

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

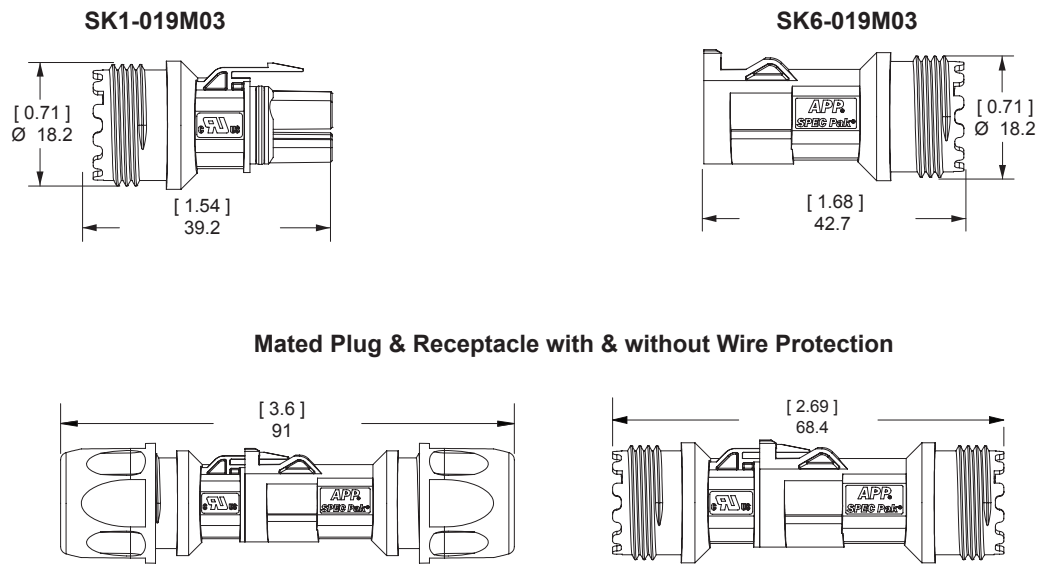
Latch Strength (nominal)

24 lb
107 N

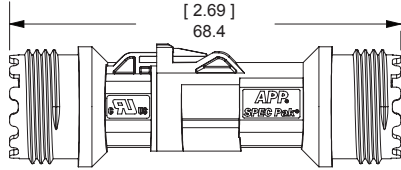
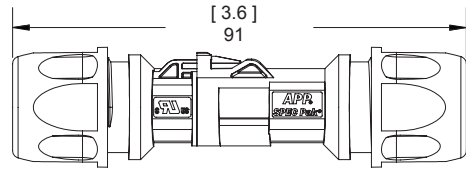
Product Selection Guide

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



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:

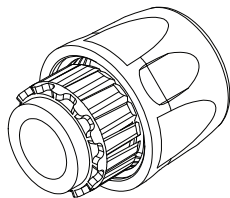
Receptacle Kit Part Number:

 S K 1 - 019 M03

Plug Kit Part Number:

 S K 6 - 019 M03

Step 2: Select Wire Protection



* Define:

Wires
 - Discrete _____
 - Bundled _____

Number of Wires _____ **Wire OD** _____

* 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:

Contacts
 - Power _____
 - Pre-Mate _____
 - Post-Mate _____

Number of Circuits _____ **Wire Gauge** _____

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)

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

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

Dash

-

Step 3

..... Contacts
 (Select One)

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.

| 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	IP Rating	Torque Requirements
Shell PC Sealing Grommet EPDM Flammability (UL 94) V0 Color Black	Operating Temperature (UL 1977) -20° to 105°C -4° to 221°F	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	PM16P1416B30-50	-
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

All Data Subject To Change Without Notice "SPEC Pak, APP, Anderson Power Products & PowerMod are registered trademarks of Anderson Power Products"

14539 DS-MINI3PL REV 0

HEADQUARTERS: Anderson Power Products®, 13 Pratts Junction Road, Sterling, MA 01564-2305 USA T:978-422-3600 F:978-422-0128

EUROPE: Anderson Power Products® Ltd., Unit 3, Europa Court, Europa Boulevard, Westbrook, Warrington, Cheshire, WA5 7TN United Kingdom T: +44 (0) 1925 428390 F: +44 (0) 1925 520203

ASIA / PACIFIC: IDEAL Anderson Asia Pacific Ltd., Unit 922-928 Topsail Plaza, 11 On Sum Street, Shatin N.T., Hong Kong T: +(852) 2636 0836 F: +(852) 2635 9036

CHINA: IDEAL Anderson Technologies (Shenzhen) Ltd., Block A8 Tantou Western Industrial Park, Songgang Baoan District, Shenzhen, P.R. China 518105 T: +(86) 755 2768 2118 F: +(86) 755 2768 2218

TAIWAN: IDEAL Anderson Asia Pacific Ltd., Taiwan Branch, 4F.-2, No. 116, Dadun 20th St., Situn District, Taichung City 407, Taiwan (R.O.C.) T: +(886) 4 2310 6451 F: +(886) 4 2310 6460

www.andersonpower.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Anderson Power Products:](#)

[SK1-019M03](#) [SK6-019M03](#)