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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-piece clean-body receptacle terminals</td>
<td>Robust and easy handling in harness plant</td>
</tr>
<tr>
<td>1.50mm and 2.80mm female terminals in high conductivity alloy</td>
<td>Meets a range of power requirements Excellent electrical and relaxation performance</td>
</tr>
<tr>
<td>Smooth terminal entry</td>
<td>Suitable for use with grommet seals</td>
</tr>
<tr>
<td>One-piece receptacles with integrated hinged TPA</td>
<td>Lower cost solution</td>
</tr>
<tr>
<td>“Go/No-go” locking system with audible click</td>
<td>Ensures connectors are fully seated and locked with counterparts OEM approved locking system</td>
</tr>
<tr>
<td>Colour coding linked to mechanical keying</td>
<td>Easy visual installation Avoids mis-mating</td>
</tr>
<tr>
<td>5-circuit shorting bar connectors in long- and short-body versions</td>
<td>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</td>
</tr>
</tbody>
</table>

### NSCC Unsealed Connectors

#### 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
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

Additional Product Features

Series 98821 / 98825

Mates with:
- Male connector series 98825
- One-piece receptacle with integrated TPA series 98821

Shown with TPA closed
Shown with hinged TPA open

Series 98784 / 98781

Receptacle, long version, series 98784
Male shorting bar connector for air-bag applications, long version series 98781

Long version features cable strain relief

Short version reduced size allows 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
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.

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

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
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</thead>
<tbody>
<tr>
<td>98817-1020</td>
<td>98822-1020</td>
<td>2</td>
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<td>98817-1021</td>
<td>98822-1021</td>
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<td>Black</td>
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<td>98817-1025</td>
<td>98822-1025</td>
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<td>98817-1028</td>
<td>98822-1028</td>
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<td>98817-1030</td>
<td>98822-1030</td>
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<td>98817-1031</td>
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<td>98817-1040</td>
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<td>98817-1041</td>
<td>98822-1041</td>
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<td>98817-1045</td>
<td>98822-1045</td>
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</tr>
<tr>
<td>98817-1048</td>
<td>98773-1018</td>
<td>4</td>
<td>Grey</td>
</tr>
</tbody>
</table>
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

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Mates With</th>
<th>Circuits</th>
<th>Coding</th>
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</thead>
<tbody>
<tr>
<td>98773-1011</td>
<td>Counterpart designed per MOLEX Interface drawing SD-98815-004 or 98817-1041</td>
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</tr>
<tr>
<td>98773-1018</td>
<td>Counterpart designed per MOLEX Interface drawing SD-98815-004 or 98817-1048</td>
<td></td>
<td>Grey</td>
</tr>
</tbody>
</table>
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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
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<tbody>
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<td>98784-1014</td>
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</table>

Long Version
Short Version
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

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

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.

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Profile*</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>98816-1010</td>
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<td>98823-1010</td>
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<td>98816-1110</td>
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</tr>
<tr>
<td>98816-1011</td>
<td>V1</td>
<td>98823-1011</td>
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</tr>
<tr>
<td>98816-1111</td>
<td>V2</td>
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</tr>
<tr>
<td>98816-1015</td>
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<td>98816-1115</td>
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<td>98816-1116</td>
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<tr>
<td>98816-1018</td>
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<tr>
<td>98816-1118</td>
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</table>

*Profile: See SD for details
Specifications

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

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

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

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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>98819-1020</td>
<td>98824-1010</td>
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<td>White</td>
</tr>
<tr>
<td>98819-1021</td>
<td>98824-1021</td>
<td></td>
<td>Black</td>
</tr>
<tr>
<td>98819-1025</td>
<td>98824-1025</td>
<td></td>
<td>Green</td>
</tr>
</tbody>
</table>

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 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
(>35N with TPA)
Contact retention to housing:
  > 100N (45N without TPA)
Counterpart mating force: < 60N
Counterpart unmating force: < 60N

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

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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>98821-1030</td>
<td>Direct connection board counterpart designed per Molex interface drawing SD-98820-001</td>
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<tr>
<td>98821-1031</td>
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<td>98821-1035</td>
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<td>98821-1039</td>
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<td>98821-1060</td>
<td>98825-1060</td>
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<td>98821-1061</td>
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<tr>
<td>98821-1068</td>
<td>98825-1068</td>
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</tbody>
</table>
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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Mating Connector</th>
<th>Circuits</th>
<th>Coding</th>
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</thead>
<tbody>
<tr>
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<td>98276-1001</td>
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<td>98273-1002</td>
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<td>98273-1003</td>
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<td>98273-1004</td>
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<td>98273-1005</td>
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<td>98273-1006</td>
<td>98276-1006</td>
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<td>Grey</td>
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</tbody>
</table>
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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Plating</th>
<th>Crimping Range (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>98897-1109</td>
<td>Tin</td>
<td>0.35</td>
</tr>
<tr>
<td>98897-1119</td>
<td>Tin</td>
<td>0.50 to 1.00</td>
</tr>
<tr>
<td>98897-1129</td>
<td>Tin</td>
<td>1.50 to 2.00</td>
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</tbody>
</table>
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

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°

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

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

Ordering Information

<table>
<thead>
<tr>
<th>Order No. Receptacle</th>
<th>Plating</th>
<th>Crimping Range (mm²)</th>
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<tbody>
<tr>
<td>98898-1029</td>
<td>Tin</td>
<td>0.35 to 0.75</td>
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<tr>
<td>98898-1039</td>
<td>Tin</td>
<td>1.0 to 2.50</td>
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<tr>
<td>98898-1049</td>
<td>Tin</td>
<td>3.0 to 5.0</td>
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</tbody>
</table>

www.molex.com/link/nscc.html