



## Quick mating panel and cable connectors

### Description

The versatile “SMS” Quick mating panel and cable connectors are a highly cost-effective system approach to solving the constant demand for more cost effective interconnection techniques.

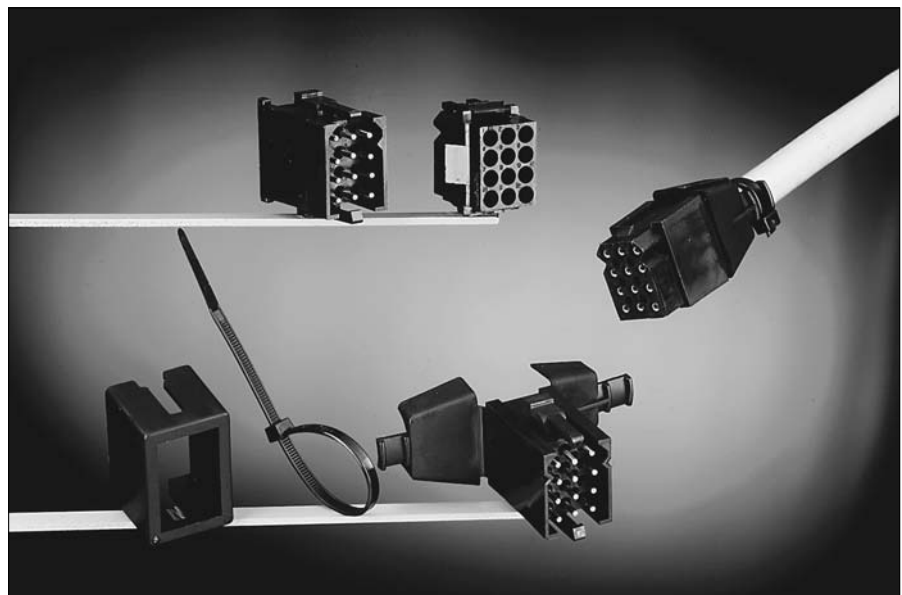
It is a range of multiway connectors using N° 16 TRIM TRIO .0625” (1.6mm) diameter contacts and available in 10 contact arrangements from 2 to 36 positions. Having no additional hardware, Panel receptacle connectors snap and lock into panel cutouts and cable plugs quick connect and disconnect with positive retention locks.

Cable plug connectors also feature pin-protection skirts, positive polarisation and can be supplied with or without integrated strain relief hoods.

Cable receptacle connectors (only with integrated strain relief hoods) are developed to mate with cable plug connectors thus offering solutions for cable to cable applications.

### Features and benefits

- Available in 10 contact arrangements.
- Self mountable panel receptacle with positive housing retention.
- Cable plugs with retaining latches for positive locking.
- Cable plug has pin protection skirt to prevent damage of male contacts
- Positive polarization keys prevent mismatching.
- Cable plug and receptacle have integrated strain relief hood which can take a wide range of cables.
- Cable plug and receptacle have discrimination cavities in between contact cavities, thus offering discrimination without contact loss.
- UL recognized File Nr.: E238675



### Performance characteristics

Operating temperature:	-55°C to +105°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.

### Construction

Material :	Polyamide 6.6
Flammability rating :	UL94-V2

### Contact accommodation

- “SMS” Quick mating connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

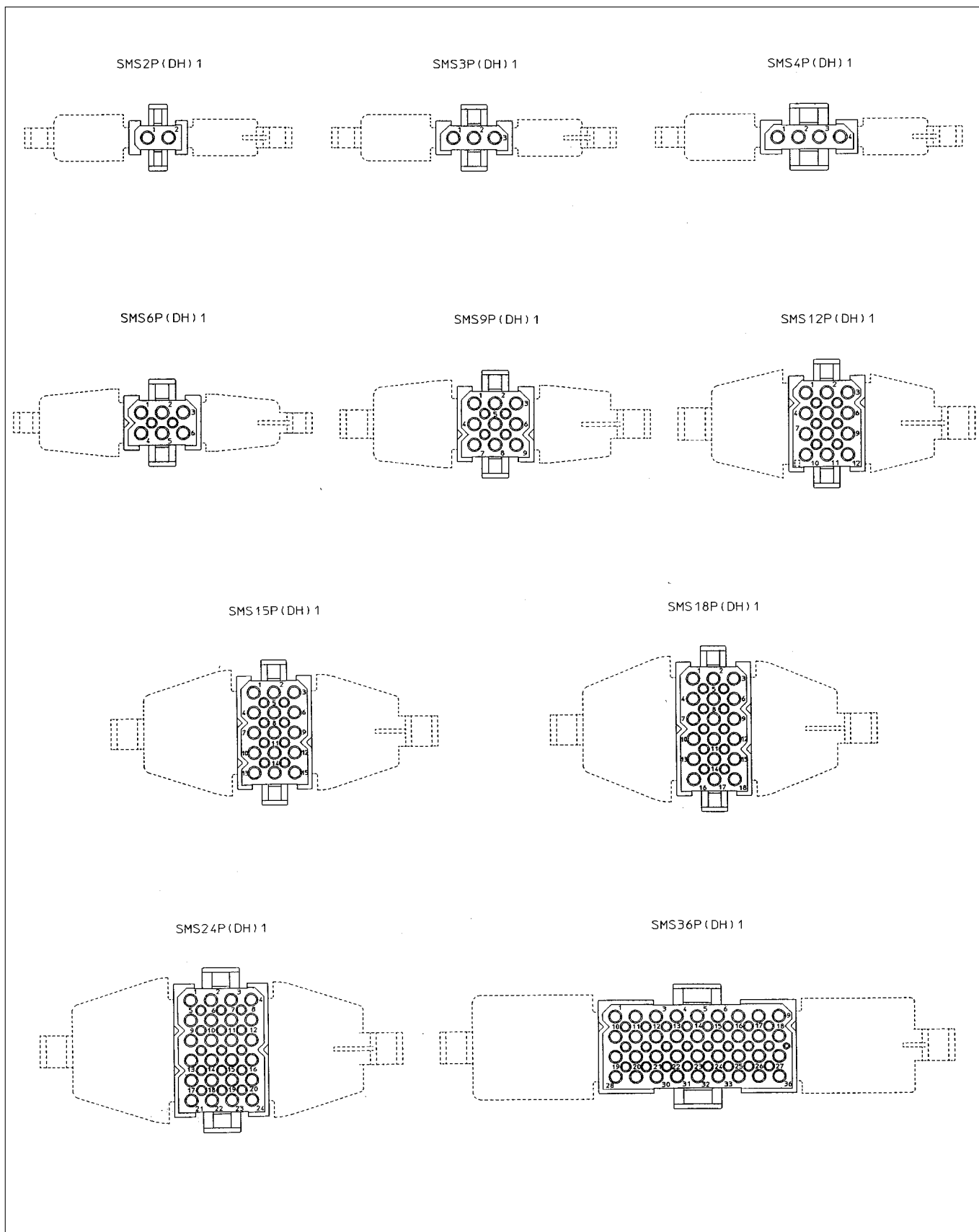
## How to order

<b>Connector family</b>	<b>SMS</b> <b>SMS</b>	<b>12</b> <b>12</b>	<b>PDH1</b> <b>P1</b>
<b>Contact arrangement</b>			
<b>Body variation:</b>	<b>R1:</b> Panel mount receptacle <b>P1:</b> Cable plug without strain relief hood <b>PDH1:</b> Cable plug with integrated strain relief hood <b>RDH1:</b> Cable receptacle with integrated strain relief hood		

# SMS – Quick mating

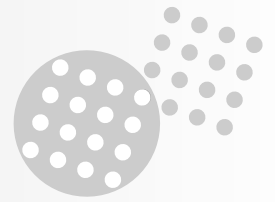


## Contact arrangements for cable plug connectors (SMS--P1 and SMS--PDH1)

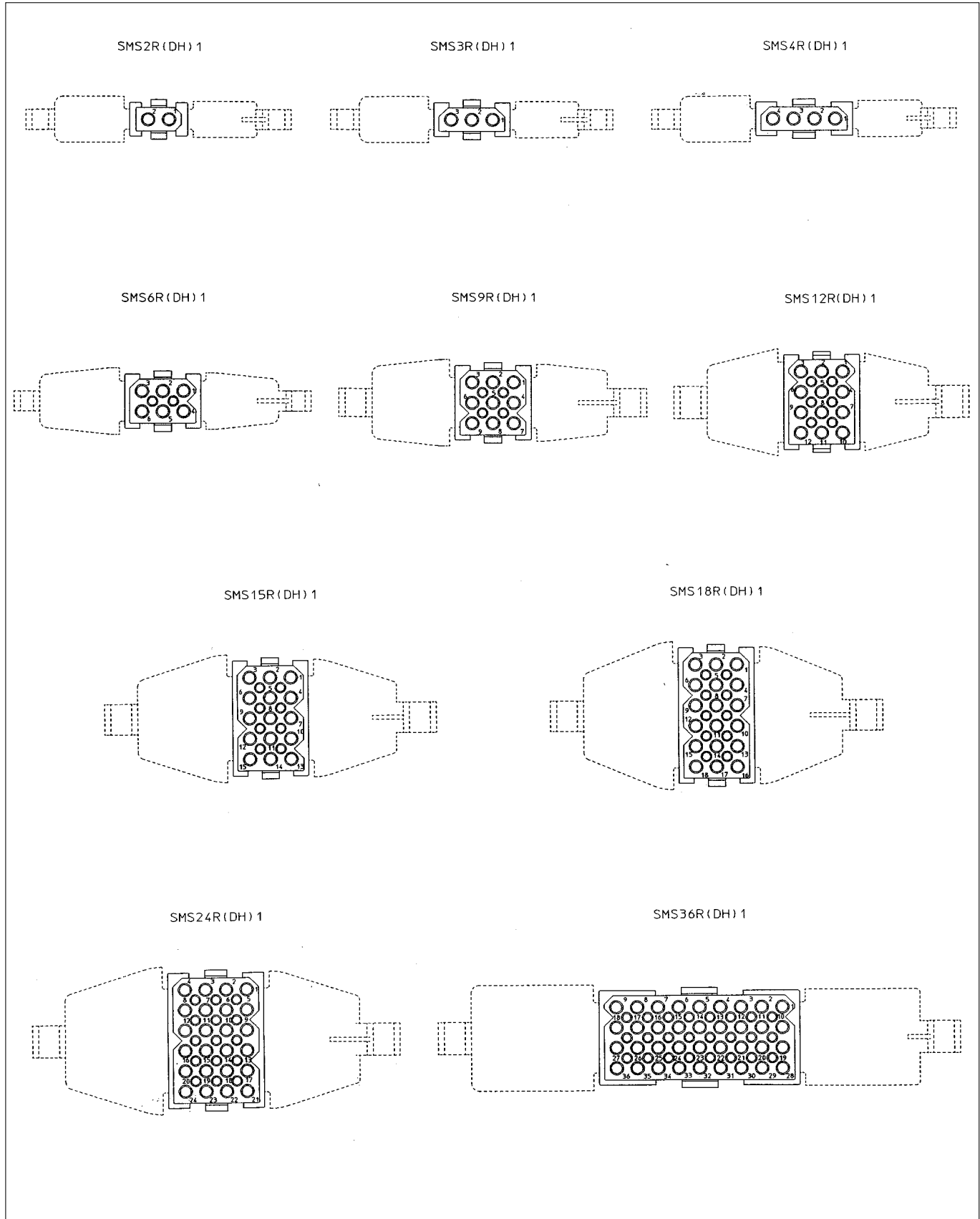


Contact identifications shown are for mating face. Contact identifications of wiring face are identical as shown on the receptacle arrangements

# SMS – Quick mating

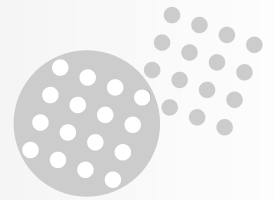


## Contact arrangements for cable and panel mount receptacle connectors (SMS–R1 and SMS–RDH1)



Contact identifications shown are for mating face. Contact identifications of wiring face are identical as shown on the plug arrangements

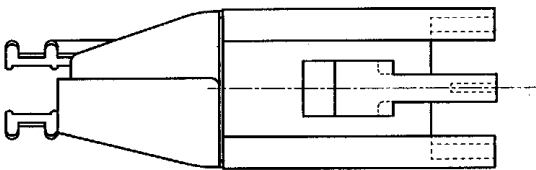
# SMS – Quick mating



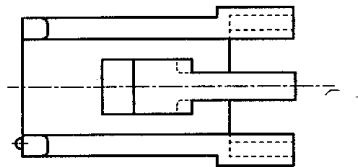
## SMS - Standard Quick mating intermateability chart

### INTERMATEABILITY

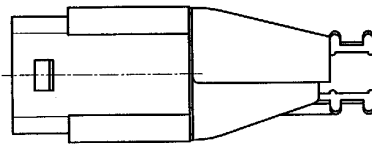
SMS--PDH1  
(PLUG WITH MOULDED  
ON CABLE HOODS)



SMS--P1  
(PLUG WITHOUT MOULDED  
ON CABLE HOODS)



SMS--RDH1  
(RECEPTACLE WITH MOULDED  
ON CABLE HOODS)

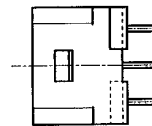


STRAIGHT BOARDMOUNT  
FEMALE

SMS--GE3 MACHINED CONTACT  
SMS--R/SE3 STAMPED CONTACT

MALE

SMS--GE4 MACHINED CONTACT  
SMS--R/SE4 STAMPED CONTACT

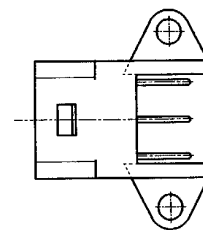


RIGHT ANGLE BOARDMOUNT  
FEMALE

SMS--GE5 MACHINED CONTACT  
SMS--SE5 STAMPED CONTACT

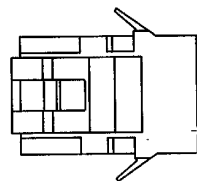
MALE

SMS--GE6 MACHINED CONTACT  
SMS--SE6 STAMPED CONTACT



(ONLY IN SIZES  
3, 6, 12 AND 18)

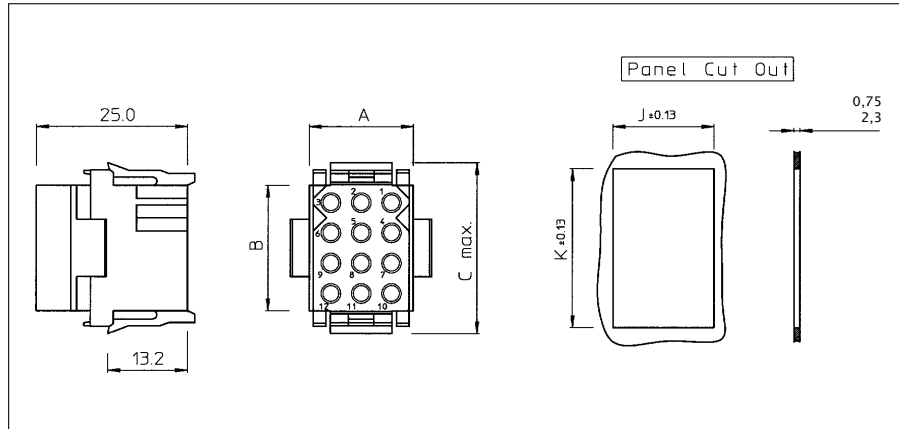
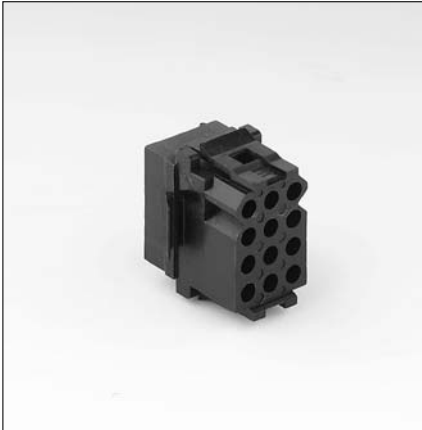
SMS--R-1  
(PANEL MOUNT  
RECEPTACLE)



# SMS – Quick mating

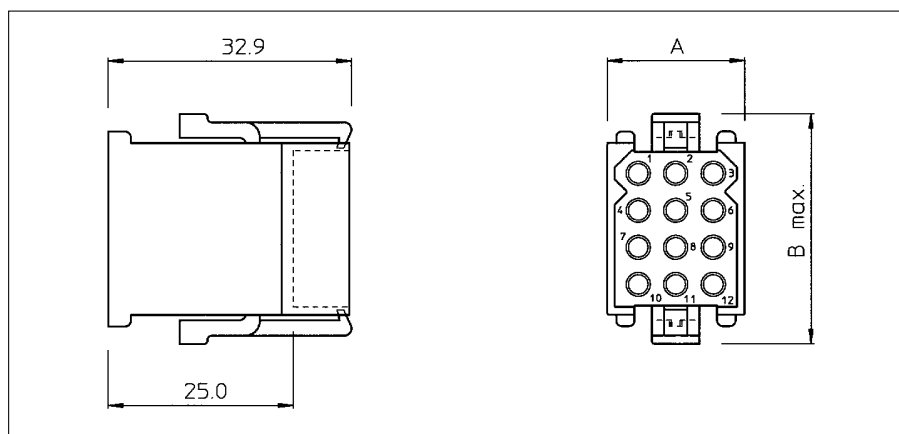


## Panel mount receptacle (SMS--R1)



Part number	Number of contact pos.	A	B	C max.	J ±0.13	K ±0.13
SMS2R1	2	11.0	5.8	15.2	11.4	11.6
SMS3R1	3	16.2			16.5	
SMS4R1	4	21.2			21.7	
SMS6R1	6	16.2	10.9	20.3	16.5	16.7
SMS9R1	9		16.0	25.4	16.7	21.6
SMS12R1	12		21.1	30.5		26.7
SMS15R1	15		26.2	35.6		31.8
SMS18R1	18		31.2	40.6	36.9	
SMS24R1	24	21.2	21.1	30.5	21.7	26.7
SMS36R1	36	46.6			47.1	

## Cable plug without strain relief hood (SMS--P1)

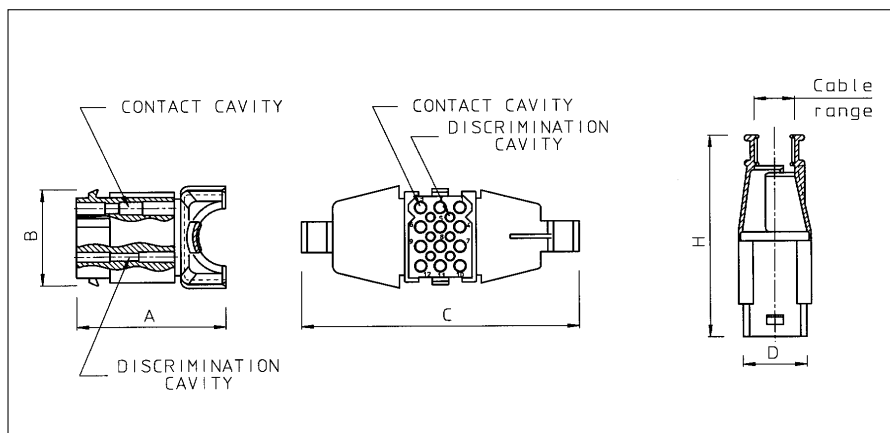


Part number	Number of contact pos.	A	C max.
SMS2P1	2	15.0	17.8
SMS3P1	3	18.6	
SMS4P1	4	23.7	
SMS6P1	6	18.6	22.9
SMS9P1	9		27.9
SMS12P1	12		33.0
SMS15P1	15		38.1
SMS18P1	18		43.2
SMS24P1	24	23.7	33.0
SMS36P1	36	49.1	

# SMS – Quick mating

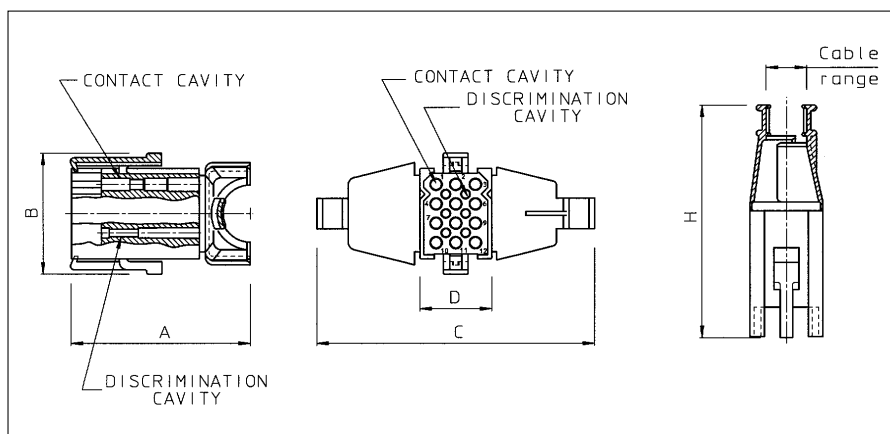


## Cable receptacle with integrated strain relief hood ( SMS--RDH1 )

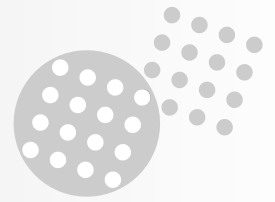


Part number contact	Number of discrimination pos.	Number of nation pos.	A	B	C	D	H	Cable range	Recommended unrap cable tie
SMS2RDH1	2	0	31.6	9.9	64.8	11.1	49.2	0.5 - 8.4	TF4D
SMS3RDH1	3	0	35.1		69.0	16.2		0.8 - 7.3	
SMS4RDH1	4	0	38.2		74.4	21.2		1.5 - 10.0	
SMS6RDH1	6	2	34.6	15.0	72.6	16.2	50.9	1.7 - 9.2	TF5D
SMS9RDH1	9	4	35.8	20.0	75.3		52.2	3.9 - 14.3	
SMS12RDH1	12	6	38.1	25.1	72.0		52.7	4.0 - 15.0	
SMS15RDH1	15	8	35.9	30.2	81.3		55.2	5.0 - 16.2	
SMS18RDH1	18	10	36.1	35.3	90.4	21.2	57.2	5.8 - 20.3	
SMS24RDH1	24	15	39.7	25.1				81.3	
SMS36RDH1	36	24	54.6		25.1	128.0	46.6	63.3	8.8 - 24.5

## Cable plug with integrated strain relief hood ( SMS--PDH1 )

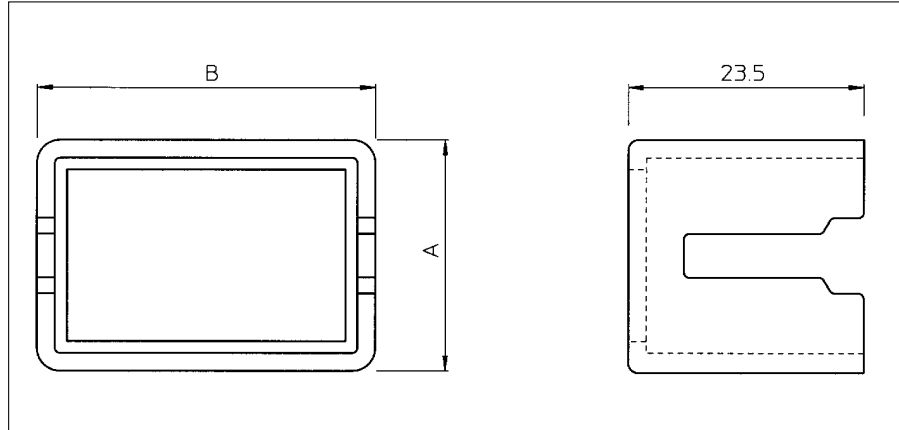


Part number contact	Number of discrimination pos.	Number of nation pos.	A	B	C	D	H	Cable range	Recommended unrap cable tie
SMS2PDH1	2	0	39.5	16.4	64.8	14.1	57.1	0.5 - 8.4	TF4D
SMS3PDH1	3	0	43.0		69.0	18.6		0.8 - 7.3	
SMS4PDH1	4	0	46.1		74.4	23.7		1.5 - 10.0	
SMS6PDH1	6	2	42.5	21.5	72.6	18.6	58.8	1.7 - 9.2	TF5D
SMS9PDH1	9	4	43.7	26.7	75.3		60.1	3.9 - 14.3	
SMS12PDH1	12	6	46.0	31.7	72.0		60.6	4.0 - 15.0	
SMS15PDH1	15	8	43.8	36.7	81.3		63.1	5.0 - 16.2	
SMS18PDH1	18	10	44.0	41.8	90.4	23.7	65.1	5.8 - 20.3	
SMS24PDH1	24	15	47.6	31.7				81.3	
SMS36PDH1	36	24	62.5		31.7	128.0	49.1	71.2	8.8 - 24.5



## Accessories for standard Quick mating connectors

### Pin protection shroud for panel mount receptacle (SMS--CSB1)



When pins are inserted into the panelmount receptacle half (SMS--R1) of the Quick mating connector, an optional pin protection shroud can be installed. The shroud is mounted at the same time as the receptacle by holding the shroud against the mating side of the panel with both cutouts lined up. The receptacle is then inserted in place, trapping the shroud between the receptacle and panel. The use of the pin protection shroud reduces the allowable thickness of the panel from 2.3 to 1.6 mm max.

Part number	Number of contact positions	A	B
<b>SMS2CSB1</b>	<b>2</b>	19.8	18.8
<b>SMS3CSB1</b>	<b>3</b>	23.4	
<b>SMS4CSB1</b>	<b>4</b>	28.4	
<b>SMS6CSB1</b>	<b>6</b>	23.4	23.9
<b>SMS9CSB1</b>	<b>9</b>		29.0
<b>SMS12CSB1</b>	<b>12</b>		34.0
<b>SMS15CSB1</b>	<b>15</b>		39.1
<b>SMS18CSB1</b>	<b>18</b>		44.2
<b>SMS24CSB1</b>	<b>24</b>	28.4	
<b>SMS36CSB1</b>	<b>36</b>	54.1	34.0

### Strain relief hoods (SMS--H1)



Separate strain relief hoods are available for all standard plugs SMS--P1. The hoods consist of identical halves that snap into position on the plug and are secured in place with the cable tie drawn tightly around the cable entry collar. Catalog numbers designate a complete hood (2 halves) SMS--H1. The cable tie is not included (TF4D – TF5D). Two three and four position hoods are single piece units.

### Discrimination pins

For discrimination pins on both standard Quick mating and Quick mating Pin Headers cable and boardmount: See accessories section.





# SMS – Boardmount Quick mating



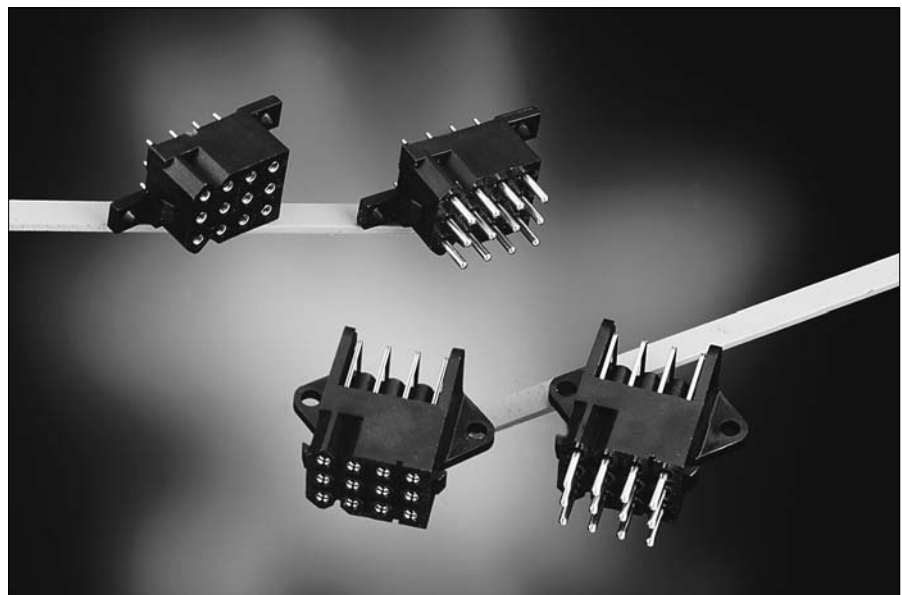
## Quick mating PC-boardmount connectors

### Description

These PC boardmount connectors enable Quick mating and preassembled TRIM TRIO contacts to be PC board mounted, using conventional solder production techniques. They will then mate and latch with the standard Quick mating plugs. Straight boardmount Quick mating is available in 10 insert arrangements from 2 to 36 positions. Right-angled boardmount Quick mating is available in 3, 6, 12 and 18 positions. All boardmount connectors are supplied fully loaded with pin or socket contacts, either in solid machined or stamped and formed contacts. Stamped and formed contact have selective tin plating on the solder tails, thus eliminating flux operations.

### Features and benefits

- Straight versions available in 10 contact arrangements from 2 to 36 positions
- Right-angled versions available in 3, 6, 12 and 18 positions.
- All versions are available with:
  - Pin or socket contacts
  - Stamped and formed or solid machined contacts.
- Some boardmount connectors have discrimination cavities in between contact cavities, thus offering discrimination without contact loss.
- UL recognized File Nr.: E238675



### Performance characteristics

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

### Construction

Connector body:	Glass filled thermoplast UL94-V0
Contacts:	High conductive copper alloy

### Plating table

Plating for solid machined contacts:  
**No digit (std)** = Min. 0.4μ 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 Tin on solder tail.  
 T = 3 - 5μ Tin all over

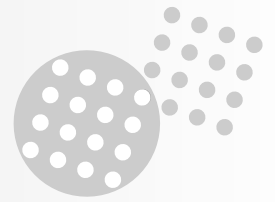
### Intermateability

- "SMS" Quick mating boardmount connectors with preassembled TRIM TRIO size 16 boardmount contacts are intermateable only with the "SMS" Quick mating cable plug connectors equipped with TRIM TRIO crimp type removable snap-lock contacts (see contact section)

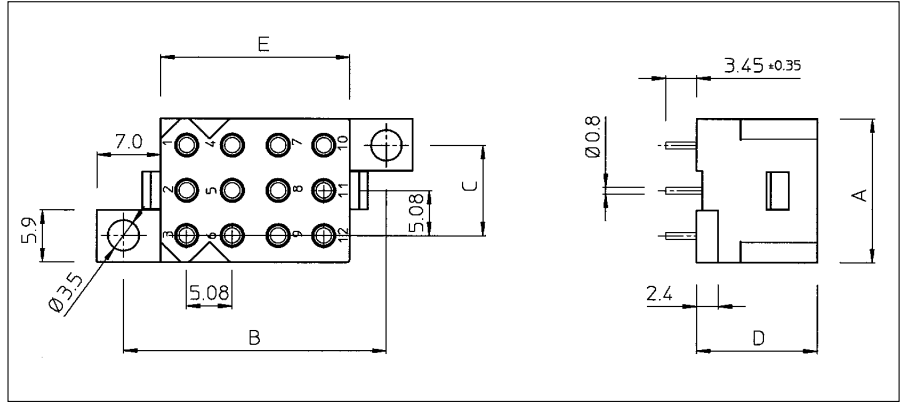
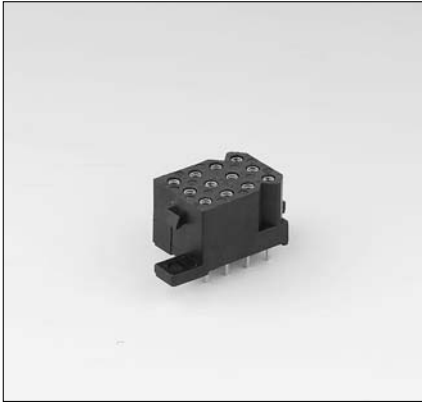
## How to order

<b>Connector family</b>	<b>SMS</b>	<b>12</b>	<b>GE</b>	<b>3</b>	<b>-</b>
	<b>SMS</b>	<b>12</b>	<b>SE</b>	<b>3</b>	<b>K9</b>
<b>Contact arrangement</b>					
<b>Contact type:</b>	<b>GE:</b> Solid machined contacts				
	<b>SE:</b> Stamped and formed contacts				
<b>Design variation:</b>	<b>3:</b> Straight boardmount with female contacts				
	<b>4:</b> Straight boardmount with male contacts				
	<b>5:</b> Right angle boardmount with female contacts				
	<b>6:</b> Right angle boardmount with male contacts				
<b>Plating indication</b>					

# SMS – Boardmount Quick mating



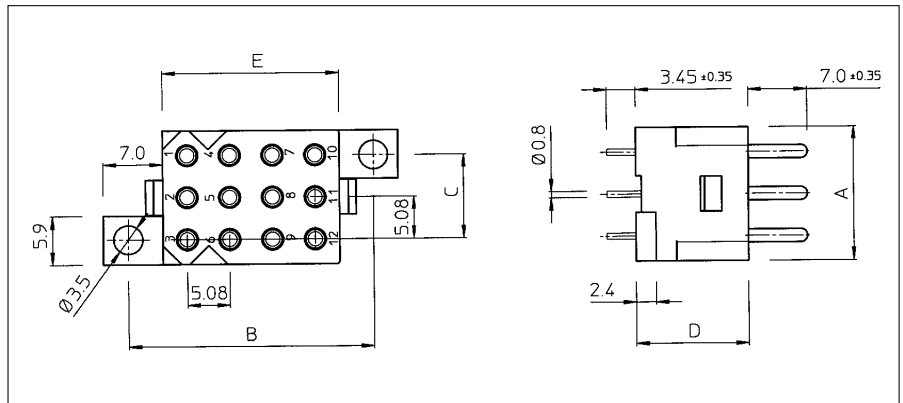
## Straight boardmount with female contacts (SMS--GE3 / SMS--SE3K9)



Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E
SMS2GE3	SMS2SE3K9	2	0	11.0	-	19.1	13.4	5.9
SMS3GE3	SMS3SE3K9	3	0	16.2	14.0	10.2		
SMS4GE3	SMS4SE3K9	4	0	21.3		15.2		
SMS6GE3	SMS6SE3K9	6	0	16.2	19.2	10.2		10.9
SMS9GE3	SMS9SE3K9	9	4		24.2			16.0
SMS12GE3	SMS12SE3K9	12	0		29.2			21.1
SMS15GE3	SMS15SE3K9	15	8		34.3			26.1
SMS18GE3	SMS18SE3K9	18	10		39.4			31.2
SMS24GE3	SMS24SE3K9	24	0	21.2		15.2		
SMS36GE3	SMS36SE3K9	36	0	46.5	15.2	54.6		20.9

For other platings: see plating table

## Straight boardmount with male contacts (SMS--GE4 / SMS--SE4K9)



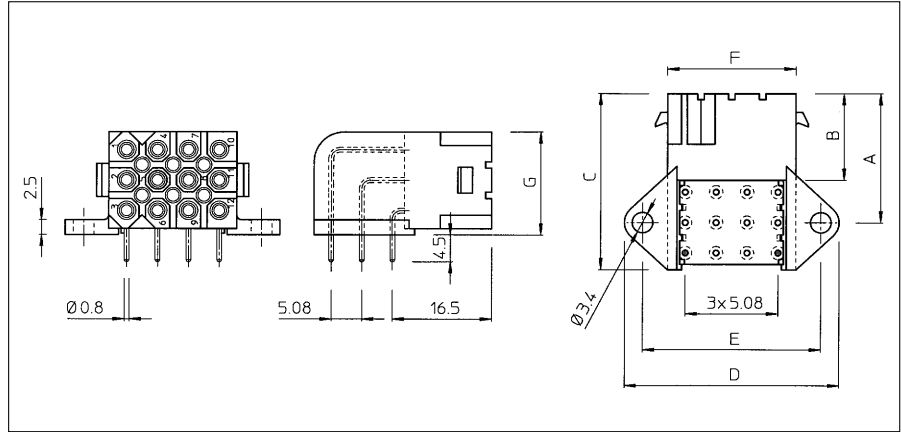
Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E
SMS2GE4	SMS2SE4K9	2	0	11.1	-	19.1	13.4	5.9
SMS3GE4	SMS3SE4K9	3	0	16.2	14.0	10.2		
SMS4GE4	SMS4SE4K9	4	0	21.3		15.2		
SMS6GE4	SMS6SE4K9	6	0	16.2	19.2	10.2		10.9
SMS9GE4	SMS9SE4K9	9	4		24.2			16.0
SMS12GE4	SMS12SE4K9	12	0		29.2			21.1
SMS15GE4	SMS15SE4K9	15	8		34.3			26.1
SMS18GE4	SMS18SE4K9	18	10		39.4			31.2
SMS24GE4	SMS24SE4K9	24	0	21.2		15.2		
SMS36GE4	SMS36SE4K9	36	0	46.5	15.2	54.6		20.9

For other platings: see plating table

# SMS – Boardmount Quick mating



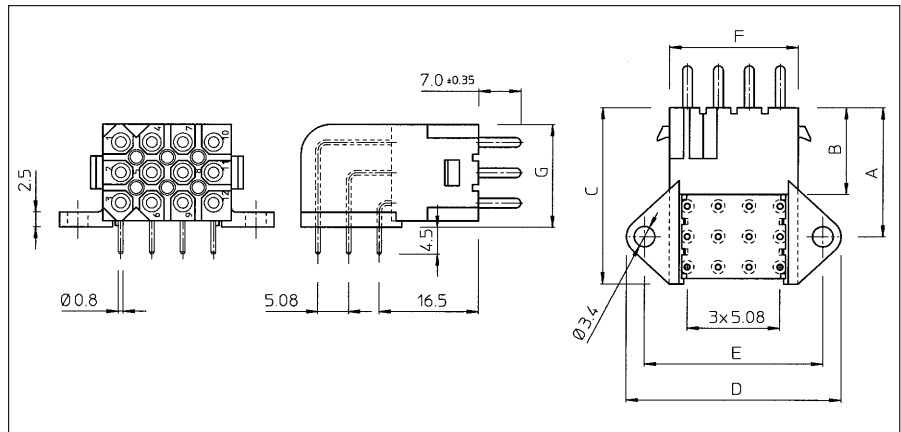
## Right angle boardmount with female contacts (SMS--GE5 / SMS--SE5K9)



Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E	F	G			
SMS3GE5	SMS3SE5K9	3	0	16.5	14.4	20.5	30.2	24.2	16.2	6.8			
SMS6GE5	SMS6SE5K9	6	0	19.0		24.5				11.9			
SMS12GE5	SMS12SE5K9	12	6	21.6		29.5				35.2	29.2	21.2	17.2
SMS18GE5	SMS18SE5K9	18	10			45.4				39.4	31.2		

For other platings: see plating table

## Right angle boardmount with male contacts (SMS--GE6 / SMS--SE6K9)



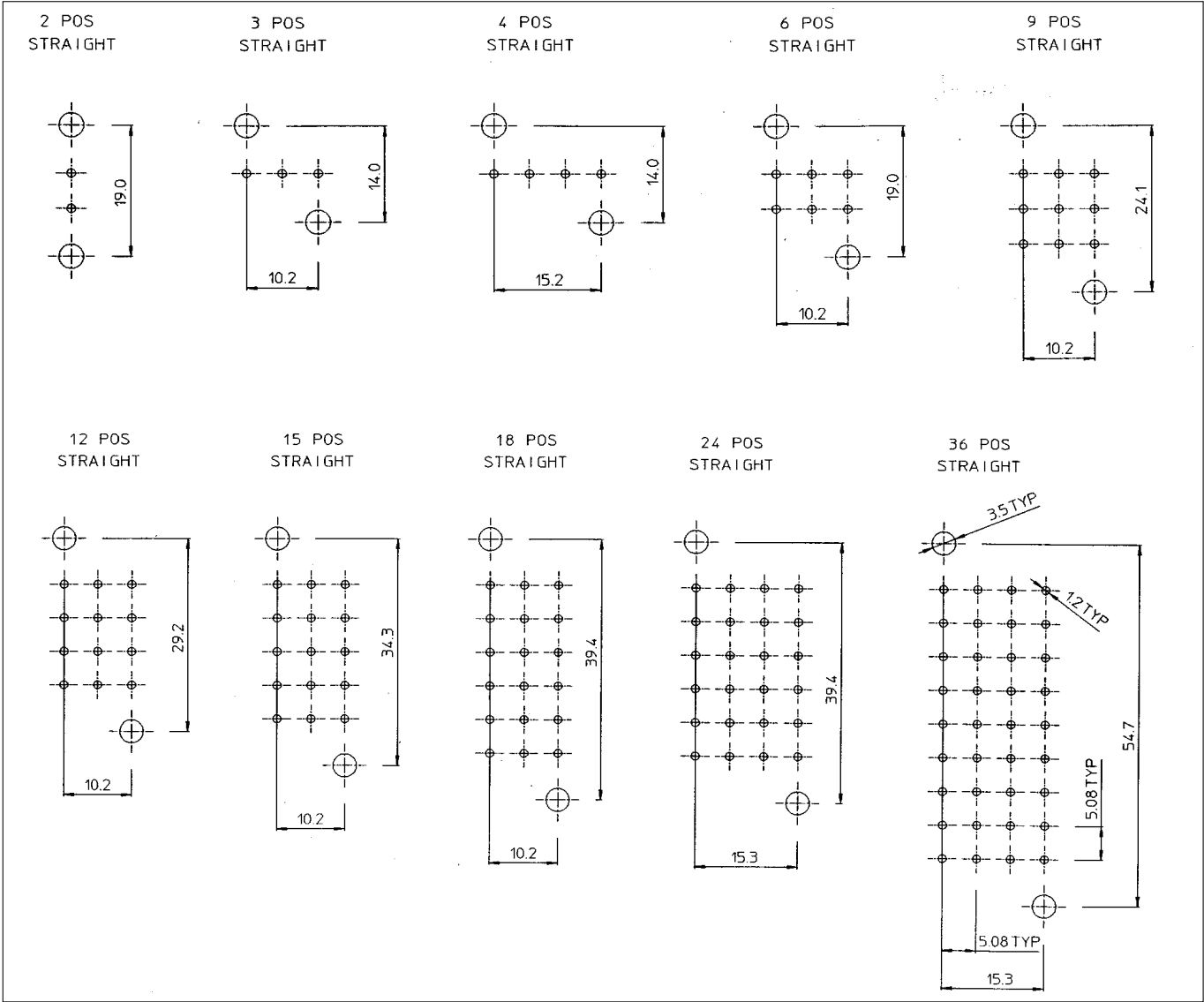
Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E	F	G			
SMS3GE6	SMS3SE6K9	3	0	16.5	14.4	20.5	30.2	24.2	16.2	6.8			
SMS6GE6	SMS6SE6K9	6	0	19.0		24.5				11.9			
SMS12GE6	SMS12SE6K9	12	6	21.6		29.5				35.2	29.2	21.2	17.2
SMS18GE6	SMS18SE6K9	18	10			45.4				39.4	31.2		

For other platings: see plating table

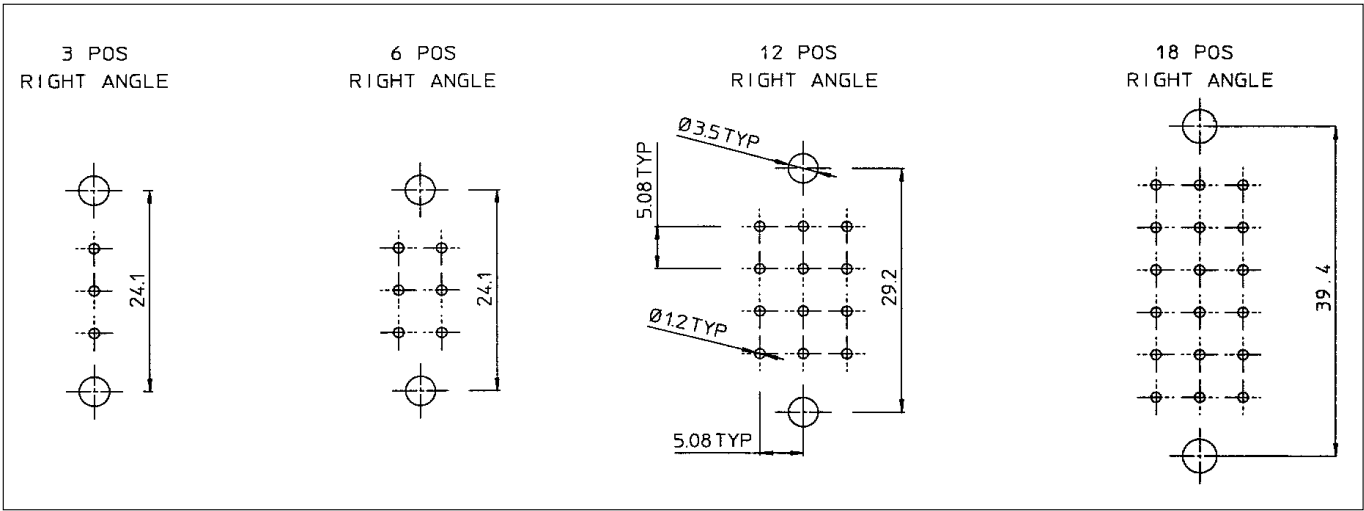
# SMS – Boardmount Quick mating



## Recommended PC-Board hole lay out for straight male and female boardmount connectors



## Recommended PC-Board hole lay out for right-angled male and female boardmount connectors



# SMS – Quick mating Pin Header



## Quick mating PC boardmount Pin Headers and plugs

### Description

Quick mating Pin Header, available in 3, 4, 6, 9 and 10 positions, provides the additional versatility of straight and right angle board mounting. Offered as an alternative to stacked connectors, the in-line contact design of the pin header provides the user with significant PC board space savings. The boardmount receptacle features positive polarization and a moulded on pin protection skirt and is supplied preassembled with straight or right angled:

- Solid machined or stamped and formed PC board pin contacts.
- Coax PC board pin contacts.

The socket cable plug features positive quick connect / disconnect latches and is designed to accept N° 16 TRIM TRIO .0625" (1.6mm) diameter socket contacts for maximum contact protection.

### Features and benefits

- Available in 3, 4, 6, 9 and 10 positions.
- In-line contact design, offering significant PC board space savings.
- Boardmount connectors available in straight and right-angled version preassembled with:
  - Solid machined or stamped and formed pin contacts.
  - Coax pin contacts.
- UL recognized File Nr.: E238675

### Construction

Connector body:  
 Glass filled thermoplast UL94-V0  
 Colour: Black

Contacts: High conductive copper alloy



### Performance characteristics

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

### Intermateability

- "SMS" Socket plugs accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

### Plating table

Plating for solid machined contacts:  
**No digit (std)** = Min. 0.4μ Gold all over, over Nickel.  
 T = 3 - 5μ Tin all over

Plating for Stamped and formed contacts :  
 D28 = Min. 0.75μ Au over nickel.  
 D70 = Gold flash all over  
 TR29 = 1.2μ Pre-plated Tin all over.

Plating for coax contacts:  
 Z17 = Min. 0.75μ Au in contact area, Flash on solder tail (inner)  
 Min 0.75μ Au in contact area, Tin on solder tail (outer)

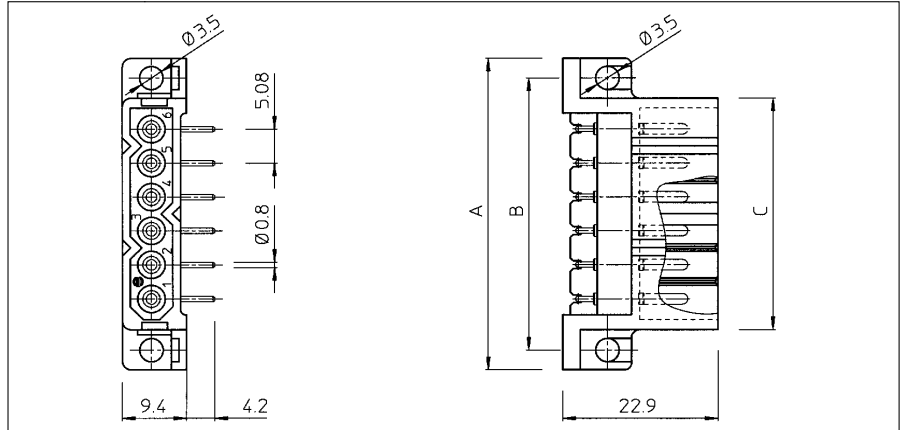
## How to order

Connector family	SMS	9	PH	3	TR29
	SMS	9	CH	1	Z17
	SMS	9	P3	-	-
Contact arrangement					
<b>Contact type:</b>	<b>PH:</b>	Pin header boardmount.			
	<b>CH:</b>	Coax header boardmount.			
	<b>P3:</b>	Socket cable plug for pin and coax boardmount header.			
<b>Design variation:</b>	<b>1:</b>	Right angle coax header boardmount with male contacts.			
	<b>2:</b>	Straight coax header boardmount with male contacts			
	<b>3:</b>	Right angle pin header boardmount with stamped male contacts			
	<b>4:</b>	Straight pin header boardmount with stamped male contacts			
	<b>GE6:</b>	Right angle pin header boardmount with machined male contacts			
	<b>GE4:</b>	Straight pin header boardmount with machined male contacts			
Plating indication					

# SMS – Quick mating Pin Header



## Right angle pin header boardmount with male contacts (SMS--PH3 / SMS--PHGE6)

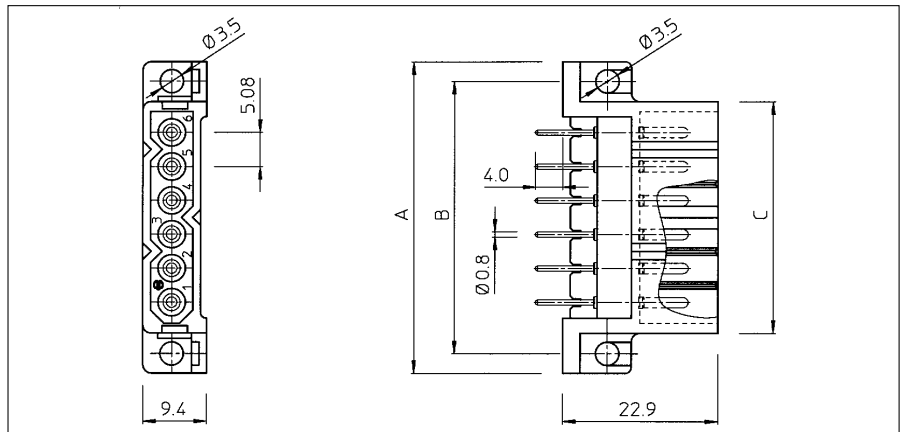


Part number Stamped and formed contacts	Part number Solid machined contacts	Number of contact positions	A	B	C
SMS3PH3TR29	SMS3PHGE6	3	31.2	25.4	19.3
SMS4PH3TR29	SMS4PHGE6	4	36.3	30.4	24.4
SMS6PH3TR29	SMS6PHGE6	6	46.5	40.6	34.5
SMS9PH3TR29	SMS9PHGE6	9	61.7	55.9	49.8
SMS10PH3TR29	SMS10PHGE6	10	66.8	61.0	54.9

For other platings: see plating table.

Other solder tail lengths on request

## Straight pin header boardmount with male contacts (SMS--PH4 / SMS--PHGE4)

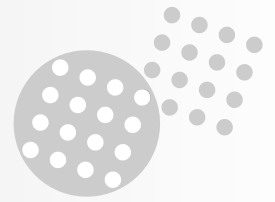


Part number Stamped and formed contacts	Part number Solid machined contacts	Number of contact positions	A	B	C
SMS3PH4TR29	SMS3PHGE4	3	31.2	25.4	19.3
SMS4PH4TR29	SMS4PHGE4	4	36.3	30.4	24.4
SMS6PH4TR29	SMS6PHGE4	6	46.5	40.6	34.5
SMS9PH4TR29	SMS9PHGE4	9	61.7	55.9	49.8
SMS10PH4TR29	SMS10PHGE4	10	66.8	61.0	54.9

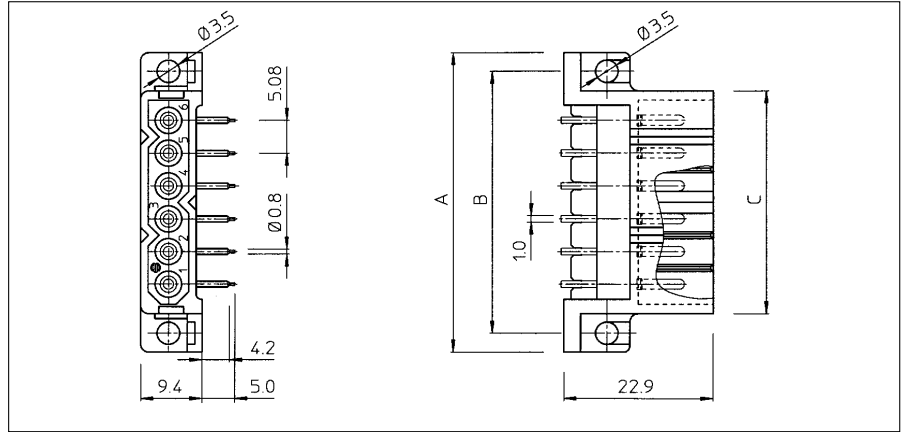
For other platings: see plating table.

Other solder tail lengths on request

# SMS – Quick mating Pin Header



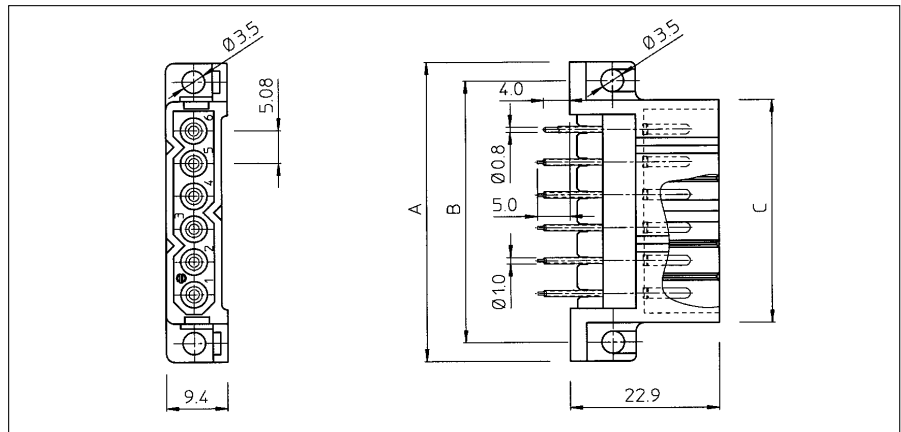
## Right angle coax header boardmount with male contacts (SMS--CH1Z17)



Part number positions	Number of contact	A	B	C
<b>SMS3CH1Z17</b>	<b>3</b>	31.2	25.4	19.3
<b>SMS4CH1Z17</b>	<b>4</b>	36.3	30.4	24.4
<b>SMS6CH1Z17</b>	<b>6</b>	46.5	40.6	34.5
<b>SMS9CH1Z17</b>	<b>9</b>	61.7	55.9	49.8
<b>SMS10CH1Z17</b>	<b>10</b>	66.8	61.0	54.9

For plating spec.: see plating table.

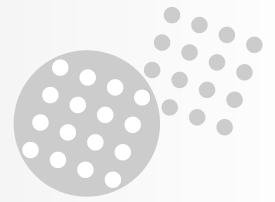
## Straight coax header boardmount with male contacts (SMS--CH2Z17)



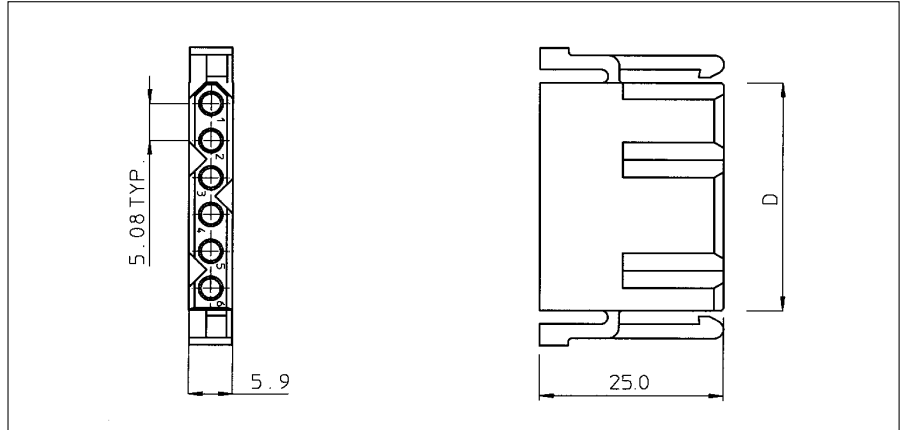
Part number positions	Number of contact	A	B	C
<b>SMS3CH2Z17</b>	<b>3</b>	31.2	25.4	19.3
<b>SMS4CH2Z17</b>	<b>4</b>	36.3	30.4	24.4
<b>SMS6CH2Z17</b>	<b>6</b>	46.5	40.6	34.5
<b>SMS9CH2Z17</b>	<b>9</b>	61.7	55.9	49.8
<b>SMS10CH2Z17</b>	<b>10</b>	66.8	61.0	54.9

For plating spec.: see plating table.

# SMS – Quick mating Pin Header

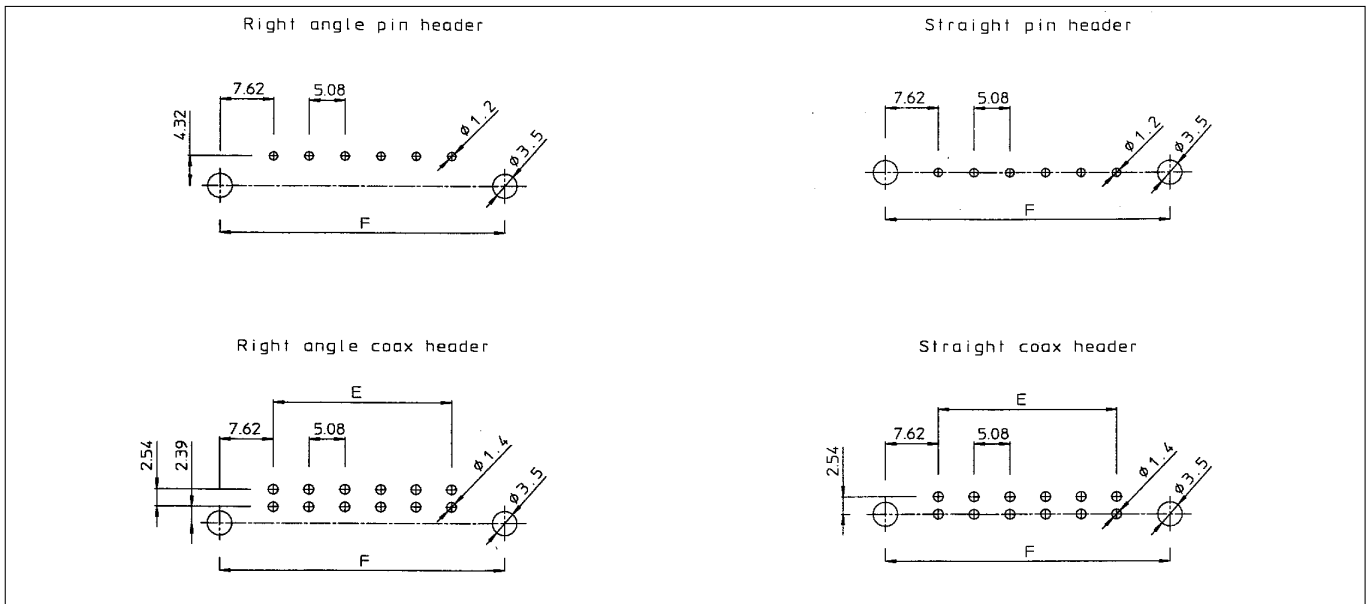


## Socket cable plug for pin and coax boardmount header (SMS-P3)



Part number	Number of contact positions	D
SMS3P3	3	16.0
SMS4P3	4	21.1
SMS6P3	6	31.2
SMS9P3	9	46.5
SMS10P3	10	51.6

## Recommended PC-board hole layouts



Part number of contact positions	E	F
3	10.18	25.40
4	15.24	30.48
6	25.40	40.64
9	40.64	55.88
10	45.72	60.96