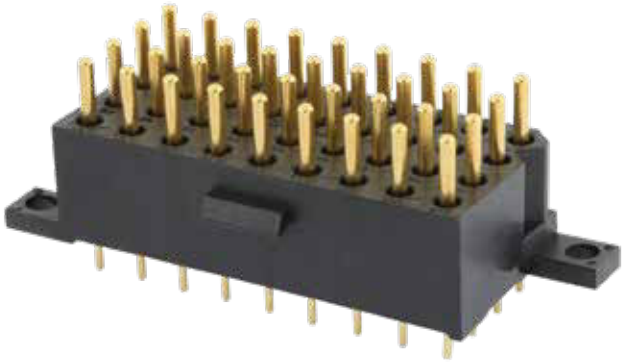
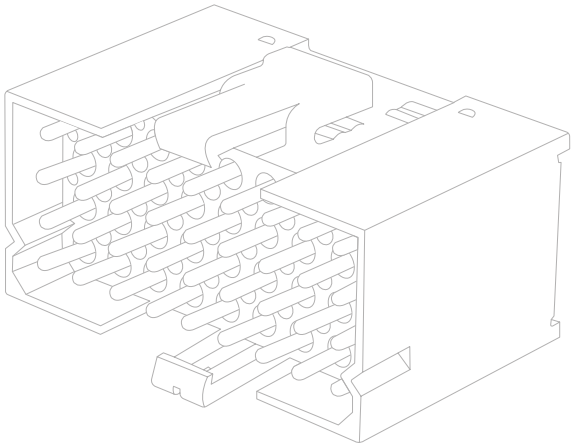
Quick mating rectangular connectors
Souriau SMS series







Powering Business Worldwide



SMS series

Quick mating rectangular connectors

Typical applications










Technical specifications

Materials

Shell
- Polyamide 6.6

Flammability rating
- Black version
  - UL94 V2
- White version
  - R22/HL3
    (according to EN15545-2)

Contacts
- Machined contacts size 16
- Stamped & formed contacts size 16
- Contacts sold separately

Mechanical

Coupling system
- Easy snap-in

Durability
- 500 mating cycles

Environmental

Operating temperature
- -55°C to +105°C

Insulation resistance
- 5000 MO min.

Sealing performance
- IP40

Electrical

Test potential
- 2000 VAC

Electrical performance
- UL: 250V - 10A
- CSA: 250V - 15A

Insulation resistance
- SMS PDH1, RDH1, PD3, PDH3, RD3, RDH3 max: 0"125 (3.2 mm)
- SMS R1, P1, R3 max: 0"164 (4.19 mm)

SMS part numbers

SMS 12 PDH3

Contact layout
See **Page 5**

Shell type	
R1 :	Panel mount receptacle (UL94 V2) - black
R3 :	Panel mount receptacle (UL94 V0 & HL3/R22 -HL3/R23) - white
P1 :	Cable plug without strain relief hood (UL94 V2) - black
PD3 :	Cable plug without strain relief hood (UL94 V0 & HL3/R22 - HL3/R23) - white
PDH1 :	Cable plug with integrated strain relief hood (UL94 V2) - black
PDH3 :	Cable plug with integrated strain relief hood (UL94 V0 & HL3/R22 - HL3/R23) - white
RD3 :	Cable receptacle without integrated strain relief hood (UL94 V0 & HL3/R22 - HL3/R23) - white
RDH1 :	Cable receptacle with integrated strain relief hood (UL94 V2) - black
RDH3 :	Cable receptacle with integrated strain relief hood (UL94 V0 & HL3/R22 - HL3/R23) - white

Souriau SMS series

Quick mating and board mount connectors

Range overview

Cable plug with strain relief hood
SMS PDH1 and SMS PDH3



Cable plug without strain relief hood
SMS P1 and SMS PD3



Panel mount receptacle
SMS R1 and SMSR3



Cable receptacle with strain relief hood
SMS RDH1 and SMS RDH3



Cable receptacle without strain relief hood
SMS RD3



Straight board mount
SMS GE3-SE3, SMS GE30-RE30,
SMS GE33, SMS GE4-SE4,
SMS GE40-RE40 and SMS GE43

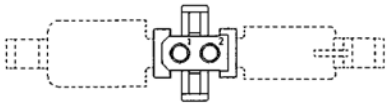


Right angle board mount
SMS GE5-SE5, SMS GE53,
SMS GE6-SE6 and SMS GE63

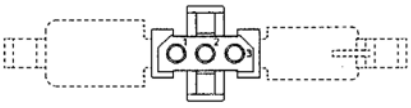


Contact layouts

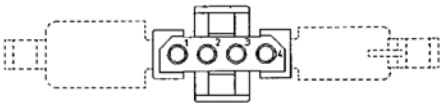
SMS 2



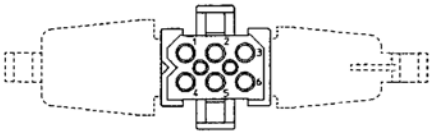
SMS 3



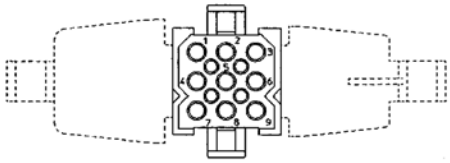
SMS 4



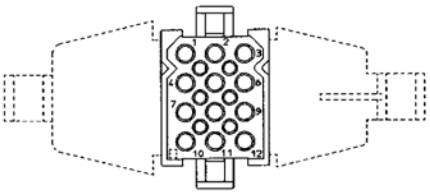
SMS 6



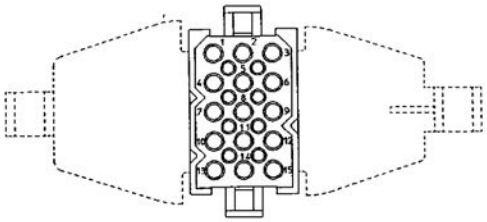
SMS 9



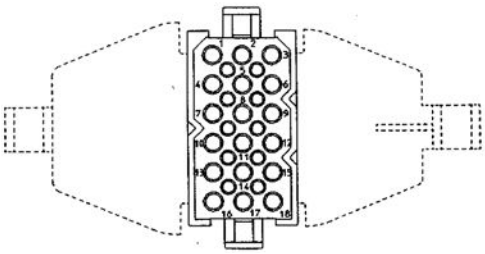
SMS 12



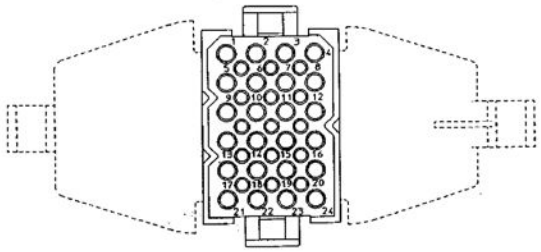
SMS 15



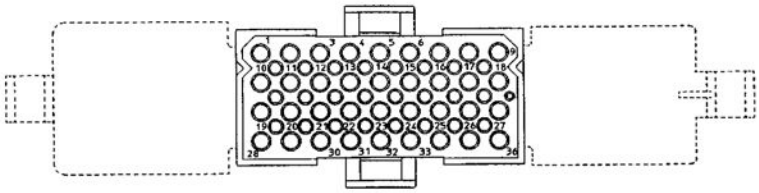
SMS 18



SMS 24



SMS 36



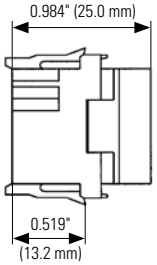
Note: Contact identifications shown are for mating face. Contact identifications of wiring face are identical as shown on the receptacle arrangements

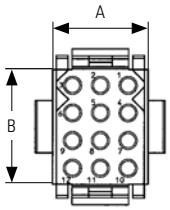
Souriau SMS series

Quick mating and board mount connectors

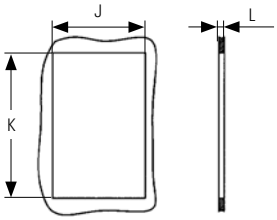
Panel mount receptacle without discrimination cavities (wire acceptance: 0.165 inch / 4.19mm)







Panel cut-out



Number of contacts	Part number Black UL94 V2	White UL94 V0
2	**SMS2R1**	**SMS2R3**
3	**SMS3R1**	**SMS3R3**
4	**SMS4R1**	**SMS4R3**
6	**SMS6R1**	**SMS6R3**
9	**SMS9R1**	**SMS9R3**
12	**SMS12R1**	**SMS12R3**
15	**SMS15R1**	**SMS15R3**
18	**SMS18R1**	**SMS18R3**
24	**SMS24R1**	**SMS24R3**
36	**SMS36R1**	**SMS36R3**

Note: Contacts are sold separately.

	Dimensions													
	A		B		C max		J		K		L			
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		mm	
											max	min	max	min
2	0.433	11.0	0.228	5.8	0.598	15.2	0.448	11.4	0.456	11.6	0.090	0.029	2.3	0.75
3	0.637	16.2	0.228	5.8	0.598	15.2	0.649	16.5	0.456	11.6	0.090	0.029	2.3	0.75
4	0.830	21.1	0.228	5.8	0.598	15.2	0.854	21.7	0.456	11.6	0.090	0.029	2.3	0.75
6	0.637	16.2	0.429	10.9	0.799	20.3	0.649	16.5	0.657	16.7	0.090	0.029	2.3	0.75
9	0.637	16.2	0.630	16.0	1.000	25.4	0.649	16.5	0.850	21.6	0.090	0.029	2.3	0.75
12	0.637	16.2	0.830	21.1	1.200	30.5	0.657	16.7	1.051	26.7	0.090	0.029	2.3	0.75
15	0.637	16.2	1.031	26.2	1.401	35.6	0.657	16.7	1.251	31.8	0.090	0.029	2.3	0.75
18	0.637	16.2	1.228	31.2	1.598	40.6	0.657	16.7	1.452	36.9	0.090	0.029	2.3	0.75
24	0.834	21.2	1.228	31.2	1.598	40.6	0.854	21.7	1.452	36.9	0.090	0.029	2.3	0.75
36	1.834	46.6	0.830	21.1	1.200	30.5	1.854	47.1	1.051	26.7	0.090	0.029	2.3	0.75

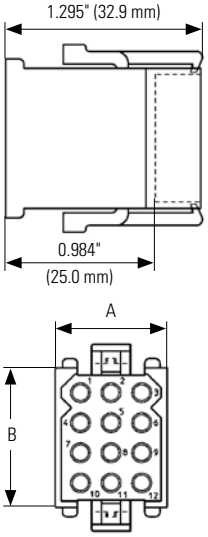
Note: Contacts are sold separately.

Cable plug without strain relief hood & without discrimination cavities (wire acceptance: 0.165 inch / 4.19mm)



Number of contacts	Part number Black UL94 V2
2	**SMS2P1**
3	**SMS3P1**
4	**SMS4P1**
6	**SMS6P1**
9	**SMS9P1**
12	**SMS12P1**
15	**SMS15P1**
18	**SMS18P1**
24	**SMS24P1**
36	**SMS36P1**

Note: Contacts are sold separately.

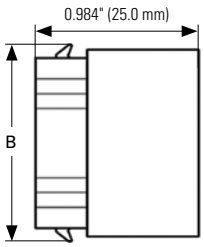


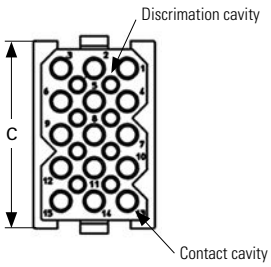
Number of contacts	Dimensions A inch	A mm	B max inch	B max mm
2	0.590	15.0	0.700	17.8
3	0.732	18.6	0.700	17.8
4	0.933	23.7	0.700	17.8
6	0.732	18.6	0.901	22.9
9	0.732	18.6	1.098	27.9
12	0.732	18.6	1.299	33.0
15	0.732	18.6	1.500	38.1
18	0.732	18.6	1.700	43.2
24	0.933	23.7	1.700	43.2
36	1.933	49.1	1.299	33.0

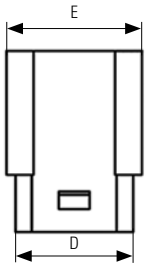
Note: Contacts are sold separately.

Cable receptacle without strain relief hood & with discrimination cavities









Number of contacts	Number of discrimination cavities	Part number White UL94 V0
2	0	**SMS2RD3**
3	0	**SMS3RD3**
4	0	**SMS4RD3**
6	2	**SMS6RD3**
9	4	**SMS9RD3**
12	6	**SMS12RD3**
15	8	**SMS15RD3**
18	10	**SMS18RD3**
24	15	**SMS24RD3**
36	24	**SMS36RD3**

Note: Contacts are sold separately.

	Dimensions							
	B max		C		D		E	
Number of contact	inch	mm	inch	mm	inch	mm	inch	mm
2	0.389	9.9	0.330	8.4	0.437	11.1	0.555	14.1
3	0.389	9.9	0.330	8.4	0.638	16.2	0.732	18.6
4	0.389	9.9	0.330	8.4	0.834	21.2	0.933	23.7
6	0.590	15.0	0.527	13.4	0.638	16.2	0.732	18.6
9	0.787	20.0	0.728	18.5	0.638	16.2	0.732	18.6
12	0.988	25.1	0.929	23.6	0.638	16.2	0.732	18.6
15	1.188	30.2	1.129	28.7	0.638	16.2	0.732	18.6
18	1.389	35.3	1.330	33.8	0.638	16.2	0.732	18.6
24	1.389	35.3	1.330	33.8	0.834	21.2	0.933	23.7
36	0.988	25.1	0.929	23.6	1.834	46.6	1.933	49.1

Note: Contacts are sold separately.

Cable plug without strain relief hood & with discrimination cavities

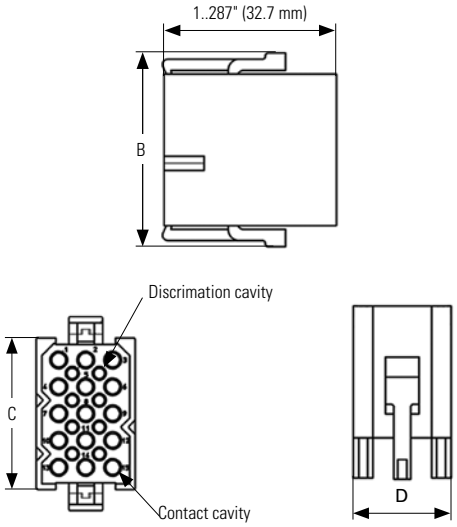


Number of contacts	Number of discrimination cavities	Part number White UL94 V0
2	0	**SMS2PD3**
3	0	**SMS3PD3**
4	0	**SMS4PD3**
6	2	**SMS6PD3**
9	4	**SMS9PD3**
12	6	**SMS12PD3**
15	8	**SMS15PD3**
18	10	**SMS18PD3**
24	15	**SMS24PD3**
36	24	**SMS36PD3**

Note: Contacts are sold separately.

Souriau SMS series

Quick mating and board mount connectors

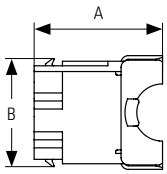


Number of contacts	Dimensions B max inch	mm	C inch	mm	D inch	mm
2	0.645	16.4	0.330	8.4	0.555	14.1
3	0.645	16.4	0.330	8.4	0.732	18.6
4	0.645	16.4	0.330	8.4	0.933	23.7
6	0.846	21.5	0.527	13.4	0.732	18.6
9	1.051	26.7	0.728	18.5	0.732	18.6
12	1.248	31.7	0.929	23.6	0.732	18.6
15	1.444	36.7	1.129	28.7	0.732	18.6
18	1.645	41.8	1.330	33.8	0.732	18.6
24	1.645	41.8	1.330	33.8	0.933	23.7
36	1.248	31.7	0.929	23.6	1.933	49.1

Note: Contacts are sold separately.

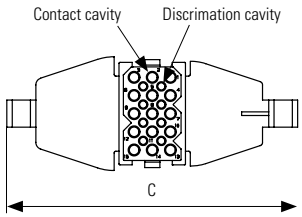
Cable receptacle with integrated strain relief hood

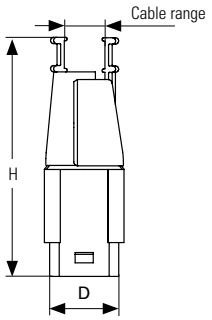




Number of contacts	Number of discrimination cavities	Part number Black UL94 V2	White UL94 V0
2	0	**SMS2RDH1**	**SMS2RDH3**
3	0	**SMS3RDH1**	**SMS3RDH3**
4	0	**SMS4RDH1**	**SMS4RDH3**
6	2	**SMS6RDH1**	**SMS6RDH3**
9	4	**SMS9RDH1**	**SMS9RDH3**
12	6	**SMS12RDH1**	**SMS12RDH3**
15	8	**SMS15RDH1**	**SMS15RDH3**
18	10	**SMS18RDH1**	**SMS18RDH3**
24	15	**SMS24RDH1**	**SMS24RDH3**
36	24	**SMS36RDH1**	**SMS36RDH3**

Note: Contacts are sold separately.

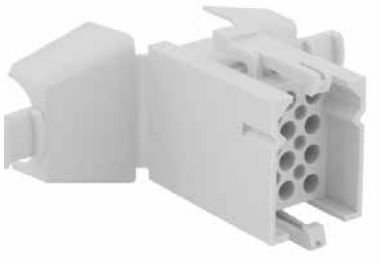




Number of contacts	Dimensions A inch	mm	B inch	mm	C inch	mm	D inch	mm	H inch	mm	Cable range inch	mm	Cable tie [1]
2	1.244	31.6	0.389	9.9	2.551	64.8	0.437	11.1	1.937	49.2	0.019-0.330	0.5-8.4	TF4D
3	1.381	35.1	0.389	9.9	2.716	69.0	0.637	16.2	1.933	49.1	0.031-0.287	0.8-7.3	TF4D
4	1.503	38.2	0.389	9.9	2.929	74.4	0.834	21.2	1.937	49.2	0.059-0.393	1.5-10	TF4D
6	1.362	34.6	0.590	15.0	2.858	72.6	0.637	16.2	2.003	50.9	0.066-0.362	1.7-9.2	TF4D
9	1.409	35.8	0.787	20.0	2.964	75.3	0.637	16.2	2.055	52.2	0.153-0.562	3.9-14.3	TF5D
12	1.500	38.1	0.988	25.1	2.834	72.0	0.637	16.2	2.074	52.7	0.157-0.590	4.0-15.0	TF5D
15	1.413	35.9	1.188	30.2	3.200	81.3	0.637	16.2	2.055	55.2	0.196-0.637	5.0-16.2	TF5D
18	1.421	36.1	1.389	35.3	3.200	81.3	0.637	16.2	2.055	55.2	0.228-0.799	5.8-20.3	TF5D
24	1.562	39.7	1.389	35.3	3.559	90.4	0.834	21.2	2.251	57.2	0.279-0.803	7.1-20.4	TF5D
36	2.149	54.6	0.988	25.1	5.039	128.0	1.834	46.6	2.492	63.3	0.346-0.964	8.8-24.5	TF5D

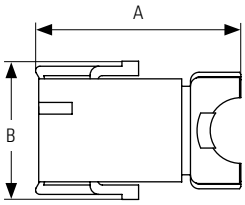
Note: Contacts are sold separately.
(1) Cable tie is not included.

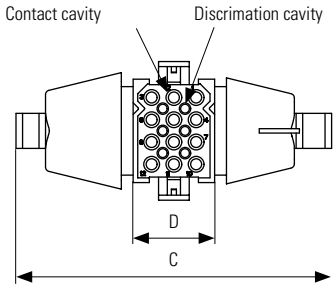
Cable plug with integrated strain relief hood

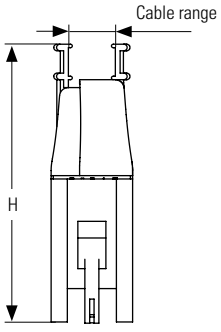


Number of contacts	Number of discrimination cavities	Part number Black UL94 V2	White UL94 V0[1]
2	0	**SMS2PDH1**	**SMS2PDH3**
3	0	**SMS3PDH1**	**SMS3PDH3**
4	0	**SMS4PDH1**	**SMS4PDH3**
6	2	**SMS6PDH1**	**SMS6PDH3**
9	4	**SMS9PDH1**	**SMS9PDH3**
12	6	**SMS12PDH1**	**SMS12PDH3**
15	8	**SMS15PDH1**	**SMS15PDH3**
18	10	**SMS18PDH1**	**SMS18PDH3**
24	15	**SMS24PDH1**	**SMS24PDH3**
36	24	**SMS36PDH1**	**SMS36PDH3**

Note: (1) White UL94 V0 & HL3/R22 - HL3/R23





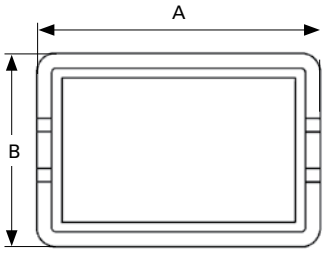


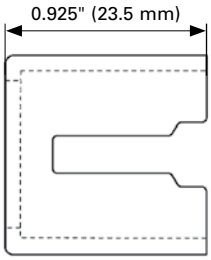
	Dimensions												
Number of contacts	A inch	mm	B inch	mm	C inch	mm	D inch	mm	H inch	mm	Cable range inch	mm	Cable tie [1]
2	1.555	39.5	0.645	16.4	2.551	64.8	0.555	14.1	2.248	57.1	0.019-0.330	0.5-8.4	TF4D
3	1.692	43.0	0.645	16.4	2.716	69.0	0.732	18.6	2.248	57.1	0.031-0.287	0.8-7.3	TF4D
4	1.814	46.1	0.645	16.4	2.929	74.4	0.944	24.0	2.248	57.1	0.059-0.393	1.5-10	TF4D
6	1.673	42.5	0.846	21.5	2.858	72.6	0.751	19.1	2.314	58.8	0.066-0.362	1.7-9.2	TF4D
9	1.720	43.7	1.051	26.7	2.964	75.3	0.732	18.6	2.366	60.1	0.153-0.562	3.9-14.3	TF5D
12	1.811	46.0	1.248	31.7	2.834	72.0	0.732	18.6	2.385	60.6	0.157-0.590	4.0-15.0	TF5D
15	1.724	43.8	1.444	36.7	3.200	81.3	0.732	18.6	2.484	63.1	0.196-0.637	5.0-16.2	TF5D
18	1.732	44.0	1.645	41.8	3.200	81.3	0.744	18.9	2.484	63.1	0.228-0.799	5.8-20.3	TF5D
24	1.874	47.6	1.645	41.8	3.559	90.4	0.944	24.0	2.562	65.1	0.279-0.803	7.1-20.4	TF5D
36	2.460	62.5	1.460	31.7	5.039	128.0	1.944	49.4	2.803	71.2	0.346-0.964	8.8-24.5	TF5D

Note: Contacts are sold separately.
(1) Cable tie is not included.

Pin protection shroud for panel mount receptacle







Number of contacts	Number of discrimination cavities	Part number White UL94 V0
2	0	**SMS2CSB1**
3	0	**SMS3CSB1**
4	0	**SMS4CSB1**
6	2	**SMS6CSB1**
9	4	**SMS9CSB1**
12	6	**SMS12CSB1**
15	8	**SMS15CSB1**
18	10	**SMS18CSB1**
24	15	**SMS24CSB1**
36	24	**SMS36CSB1**

	Dimensions			
	A		B	
Number of contacts	inch	mm	inch	mm
2	0.779	19.8	0.740	18.8
3	0.921	23.4	0.740	18.8
4	1.118	28.4	0.740	18.8
6	0.921	23.4	0.940	23.9
9	0.921	23.4	1.141	29.0
12	0.921	23.4	1.338	34.0
15	0.921	23.4	1.539	39.1
18	0.921	23.4	1.740	44.2
24	1.118	28.4	1.740	44.2
36	2.129	54.1	1.220	31.0

When pins are inserted into the panel mount receptacle side (SMS R1) 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 cut-outs lined up. The receptacle is then inserted in place, trapping the shroud between the receptacle and the panel. The use of the pin protection shroud reduces the allowable thickness of the panel from 0.009 to 0.062" max (2.3 to 1.6 mm max).

Strain relief hoods



For SMS2H1, SMS3H1, SMS4H1 and SMS6H1



2 pieces are needed for a complete hool for SMS9H1 to SMS36H1

Number of contacts	Part number Black UL94 V2
2	**SMS2H1**
3	**SMS3H1**
4	**SMS4H1**
6	**SMS6H1**
9	**SMS9H1**
12	**SMS12H1**
15	**SMS15H1**
18	**SMS18H1**
24	**SMS24H1**
36	**SMS36H1**

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.

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 board mount: See **Page 28**.



Technical specifications

Materials

Shell
- Glass filled thermoplastic

Flammability rating
- Black version
  - UL94 V2
- White version
  - UL94 V0
  - HL2/R22 - HL2/R23 (according to EN 45 545-2)

Contacts
- High conductive copper alloy

Soldering information
- Compatible with wave soldering up to 245°C
- Not compatible with reflow soldering

Mechanical

Coupling system
- Easy snap-in

Durability
- 500 mating cycles

Environmental

Operating temperature
- -55°C to +105°C

Insulation resistance
- 5000 MO min.

Sealing performance
- IP40

Insulation resistance
- 5000 MΩ min.

Electrical

Test potential
- 2000 VAC

Electrical performance
- Current rating for SMS PCB version:
  - 5 Amp for stamped and formed contacts
  - 7.5 Amp for machined contacts
- Electrical performance for crimped versions:
  - UL: 250V - 10A
  - CSA: 250V - 15A

SMS part numbers

SMS 12 GE 3 0 K9

Contact layout
See **Page 5**

Plating indication
See **Page 23**

Body variation

GE :	Solid machined contacts 0"094 or 0"125 (2.4mm or 3.2 mm) seepage 16
SE :	Stamped and formed contacts for 0"094 (2.4 mm) PCB
RE :	Stamped and formed contacts for 0"125 (3.2 mm) PCB

Option

- :	0"094 (2.4 mm) for GE3, GE4 and SE variation
0 :	0"125 (3.2 mm) for GE variation
3 :	Railway version: HL2/R22 - HL2/R23 following EN 45 545-2

Design variation

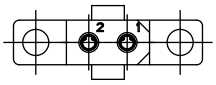
3 :	Straight board mount with female contact
4 :	Straight board mount with male contacts
5 :	Right angle board mount with female contacts
6 :	Right angle board mount with male contacts

Souriau SMS series

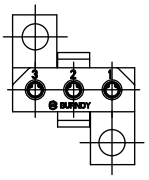
Quick mating PC board mount

Layouts

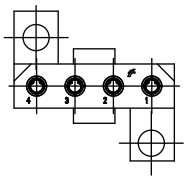
SMS 2



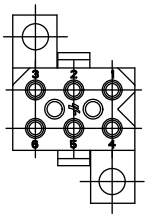
SMS 3



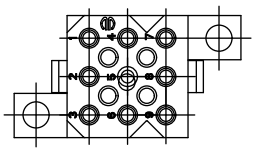
SMS 4



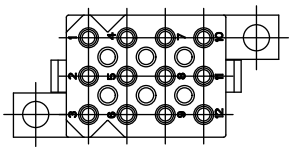
SMS 6



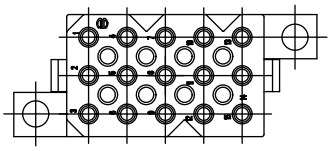
SMS 9



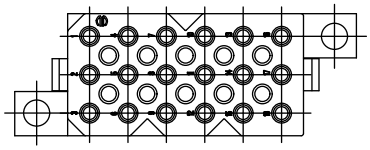
SMS 12



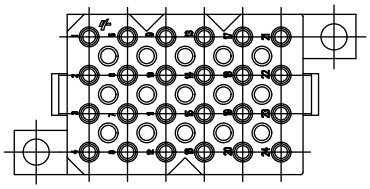
SMS 15



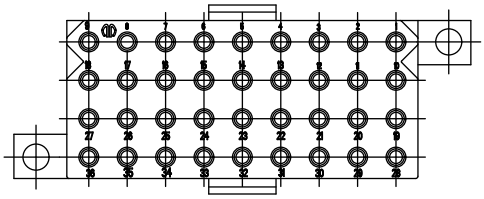
SMS 18



SMS 24

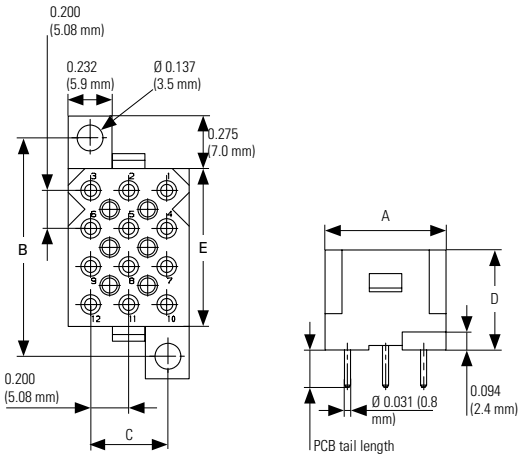


SMS 36



Straight board mount with female contacts



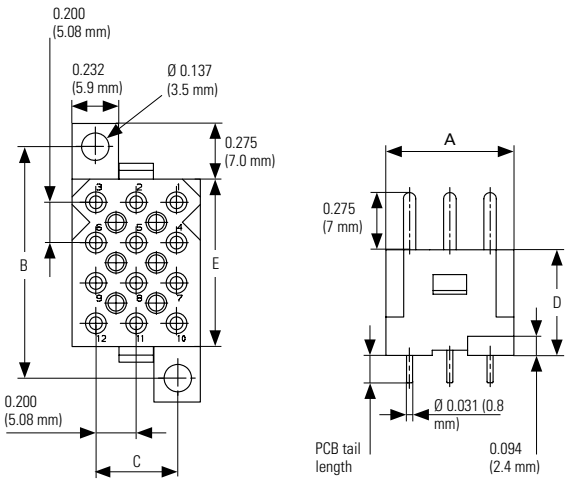


Number of contacts	Number of discrimination cavities	Part number
2	0	SMS2(GE/SE/RE)3
3	0	SMS3(GE/SE/RE)3
4	0	SMS4(GE/SE/RE)3
6	0	SMS6(GE/SE/RE)3
9	4	SMS9(GE/SE/RE)3
12	0	SMS12(GE/SE/RE)3
15	8	SMS15(GE/SE/RE)3
18	10	SMS18(GE/SE/RE)3
24	0	SMS24(GE/SE/RE)3
36	0	SMS36(GE/SE/RE)3

	Dimensions									
Number of contacts	A inch	mm	B inch	mm	C inch	mm	D inch	mm	E inch	mm
2	0.433	11.0	–	–	0.751	19.1	0.527	13.4	0.232	5.9
3	0.637	16.2	0.551	14.0	0.401	10.2	0.527	13.4	0.232	5.9
4	0.838	21.3	0.551	14.0	0.598	15.2	0.527	13.4	0.232	5.9
6	0.637	16.2	0.755	19.2	0.401	10.2	0.527	13.4	0.429	10.9
9	0.637	16.2	0.952	24.2	0.401	10.2	0.527	13.4	0.629	16.0
12	0.637	16.2	1.149	29.2	0.401	10.2	0.527	13.4	0.830	21.1
15	0.637	16.2	1.350	34.3	0.401	10.2	0.527	13.4	1.027	26.1
18	0.637	16.2	1.551	39.4	0.401	10.2	0.527	13.4	1.228	31.2
24	0.834	21.2	1.551	39.4	0.598	15.2	0.527	13.4	1.228	31.2
36	1.830	46.5	0.598	15.2	2.149	54.6	0.527	13.4	0.822	20.9

Right angle board mount with female contacts





Number of contacts	Number of discrimination cavities	Part number
2	0	SMS2(GE/SE/RE)4
3	0	SMS3(GE/SE/RE)4
4	0	SMS4(GE/SE/RE)4
6	0	SMS6(GE/SE/RE)4
9	4	SMS9(GE/SE/RE)4
12	0	SMS12(GE/SE/RE)4
15	8	SMS15(GE/SE/RE)4
18	10	SMS18(GE/SE/RE)4
24	0	SMS24(GE/SE/RE)4
36	0	SMS36(GE/SE/RE)4

	Dimensions									
Number of contacts	A inch	mm	B inch	mm	C inch	mm	D inch	mm	E inch	mm
2	0.437	11.1	–	–	0.751	19.1	0.527	13.4	0.232	5.9
3	0.637	16.2	0.551	14.0	0.401	10.2	0.527	13.4	0.232	5.9
4	0.838	21.3	0.551	14.0	0.598	15.2	0.527	13.4	0.232	5.9
6	0.637	16.2	0.755	19.2	0.401	10.2	0.527	13.4	0.429	10.9
9	0.637	16.2	0.952	24.2	0.401	10.2	0.527	13.4	0.629	16.0
12	0.637	16.2	1.149	29.2	0.401	10.2	0.527	13.4	0.830	21.1
15	0.637	16.2	1.350	34.3	0.401	10.2	0.527	13.4	1.027	26.1
18	0.637	16.2	1.551	39.4	0.401	10.2	0.527	13.4	1.228	31.2
24	0.834	21.2	1.551	39.4	0.598	15.2	0.527	13.4	1.228	31.2
36	1.830	46.5	0.598	15.2	2.149	54.6	0.527	13.4	0.822	20.9

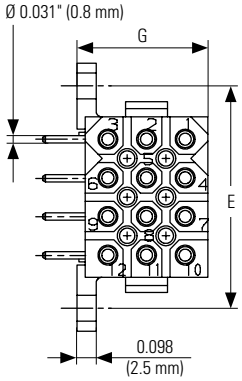
Souriau SMS series

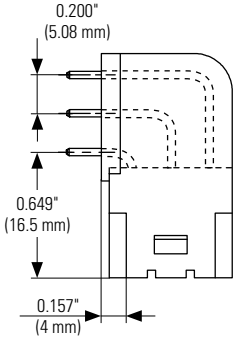
Quick mating PC board mount

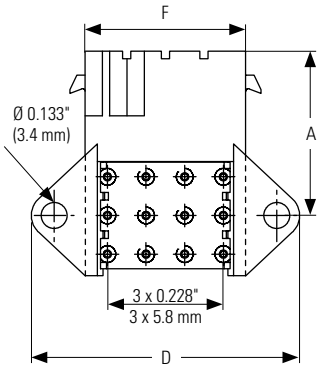
Right angle board mount with female contacts



Number of contacts	Number of discrimination cavities	Part number
3	0	**SMS3(GE/SE)5**
6	0	**SMS6(GE/SE)5**
12	6	**SMS12(GE/SE)5**
18	10	**SMS18(GE/SE)5**





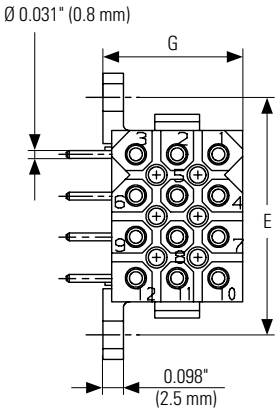


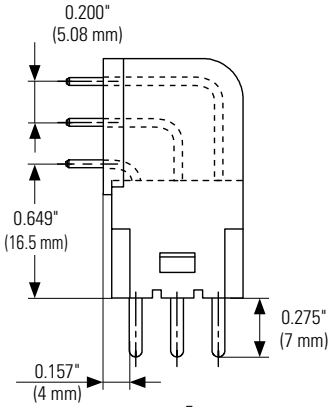
Number of contacts	Dimensions A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm	G inch	G mm
3	0.649	16.5	0.566	14.4	0.807	20.5	1.188	30.2	0.952	24.2	0.637	16.2	0.267	6.8
6	0.748	19.0	0.566	14.4	0.964	24.5	1.188	30.2	0.952	24.2	0.637	16.2	0.468	11.9
12	0.850	21.6	0.566	14.4	1.161	29.5	1.385	35.2	1.149	29.2	0.834	21.2	0.677	17.2
18	0.850	21.6	0.566	14.4	1.161	29.5	1.787	45.4	1.551	39.4	1.228	31.2	0.677	17.2

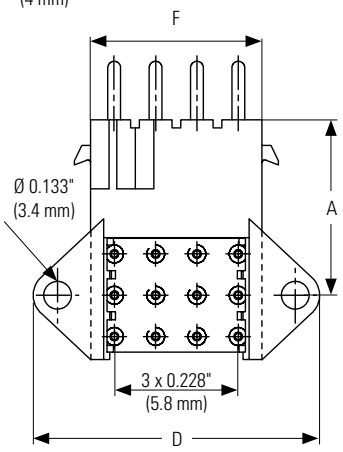
Right angle board mount with male contacts



Number of contacts	Number of discrimination cavities	Part number
3	0	**SMS3(GE/SE)6**
6	0	**SMS6(GE/SE)6**
12	6	**SMS12(GE/SE)6**
18	10	**SMS18(GE/SE)6**





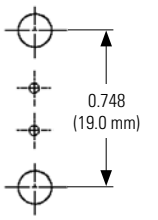


Number of contacts	Dimensions A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm	G inch	G mm
3	0.649	16.5	0.566	14.4	0.807	20.5	1.188	30.2	0.952	24.2	0.637	16.2	0.267	6.8
6	0.748	19.0	0.566	14.4	0.964	24.5	1.188	30.2	0.952	24.2	0.637	16.2	0.468	11.9
12	0.850	21.6	0.566	14.4	1.161	29.5	1.385	35.2	1.149	29.2	0.834	21.2	0.677	17.2
18	0.850	21.6	0.566	14.4	1.161	29.5	1.787	45.4	1.551	39.4	1.228	31.2	0.677	17.2

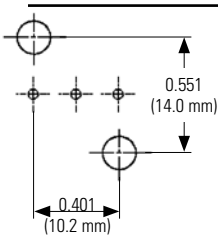
Drilling patterns

Straight angle board mount

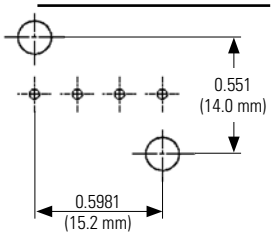
2 contacts



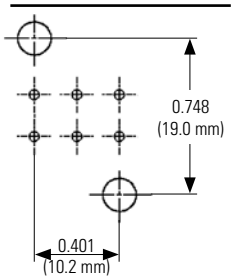
3 contacts



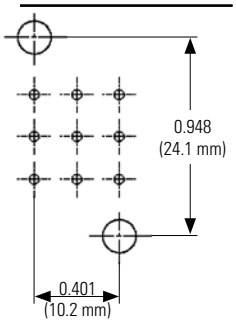
4 contacts



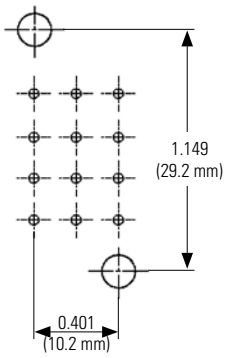
6 contacts



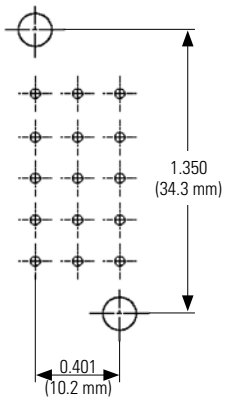
9 contacts



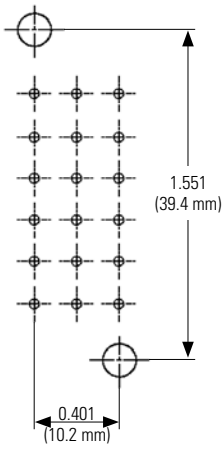
12 contacts



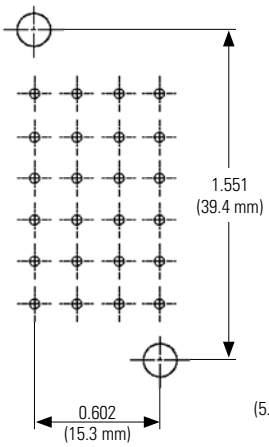
15 contacts



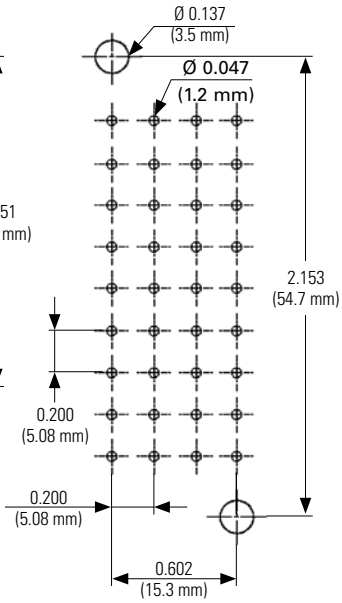
18 contacts



24 contacts

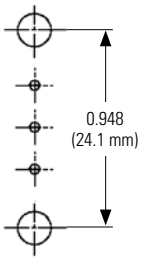


36 contacts

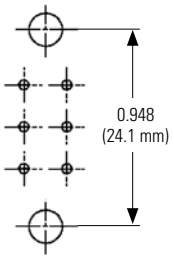


Right angle board mount

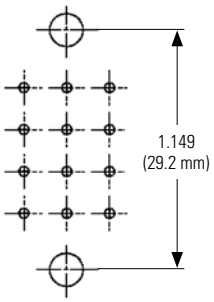
3 contacts



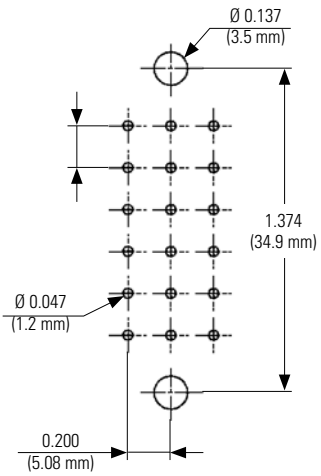
6 contacts



12 contacts



18 contacts





Technical specifications

Materials

Shell
- Glass filled thermoplast

Flammability rating
- Black version
  - UL94 V0

Contacts
- High conductive copper alloy

Environmental

Operating temperature
- -55°C to +125°C

Insulation resistance
- 5000 MΩ min.

Test potential
- 2000 VAC

Current rating
- 5 Amp for stamped and formed contacts
- 7.5 Amps for machined contacts

Durability
- 500 mating cycles

Intermateability

- SMS socket plugs accept TRIM TRIO size 16 removable snap-lock contacts
- Contacts sold separately

SMS part numbers

SMS 12 PH 3 TR29

Contact layout
See **Page 5**

Plating indication
See **Page 23**

Body variation

PH :	Pin header board mount
CH :	Coax header board mount
P3 :	Socket cable plug for pin and coax header board mount

Design variation

2 :	Straight coax header board mount with male contacts
3 :	Right angle pin header board mount with stamped male contacts
4 :	Straight pin header board mount with stamped male contacts
GE6 :	Right angle pin header board mount with machined male contacts
GE4 :	Straight pin header board mount with machined male contacts

Souriau SMS series

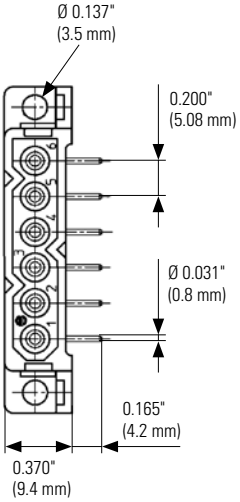
Quick mating PC board mount pin headers and plug

Right angle pin header board mount with male contacts

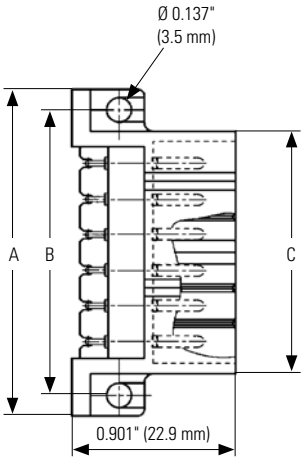




Number of contacts	Part number
3	**SMS3(PH3.../ PHGE6...)**
4	**SMS4(PH3.../ PHGE6...)**
6	**SMS6(PH3.../ PHGE6...)**
9	**SMS9(PH3.../ PHGE6...)**
10	**SMS10(PH3.../ PHGE6...)**



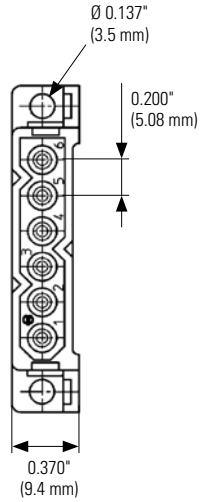
	Dimensions					
	A		B		C	
Number of contacts	inch	mm	inch	mm	inch	mm
3	1.228	31.2	1.000	25.4	0.759	19.3
4	1.429	36.3	1.196	30.4	0.960	24.4
6	1.830	46.5	1.598	40.6	1.358	34.5
9	2.429	61.7	2.200	55.9	1.948	49.5
10	2.629	66.8	2.401	61.0	2.161	54.9

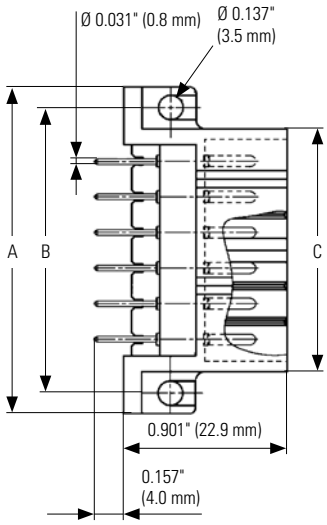


Straight pin header board mount with male contacts



Number of contacts	Part number
3	SMS3(PH4.../ PHGE4...)
4	SMS4(PH4.../ PHGE4...)
6	SMS6(PH4.../ PHGE4...)
9	SMS9(PH4.../ PHGE4...)
10	SMS10(PH4.../ PHGE4...)



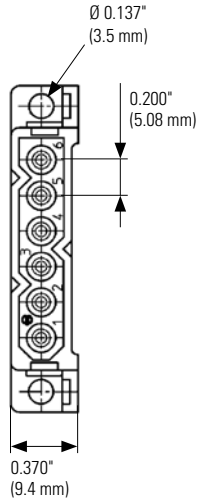


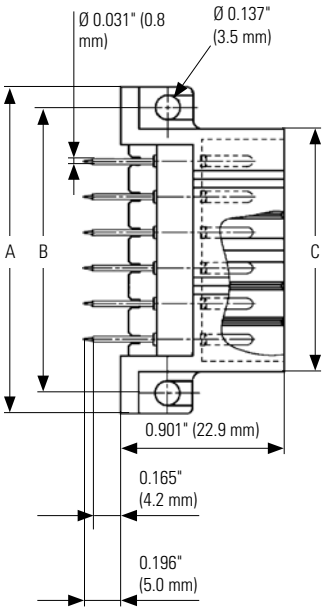
	Dimensions					
	A		B		C	
Number of contacts	inch	mm	inch	mm	inch	mm
3	1.228	31.2	1.000	25.4	0.759	19.3
4	1.429	36.3	1.196	30.4	0.960	24.4
6	1.830	46.5	1.598	40.6	1.358	34.5
9	2.429	61.7	2.200	55.9	1.948	49.5
10	2.629	66.8	2.401	61.0	2.161	54.9

Straight coax header board mount with male contacts



Number of contact	Part number
3	**SMS3CH2Z17**
4	**SMS4CH2Z17**
6	**SMS6CH2Z17**
9	**SMS9CH2Z17**
10	**SMS10CH2Z17**



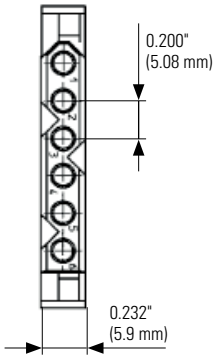


	Dimensions					
	A		B		C	
Number of contact	inch	mm	inch	mm	inch	mm
3	1.228	31.2	1.000	25.4	0.759	19.3
4	1.429	36.3	1.196	30.4	0.960	24.4
6	1.830	46.5	1.598	40.6	1.358	34.5
9	2.429	61.7	2.200	55.9	1.948	49.5
10	2.629	66.8	2.401	61.0	2.161	54.9

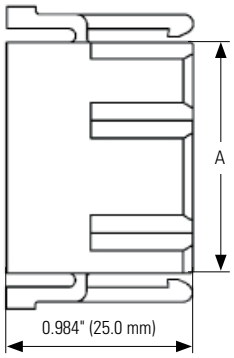
Socket cable plug for pin and coax board mount header



Number of contact	Part number
3	SMS3P3
4	SMS4P37
6	SMS6P3
9	SMS9P3
10	SMS10P3



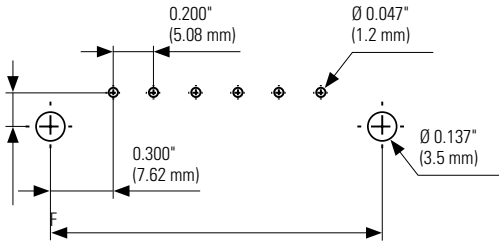
	Dimensions	
	A	
Number of contact	inch	mm
3	0.629	16.0
4	0.830	21.1
6	1.228	31.2
9	1.830	46.5
10	2.031	51.6



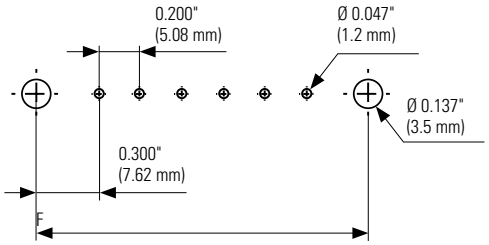
Quick mating PC board mount pin headers and plug

Drilling patterns

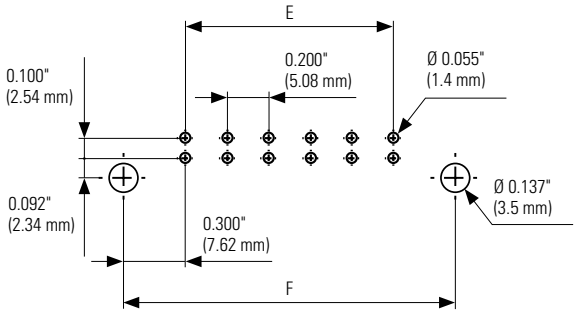
Right angle pin header



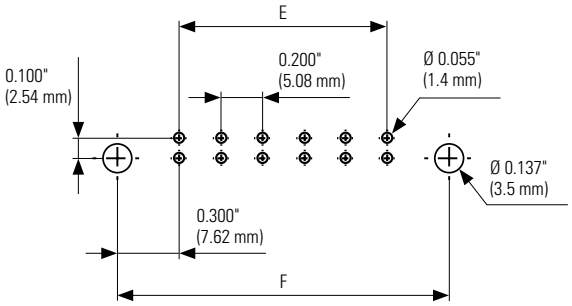
Straight pin header



Right angle coax header



Straight coax header



	Dimensions			
	E		F	
Number of contact	inch	mm	inch	mm
3	0.400	10.18	1.000	25.40
4	0.600	15.24	1.200	30.48
6	1.000	25.40	1.600	40.64
9	1.600	40.64	2.200	55.88
10	1.800	45.72	2.400	60.96

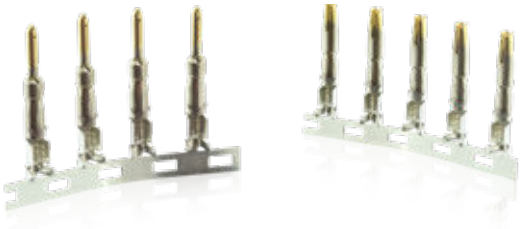
Contact plating selector guide

Once the contact size has been selected, the next step is to determine which electrical contact type should be used. We offer two main types of electrical contacts:

- Machined
- Stamped and formed



Machined contacts

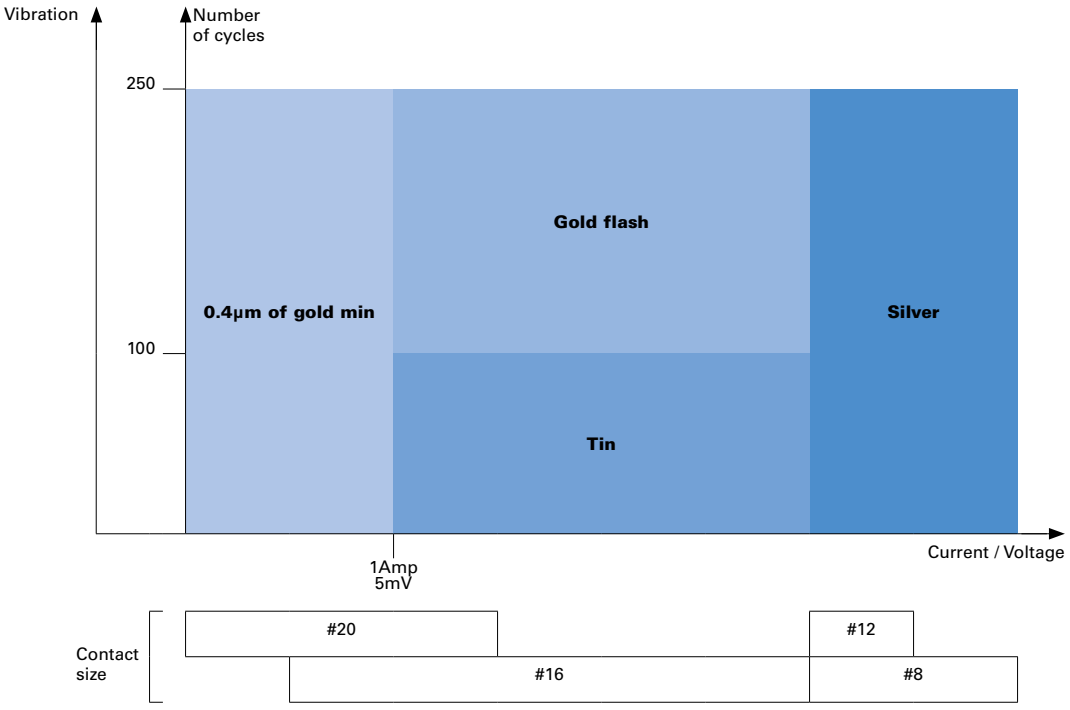


Stamped and formed contacts

Machined contacts are generally selected as a better solution for power applications or when lower quantities are needed. Stamped and formed contacts offer the ability to be crimped automatically which makes them more suitable for high volume production applications.

The ideal plating is selected based on your application. Use the graph below to identify a plating based on the number of mating cycles, vibration and current/voltage needs for your application.

Note: Do not mix different plating (i.e. tin plated pin contacts with gold plated socket contacts).



Souriau SMS series

Contact selector guide

Machined contacts

Contact size	Contact type	Active area
#16 Ø 0.062" (1.6)	K	0.4µm Gold over 2µm Nickel min
	J	Gold flash over Nickel 2µm min
	T	Tin 3µm (-0/+2) over 1.3µm Nickel min
	D28 for coax contacts only	0.75µm min Gold over 2µm Nickel min

Stamped & formed contacts

		Plating description	
Contact size	**Plating code**	**Active area**	**Other area**
#16 Ø 0.062" (1.6)	S31	Gold flash over Nickel	Crimped area: 1.3µm Tin min over Nickel Other areas: 1.3µm Tin min
	S18	0.75µm Gold min over Nickel	Crimped area: 1.3µm Tin min over Nickel Other areas: 1.3µm Tin min
	D70	0.13µm Gold min over Nickel	Gold flash over Nickel
	TK6	0.5µm - 2.5µm Sn pre-plated	-

Electrical characteristics: contact resistance

Contact size	Contact type	Resistance
#16 Ø 0.062" (1.6)	Machined	< 3mΩ
	Stamped and formed	< 6mΩ

Packaging

TRIM TRIO contacts are available in a wide variety of packaging, from very small quantities (small bulk packaging) to very large quantities (reeled parts).

Stamped & formed contacts



Description	Quantity
Loose package	**25 pieces**
Reeled	**3,000 pieces**

Machined contacts



Description	Quantity
Bulk package	**50 pieces**
Bulk package	**1,000 pieces**
Reeled size #16 only	**2,000 pieces**

Standard version

Contact size	Type	Wire size AWG	inch²	mm²	Part number Male	Female	Insulator inch	Ø max mm	Available plating see Page 23
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	0.05-0.08	**RM28M1-**	**RC28M1-**	0.043"	1.1	K, J
	Machined	26-24	0.005"-0.007"	0.13-0.2	**RM24M9-**	**RC24M9-**	0.062"	1.6	K, J
	Stamped & formed	26-24	0.005"-0.009"	0.13-0.25	**SM24M1-(1)** **SM24ML1-(2)**	**SC24M1-(1)** **SC24ML1-(2)**	0.089"-0.062"	0.89-1.58	S31, S18, TK6
	Machined	22-20	0.012"-0.020"	0.32-0.52	**RM20M13-**	**RC20M13-**	0.070"	1.8	K, J
	Machined	22-20	0.012"-0.020"	0.32-0.52	**RM20M12-**	**RC20M12-**	0.086"	2.2	K, J
	Stamped & formed	22-20	0.013"-0.019"	0.35-0.5	**SM20M1-(1)** **SM20ML1-(2)**	**SC20M1-(1)** **SC20ML1-(2)**	0.046"-0.081"	1.17-2.08	S31, S18, TK6
	Machined	18-16	0.036"-0.059"	0.92-1.5	**RM16M23-**	**RC16M23-**	0.125"	3.2	K, J
	Stamped & formed	18-16	0.031"-0.059"	0.8-1.5	**SM16M1-(1)** **SM16ML1-(2)**	**SC16M1-(1)** **SC16ML1-(2)**	No insulation grip	No insulation grip	S31, S18, TK6
	Stamped & formed	18-16	0.031"-0.059"	0.8-1.5	**SM16M11-(1)** **SM16ML11-(2)**	**SC16M11-(1)** **SC16ML11-(2)**	0.081"-0.118"	2.08-3.0	S31, S18, TK6
	Machined	16-14	0.059"-0.098"	1.5-2.5	**RM14M30-**	**RC14M30-**	0.125"	3.2	K, J
	Stamped & formed	14	0.078"-0.098"	2.0-2.5	**SM14M1-(1)** **SM14ML1-(2)**	**SC14M1-(1)** **SC14ML1-(2)**	No insulation grip	No insulation grip	S31, S18, TK6

(1): Reeled contacts
(2): Loose contact
Example: RM24W3K - Size #20, machined, AWG24 wire.

Crimping tools for standard contacts

Contact size	Part number	Head*	Handles*	Extraction tools
#16 Ø 0.062" (1.6)	RM/RC 28M1*	**S16RCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	RM/RC 24M9*	**S16RCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	RM/RC 20M13*	**S16RCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	RM/RC 20M12*	**S16RCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	RM/RC 16M23*	**S16RCM16**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	RM/RC 14M30*	**S16RCM14**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	SM/SC 24ML1*(1)	**S16SCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	SM/SC 20ML1*(1)	**S16SCM20**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	SM/SC 16ML1*(1)	**S16SCML1**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	SM/SC 14ML1*(1)	**S16SCML1**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**
	SM/SC 16ML11*(1)	**S16SCML11**	**SHANDLES**	**RX2025GE1 or RX2031J long endurance tool**

(1): Loose contact
* Endurance of SHANDLES and head tools = 48,000 cycles

Extraction tool



RX2025GE1

Contact size	Part number
#16	**RX2025GE1**
#16 Long endurance tool	**RX2031J**



RX2031J

Wire stripping crimp version

Machined contact



Contact size	Part number Male	Part number Female	Stripping length L inch	Stripping length L mm
#16 Ø 0.062"(1.6)	RM28M1- / RM24M9- RM20M13- / RM20M12-	RC28M1- / RC24M9- RC20M13- / RC20M12-	0.188"	4.8
	RM16M23- /RM14M30-	RC16M23- /RC14M30-	0.279"	7.1

Stamped & formed with insulation support



Contact size	Part number Male	Part number Female	Stripping length L inch	Stripping length L mm
#16 Ø 0.062"(1.6)	SM24M1- / SM24ML1- SM20M1- / SM20ML1-	SC24M1- / SC24ML1- SC20M1- / SC20ML1-	0.157"	4
	SM16M11- / SM16ML11-	SC16M11- / SC16ML11-	0.183"	4.65

Stamped & formed without insulation support



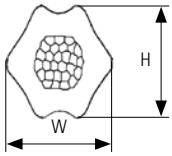
Contact size	Part number Male	Part number Female	Stripping length L inch	Stripping length L mm
#16 Ø 0.062"(1.6)	SM16M1- / SM16ML1-	SC16M1- / SC16ML1-	0.250"	6.35
	SM14M1- / SM14ML1-	SC14M1- / SC14ML1-	0.250"	6.35

Crimping control

The termination method for contacts plays a crucial role in determining a connector's performance. Crimped connections are widely regarded as the optimal solution for ensuring quality and longevity throughout the product's lifespan.



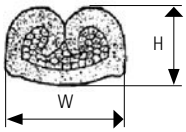
Machined contact







Stamped & formed contact



Active contact part	Contact type	Die location on heads	Wire section range	Section inch²	Section mm²	Tensile straight test (min)	Height H ±0.002" (±0.075) inch	Height H ±0.002" (±0.075) mm	Width W ±0.002" (±0.075) inch	Width W ±0.002" (±0.075) mm	Tooling head part number
Machined contacts size #16 Ø 0.062" (1.6)	**RM28M1K***	30/28	30 AWG	0.001" min	0.05 min	11 N	0.044"	1.14	0.055"	1.41	**S16RCM20**
	RC28M1K*	30/28	28 AWG	0.003" max	0.08 max	6 N	0.044"	1.14	0.055"	1.41	**S16RCM20**
	RM24M9K*	26/24	26 AWG	0.004" min	0.12 min	15 N	0.045"	1.15	0.055"	1.41	**S16RCM20**
	RC24M9K*	26/24	24 AWG	0.009" max	0.25 max	32 N	0.045"	1.15	0.055"	1.41	**S16RCM20**
	RM20M13K*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.049"	1.26	0.069"	1.76	**S16RCM20**
	RC20M13K*	22/20	20 AWG	0.019" max	0.50 max	60 N	0.049"	1.26	0.069"	1.76	**S16RCM20**
	RM20M12K*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.049"	1.26	0.069"	1.76	**S16RCM20**
	RC20M12K*	22/20	20 AWG	0.019" max	0.50 max	60 N	0.049"	1.26	0.069"	1.76	**S16RCM20**
	RM16M23K*	18	18 AWG	0.032" max	0.82 max	90 N	0.070"	1.80	0.089"	2.28	**S16RCM16**
	RC16M23K*	16	16 AWG	0.059" max	1.50 max	150 N	0.077"	1.96	0.095"	2.43	**S16RCM16**
	RM14M30K*	16	16 AWG	0.059" min	1.50 min	150 N	0.082"	2.10	0.105"	2.68	**S16RCM14**
	RC14M30K*	14	14 AWG	0.098" min	2.50 min	230 N	2.3	2.30	0.109"	2.78	**S16RCM14**
Stamped and formed contacts size #16 Ø 0.062" (1.6)	**SM24ML1TK6***	26/24	26 AWG	0.004" min	0.12 min	15 N	0.033"	0.84	0.059"	1.50	**S16SCM20**
	SC24ML1TK6*	26/24	24 AWG	0.009" max	0.25 max	32 N	0.033"	0.84	0.059"	1.50	**S16SCM20**
	SM20ML1TK6*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.040"	1.02	0.060"	1.54	**S16SCM20**
	SC20ML1TK6*	22/20	20 AWG	0.019" max	0.50 max	60 N	0.040"	1.02	0.060"	1.54	**S16SCM20**
	SM16ML11TK6*	18	18 AWG	0.032" min	0.82 min	90 N	0.051"	1.32	0.082"	2.09	**S16SCML11**
	SC16ML11TK6*	16	16 AWG	0.059" max	1.50 max	150 N	0.053"	1.36	0.082"	2.10	**S16SCML11**
	SM16ML1TK6*	18	18 AWG	0.032" min	0.82 min	90 N	0.058"	1.149	0.079"	2.02	**S16SCML1**
	SC16ML1TK6*	16	16 AWG	0.059" max	1.50 max	150 N	0.066"	1.70	0.080"	2.05	**S16SCML1**
	SM14ML1TK6* SC14ML1TK6*	14	14 AWG	0.098" max	2.50 max	230 N	0.070"	1.79	0.101"	2.58	**S16SCML1**

Tooling



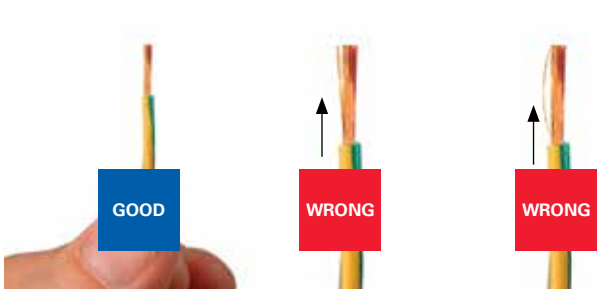
1) Fully close then release the tool, keep it open.
Open the two pins.



2) Choose the adapter head (sold separately). Keep vertical and slide it into the handle until the mechanical stop.



3) Close the two pins simultaneously to maintain the head.



4) Strip the cable properly by checking the recommended size.



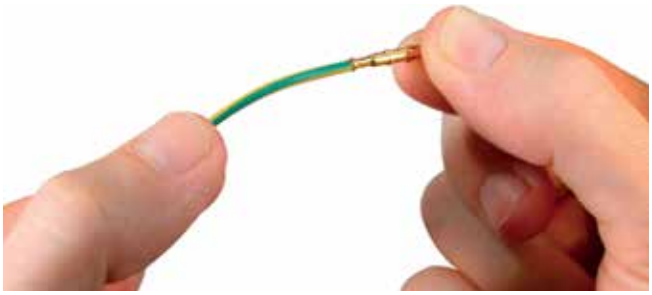
5) Place conductors, with no deterioration, in the contact bucket. All strands to be located in the crimp bucket.



6) Position the contact in the bottom of the tool by checking its orientation. Maintain the wire in position.



7) Tighten the handles to the end of the mechanism (max 175 N).
After handles are opened, extract the contact.



8) Complete.

Discrimination pin

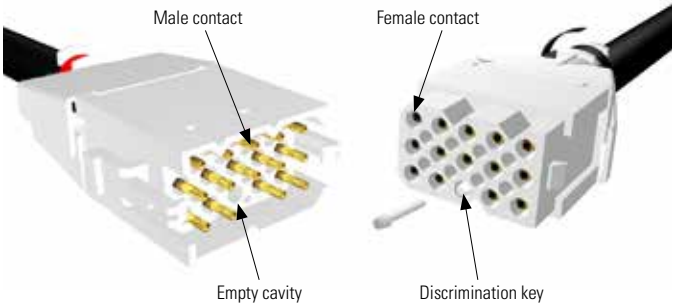
In applications where similar connectors are used next to each other, mismatching can be a reason for disturbances, system failure or even danger to the operator. To eliminate mismatching, the SMS convectors can be equipped with discrimination keys. When a discrimination key is used, the SMS will only mate with a connector with a vacant contact or discrimination cavity at the corresponding position.

SMSPKE0
Both connectors have removable contacts



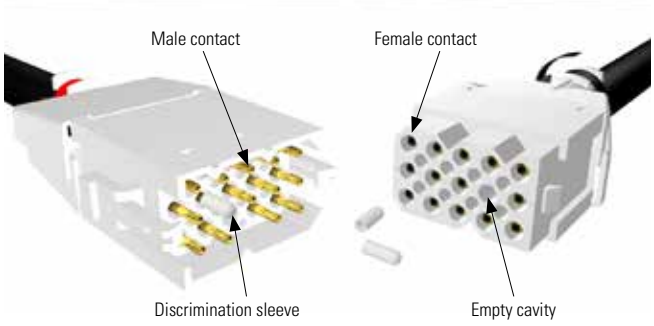
A dummy contact can be inserted into an empty contact cavity in any SMS connector.

SMSPKE2V1
Fixed female contacts and without discrimination cavities



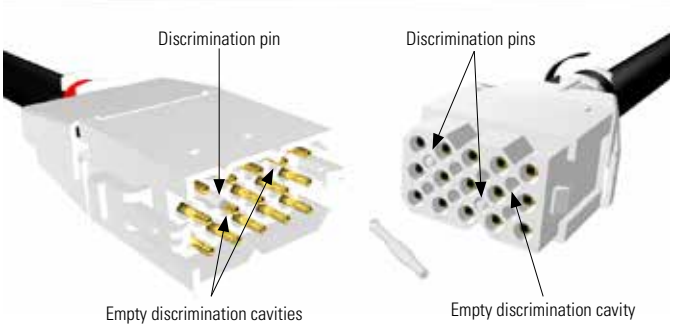
A pin can be inserted into a preassembled female contact in all female boardmount SMS connectors.

SMSPKB2
Connectors without discrimination cavities and without removable pin contacts



A tube can be fitted over a preassembled male contact in all industrial male boardmount SMS connectors.

SMSPKE3
Both connectors have discrimination cavities



A pin can be inserted in the discrimination cavities of the SMS quick mating cable and boardmount connectors. The discrimination cavities are in between the contact cavities and offer the advantage that no contact cavities are lost due to discrimination.

For more information, contact us:
Eaton.com/interconnect-support



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Document No. TF700-42
February 2024

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