CONNECTION SYSTEMS.

12 - 48V POWER PACK 1000

PRODUCT PRESENTATION
Content

Why POWER PACK 1000?
Market environment and value proposition

Portfolio Overview
Portfolio scope

Technical Overview
Design features

Part Numbers
The Challenge

- Meeting increasing requirements for higher currents for new 12 & 48V platforms
- Exceedingly high reliability expectations in safety and performance
- Providing space saving solutions in regards to multiple available configurations
The Solution

Presenting the Power Pack 1000

Designed specifically for 12 – 48V sealed applications, the PP1000 covers multiple configurations including:

- 1 & 2 way connectors
- Wire-to-device and inline solutions
- Straight and right angle cable exits
Robust features, meaningful benefits

### Multiple configurations
- 1-way inline
- 2-way inline
- 2-way wire-to-device
  - Straight cable exit
  - Right angle exit

### High Current design
- Carrying currents up to 145A @ 85°C
- Cable range of:
  - 8-10 mm²
  - 19-25 mm²
- Silver plated terminals

### Reliability
- Safe Connections including
  - TPA features
  - CPA features
- Field proven terminal system since 2011
- High sealing protection: IP67
Content

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1 way inline connector

Key features & benefits
- Sealed connection system
- Silver-plated Power Pack1000 multi-contact terminal system
- Cable range: 8 mm² to 25 mm²
- One key/index
- Capable of additional indexes

Performance characteristics

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Sealing protection</td>
<td>IP67, IP6K9K</td>
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<tr>
<td>Temperature range (up to)</td>
<td>-40°C to +125°C</td>
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Application: High current wiring harness inline

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2-way wire-to-device connector

Key features & benefits
- Sealed connection system
- Sealed panel mount pre-stages prior to fastening through self tapping screws
- Silver-plated Power Pack 1000 multi-contact terminal system
- Cable range: 8 mm² to 25 mm²

Performance characteristics
- Sealing protection: IP67, IP6K9K
- Temperature range (up to): -40°C to +125°C
- Vibration performance (up to): V1 Chassis Profile
- Max Current: 145A@85C
- Max Voltage: 48V

Application: High current device applications and sealed pass-through panel mount system
2-way inline connector

Key features & benefits
• Sealed connection system
• Silver-plated Power Pack 1000 multi-contact terminal system
• Cable range: 8 mm² to 25 mm²
• One key/index

Performance characteristics

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Application: High current wiring harness inline

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Power-Pack 1000 Terminal Overview

- 145 amp capability @ 85°C ambient temperature
- Silver plated
- Cable range 6 mm² – 25 mm²
- Female terminal
  - 2-piece terminal system
  - Inline and right angle versions
- Male terminal
  - mates to inline or right angle female

In production since Nov 2010
Power-Pack 1000 Terminal Overview

Male Terminal
- Blade width: 10.5mm
- Blade thickness: 1.2mm
- Terminal Lock Window
- Male Blade Opening (Right Angle)
- Index
- Male Blade Opening (In-Line)
- Terminal Lock Window

Female Base Terminal
Power-Pack 1000 Female Terminal Design

Right Angle Terminal Contact

- Silver BeCu material manages heat generated in high current
- Multiple contact points manage heat generated in high current (12 points)

In-Line Terminal Contact Insert

- Stabilizing spring provides support for vibration performance (2 places)
- Stabilizing contact provides support for vibration performance
Power-Pack 1000 – Max Current Test

- Per USCAR-2 @ 23°C
Power-Pack 1000 design safety features

TPA is designed to be used for Male Connector, Female Connector (Right angle and In-Line), 1-way, 2-way, and 3-way systems.

- Locks (TPA to connector)
- Index ribs (to connector)
- Cable Seal push surface
- Strain relief “fingers”

“Fingers” provide strain relief for a range of cable sizes.
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# Power Pack 1000 part numbers

## 1 way inline connector

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<th>1 way inline connector</th>
<th>Description</th>
<th>Part Number</th>
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<td>PP1000 Male Silver Terminal 8-10 mm²</td>
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<td></td>
<td>PP1000 Male Silver Terminal 19-25 mm²</td>
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<td>Cable seal PP1000 4.54 - 5.79 dia cable (Grey) (8-10mm²)</td>
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<td>Power Pack 1000 female in-line connector</td>
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## Power Pack 1000 part numbers

### 2 Way Device Connectors

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<tr>
<td>Power Pack 1000 male header connector – Straight exit</td>
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<td>Power Pack 1000 male header connector – Right angle exit</td>
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<td>PP1000 Male Silver Terminal 8-10 mm²</td>
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## 2 Way inline Connectors

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For any of the complementary and more detailed product information listed above, consult your Aptiv representative.
Thank you.