

# SPEC PAK<sup>®</sup>

## Solar 5 Position Mid Power

- Solar Power • Wind Power • DC Lighting • Inverters • Battery Backup • IP68 Rated
- LED Lighting • Solar Panels • Combiner Boxes • Hydro-Electricity • Micro Inverters



**APP**  
Anderson Power Products<sup>®</sup>

An **IDEAL** Company

## SPECIFICATIONS

### UL6703 MECHANICAL

<b>Operating Temperature</b>	UL 6703	-40 to 90°C	-40 to 194°F
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### Electrical

<b>Current Rating (Amperes)</b>	UL 6703		
8 AWG		37A	
<b>Voltage Rating</b>		600V	
<b>Grounding</b>	UL 2238, Sec 37.8	UL Tested	
<b>Environmental Seal</b>	UL6703	IP68 (mated only)	

### UL1977 MECHANICAL

<b>Environmental Seal</b>	IEC 60529	IP 68	
	UL 50E	UL Approved	
<b>Wire Size</b>	8 AWG	8.4 mm <sup>2</sup>	
<b>Operating Temperature</b>	UL 1977	-40 to 105°C	-40 to 221°F
<b>Mating Cycles (no load)</b>		250 min	
<b>Mating Force (nominal)</b>		28 lbf	125 N
<b>Unmating Force</b>		12 lbf	53 N
<b>Contact Retention Force (min)</b>		50 lbf	222 N
<b>Touch Safe (IEC 60529)</b>		IP 20 (female side only)	
<b>Enclosure Ratings</b>		UL 50E 4/4x *	

### Electrical

<b>Current Rating (Amperes)</b>	UL 1977	CSA
8 AWG	60A	40A
<b>Voltage Rating</b>	UL 1977 (AC/DC)	600V
<b>Grounding</b>	UL 2238, Sec 37.8	Impedance
<b>Contact Resistance (average)</b>		0.300 Milliohms

\* Need stainless hardware- type 304 or 316

### MATERIALS

<b>Shell, Housing &amp; Sealing Nut</b>	PC / PBT
<b>Lanyard</b>	Nylon / Polyester
<b>Contact Holders</b>	PBT- GF
<b>Contact Retention Clip</b>	Be-Cu
<b>Latch / Screws</b>	Stainless Steel
<b>Panel Gasket</b>	Silicone
<b>Sealing Gland</b>	EPDM
<b>Flammability</b>	UL94 V-0
<b>Glow Wire</b>	960°C (GWFI) 825°F (GWIT)
<b>Weatherability</b>	UL 746C F1
<b>Sockets</b>	Copper
SC08-GH	Ag plating over Ni
SC08-SN	Ag plating over Ni
<b>Pins</b>	Copper
PP08SGH	Ag plating over Ni
PC08SSN	Ag plating over Ni

Silver = Ag Nickel = Ni

## IEC 61984

### ATTRIBUTES

<b>AMP Rating AC</b>	60A
<b>Voltage Rating AC</b>	800V AC (operational)
<b>Finger Safety **</b>	IEC 60529
<b>Protection Degree</b>	IP20 Unmated, IP68 Mated
<b>Wire Size Tested</b>	8 AWG
<b>Contact Series Tested</b>	PC08SSN, PP08SGH SC08-SN, SC08-GH
<b>Climatic Testing (Cold, Heat &amp; MFG)</b>	IEC 60512 Test -11j, 11i & 11g
<b>Cycle Life</b>	IEC 60512 Test 9A- 5000 Cycles
<b>Mechanical Strength Impact</b>	IEC 60512 @ 29.5 Inches - dropped 8 times
<b>Temperature Range</b>	-40 to 105°C, -40 to 221°F

### PROTECTION

#### Touch Safety with Finger Proof Housings & Wire Contacts

\* In mated and unmated condition, for standard 8 AWG wire contacts (only)

\*\* Female side unmated

### IEC 60950-1

<b>Creepage / Clearance per IEC 60950-1</b>	9.55 (mated or unmated)
<b>Material Group</b>	IIIa

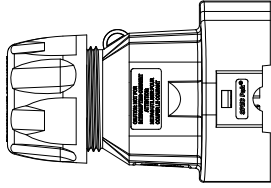
\* In mated and unmated condition, for standard 8 AWG wire contacts (only)

\*\* Female side unmated

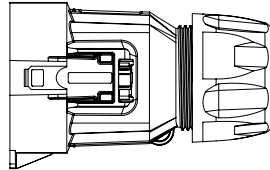
## ORDERING INFORMATION

SPEC Pak® is a highly configurable environmentally sealed connector. For convenience, follow the steps below to determine component part numbers.

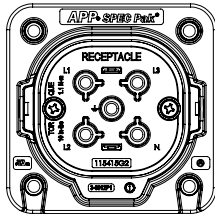
### Step 1: Select Shell



**PK1-076D05**  
Inline Receptacle Shell



**PK6-076D05**  
Plug Shell

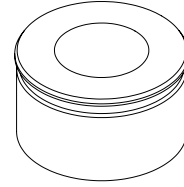


**PK2-076D05**  
Panel Mount Receptacle & Gasket

Description	Part Numbers
Minimum Quantity	25
Inline Receptacle Shell	PK1-076D05
Plug Shell	PK6-076D05
Panel Mount Receptacle & Gasket	PK2-076D05
Receptacle Cover Kit	PK9-076 (shown on back page)
Plug Cover Kit	PK9P-076 (shown on back page)

- Contact holders are available with multiple keys, please inquire.

### Step 2: Select Sealing Gland



\* 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 wire used in your application.
- \* Wire protection is required for use with inline receptacle shell (PK1-076D05) and plug shell (PK6-076D05) to obtain IP68 seal.

Number of Holes	Cable Range Wire Outer Diameter mm (in)	Sealing Grommet Part Number Only
Minimum Quantity		10
1	20 mm (0.79)	B02266P7

- For other wire configurations contact manufacturer

#### Wire Test Approval

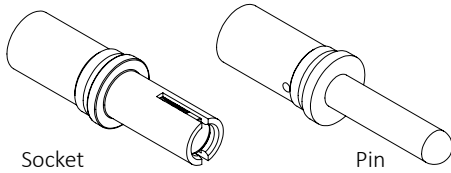
- Type TC-ER, 8 AWG 5/C sunlight resistant
- Rated minimum 90°C dry: 90°C wet
- 600V with outer diameter of cord 20 mm (0.79)

#### Torque Requirements

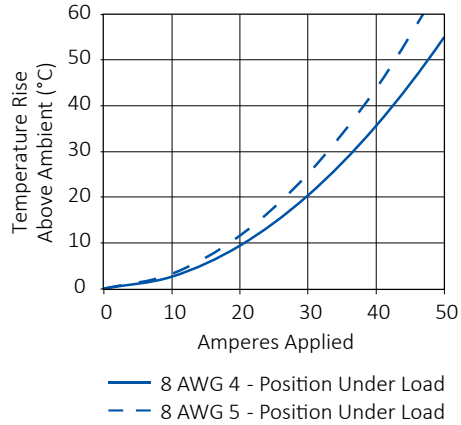
- Hand tighten. Using a 44 mm wrench or strap wrench, tighten an additional 3/4—1 turn.
- 7.9 Nm (70 in-lb)

### Step 3: Select Contacts

### TEMPERATURE CHART - PER UL 1977



Solar 5 Position Mid Power SPEC Pak®  
Temperature Rise at Constant Current



\* Define:

	Number of Circuits	Wire Gauge
Contacts		
- Power	_____	_____
- Other	_____	_____

Amps (continuous): \_\_\_\_ Max amps at \_\_\_\_ Volts

\* Select power and/or ground contacts appropriate for your wire size (AWG or mm<sup>2</sup>)

- Sockets are used in the receptacles (part numbers PK1-076D05 & PK2-076D05)
- Pins are used in the plug (part number PK6-076D05)
- Solid wires not recommended

Description	Part Numbers
Minimum Quantity	10
Power Drawer® 8 AWG Socket Crimp, Hot Plug/Ground	SC08-GH
Power Drawer® 8 AWG Socket Crimp, Standard Mate	SC08-SN
Power Drawer® 8 AWG Pin Crimp, Hot Plug/Ground	PP08SGH
Power Drawer® 8 AWG Pin Crimp, Standard Mate	PC08SSN

### TOOLING INFORMATION

Wire Size		Part Number	Description	Crimp Tools						
AWG	MM <sup>2</sup>	Power Contact		Pneumatic Bench Tool	+ Die	+ Locator	OR	Daniels Mfg Tool *		
								Tool	Die	Locator
8 to 10	8.4 to 6.0	SC08-GH	POWER DRAWER CONT. 8 AWG SOC.CRIMP, FIRST MATE GROUND	1387G1	1388G6	1389G19	OR	M22520/23-01	M22520/23-2	M22520/23-9
		SC08-SN	POWER DRAWER CONT. 8 AWG SOC.CRIMP, STD.MATE					M22520/23-01	M22520/23-2	M22520/23-9
		PP08SGH	POWER DRAWER CONT. 8 AWG PIN,CRIMP, STD.MATE, FIRST MATE GROUND					M22520/23-01	M22520/23-2	M22520/23-9
		PC08SSN	POWER DRAWER CONT. 8 AWG PIN,CRIMP, STD.MATE					M22520/23-01	M22520/23-2	M22520/23-9
		M81969/14-06	INSERT AND EXTRACT TOOL							
N/A		PKT-076TO1	MID POWER SOLAR SPEC PAK RELEASE TOOL							

\* Must contact Daniels directly for this tooling option, [www.dmctools.com](http://www.dmctools.com)



Pneumatic Bench Tool  
**1387G1**

Locator **1389G19**  
Die **1388G6**

Slide posts into the holes on the side

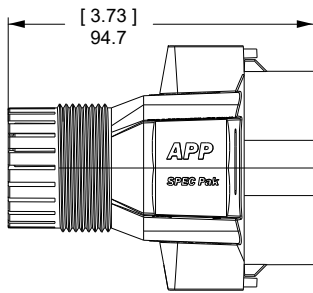
Release Tool  
**PKT-076TO1**

Insert & Extract Tool  
**M81969/14-06**

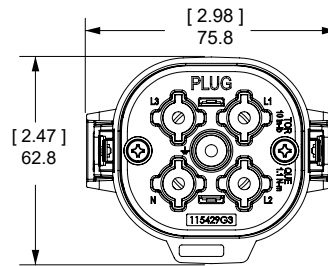
## DIMENSIONS

### Plug Shell | PK6-076D05

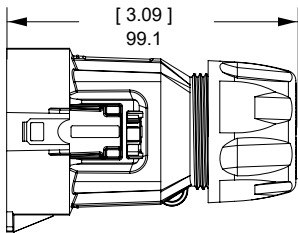
Top View



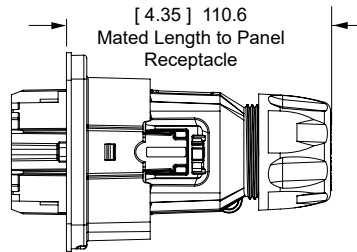
Front View



Side View

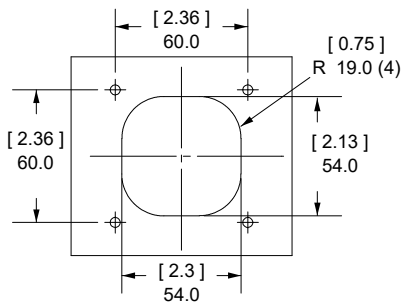


Mated View

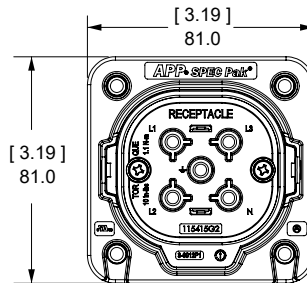


### Panel Mount Receptacle & Gasket | PK2-076D05

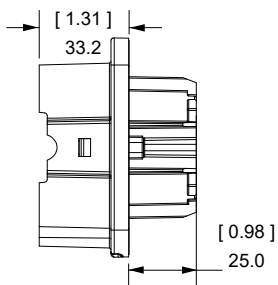
Panel Cut Out



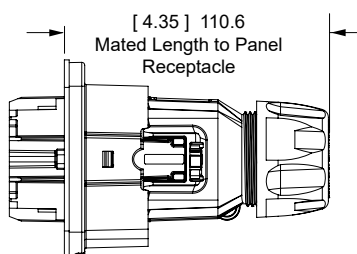
Front View



Side View

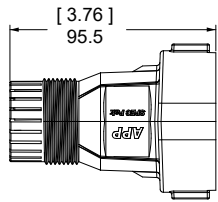


Mated View

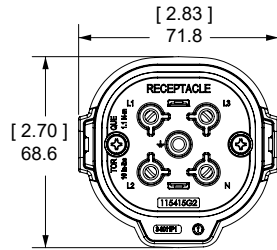


## Inline Receptacle Shell | PK1-076D05

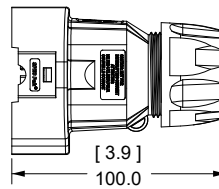
Top View



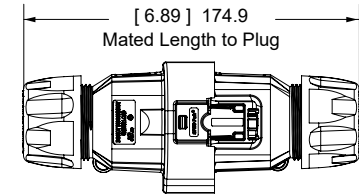
Front View



Side View

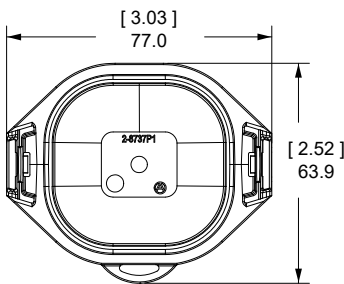


Mated View



## Plug Cover Kit | PK9P-076

Front View

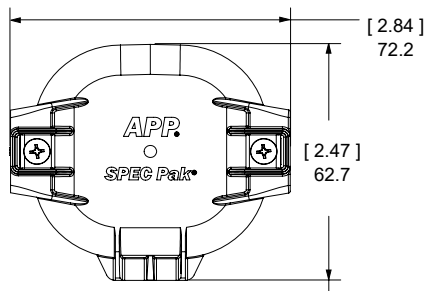


Side View

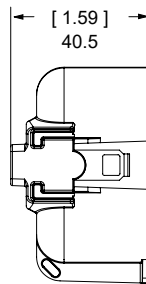


## Receptacle Cover Kit | PK9-076

Front View



Side View



\* Covers are only for transporting conditions; not UL6703 approved.

## Your Best Connection™

All Data Subject To Change Without Notice 2020-0110 DS-MPSPAK5P-S REV 1

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