MINI 3 POLE SPEC Pak®

Sealed Power For Environmental Connections

APP's new SPEC Pak® Mini 3 position connector is a small, IP68 sealed interconnect solution that provides up to 3 contacts and is UL rated to carry up to 22 amps per contact at 600 volts. This connector is ideal for applications requiring power or power and signal combined in a compact environmentally sealed (IP68) package. Contacts are available for wires ranging from 24 AWG to 14 AWG. Contacts are 30µ gold plated to provide low resistance and up to 500 mating cycles. The male contacts are also available in 3 lengths to enable sequencing as required. The connectors meet the UL1977 Sec 10.2 touch safe requirements and have an integral latch to prevent accidental un-mating. The SPEC Pak® Mini 3 connectors are manufactured of durable polycarbonate material and meet UL94 V-0 flame resistance requirements.

Features

• **Environmentally Sealed**
- IP68 rated
- Passes UL50 Sec. 36

• **High Power In Compact Housing**
Housings provide up to three contacts rated up to 22 amps at 600 volts

• **Touch Safe Housings**
Meets UL1977 Sec.10.2

• **Integral Latch**
Prevents accidental un-mating

• **Male Contacts Available In 3 Lengths**
Allows sequencing of mating contacts

• **Ruggedized Shells**
Manufactured of durable polycarbonate that meets UL94 V-0 flammability requirements

SPECIFICATIONS

Electrical

UL Voltage Rating	600V
Operating Temperature (°C)	-20 to 105
(°F)	-4 to 221
Flammability Rating	UL94 V-0
	UL746C (12mm)

Mechanical

Mating Cycles	500
Submersion Test UL50 Sec. 36	Pass
IP Rating	IP68
Touch Safe	UL1977 Sec 10.2
Contact Resistance (milliohms)	3
Contact Retention (lbf)	18
(N)	80
Insertion / Extraction (lbf)	5
(N)	22
Mechanical Shock (50g)	EIA Standard 364-27
	Test Condition A
Vibration (7.5g)	EIA Standard 364-28
	Test Condition VB

Wire Size	Max Amps Per Wire Size	
	UL	CSA
20AWG	16	10
18AWG	17	12
16AWG	20	12
14AWG	22	16
1.5mm	20 / 0.5	-
2.5mm	20 / 0.5	-

ANDERSON P⚡WER™

Part Number Configurator

PART NUMBER PLAN

SPEC Pak® Series (1 Fixed Character)	Shell Color (1 Character)	Shell Style (1 Character)	Dash	Style Size (3 Characters)	Insert Arrangement (3 Characters)
S	**K**	**1**	**-**	**016**	**M03**
S = SPEC Pak® Series	K = Black	1 = Inline Receptacle 6 = Straight Plug		016 = 16 mm	M03 = 3 Pole

ORDERING INFORMATION

SPEC Pak® Shell Kits
Standard Pack Qty 25

APP®
Part
Number	Description
SK1-016M03	Receptacle Shell Kit
SK6-016M03	Plug Shell Kit

Wire Sealing Grommets
(Required for IP68 Sealing)

----- APP® Part Number -----

Standard Qty 500	Packaged Qty 50	Description
114916P1	114916P1-50	24 - 20 - wire OD 0.047 - 0.075 (1.2 mm - 1.9mm) Orange
114916P2	114916P2-50	20 - 16 - wire OD 0.073 - 0.090 (1.86 mm - 2.4mm) Yellow
114916P3	114916P3-50	16 - 14 - wire OD 0.100 - 0.130 (2.5 mm - 3.2mm) Tan

NOTE:
1. For IP68 sealing of custom configurations, order 1 wire seal for every 1 pin and/or socket contact that is ordered.
2. Maximum wire OD not to exceed 2.7 mm (0.105").

Wire Protection (optional)
Not Required for IP68 Sealing

----- APP® Part Number -----

Standard Qty 500	Packaged Qty 50	Wire Protection Designation	Description
2-8703P3	2-8703P3-50	PB01	Max ID 0.217 (5.5 mm)
2-8703P4	2-8703P4-50	PB02	Max ID 0.256 (6.5 mm)

Sealing Plug (optional)

----- APP® Part Number -----

Standard Qty 500	Packaged Qty 50	Description
114916P4	114916P4-50	Sealing Plug - white

Cover Kit

APP®
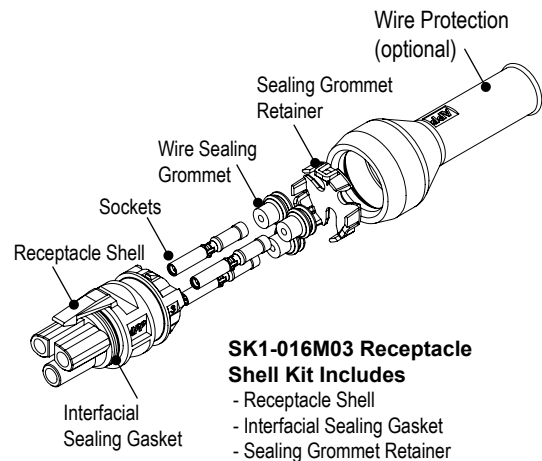| Part Number	Description
SK9-016	Receptacle Cover Kit

EXPLODED PLUG CONNECTOR
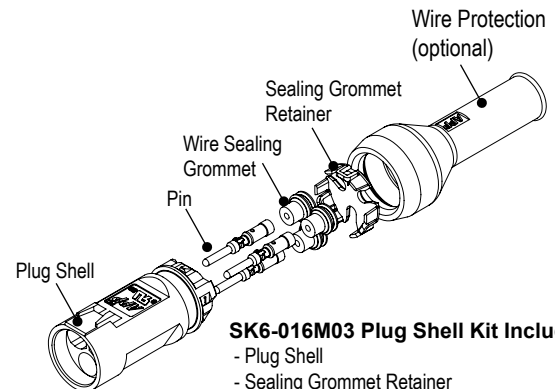
SK6-016M03 Plug Shell Kit Includes
- Plug Shell
- Sealing Grommet Retainer

Sold Separately: Pins, Wire Sealing Grommets & Wire Protection.

EXPLODED RECEPTACLE CONNECTOR

SK1-016M03 Receptacle Shell Kit Includes
- Receptacle Shell
- Interfacial Sealing Gasket
- Sealing Grommet Retainer

Sold Separately: Sockets, Wire Sealing Grommets & Wire Protection.

PART NUMBER PLAN

Wire Protection (4 Characters)	Dash	Housing Arrangement (3 Characters)	Dash	Custom Configuration (3 Characters)
XXXX	**-**	**XXX**	**-**	**A01**

0000 = None
PB01 = Max ID 0.217 (5.5mm)
PB02 = Max ID 0.256 (6.5mm)

Custom Configuration*

Plug
P00 - Custom Configuration (Pin & Wire Sealing Grommets)
P41 = 3 each #16 to #14 AWG (PM16P1416S30 Pin & 114916P3 Wire Sealing Grommet)
P42 = 3 each #20 to #16 AWG (PM16P1620S30 Pin & 114916P2 Wire Sealing Grommet)
P43 = 3 each #24 to #20 AWG (PM16P2024S30 Pin & 114916P1 Wire Sealing Grommet)

Receptacle
S00 - Custom Configuration (Socket & Wire Sealing Grommets)
S41 = 3 each #16 to #14 AWG (PM16S1416S32 Socket & 114916P3 Wire Sealing Grommet)
S42 = 3 each #20 to #16 AWG (PM16S1620S32 Socket & 114916P2 Wire Sealing Grommet)
S43 = 3 each #24 to #20 AWG (PM16S2024S32 Socket & 114916P1 Wire Sealing Grommet)

Part Numbering Notes:

1. To Order Mini 3 Pole SPEC Pak® shell kits only (no contacts or wire sealing grommets), use part numbering on page 2 only. Contacts, wire seals and wire protection may be ordered separately.

2. To order customer configured Mini 3 Pole SPEC Pak® connectors (including contacts, wire sealing grommet and wire protection) use Part Number Plan across the top of page 2 and 3. **Customer configured Mini 3 Pole SPEC Pak® Plug connector example: SK6-016M03PB01-P41**
* Custom configured Mini 3 Pole SPEC Pak® Plug connector example: SK6-016M03PB01-P00-A01

 * Custom configuration may not be UL recognized.

ORDERING INFORMATION

Pin Contacts

---------------- APP® Part Number -----------------		Housing Arrangement Designation	- Wire -	
Standard Qty 500	Packaged Qty 50		AWG	mm²
Standard Length 7.7mm				
PM16P2024S30	PM16P2024S30-50	P43	#24 / 20	0.50 / 0.75
PM16P1620S30	PM16P1620S30-50	P42	#20 / 16	0.50 / 1.5
PM16P1416S30	PM16P1416S30-50	P41	#16 / 14	1.5 / 2.5

When purchasing the following part numbers, it will be considered a custom configuration

Pre-Mate 8.5mm				
PM16P2024B30	PM16P2024B30-50	P00	#24 / 20	0.50 / 0.75
PM16P1620B30	PM16P1620B30-50	P00	#20 / 16	0.50 / 1.5
PM16P1416B30	PM16P1416B30-50	P00	#16 / 14	1.5 / 2.5
Post-Mate 6.6mm				
PM16P2024C30	PM16P2024C30-50	P00	#24 / 20	0.50 / 0.75
PM16P1620C30	PM16P1620C30-50	P00	#20 / 16	0.50 / 1.5
PM16P1416C30	PM16P1416C30-50	P00	#16 / 14	1.5 / 2.5

NOTE:
1. Pre-mate 9.3 contacts can not be used.
2. For IP68 sealing of custom configurations, order 1 wire seal for every 1 pin and/or socket contact that is ordered.

Socket Contacts

---------------- APP® Part Number -----------------		Housing Arrangement Designation	- Wire -	
Standard Qty 500	Packaged Qty 50		AWG	mm²
PM16S2024S32	PM16S2024S32-50	S43	#24 / 20	0.50 / 0.75
PM16S1620S32	PM16S1620S32-50	S42	#20 / 16	0.50 / 1.5
PM16S1416S32	PM16S1416S32-50	S41	#16 / 14	1.5 / 2.5

NOTE :
1. For IP68 sealing of custom configurations, order 1 wire seal for every 1 pin and/or socket contact that is ordered.

Tooling

| Part Number	Description
PM1000G1	Four Indent Hand Crimp Tool for Pins and Sockets
TM0001	Mil Standard Hand Crimp Tool (Locator/Turret Required)
TP0001	Pneumatic Crimp Tool (Locator/Turret Required)
TL0001	Pin Locator/Turret for TM0001 or TP0001
TL0002	Socket Locator/Turret for TM0001 or TP0001
PM1001G1	Loose Piece Crimp Machine (Semi automatic)
PM1002G1	Contact Insertion Tool
PM1003G1	Contact Extraction Tool

PM1000G1

TM0001

Dimensions

DIMENSIONS - PLUG

Top View
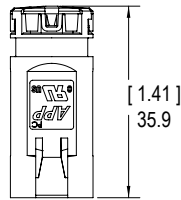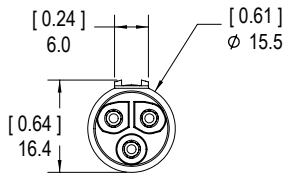
[1.41]
35.9

Front View

[0.24]
6.0

[0.61]
⌀ 15.5

[0.64]
16.4

Side View

Side View With Optional Wire Protection

[2.84]
72.2

Mated View - Plug & Receptacle

[2.08]
52.9
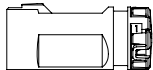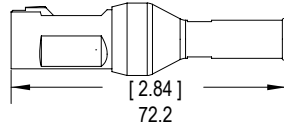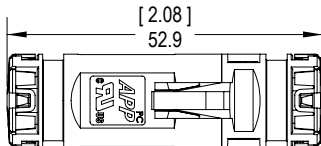
DIMENSIONS - RECEPTACLE

Top View

[0.67]
16.9

[1.20]
30.4

Front View

[0.24]
6.0

[0.61]
⌀ 15.5

[0.68]
17.2

Side View

Side View With Optional Wire Protection

[2.62]
66.7
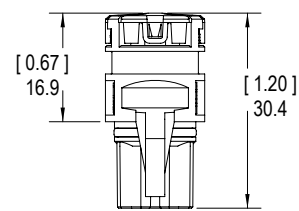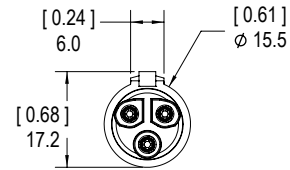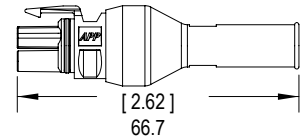
Mated View - Plug & Receptacle With Optional Wire Protection

[4.93]
125.3
Mated Length
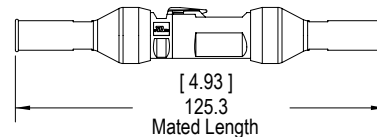
**Receptacle Cover Kit
Front View**

[19.1]
⌀ 0.75

[18.6]
0.73

[15.0]
0.59

Side View

[15.0]
0.59