Header Technologies
DCS Distribution Channel
Meeting USCAR Standards
Delphi’s standard 064 series unsealed header connectors are USCAR* compliant. These products:
• meet USCAR design guidelines
  (per SAE/USCAR-12 Revision 2, December 2001)
• meet the published USCAR interface footprints
• are validated to USCAR specifications
  (per SAE/USCAR-2 Revision 3, April 2001)

*USCAR is the United States Council for Automotive Research.

CMC Series
CMC (Connecteur Modulaire pour Calculateur) is one of the most popular interfaces for Engine Management Electronic Control Units.
Very compact size, high density connectors.
Sealed connectors for Electronic Control Units application and suitable for harsh environment.

SICMA Series
Headers for sealed applications in harsh environment with robust design with 1,5 mm signal terminals and 2,8 mm power terminal.
Proven field experience for more than 10 years.

Typical Applications
Delphi’s header products can be used in the automotive and transportation markets. They are suitable for device, in-line and board-to-wire applications in the following:
• Satellite radios
• Infotainment devices
• Automotive body modules and systems
• HVAC systems
• Electronic Control Unit
• Harsh environment

Mating Connectors
Delphi also offers a complete line of:
• 064 series female mating connectors
• SICMA series female mating connectors
• CMC series female mating connectors

Tooling
All components in this catalog can be supplied from low volume tooling, many of which are available from high volume production tooling as well. PPAP certification can be supplied for low volume production intent tooling if requested.
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<td>Dimensions details</td>
<td>13-18</td>
</tr>
</tbody>
</table>
Sicma Series – Sealed harsh environment
One-Row
6w Header

HEADER:

Product name: 6w Header
N. Of row 1
Pitch between rows -
Terminals 1.5mm & 2.8mm Sicma
Sealing protection IP68
Temperature range -40°C to +105°C

Part number:

<table>
<thead>
<tr>
<th>DPN</th>
<th>Type of connector</th>
<th>Polarization</th>
<th>Configuration</th>
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<tr>
<td>F159000</td>
<td>6w</td>
<td>BLACK</td>
<td>Right angled male housing</td>
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MATING CONNECTOR:

Part #: 211PC069S0049
Description: 6 Way Female sealed SICMA Connector black Generation 1
Product Type: Connector
Status: Active
Family: Mixed
Series: Sicma 1.5 / 2.8
Cavities: 6
Sealed: Sealed
Gender: Female
Temperature range [°C]: -40 to +125
Material: PBT
Weight [g]: 12.072
Color: Black
Application: Inline (Wire to Wire)

Terminals:

211CC3S1160 Terminal Sicma-3 Female 2.8 mm Terminal
211CC2S2460P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S1190P Terminal Sicma -3Plus Female 1.5 mm Terminal
211CC2S1460P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S4190P Terminal Sicma -3PlusFemale 1.5 mm Terminal
211CC3S2460 Terminal Sicma-3 Female 2.8 mm Terminal
211CC3S1460 Terminal Sicma-3 Female 2.8 mm Terminal
211CC2S1160P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S2190P Terminal Sicma -3PlusFemale 1.5 mm Terminal
211CC3S2160 Terminal Sicma-3 Female 2.8 mm Terminal
211CC2S2160P Terminal Sicma-3Plus Female 1.5 mm Terminal
European Made
064 Series Header
Two-Row – Single Module
8-way Unsealed - Right Angle

HEADER:
Part #: 15420151
Description: 8 Way Gray Micro Unsealed Connector Assembly
Max Current 7 amps
Product Type: Connector
Status: Active
Family: Micro
Cavities: 8
Terminal(s) blade size [mm]: 0.64
Sealed: Unsealed
Gender: Male + Male
Temperature range [°C]: -40 to 125
Material: High Temperature Nylon
Weight [g]: 4.77
Color: Gray
Remarks: USCAR spec. Number 064-U-008-2-B02
Application: Infotainment and BCM

MATING CONNECTOR:
Part #: 13782038
Description: 8 Way Light Gray Unsealed Female Connector Assembly
Product Type: Connector
Status: Active
Family: OCS
Series: 0.64 Index Up Rear
Cavities: 8
Terminal(s) blade size [mm]: 0.64
Sealed: Unsealed
Gender: Female
Material: Various (Assembly)
Weight [g]: 3.5
ELV compliant: Yes
RoHs compliant: Yes
Application: Module - Parking Sensors, Switch - Window

TERMINALS:
• 13767046  Terminal OCS 0.64 IUR Female Unsealed Tin Plating Terminal, Cable Range 0.80 - 0.80 mm²
• 13767047  Terminal OCS 0.64 IUR Female Unsealed Tin Plating Terminal, Cable Range 0.35 - 0.50 mm²
• 13767048  Terminal OCS 0.64 IUR Female Unsealed Tin Plating Terminal, Cable Range 0.13 - 0.22 mm²

Dimensions shown in millimeters.
**Sicma Series – ECU & DTB**

**24w Header**

**HEADER:**
- **Product name:** DTB 24 Way Male Family
- **Sealing Level:** S2 / S1
- **Meating Force:** ≤ 70N
- **Temp. range:** T2 (- 40°C + 100°C)
- **Vibration class:** V1
- **Tpa (yes/Not):** Yes
- **Cpa (yes/Not):** No

<table>
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<th>Male housing Sealed:</th>
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<tr>
<td><strong>DPN</strong></td>
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<td>211PL249S0033</td>
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<td>211PL249S1033</td>
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<td>211PL249S6033</td>
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<td>211PL249S8033</td>
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<th>Male housing Unsealed:</th>
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<tr>
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<td><strong>HCCMHPE24BKAF</strong></td>
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<td><strong>HCCMHPE24BNC90F</strong></td>
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**MATING CONNECTOR:**
- **Product name:** DTB24 Way Female Family
- **Sealing Level:** S2 / S1
- **Meating Force:** ≤ 70N
- **Temp. range:** T2 (- 40°C + 100°C)
- **Vibration class:** V1
- **Tpa (yes/Not):** Yes
- **Cpa (yes/Not):** No

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<tr>
<th>Terminals:</th>
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<tbody>
<tr>
<td><strong>211CC3S1160</strong> Terminal Sicma-3 Female 2.8 mm Terminal</td>
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<tr>
<td><strong>211CC2S2460P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
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<td><strong>211CC2S1190P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
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<td><strong>211CC2S1460P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
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<td><strong>211CC2S4190P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
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<td><strong>211CC3S2460</strong> Terminal Sicma-3 Female 2.8 mm Terminal</td>
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<td><strong>211CC3S1460</strong> Terminal Sicma-3 Female 2.8 mm Terminal</td>
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<tr>
<td><strong>211CC2S2190P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
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<tr>
<td><strong>211CC3S2160</strong> Terminal Sicma-3 Female 2.8 mm Terminal</td>
</tr>
<tr>
<td><strong>211CC2S2160P</strong> Terminal Sicma-3Plus Female 1.5 mm Terminal</td>
</tr>
</tbody>
</table>

*For additional product information and engineering drawings, please visit our website at [www.delphi.com/connect](http://www.delphi.com/connect).*
Mixed Series – Radio Header
Two-Rows – Combination Module
30-way Unsealed - Right Angle

Dimensions shown in millimeters.

HEADER:
Part #: 09402549
Description: 30 Way Black Micro 64 USCAR 120 Unsealed Male Connector Assembly
Product Type: Connector
Status: Active
Family: Mixed
Series: Mixed
Cavities: 30
Terminal(s) blade size [mm]: 0.64, 1.2
Sealed: Unsealed
Gender: Male
Material: PBT
Weight [g]: 13.21
Color: Black
Application: Inline (Wire to Wire) - Infotainment and BCM

MATING CONNECTORS:
Part #: 15486792
Description: 16 Way Black Micro HVT Unsealed Female Connector
Product Type: Connector
Status: Active
Family: Micro HVT
Cavities: 16
Terminal(s) blade size [mm]: 1.2
Sealed: Unsealed
Gender: Female
Material: PBT
Weight [g]: 4.67
Color: Black
ELV compliant: Yes
RoHs compliant: Yes
Application: Radio, Mirror, Amplifier, Module - A/C, Switch - Headlamp, Display - Multimedia

TERMINALS FOR DPN 15464951:
12191134  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.50 - 0.50 mm2, Cable Insulation Range 1.40 - 1.85 mm
12191133  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.35 - 0.35 mm2, Cable Insulation Range 1.20 - 1.30 mm
15356826  Terminal Female Micro 0.64 Gold Plating Unsealed Terminal, Cable Range 0.35 - 0.35 mm2, Cable Insulation Range 1.47 - 1.63 mm
15359541  Terminal Female Micro 0.64 Gold Plating Unsealed Terminal, Cable Range 0.50 - 0.80 mm2, Cable Insulation Range 1.64 - 1.90 mm
15304710  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.35 - 0.50 mm2, Cable Insulation Range 1.70 - 2.25 mm
15304711  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.75 - 1.00 mm2, Cable Insulation Range 1.70 - 2.25 mm
15427675  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.35 - 0.50 mm2, Cable Insulation Range 1.10 - 1.30 mm
15304712  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 1.50 - 3.00 mm2, Cable Insulation Range 2.20 - 3.20 mm
15304713  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 4.00 - 5.00 mm2, Cable Insulation Range 3.40 - 3.90 mm
15304714  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 1.50 - 3.00 mm2, Cable Insulation Range 2.20 - 3.20 mm
15304715  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 4.00 - 5.00 mm2, Cable Insulation Range 3.40 - 3.90 mm
15304716  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 1.50 - 3.00 mm2, Cable Insulation Range 2.20 - 3.20 mm

TERMINALS FOR DPN 15464951:
12191134  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.50 - 0.50 mm2, Cable Insulation Range 1.40 - 1.85 mm
12191133  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.35 - 0.35 mm2, Cable Insulation Range 1.20 - 1.30 mm
15356826  Terminal Female Micro 0.64 Gold Plating Unsealed Terminal, Cable Range 0.35 - 0.35 mm2, Cable Insulation Range 1.47 - 1.63 mm
15359541  Terminal Female Micro 0.64 Gold Plating Unsealed Terminal, Cable Range 0.50 - 0.80 mm2, Cable Insulation Range 1.64 - 1.90 mm
15401440  Terminal Female Micro 0.64 Tin Plating Unsealed Terminal, Cable Range 0.50 - 0.80 mm2, Cable Insulation Range 1.64 - 1.90 mm
15394147  Terminal Female Micro 0.64 Tin Plating Unsealed Terminal, Cable Range 0.35 - 0.35 mm2, Cable Insulation Range 1.47 - 1.63 mm
12191135  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 0.80 - 0.80 mm2, Cable Insulation Range 1.70 - 2.05 mm
15356827  Terminal Female Micro 0.64 Gold Plating Unsealed Terminal, Cable Range 0.50 - 0.80 mm2, Cable Insulation Range 1.64 - 1.90 mm
15304713  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 4.00 - 5.00 mm2, Cable Insulation Range 3.40 - 3.90 mm
15304712  Terminal Female GT 280 Series Tin Plating Unsealed Terminal, Cable Range 1.50 - 3.00 mm2, Cable Insulation Range 2.20 - 3.20 mm

For additional product information and engineering drawings, please visit our website at www.delphi.com/connect.
CMC Series – ECU

32w Header

**HEADER:**
- **Product name:** 32w Header
- **Sealing protection:** IPx9K/IP68
- **Terminals:** 24x 0.64mm & 8x 1.50mm
- **Temperature range:** -40°C to +125°C
- **Terminal retention force:** > 100N
- **Terminal insertion force:** < 10N
- **Connector mating force:** < 60N
- **N. of mechanical coding:** 4

**MATING CONNECTOR:**
- **Part #:** PPI0001493
- **Description:** 32 Way CMC female sealed blue keyway right lever
- **Product Type:** Connector
- **Status:** Active
- **Family:** GTS
- **Series:** Mixed
- **Cavities:** 32
- **Sealed:** Sealed
- **Gender:** Female
- **Temperature range [°C]:** -40 to +125
- **Material:** PBT
- **Color:** Black

**Part number:**

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<th>Type of connector</th>
<th>Polarization</th>
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<td>F670000</td>
<td>32w</td>
<td>BLUE</td>
</tr>
<tr>
<td>F270000</td>
<td>32w</td>
<td>BLACK</td>
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**COVER:**
- **Part #:** PPI0001522
- **Description:** CMC 32 Way Wire dress cover for Housing
- **Product Type:** Cap Cover
- **Status:** Active

**Terminals:**

<table>
<thead>
<tr>
<th>DPN</th>
<th>Type of terminal</th>
<th>tab size (mm²)</th>
<th>Plating</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPI0001619</td>
<td>0.64</td>
<td>0.22 - 0.35</td>
<td>pre tinned</td>
<td>for sleeve see table</td>
</tr>
<tr>
<td>PPI0000489</td>
<td>0.64</td>
<td>0.5</td>
<td>pre tinned</td>
<td>for sleeve see table</td>
</tr>
<tr>
<td>PPI0001483</td>
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<td>pre tinned</td>
<td>for sleeve see table</td>
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<tr>
<td>PPI0001484</td>
<td>1.5</td>
<td>1.5</td>
<td>pre tinned</td>
<td>for sleeve see table</td>
</tr>
</tbody>
</table>

For additional product information and engineering drawings, please visit our website at [www.delphi.com/connect](http://www.delphi.com/connect).
CMC Series - ECU
48w & 64w PinHeader

HEADER:
Product name: 48w & 64w PinHeader
Sealing Level: S2 - S3
Mating Force: ≤ 75N
Temp. range: T3 (-40 / +125°C)
Vibration class: V2
Tpa (yes/Not): yes
Cpa (yes/Not): --

Note: BODY SOLDERING REFLOW VERSION

MATING CONNECTOR:
Product name: 48w & 64w Female Sealed Connector
Sealing Level: S2 - S3
Mating Force: ≤ 75N
Temp. range: T3 (-40 / +125°C)
Vibration class: V2
Tpa (yes/Not): yes
Cpa (yes/Not): --

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<td>BLACK</td>
<td>Black left Body + TPA + Lever + Mating seal + Peripher. seal</td>
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<tr>
<td>PPI00001495</td>
<td>48w</td>
<td>BLACK</td>
<td>Black right Body + TPA + Lever + Mating seal + Peripher. seal</td>
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<tr>
<td>PPI0001500</td>
<td>64w</td>
<td>BLACK</td>
<td>Black left Body + TPA + Lever + Mating seal + Peripher. seal</td>
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<tr>
<td>PPI0001501</td>
<td>64w</td>
<td>BLACK</td>
<td>Black right Body + TPA + Lever + Mating seal + Peripher. seal</td>
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<tr>
<td>PPI0001485</td>
<td>Plug</td>
<td>--</td>
<td>White dummy for 0,64 cavity</td>
</tr>
<tr>
<td>PPI0001486</td>
<td>Plug</td>
<td>--</td>
<td>Blue dummy for 1,5 cavity</td>
</tr>
<tr>
<td>F418400</td>
<td>Tube</td>
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Cover:

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<tr>
<td>F965000</td>
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<td>BLACK</td>
<td>wiring out straight</td>
</tr>
<tr>
<td>PPI0001538</td>
<td>48w</td>
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<td>wiring out 45°</td>
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<td>PPI0001526</td>
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Terminals:

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<tr>
<th>DPN</th>
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<th>tab size (mm²)</th>
<th>Plating</th>
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<tr>
<td>PPI0000489</td>
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<td>1.5</td>
<td>pre tinned</td>
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</tbody>
</table>

For additional product information and engineering drawings, please visit our website at www.delphi.com/connect.
Sicma Series – Sealed harsh environment
Two-Rows
56w Header

HEADER:
Product name: 56w Header
N. Of row 2
Pitch between rows 6mm
Terminals 1.5mm Sicma
Sealing protection IP68
Temperature range -40°C to +125°C

MATING CONNECTOR:
Part #: PPI001258
Description: 56 Way 1.5 mm SICMA sealed Female Housing
Product Type: Connector
Status: Active
Family: Sicma
Series: 1.5
Cavities: 56
Sealed: Sealed
Gender: Female
Temperature range [°C]: -40 to +125
Material: PBT
Weight [g]: 88.28
Color: Black

Terminals:
211CC2S2160P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S1160P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S4190P Terminal Sicma-3PlusFemale 1.5 mm Terminal
211CC2S1190P Terminal Sicma -3PlusFemale 1.5 mm Terminal
211CC2S1460P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S2460P Terminal Sicma-3Plus Female 1.5 mm Terminal
211CC2S2190P Terminal Sicma -3PlusFemale 1.5 mm Terminal

For additional product information and engineering drawings, please visit our website at www.delphi.com/connect.
CMC Series – ECU
112w Header

**HEADER:**
- **Product name:** 112w Header
- **Sealing protection:** IPx9K/IP68
- **Terminals:** 88x 0.64mm & 24x 1.50mm
- **Temperature range:** -40°C to +125°C
- **Terminal retention force:** > 100N
- **Terminal insertion force:** < 10N
- **Connector mating force:** < 60N
- **N. of mechanical coding:** 1

**MATING CONNECTOR:**
- **Part #: PPI0001487**
  - **Description:** 32 Way CMC female Housing black keyWay left lever
  - **Product Type:** Connector
  - **Status:** Active
  - **Family:** GTS
  - **Series:** Mixed
  - **Cavities:** 32
  - **Sealed:** Sealed
  - **Gender:** Female
  - **Temperature range [°C]:** -40 to +125
  - **Material:** PBT
  - **Color:** Black

- **Part #: F765000**
  - **Description:** 48 Way CMC sealed brown left
  - **Product Type:** Connector
  - **Status:** Active
  - **Family:** GTS
  - **Series:** Mixed
  - **Cavities:** 48
  - **Sealed:** Sealed
  - **Gender:** Female
  - **Temperature range [°C]:** -40 to +125
  - **Material:** PBT
  - **Color:** Black

**COVER:**
- **Part #: PPI0001522**
  - **Description:** CMC 32 Way Wire dress cover for Housing
  - **Product Type:** Cap Cover
  - **Status:** Active

**Terminals:**

<table>
<thead>
<tr>
<th>DPN</th>
<th>Type</th>
<th>tab size (mm²)</th>
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<td>0.64</td>
<td>0.5</td>
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<td>PPI0001483</td>
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<td>for sleeve see table</td>
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<td>PPI0001484</td>
<td>1.5</td>
<td>1.5</td>
<td>pre tinned</td>
<td>for sleeve see table</td>
</tr>
</tbody>
</table>
Mixed Series – ECU
Five-Rows – Combination Module
154 Way Black 1.2 2.8 Sealed Male

HEADER:
Part #: 13830808
Description: 154 Way Black 1.2 2.8 Sealed Male Connector Assembly
Product Type: Connector
Status: Active
Family: Mixed
Series: Mixed
Cavities: 154
Sealed: Sealed
Gender: Male
Weight [g]: 124.2
Color: Black
ELV compliant: Yes
RoHs compliant: Yes
Application: Engine Control Unit, major for diesel application

MATING CONNECTOR:
Part #: 13535331
Description: 58 Way Gray 1.2 BTS 2.8 Sealed Female Connector Assembly
Product Type: Connector
Status: Active
Family: Mixed
Series: Mixed
Cavities: 58
Sealed: Sealed
Gender: Female
Weight [g]: 40.05
Color: Gray
ELV compliant: Yes
RoHs compliant: Yes
Cover:
Part#: 15494581
Locking comb:
Part#: 15494573
PLR cover:
Part#: 15494575

Part #: 13535335
Description: ASM CONN 96 F 1.2 MCP GRA SLD
Product Type: Connector
Status: Active
Family: 1.2
Series: MCP
Cavities: 96
Sealed: Sealed
Gender: Female
Weight [g]: 52.96
Color: Gray
ELV compliant: Yes
RoHs compliant: Yes
Cover:
Part#: 15494614
Locking comb:
Part#: 15494608

TERMINALS :
13543114 – OCS 1.2 clean body Tin/Silver 0,35 – 0,50
13543115 – OCS 1.2 clean body 1.2 Tin/Silver 0,75 – 0,80
13543116 – OCS 1.2 clean body 1.2 Tin/Silver 0,80 – 1,00
15494338 (2pcs terminal) BTS sws 2.8 Sn 0,35 – 0,50
15494339 (2pcs terminal) BTS sws 2.8 Sn 0,60 – 1,00
15494340 (2pcs terminal) BTS sws 2.8 Sn 1.40 – 2,50
211CC3S1161 (1pc terminal) Sicma3 sws 2.8 Sn 0,35 – 0,50
211CC3S2161 (1pc terminal) Sicma3 sws 2.8 Sn 1.00 – 2,50

For additional product information and engineering drawings, please visit our website at www.delphi.com/connect.
DIMENSIONS

Dimensions shown in millimeters.

6w Header

8-way Unsealed - Right Angle
DIMENSIONS
Dimensions shown in millimeters.

24w Header

30-way Unsealed - Right Angle
DIMENSIONS
Dimensions shown in millimeters.

32w Header

48w PinHeader
DIMENSIONS

Dimensions shown in millimeters.

56w Header

64w PinHeader

For additional product information and engineering drawings, please visit our website at www.delphi.com/connect.
112w PinHeader

Dimensions shown in millimeters.
154w Header

Dimensions shown in millimeters.
Delphi Connection Systems reserves the right to improve, enhance and modify the design specifications and construction of Delphi products without prior notification. For additional product and engineering information, contact us at [1] 248.813.2334 or visit our website at www.delphi.com/connect.

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