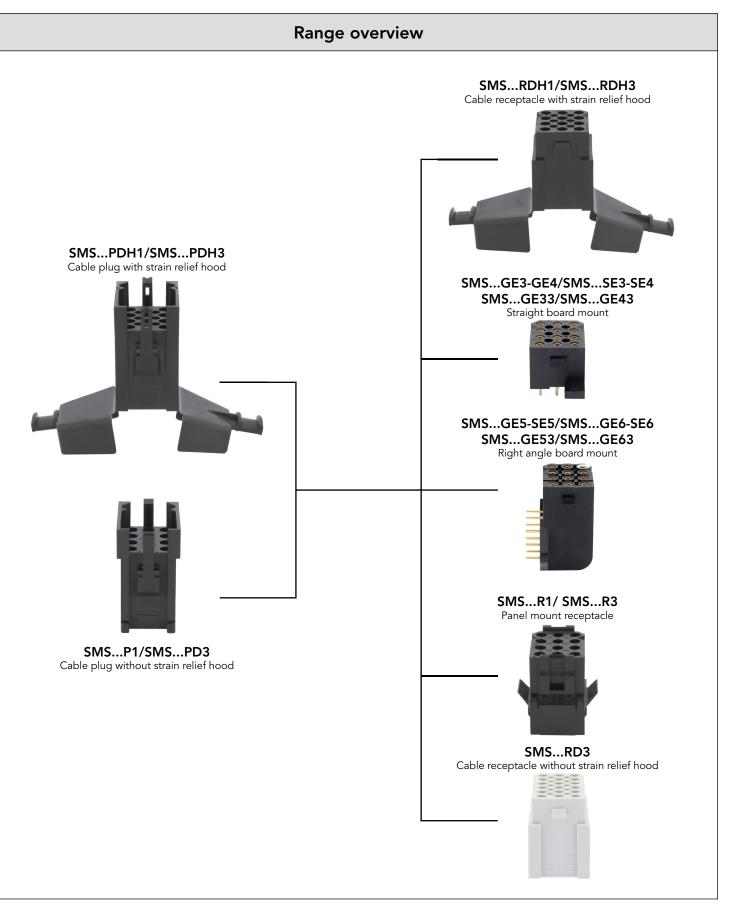


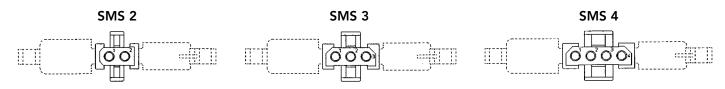
SOURIAU

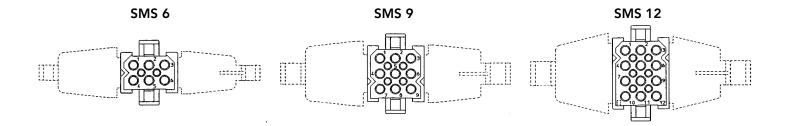
Quick Mating



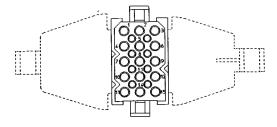


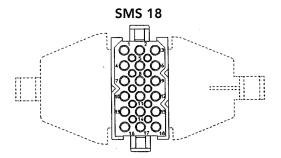
Contacts layout

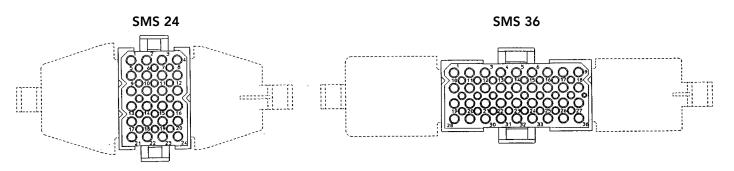




SMS 15







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 | es (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 | ities (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 | | C |
| Black UL94 V2 | Nbr. of contact* | 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

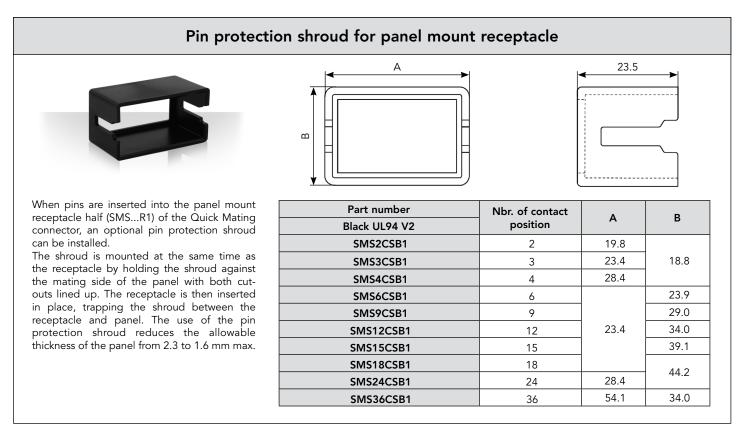
Connectors (Continued)

| | 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 ⁽¹⁾ |
| 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 | _ | | 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 ⁽¹⁾ |
| | 1 | | | A 39.5 | В | C 64.8 | D 14.1 | Н | | |
| Black UL94 V2 | White UL94 V0 | contact* | nation cavities | | B 16.4 | _ | | Н 57.1 | range (mm) | tie ⁽¹⁾ |
| 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 ⁽¹⁾ |
| Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 | White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 | contact* 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 ⁽¹⁾ |
| Black UL94 V2 SMS2PDH1 SMS3PDH1 SMS4PDH1 SMS6PDH1 | White UL94 V0 SMS2PDH3 SMS3PDH3 SMS4PDH3 SMS6PDH3 | contact* 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 ⁽¹⁾ |
| 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 ⁽¹⁾ |
| 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 ⁽¹⁾ |
| 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 ⁽¹⁾ |

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 |
| S 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- ⁽¹⁾ SM24ML1- ⁽²⁾ | SC24M1- ⁽¹⁾ SC24ML1- ⁽²⁾ | 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- ⁽¹⁾ SM20ML1- ⁽²⁾ | SC20M1- ⁽¹⁾ SC20ML1- ⁽²⁾ | 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- ⁽¹⁾ SM16ML1- ⁽²⁾ | SC16M1- ⁽¹⁾ SC16ML1- ⁽²⁾ | 3.0 | No insulation grip | S31, S18, TK |
| | Stamped & Formed | 18-16 | 0.8-1.5 | SM16M11- ⁽¹⁾ SM16ML11- ⁽²⁾ | SC16M11- ⁽¹⁾ SC16ML11- ⁽²⁾ | 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- ⁽¹⁾ SM14ML1- ⁽²⁾ | SC14M1- ⁽¹⁾ SC14ML1- ⁽²⁾ | 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* ⁽¹⁾ | S16SCM20 | | |
| | SM/SC 16ML1* ⁽¹⁾ | 51656MI 1 | | |
| | SM/SC 14ML1* ⁽¹⁾ | 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.

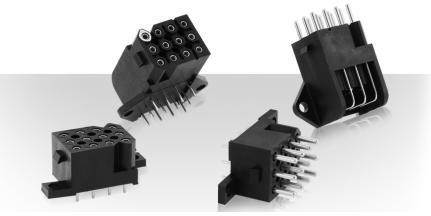
Stamped and formed contact have selective tin plating on the solder tails, thus eliminating flux operations.

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. 0.4μ 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 | | | | | | |
| 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 | | | | | | |
| 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

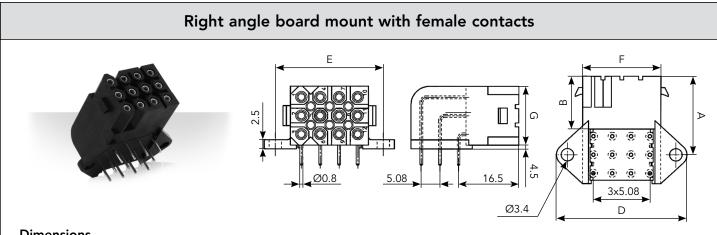
| | Straight b | oard moun | t with male | contacts | | |
|------------------------------|------------------------------------|--------------|--|----------------------|------|-------------------------------------|
| mensions | | | | 5.08 5.08 | | tail length |
| Nbr. of contact | Nbr. of discrimination 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)



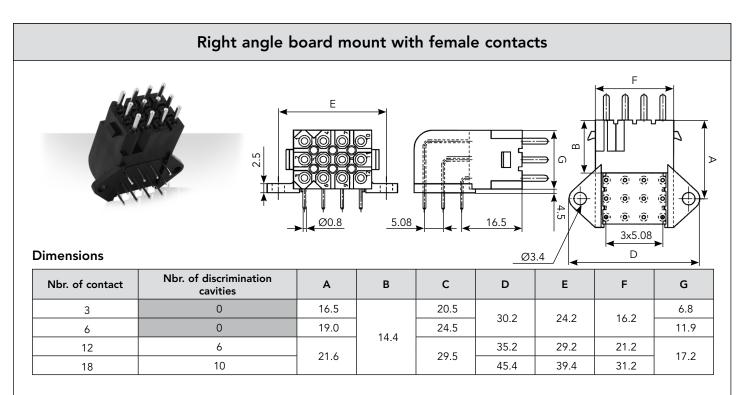
Dimensions

| 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

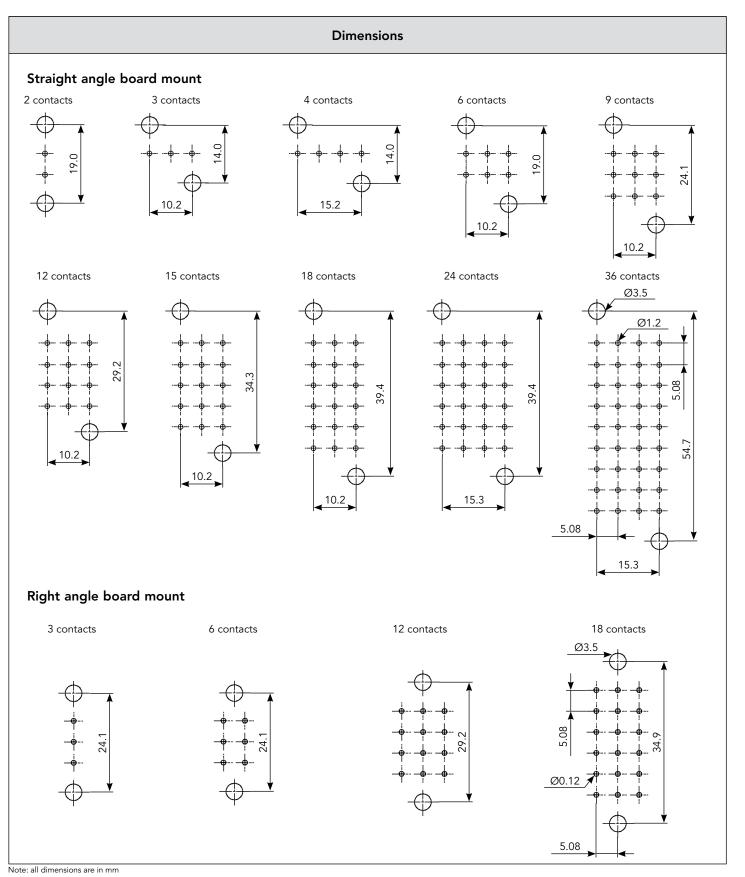


Contacts type

| 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.

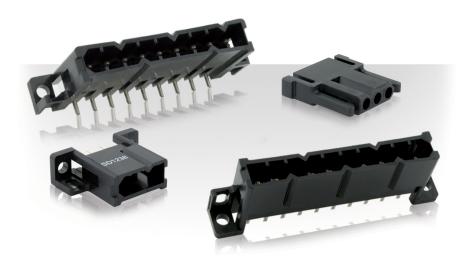
The board mount receptacle features positive polarization and a moulded on pin protection skirt and is supplied preassembled with straight or right angled:

- 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 Ω 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)

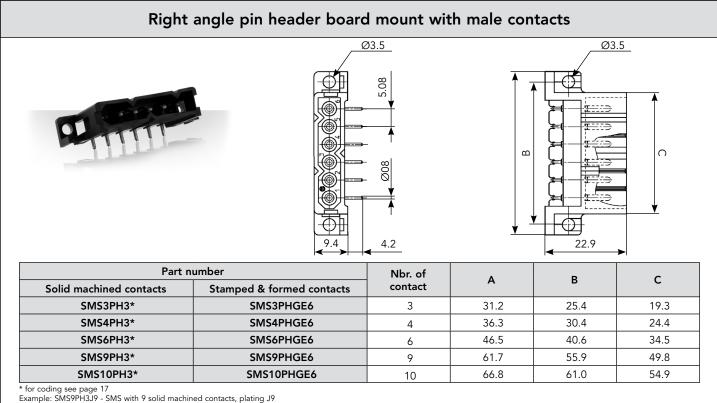
Intermateability

- "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 | | | | | | |
| 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 | | | | | | |
| Plating indication | | | | | | |

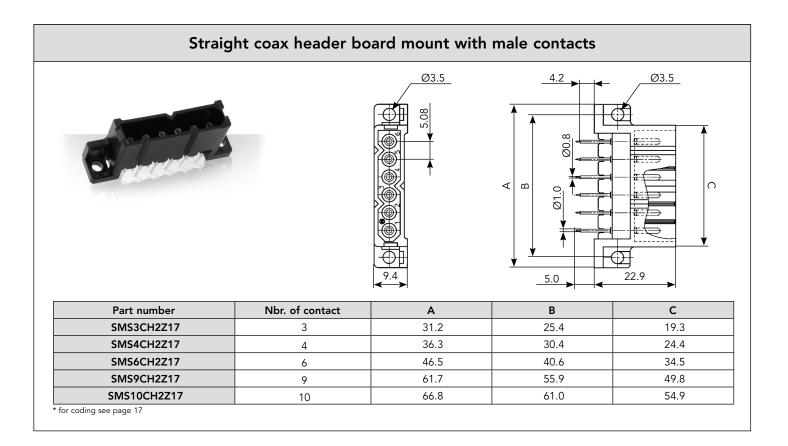
Connectors (Continued)



| 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 |

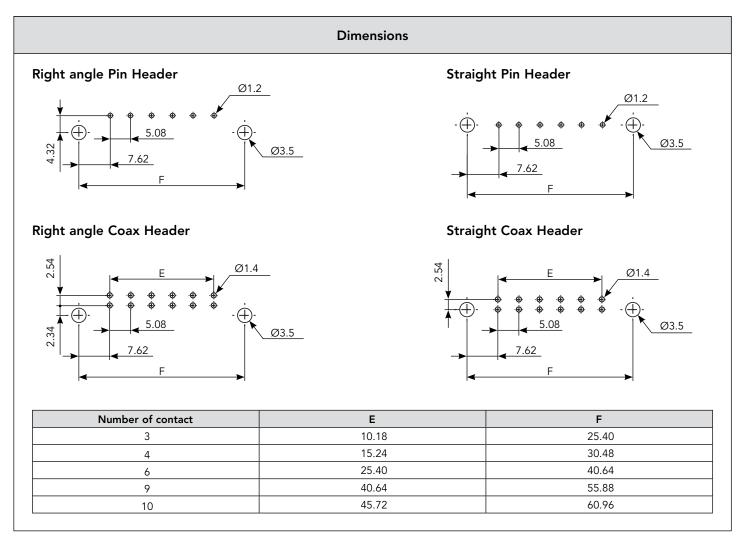
Example: SMS9PH4J9 - SMS with 9 solid machined contacts, plating J9

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.

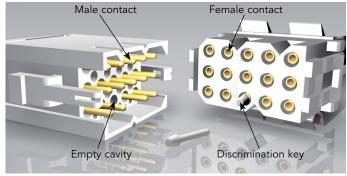
The material used is polyamide 6.6.

Both connectors have removable contacts: SMSPKE0



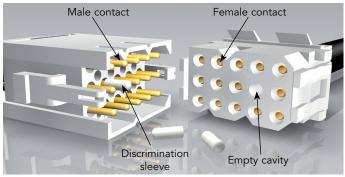
A dummy contact, which can be inserted into an empty contact cavity in any of SMS connectors.

For fixe female contacts and without discrimination cavities: SMSPKE2V1



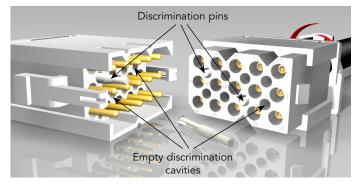
A pin, which can be inserted into a preassambled female contact in all female boardmount connectors SMS.

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

www.railway-connector.com contactindustry@souriau.com





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

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- 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;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- 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.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный) **Факс:** 8 (812) 320-02-42 **Электронная почта:** <u>org@eplast1.ru</u> **Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.