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 cable-to-cable solutions when needed.

These multi-way connectors accept the Size 16 TRIM TRIO .0625" (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.
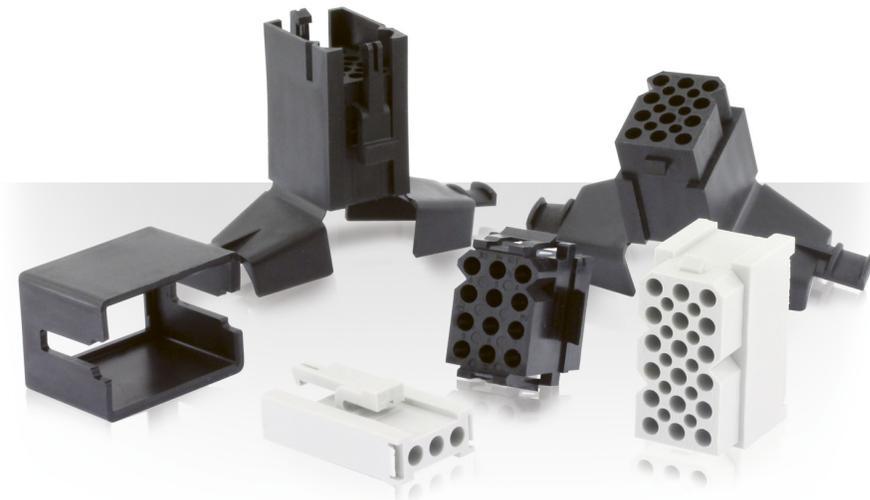
- UL recognized File Nr.: E238675
- CSA certififed File Nr.: LR44961-21

Environmental

- Operating temperature: -55°C to +105°C
- Insulation resistance: 5000 MΩ min.
- Test potential: 2000 VAC
- 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)
- Fire resistance, toxicity & smoke opacity: R23/HL3 following CEN/TS 45-545

Contact

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

Ordering information

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
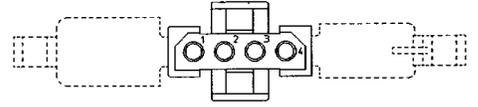**RDH3:** (UL94 V0) Cable receptacle with integrated strain relief hood - White
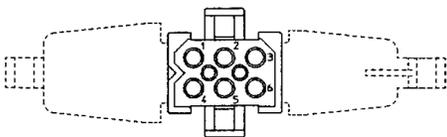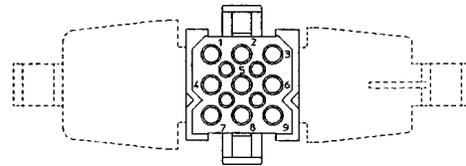
Contacts layout

SMS 2
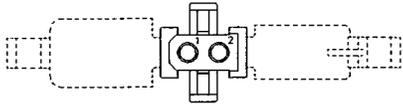
SMS 3
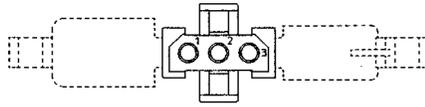
SMS 4

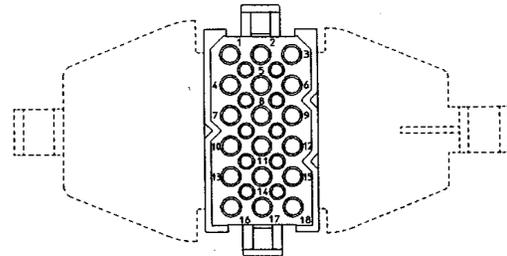### SMS 6

SMS 9
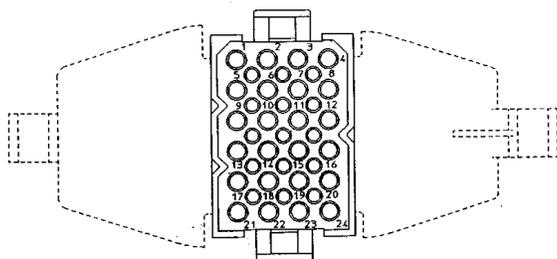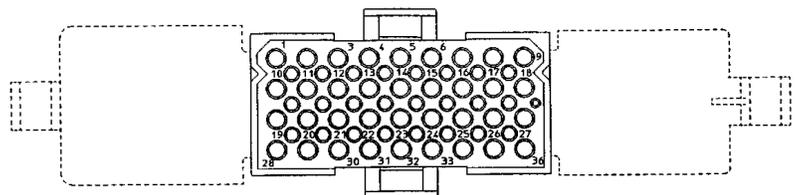

SMS 12
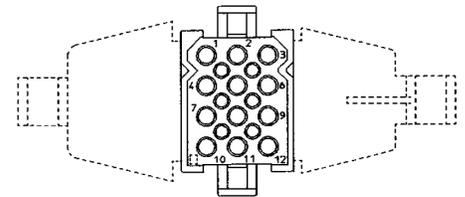
SMS 15
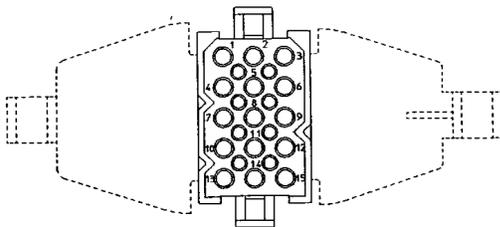
SMS 18

SMS 24

SMS 36

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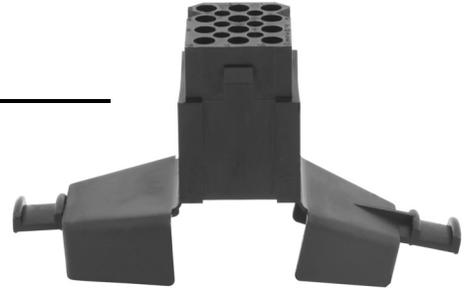
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Range overview

SMS...RDH1/SMS...RDH3
Cable receptacle with strain relief hood

SMS...PDH1/SMS...PDH3
Cable plug with strain relief hood

SMS...GE3-GE4/SMS...SE3-SE4
Straight board mount

SMS...GE5-SE5/SMS...GE6-SE6
Right angle board mount

SMS...P1/SMS...PD3
Cable plug without strain relief hood

SMS...R1
Panel mount receptacle

SMS...RD3
Cable receptacle without strain relief hood

Connectors

Panel mount receptacle without discrimination cavities (wire acceptance: 4.19mm)
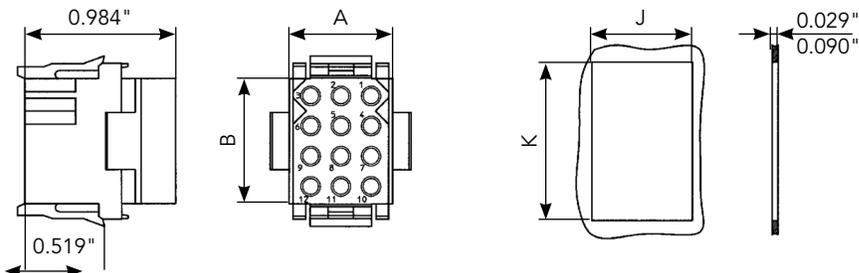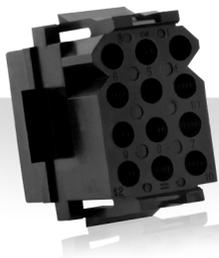
Part number		Nbr. of contact*	A	B	C max.	J	K
Black UL94 V2	White UL94 V0						
SMS2R1	SMS2R3	2	0.433"			0.448"	
SMS3R1	SMS3R3	3	0.637"	0.228"	0.598"	0.649"	0.456"
SMS4R1	SMS4R3	4	0.834"			0.854"	
SMS6R1	SMS6R3	6		0.429"	0.799"	0.649"	0.657"
SMS9R1	SMS9R3	9		0.629"	0.999"		0.850"
SMS12R1	SMS12R3	12	0.637"	0.830"	1.200"		1.051"
SMS15R1	SMS15R3	15		1.031"	1.401"	1.200"	1.251"
SMS18R1	SMS18R3	18		1.228"	1.598"		1.452"
SMS24R1	SMS24R3	24	0.834"			0.854"	
SMS36R1	SMS36R3	36	1.834"	0.830"	1.200"	1.854"	1.051"

*Contacts supplied separately

## Cable plug without strain relief hood & without discrimination cavities (wire acceptance: 4.19mm)
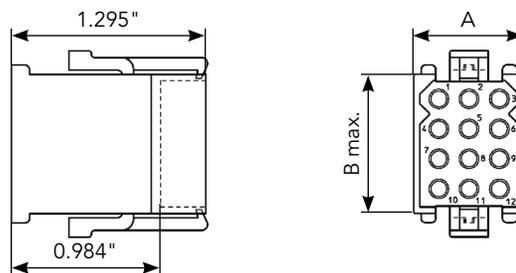
Part number	Nbr. of contact*	A	C max.
Black UL94 V2			
SMS2P1	2	0.590"	
SMS3P1	3	0.732"	0.700"
SMS4P1	4	0.933"	
SMS6P1	6		0.901"
SMS9P1	9		1.098"
SMS12P1	12	0.732"	1.299"
SMS15P1	15		1.499"
SMS18P1	18		1.700"
SMS24P1	24	0.933"	
SMS36P1	36	1.933"	1.299"

*Contacts supplied separately

Note: all dimensions are in inches

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Cable receptacle without strain relief hood & with discrimination cavities

0.984"

B max.

Contact cavity   Discrimination cavity

C

E

D
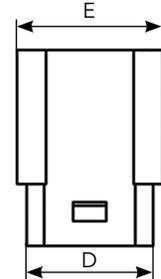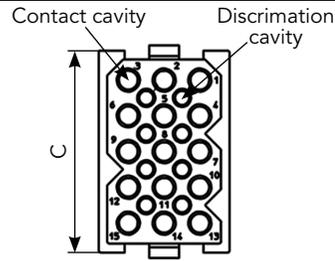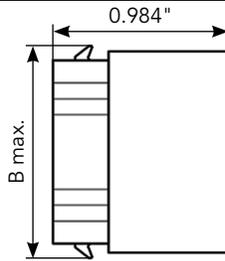
Part number	Nbr. of contact*	Nbr. of discrimination cavities	B max	C	D	E
White UL94 V0						
SMS2RD3	2	0	0.389"	0.330"	0.436"	0.555"
SMS3RD3	3	0			0.637"	0.732"
SMS4RD3	4	0			0.834"	0.933"
SMS6RD3	6	2	0.590"	0.527"	0.637"	0.732"
SMS9RD3	9	4	0.787"	0.728"		
SMS12RD3	12	6	0.988"	0.929"		
SMS15RD3	15	8	1.188"	1.129"		
SMS18RD3	18	10	1.389"	1.330"		
SMS24RD3	24	15			0.834"	0.933"
SMS36RD3	36	24	0.988"	0.929"	1.834"	1.933"

*Contacts supplied separately

## Cable plug without strain relief hood & with discrimination cavities

1.287"

B max.

Contact cavity   Discrimination cavity

C

D
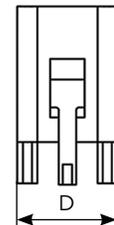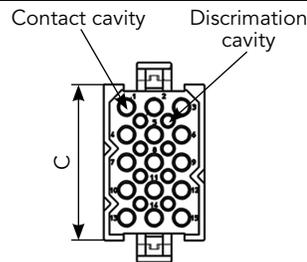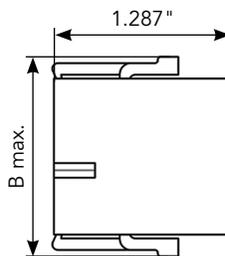
Part number	Nbr. of contact*	Nbr. of discrimination cavities	B max.	C	D
White UL94 V0					
SMS2PD3	2	0	0.645"	0.330"	0.555"
SMS3PD3	3	0			0.732"
SMS4PD3	4	0			0.933"
SMS6PD3	6	2	0.846"	0.527"	0.732"
SMS9PD3	9	4	1.051"	0.728"	
SMS12PD3	12	6	1.248"	0.929"	
SMS15PD3	15	8	1.444"	1.129"	
SMS18PD3	18	10	1.645"	1.330"	
SMS24PD3	24	15			0.933"
SMS36PD3	36	24	1.248"	0.929"	1.933"

*Contacts supplied separately

Note: all dimensions are in inches
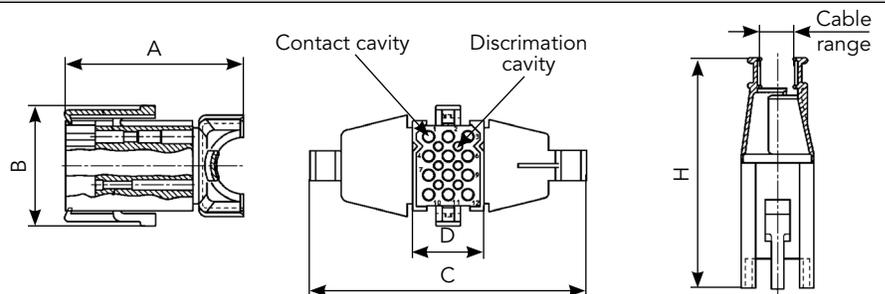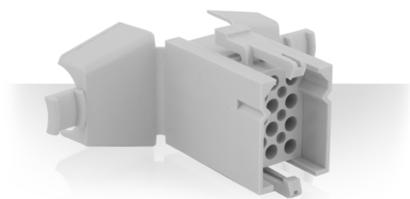
Connectors (Continued)

Cable receptacle with integrated strain relief hood
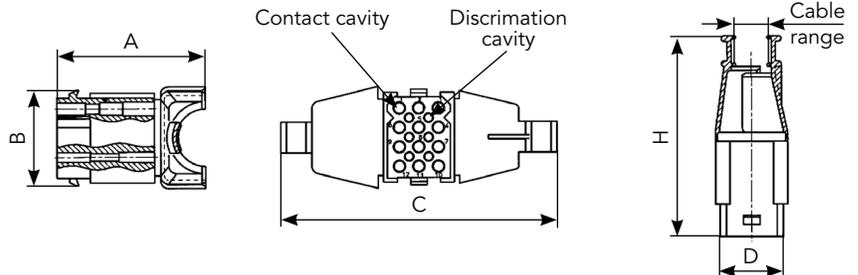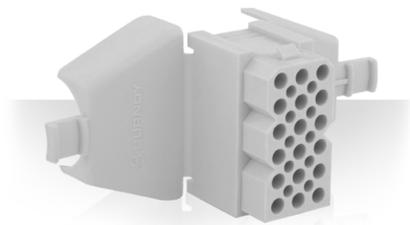
Part number		Nbr. of contact*	Nbr. of discrimi-nation cavities	A	B	C	D	H	Cable range (mm)	Cable tie [1]
Black UL94 V2	**White UL94 V0**									
SMS2RDH1	SMS2RDH3	2	0	1.244"		2.551"	0.436"		0.5-8.4	TF4D
SMS3RDH1	SMS3RDH3	3	0	1.381"	0.389"	2.716"	0.637"	1.936"	0.8-7.3	
SMS4RDH1	SMS4RDH3	4	0	1.503"		2.929"	0.834"		1.5-10	
SMS6RDH1	SMS6RDH3	6	2	0.362"	0.590"	2.858"		2.003"	1.7-9.2	TF5D
SMS9RDH1	SMS9RDH3	9	4	1.409"	0.787"	2.964"		2.055"	3.9-14.2	
SMS12RDH1	SMS12RDH3	12	6	1.499"	0.988"	2.834"	0.637"	2.074"	4.0-15.0	
SMS15RDH1	SMS15RDH3	15	8	1.413"	1.188"	3.200"		2.173"	5.0-16.2	
SMS18RDH1	SMS18RDH3	18	10	1.421"	1.389"				5.8-20.3	
SMS24RDH1	SMS24RDH3	24	15	1.562"		3.558"	0.834"	2.251"	7.1-20.4	
SMS36RDH1	SMS36RDH3	36	24	2.149"	0.988"	5.039"	1.834"	2.492"	8.8-24.5	

*Contacts supplied separately   (1) Cable tie not included

Cable plug with integrated strain relief hood

Part number		Nbr. of contact*	Nbr. of discrimi-nation cavities	A	B	C	D	H	Cable range (mm)	Cable tie [1]
Black UL94 V2	**White UL94 V0**									
SMS2PDH1	SMS2PDH3	2	0	1.555"		2.551"	0.555"		0.5-8.4	TF4D
SMS3PDH1	SMS3PDH3	3	0	1.692"	0.645"	2.716"	0.732"	2.247"	0.8-7.3	
SMS4PDH1	SMS4PDH3	4	0	1.814"		2.929"	0.933"		1.5-10	
SMS6PDH1	SMS6PDH3	6	2	1.673"	0.846"	2.858"		2.314"	1.7-9.2	TF5D
SMS9PDH1	SMS9PDH3	9	4	1.720"	1.051"	2.964"		2.366"	3.9-14.2	
SMS12PDH1	SMS12PDH3	12	6	1.810"	1.248"	2.834"	0.732"	2.366"	4.0-15.0	
SMS15PRDH1	SMS15PDH3	15	8	1.724"	1.444"	3.200"		2.484"	5.0-16.2	
SMS18PDH1	SMS18PDH3	18	10	1.732"	1.645"				5.8-20.3	
SMS24PDH1	SMS24PDH3	24	15	1.873"		3.558"	0.933"	2.562"	7.1-20.4	
SMS36PDH1	SMS36PDH3	36	24	2.460"	1.248"	5.039"	1.933"	2.842"	8.8-24.5	

*Contacts supplied separately   (1) Cable tie not included

Note: all dimensions are in inches

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Accessories for standard Quick Mating connectors

Pin protection shroud for panel mount receptacle
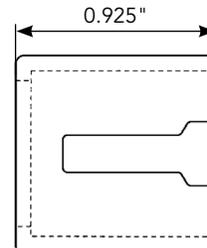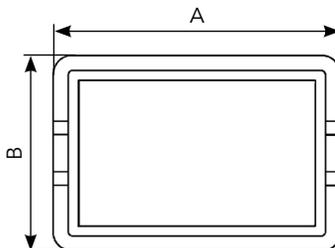
When pins are inserted into the panel mount receptacle half (SMS...R1) of the Quick Mating connector, an optional pin protection shroud can be installed.

The shroud is mounted at the same time as the receptacle by holding the shroud against the mating side of the panel with both cut-outs lined up. The receptacle is then inserted in place, trapping the shroud between the receptacle and panel. The use of the pin protection shroud reduces the allowable thickness of the panel from 2.3 to 1.6 mm max.

Part number Black UL94 V2	Nbr. of contact position	A	B
SMS2CSB1	2	0.779"	
SMS3CSB1	3	0.921"	0.740"
SMS4CSB1	4	1.118"	
SMS6CSB1	6		0.940"
SMS9CSB1	9		1.141"
SMS12CSB1	12	0.921"	1.338"
SMS15CSB1	15		1.539"
SMS18CSB1	18		1.740"
SMS24CSB1	24	1.118"	
SMS36CSB1	36	2.129"	1.338"

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 cabe 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 Black UL94 V2	Nbr. of contact 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.

Note: all dimensions are in inches