IP68/ NEMA 250 (6P) Sealed Power Plug and Jack

Applications:
- Outdoor power supplies where a weather resistant connection is needed
- Medical equipment where the power plug would need to be waterproof
- Lighting connections where a rugged harsh environment connector would provide the most reliable sealed connection

Key Features:
- IP rating of IP68/ NEMA 250 (6P), for properly mated Switchcraft sealed jack and plug, makes the device perfect for harsh environments
- Available in multiple pin diameters
- Automatic switch over from AC to DC permitted by sleeve shunt spring
- Optional IP rated cap (JCAP) protects Jack when not in use
- Up to 5A current rating (carry), at 65°C, up to 30 VDC
- Overmold options available
- Color coded plug finger
Sealed Power Plugs and Jacks

SOLDER LUG

CENTER PIN
SLEEVE SHUNT
SLEEVE

SCHEMATIC - TYPICAL

RECOMMENDED PANEL MTG HOLE:
Ø0.440±0.002 [11.18±0.05] - TYPICAL

STRAIGHT PC

0.155 [3.95]
0.150 [3.84]
SLEEVE SHUNT
CENTER PIN

STRAIGHT PC JACK
RECOMMENDED PCB LAYOUT
(COMPONENT SIDE)

0.130±0.002
[3.30±0.05]
SLEEVE SHUNT
CENTER PIN

RIGHT-ANGLE PC

0.220±0.002
[5.59±0.05]
SLEEVE

SLEEVE SHUNT
CENTER PIN

0.130±0.002
[3.30±0.05]
(SEE NOTE)

NOTE: 0.130 [3.30] FOR HAND INSERTION
0.135 [3.43] FOR AUTOMATED INSERTION

RIGHT-ANGLE PC JACK
RECOMMENDED PCB LAYOUT
(COMPONENT SIDE)

DIMENSIONS SHOWN FOR REFERENCE ONLY. inches [mm]

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Center Pin/ Jack Size</th>
<th>Terminal Type</th>
<th>Mating Power Plug</th>
</tr>
</thead>
<tbody>
<tr>
<td>L712AS</td>
<td>0.10 [2.5]</td>
<td>Solder Lugs</td>
<td>761KS12, 761KS15, 761KS17</td>
</tr>
<tr>
<td>PCL712AS</td>
<td></td>
<td>Straight PC</td>
<td></td>
</tr>
<tr>
<td>L712RAS</td>
<td></td>
<td>Right-angle PC</td>
<td></td>
</tr>
<tr>
<td>L722AS</td>
<td>0.08 [2.0]</td>
<td>Solder Lugs</td>
<td>S761KS12, S761KS15, S761KS17, 767KS12, 767KS15, 767KS17</td>
</tr>
<tr>
<td>PCL722AS</td>
<td></td>
<td>Straight PC</td>
<td></td>
</tr>
<tr>
<td>L722RAS</td>
<td></td>
<td>Right-angle PC</td>
<td></td>
</tr>
<tr>
<td>JCAP</td>
<td>Power Jack Seal Cap</td>
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<td></td>
</tr>
</tbody>
</table>

Switchcraft®
Harsh Environment Connectivity Solutions

Made In USA

switchcraft.com
5555 N. Elston, Chicago, IL 60630
773-792-2700 - sales@switchcraft.com
Sealed Power Plugs and Jacks

Switchcraft

Harsh Environment Connectivity Solutions

New Product Bulletin 583

Switchcraft

Sealed Power Plugs and Jacks

Dimensions shown for reference only, inches [mm]

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Center Pin I.D./Plug Size</th>
<th>Tip Insulator Color</th>
<th>Cable Nominal O.D. Range</th>
<th>Mating Power Jacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>761KS12</td>
<td>0.10 [2.5]</td>
<td>Black</td>
<td>0.125 - 0.150 [3.2 - 3.8mm]</td>
<td>L712AS, L712RAS, PCL712AS</td>
</tr>
<tr>
<td>761KS16</td>
<td>Black</td>
<td>0.150 - 0.175 [3.8 - 4.4mm]</td>
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<td></td>
</tr>
<tr>
<td>761KS17</td>
<td>Black</td>
<td>0.175 - 0.200 [4.4 - 5.1mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>761KS12</td>
<td>0.08 [2.0]</td>
<td>White</td>
<td>0.125 - 0.150 [3.2 - 3.8mm]</td>
<td>L722AS, L722RAS, PCL722AS</td>
</tr>
<tr>
<td>761KS15</td>
<td>White</td>
<td>0.150 - 0.175 [3.8 - 4.4mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>761KS17</td>
<td>White</td>
<td>0.175 - 0.200 [4.4 - 5.1mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>767KS12</td>
<td>Red</td>
<td>0.125 - 0.150 [3.2 - 3.8mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>767KS15</td>
<td>Red</td>
<td>0.150 - 0.175 [3.8 - 4.4mm]</td>
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Power Jack - Specifications

Features:
- IP66, IP67, IP68 / NEMA 250 (6P) when mated
- Automatic switch over from AC to DC permitted by sleeve shunt spring
- Split center pin shaped to hold mating plug firmly
- Right Angle versions offer “kinked” PC terminals for board retention
- Optional IP rated cap (JCAP) protects jack when not in use
- Operating temperature range is -20°C to +65°C

Materials:
- Housing: Rigid thermoplastic
- Bushing: Plated copper alloy, with assembled & lubricated o-ring
- Terminals: Plated copper alloy
- Insulators: Rigid Thermoplastic
- Hardware: Supplied with one nickel plated copper alloy hex nut (P1489), one nickel plated steel flat washer (P3031) and one o-ring for sealing jack to panel

Electrical:
- Current Rating (carry): 5A, up to 30V DC at 65°C
- Contact Resistance: 0.01 Ohms max (initial), 0.02 Ohms (after humidity, durability exposure), 0.10 Ohms max. (after salt spray)
- Insulation Resistance: 10,000 Mohms min. (initial), 1,000 Mohms (after humidity, durability exposure)
- Dielectric Withstanding Voltage: 500VAC max.

Seal Cap - Specifications

Features:
- IP66, IP67, IP68 / NEMA 250 (6P) when mated

Material:
- Thermoplastic Elastomer

Power Plug - Specifications

Features:
- IP66, IP67, IP68 / NEMA 250 (6P) when mated
- Hollow center pin available in 3 pin diameters (2.5mm, 2.1mm, 2.0mm)
- Locking ring provides security in critical applications
- Sleeve terminal serves as cord clamp
- Handle/Boot with cable strain relief
- Operating temperature range is -20°C to +65°C

Specifications:
- Plug Sleeve and Pin: Plated copper alloy
- Lock Ring: Plated copper alloy
- Lock Ring Thread Size: 7/16-32 UN2B thread
- Finger Insulator: Rigid thermoplastic
- Insulating Washer: Rigid thermoplastic
- Sleeve Terminal: Plated copper alloy, electro-tinned
- Handle: Rigid thermoplastic overmolded with thermoplastic elastomer
- Handle Thread Size: 5/16-24 UNF 2A
- Electrical: Current (carry) 5A at 65°C

Overmold Option

Sealed Power Plugs and Jacks

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