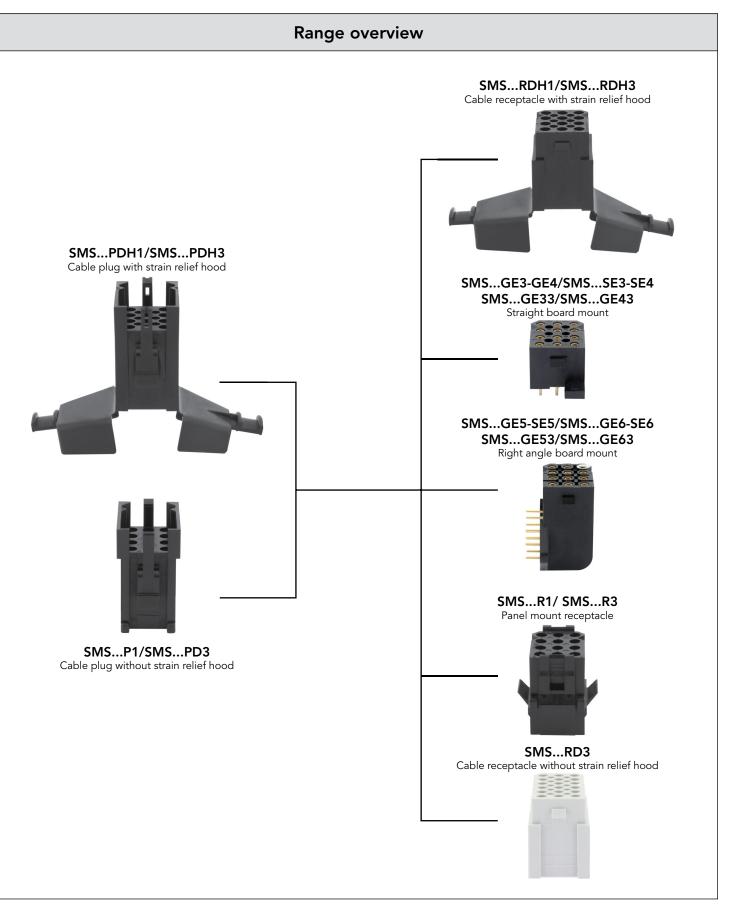


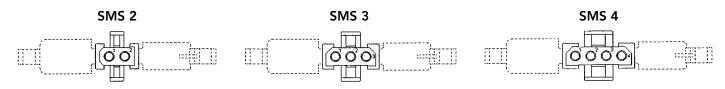
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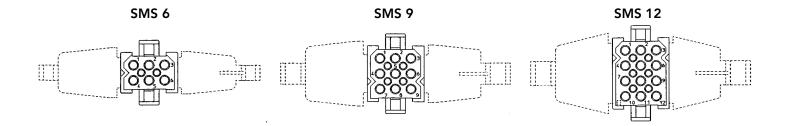
Quick Mating



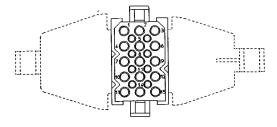


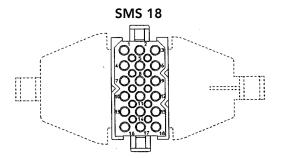
**Contacts layout** 

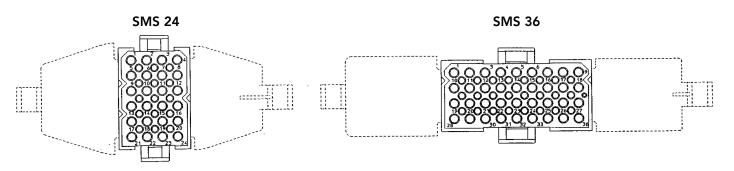




SMS 15







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

### SMS Series Quick Mating

## Quick Mating panel and cable connectors

#### Description

The versatile and easy to use "SMS" Quick Mating panel and cable connectors are a highly cost-effective system approach to solving the constant demand for more interconnection solutions and techniques.

A full plastic solution offered in either Wire attachment or PCB mounting options to provide rapid assembly/installation without requiring additional mounting hardware. Panel receptacle connectors simply snap and lock into panel cut-outs and cable plugs quickly connect and disconnect with positive retention locks. Just push to mate then press and release to un-mate.

In addition, cable plug connectors also feature pin-protection skirts, positive polarization and are offered with or without integrated strain relief hoods. Cable receptacle connectors (with integrated strain relief hoods) are available to mate with the cable plug connectors for cableto-cable solutions when needed.

These multi-way connectors accept the Size 16 TRIM TRIO (1.6mm) diameter contacts and are available with 10 contact arrangements from 2 to 36 positions.

### 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 mismating
- Cable plug and receptacle have integrated strain relief hood which can accept a wide range of cables
- Cable plug and receptacle have discrimination cavities in between contact cavities, thus offering discrimination without contact loss. See instruction page 21.
- UL recognized File Nr.: E238675
- CSA certififed File Nr.: LR44961-21

### Ordering information



### Environmental

- Operating temperature: -55°C to +105°C
- Insulation resistance: 5000  $M\Omega$  min.
- Test potential: 2000 VAC
- Durability: 500 matings and unmatings
- Sealing performances: IP40
   Electrical performances: UL: 250V - 10A CSA: 250V - 15A

#### Wire insulation acceptance

- SMS PDH1, RDH1, PD3, PDH3, RD3, RDH3 max: 3.2mm
- SMS R1, P1, R3 max: 4.19mm

### Material

- Connector: Polyamide 6.6
- Flammability rating: UL94 V2 (Black) or UL94 V0 (White).
   The white version is also I3F2/I2F3 according to the NFF 16101 /16102 (Fire & fume standard for French rail market) and

R23/HL3 following EN 45 545

### Contact

- "SMS" Quick Mating connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered seperately.

Connector family	SMS	12	PDH3
Layout: see next page			
Body variation:			
R1: (UL94 V2) Panel mount receptacle - Black			
R3: (UL94 V0) Panel mount receptacle - White			
P1: (UL94 V2) Cable plug without strain relief hood - Black			
PD3: (UL94 V0) Cable plug without strain relief hood - White			
PDH1: (UL94 V2) Cable plug with integrated strain relief hood - Black			
PDH3: (UL94 V0) Cable plug with integrated strain relief hood - White			
RD3: (UL94 V0) Cable receptacle without integrated strain relief hood - White			
RDH1: (UL94 V2) Cable receptacle with integrated strain relief hood - Black			
RDH3: (UL94 V0) Cable receptacle with integrated strain relief hood - White			

### Connectors

Pane	el mount recep	otacle without o	discrimina	tion caviti	<b>es</b> (wire accep	otance: 4.19mm	)
		25.0			×		
Part n	umber	Nbr. of contact*	А	В	C max.	J	к
		INDI. OI COIILACL	I A				
Black UL94 V2	White UL94 V0			_	•		
Black UL94 V2 SMS2R1	White UL94 V0 SMS2R3	2	11.0	_		11.4	
		2 3		5.8	15.2	-	11.6
SMS2R1	SMS2R3		11.0	_		11.4	
SMS2R1 SMS3R1	SMS2R3 SMS3R3	3	11.0 16.2	_		11.4 16.5 21.7	
SMS2R1 SMS3R1 SMS4R1	SMS2R3 SMS3R3 SMS4R3	3	11.0 16.2	5.8	15.2	11.4 16.5	11.6
SMS2R1 SMS3R1 SMS4R1 SMS6R1	SMS2R3 SMS3R3 SMS4R3 SMS6R3	3 4 6	11.0 16.2	5.8	15.2 20.3	11.4 16.5 21.7	11.6
SMS2R1 SMS3R1 SMS4R1 SMS6R1 SMS9R1	SMS2R3 SMS3R3 SMS4R3 SMS6R3 SMS9R3	3 4 6 9	11.0 16.2 21.1	5.8 10.9 16.0	15.2 20.3 25.4	11.4 16.5 21.7	11.6 16.7 21.6
SMS2R1 SMS3R1 SMS4R1 SMS6R1 SMS9R1 SMS12R1	SMS2R3 SMS3R3 SMS4R3 SMS6R3 SMS9R3 SMS12R3	3 4 6 9 12	11.0 16.2 21.1	5.8 10.9 16.0 21.1 26.2	15.2 20.3 25.4 30.5 35.6	11.4 16.5 21.7 16.5	11.6 16.7 21.6 26.7 31.8
SMS2R1           SMS3R1           SMS4R1           SMS6R1           SMS9R1           SMS12R1           SMS15R1	SMS2R3 SMS3R3 SMS4R3 SMS6R3 SMS9R3 SMS12R3 SMS15R3	3 4 6 9 12 15	11.0 16.2 21.1	5.8 10.9 16.0 21.1	15.2 20.3 25.4 30.5	11.4 16.5 21.7 16.5	11.6 16.7 21.6 26.7

Cable plug without strain	n relief hood & wi	thout discrimination cav	<b>ities</b> (wire acceptance: 4.19mm)
		32.9	B max. B max. B max. C O O O O O O O O O O O O O O O O O O O
Part number	Nilon of contract		<b>C</b>
Black UL94 V2	<ul> <li>Nbr. of contact*</li> </ul>	A	C max.
SMS2P1	2	15.0	
SMS3P1	3	18.6	17.8
SMS4P1	4	23.7	
SMS6P1	6		22.9
SMS9P1	9		27.9
SMS12P1	12	18.6	33.0
SMS15P1	15		38.1
SMS18P1	18		42.2
SMS24P1	24	23.7	43.2
SMS36P1	36	49.1	33.0
*Contacts supplied separately			

Note: all dimensions are in mm

		25.0	_ Contact ca	with Diagrie	mation	E
		B max.			vity	
Part number White UL94 V0	Nbr. of contact*	Nbr. of discrimi- nation cavities	B max	с	D	E
SMS2RD3	2	0			11.1	14.1
	3	0	9.9	8.4	16.2	18.6
SMS3RD3	U					
SMS3RD3 SMS4RD3	4	0			21.2	23.7
		0	15.0	13.4	21.2	23.7
SMS4RD3	4	-	15.0 20.0	13.4 18.5	21.2	23.7
SMS4RD3 SMS6RD3	4 6	2			21.2	23.7
SMS4RD3 SMS6RD3 SMS9RD3	4 6 9	2 4	20.0	18.5	-	
SMS4RD3 SMS6RD3 SMS9RD3 SMS12RD3	4 6 9 12	2 4 6	20.0 25.1 30.2	18.5 23.6 28.7	-	
SMS4RD3 SMS6RD3 SMS9RD3 SMS12RD3 SMS15RD3	4 6 9 12 15	2 4 6 8	20.0 25.1	18.5 23.6	-	

Cable	plug without	strain relief ho	ood & with dis	crimination cav	vities
		32.7	Contact cavit	y Discrimation cavity	
Part number White UL94 V0	Nbr. of contact*	Nbr. of discrimi- nation cavities	B max.	с	D
SMS2PD3	2	0			14.1
SMS3PD3	3	0	16.4	8.4	18.6
SMS4PD3	4	0			23.7
SMS6PD3	6	2	21.5	13.4	
SMS9PD3	9	4	26.7	18.5	
SMS12PD3	12	6	31.7	23.6	18.6
SMS15PD3	15	8	36.7	28.7	
SMS18PD3	18	10	41.8	33.8	
SMS24PD3	24	15	41.0	55.0	23.7
SMS36PD3	36	24	31.7	23.6	49.1
*Contacts supplied separately					AL . 11 19

Note: all dimensions are in mm

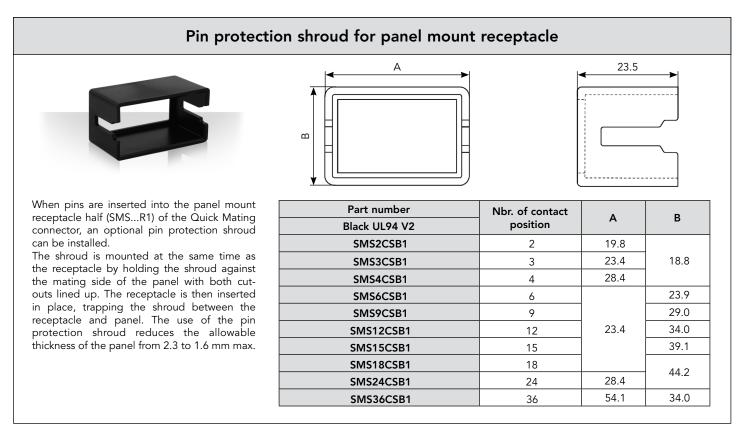
### **Connectors** (Continued)

	Cable	recepta	acle with inte	egrate	d strai	n relie	f hood	l		
					ontact cav	ity D	cavity	n 		Cable range
Part n	umber	Nbr. of	Nbr. of discrimi-	А	в	с	D	н	Cable	Cable
Black UL94 V2	White UL94 V0	contact*	nation cavities		_				range (mm)	tie (1)
Black UL94 V2 SMS2RDH1	White UL94 V0 SMS2RDH3	contact*	nation cavities 0	31.6		11.1	0.5		range (mm) 0.5-8.4	tie (1)
					9.9			49.2		
SMS2RDH1	SMS2RDH3	2	0	31.6		11.1	0.5		0.5-8.4	
SMS2RDH1 SMS3RDH1	SMS2RDH3 SMS3RDH3	2	0	31.6 35.1		11.1 69.0	0.5		0.5-8.4	
SMS2RDH1 SMS3RDH1 SMS4RDH1	SMS2RDH3 SMS3RDH3 SMS4RDH3	2 3 4	0 0 0	31.6 35.1 38.2	9.9	11.1 69.0 74.4	0.5	49.2	0.5-8.4 0.8-7.3 1.5-10	tie <sup>(1)</sup>
SMS2RDH1 SMS3RDH1 SMS4RDH1 SMS6RDH1	SMS2RDH3 SMS3RDH3 SMS4RDH3 SMS6RDH3	2 3 4 6	0 0 0 2	31.6 35.1 38.2 34.6	9.9	11.1 69.0 74.4 72.6	0.5	49.2	0.5-8.4 0.8-7.3 1.5-10 1.7-9.2	
SMS2RDH1 SMS3RDH1 SMS4RDH1 SMS6RDH1 SMS9RDH1	SMS2RDH3 SMS3RDH3 SMS4RDH3 SMS6RDH3 SMS9RDH3	2 3 4 6 9	0 0 0 2 4	31.6 35.1 38.2 34.6 35.8	9.9 15.0 20.0	11.1 69.0 74.4 72.6 75.3 72.0	0.5 16.2 21.2	49.2 50.9 52.2 52.7	0.5-8.4 0.8-7.3 1.5-10 1.7-9.2 3.9-14.2	TF4D
SMS2RDH1 SMS3RDH1 SMS4RDH1 SMS6RDH1 SMS9RDH1 SMS12RDH1	SMS2RDH3 SMS3RDH3 SMS4RDH3 SMS6RDH3 SMS9RDH3 SMS12RDH3	2 3 4 6 9 12	0 0 0 2 4 6	31.6 35.1 38.2 34.6 35.8 38.1	9.9 15.0 20.0 25.1 30.2	11.1 69.0 74.4 72.6 75.3	0.5 16.2 21.2	49.2 50.9 52.2	0.5-8.4 0.8-7.3 1.5-10 1.7-9.2 3.9-14.2 4.0-15.0	
SMS2RDH1 SMS3RDH1 SMS4RDH1 SMS6RDH1 SMS9RDH1 SMS12RDH1 SMS15RDH1	SMS2RDH3 SMS3RDH3 SMS4RDH3 SMS6RDH3 SMS9RDH3 SMS12RDH3 SMS15RDH3	2 3 4 6 9 12 15	0 0 0 2 4 6 8	31.6 35.1 38.2 34.6 35.8 38.1 35.9	9.9 15.0 20.0 25.1	11.1 69.0 74.4 72.6 75.3 72.0	0.5 16.2 21.2	49.2 50.9 52.2 52.7	0.5-8.4 0.8-7.3 1.5-10 1.7-9.2 3.9-14.2 4.0-15.0 5.0-16.2	TF4D

	Cal	ole plug	g with integr	ated s	train r	elief ho	bod			
					Contact car		Discrimatic			Cable range
Part n	umber	Nbr. of	Nbr. of discrimi-	•		6	<b>_</b>		Cable	Cable
Part n Black UL94 V2	umber White UL94 V0	Nbr. of contact*	Nbr. of discrimi- nation cavities	А	В	с	D	н	Cable range (mm)	Cable tie <sup>(1)</sup>
	1			<b>A</b> 39.5	В	<b>C</b> 64.8	<b>D</b> 14.1	Н		
Black UL94 V2	White UL94 V0	contact*	nation cavities		<b>B</b> 16.4	_		<b>Н</b> 57.1	range (mm)	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1	White UL94 V0 SMS2PDH3	contact*	nation cavities	39.5		64.8	14.1		range (mm) 0.5-8.4	
Black UL94 V2 SMS2PDH1 SMS3PDH1	White UL94 V0 SMS2PDH3 SMS3PDH3	contact* 2 3	nation cavities 0 0	39.5 43.0		64.8 69.0	14.1 18.6		range (mm) 0.5-8.4 0.8-7.3	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1	White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3	<b>contact*</b> 2 3 4	nation cavities 0 0 0	39.5 43.0 46.1	16.4	64.8 69.0 74.4	14.1 18.6	57.1	range (mm) 0.5-8.4 0.8-7.3 1.5-10	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 SMS6PDH1	White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 SMS6PDH3	<b>contact*</b> 2 3 4 6	nation cavities 0 0 0 0 2	39.5 43.0 46.1 42.5	16.4	64.8 69.0 74.4 72.6	14.1 18.6	57.1	range (mm)           0.5-8.4           0.8-7.3           1.5-10           1.7-9.2	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 SMS6PDH1 SMS6PDH1	White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 SMS6PDH3 SMS9PDH3	contact*           2           3           4           6           9	nation cavities           0           0           0           2           4	39.5 43.0 46.1 42.5 43.7	16.4 21.5 26.7	64.8 69.0 74.4 72.6 75.3 72.0	14.1 18.6 23.7	57.1 58.8 60.1 60.6	range (mm) 0.5-8.4 0.8-7.3 1.5-10 1.7-9.2 3.9-14.2	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 SMS6PDH1 SMS9PDH1 SMS12PDH1	White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 SMS6PDH3 SMS9PDH3 SMS12PDH3	contact*           2           3           4           6           9           12	nation cavities           0           0           0           2           4           6	39.5 43.0 46.1 42.5 43.7 46.0	16.4 21.5 26.7 31.7 36.7	64.8 69.0 74.4 72.6 75.3	14.1 18.6 23.7	57.1 58.8 60.1	range (mm)           0.5-8.4           0.8-7.3           1.5-10           1.7-9.2           3.9-14.2           4.0-15.0	tie <sup>(1)</sup>
Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 SMS6PDH1 SMS9PDH1 SMS12PDH1 SMS15PRDH1	White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 SMS6PDH3 SMS9PDH3 SMS12PDH3 SMS15PDH3	contact*           2           3           4           6           9           12           15	nation cavities           0           0           0           2           4           6           8	39.5 43.0 46.1 42.5 43.7 46.0 43.8	16.4 21.5 26.7 31.7	64.8 69.0 74.4 72.6 75.3 72.0	14.1 18.6 23.7	57.1 58.8 60.1 60.6	range (mm) 0.5-8.4 0.8-7.3 1.5-10 1.7-9.2 3.9-14.2 4.0-15.0 5.0-16.2	tie <sup>(1)</sup>

Note: all dimensions are in mm

### Accessories for standard Quick Mating connectors



#### Strain relief hoods



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.

Part number	Nbr. of contact
Black UL94 V2	position
SMS2H1	2
SMS3H1	3
SMS4H1	4
SMS6H1	6
SMS9H1	9
SMS12H1	12
SMS15H1	15
SMS18H1	18
SMS24H1	24
SMS36H1	36

#### **Discrimination pins**

For discrimination pins on both standard Quick Mating and Quick Mating Pin Headers cable and board mount: See accessories section.

### **Contact Selector Guide**

#### **Contact supplied separately**

Electrical c	Electrical characteristics: contact resistance								
#16	Machined	< 3mΩ							
Ø1.6mm	Stamped & Formed	< 6mΩ							

Avail	able platings (contact supplied separately)
J	Gold flash over 2µ Ni
К	Min 0.4µ gold over 2µ Ni
<b>S</b> 31	Active part: Gold flash over Ni Crimp area: Nickel
S18	Active part: 0.75µ gold min over 2µ Ni Crimp area: 1.3µ tin over Ni Other: Nickel
TK6	2-5µ Sn pre-plated
D70	Superseded by S31
S6	Superseded by S18
Other pla	atings on request (contact supplied separately)
т	T: 2μm Ni mini all over + 3 to 5 μm Sn all over
D28	0.75µ gold over Ni

### Packaging

Due to the wide variety of applications, contact packaging is offered for small series (bulk package) and high volume production (reeled contacts):

Size contacts #16 (Ø1.6mm)







• 3,000 pieces reeled (Stamped & Formed contacts)



 2,000 pieces reeled (Machined contacts)

#### 25 pieces loose package (Stamped & Formed contacts)



achined contacts)

### Crimp Contacts

				Standard V	ersion			
						1		
Contact size	Туре		e size	Part n		Max wire Ø	Max insulator Ø	Available
size		AWG	mm²	Male	Female			plating
-	Machined	30-28	0.05-0.08	RM28M1-	RC28M1-	0.55	1.1	K, J
_	Machined	26-24	0.13-0.2	RM24M9-	RC24M9-	0.8	1.6	K, J
	Stamped & Formed	26-24	0.13-0.25	SM24M1- <sup>(1)</sup> SM24ML1- <sup>(2)</sup>	SC24M1- <sup>(1)</sup> SC24ML1- <sup>(2)</sup>	0.89-1.28	Insulation grip	S31, S18, TK
	NA 11 1	22.20	0.00.0.50	RM20M13-	RC20M13-	4.40	1.8	
	Machined	22-20	0.32-0.52	RM20M12-	RC20M12-	1.18	2.2	K, J
#16	Stamped & Formed	22-20	0.35-0.5	SM20M1- <sup>(1)</sup> SM20ML1- <sup>(2)</sup>	SC20M1- <sup>(1)</sup> SC20ML1- <sup>(2)</sup>	1.17-2.08	Insulation grip	S31, S18, TK6
Ø1.6 mm	Machined	20-16	0.52-1.5	RM16M23-	RC16M23-	1.8	3.2	K, J
-	Stamped & Formed	18-16	0.8-1.5	SM16M1- <sup>(1)</sup> SM16ML1- <sup>(2)</sup>	SC16M1- <sup>(1)</sup> SC16ML1- <sup>(2)</sup>	3.0	No insulation grip	S31, S18, TK
	Stamped & Formed	18-16	0.8-1.5	SM16M11- <sup>(1)</sup> SM16ML11- <sup>(2)</sup>	SC16M11- <sup>(1)</sup> SC16ML11- <sup>(2)</sup>	2.0-3.0	Insulation grip	S31, S18, TK6
	Machined	16-14	1.5-2.5	RM14M30-	RC14M30-	2.28	3.2	K, J
-	Stamped & Formed	14	2.0-2.5	SM14M1- <sup>(1)</sup> SM14ML1- <sup>(2)</sup>	SC14M1- <sup>(1)</sup> SC14ML1- <sup>(2)</sup>	3.2	No insulation grip	S31, S18, TK6

### Tooling

		Crimp Tool Ta	able	
andard co	ntacts			
Contact size	Part number	Head*	Handles*	Extraction tools
	RM/RC 28M1*			
	RM/RC 24M9*	S16RCM20		
	RM/RC 20M13*	STORCHZO		
	RM/RC 20M12*			
#47	RM/RC 16M23*	S16RCM16		
#16 Ø1.6 mm	RM/RC 14M30*	S16RCM14	SHANDLES	RX2025GE1
01.01111	SM/SC 24ML1*(1)	5165CM20		
	SM/SC 20ML1* <sup>(1)</sup>	S16SCM20		
	SM/SC 16ML1* <sup>(1)</sup>	51656MI 1		
	SM/SC 14ML1* <sup>(1)</sup>	S16SCML1		
	SM/SC 16ML11*(1)	S16SCML11		

### SMS Series Quick Mating

### Notes

### Quick Mating PC board mount connectors

#### Description

These PC board mount 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 board mount connectors is available in 10 insert arrangements from 2 to 36 positions. Right angled board mount Quick Mating is

available in 3, 6, 12 and 18 positions. All board mount connectors are supplied fully loaded with pin or socket contacts, either in solid machined or stamped and formed contacts.

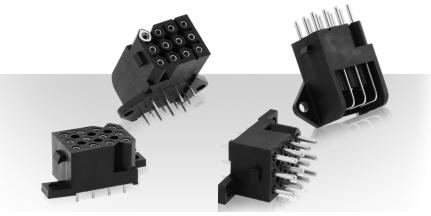
Stamped and formed contact have selective tin plating on the solder tails, thus eliminating flux operations.

### 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.
- Board mount connectors have discrimination cavities in between contact cavities, unless other wise noted.See instruction page 21.
- UL recognized File Nr.: E238675
- CSA certififed File Nr.: LR44961-21

#### Environmental

Operating temperature: -55°C to +105°C
Insulation resistance: 5000 MΩ min.



- Test potential: 2000 VAC
- Current rating for SMS PCB version:
  5 Amp for stamped and formed contacts
  7.5 Amp for machined contacts
- Electrical performances for crimped versions: UL: 250V - 15A
- CSA: 250V 15A
- Durability: 500 matings and unmatings
- Sealing performances: IP40

### Material

- Connector body: Glass filled thermoplast UL94 V0
- Railway version : I2 F3 according to NF F 16-101 HL2/R23 according to EN 45 545
- Contacts:
- High conductive copper alloy
- Soldering information: compatible with wave soldering up to 245°C. Not compatible with reflow soldering.

### **Plating table**

 Plating for solid machined contacts:
 Made for 2.4mm or 3.2mm PCB thickness (straight contacts) and for 3.2mm PCB

#### thickness (right contacts) **K9 (std)** = Min. $0.4\mu$ Gold in contact area,

- **K9 (std)** = Min. 0.4µ Gold in contact area Tin on solder tail, over Nickel
- J9 = Gold flash in contact area, Tin on solder tail, over Nickel T = 3 - 5μ Tin all over
- Plating for Stamped and formed contacts:
- Made for 2.4mm PCB thickness (straight contacts) and for 3.2mm PCB thickness (right contacts)
  - K9 = Min. 0.4μ Gold in contact area,3- 5μ Tin on solder tail, over Nickel
  - $\mathbf{T} = 3 5\mu$  Tin all over
- Made for 3.2mm PCB thickness (straight contacts)  $S6 = Min. 0.75\mu$  Gold in contact area
  - Gold flash on solder tail, over Nickel **D70** = Gold flash all over
  - **TR29** = 3 5µ Tin all over

#### Intermateability

 "SMS" Quick Mating board mount connectors with preassembled TRIM TRIO size 16 board mount 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).

### Ordering information

Connector family	SMS	12	GE	3	0	К9
Layout: see page 14						
Body variation: GE: Solid machined contacts (2.4mm or 3.2mm, see option below) SE: Stamped and formed contacts for 2.4mm PCB RE: Stamped and formed contacts for 3.2mm PCB						
<ul> <li>Design variation:</li> <li>3: Straight board mount with female contact</li> <li>4: Straight board mount with male contacts</li> <li>5: Right angle board mount with female contacts</li> <li>6: Right angle board mount with male contacts</li> </ul>						
Option: -: 2.4mm for GE3, GE4 and SE variation 0: 3.2mm for GE variation 3: Railway version: I2 F3 according to NF F 16-101 and HL2/R23 a cord	ing to EN 45 !	545				
Plating indication						

### Connectors

	Straight bo	ard mount	with female	e contacts		
imensions			$E \rightarrow O^{\circ} $			PCB tail length
Nbr. of contact	Nbr. of discrimination cavities	A	В	с	D	E
2	0	11.0	-	19.1		
3	0	16.2		10.2		5.9
3	0		- 14.0			5.9
		16.2		10.2		5.9
4	0	16.2	- 14.0	10.2	12.4	
4	0	16.2	14.0	10.2	13.4	10.9
4 6 9	0 0 4	16.2 21.3	- 14.0 19.2 24.2	10.2 15.2	13.4	10.9 16.0
4 6 9 12	0 0 4 0	16.2 21.3	- 14.0 19.2 24.2 29.2 34.3	10.2 15.2	13.4	10.9 16.0 21.1 26.1
4 6 9 12 15	0 0 4 0 8	16.2 21.3	- 14.0 19.2 24.2 29.2	10.2 15.2	13.4	10.9 16.0 21.1

#### **Contacts type**

	Part number										
	Standard	d version		NFF certified version							
Solid machi	ned contacts	Stamped & fo	Solid machined contacts								
PCB thickness 2.4mmPCB thickness 3.2mmPCB tail length 3.4mmPCB tail length 4.2mm		PCB thickness 2.4mm PCB tail length 3.4mm	PCB thickness 3.2mm PCB tail length 4.4mm	PCB thickness 2.4mm PCB tail length 3.4mm							
SMS2GE3*	SMS2GE30*	SMS2SE3*	SMS2RE3*	-							
SMS3GE3*	SMS3GE30*	SMS3SE3*	SMS3RE3*	SMS3GE33*							
SMS4GE3*	SMS4GE3* SMS4GE30*		SMS4RE3*	-							
SMS6GE3*	SMS6GE30*	SMS6SE3*	SMS6RE3*	SMS6GE33*							
SMS9GE3*	SMS9GE30*	SMS9SE3*	SMS9RE3*	SMS9GE33*							
SMS12GE3*	SMS12GE30*	SMS12SE3*	SMS12RE3*	SMS12GE33*							
SMS15GE3*	SMS15GE30*	SMS15SE3*	SMS15RE3*	SMS15GE33*							
SMS18GE3*	SMS18GE30*	SMS18SE3*	SMS18RE3*	SMS18GE33*							
SMS24GE3*	SMS24GE30*	SMS24SE3*	SMS24RE3*	SMS24GE33*							
SMS36GE3*	SMS36GE30*	SMS36SE3*	SMS36RE3*	SMS36GE33*							

\* for coding see page 11 Example: SMS12GE3J9 - SMS with 12 solid machined contacts, plating J9

Note: all dimensions are in mm

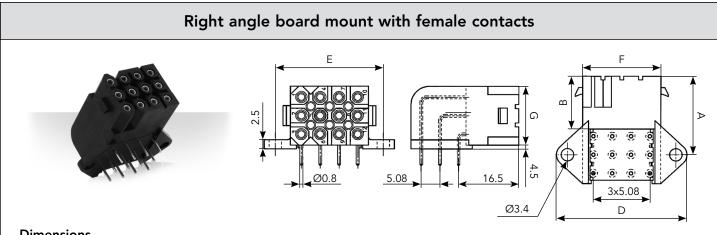
	Straight b	oard moun	t with male	contacts		
mensions				5.08 5.08		tail length
Nbr. of contact	Nbr. of discrimination cavities	A	В	с	D	E
	cavities			-		
2	0	11.1	-	19.1		
2		11.1 16.2			-	5.9
	0		- 14.0	19.1	_	
3	0	16.2		19.1 10.2	_	
3	0 0 0	16.2	- 14.0	19.1 10.2	-	5.9
3 4 6	0 0 0 0	16.2	- 14.0	19.1 10.2	13.4	5.9
3 4 6 9	0 0 0 0 4	16.2 21.3	- 14.0 19.2 24.2	19.1 10.2 15.2	13.4	5.9 10.9 16.0
3 4 6 9 12	0 0 0 0 4 0	16.2 21.3	- 14.0 19.2 24.2 29.2 34.3	19.1 10.2 15.2	13.4	5.9 10.9 16.0 21.1 26.1
3 4 6 9 12 15	0 0 0 0 4 0 8	16.2 21.3	- 14.0 19.2 24.2 29.2	19.1 10.2 15.2	13.4	5.9 10.9 16.0 21.1

#### Contacts type

	Part number										
	Standard	d version		NFF certified version							
Solid machir	ned contacts	Stamped & fo	Solid machined contacts								
PCB thickness 2.4mmPCB thickness 3.2mmPCB tail length 3.4mmPCB tail length 4.2mm		PCB thickness 2.4mm PCB tail length 3.4mm	PCB thickness 3.2mm PCB tail length 4.4mm	PCB thickness 2.4mm PCB tail length 3.4mm							
SMS2GE4*	SMS2GE40*	SMS2SE4*	SMS2RE4*	-							
SMS3GE4*	SMS3GE40*	SMS3SE4*	SMS3RE4*	SMS3GE43*							
SMS4GE4*	SMS4GE40*	SMS4SE4*	SMS4RE4*	-							
SMS6GE4*	SMS6GE40*	SMS6SE4*	SMS6RE4*	SMS6GE43*							
SMS9GE4*	SMS9GE40*	SMS9SE4*	SMS9RE4*	SMS9GE43*							
SMS12GE4*	SMS12GE40*	SMS12SE4*	SMS12RE4*	SMS12GE43*							
SMS15GE4*	SMS15GE40*	SMS15SE4*	SMS15RE4*	SMS15GE43*							
SMS18GE4*	SMS18GE40*	SMS18SE4*	SMS18RE4*	SMS18GE43*							
SMS24GE4*	SMS24GE40*	SMS24SE4*	SMS24RE4*	SMS24GE43*							
SMS36GE4*	SMS36GE40*	SMS36SE4*	SMS36RE4*	SMS36GE43*							

\* for coding see page 11 Example: SMS12GE4J9 - SMS with 12 solid machined contacts, plating J9

### **Connectors** (Continued)



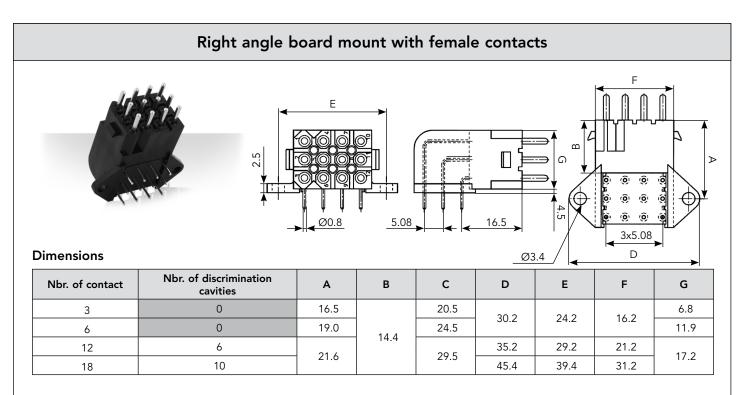
#### Dimensions

Nbr. of contact	Nbr. of discrimination cavities	А	В	с	D	E	F	G	
3	0	16.5		20.5	30.2	24.2	16.2	6.8	
6	0	19.0	144	24.5	30.2	24.2	10.2	11.9	
12	6	21.6	14.4	20 F	35.2	29.2	21.2	17.2	
18	10	21.0		29.5	45.4	39.4	31.2	17.2	

#### **Contacts type**

	Part number									
Standar	d version	NFF certified version								
Solid machined contacts	Stamped & formed contacts	Solid machined contacts								
PCB thickness 3.2mm PCB tail length 4.5mm	PCB thickness 3.2mm PCB tail length 4.5mm	PCB thickness 3.2mm PCB tail length 4.5mm								
SMS3GE5*	SMS3SE5*	SMS3GE53*								
SMS6GE5*	SMS6SE5*	SMS6GE53*								
SMS12GE5*	SMS12SE5*	SMS12GE53*								
SMS18GE5*	SMS18SE5*	SMS18GE53*								

\* for coding see page 11 Example: SMS12GE5J9 - SMS with 12 solid machined contacts, plating J9

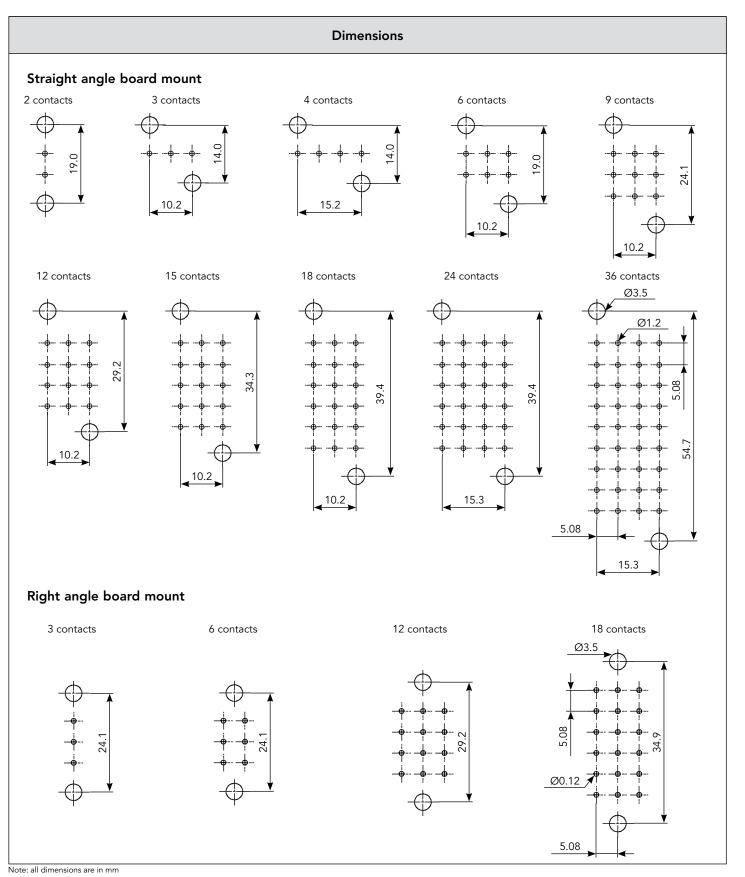


#### **Contacts type**

Part number								
Standard	Standard version							
Solid machined contacts	Stamped & formed contacts	Solid machined contacts						
PCB thickness 3.2mm PCB tail length 4.5mm	PCB thickness 3.2mm PCB tail length 4.5mm	PCB thickness 3.2mm PCB tail length 4.5mm						
SMS3GE6*	SMS3SE6*	SMS3GE63*						
SMS6GE6*	SMS6SE6*	SMS6GE63*						
SMS12GE6*	SMS12SE6*	SMS12GE63*						
SMS18GE6*	SMS18SE6*	SMS18GE63*						

\* for coding see page 11 Example: SMS12GE6J9 - SMS with 12 solid machined contacts, plating J9

### **Drilling Pattern**



### Quick Mating PC board mount 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.

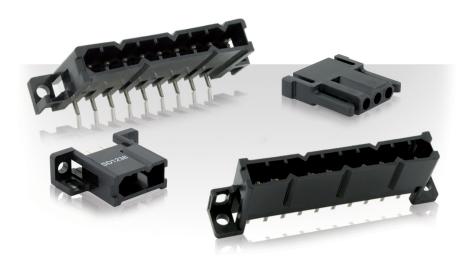
The board mount receptacle features positive polarization and a moulded on pin protection skirt and is supplied preassembled with straight or right angled:

- 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 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.Board mount 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
- CSA metter certififed File Nr.: LR44961-21



### Environmental

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

### Material

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

### **Plating table**

 Plating for solid machined contacts: No digit (std) = Min. 0.4µ Gold all over, over Nickel.

#### $J = Gold flash over 2\mu Ni$

- $\mathbf{T} = 3 5\mu$  Tin all over
- Plating for Stamped and formed contacts:
  - $D28 = Min. 0.75\mu Au over nickel.$ 
    - D70 = Active part: Gold flash over Ni Crimp area: Ni
    - **TR29** = 3 5µ 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)

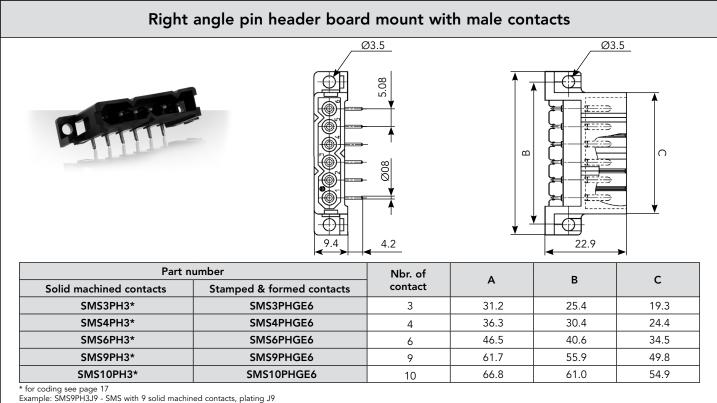
#### Intermateability

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

### Ordering information

Connector family	SMS	12	PH	3	0	TR29
Layout: see page 14						
<ul> <li>Body variation:</li> <li>PH: Pin header board mount</li> <li>CH: Coax header board mount</li> <li>P3: Socket cable plug for pin and coax header board mount</li> <li>Design variation:</li> <li>2: Straight coax header board mount with male contacts</li> <li>3: Right angle pin header board mount with stamped male contacts</li> <li>4: Straight pin header board mount with stamped male contacts</li> </ul>						
<b>GE6:</b> Right angle pin header board mount with machined male contacts <b>GE4:</b> Straight pin header board mount with machined male contacts						
Plating indication						

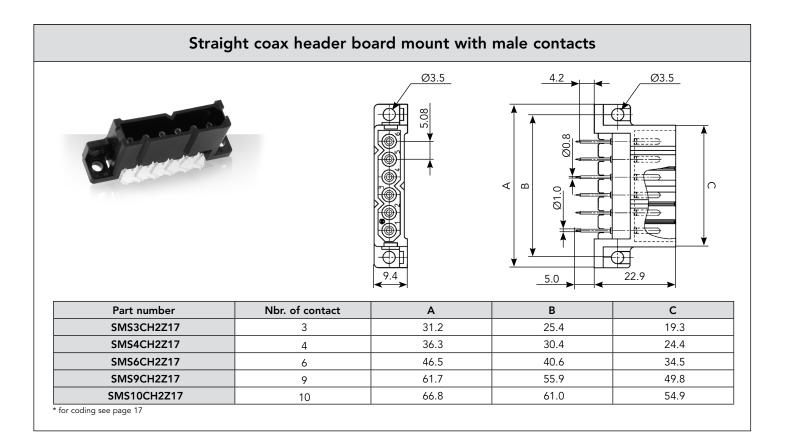
### **Connectors** (Continued)



Stra	ight pin header board ı	mount with	male conta	acts	
		Ø3.5 ≌		Ø3	.5
Part r Solid machined contacts	number Stamped & formed contacts	Nbr. of contact	А	В	с
SMS3PH4*	SMS3PHGE4	3	31.2	25.4	19.3
SMS4PH4*	SMS4PHGE4	4	36.3	30.4	24.4
	SMS6PHGE4	6	46.5	40.6	34.5
SMS6PH4*					
SMS6PH4* SMS9PH4*	SMS9PHGE4	9	61.7	55.9	49.8

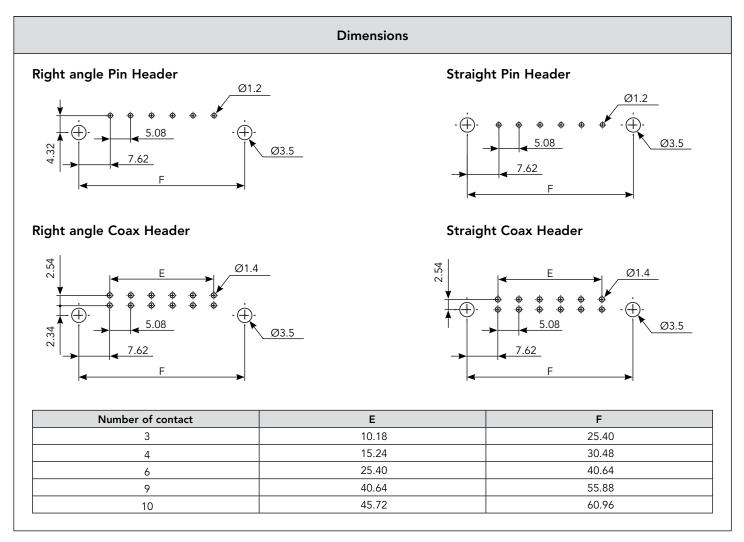
Example: SMS9PH4J9 - SMS with 9 solid machined contacts, plating J9

Note: all dimensions are in mm



#### Socket cable plug for pin and coax board mount header ഹ ⊳ 25.0 5.9 Number of contact\* Part number Α SMS3P3 16.0 3 SMS4P3 4 21.1 SMS6P3 31.2 6 SMS9P3 46.5 9 SMS10P3 51.6 10 \*Contacts supplied separately

### **Drilling Pattern**



### **Discrimination keys for SMS connectors**

In applications where similar connectors are used next to each other, mismatching can be a reason for disturbances, system failure or even danger to operator.

To eliminate mismatching, all SMS can be equipped with discrimination solutions, which offer unlimited possibilities for a "fool-proof" interconnection system.

When one of these discrimination keys is used, the SMS will only mate with a connector which has a vacant contact or discrimination cavity at the corresponding position.

This system offers boundless opportunities for all applications.

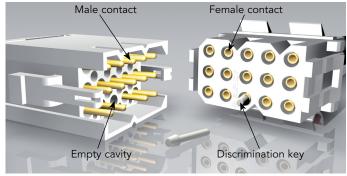
#### The material used is polyamide 6.6.

#### Both connectors have removable contacts: SMSPKE0



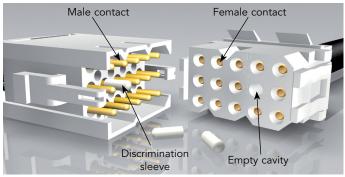
A dummy contact, which can be inserted into an empty contact cavity in any of SMS connectors.

For fixe female contacts and without discrimination cavities: SMSPKE2V1



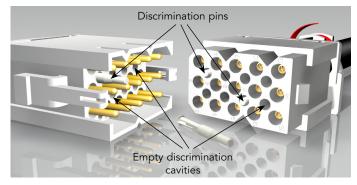
A pin, which can be inserted into a preassambled female contact in all female boardmount connectors SMS.

### Specially for connectors without discrimination cavities and without removable pin contact: SMSPKB2



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

#### Both connectors have discrimination cavities: SMSPKE3



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

As extraction tool, the RX2025GE1 without the "extraction tool tip" can be used.





# SOURIAU

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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