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Cost-effective and compact, the easy-to-assemble NSCC connector system carries power for a range of unsealed body-electronics applications in automotive and commercial vehicles

Unsealed NSCC connectors from Molex were developed to answer the needs of French carmakers using the SICMA terminal system developed by FCI. Approved by PSA (Peugeot/Citroen) and RSA (Renault/Nissan/Dacia), the main applications for NSCC connectors are unsealed in-vehicle body electronics.

NSCC receptacles are a cost-effective solution for small circuit-size applications. The one-piece design with integral hinged TPA makes assembly at the harness maker quick and simple. Power is carried through 1.50mm and/ or 2.80mm terminals. Molex's robust clean-body female terminals allow for smooth terminal entry.

NSCC connectors must use male SICMA terminals from FCI. Molex does not produce a male SICMA terminal. All the connectors offer various colour codings associated with mechanical keying for easy mating in-line or with the headers. For additional information visit: www.molex.com/link/nscc.html

Features and Benefits

One-piece clean-body receptacle terminals	Robust and easy handling in harness plant
1.50mm and 2.80mm female terminals in high conductivity alloy	Meets a range of power requirements Excellent electrical and relaxation performance
Smooth terminal entry	Suitable for use with grommet seals
One-piece receptacles with integrated hinged TPA	Lower cost solution
"Go/No-go" locking system with audible click	Ensures connectors are fully seated and locked with counterparts OEM approved locking system
Colour coding linked to mechanical keying	Easy visual installation Avoids mis-mating
5-circuit shorting bar connectors in long- and short-body versions	Cost effective, compact solution for safety applications; e.g. airbags Long-body version features strain relief Short-body version allows easier mating in restricted spaces

NSCC Unsealed Connectors 1.50mm, 2.80mm and Hybrids

1.50mm Terminal System

98817 2, 3, 4-circuit receptacles
98822 2, 3, 4-circuit connectors
98784 5-circuit receptacle
98781 5-circuit shorting bar connector
98816 10-circuit receptacles
98823 10-circuit connectors
98897 Female terminals
98773 4-circuit header

2.80mm Terminal System

98819 2-circuit receptacles
98824 2-circuit connectors
98898 UCC female terminals

Hybrids

98821 3- and 6-circuit hybrid receptacles
98825 6-circuit hybrid connectors
98273 16-circuit hybrid receptacles
98276 16-circuit hybrid connectors

NSCC 1.50mm and 2.80mm Connection System

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NSCC Unsealed Connectors 1.50mm, 2.80mm and Hybrids

Applications

Transportation

Automotive
Commercial vehicles including agricultural equipment

Wire-to-board

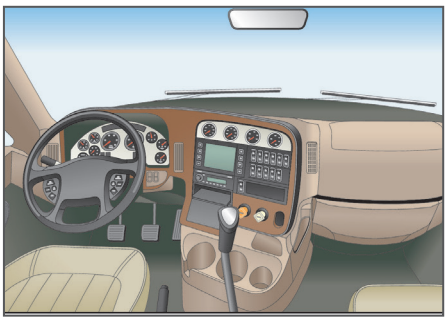
Dashboard applications:
-Indicators
-Windscreen wipers
-Dashboard lighting
Steering module
Air conditioning
Switching: electric windows

Wire-to-wire (in-line)

Electronic and electrical modules:
-Steering alarm system
-Electric windows
-Door-to-body connections
-Electric seats and heated seats
-Loudspeakers
-Airbag connection system

Industrial

Low voltage ventilation units



Multiple body-electronics wiring

Automotive

Heavy-Duty Vehicles

Commercial Vehicles

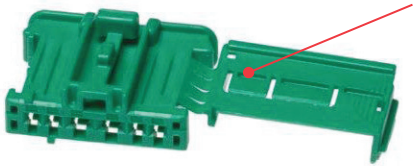
Additional Product Features

Series 98821 / 98825

Male connector
series 98825

Mates with:

Shown with TPA closed

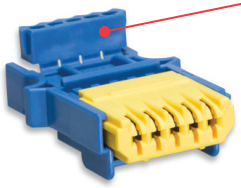


Shown with hinged TPA open

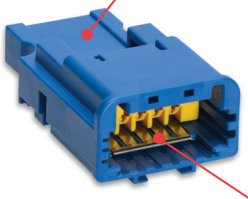
One-piece receptacle with integrated TPA
series 98821

Series 98784 / 98781

Long version features cable strain relief



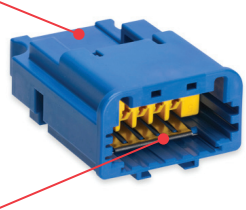
Receptacle, long version,
series 98784



Male shorting bar connector
for air-bag applications,
long version
series 98781

Short version reduced size aloows easier mating/ un-mating in compact applications

Receptacle, short version
series 98784



Male shorting bar connector
for air-bag applications,
short version
series 98781

Shorting bar pins create a continuous circuit when connector is unmated from counterpart to prevent air-bag from discharging

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NSCC Unsealed Connectors

1.50mm Terminal System

98817 2, 3, 4-Circuit 1.50mm Receptacles

98822 2, 3, 4-Circuit 1.50mm Connectors

Specifications

REFERENCE INFORMATION

Packaging: Bulk
Use with: 98897/FCI male terminal
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL

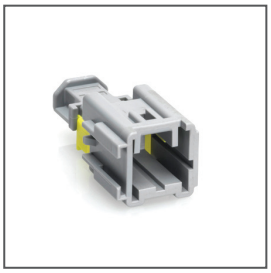
Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 10A
Contact resistance: 4mΩ max.
Dielectric withstanding voltage: 1000V AC (50Hz) during 60s
Insulation resistance: 100mΩ max.

MECHANICAL

Contact insertion force: <5N (>35N with TPA)
Contact retention to housing: >45N (>100N with TPA)
Counterpart mating force: < 80N
Counterpart unmating force: < 80N

PHYSICAL

Housing: PBT
Operating temperature: -40 to +85 °C



98822

98817

Ordering Information

Order No. Receptacle	Mating Connector	Circuits	Coding
98817-1020	98822-1020	2	White
98817-1021	98822-1021		Black
98817-1025	98822-1025		Green
98817-1028	98822-1028		Grey
98817-1030	98822-1030	3	White
98817-1031	98822-1031		Black
98817-1035	98822-1035		Green
98817-1040	98822-1040	4	White
98817-1041	98822-1041		Black
	98773-1011		
98817-1045	98822-1045		Green
98817-1048	98773-1018		Grey

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NSCC Unsealed Connectors

3.33mm Pitch

98773 4-Circuit Header

Specifications

REFERENCE INFORMATION

Packaging: Bag
Use with: Counterpart or 98817 series
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

MECHANICAL

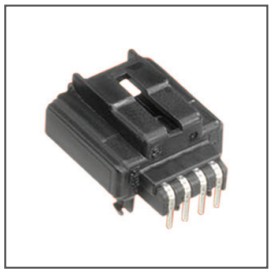
Counterpart mating force: 80N max.
Counterpart unmating force: 80N max.

ELECTRICAL

Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 10A
Contact resistance: < 4mΩ
Dielectric withstanding voltage: 1000V AC (50Hz) during 60s
Insulation resistance: > 100mΩ

PHYSICAL

Housing: PA6.6
Contact plating: Post-tinned 3-6µm Tin (Sn) over 2-3µm Nickel (Ni)
Operating Temperature: -40 to +85 °C



98773

Ordering Information

Order No.	Mates With	Circuits	Coding
98773-1011	Counterpart designed per MOLEX Interface drawing SD-98815-004 or 98817-1041	4	Black
98773-1018	Counterpart designed per MOLEX Interface drawing SD-98815-004 or 98817-1048		Grey

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NSCC Unsealed Connectors

1.50mm Terminal System

98784 5-Circuit 1.50mm Receptacles

98781 5-Circuit 1.50mm Shorting Bar Connectors

Specifications

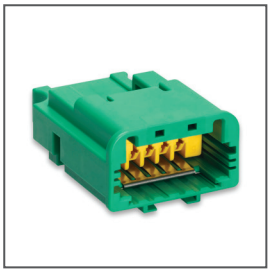
REFERENCE INFORMATION
Packaging: Bulk (98784), bag (98781)
Use with: 98897/FCI male terminal
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

MECHANICAL
Contact insertion force:
< 5N (> 40N with TPA)
Contact Retention to housing:
> 60N (> 100N with TPA)
Counterpart mating force: < 60N
Counterpart unmating force: < 40N

ELECTRICAL
Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 10A
Contact resistance: < 4mΩ
Dielectric withstanding voltage:
1000V AC (50Hz) during 60s
Insulation resistance: > 100mΩ
Electrical shorting bar resistance:
< 100mΩ

PHYSICAL
Housing: PBT
Operating temperature: -40°C-+85°C

98784



98781

Ordering Information

Order No. Receptacle	Mating Connector	Circuits	Coding	
98784-1001	98781-1001	5	Black	Long Version
98784-1002	98781-1002		Natural	
98784-1003	98781-1003		Green	
98784-1004	98781-1004		Blue	
98784-1011	98781-1011		Black	Short Version
98784-1012	98781-1012		Natural	
98784-1013	98781-1013		Green	
98784-1014	98781-1014		Blue	

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NSCC Unsealed Connectors

1.50mm Terminal System

98816 10-Circuit
1.50mm Receptacles

98823 10-Circuit
1.50mm Connectors

Specifications

REFERENCE INFORMATION
Packaging: Bulk
Use with: 98897/FCI male terminal
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL
Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 10A
Contact resistance: 4mΩ
Dielectric withstanding voltage:
1000V AC (50Hz) during 60s
Insulation resistance: > 100mΩ

MECHANICAL
Contact insertion force: 8N max.
Contact retention to housing:
60N min. (100N min with TPA)
Counterpart mating force: 60N max.
Counterpart Unmating Force: 60N max.

PHYSICAL
Housing: PBT
Operating temperature: -40 to +85°C

98816

98823

Ordering Information

Order No. Receptacle	Profile*	Mating Connector	Circuits	Coding
98816-1010	V1	98823-1010	10	White
98816-1110	V2			
98816-1011	V1	98823-1011		Black
98816-1111	V2			
98816-1015	V1	98823-1015		Green
98816-1115	V2			
98816-1016	V1	98823-1016		Brown
98816-1116	V2			
98816-1018	V1	98823-1018		Grey
98816-1118	V2			

*Profile: See SD for details

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NSCC Unsealed Connectors

2.80mm Terminal System

98819 2-Circuit
2.80mm Receptacles

98824 2-Circuit
2.80mm Connectors

Specifications

REFERENCE INFORMATION
Packaging: Bulk
Use with: 98897/FCI male terminal
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL
Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 15A
Contact resistance: < 4mΩ
Dielectric withstanding voltage:
1000V AC (50Hz) during 60s
Insulation Resistance: > 100mΩ

MECHANICAL
Contact insertion force: 8N
Contact retention to housing:
> 45N (> 100N with TPA)
Counterpart mating force: < 80N
Counterpart unmating force: < 80N

PHYSICAL
Housing: PBT
Operating temperature: -40 to +85 °C
Vibration: Class 1
Sealing: Class 0

98819

98824

Ordering Information

Order No. Receptacle	Mating Connector	Circuits	Coding
98819-1020	98824-1010	2	White
98819-1021	98824-1021		Black
98819-1025	98824-1025		Green

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NSCC Unsealed Connectors

1.50mm and 2.80mm Terminal System

98821 3 and 6-Circuit Hybrid Receptacles

98825 6-Circuit Hybrid Connector

Specifications

REFERENCE INFORMATION
Packaging: Bulk
Use with: 98897 and 98898/FCI male terminals
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL
Voltage (max.): 13.5 ± 0.1V DC
Current (max.): 10A (1.5), 15A (2.8)
(Refer to FCI SICMA terminals for 98825)
Contact resistance: < 4mΩ
Dielectric withstanding voltage: 1000V (50Hz) during 60s
Insulation resistance: > 100mΩ

MECHANICAL
Contact Insertion Force:
1.50mm terminals: < 5N
2.80mm terminals: < 8N
(>35N with TPA)
Contact retention to housing:
> 100N (45N without TPA)
Counterpart mating force: < 60N
Counterpart unmating force: < 60N

PHYSICAL
Housing: PBT
Operating temperature: -40 - +85 °C
Vibration: Class 1
Sealing: Class 0

98821-106X

98821-103X

98825

Ordering Information

Order No. Receptacle	Mating Connector	Circuits	Coding
98821-1030	Direct connection board counterpart designed per Molex interface drawing SD-98820-001	3	White
98821-1031			Black
98821-1035			Green
98821-1039			Brown
98821-1060	98825-1060	6	White
98821-1061	98825-1061		Black
98821-1065	98825-1065		Green
98821-1068	98825-1068		Grey

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NSCC Unsealed Connectors

1.50mm and 2.80mm Terminal System

98273 16-Circuit Hybrid Receptacles

98276 16-Circuit Hybrid Connectors

Specifications

REFERENCE INFORMATION
Packaging: Tray (98273), bulk (98276)
Use With: 98897 and 98898/ FCI male terminals
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

MECHANICAL
Contact insertion force:
1.50mm terminals < 5N
2.80mm terminals < 8N
Contact retention to housing: > 90N
Counterpart mating force: < 60N
Counterpart unmating force: < 60N

ELECTRICAL
Voltage (max.): 13.5 ± 0.1V DC
Current (max.):
Series 98273:
7A (1.5), 15A (2.8)
Refer to FCI SICMA terminals for 98276
Contact Resistance: < 4mΩ
Dielectric withstanding voltage:
1000V (50Hz) during 60s
Insulation resistance: > 100mΩ

PHYSICAL
Housing: PBT
Operating temperature: -40 to +100°C

98276

98273

Ordering Information

Order No. Receptacle	Mating Connector	Circuits	Coding
98273-1001	98276-1001	16	Black
98273-1002	98276-1002		Green
98273-1003	98276-1003		Blue
98273-1004	98276-1004		White
98273-1005	98276-1005		Brown
98273-1006	98276-1006		Grey

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NSCC Unsealed Connectors

1.50mm

98897 Receptacle Terminals

Specifications

REFERENCE INFORMATION
Packaging: Reel
Mates with: FCI Sicma blade terminal
Use with: 98816, 98817, 98821, 98273
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL
Voltage (max.): 14V
Current (max.): 17A (with 2.00mm² wire at 85°C in ambient air)
Contact Resistance: 4mΩ max
Dielectric Withstanding Voltage: 1000V AC (50Hz) during 60s
Insulation Resistance: > 100mΩ

MECHANICAL
Contact insertion force: 10N max with FCI mini-sealed *(5N max with Molex products)*
Contact retention to housing: 50N min (100N min with TPA)
Mating force: 60N max
Unmating force: 60N max
Durability (min.): 20 cycles
Polarization: 180°

PHYSICAL
Plating: 2µm pure tin pre-plated
Operating Temperature: -40 to +125°C

98897

Ordering Information

Order No. Receptacle	Plating	Crimping Range (mm²)
98897-1109	Tin	0.35
98897-1119		0.50 to 1.00
98897-1129		1.50 to 2.00

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NSCC Unsealed Connectors

2.80mm

98898 Receptacle Terminals

Specifications

REFERENCE INFORMATION

Packaging: Reel
Mates with: FCI Sicma blade terminal
Use with: 98819, 98821, 98273
Designed in: Millimeters
RoHS: Yes
Halogen: Yes
Glow wire compliant: No

ELECTRICAL

Voltage (max.): 14V
Current (max.): 25A (with 5.0mm² wire at 85°C) in ambient air
Contact resistance: 2mΩ max.
Dielectric withstanding voltage: 1000V AC (50Hz) during 60s
Insulation resistance: > 100mΩ

MECHANICAL

Contact insertion force: 15N max (value CINCH: 7N)
Contact retention to housing: 80N min (100N min with TPA)
Mating Force: 60N max
Unmating force: 60N max (according to STE963370109A)
Durability (min.): 20 cycles
Polarization: 180°

PHYSICAL

Plating: 2µm pure tin pre-plated
Operating temperature: -40 to +125 °C

98898

Ordering Information

Order No. Receptacle	Plating	Crimping Range (mm²)
98898-1029	Tin	0.35 to 0.75
98898-1039		1.0 to 2.50
98898-1049		3.0 to 5.0

www.molex.com/link/nscc.html