

Switchcraft®

Sealed Power Plugs and Jacks



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 water proof
- 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

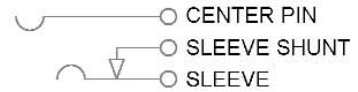
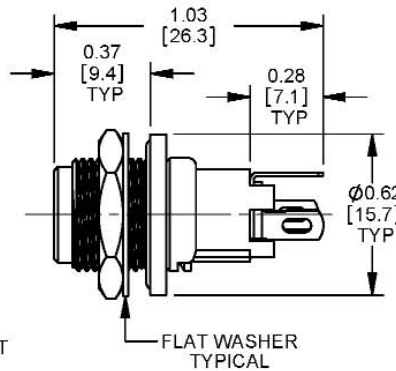
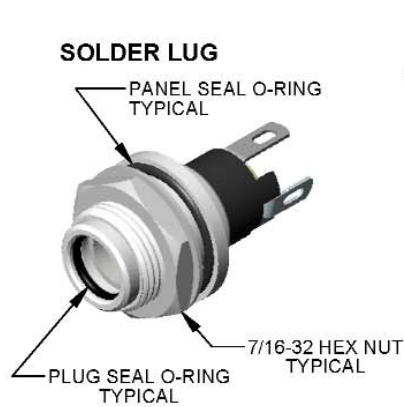
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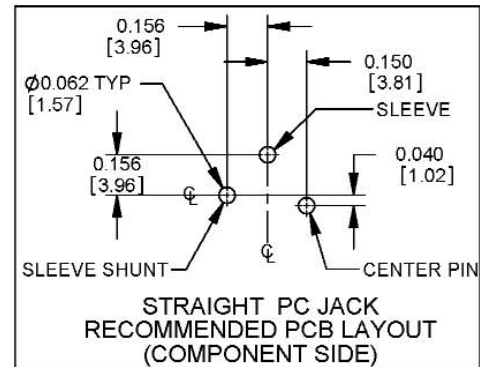
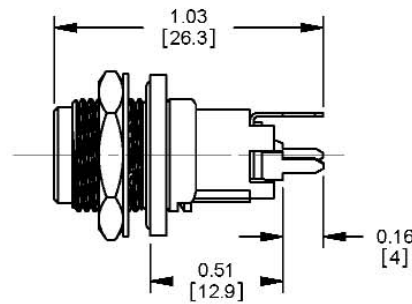
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SCHEMATIC - TYPICAL

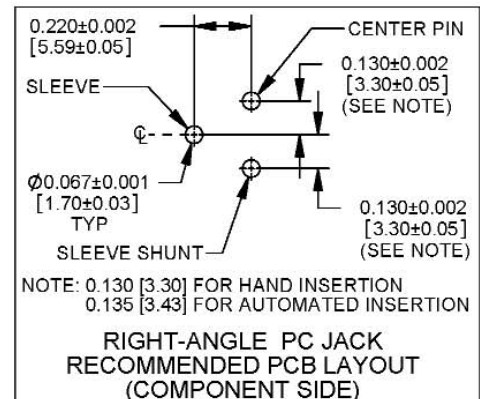
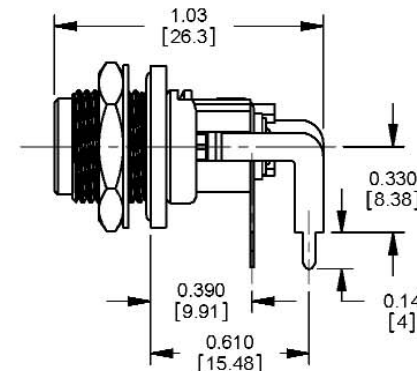
RECOMMENDED PANEL MTG HOLE:
 $\varnothing 0.440 \pm 0.002$ [11.18 \pm 0.05] - TYPICAL

STRAIGHT PC



STRAIGHT PC JACK
 RECOMMENDED PCB LAYOUT
 (COMPONENT SIDE)

RIGHT-ANGLE PC



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]

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

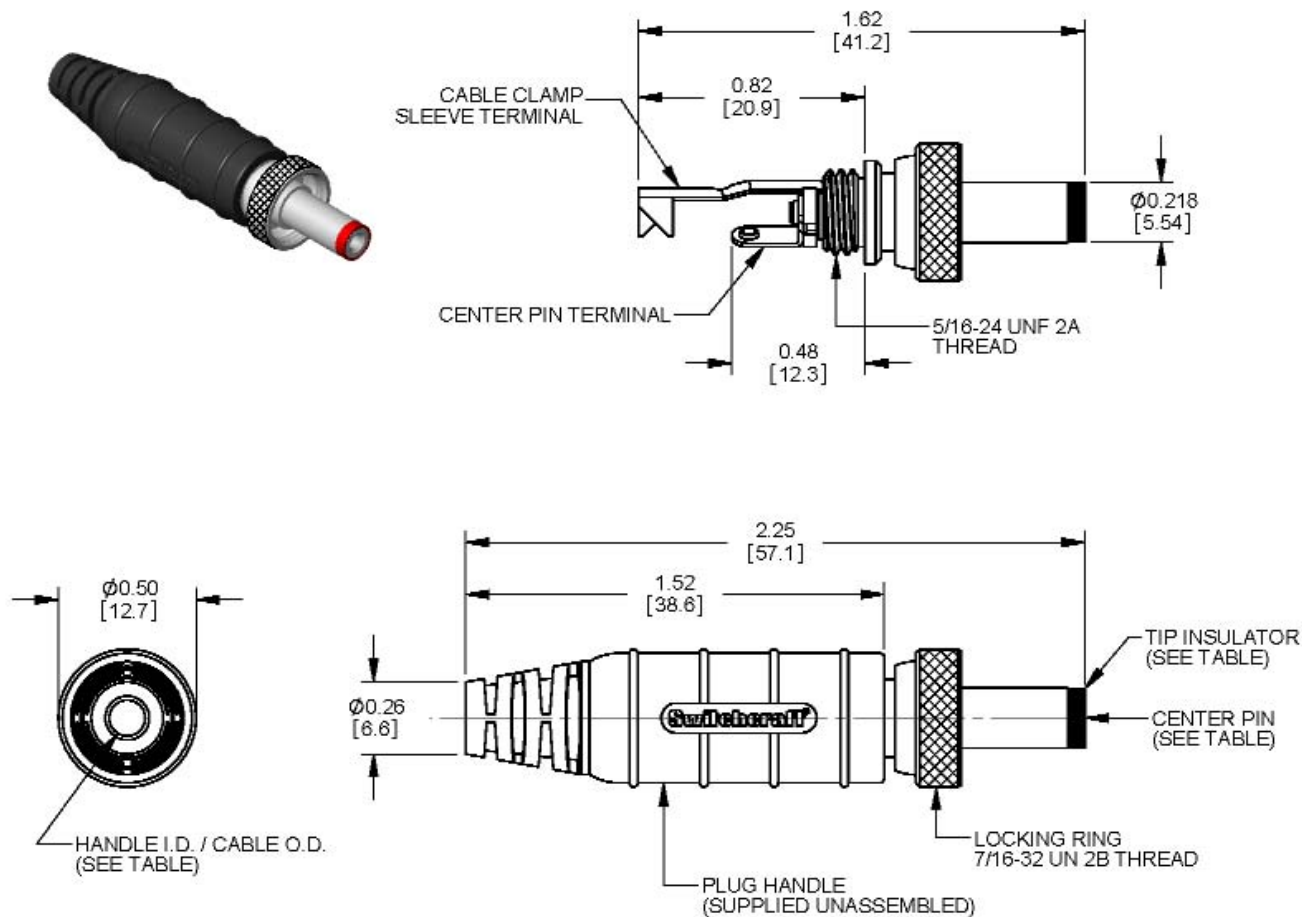
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DIMENSIONS SHOWN FOR REFERENCE ONLY, inches [mm]

Part Number	Center Pin I.D./ Plug Size	Tip Insulator Color	Cable Nominal O.D. Range	Mating Power Jacks
761KS12	0.10 [2.5]	Black	0.125 - 0.150 [3.2 - 3.8mm]	L712AS, L712RAS, PCL712AS
761KS15		Black	0.150 - 0.175 [3.8 - 4.4mm]	
761KS17		Black	0.175 - 0.200 [4.4 - 5.1mm]	
S761KS12	0.08 [2.0]	White	0.125 - 0.150 [3.2 - 3.8mm]	L722AS, L722RAS, PCL722AS
S761KS15		White	0.150 - 0.175 [3.8 - 4.4mm]	
S761KS17		White	0.175 - 0.200 [4.4 - 5.1mm]	
767KS12	0.084 [2.1]	Red	0.125 - 0.150 [3.2 - 3.8mm]	
767KS15		Red	0.150 - 0.175 [3.8 - 4.4mm]	
767KS17		Red	0.175 - 0.200 [4.4 - 5.1mm]	

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Sealed Power Plugs and Jacks

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

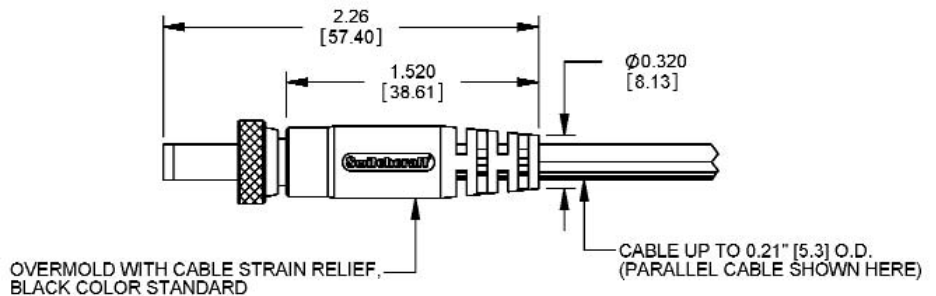
Sleeve Terminal: Plated copper alloy, electro-tinned

Handle: Rigid thermoplastic overmolded with thermoplastic elastomer

Handle Thread Size: 5/16-24 UNF 2A

Electrical: Current (carry) 5A at 65°C

Overmold Option



DIMENSIONS SHOWN FOR REFERENCE ONLY, inches [mm]

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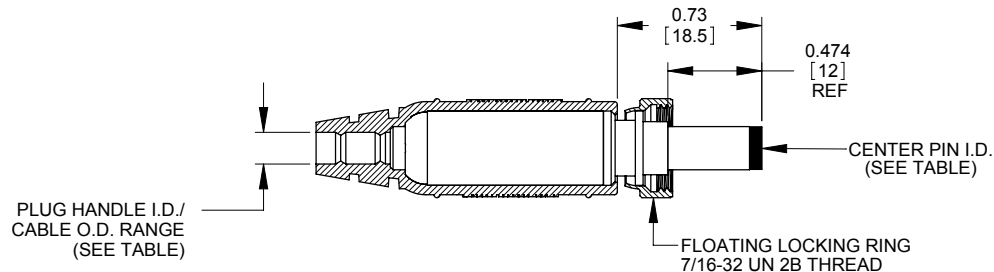
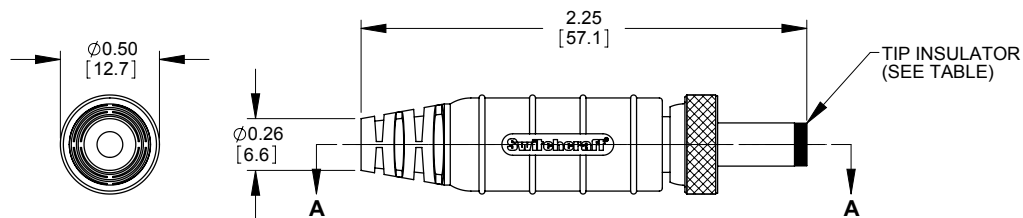
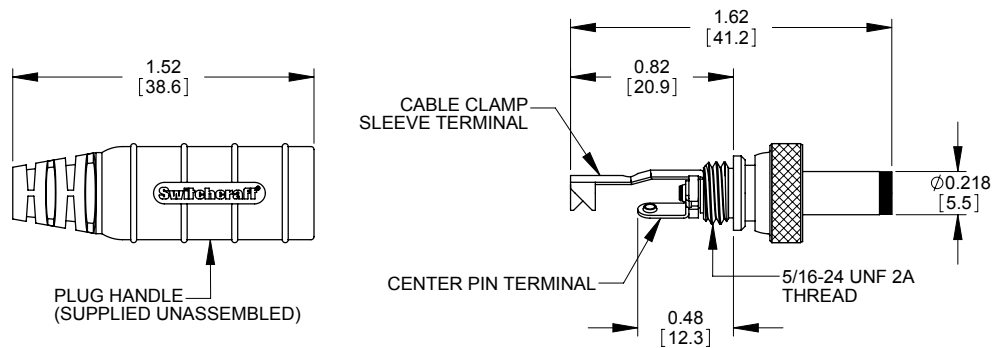
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SECTION A-A

PART NUMBER	CENTER PIN I.D./ PLUG SIZE	TIP INSULATOR COLOR	CABLE NOMINAL O.D. RANGE	MATING POWER JACKS
761KS12	0.10 [2.5]	Black	0.125 - 0.150 [3.2 - 3.8mm]	L712AS, L712RAS, PCL712AS
761KS15		Black	0.150 - 0.175 [3.8 - 4.4mm]	
761KS17		Black	0.175 - 0.210 [4.4 - 5.1mm]	
S761KS12	0.08 [2.0]	White	0.125 - 0.150 [3.2 - 3.8mm]	L722AS, L722RAS, PCL722AS
S761KS15		White	0.150 - 0.175 [3.8 - 4.4mm]	
S761KS17		White	0.175 - 0.210 [4.4 - 5.1mm]	
767KS12	0.084 [2.1]	Red	0.125 - 0.150 [3.2 - 3.8mm]	
767KS15		Red	0.150 - 0.175 [3.8 - 4.4mm]	
767KS17		Red	0.175 - 0.210 [4.4 - 5.1mm]	

NOTES:

- MATERIAL:
CONTACTORS, LOCKING RING - COPPER ALLOY, NICKEL PLATED
TERMINALS - COPPER ALLOY, TIN PLATED
INSULATORS - THERMOPLASTIC
PLUG HANDLE - THERMOPLASTIC RUBBER OVER THERMOPLASTIC, BLACK

- THIS PRODUCT IS RoHS COMPLIANT

REV	ECO NUMBER	DATE	BY	APVD
A	26591	8/6/10	RS	TJK
REVISIONS				

UNLESS OTHERWISE SPECIFIED

- ALL DIMENSIONS IN INCHES
- TWO PLACE DECIMALS ±0.02
- THREE PLACE DECIMALS ±0.005

DO NOT SCALE DRAWING

THIS DRAWING DESCRIBES A DESIGN CONSIDERED PROPRIETARY IN NATURE, DEVELOPED AND MANUFACTURED BY SWITCHCRAFT INC. AND IS RELEASED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY.

SIZE		WIDTH		MULT		LBS/M		TEMPER	
FINISH SPEC No.					MATERIAL SPEC No.				
FIRST USED ON				SCALE 1.5:1					
DATE DRAWN 7/22/09		BY PNK	CHKD RS 8/6/10		APVD TJK 8/6/10		Switchcraft		
						SHEET 1 OF 1			
NAME SEALED POWER PLUGS, RoHS					PART No. 761KS, 767KS, S761KS SERIES				REV A

CUSTOMER DRAWING

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