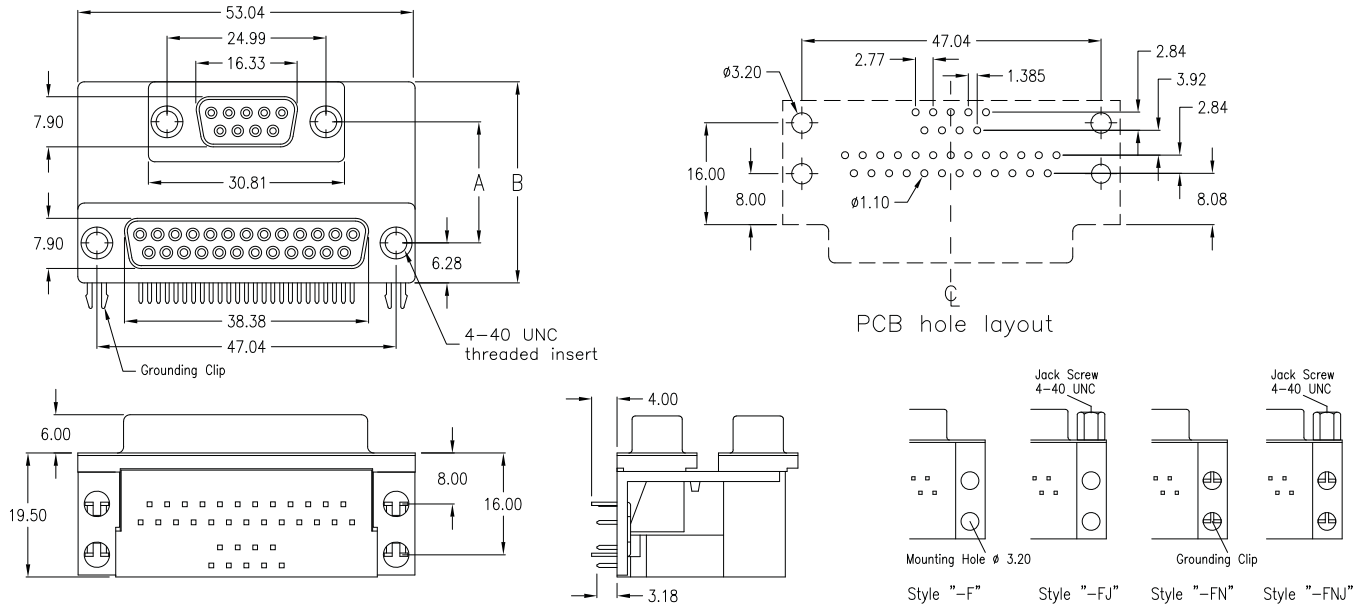
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-2509-2-95-FM	SDD-2509-2-95-FMJ	SDD-2509-2-95-FMN	SDD-2509-2-95-FMNJ	„A“ = 19.05	„B“ = 31.60

**25-pin male / 9-pin female**



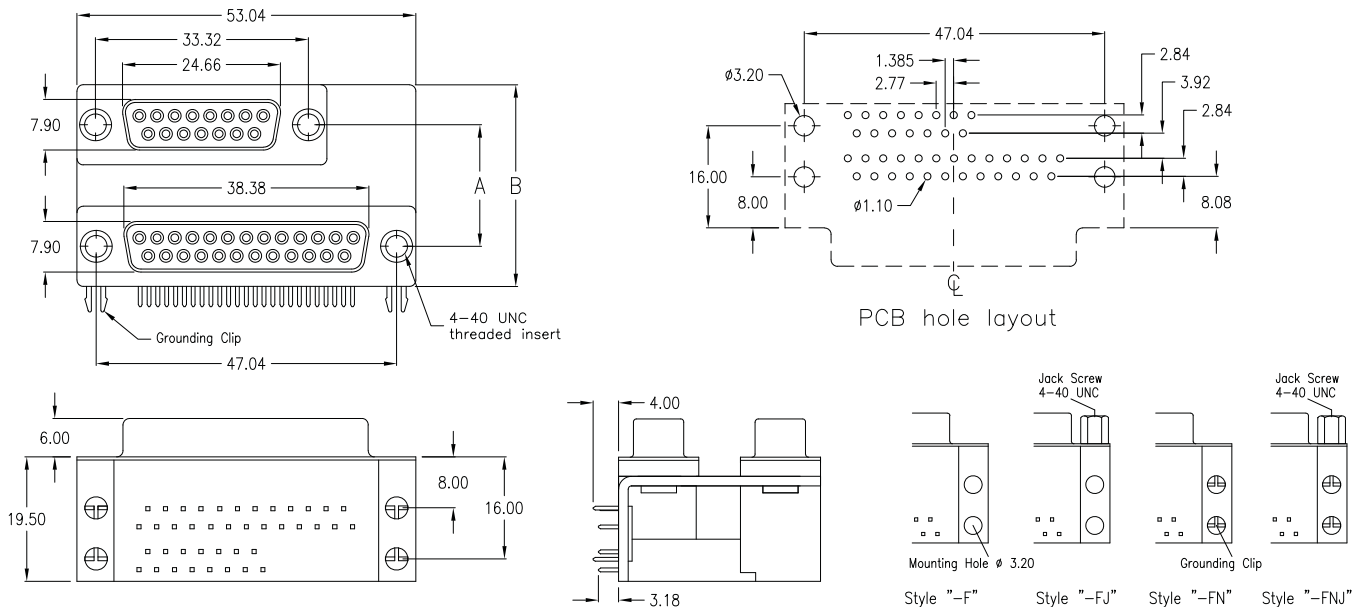
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-2509-2-95-MF	SDD-2509-2-95-MFJ	SDD-2509-2-95-MFN	SDD-2509-2-95-MFNJ	„A“ = 19.05	„B“ = 31.60

**9-pin female / 25-pin female**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-0925-2-95-F	SDD-0925-2-95-FJ	SDD-0925-2-95-FN	SDD-0925-2-95-FNJ	„A“ = 19.05	„B“ = 31.60
SDD-0925-3-95-F	SDD-0925-3-95-FJ	SDD-0925-3-95-FN	SDD-0925-3-95-FNJ	„A“ = 15.87	„B“ = 28.42

**15-pin female left side / 25-pin female**

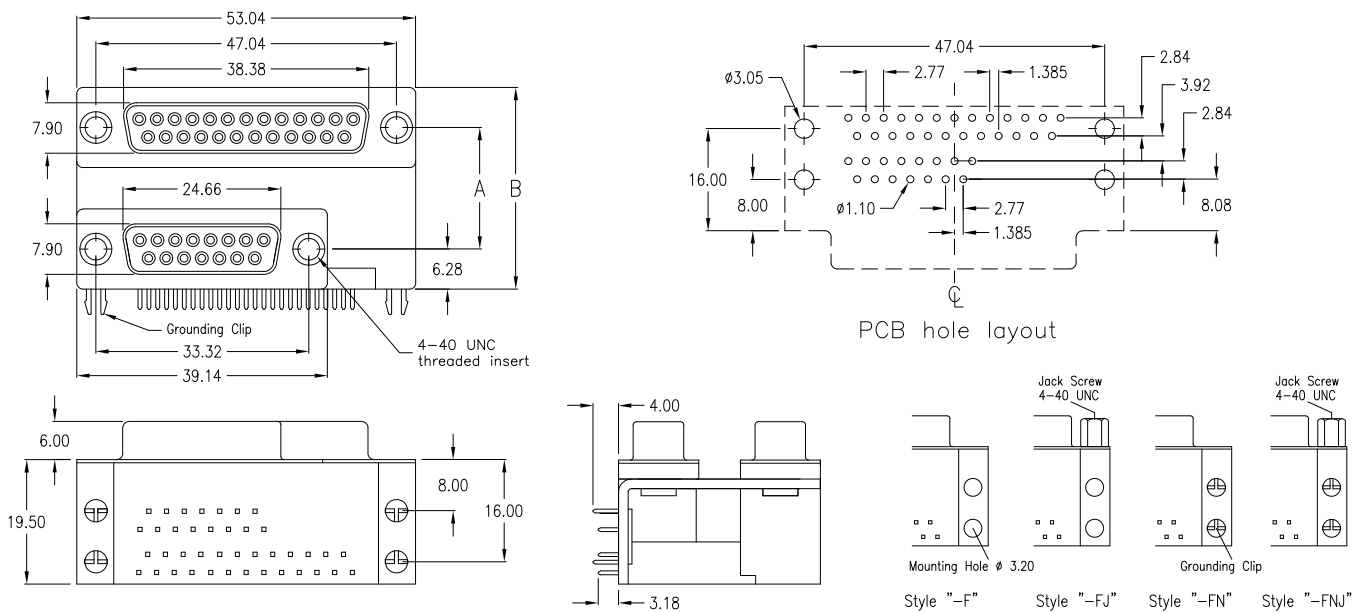


without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-L1525-2-95-F	SDD-L1525-2-95-FJ	SDD-L1525-2-95-FN	SDD-L1525-2-95-FNJ	„A“ = 19.05	„B“ = 31.60

**25-pin female / 15-pin female left side**

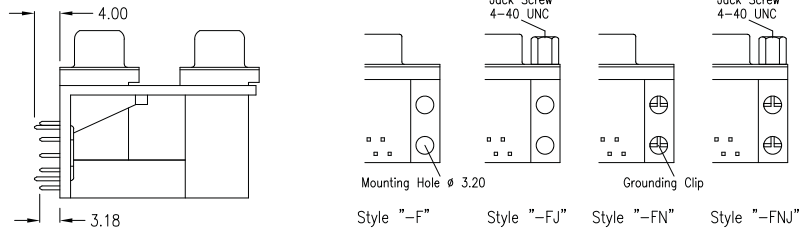
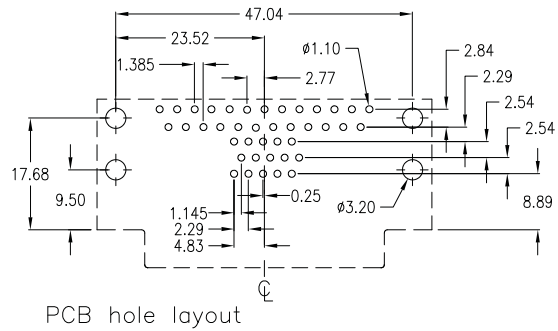
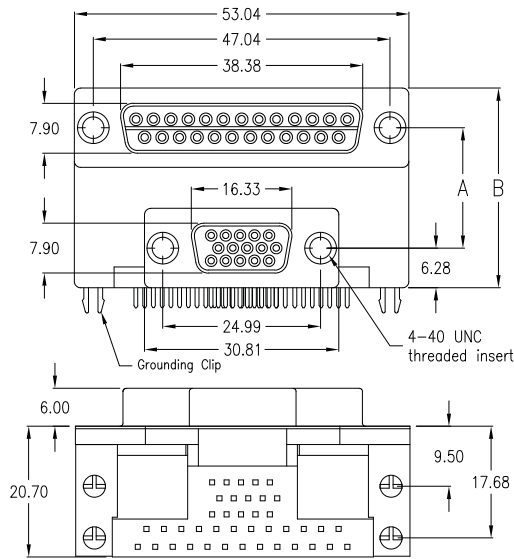
**Special product.**

Please ask for availability and minimum order quantity before you consider the article for development, design in or production purposes.



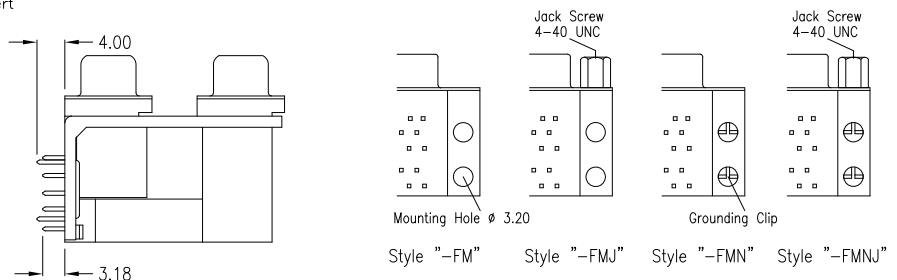
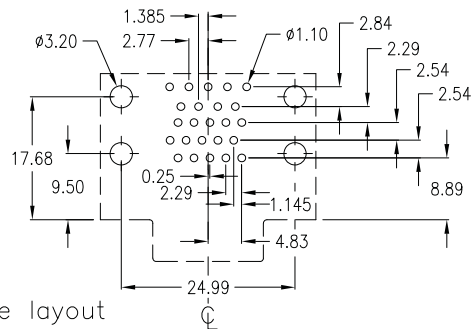
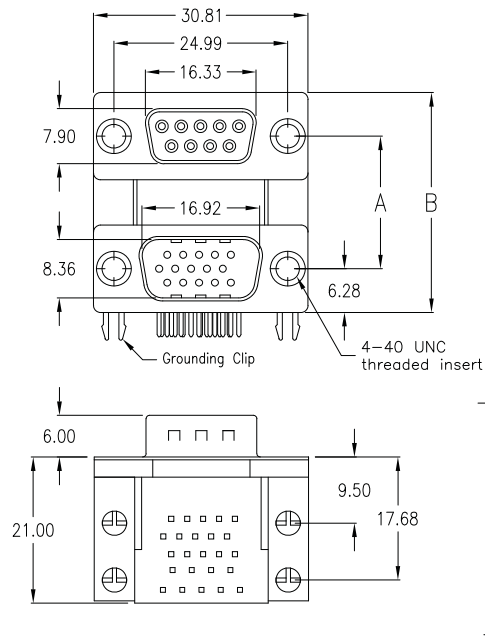
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-25L15-2-95-F	SDD-25L15-2-95-FJ	SDD-25L15-2-95-FN	SDD-25L15-2-95-FNJ	„A“ = 19.05	„B“ = 31.60

**25-pin female / 15-pin HD female**



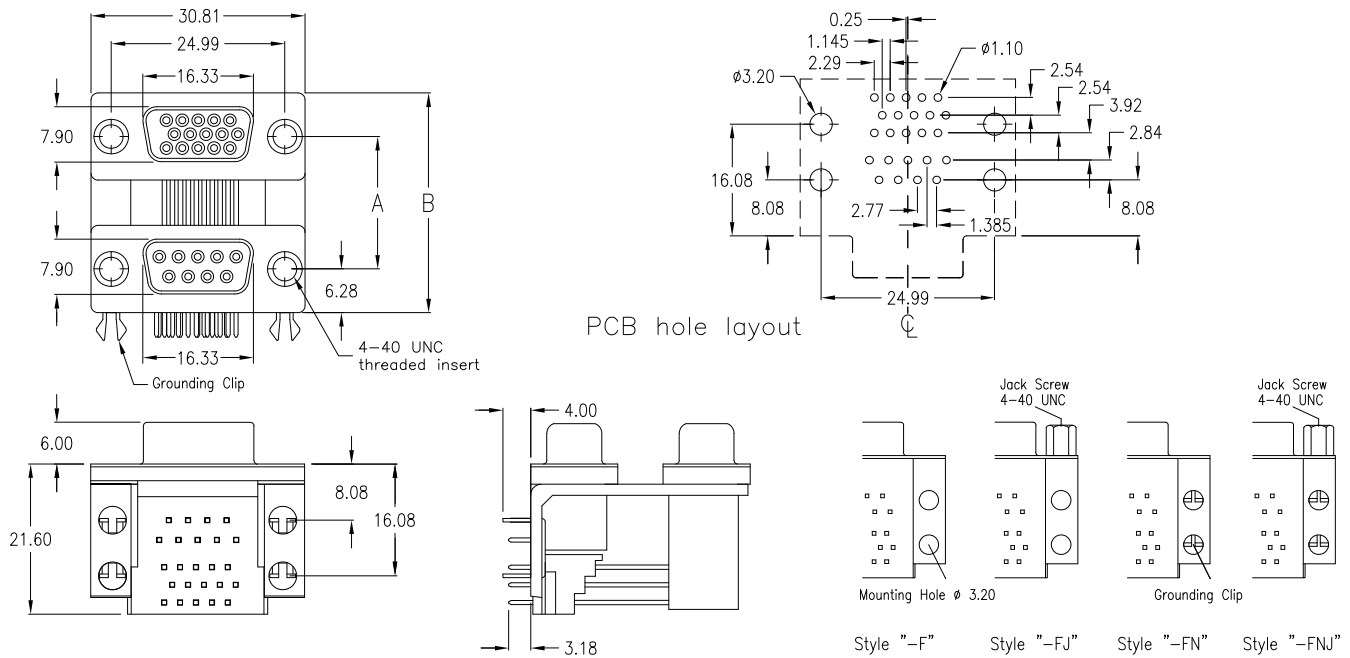
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-25H15-4-95-F	SDD-25H15-4-95-FJ	SDD-25H15-4-95-FN	SDD-25H15-4-95-FNJ	„A“ = 19.05	„B“ = 31.60

**9-pin female / 15-pin HD male**



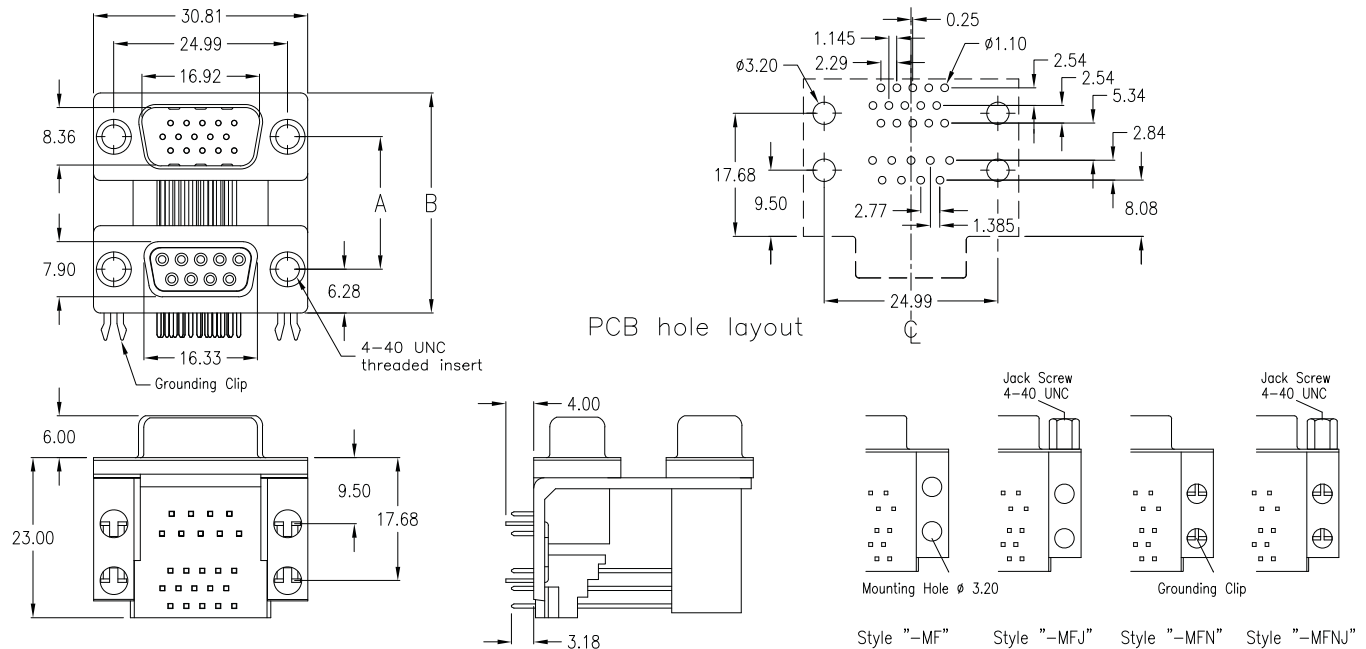
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-09H15-4-95-FM	SDD-09H15-4-95-FMJ	SDD-09H15-4-95-FMN	SDD-09H15-4-95-FMNJ	„A“ = 19.05	„B“ = 31.60

**15-pin HD female / 09-pin female**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H1509-6-95-F	SDD-H1509-6-95-FJ	SDD-H1509-6-95-FN	SDD-H1509-6-95-FNJ	„A“ = 19.05	„B“ = 31.60

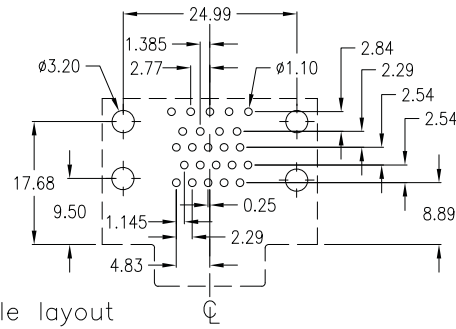
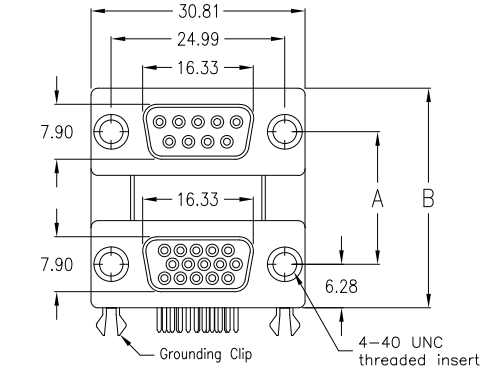
**15-pin HD male / 09-pin female**



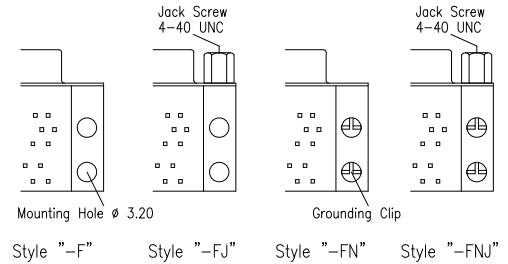
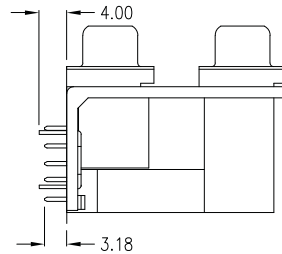
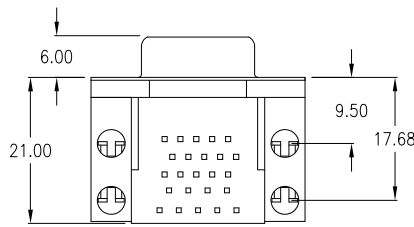
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H1509-7-95-MF	SDD-H1509-7-95-MFJ	SDD-H1509-7-95-MFN	SDD-H1509-7-95-MFNJ	„A“ = 19.05	„B“ = 31.60



**9-pin female / 15-pin HD female**

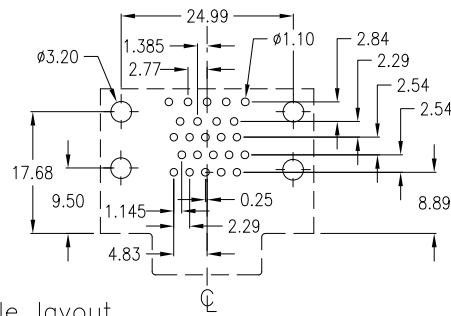
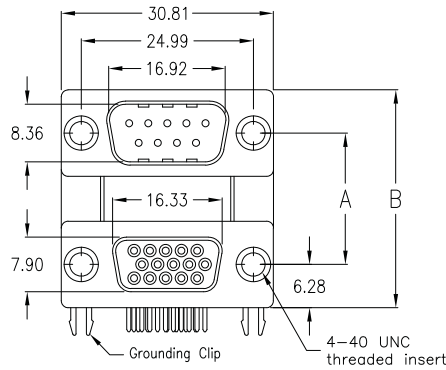


PCB hole layout

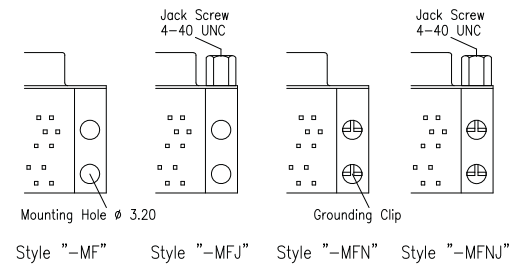
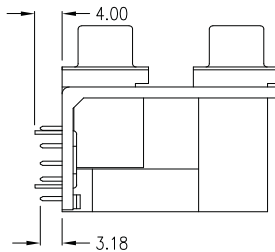
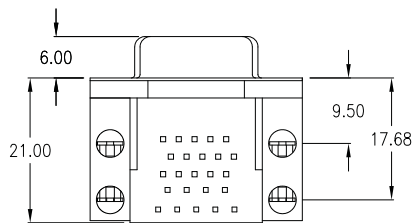


without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-09H15-4-95-F	SDD-09H15-4-95-FJ	SDD-09H15-4-95-FN	SDD-09H15-4-95-FNJ	„A“ = 19.05	„B“ = 31.60
SDD-09H15-5-95-F	SDD-09H15-5-95-FJ	SDD-09H15-5-95-FN	SDD-09H15-5-95-FNJ	„A“ = 15.88	„B“ = 28.42

**9-pin male / 15-pin HD female**

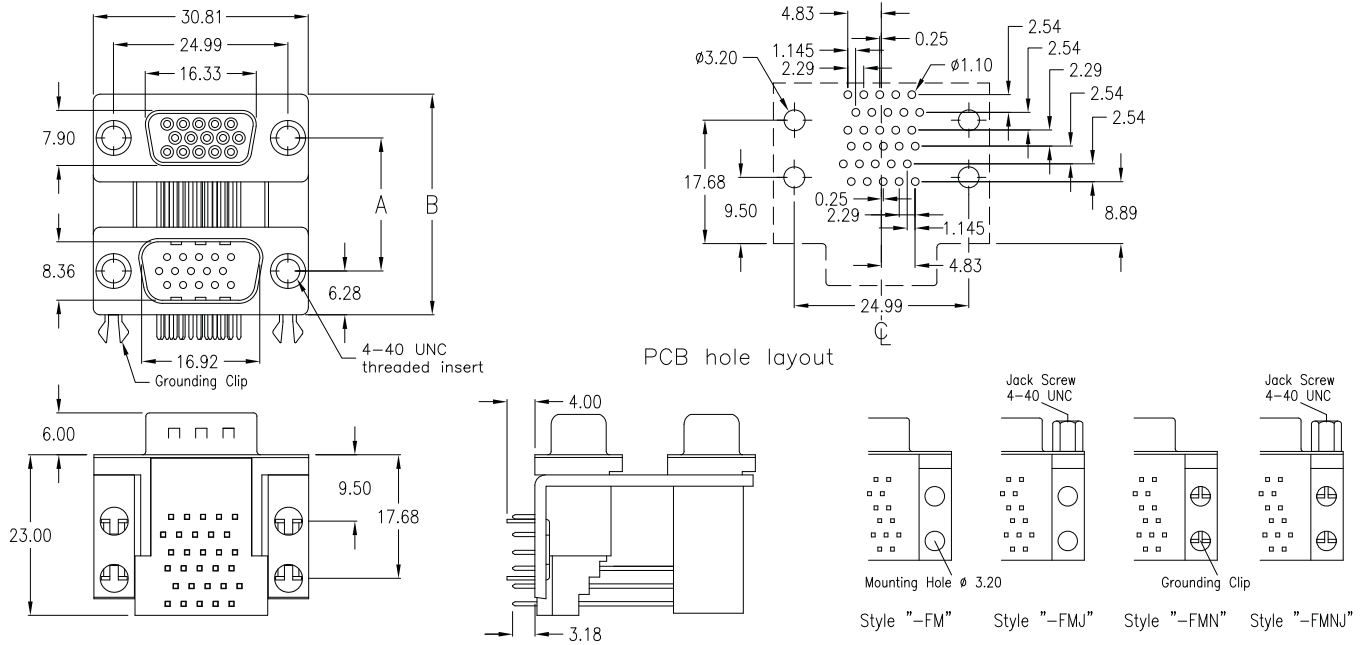


PCB hole layout



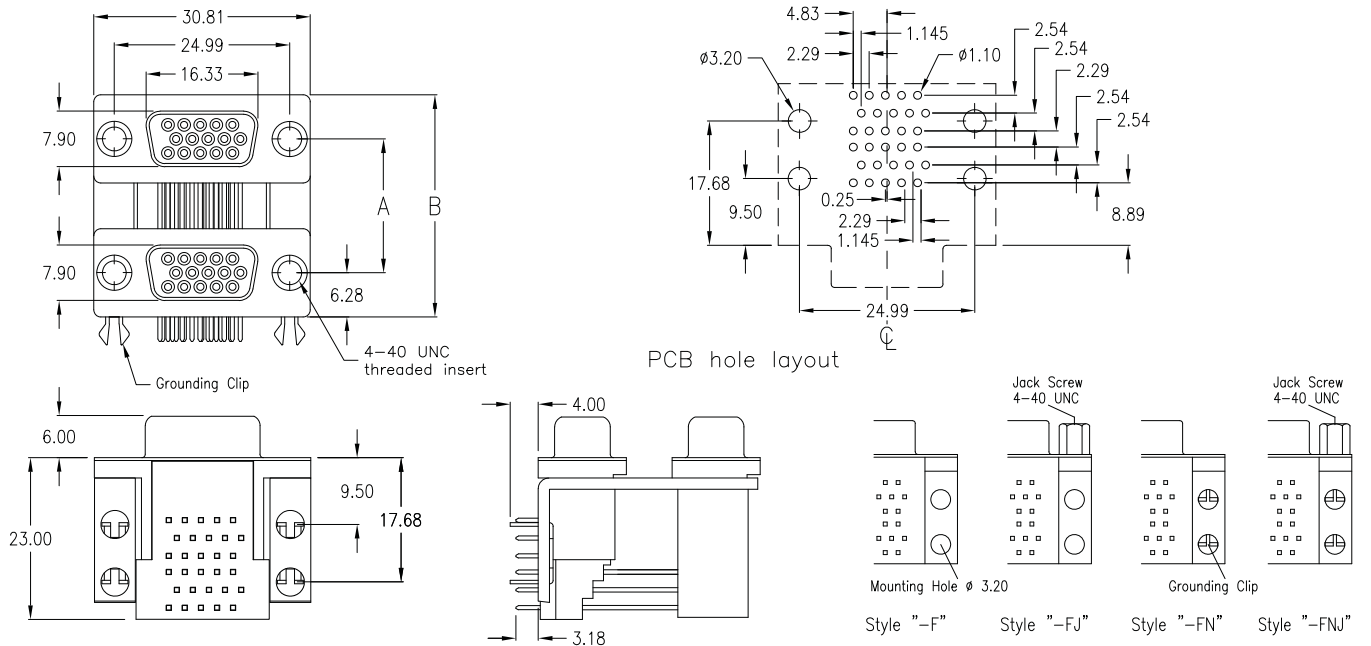
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-09H15-4-95-MF	SDD-09H15-4-95-MFJ	SDD-09H15-4-95-MFN	SDD-09H15-4-95-MFNJ	„A“ = 19.05	„B“ = 31.60
SDD-09H15-5-95-MF	SDD-09H15-5-95-MFJ	SDD-09H15-5-95-MFN	SDD-09H15-5-95-MFNJ	„A“ = 15.88	„B“ = 28.42

**15-pin HD female / 15-pin HD male**



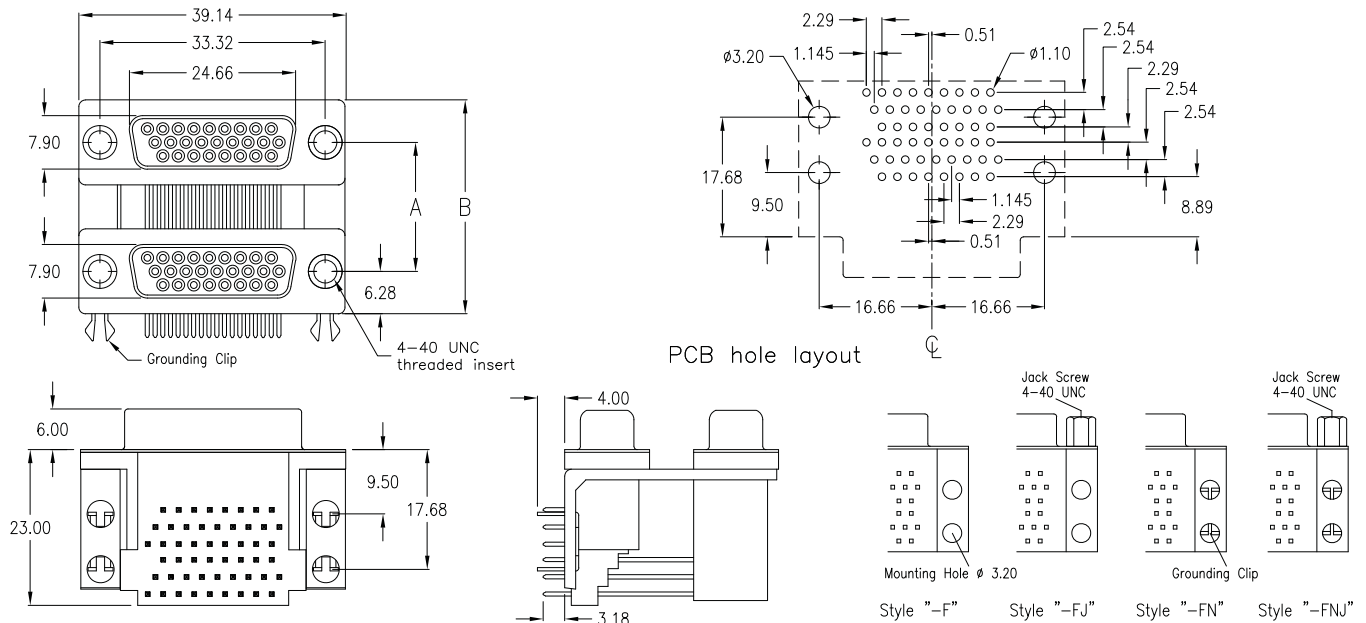
without grounding clips, just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H15H15-4-95-FM	SDD-H15H15-4-95-FMJ	SDD-H15H15-4-95-FMN	SDD-H15H15-4-95-FMNJ	„A“ = 19.05	„B“ = 31.60
SDD-H15H15-5-95-FM	SDD-H15H15-5-95-FMJ	SDD-H15H15-5-95-FMN	SDD-H15H15-5-95-FMNJ	„A“ = 15.88	„B“ = 28.42

**15-pin HD female / 15-pin HD female**



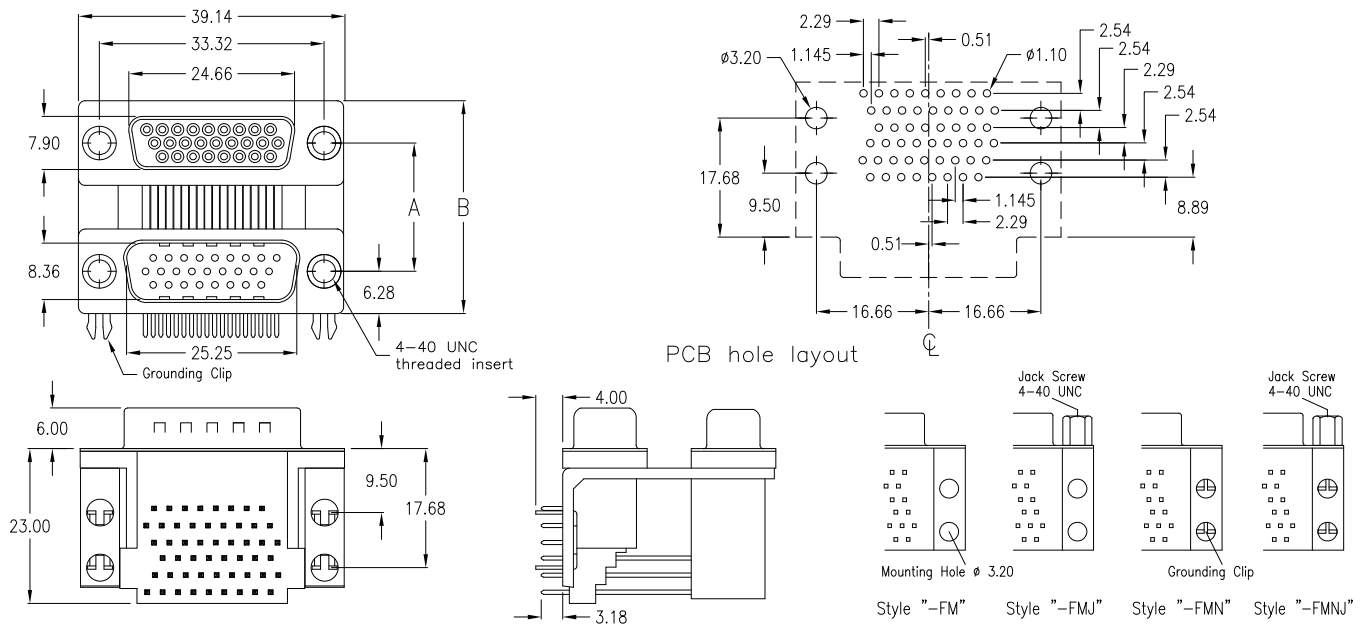
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H15H15-4-95-F	SDD-H15H15-4-95-FJ	SDD-H15H15-4-95-FN	SDD-H15H15-4-95-FNJ	„A“ = 19.05	„B“ = 31.60

**26-pin HD female / 26-pin HD female**



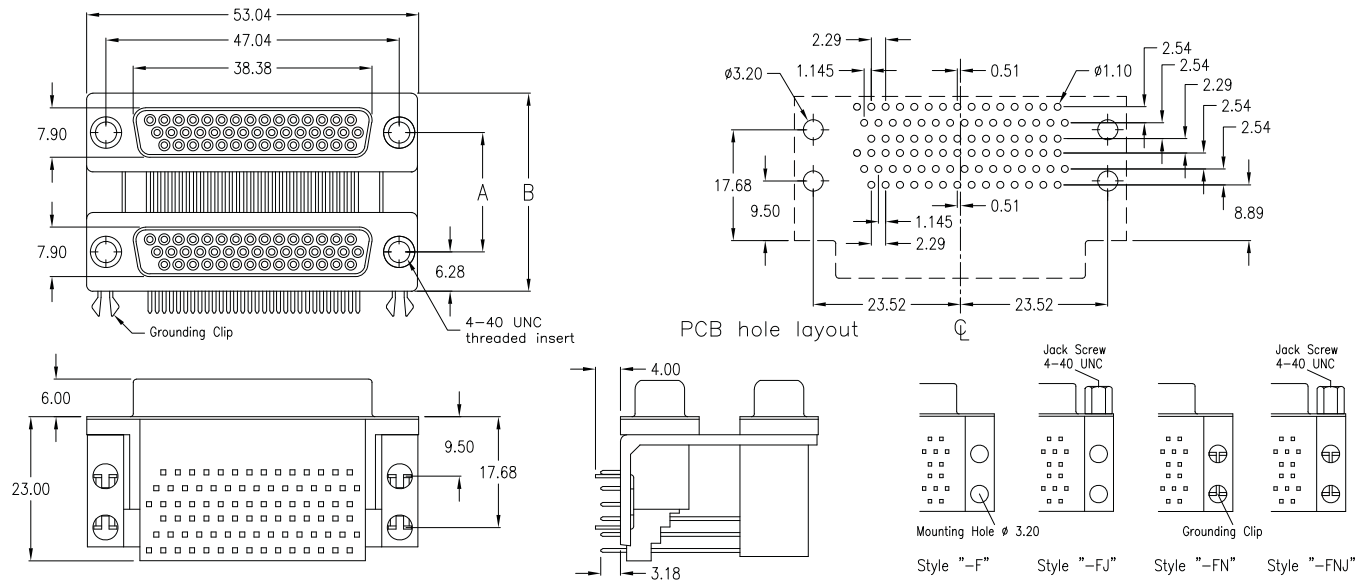
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H26H26-4-95-F	SDD-H26H26-4-95-FJ	SDD-H26H26-4-95-FN	SDD-H26H26-4-95FNJ	„A“ = 19.05	„B“ = 31.60
SDD-H26H26-5-95-F	SDD-H26H26-5-95-FJ	SDD-H26H26-5-95-FN	SDD-H26H26-5-95FNJ	„A“ = 15.88	„B“ = 28.42

**26-pin HD female / 26-pin HD male**



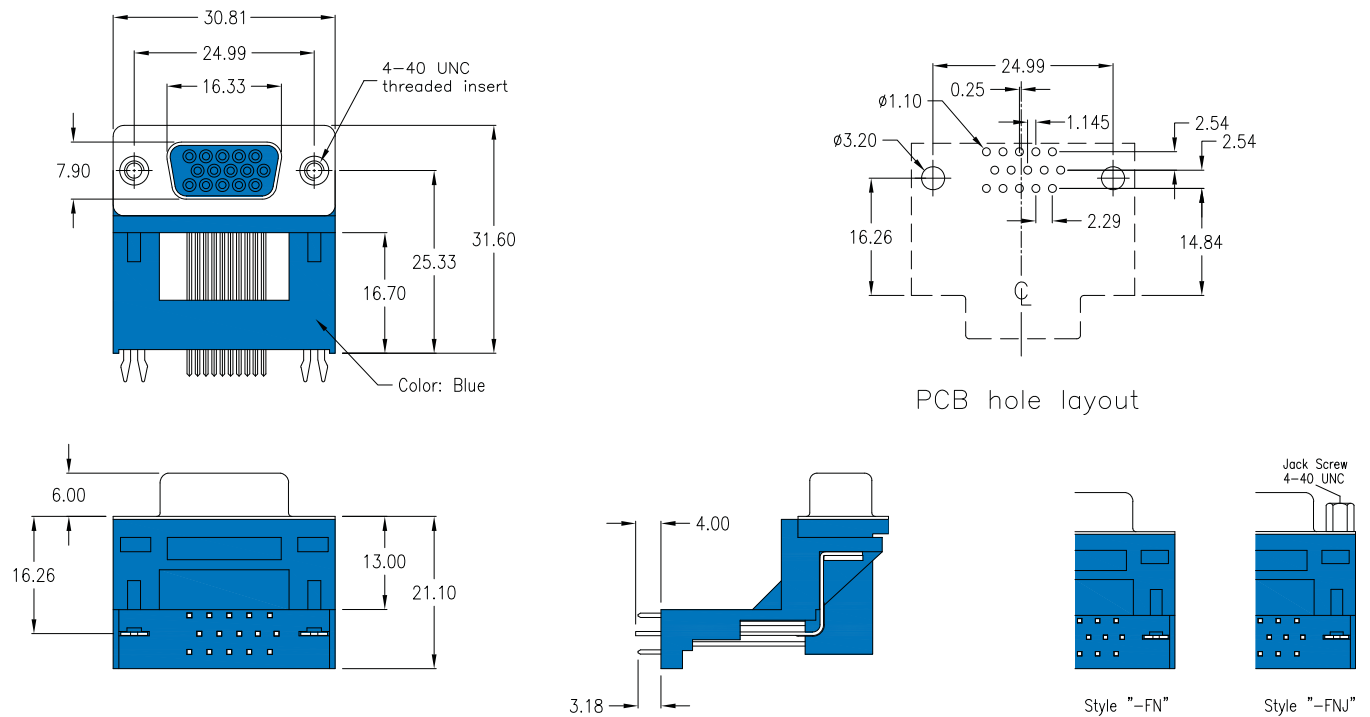
without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips ( as above drawing )	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H26H26-4-95-FM	SDD-H26H26-4-95-FMJ	SDD-H26H26-4-95-FMN	SDD-H26H26-4-95FMNJ	„A“ = 19.05	„B“ = 31.60
SDD-H26H26-5-95-FM	SDD-H26H26-5-95-FMJ	SDD-H26H26-5-95-FMN	SDD-H26H26-5-95FMNJ	„A“ = 15.88	„B“ = 28.42

**44-pin HD female / 44-pin HD female**



without grounding clips just 4 mounting holes	without grounding clips, just 4 mounting holes; 4 jack screws 4-40 UNC mounted	with 4 grounding clips (as above drawing)	with 4 grounding clips; 4 jack screws 4-40 UNC mounted	Distance Dimensions (mm)	
SDD-H44H44-4-95-F	SDD-H44H44-4-95-FJ	SDD-H44H44-4-95-FN	SDD-H44H44-4-95FNJ	„A“ = 19.05	„B“ = 31.60
SDD-H44H44-5-95-F	SDD-H44H44-5-95-FJ	SDD-H44H44-5-95-FN	SDD-H44H44-5-95FNJ	„A“ = 15.88	„B“ = 28.42

**15-pin HD female raised**

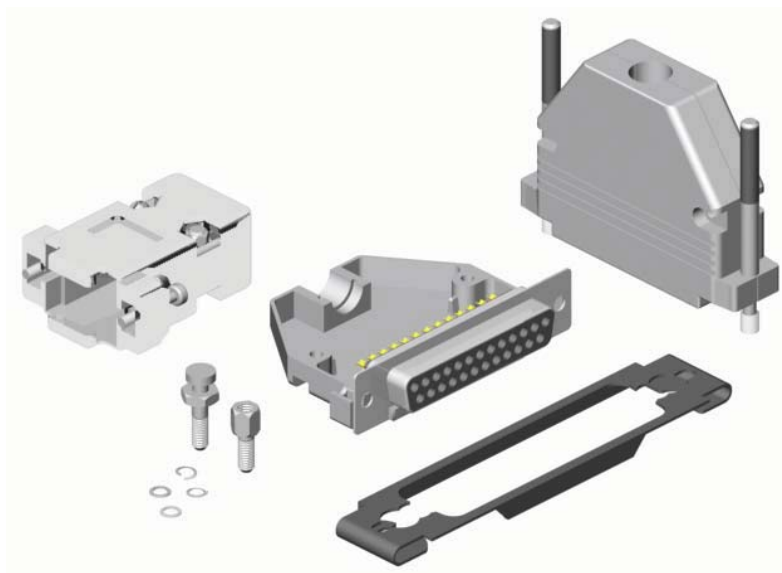


with 2 grounding clips; w/o jack screws <i>Standard</i> (as above drawing)	with 2 grounding clips; 2 jack screws 4-40 UNC mounted <i>Option</i>		
SDD-H1500-2-95-FN	SDD-H1500-2-95-FNJ		



# D-Sub

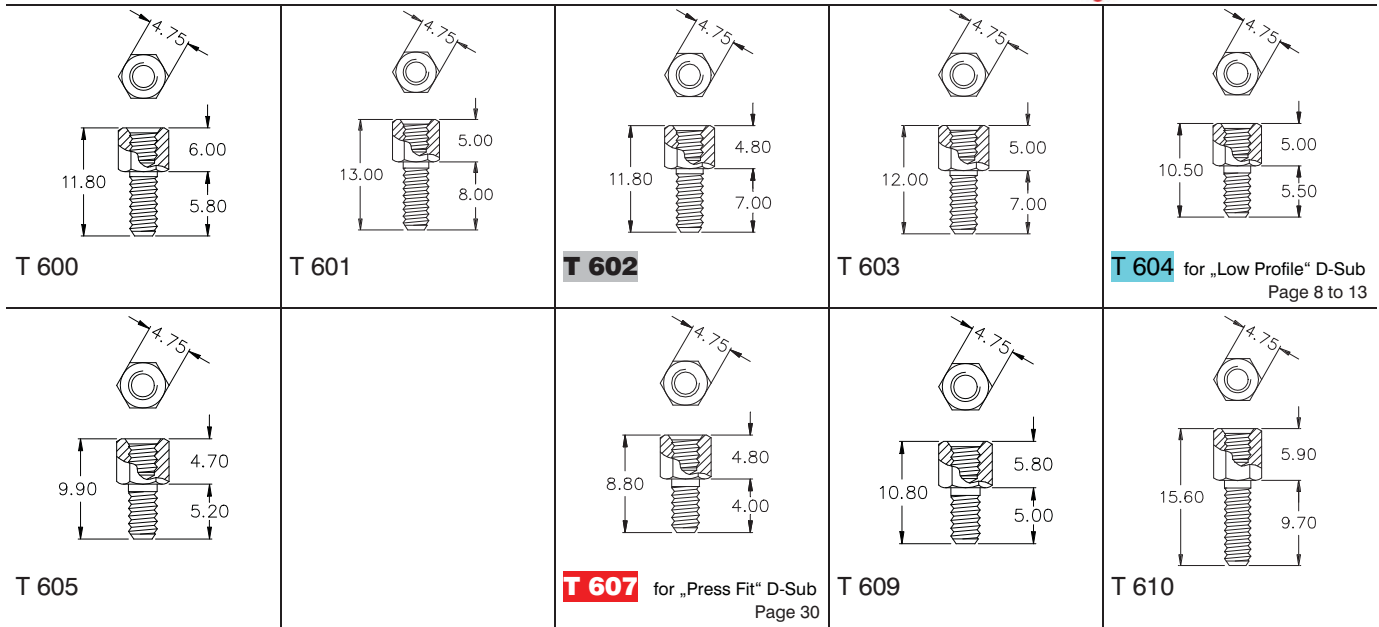
## Accessories & Technical Data



E-tec's D-Sub Connector accessories.

EMI / RFI full metal hoods, plastic and plastic metallized hoods.

Slide lock parts and a variety of jack screws.



**Ordering Code**

**JSR - xxx - X xxx - NN**

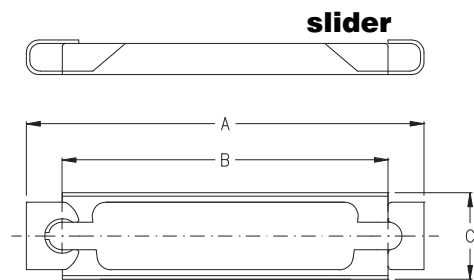
thread combination		thread combi-code
inside	outside	
M 2,6	4-40 UNC	<b>244</b>
2-56 UNC	2-56 UNC	<b>256</b>
M 3	M 3	<b>300</b>
M 3	M 2,6	<b>326</b>
M 3	4-40 UNC	<b>344</b>
4-40 UNC	4-40 UNC	<b>440</b>
4-40 UNC	M 3	<b>443</b>

size type	
<b>T 600</b>	
<b>T 601</b>	
<b>T 602</b>	standard type
<b>T 603</b>	
<b>T 604</b>	for „Low Profile“ D-Sub; Page 8 to 13
<b>T 605</b>	
<b>T 607</b>	for „press fit“ D-Sub; Page 30
<b>T 609</b>	
<b>T 610</b>	

If you order D-Sub connector assembled with Jack screw, T602 type always will be delivered.

Jack Screws with other dimension, also round head, are available on request.

**Slide locking accessories**



- A set of slider consists of:
- \* 1 frame
  - \* 2 screws 4-40 UNC
  - \* 2 washers
  - \* 2 nuts 4-40 UNC

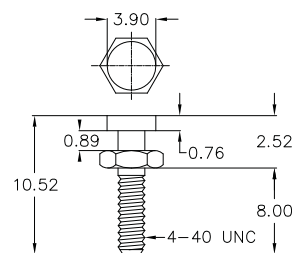
**Ordering Code**

**SLO - xxx - T 106 - NN**

No. of contacts

**009 - 015 - 025** other sizes on request

**locking post**



**Ordering Code**

**JLP - 440 - T 106 - NN**

If you want to have assembled to the D-Sub connector direct, please ask the nearest E-tec office or Distributor

**Jack Screws and Slide locking accessories are Nickel plated**



**metal hood**

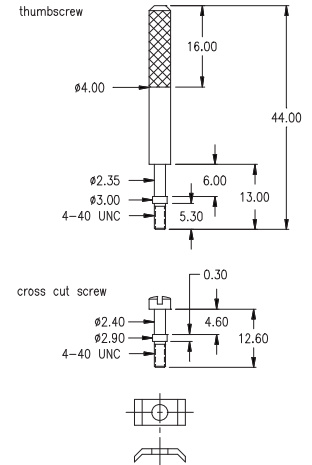
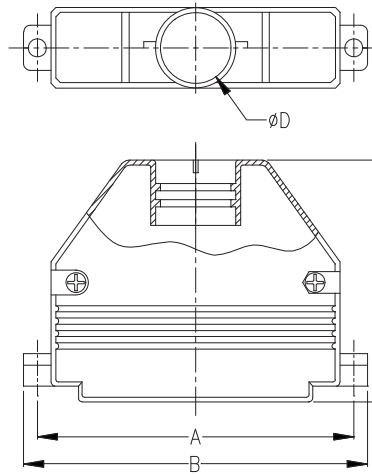
materials *RoHS compliant*

hood: zinc alloy Nickel plated

screw: steel

Please ask for detail drawing each type.

Dimension				D-Sub contacts
A	B	C	D	
24.99	31.00	47.00	7.00	<b>009 / 015</b> (HD)
33.32	40.00	48.20	10.00	<b>015 / 026</b> (HD)
47.04	53.30	48.70	14.00	<b>025 / 044</b> (HD)
63.50	69.00	48.60	14.00	<b>037 / 062</b> (HD)
61.11	67.00	48.30	14.00	<b>050 / 078</b> (HD)



**Ordering Code**

**HSM - xxx - S xxx - xx Z**

Size Code	screw type	cable exit
<b>009</b> = 9-pole Std. / 15-pole HD <b>015</b> = 15-pole Std. / 26-pole HD <b>025</b> = 25-pole Std. / 44-pole HD <b>037</b> = 37-pole Std. / 62-pole HD <b>050</b> = 50-pole Std. / 78-pole HD	<b>101</b> = <b>cross cut screw</b> not available for 90° cable exit <b>102</b> = <b>thumbscrew</b>  others on request	<b>00</b> = <b>straight</b> <b>90</b> = <b>90°</b> with Rubber grommet: <b>0R</b> = <b>straight</b> <b>9R</b> = <b>90°</b> 90° cable exit only for size code 009/H15 015/H26 025/H44

**plastic hood**

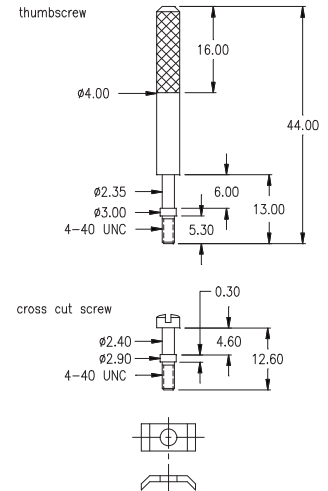
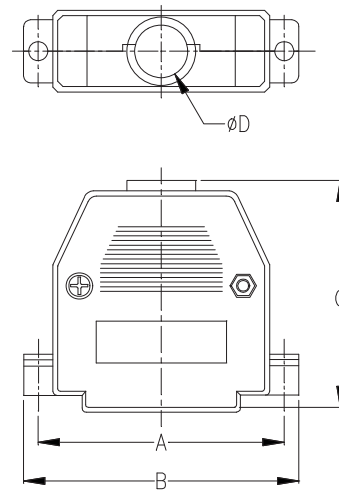
materials *RoHS compliant*

hood: PBT UL 94-V0

screw: steel

Please ask for detail drawing each type.

Dimension				D-Sub contacts
A	B	C	D	
24.99	30.80	40.50	7.00	<b>009 / 015</b> (HD)
33.32	39.70	38.80	9.70	<b>015 / 026</b> (HD)
47.04	55.00	44.50	14.00	<b>025 / 044</b> (HD)
63.50	69.00	52.50	14.00	<b>037 / 062</b> (HD)
61.11	67.00	48.30	14.00	<b>050 / 078</b> (HD)



**Ordering Code**

**HS X - xxx - S xxx - xx Z**

colour / type	Size Code	screw type	cable exit
<b>B</b> = <b>black</b> <b>G</b> = <b>grey</b> <b>C</b> = <b>chromated</b>  others on request	<b>009</b> = 9-pole Std. / 15-pole HD <b>015</b> = 15-pole Std. / 26-pole HD <b>025</b> = 25-pole Std. / 44-pole HD <b>037</b> = 37-pole Std. / 62-pole HD <b>050</b> = 50-pole Std. / 78-pole HD	<b>101</b> = <b>cross cut screw</b> not available for 45° cable exit <b>102</b> = <b>thumbscrew</b>  others on request	<b>00</b> = <b>straight</b> <b>45</b> = <b>45°</b>



**mechanical data**

Mating force per contact	≤ 3,4 N
Unmating force per contact	≥ 0,2 N
Temperature range	-55° C to +105° C
Processing temperature wave solder (solder bath)	+250°C +0/-5°C for 10sec.
Processing temperature SMT and “pin in paste”	+250°C +0/-5°C for 10sec.
Moisture absorption from air 50% rh	0,10%
IDC Connector types accept AWG 26 or AWG 28 standard wire	

**materials and plating (RoHS compliant)**

Insulator for wave solder technology, standard black - PC 99 colourful insulator	thermoplastic glassfilled UL 94V – 0 Yellowish brown - Pantone # 131C 15-pos. female Burgundy - Pantone # 235C 25-pos. female Teal - Pantone # 322C 9-pos. male Blue - Pantone # 661C HD 15-pos. female
Insulator for SMT and “Pin-In-Paste”	Nylon UL 94V-0
Shell	Steel, Ni plated
Bracket	Brass, tin plated
Male contact - plating	Copper Alloy (Standard; others on request) -95 = solder side Sn; contact side Au over Ni -55 = solder and contact side Au over Ni
Female contact - plating	Copper Alloy (Standard; others on request) -95 = solder side Sn; contact side Au over Ni -55 = solder and contact side Au over Ni
D-Sub Accessories (page 70) plating	-NN = Ni

**electrical data**

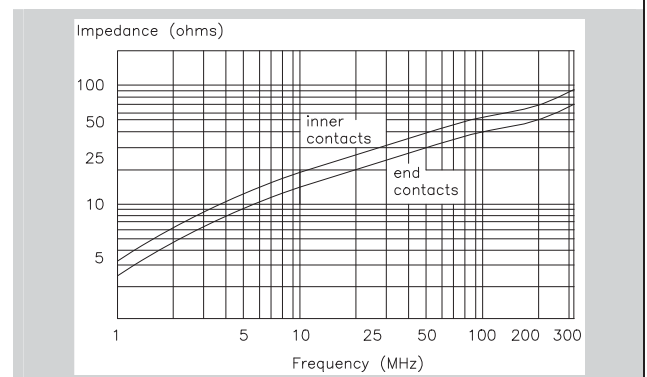
max. Current rating	5 A/25°C 3 A/70°C (High Density types 3A / IDC types 1A)
Operating voltage	250 V
Test voltage between contacts	1000 V / 50/60 Hz / 1 Minute
Test voltage between shell and contacts	1000 V / 50/60 Hz / 1 Minute
Resistance between mated contacts	< 30 m Ω
Insulation resistance	≥ 1000 M Ω at 500V DC
Dielectric strength	1000 V AC min. for 1 Minute
Volume resistivity	10 <sup>16</sup> Ω cm (ASTM-D 257 )

**available performance classes**

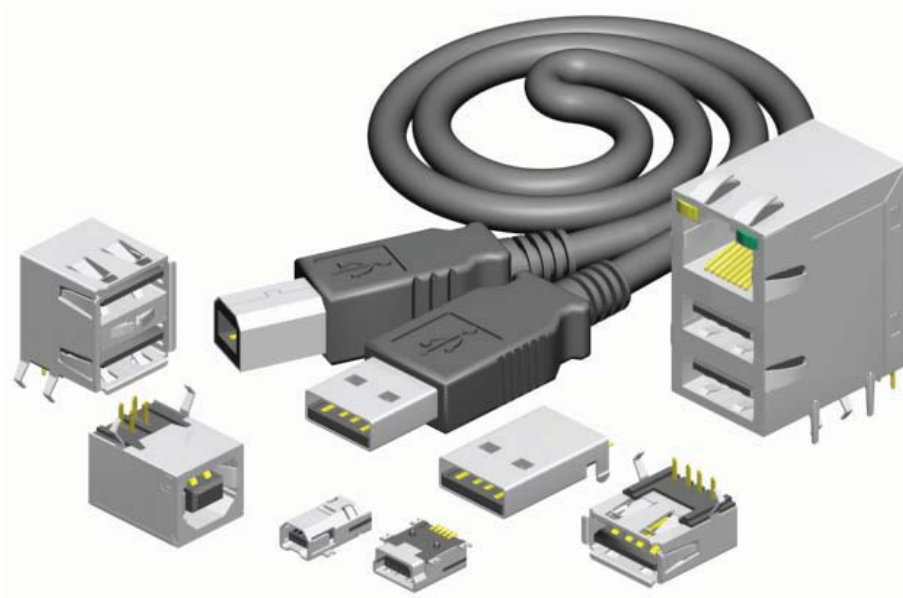
E-tec D-Sub connectors comply with Performance Class 3 (min. 50 contact cycles).  
Please contact E-tec first for availability of Performance Class 2 (min. 200 contact cycles) and 1 (min. 500 contact cycles)

**D-Sub with Filter ( ferrite )**

Frequency range	10 - 300 MHz
Impedance	5 MHz - 15 Ω
	25 MHz - 30 Ω
	100 MHz - 50 Ω
	300 MHz - 75 Ω



# U S B & IEEE 1394 Connectors



The USB ( Universal Serial Bus ) connectors allow „plug & play“ connection of peripherals to PC´s.

Hot plugging and automatic reconfiguration are the main advantages of this technology.

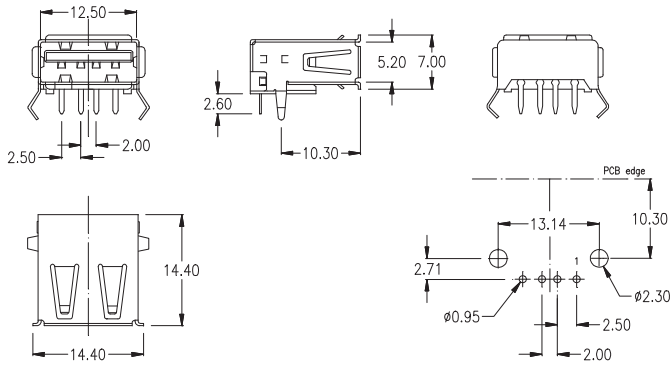
The USB product line comprises SMT and thru-hole PCB mounting connectors, all of which comply to international standards.

USB & IEEE1394 cable assemblies are available on request or please refer to [www.e-tec.com](http://www.e-tec.com) for more details.

# USS Series USB Connector Type „A”

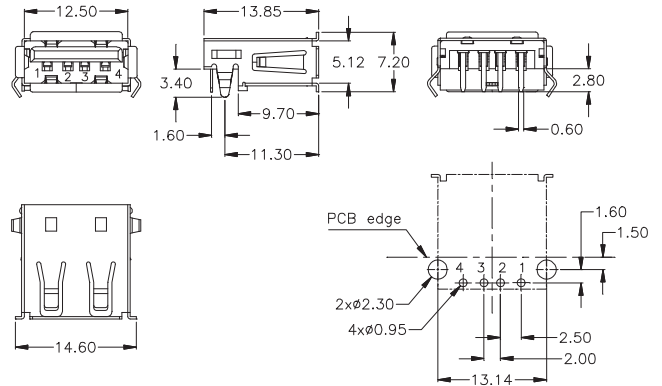


## single port right angle; soldertail



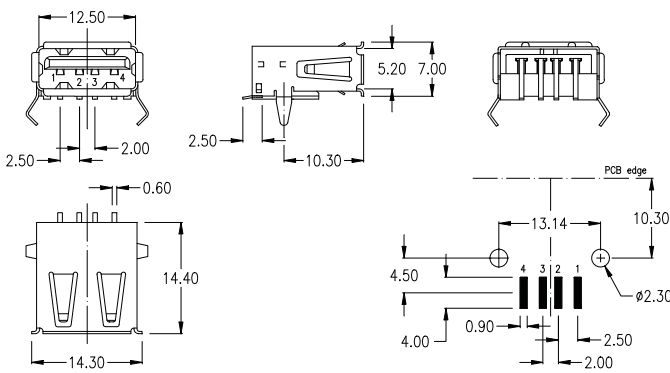
**ORDER CODE:**  
 USB 1.0 corresponding **USS - W04 - RA01 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **USS - W04 - RA21 - 98** (- B04 - if black housing)

## “low profile” single port right angle; soldertail



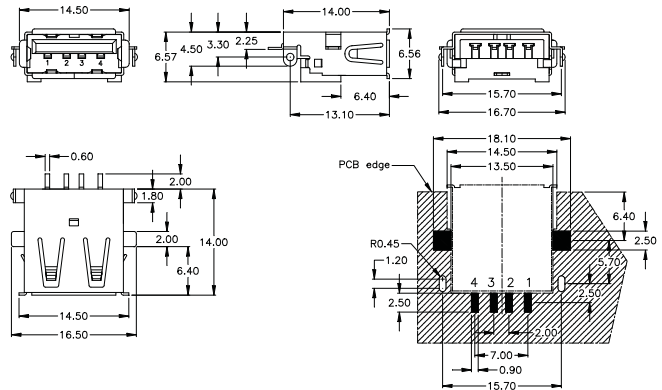
**ORDER CODE:**  
 USB 1.0 corresponding **ULS - W04 - RAS0 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **ULS - W04 - RAS2 - 98** (- B04 - if black housing)

## single port right angle; SMT



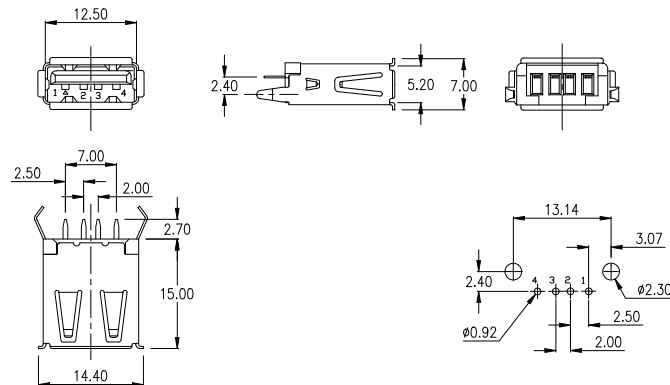
**ORDER CODE:**  
 USB 1.0 corresponding **USS - W04 - SAS0 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **USS - W04 - SAS2 - 98** (- B04 - if black housing)  
 Please contact your closest E-tec sales office for order code if reel packaging is required.

## “low profile” single port right angle; SMT



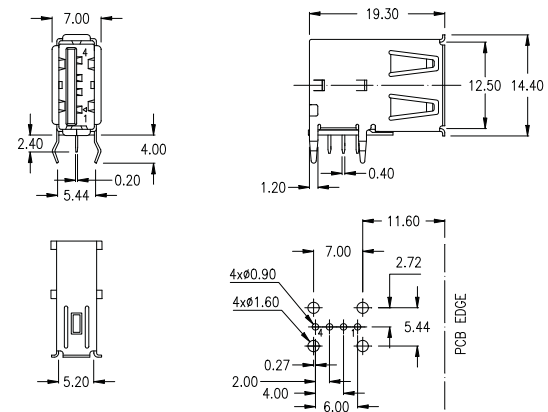
**ORDER CODE:**  
 USB 1.0 corresponding **ULS - W04 - SAS0 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **ULS - W04 - SAS2 - 98** (- B04 - if black housing)  
 Please contact your closest E-tec sales office for order code if reel packaging is required.

## single port top entry; soldertail



**ORDER CODE:**  
 USB 1.0 corresponding **USS - W04 - TA01 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **USS - W04 - TA21 - 98** (- B04 - if black housing)

## single port vertical; soldertail „one line foot”



**ORDER CODE:**  
 USB 1.0 corresponding **USS - W04 - VA01 - 95** (- B04 - if black housing)  
 USB 2.0 corresponding **USS - W04 - VA21 - 98** (- B04 - if black housing)

## Specification

### Material

Contact	(RoHS compliant)	Phosphor bronze
Plating:	Contact area	Au flash over Ni (USB 1.0 corresponding) Au 30µ" over Ni (USB 2.0 corresponding)
	Solder area	Sn (leadfree)
Housing	(RoHS compliant)	PBT white UL 94-V0 (PBT black on request)
SMT Housing	(RoHS compliant)	Nylon 9T UL 94-V0
Shell	(RoHS compliant)	brass, 80µ"-120µ" Ni plated

### Mechanical

Mating cycles	1.500 min.
---------------	------------

### Electrical

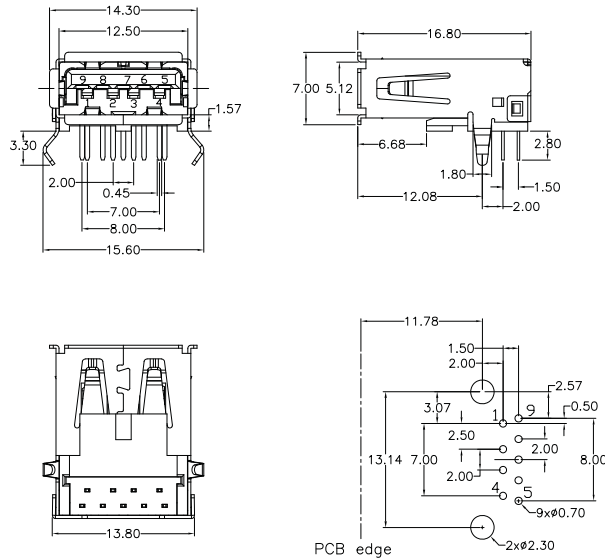
Current rating	1.5 A max. 1 Contact (Signal only)
Voltage rating	30V AC (rms)
Withstanding voltage	750V AC (rms) 1 Minute (USB 1.0) 500V AC (rms) 1 Minute (USB 2.0)
Insulation resistance	1.000MΩ min. (500V DC)
Contact resistance	30mΩ max.

### Others

Operating temperature	-55° C to +85° C
Processing temp. for SMT type	+260° C for 10 sec. max.

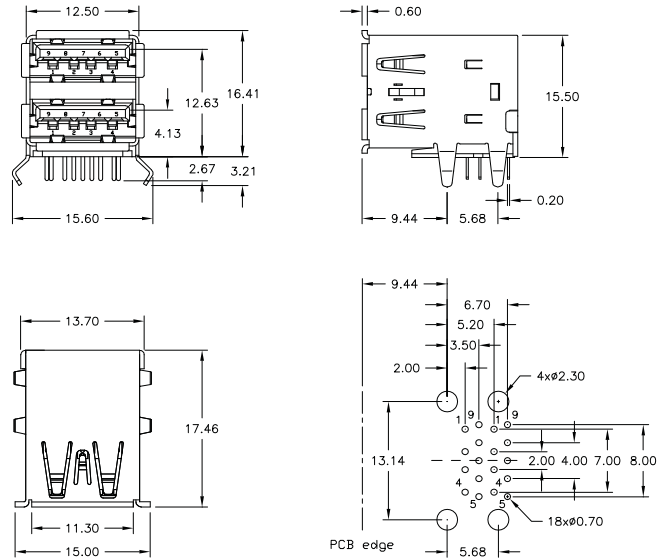


single port right angle; soldertail



ORDER CODE: **USS - BU09 - RA31 - 98**

dual port right angle; soldertail



ORDER CODE: **USS - BU18 - RA32 - 98**

Specification

Material

Contact	Phosphor bronze
Plating:	
Contact area	Au 30 $\mu$ " over Ni
Solder area	Sn ( <i>leadfree</i> )
Housing (Single port)	P.B.T. UL 94-V0 blue
Housing (Dual port)	Nylon 9T UL 94-HB blue
Shell (Single port)	Steel, 80 $\mu$ "-120 $\mu$ " Ni plated
Shell (Dual port)	Brass, 80 $\mu$ "-120 $\mu$ " Ni plated

Mechanical

Mating cycles 1.500 min.

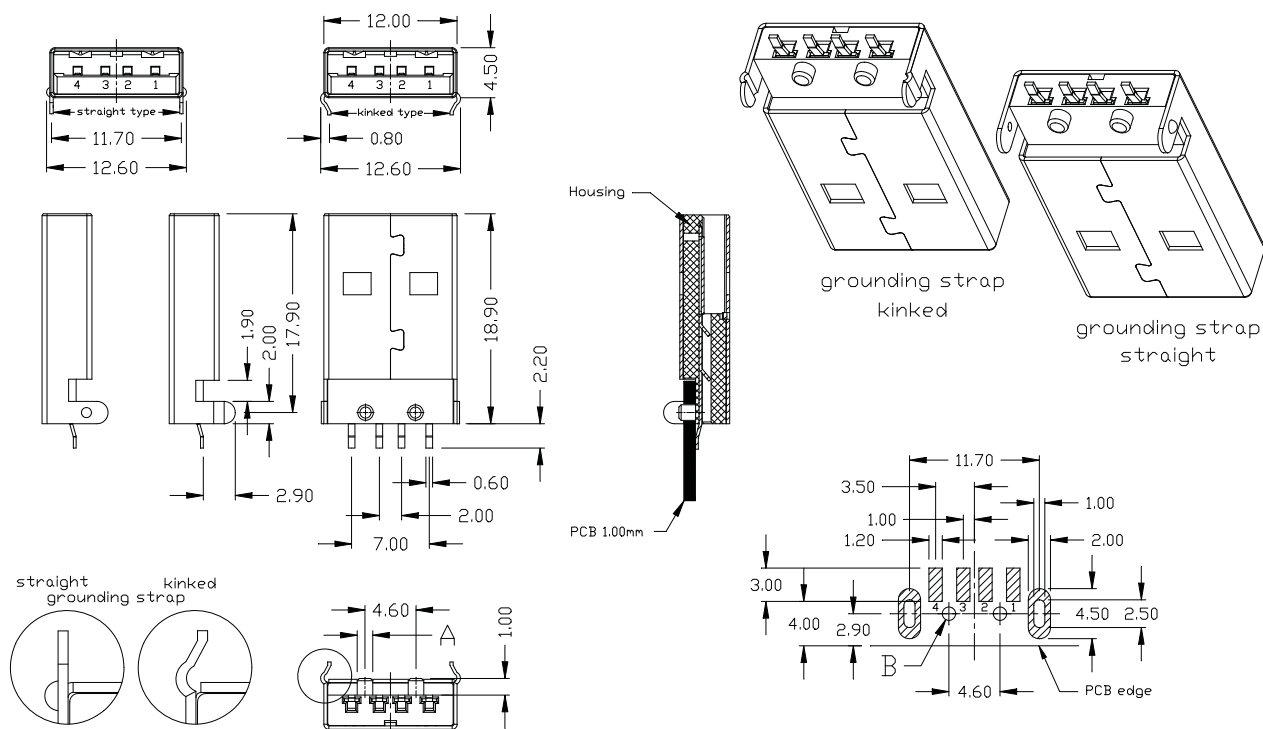
Electrical

Current rating 1,8 A max. 1 Contact (Signal only)  
Voltage rating 100V AC (rms)  
Withstanding voltage 500V AC (rms) 1 Minute  
Insulation resistance 100M $\Omega$  min. (500V DC)  
Contact resistance 30m $\Omega$  max.

Others

Operating temperature -55° C to +85° C

### SMT Type



**Recommendation:**

DIM. "B" =  $\varnothing$  1,20mm if locating peg  $\varnothing$  "A"=1,00mm  
 DIM. "B" =  $\varnothing$  1,60mm if locating peg  $\varnothing$  "A"=1,40mm

### ORDER CODE

**USP - B 04 - SA x x - XX**

#### Housing Colour

Black (Standard) = **B**  
 others on request

#### USB Corresponding

- 1 - 95** = USB 1.0 corresponding
- 2 - 98** = USB 2.0 corresponding

#### Execution

- 0** = kinked grounding pins; locating pegs  $\varnothing$ 1.00mm
- 1** = straight grounding pins; locating pegs  $\varnothing$ 1.00mm
- 2** = kinked grounding pins; locating pegs  $\varnothing$ 1.40mm
- 3** = straight grounding pins; locating pegs  $\varnothing$ 1.40mm  
 ( for locating peg dim. pls. go to drawing DIM. "A" )

### Specification

#### Material

Contact (RoHS compliant)	Brass
Plating:	
Contact area	Au flash over Ni (USB 1.0 corresponding) Au 30 $\mu$ " over Ni (USB 2.0 corresponding)
Solder area	Sn (leadfree)
Housing (RoHS compliant)	Nylon UL 94-V0
Shell (RoHS compliant)	brass, 80 $\mu$ "-120 $\mu$ " Ni plated

#### Mechanical

Mating cycles	1.500 min.
SMT coplanarity	0.10mm

#### Electrical

Current rating	1 A max. 1 Contact (Signal only)
Voltage rating	30V AC (rms)
Withstanding voltage	750V AC (rms) 1 Minute (USB 1.0) 500V AC (rms) 1 Minute (USB 2.0)
Insulation resistance	1.000M $\Omega$ min. (500V DC)
Contact resistance	30m $\Omega$ max.

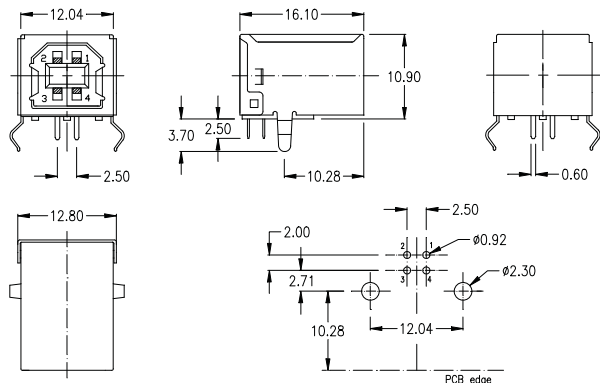
#### Others

Operating temperature	-55° C to +85° C
Processing temperature	+260° C for 10 sec. max.



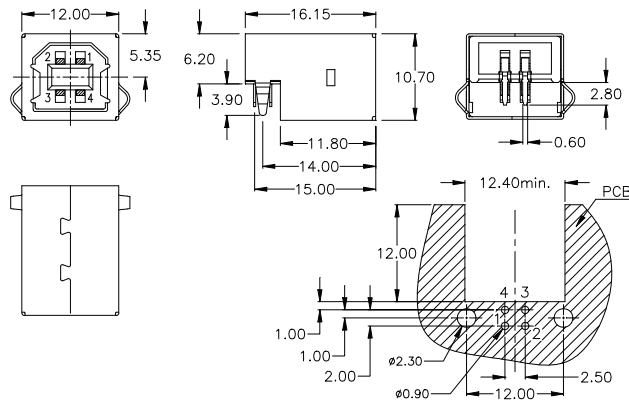


single port right angle; soldertail



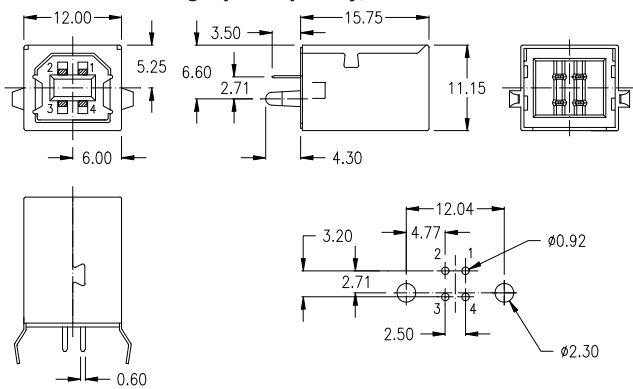
ORDER CODE 1.0 Type: **USS - W04 - RB01 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **USS - W04 - RB21 - 98** (- B04 - if black insulator)

“low profile” single port right angle; soldertail



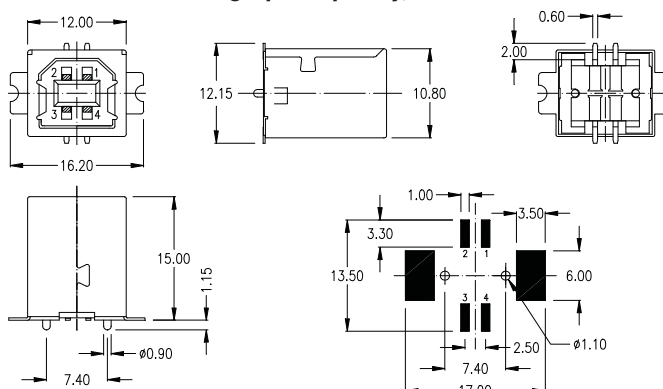
ORDER CODE 1.0 Type: **ULS - W04 - RBS0 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **ULS - W04 - RBS2 - 98** (- B04 - if black insulator)

single port top entry; soldertail



ORDER CODE 1.0 Type: **USS - W04 - TB01 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **USS - W04 - TB21 - 98** (- B04 - if black insulator)

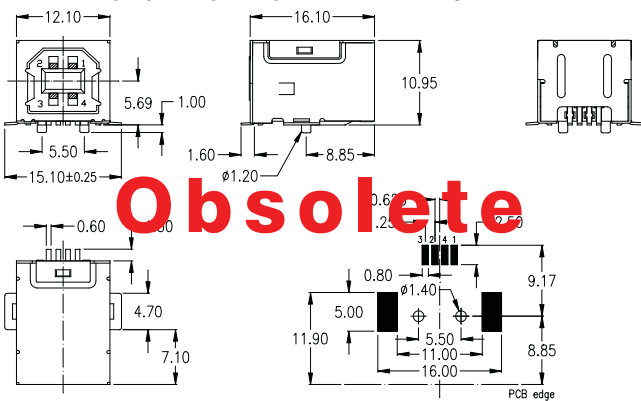
single port top entry; SMT



ORDER CODE 1.0 Type: **USS - W04 - UB01 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **USS - W04 - UB21 - 98** (- B04 - if black insulator)

Please contact your closest E-tec sales office for order code if reel packaging is required.

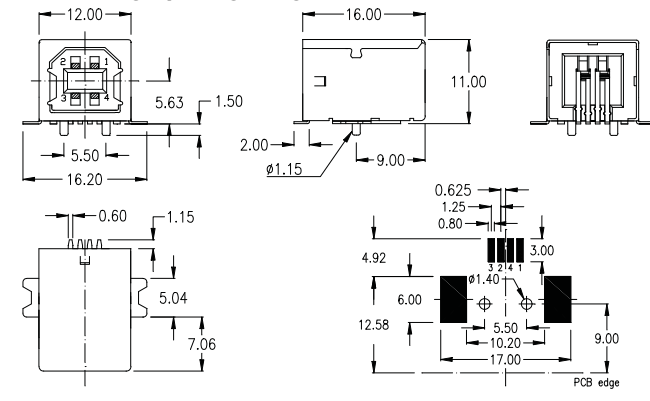
single port right angle; SMT “fully shielded”



ORDER CODE 1.0 Type: **USS - W04 - SB01 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **USS - W04 - SB21 - 98** (- B04 - if black insulator)

Please contact your closest E-tec sales office for order code if reel packaging is required.

single port right angle; SMT “semi shielded”



ORDER CODE 1.0 Type: **USS - W04 - SBS0 - 95** (- B04 - if black insulator)  
 ORDER CODE 2.0 Type: **USS - W04 - SBS2 - 98** (- B04 - if black insulator)

Please contact your closest E-tec sales office for order code if reel packaging is required.

Obsolete

**Specification**

**Material**

Contact	(RoHS compliant)	Phosphor bronze tin (leadfree) / gold
Plating		solder area: if -95 = Au flash over Ni (1.0 Type) if -98 = Au 30µ" over Ni (2.0 Type)
Insulator	(RoHS compliant)	PBT white (standard) UL 94-V0 (PBT black on request)
SMT Insulator	(RoHS compliant)	Nylon UL 94-V0
Shell	(RoHS compliant)	brass, 80µ"-120µ" Ni plated

**Mechanical**

Mating cycles 1.500 min.

**Electrical**

Current rating	1,5 A max. 1 Contact (Signal only)
Voltage rating	30V AC (rms)
Withstanding voltage	750V AC (rms) 1 Minute (USB 1.0) 500V AC (rms) 1 Minute (USB 2.0)
Insulation resistance	1.000MΩ min. (500V DC)
Contact resistance	30mΩ max.

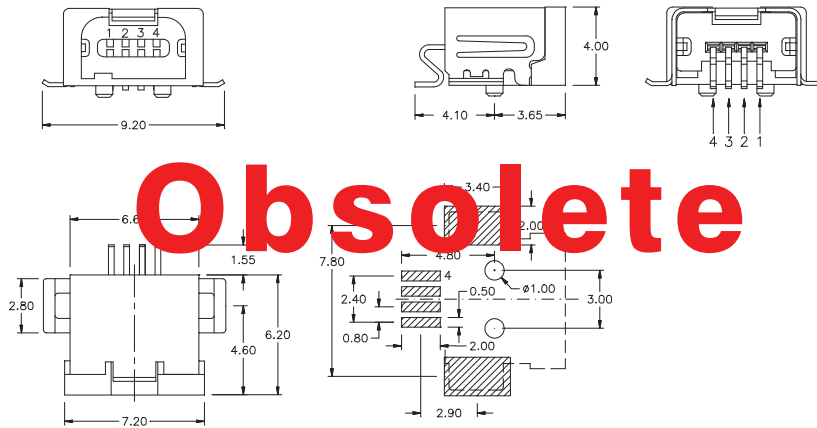
**Others**

Operating temperature	-55° C to +85° C
Processing temp. for SMT type	+260° C for 10 sec. max.

UMS Series  
Mini USB Connector SMT



Mini "A" Type 4 Pin



ORDER CODE USB 1.0 corresponding: **UMS - B04 - SAS0 - 95**

Please contact your closest E-tec sales office for order code if reel packaging is required.

Specification:

Material

Contact (RoHS compliant) PhBz  
Plating:  
Contact area Au flash over Ni  
Solder area Sn (leadfree) over Ni  
Housing (RoHS compliant) Nylon 6T black  
UL 94-V0  
Shell (RoHS compliant) Steel, 80µ"-120µ" Ni plated

Electrical

Current rating 1 A  
Voltage rating AC 30V (rms)  
Withstanding voltage 100V AC (rms) 1 Minute  
Insulation resistance 100MΩ min. (500V DC)  
Contact resistance 50mΩ max.

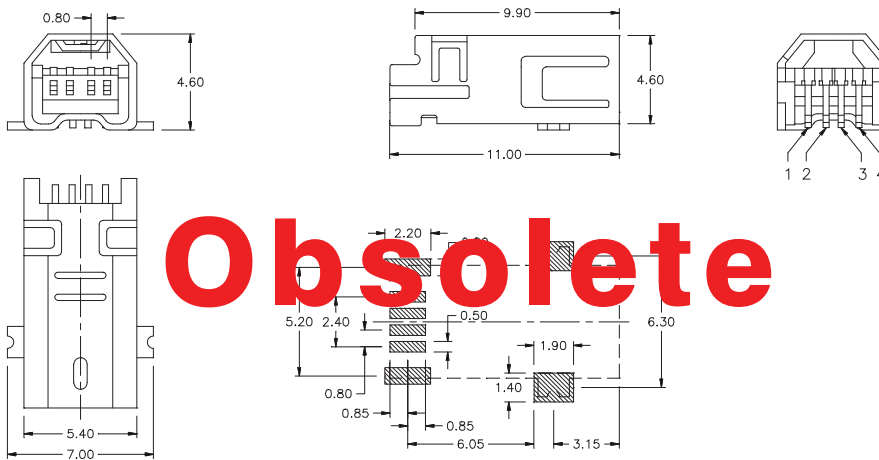
Mechanical

Mating cycles 5.000 min.

Others

Operating temp. -55° C to +85° C  
Processing temp. +260° C for 10 sec. max..

Mini "B" Type 4 Pin



ORDER CODE USB 1.0 corresponding: **UMS - B04 - SBS0 - 95**

ORDER CODE USB 2.0 corresponding: **UMS - B04 - SBS2 - 98**

Please contact your closest E-tec sales office for order code if reel packaging is required.

Specification:

Material

Contact (RoHS compliant) PhBz  
Plating:  
Contact area -95 = Au flash over Ni  
                  -98 = Au 30µ" over Ni  
Solder area tin (leadfree) over nickel  
Housing (RoHS compliant) Nylon 6T black  
UL 94-V0  
Shell (RoHS compliant) brass, Sn plated

Electrical

Current rating 1 A  
Voltage rating AC 30V (rms)  
Withstanding voltage 100V AC (rms) 1 Minute  
Insulation resistance 100MΩ min. (500V DC)  
Contact resistance 50mΩ max.

Mechanical

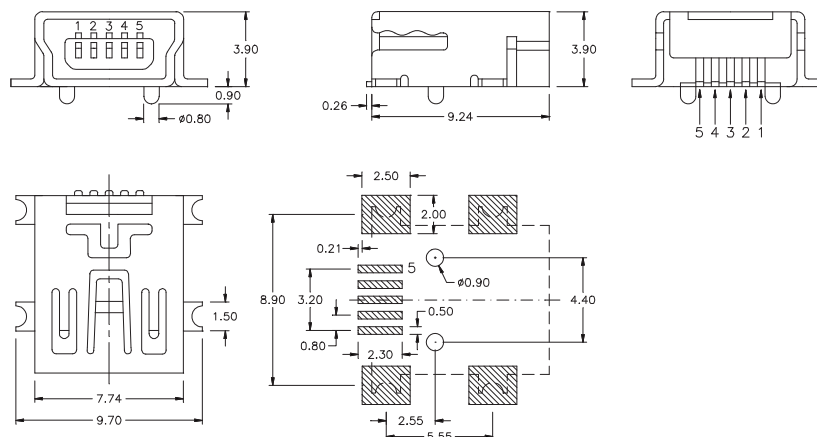
Mating cycles 5.000 min.

Others

Operating temp. -55° C to +85° C  
Processing temp. +260° C for 10 sec. max.

Mini "B" Type 5 Pin

correspond to USB 2.0



ORDER CODE USB 2.0 corresponding: **UMS - B05 - SB21 - 98**

Please contact your closest E-tec sales office for order code if reel packaging is required.

Specification:

Material

Contact (RoHS compliant) PhBz  
Plating:  
Contact area -98 = Au 30µ" over Ni  
Solder area Sn (leadfree) over Ni  
Housing (RoHS compliant) Nylon 6T black  
UL 94-V0  
Shell (RoHS compliant) Steel, 80µ"-120µ" Ni plated

Electrical

Current rating 1 A  
Voltage rating AC 30V (rms)  
Withstanding voltage 100V AC (rms) 1 Minute  
Insulation resistance 100MΩ min. (500V DC)  
Contact resistance 50mΩ max.

Mechanical

Mating cycles 5.000 min.

Others

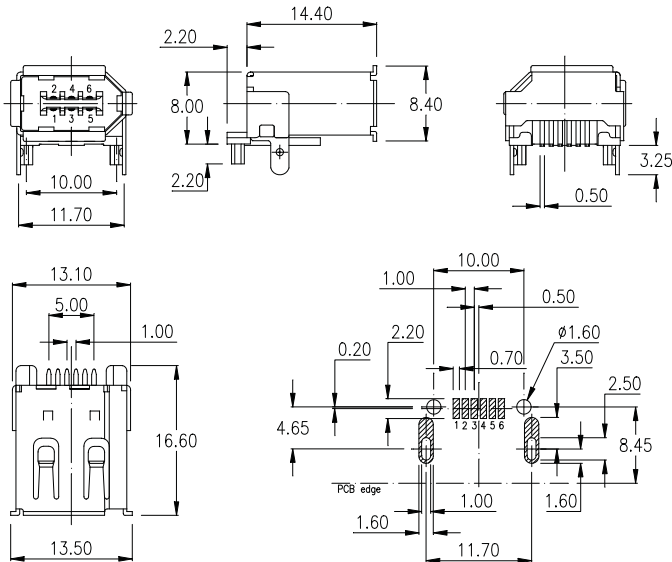
Operating temp. -55° C to +85° C  
Processing temp. +260° C for 10 sec. max.

# IES Series - „IEEE 1394” Connector

## 6 – Contact Type

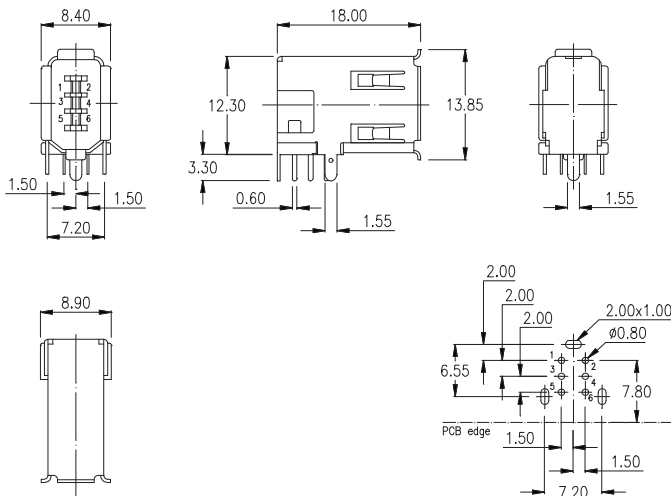


**single port right angle; SMT**  
**“fully shielded” Type**



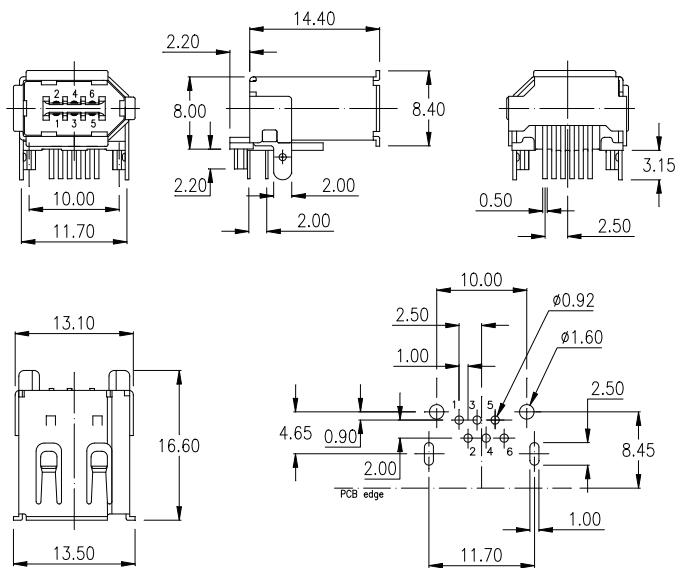
ORDER CODE: **IES - B06 - SIF1 - 98**  
( - W06 - if white housing )

**single port vertical; soldertail**  
**“fully shielded” Type**



ORDER CODE: **IES - B06 - VIF1 - 98**  
( - W06 - if white housing )

**single port right angle; soldertail**  
**“fully shielded” Type**



ORDER CODE: **IES - B06 - RIF1 - 98**  
( - W06 - if white housing )

### Specification

#### Material

Contact	(RoHS compliant)	Phosphor bronze
Plating:		
Contact area		Au 30 $\mu$ over Ni
Solder area		Sn (leadfree)
Housing	(RoHS compliant)	PBT UL 94-V0
SMT housing	(RoHS compliant)	Nylon 9T UL 94-V0
Shell	(RoHS compliant)	brass, 80 $\mu$ - 120 $\mu$ Ni plated

#### Mechanical

Mating cycles	1.500 min.
---------------	------------

#### Electrical

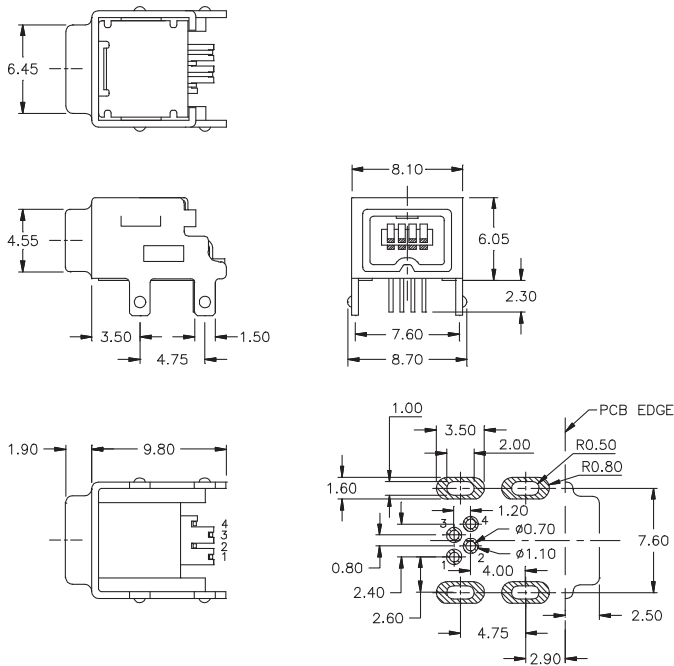
Current rating	1,5 A max. 1 Contact (Signal only)
Voltage rating	30V AC (rms)
Withstanding voltage	500V AC (rms) 1 Minute
Insulation resistance	100M $\Omega$ min. (500V DC)
Contact resistance	30m $\Omega$ max.

#### Others

Operating temperature	-55° C to +85° C
Processing temp. for SMT type	+260° C for 10 sec. max.

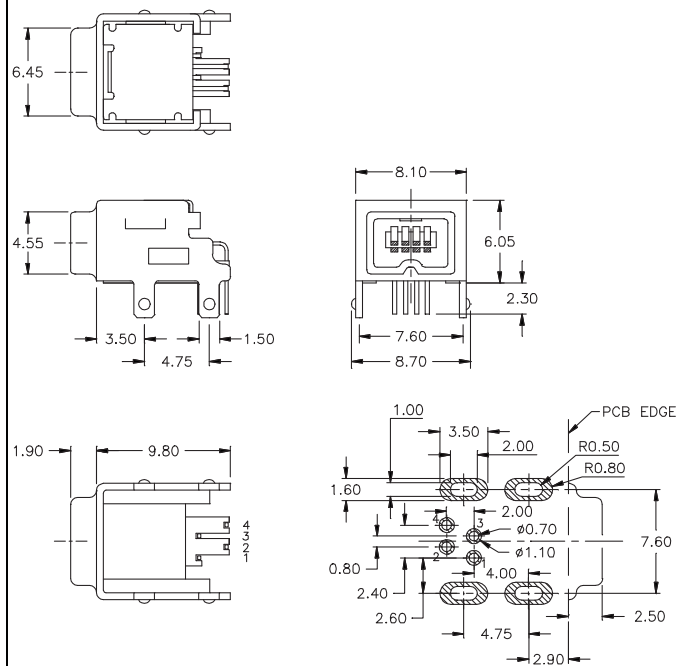
4 – Contact Type

single port right angle



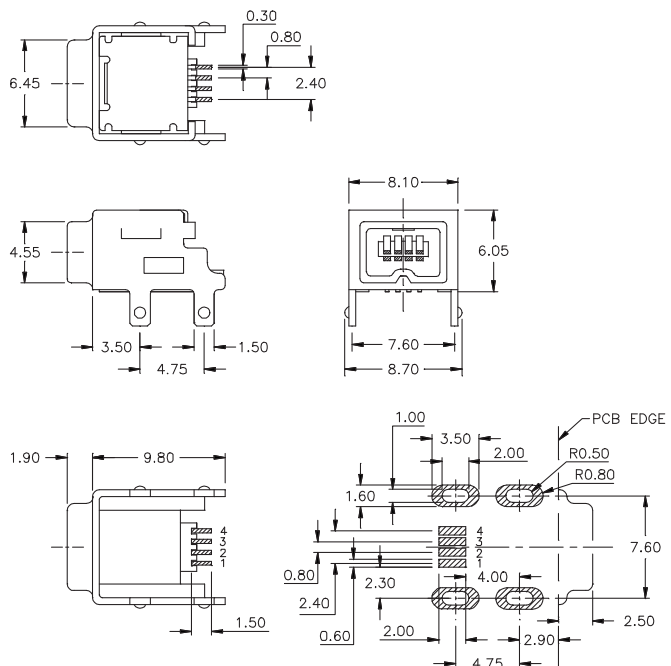
ORDER CODE: **IES - B04 - RI01 - 98**

single port right angle  
“reversed” Type



ORDER CODE: **IES - B04 - RIR1 - 98**

single port right angle; SMT



ORDER CODE: **IES - B04 - SI01 - 98**

Specification

Material

Contact	(RoHS compliant) Phosphor bronze
Plating:	
Contact area	Au 30μ" over Ni
Solder area	Sn (leadfree)
Housing	(RoHS compliant) Nylon 9T UL 94-V0 black (standard)
Front Shell	(RoHS compliant) Steel 80μ"-120μ" Ni plated
Rear Shell	(RoHS compliant) Brass 80μ"-120μ" Ni plated

Mechanical

Mating cycles 1.000 min.

Electrical

Current rating	1,5 A max. 1 Contact (Signal only)
Voltage rating	30V AC (rms)
Withstanding voltage	500V AC (rms) 1 Minute
Insulation resistance	100MΩ min. (500V DC)
Contact resistance	30mΩ max.

Others

Operating temperature	-55° C to +85° C
Processing temp. for SMT type	+260° C for 10 sec. max.

# USB & IEEE Cable Assembly



	<p>Order Code: <b>USC-xxxx-AMAM-BG/G</b></p>
	<p>Order Code: <b>USC-xxxx-AMAF-BG/G</b></p>
	<p>Order Code: <b>USC-xxxx-2AMBM-BG/G</b></p>
	<p>Order Code: <b>USC-xxxx-BMBM-BG/G</b></p>
	<p>Order Code: <b>USC-xxxx-IMIM-CH/G</b></p>
	<p>Order Code: <b>USC-xxxx-IM4IM-CH/B</b></p>
	<p>Order Code: <b>USC-xxxx-4IMIM-CH/G</b></p>
	<p>Order Code: <b>USC-xxxx-4AMAM-CH/G</b></p>
	<p>Order Code: <b>USC-xxxx-4BMBM-CH/G</b></p>
	<p>Order Code: <b>USC-xxxx-5BMBM-CH/G</b></p>

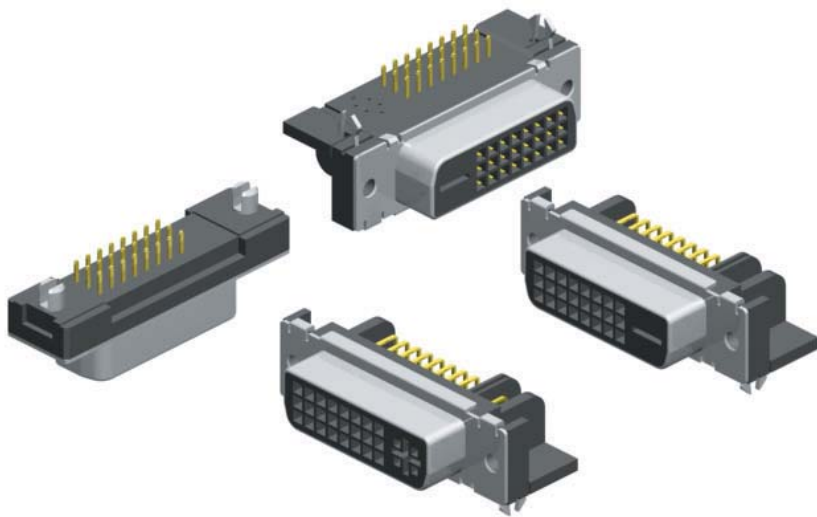
Other Cable and Connector colour on request.

Connector and cable assembly as per Customer specification also possible.

Cable length "L"  
Example: **1000** = 1000mm

# DVI

## Digital Visual Interface

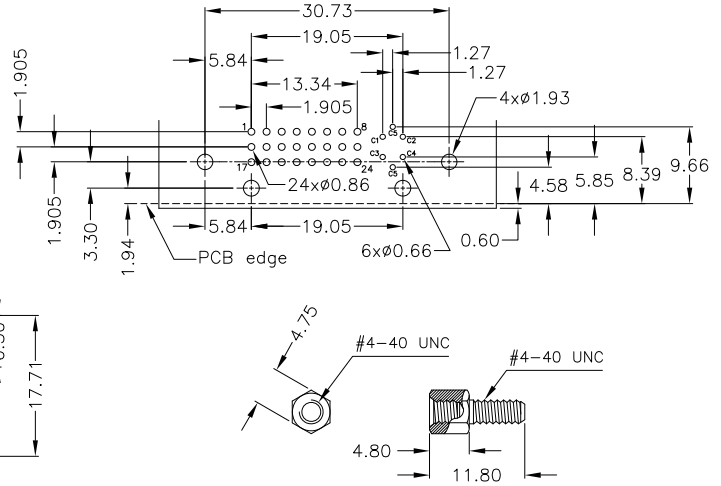
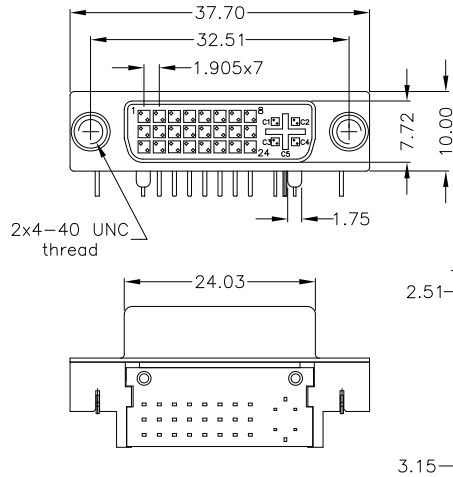


DVI is a video interface standard designed to maximise the visual quality of digital display devices such as flat panel LCD computer displays and digital projectors.

In addition, certain TV's also offer a DVI input connection, which accept digital signals from PC's or DVD players.

**Analog & Digital Type**

with plastic pegs



Option: Jack Screw

**Specifications**

<b>Electrical:</b>	
Current rating	1.5 A min.
Insulator resistance	1000 M $\Omega$ min.
Contact resistance	20 m $\Omega$ max.
Dielectric strength	1000 V for 1 Min.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-20° C to +85° C
<b>Mechanical:</b>	
Insertion force	4.5 Kg max.
Withdrawal force	1.0 Kg min.
Durability	100 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Insulator	Hi temp Thermoplastic UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

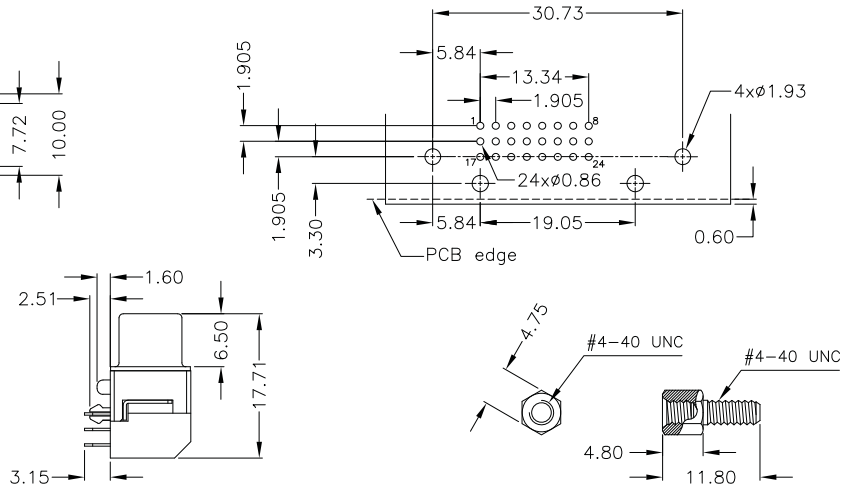
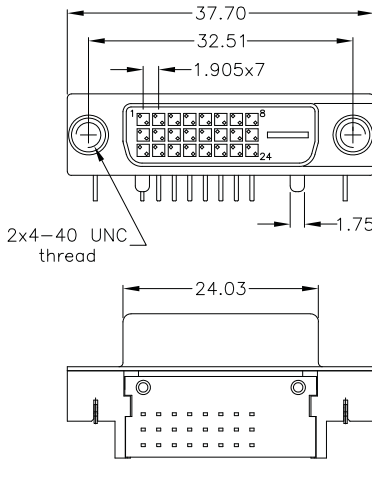
**How to order**

**DVF - 029 - NAD9 - xx /W P X**

<b>Plating</b>	<b>Housing Color</b>	<b>Option</b>
<b>95</b> = Gold flash / Tin (leadfree) <b>97</b> = Gold 15 $\mu$ " / Tin (leadfree) <b>98</b> = Gold 30 $\mu$ " / Tin (leadfree)	<b>W</b> = white (standard) <b>B</b> = black (option)	<b>J</b> 2 Jack Screws 4-40 UNC attached

**Digital Type**

with plastic pegs



Option: Jack Screw

**Specifications**

<b>Electrical:</b>	
Current rating	1.5 A min.
Insulator resistance	1000 M $\Omega$ min.
Contact resistance	20 m $\Omega$ max.
Dielectric strength	1000 V for 1 Min.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-20° C to +85° C
<b>Mechanical:</b>	
Insertion force	4.5 Kg max.
Withdrawal force	1.0 Kg min.
Durability	100 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Insulator	Hi temp Thermoplastic UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

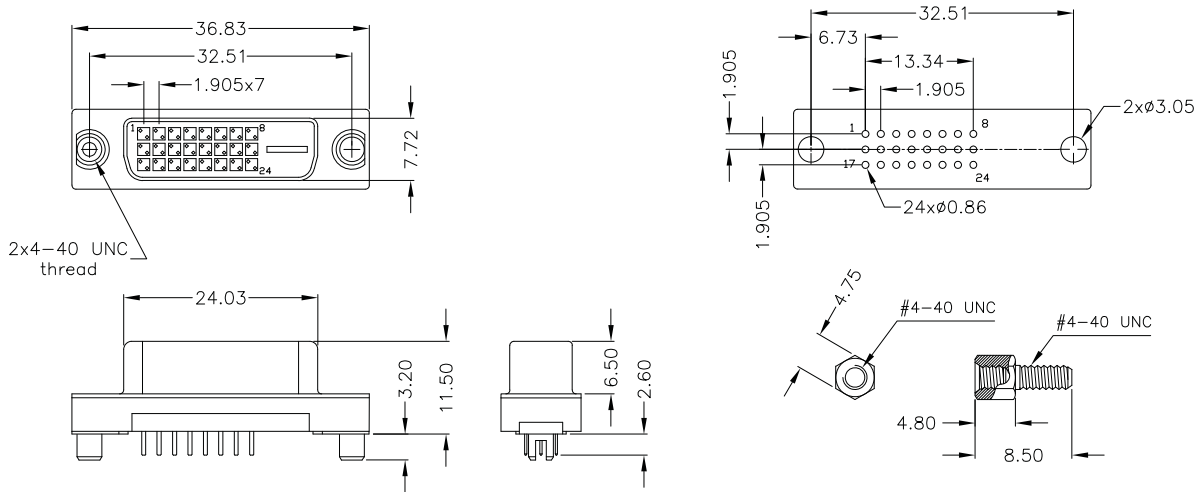
**How to order**

**DVF - 024 - NDD9 - xx /W P X**

<b>Plating</b>	<b>Housing Color</b>	<b>Option</b>
<b>95</b> = Gold flash / Tin (leadfree) <b>97</b> = Gold 15 $\mu$ " / Tin (leadfree) <b>98</b> = Gold 30 $\mu$ " / Tin (leadfree)	<b>W</b> = white (standard) <b>B</b> = black (option)	<b>J</b> 2 Jack Screws 4-40 UNC attached



DV Series DVI Connector - straight -  
Digital



Jack Screw

**Specifications**

<b>Electrical:</b>	
Current rating	1.5 A min.
Insulator resistance	1000 M $\Omega$ min.
Contact resistance	20 m $\Omega$ max.
Dielectric strength	1000 V for 1 Min.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-20° C to +85° C
<b>Mechanical:</b>	
Insertion force	4.5 Kg max.
Withdrawal force	1.0 Kg min.
Durability	100 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Insulator	Hi temp Thermoplastic
Shell	UL 94V-0 Steel; Sn ( <i>leadfree</i> ) over Ni

**How to order**

**DVF - 024 - NDD1 - xx /W B J**

Plating	
<b>95</b>	= Gold flash / Tin ( <i>leadfree</i> )
<b>97</b>	= Gold 15 $\mu$ " / Tin ( <i>leadfree</i> )
<b>98</b>	= Gold 30 $\mu$ " / Tin ( <i>leadfree</i> )

Housing Color	
<b>W</b>	= white (standard)
<b>B</b>	= black (option)

J	
2 Jack Screws 4-40 UNC attached	



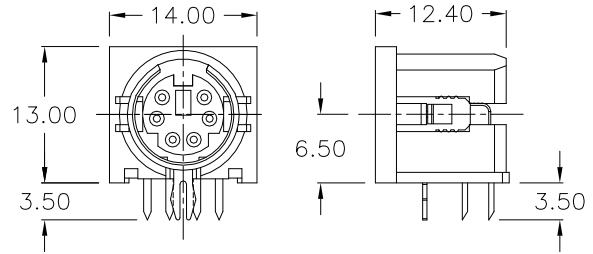
# Mini DIN Connector - 90° non shielded type



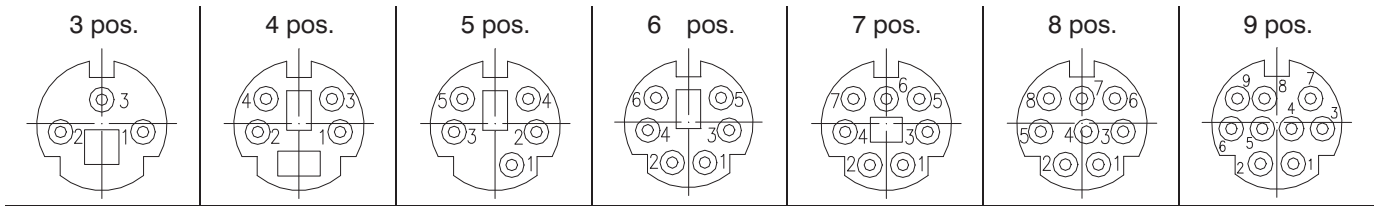
Mini DIN Connectors offered by E-tec have either silver or tin plated contacts. They allow a high number of insertion/extraction cycles and always a save connection to the Plug.

For any other types you may looking for and cannot find specified in this catalog, for example Mini DIN connectors with Filter or switch, please contact the nearest E-tec office or Distributor.

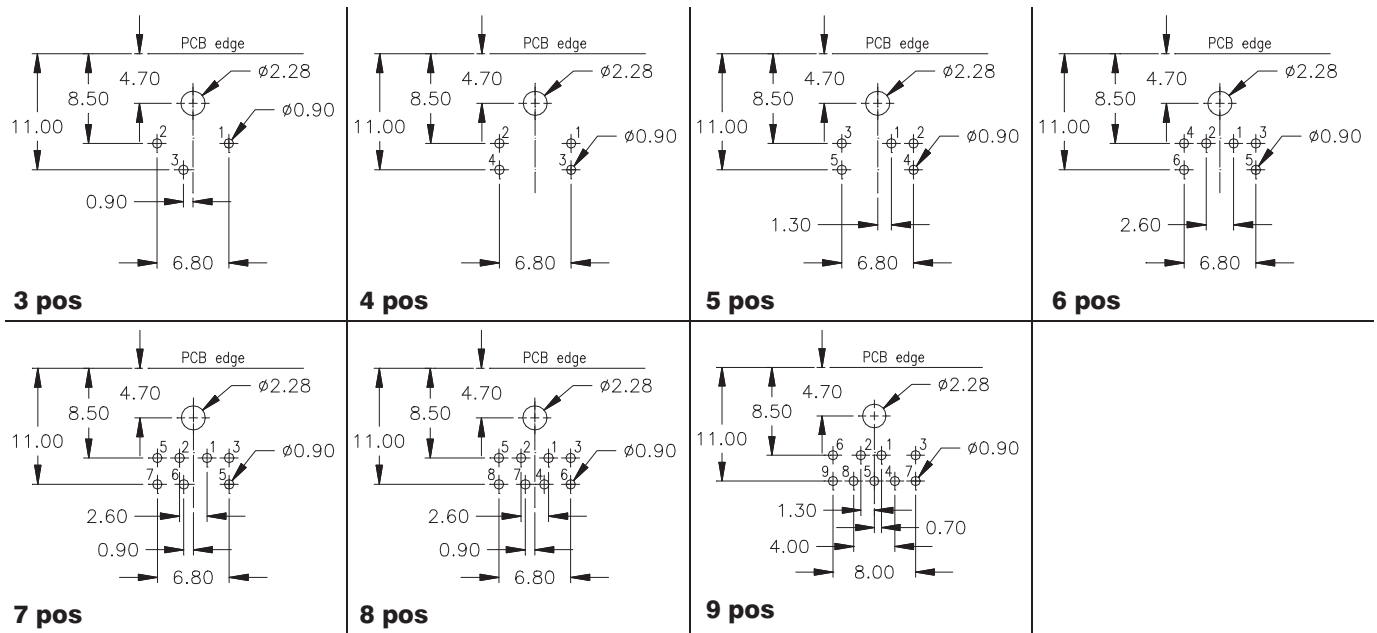
non shielded type



## FRONT VIEWS



## PCB through hole layout

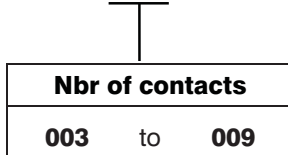


## SPECIFICATIONS

Current rating	1 A max. at 100 V AC or 2 A max. at 12 V DC	Contact material <i>(RoHS compliant)</i>	Phosphor bronze
Insulator resistance	50 MΩ min. at 250 V DC	Contact plating	Sn/Au over Ni <i>(Sn leadfree)</i>
Contact resistance	30 mΩ max.	Insulator material <i>(RoHS compliant)</i>	P.B.T. UL 94 V-0
Dielectric withstanding voltage	250 V AC for 1 min.	Insertion force	4.5kg max.
Operating temperature	-55°C to +85°C	Extraction force	0.8kg min.
		Insertion/extraction cycles	500 min.

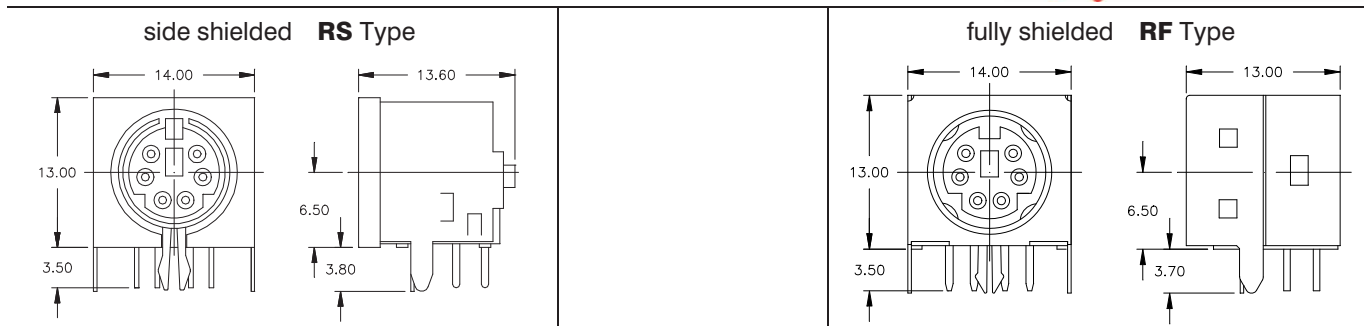
## Ordering Code

**MDJ - xxx - RN 01 - 95**

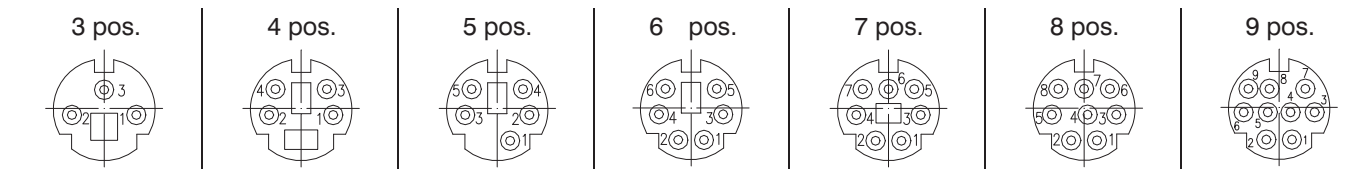


# Mini DIN Connector

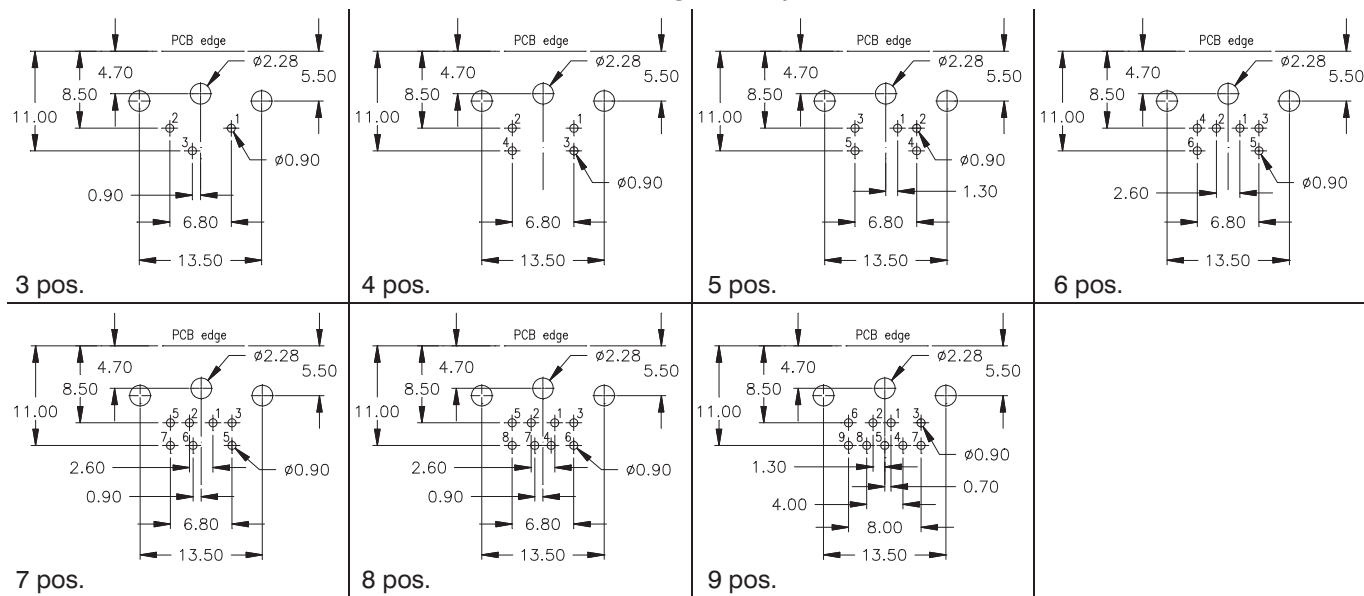
## 90° shielded type



### FRONT VIEWS



### PCB through hole layout



### SPECIFICATIONS

Current rating 2 A max. at 12 V DC	1 A max. at 100 V AC or	Contact material Contact plating Insulator material Insertion force Extraction force Insertion/extraction cycles	(RoHS compliant) (RoHS compliant) Phosphor bronze AG, Sn or Sn/Au over Ni (Sn leadfree) P.B.T. UL 94 V-0 -black standard - 4.5kg max. 0.8kg min. 500 min.
Insulator resistance Contact resistance Dielectric withstanding voltage Operating temperature	50 MΩ min. at 250 V DC 30 mΩ max. 250 V AC for 1 min. -40°C to +105°C		

### Ordering Code

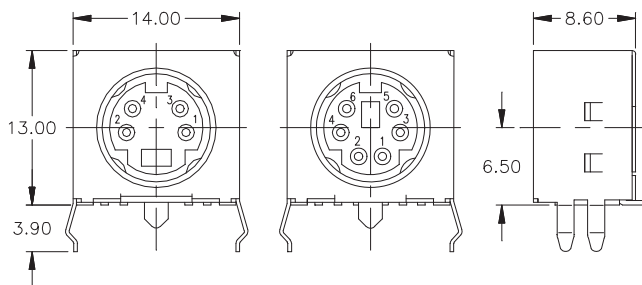
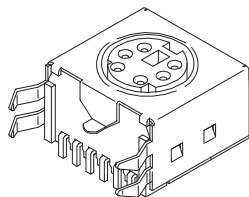
**MDJ - xxx - R X xx - xx**

Nbr of contacts	Type	Color	Plating
003; 004; 005; 006 007; 008; 009	<b>S</b> = side shielded	<b>01</b> = black	<b>AGZ</b> = silver
003; 004; 005; 006 007; 008; 009	<b>F</b> = fully shielded	<b>01</b> = black for all types <b>22</b> = purple for 6-contact type only	<b>95</b> = tin/gold (tin leadfree)

# Mini DIN Connector - Low Profile 90° SMT & through hole - fully shielded type -



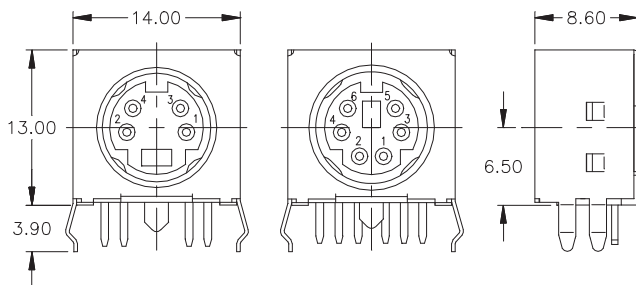
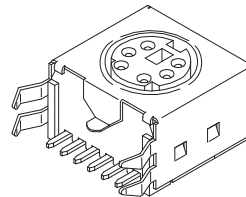
SMT type



4 pos.

6 pos.

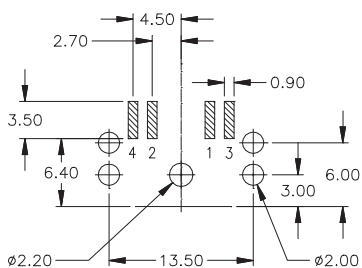
through hole type



4 pos.

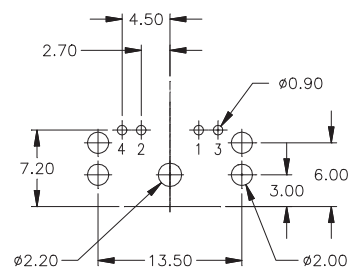
6 pos.

PCB SMT layout

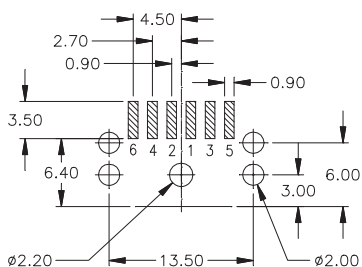


4 pos.

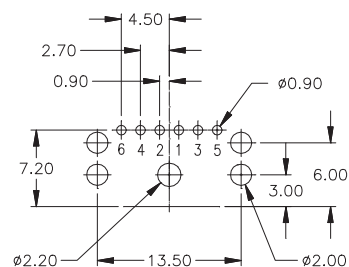
PCB through hole layout



4 pos.



6 pos.



6 pos.

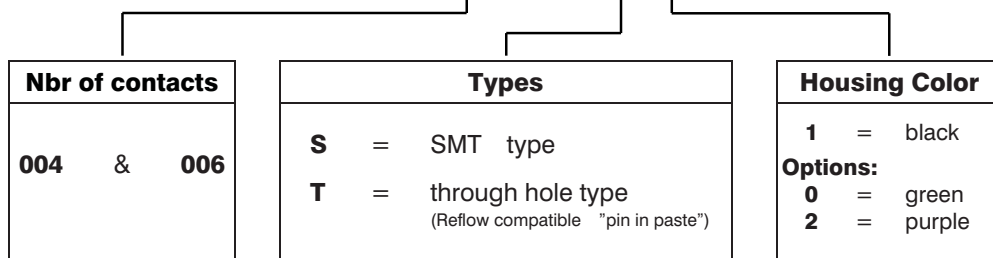
## SPECIFICATIONS

Current rating	1 A max. at 100 V AC or 2 A max. at 12 V DC
Insulator resistance	50 MΩ min. at 250 V DC
Contact resistance	30 mΩ max.
Dielectric withstanding voltage	250 V AC for 1 minute
Insertion/extraction cycles	500 min.
Operating temperature	-40°C to +105°C

Insulator material <i>(RoHS compliant)</i>	Nylon 6T UL 94 V-0
Contact material <i>(RoHS compliant)</i>	Phosphor bronze
Contact plating	Sn <sup>(leadfree)</sup> /Au over Ni
Insertion force	4.5kg max.
Extraction force	0.5kg min.
Reflow soldering temperature:	260° C for 10 sec.

## Ordering Code

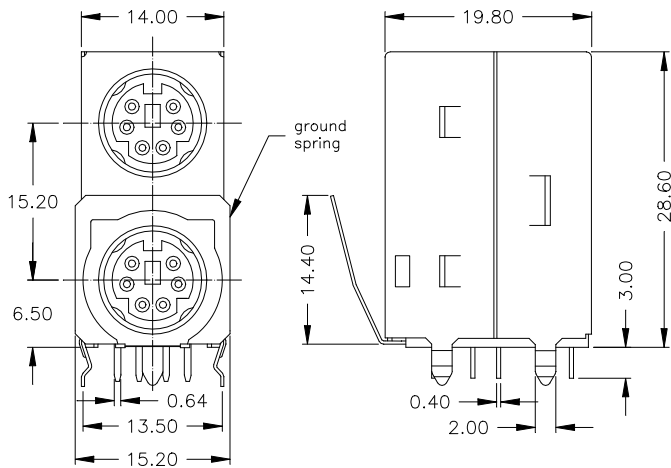
**MDJ - xxx - RKL X / 1 - 95**



# Mini DIN Connector - Dual Port Standard & "PC 99" Type

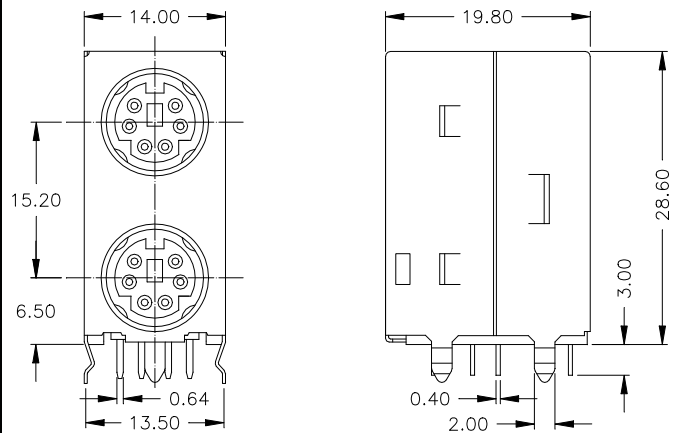


fully shielded, ground spring & side kink type



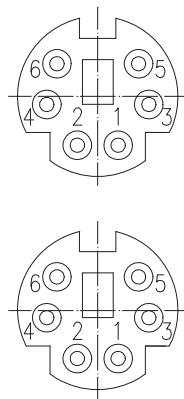
**MDJ - 606 - DS xx - 95**

fully shielded type



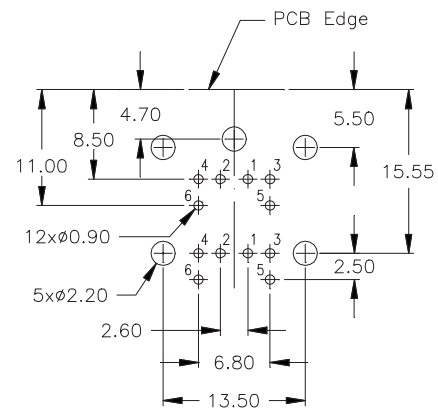
**MDJ - 606 - DK xx - 95**

front view



**2 x 6 pos.**

PCB through hole layout



**2 x 6 pin = 606**

## SPECIFICATIONS

Current rating	1 A max. at 100 V AC or 2 A max. at 12 V DC
Insulator resistance	100 MΩ min. at 250 V DC
Contact resistance	30 mΩ max.
Withstanding voltage	250 V AC for 1 min.

Contact material	(RoHS compliant) Phosphor bronze
Insulator material	(RoHS compliant) P.B.T. UL 94 V-0
Shield material	(RoHS compliant) Brass
Shield plating	tin (leadfree)
Insertion/extraction cycles	500 min.
Operating temperature	-40°C to +105°C

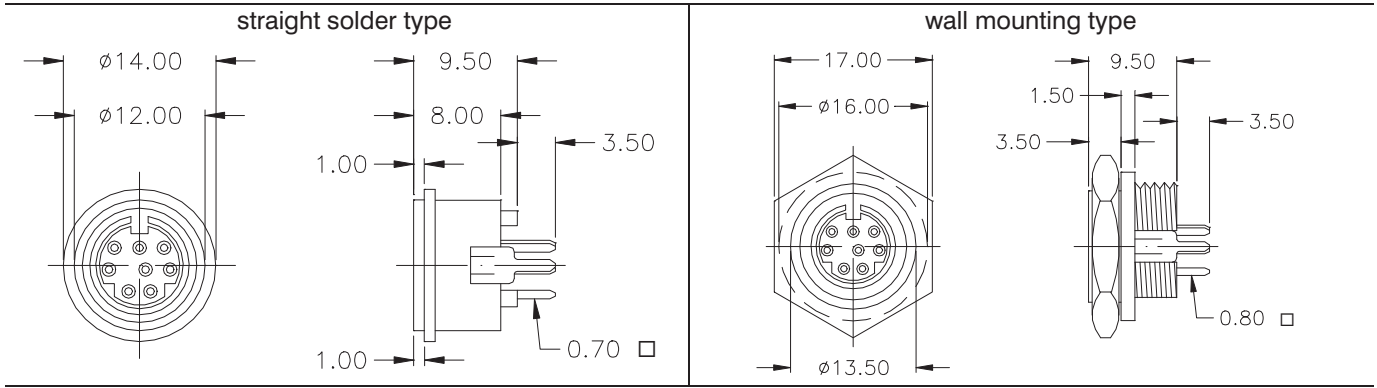
## Ordering Code

**MDJ - 606 - XX xx - 95**

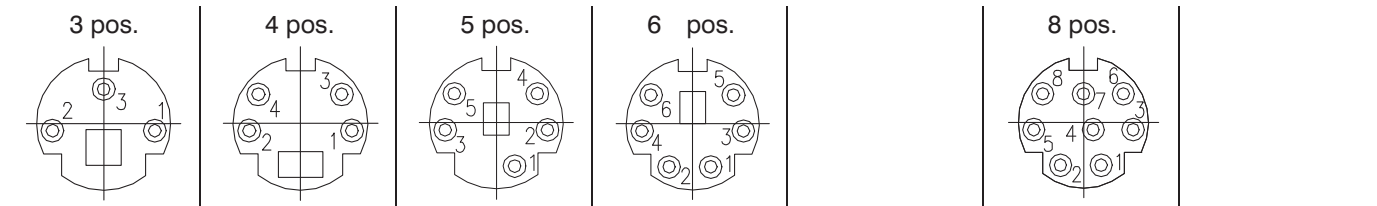
Contact Arrangement	Version	Housing Color	Plating
<b>6 top</b> <b>6 bottom</b>	<b>DS</b> = fully shielded, ground spring & side kink <b>DK</b> = fully shielded & side kink	<b>01</b> = black top / black bottom <b>02</b> = green top / purple bottom	tin/gold <i>(tin leadfree)</i>

# Mini DIN Connector

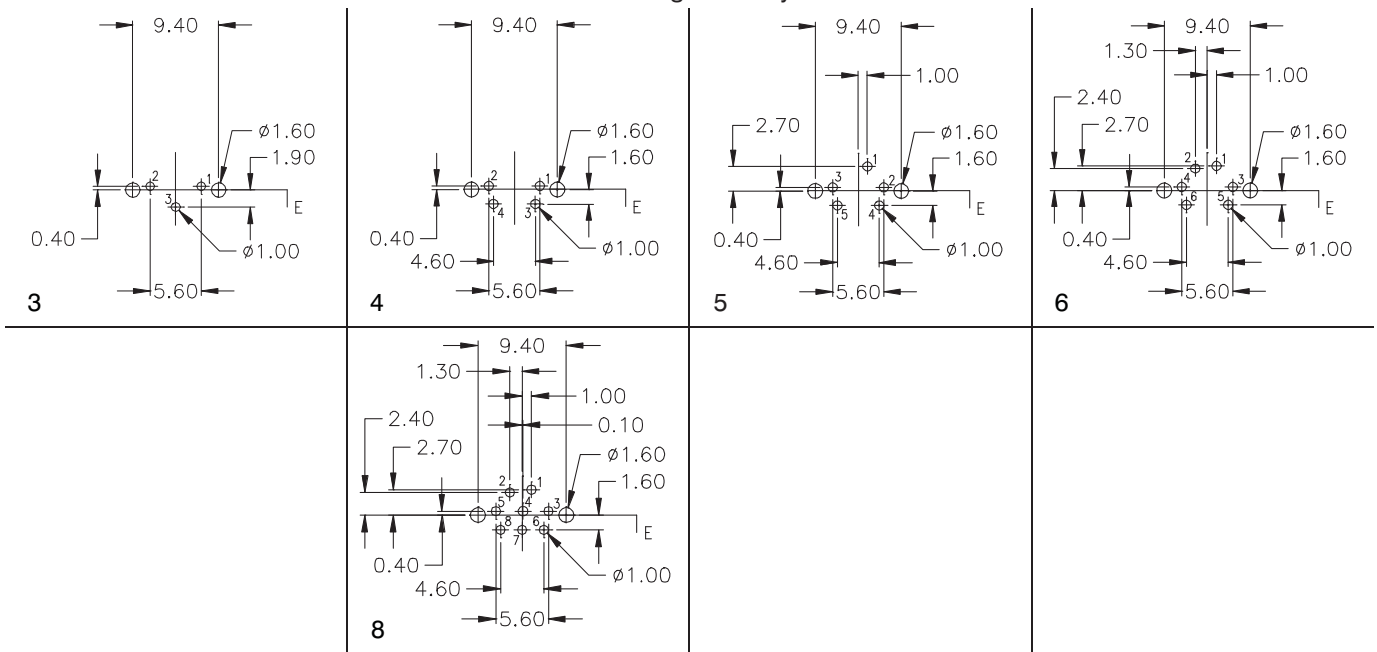
## straight & wall mounting type



### FRONT VIEWS



### PCB through hole layout

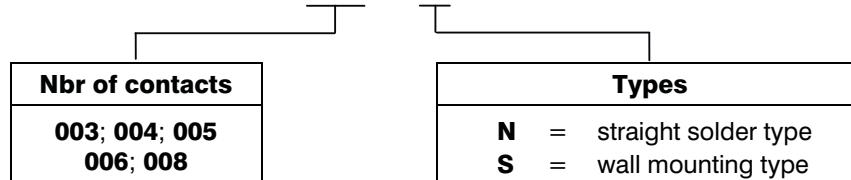


### SPECIFICATIONS

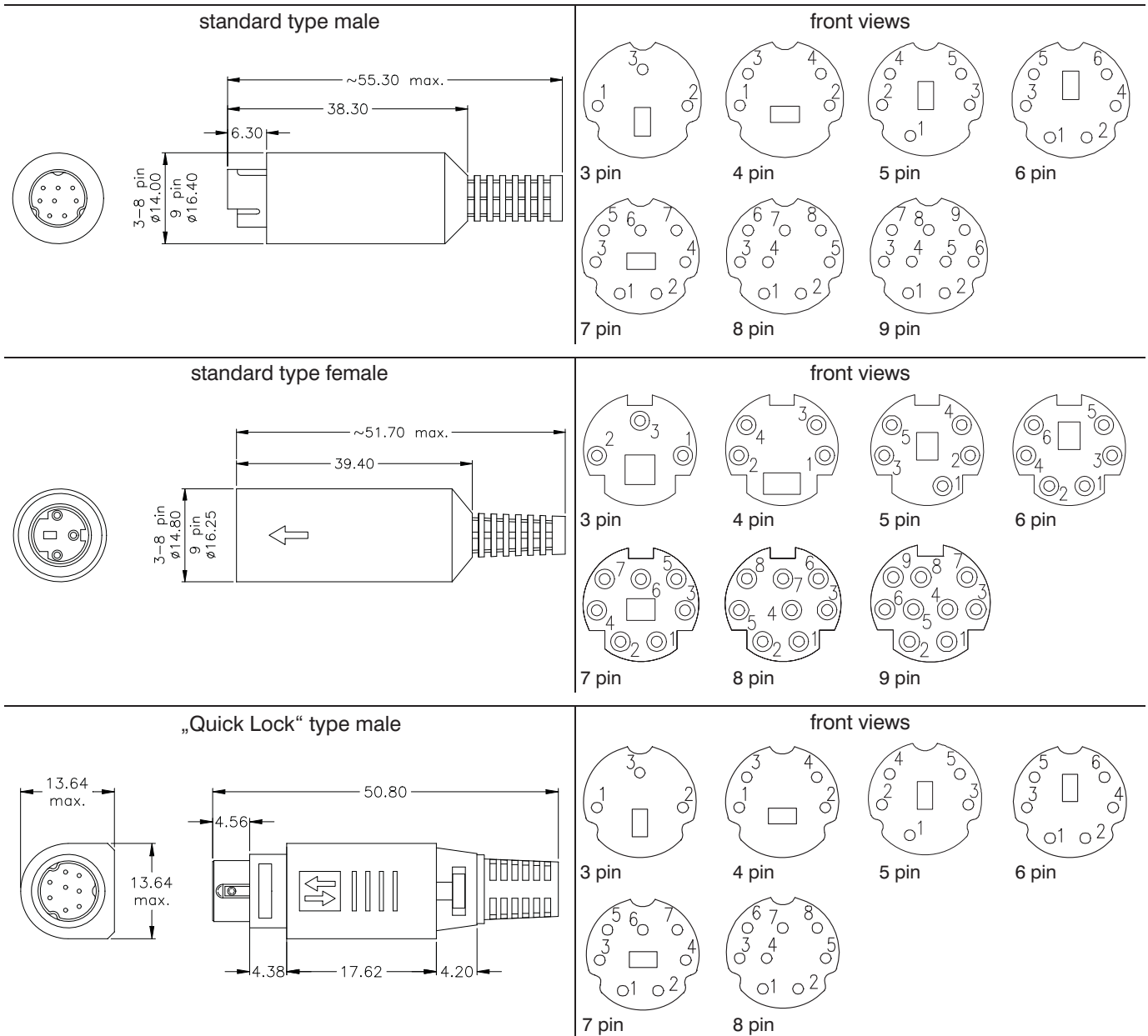
Current rating	1 A max. at 100 V AC or 2 A max. at 12 V DC	Contact material <i>(RoHS compliant)</i>	Phosphor bronze
Insulator resistance	50 MΩ min. at 250 V DC	Contact plating	Silver
Contact resistance	30 mΩ max.	Insulator material <i>(RoHS compliant)</i>	P.B.T. UL 94 V-0
Dielectric withstanding voltage	250 V AC for 1 min.	Insertion force	4.5kg max.
Operating temperature	-40°C to +105°C	Extraction force	0.8kg min.
		Insertion/extraction cycles	500 min.

### Ordering Code

**MDJ - xxx - S X 01 - AGZ**







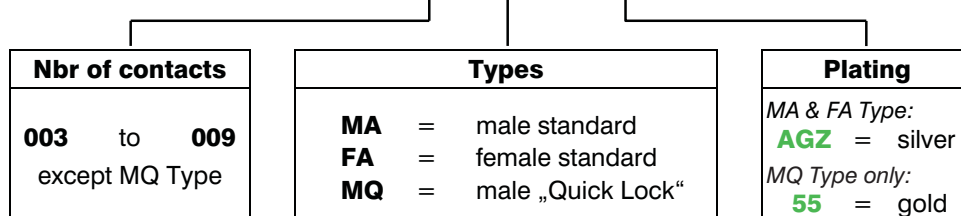
Any cable assembly available on request.  
 Connectors at both ends as well as cable length and quality as per your specification possible.  
 Please contact the nearest E-tec sales office or Distributor.

### SPECIFICATIONS

Current rating	1 A max. at 100 V AC or 2 A max. at 12 V DC	Withstanding voltage	250 V AC for 1 min.	Insulator material (RoHS compliant)	Nylon UL 94 V-0
Insulator resistance	50 MΩ min. at 250 V DC	Operating temperature	-55°C to +85°C	Insertion force	4.5kg max.
Contact resistance	30 mΩ max.	Contact material (RoHS compliant)	Brass	Extraction force	0.8kg min.
		Contact plating	Silver; MQ Type = Gold	Insertion/extraction cycles	500 min.

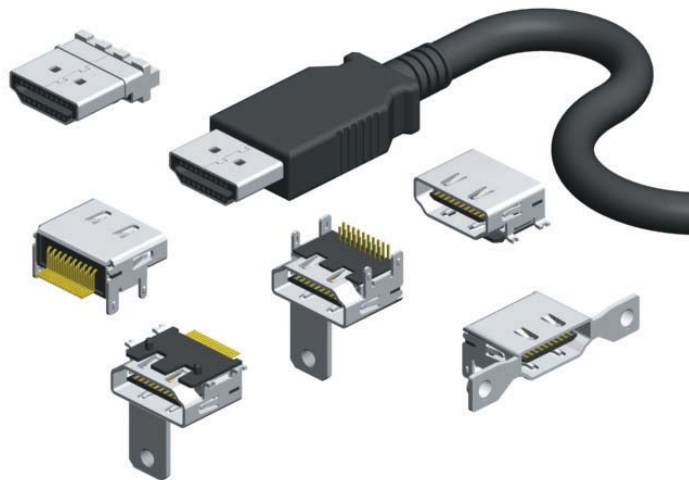
### Ordering Code

**MDP - xxx - XX 01 - xx**



# HDMI<sup>®</sup>

## High Definition Multimedia Interface

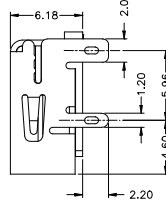
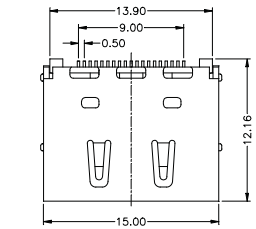


**HDMI** is an all-digital audio/video interface which was developed in mid 2003 capable of transmitting uncompressed streams. HDMI provides an interface between any compatible digital audio/video source, such as a set-top box, a DVD player, or an AV receiver and a compatible digital audio and/or video monitor, such as a digital television (DTV).

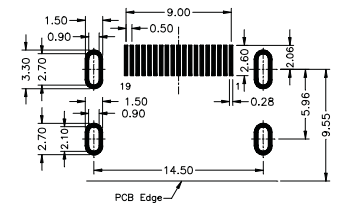
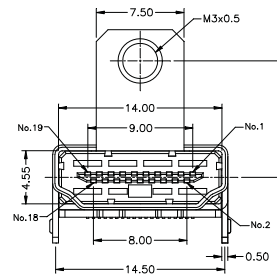
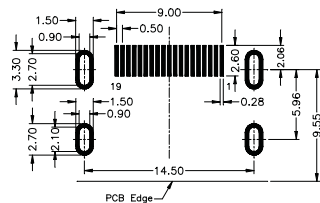
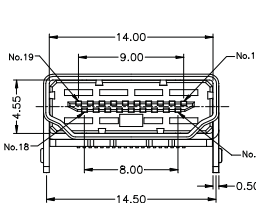
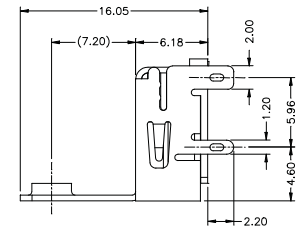
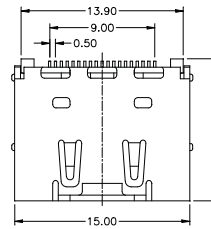
Since June 2006 the version 1.3 has been introduced and these HDMI standards specifically target the home entertainment sector.

SM-Type with "straight" solder pegs

without mounting flange - without locating pins



with top mounting flange - without locating pins



Specifications

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10,000 Cycles
<b>Material:</b>	
Contact	RoHS compliant Copper Alloy
Plating	Sn solderpegs / Au contact
Insulator	RoHS compliant Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

How to order

HMR - B19 - SS X 1 - 98 / X

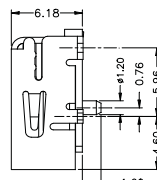
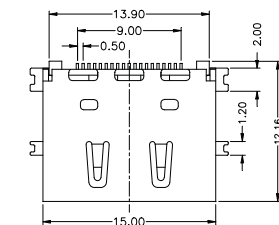
Style	
<b>K</b>	= without mounting flange
<b>L</b>	= with top mounting flange

Plating	
<b>95</b>	= Gold flash / Tin (leadfree)
<b>97</b>	= Gold 15μ" / Tin (leadfree)
<b>98</b>	= Gold 30μ" / Tin (leadfree)

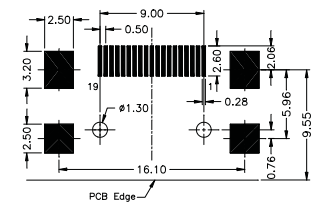
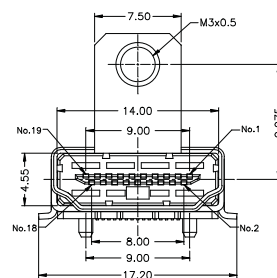
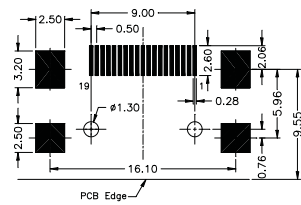
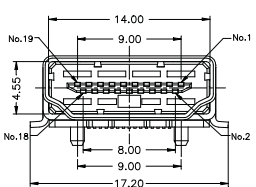
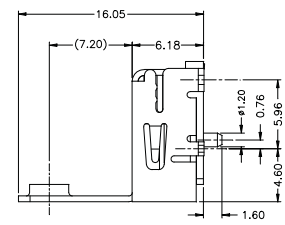
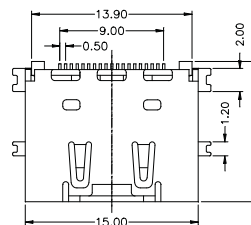
Option	
<b>R</b>	= reel packing w/o pick up tape
<b>BT</b>	= reel packing with pick up tape

SM-Type with "wing" solder pegs

without mounting flange - with locating pins



with top mounting flange - with locating pins



Specifications

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10,000 Cycles
<b>Material:</b>	
Contact	RoHS compliant Copper Alloy
Plating	Sn solderpegs / Au contact
Insulator	RoHS compliant Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

How to order

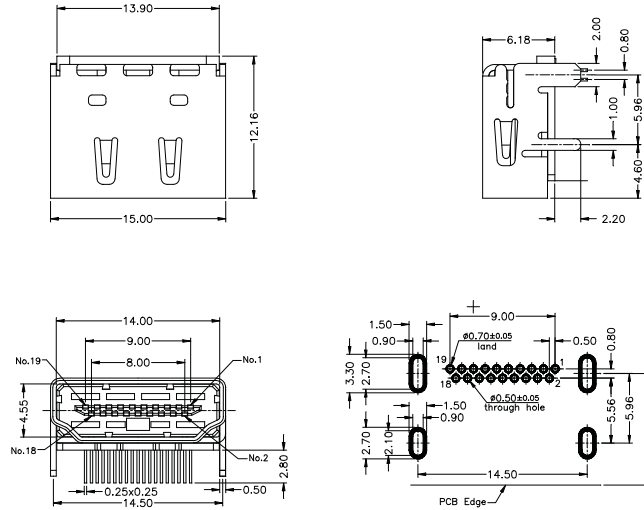
HMR - B19 - SW X 1 - 98 / X

Style	
<b>K</b>	= without mounting flange
<b>L</b>	= with top mounting flange

Plating	
<b>95</b>	= Gold flash / Tin (leadfree)
<b>97</b>	= Gold 15μ" / Tin (leadfree)
<b>98</b>	= Gold 30μ" / Tin (leadfree)

Option	
<b>R</b>	= reel packing w/o pick up tape
<b>BT</b>	= reel packing with pick up tape

**Soldertail Type with "straight" solder pegs - without mounting flange -**



**Specifications**

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10,000 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Plating	Sn solderpegs / Au contact
Insulator	Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn ( <i>leadfree</i> ) over Ni

**How to order**

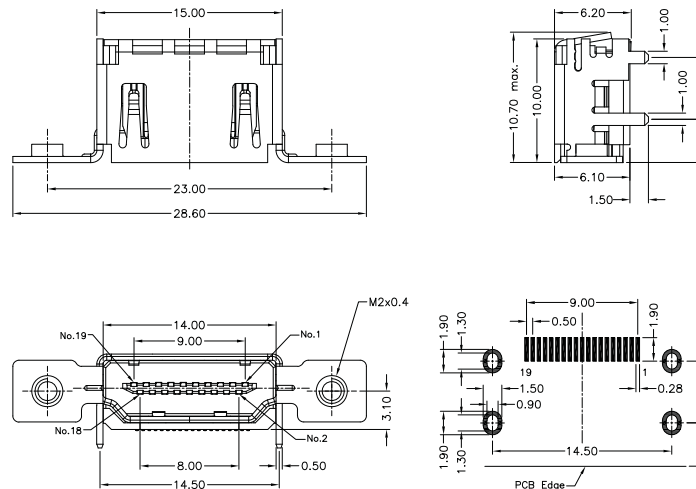
**HMR - B19 - RS X 1 - 98 / X**

Style
<b>K</b> = without mounting flange

Plating
<b>95</b> = Gold flash / Tin ( <i>leadfree</i> )
<b>97</b> = Gold 15μ" / Tin ( <i>leadfree</i> )
<b>98</b> = Gold 30μ" / Tin ( <i>leadfree</i> )

Option
<b>Blank</b> = tray packing ( <i>standard</i> )
<b>R</b> = reel packing w/o pick up tape
<b>BT</b> = reel packing with pick up tape
<i>NOTE: reel packing on request</i>

**SM-Type with "straight" solder pegs - with wing mounting flange -**



**Specifications**

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10,000 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Plating	Sn solderpegs / Aucontact
Insulator	Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn ( <i>leadfree</i> ) over Ni

**How to order**

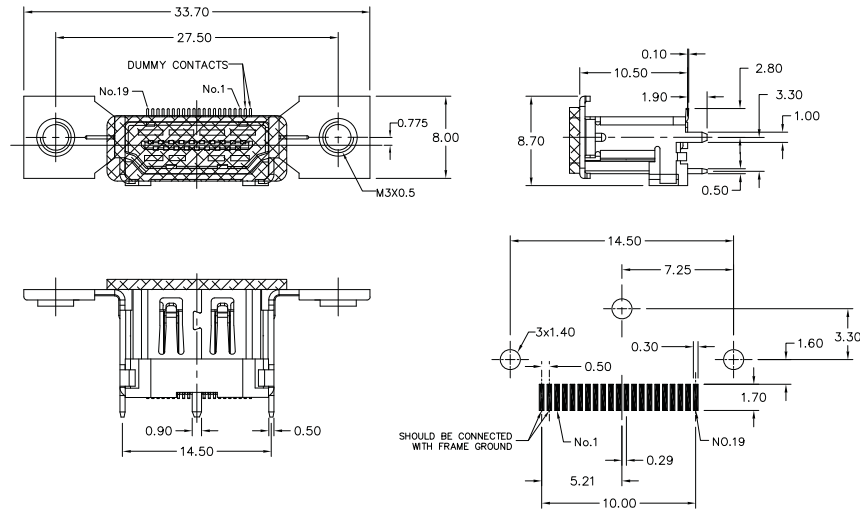
**HMR - B19 - SS X 1 - 98 / X**

Style
<b>M</b> = with wing mounting flange

Plating
<b>95</b> = Gold flash / Tin ( <i>leadfree</i> )
<b>97</b> = Gold 15μ" / Tin ( <i>leadfree</i> )
<b>98</b> = Gold 30μ" / Tin ( <i>leadfree</i> )

Option
<b>Blank</b> = tray packing ( <i>standard</i> )
<b>R</b> = reel packing w/o pick up tape
<b>BT</b> = reel packing with pick up tape
<i>NOTE: reel packing on request</i>

**-SMT- Top Entry Type with "Wing" mounting flange  
and additional 2 Dummy Contacts**



**Specifications**

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10.000 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Plating	Sn solderpegs / Au contact
Insulator	Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

**How to order**

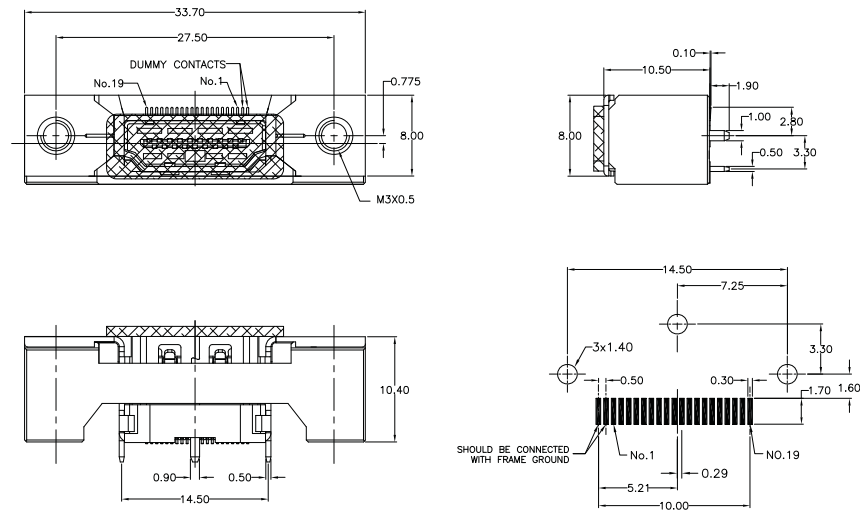
**HMR - B19/2 - US M 1 - 98 / X**

<b>Style</b>
<b>M</b> = with wing mounting flange

<b>Plating</b>
<b>95</b> = Gold flash / Tin (leadfree)
<b>97</b> = Gold 15μ" / Tin (leadfree)
<b>98</b> = Gold 30μ" / Tin (leadfree)

<b>Option</b>
<b>R</b> = reel packing w/o pick up tape
<b>BT</b> = reel packing with pick up tape

**-SMT- Top Entry Type with "L-Wing" mounting flange  
and additional 2 Dummy Contacts**



**Specifications**

<b>Electrical:</b>	
Current rating	0.5 A
Insulator resistance	100 M Ω min. at 150V DC
Contact resistance	30 m Ω max.
Withstanding voltage	500V (rms) AC 1 Min.
Operating temperature	-25° C to +85° C
<b>Mechanical:</b>	
Insertion force	44.1 N max.
Withdrawal force	9.8 N min. / 39.2 N max.
Durability	10.000 Cycles
<b>Material:</b>	
Contact	Copper Alloy
Plating	Sn solderpegs / Au contact
Insulator	Hi temp Thermoplastic black UL 94V-0
Shell	Steel; Sn (leadfree) over Ni

**How to order**

**HMR - B19/2 - US W 1 - 98 / X**

<b>Style</b>
<b>W</b> = with "L" wing mounting flange

<b>Plating</b>
<b>95</b> = Gold flash / Tin (leadfree)
<b>97</b> = Gold 15μ" / Tin (leadfree)
<b>98</b> = Gold 30μ" / Tin (leadfree)

<b>Option</b>
<b>R</b> = reel packing w/o pick up tape
<b>BT</b> = reel packing with pick up tape



# Other products from E-tec

Please contact your closest sales office for further information.



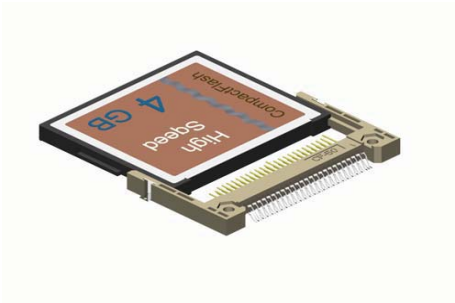
Insertion-Extraction Tools



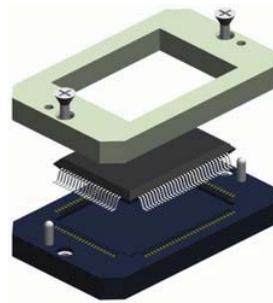
DIMM Sockets



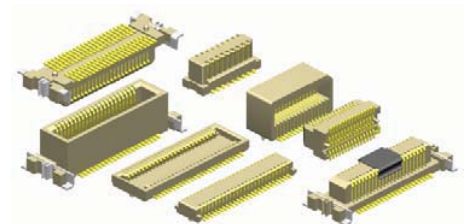
DIP Switch



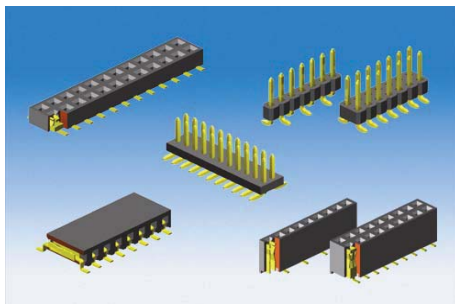
Compact Flash Connector



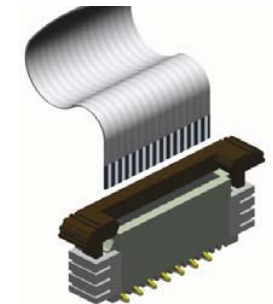
Gullwing Chip Sockets



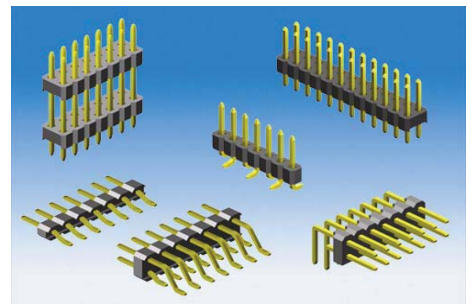
Fine Pitch Board to Board Connectors



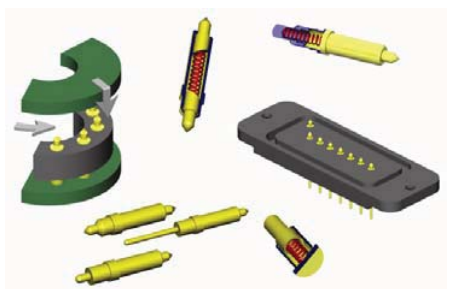
SMT Board to Board Connectors



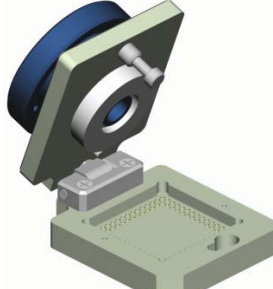
Flex Cable Connectors



Pin Header



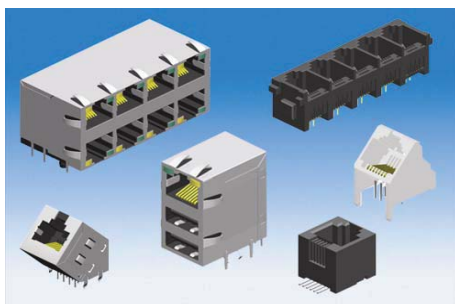
Probe Pin & Probe Pin Connectors



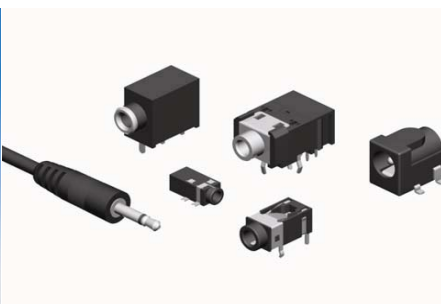
Ball / Land Grid Array Sockets



Multi Media Card Connectors



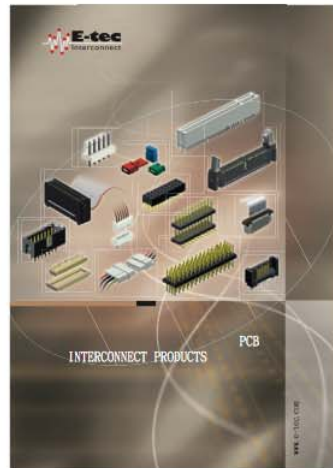
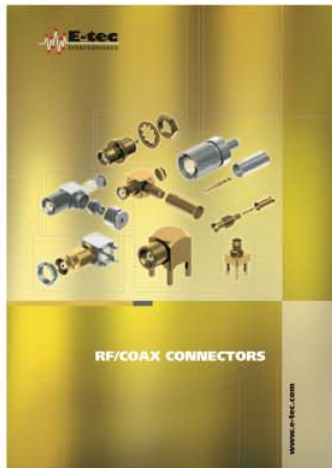
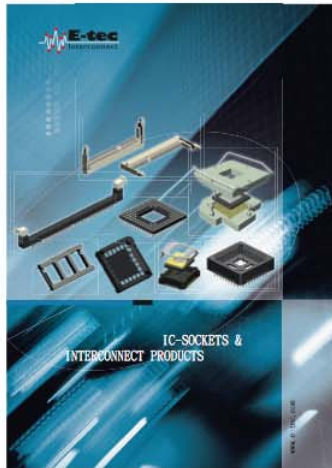
Modular Plugs & Jacks



Phono - & DC - Power Connectors



RF - Connectors



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 www.e-tec.co.uk

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