

# MS-M



## High performance hyfen rectangular cable connectors

### Description

MSM rectangular connectors offers an extremely reliable, rugged, and versatile connection system . They are a range of multiway connectors available in 9 sizes from 9 to 75 positions. MS-M cable connectors can be offered with a full range of hardware and accessories. Guiding pins and sockets, turnable jackscrews, a variety of cable hoods, pin protection shrouds and discrimination pins make this connector range a truly versatile system.



### Features and benefits

- Connectors supplied pre-assembled except for panel mount versions.
- Available in 14-20-26-34-42-50-75 and 104 positions.
- **34 contact positions suitable for V.35 applications (see V.35 section)**
- Full range of accessories available including hoods, strain relief clamps, guide pins, jackscrews and pin protection shrouds.
- MS-M hyfen complies with NFC 93426 - HE 621-622 and MIL-C-28748 specifications.
- UL recognized File Nr.: E238675

### Performance characteristics

Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.
Vibration resistance:	Per MIL-STD 202 method 204
Shock:	Per MIL-C-STD 202 method 207

### Construction

Connector Material :	Glass filled Phenolic
Flammability rating :	UL94-V0
Hoods:	Aluminium alloy gold chromate or anodized Polyamide 6.6 - black - UL94-V2
Cable clamps:	Stainless steel
Polarizing hardware:	Brass nickel plated
Shrouds:	Aluminium alloy gold chromate or anodized

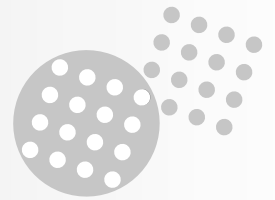
### Contact accommodation

- "MS-M" Hyfen connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

### How to order

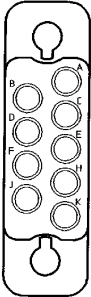
<b>Connector family</b>	<b>MS</b>	<b>34</b>	<b>P</b>	<b>M</b>	<b>124</b>	<b>S</b>	<b>GE</b>	<b>16</b>
	<b>MS</b>	<b>34</b>	<b>P</b>	<b>M</b>	<b>120</b>	<b>S-</b>	<b>--</b>	<b>--</b>
<b>Contact arrangement</b>								
<b>Type of housing:</b>	<b>P:</b> plug body for male contacts <b>R:</b> Receptacle housing for female contacts							
<b>N° 16 contact</b>								
<b>Design variation</b>								
<b>Pin protection shroud</b>								
<b>GE</b>	= plastic turnable jackscrews							
<b>Code for special variations</b>								

# MS-M

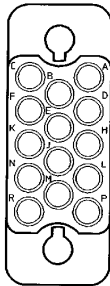


## Contact arrangement

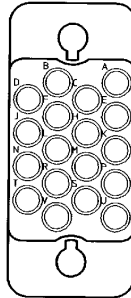
9 POS.



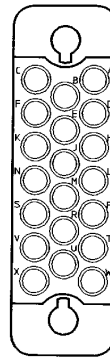
14 POS.



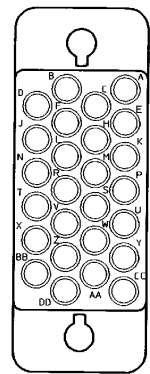
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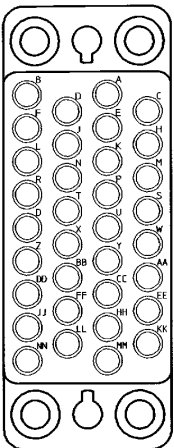
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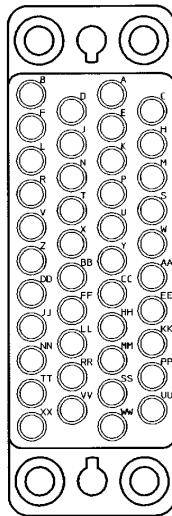
26 POS.



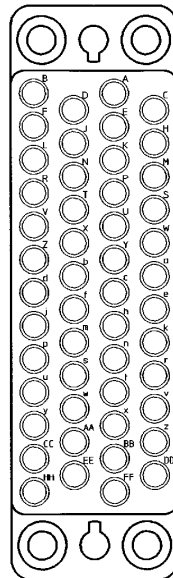
34 POS.



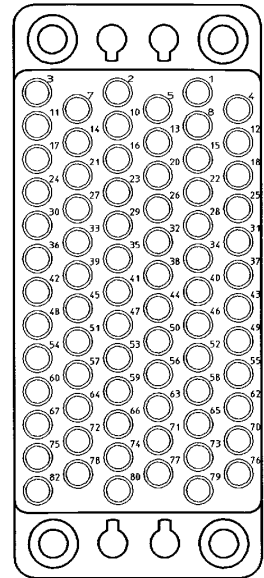
42 POS.



50 POS.



75 POS.



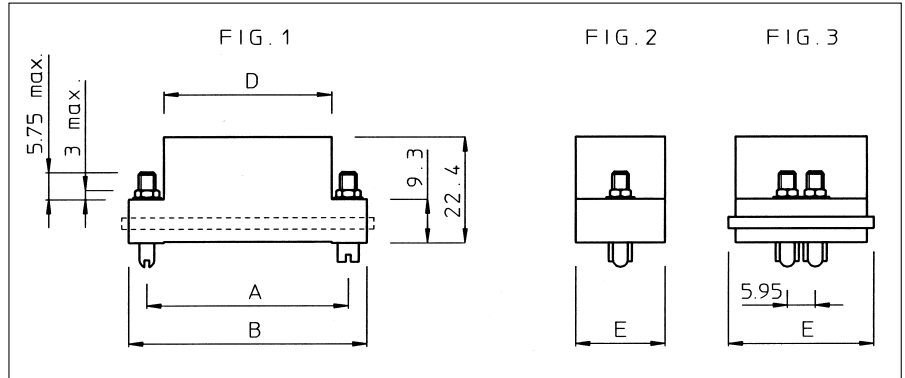
The contact position identification letters or numbers shown in the above diagrams apply to MS-M plug and receptacle connectors. Dimensionally, corresponding types of plug and receptacle mouldings are the same and differ only in that the contact position lettering/numbering of the plug (MS-PM) is a mirror image of that of the receptacle (MS-RM). Note that pins and/or sockets can be used in either the plug or receptacle moulding.

Note: Contact identification is shown for wiring face of the receptacle and mating face at plug connector.

# MS-M



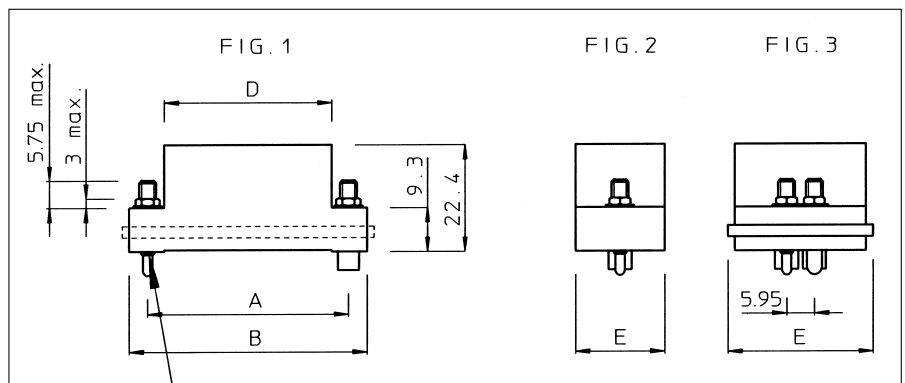
## Panel mount connectors with guiding hardware (MS--M1GE00)



Connector size	Part number		A	B	D	E	Fig.
	Plug version for male contacts	Receptacle version for female contacts					
9	MS9PM1GE00	MS9RM1GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM1(*)GE00	MS14RM1(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM1GE00	MS18RM1GE00	25.4	33.3	20.5	14.2	
20	MS20PM1(*)GE00	MS20RM1(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM1(*)GE00	MS26RM1(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM1(*)GE00	MS34RM1(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM1(*)GE00	MS42RM1(*)GE00	50.55	58.65	42.95	18.95	
50	MS50PM1(*)GE00	MS50RM1(*)GE00	57.95	65.85	50.85	18.95	1-3
75	MS75PM1(*)GE00	MS75RM1(*)GE00				28.1	

(\*) Complete part number with "S" for connector with protective shroud.

## Panel mount connectors with fixed jackscrew hardware (MS--M58GE00)



Connector size	Part number		A	B	D	E	Fig.
	Plug version for male contacts	Receptacle version for female contacts					
9	MS9PM58GE00	MS9RM58GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM58(*)GE00	MS14RM58(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM58GE00	MS18RM58GE00	25.4	33.3	20.5	14.2	
20	MS20PM58(*)GE00	MS20RM58(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM58(*)GE00	MS26RM58(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM58(*)GE00	MS34RM58(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM58(*)GE00	MS42RM58(*)GE00	50.55	58.65	42.95	18.95	
50	MS50PM58(*)GE00	MS50RM58(*)GE00	57.95	65.85	50.85	18.95	1-3
75	MS75PM58(*)GE00	MS75RM58(*)GE00				28.1	

(\*) Complete part number with "S" for connector with protective shroud.

# MS-M



## MS34 Cable connector with 1 piece metal suitcase hood (MS34--MEHM)



Part number		Description
Plug version for male contacts	Receptacle version for female contacts	
<b>MS34PMEHM</b>	<b>MS34RMEHM</b>	Anodised hood, plastic strain relief and turnable hardware.
<b>MS34PMSEHM</b>	<b>MS34RMSEHM</b>	Shielded version with nickel plated hood, metal strain relief and turnable hardware
<b>MS34PMEHMMET1</b>	<b>MS34RMEHMMET1</b>	Version with spring loaded jackscrews

(\*) Complete part number with "S" for connector with protective shroud.

## Cable connector with Alu die cast hood (MS-M157GE00)



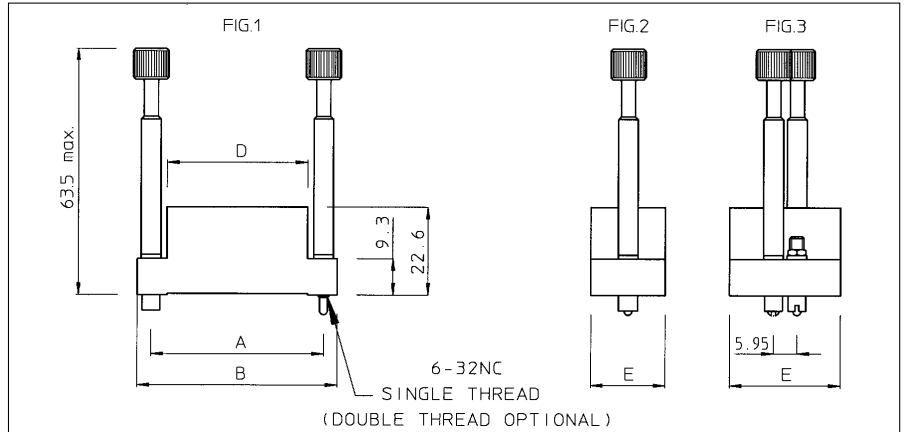
Connector size	Part number		A	B	C	D	E max.	F	Fig.
	Plug version for male contacts	Receptacle version for female contacts							
<b>50</b>	<b>MS50PM157GE00</b>	<b>MS50RM157GE00</b>	57.95	65.85	73.0	56.0	20.0	22.2	1-2
<b>75</b>	<b>MS75PM157GE00</b>	<b>MS75RM157GE00</b>	57.95	65.85	73.0	56.0	25.0	31.2	1-3

(\*) Complete part number with "S" for connector with protective shroud.

# MS-M



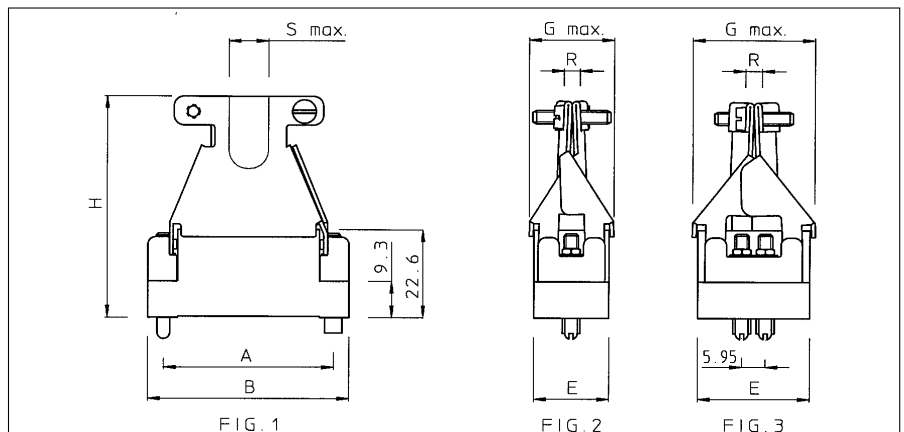
## Cable connector without strain relief and turnable jackscrew hardware (MS-M007GE00)



Connector size	Plug version for male contacts	Receptacle version for female contacts	A	B	D	E	Fig.
9	MS9PM007GE00	MS9RM007GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM007(*)GE00	MS14RM007(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM007GE00	MS18RM007GE00	25.4	33.3	20.5	14.2	
20	MS20PM007(*)GE00	MS20RM007(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM007(*)GE00	MS26RM007(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM007(*)GE00	MS34RM007(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM007(*)GE00	MS42RM007(*)GE00	50.55	58.65	42.95	28.1	
50	MS50PM007(*)GE00	MS50RM007(*)GE00	57.95	65.85	50.85		1-3
75	MS75PM007(*)GE00	MS75RM007(*)GE00					

(\*) Complete part number with "S" for connector with protective shroud.

## Cable connector with metal butterfly hood and guiding hardware (MS-M120GE00)



Connector size	Part number		A	B	E	G max.	H	S max.	R max.	Fig.
	Plug version for male contacts	Receptacle version for female contacts								
34	MS34PM120(*)GE00	MS34RM120(*)GE00	42.8	50.8	19.05	22.2	56.7	10	13	1-2

(\*) Complete part number with "S" for connector with protective shroud.

# MSO



## Rectangular boardmount connectors to mate with MSM cable connectors

### Description

The MSO series, derived from the MSM series, is for straight or right-angled application on a printed circuit board. Pre-assembled MSO connectors with pin or socket N(16 contacts are intermateable with the existing MSM rectangular cable connectors.

The N° 16 TRIM TRIO .0625" (1.6mm) diameter contacts are available in either solid machined or stamped and formed versions.

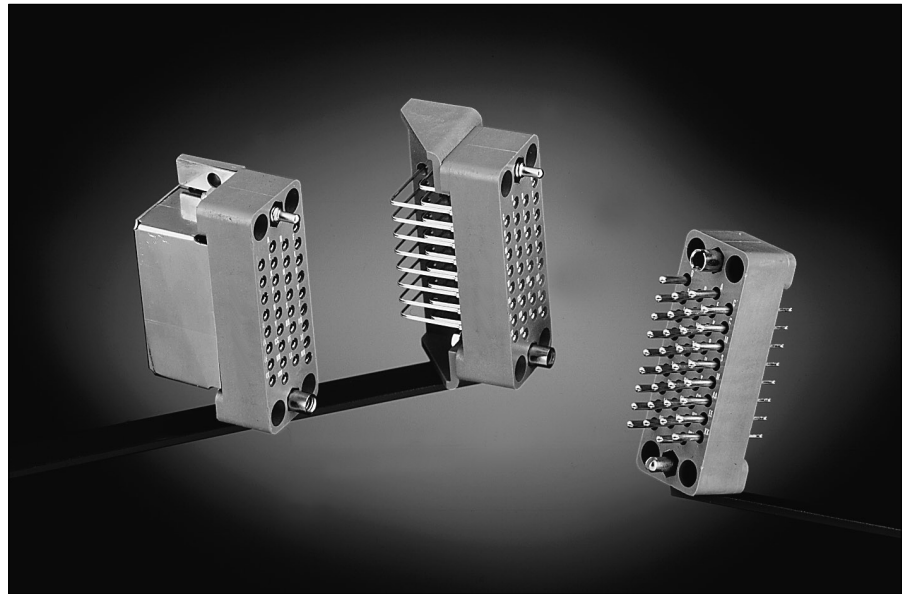
The polarizing hardware can be delivered in either guiding or jackscrew versions.

### Features and benefits

- Connectors supplied pre-assembled with dip solder contacts.
- Contacts available in solid machined or stamped and formed version.
- Available in 9-18-34-50-75 positions.
- For right-angled versions, there is a choice of 9-18 and 34 contact positions.
- 34 contact positions suitable for V.35 applications (see section V.35)
- Polarising hardware prevent mismatching.
- UL94-V0 rated thermoplast.

### Performance characteristics

Operating temperature:	-55°C to +125°C
Current rating:	5 Amp for stamped contacts 7.5 Amp for machined contacts
Contact resistance:	≤ 3 mΩ
Insulation resistance:	5000 M min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.



### Construction

Connector Material : Glass filled polysulfone  
 Flammability rating : UL94-V0  
 Polarizing hardware: Brass nickel plated  
 Contacts: High conductive copper alloy

### Plating table

Plating for solid machined contacts:  
 No digit (std) = Min. 0.4 μ Gold all over, over Nickel.  
 T = 3 - 5μ Tin all over  
 Plating for Stamped and formed contacts :  
 K9 (std) = Min. 0.4μ Gold in contact area, 3 - 5μ SnPb on solder tail.  
 T = 3 - 5μ Tin all over

### Intermateability

- "MSO" with pre-assembled contacts are intermateable with the "MSM" rectangular cable connectors equipped with TRIM TRIO crimp-type removable snap-lock contacts.

## How to order

<b>Connector family</b>	<b>MSO</b>	<b>34</b>	<b>M</b>	<b>R</b>	<b>G</b>	<b>58</b>	<b>SE1</b>	<b>K9</b>
<b>Contact arrangement</b>								
<b>N° 16 contacts</b>								
<b>Type of housing</b>	<b>P:</b> Plug body with male contacts <b>R:</b> Receptacle body with female contacts							
<b>Contact termination</b>	<b>K:</b> straight dipsolder <b>G:</b> Right angle dipsolder							
<b>Type of hardware</b>	<b>1:</b> Guide pin and socket <b>58:</b> Threaded jackscrew pin and socket							
<b>Design variation</b>	<b>E1:</b> Solid machined contacts <b>SE1:</b> stamped and formed contacts							
<b>Plating indication</b>								

# MSO



## Straight boardmount with guiding hardware (MSO--M-K1--)



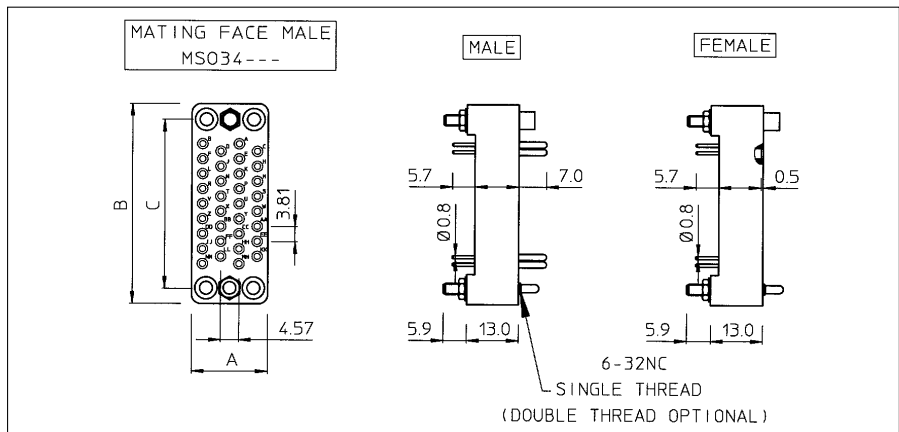
connector size	Part number				A	B	C
	Version with solid machined contacts		Version with stamped and formed contacts				
	male	female	male	female			
9	MSO9MPK1E1	MSO9MRK1E1	MSO9MPK1SE1K9	MSO9MRK1SE1K9	9.5	33.3	25.4
18	MSO18MPK1E1	MSO18MRK1E1	MSO18MPK1SE1K9	MSO18MRK1SE1K9	15.2		
34	MSO34MPK1E1	MSO34MRK1E1	MSO34MPK1SE1K9	MSO34MRK1SE1K9	19.0	50.8	42.8
50	MSO50MPK1E1	MSO50MRK1E1	MSO50MPK1SE1K9	MSO50MRK1SE1K9	18.9	65.8	57.9
75	MSO75MPK1E1	MSO75MRK1E1	MSO75MPK1SE1K9	MSO75MRK1SE1K9	19.4		

For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request

## Straight boardmount with jackscrew hardware (MSO--M-K58--)

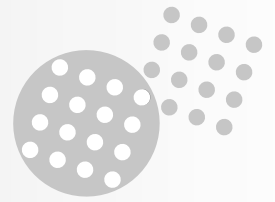


connector size	Part number				A	B	C
	Version with solid machined contacts		Version with stamped and formed contacts				
	male	female	male	female			
9	MSO9MPK58E1	MSO9MRK58E1	MSO9MPK58SE1K9	MSO9MRK58SE1K9	9.5	33.3	25.4
18	MSO18MPK58E1	MSO18MRK58E1	MSO18MPK58SE1K9	MSO18MRK58SE1K9	15.2		
34	MSO34MPK58E1	MSO34MRK58E1	MSO34MPK58SE1K9	MSO34MRK58SE1K9	19.0	50.8	42.8
50	MSO50MPK58E1	MSO50MRK58E1	MSO50MPK58SE1K9	MSO50MRK58SE1K9	18.9	65.8	57.9
75	MSO75MPK58E1	MSO75MRK58E1	MSO75MPK58SE1K9	MSO75MRK58SE1K9	19.4		

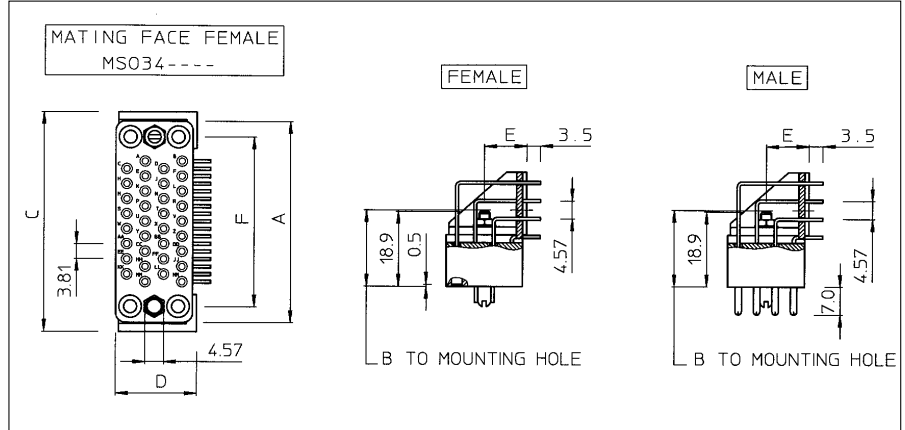
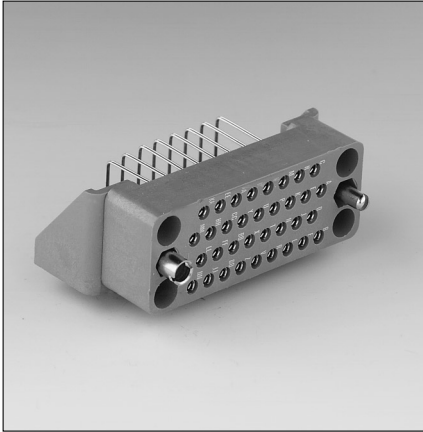
For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request



## Right angle boardmount with guiding hardware (MSO--M-G1--)



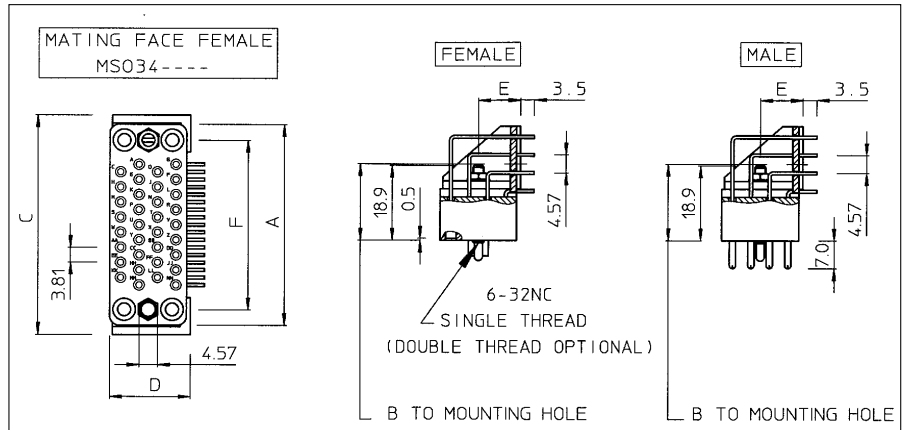
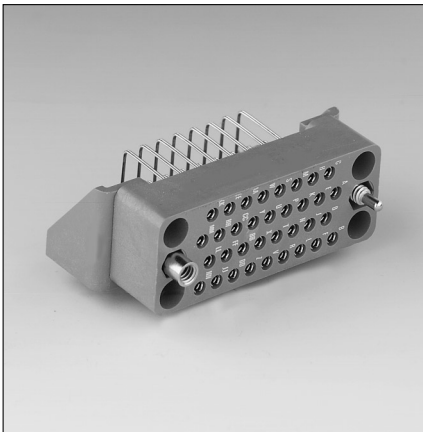
connector size	Part number				A	B	C	D	E	F
	Version with solid machined contacts		Version with stamped and formed contacts							
	male	female	male	female						
9	MSO9MPG1E1	MSO9MRG1E1			33.3	23.0	38.0	16.0	10.0	25.4
18	MSO18MPG1E1	MSO18MRG1E1						18.0		
34	MSO34MPG1E1	MSO34MRG1E1	MSO34MPG1SE1K9	MSO34MRG1SE1K9	50.8	19.3	55.5	20.5	10.5	42.8

For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request

## Right angle boardmount with jackscrew hardware (MSO--M-G58--)



connector size	Part number				A	B	C	D	E	F
	Version with solid machined contacts		Version with stamped and formed contacts							
	male	female	male	female						
9	MSO9MPG58E1	MSO9MRG58E1			33.3	23.0	38.0	16.0	10.0	25.4
18	MSO18MPG58E1	MSO18MRG58E1						18.0		
34	MSO34MPG58E1	MSO34MRG58E1	MSO34MPG58SE1K9	MSO34MRG58SE1K9	50.8	19.3	55.5	20.5	10.5	42.8

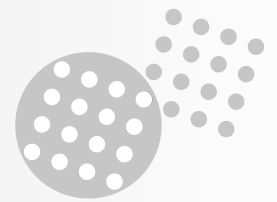
For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request

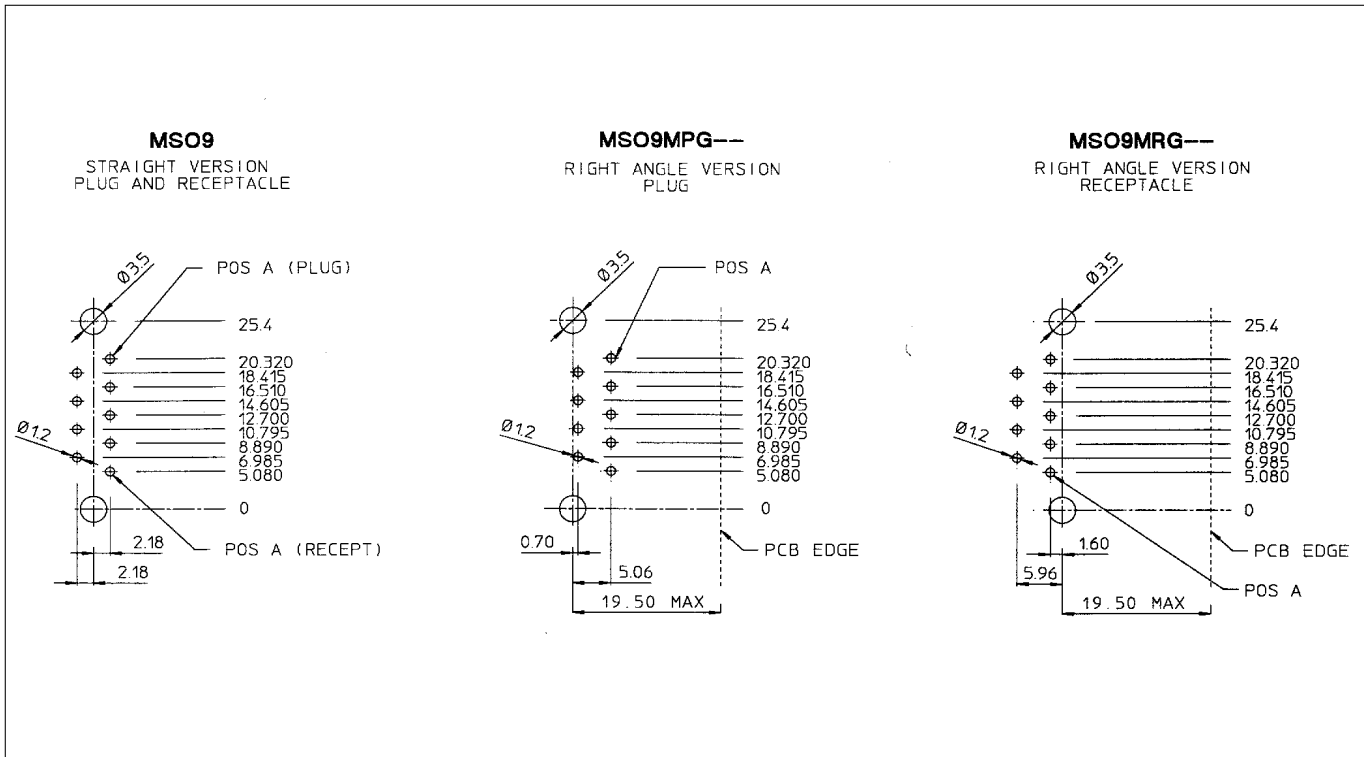


# MSO

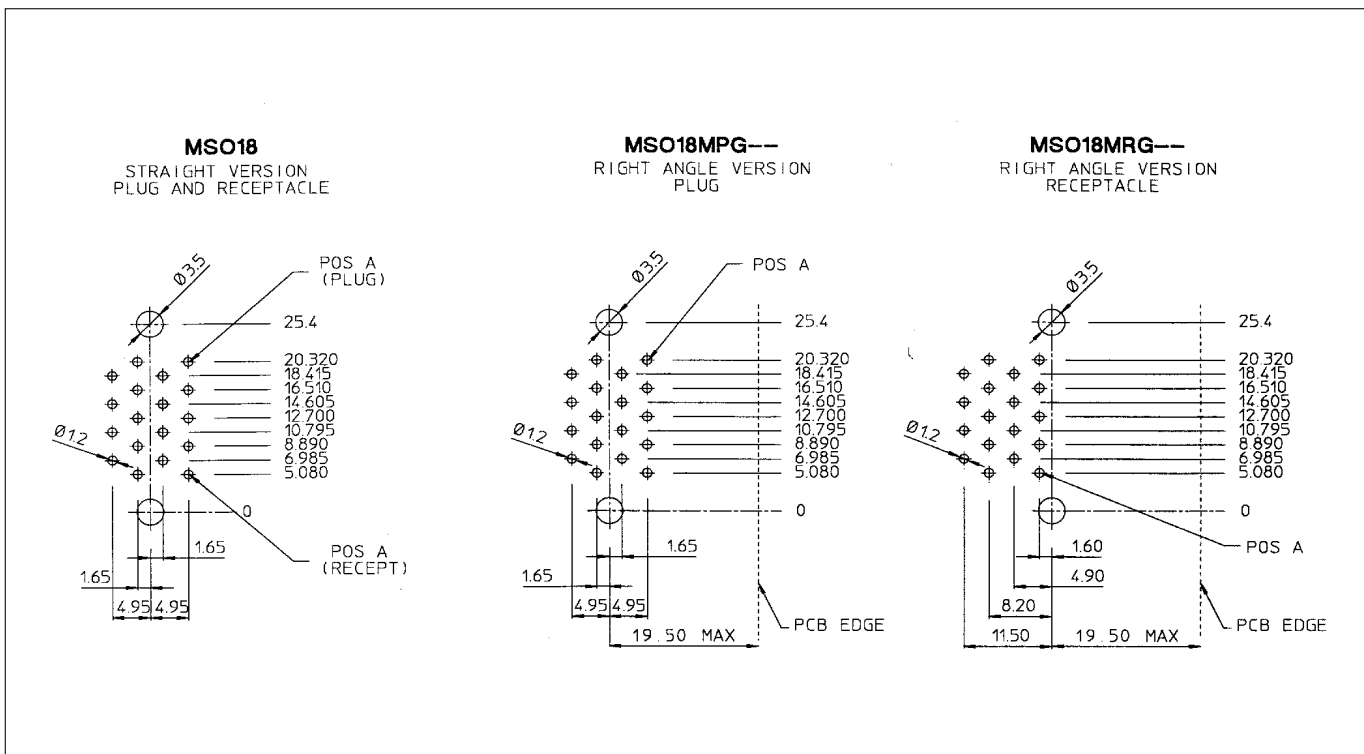


## MSO recommended drilling hole pattern

### Size 9



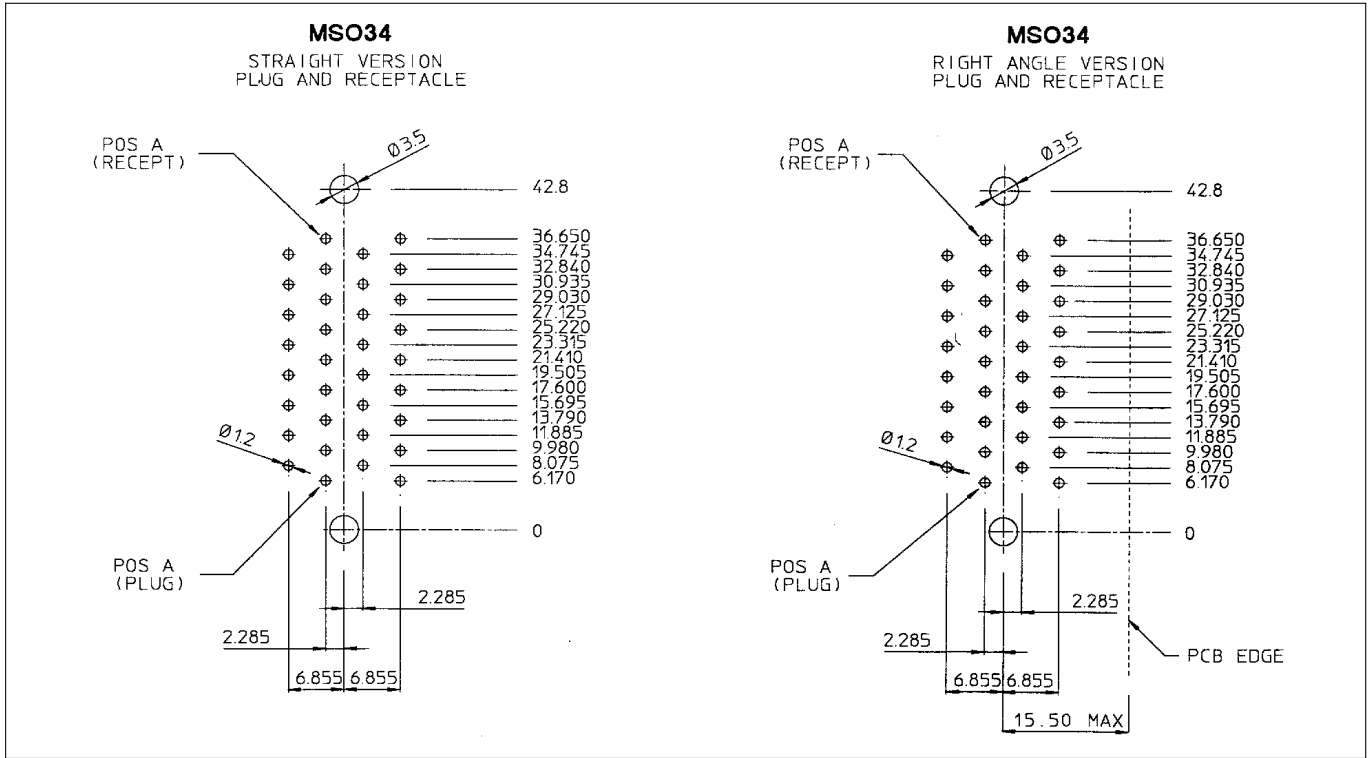
### Size 18





## MSO recommended drilling hole pattern

### Size 34



### Size 50



### Size 75

