3 POLE MINI PL SPEC Pak®

Sealed Power For Environmental Connections

Marine | Wind Power | Lighting | Transportation | Pumps | Ground Support
Machine Tool | Industrial Automation | Motor | Solar Power | Harsh Environments

3 Position Mini PL SPEC Pak® is a rugged and environmentally sealed (IP68) connector with a manually operated release latch. The 3 Position Mini PL leverages PowerMod® pin and socket technology, delivering capabilities up to 22 amps at 600 volts while handling wires from 20 to 14 AWG (0.5 to 1.5 mm²). The 30µ gold plated pins are available in 3 lengths, enabling sequenced contact mating options. These contacts sit inside a UV and flame resistant (per UL746C F1 and UL94 V0 respectively) shells that are touch safe (per UL 1977 sec 10.2) on both sides.



Features

Manual Release Latch
• *Prevents accidental un-mating*

Pin & Socket Contact Technology
• *Proven, reliable & cost effective contact technology*

3 Pin Lengths Available
• *Offers sequencing capabilities*

Touch Safe per UL 1977 Sec. 10.2
• *Touch safe on both sides*

Rugged & Environmentally Sealed Shells
• *F1 weatherability rating per UL 746C*
• *V0 flammability rating per UL 94*
• *IP68, exceeds industry standards*

Electrical

Current Rating (Amperes)	
UL 1977	22
CSA (30°C Rise)	16
Voltage Rating	
UL 1977 (AC/DC)	600
Dielectric Withstanding (AC)	2200
Contact Resistance Ω (average)	3

Materials

Shell	PC
Latch	PC
Flammability (UL 94)	Pass
Weatherability (UL 764C / 12mm)	Pass
Contacts	
Socket Body	Copper Alloy, 200 µ inch Sn over Ni
Socket Contact	Copper Alloy, 30 µ inch Au over Ni
Pin	Copper Alloy, 30 µ inch Au over Ni

NOTE: Sn = tin Ni = nickel Au = Gold

Mechanical

Environmental Seal	
IP Rating	IP 68
UL 50E	Pass
Wire	
Size	24 to 14 AWG 0.25 to 2.10 mm²
Sealing Options	Sealing Gland, Over-Moldable
Operating Temperature	-20 to 105°C -4 to 221°F”
Mating Cycles (no load)	500
Contact Retention Force	18 lbf 80 N
Mating Force (nominal)	5 lb 22 N
Touch Safe (UL 1977 Sec 10.2)	Pass
Latch Strength (nominal)	24 lb 107 N

Agency Approval Pending

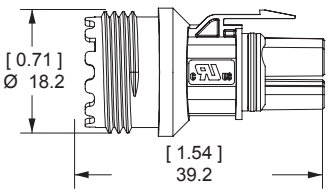
All Data Subject To Change Without Notice

Product Selection Guide

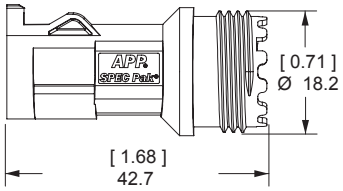
SPEC Pak® Mini PL Series is a highly configurable environmentally sealed connector, that can be purchased as components in bulk for volume production, or pre-packaged as a kit. For your convenience, follow the steps below to determine the component or kit part number.

Step 1: Select Shell

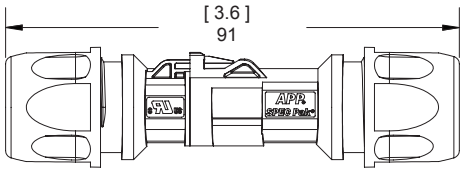
SK1-019M03

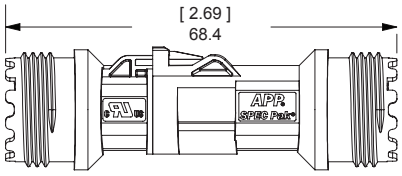


SK6-019M03



Mated Plug & Receptacle with & without Wire Protection





List Component Part Numbers Here:

Step 1

Shell

SPEC Pak® Series	Shell Color	Shell Style (Select One)	Dash	Shell Size	Insert Arrangement
S	K	1 = Inline Receptacle 6 = Straight Plug	-	019	M03

List Kit Part Number Here:

Receptacle Kit Part Number:

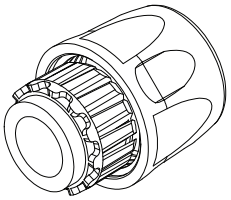
S	K	1	-	019	M03

Plug Kit Part Number:

S	K	6	-	019	M03

All Data Subject To Change Without Notice

Step 2: Select Wire Protection



* Define:

	Number of Wires	Wire OD
Wires		
- Discrete	_____	_____
- Bundled	_____	_____

* Select wire protection that will accommodate the number of wires and outer diameter (OD) of the wires used in your application, (See page 4).

* Wire protection is required for use with inline receptacles and plugs to obtain IP68 seal.

* Wire protection is not required in over molding applications.

Step 3: Select Contacts



Pin Auxiliary Contact



Socket Auxiliary Contact

* Define:

	Number of Circuits	Wire Gauge
Contacts		
- Power	_____	_____
- Pre-Mate	_____	_____
- Post-Mate	_____	_____

Amps (continuous): ____ Max amps at ____ volts

* Select contact appropriate for your wire size (AWG or mm²) (See page 4).

Step 2

..... Wire Protection .....

Number of Holes Cable Sealing Range (Select Two)

Dash: -

00 = None
PS = Plastic Single Hole
PM = Plastic Multi-hole

00 = None
01 - 99 = Various Gland Types (See Page 4)

Step 3

..... Contacts .....

(Select One)

Dash: -

P00 = Custom Configuration
P44 = 3 each #16 to #14 (PM16P1416S30 Pin)
P45 = 3 each # 20 to #16 (PM16P1620S30 Pin)
P46 = 3 each # 24 to #20 (PM16P2024S30 Pin)

S00 = Custom Configuration
S44 = 3 each #16 to #14 (PM16S1416S32 Socket)
S45 = 3 each # 20 to #16 (PM16S1620S32 Socket)
S46 = 3 each # 24 to #20 (PM16S2024S32 Socket)

Custom

.. APP Content ..

Dash: -

Contact factory for custom configurations.

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| ORDERING INFORMATION |

Step 1 - Select Shell

SPEC Pak® Shell Kits

Description	- Part Numbers -
Minimum Quantity ...	25 .....
Receptacle Shell Kit	SK1-019M03
Plug Shell Kit	SK6-019M03

Step 2 - Select Wire Protection

Material	
Shell	PC
Sealing Grommet	EPDM
Flammability (UL 94)	V0
Color	Black

IP Rating	
Operating Temperature (UL 1977)	-20° to 105°C -4° to 221°F

Torque Requirements

Hand tighten until snug, using a wrench tighten an additional 1/4 to 1/2 turn.

Wire Protection - Cable Gland

- Part Numbers -	Number of Holes	Wire Protection Designation		Cable Range Wire Outer Diameter (OD) mm (in)	Wrench Size
PS1T20-5X	1	PS	01	3.0 to 4.5 (0.12 to 0.18)	22
PS1T20-7X	1	PS	02	4.5 to 6.5 (0.18 to 0.26)	
PS1T20-9X	1	PS	03	6.5 to 8.5 (0.26 to 0.33)	
PS2T20-2X	2	PM	21	0.75 to 1.5 (0.03 to 0.06)	
PS2T20-3X	2	PM	22	1.5 to 2.6 (0.06 to 0.10)	
PS3T20-2X	3	PM	31	0.75 to 1.5 (0.03 to 0.06)	
PS3T20-3X	3	PM	32	1.6 to 2.6 (0.06 to 0.10)	

Step 3 - Select Contacts

Pin Contacts (PowerMod® Series)

Type	AWG	mm²	Part Numbers		Contact Designation
Minimum Quantity			500	50	
Standard Length 7.7					
Pin	24 to 20	0.25 to 0.50	PM16P2024S30	PM16P2024S30-50	P46
Pin	20 to 16	0.50 to 1.30	PM16P1620S30	PM16P1620S30-50	P45
Pin	16 to 14	1.30 to 2.10	PM16P1416S30	PM16P1416S30-50	P44
Pre-Mate 8.5mm					
Pin	24 to 20	0.25 to 0.50	PM16P2024B30	PM16P2024B30-50	-
Pin	20 to 16	0.50 to 1.30	PM16P1620B30	PM16P1620B30-50	-
Pin	16 to 14	1.30 to 2.10	PM16P1416B30	PM16P1416P30-50	-
Post-Mate 6.4mm					
Pin	24 to 20	0.25 to 0.50	PM16P2024C30	PM16P2024C30-50	-
Pin	20 to 16	0.50 to 1.30	PM16P1620C30	PM16P1620C30-50	-
Pin	16 to 14	1.30 to 2.10	PM16P1416C30	PM16P1416C30-50	-

Hand Tool	Pneumatic Tool		
	Tool	Die	Locator
PM1000G1	TM0001	N/A	TL0001
PM1000G1	TM0001	N/A	TL0001
PM1000G1	TM0001	N/A	TL0001

APP tooling is required for UL & CSA compliance. Use of unapproved tools will void the connector warranty.

Socket Contacts (PowerMod® Series)

Type	AWG	mm²	Part Numbers		Contact Designation
Minimum Quantity			500	50	
Socket	24 to 20	0.25 to 0.50	PM16S2024S32	PM16S2024S32-50	S46
Socket	20 to 16	0.50 to 1.30	PM16S1620S32	PM16S1620S32-50	S45
Socket	16 to 14	1.30 to 2.10	PM16S1416S32	PM16S1416S32-50	S44

Hand Tool	Pneumatic Tool		
	Tool	Die	Locator
PM1000G1	TM0001	N/A	TL0002

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