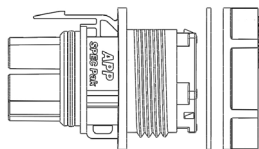


# 5 Position Mini PL SPEC Pak® Jam Nut (female) Assembly Instructions



**Tools & supplies you will need:**

- Wire stripper
- Wire lubricant
- Crimp tool(s)
- Insertion tool
- Extraction tool
- Wrench

### Step 1 Wire Protection

- a. Strip approximately 0.75 inches (19 mm) from the outer cable jacket, if applicable.
- b. If using the optional wire sealing grommets, lubricate individual wires using Isopropyl alcohol. **WARNING:** Dry thoroughly before energizing the circuit. Follow all cautions on the lubricant container.
- c. If not using optional wire sealing grommets, go to Step 2.
- d. Slide wire sealing grommet on to each wire with the smaller diameter of the sealing grommet facing the wire side that will be terminated. (See figure 1)

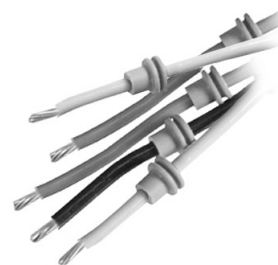


Figure 1

### Step 2 Prepare Wires

- a. Strip individual wires, taking care not to damage the copper conductor. (See Table 1)

Table 1 (See figure 2).

APP Contact Number	X Inches	X (mm)	Instruction Sheet
PM16S2024S32	Wire Insulation OD < crimp barrel ID x = 0.21" (5.5mm)	-----	1S6420
PM16S1620S32			
PM16S1416S32	Wire Insulation OD > crimp barrel ID x = 0.28" (7.0mm)	-----	
PM16S12S32			



Figure 2

### Step 3 Crimp Contacts

- a. Crimp contacts per crimp tool instructions. (See Table 2)  
**WARNING:** APP tooling is required for UL and CSA compliance. Use of unapproved tooling will void the connector warranty.

Table 2

APP Contact Part Number	Wire Size	Hand Tool Part Number	Instruction Sheet	Please inquire for additional tooling options:
PM16S2024S32	24 – 20 AWG 0.25 – 0.50 mm <sup>2</sup>	PM1000G1	1S6497	Pneumatic
PM16S1620S32	20 – 16 AWG 0.50 – 1.30 mm <sup>2</sup>			
PM16S1416S32	16 – 14 AWG 1.30 – 2.10 mm <sup>2</sup>			
PM16S12S32	12 AWG 3.30 mm <sup>2</sup>			

# 5 Position Mini PL SPEC Pak® Jam Nut (female)

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## Step 4 Populate Shell

- a. Slide the jam nut down the wires with the threads facing the wire ends.  
Continue passing the wires through the panel cut-out. (See figure 3)
- b. On the other side of the panel cut out, place the gasket over the threads and on to the connector shell. (See figure 3)
- c. Insert the contact from the rear side of the connector, using insertion tool part number PM1002G1. (See figure 4)
  - i. **NOTE:** A tactile snap will be felt when contacts are properly inserted. Apply a slight tug on the wire(s) to confirm that the contact(s) are properly inserted. If using discrete wires, the wires will spin freely when properly inserted in the housing.
  - ii. **NOTE:** If necessary, contacts can be extracted by using extraction tool part number PM1003G1. (See figure 5)
    1. Slide tool over the contact until the tool bottoms on the housing.
    2. Push the button on the top of the tool with your thumb while gently pulling on the wires from the back of the connector.
    3. Contact will be released.
- d. Repeat Step 4a as necessary.

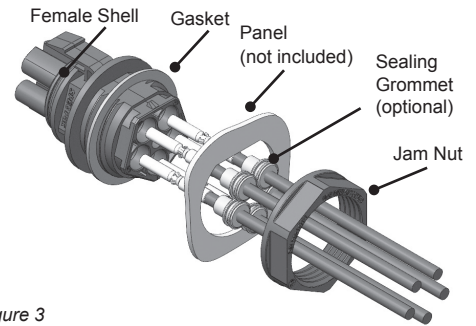


Figure 3

## Step 5 Final Assembly

- a. If not using the optional wire sealing grommet, go to step 5c.
- b. If using optional wire sealing grommet, slide the individual grommet down each wire and into the connector until flush with the back of the connector. (See figure 6) Snap the grommet retainer on to the connector, covering the wire sealing grommets. (See figure 7)
- c. Align the connector shell with the panel cut-out and slide the connector into the panel.
- d. Slide jam nut on the back of the connector and hand tighten.
- e. Wrench (24mm wrench or strap wrench) tighten the jam nut 1/8 - 1/4 turn more.



Figure 4

## Step 6 Assembly is complete. (See figure 8)



Figure 5

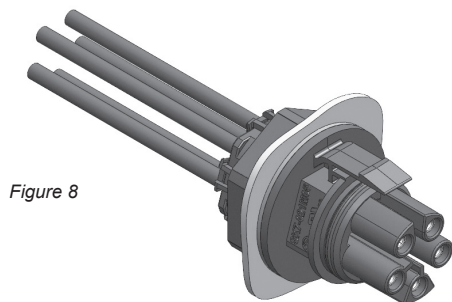


Figure 8

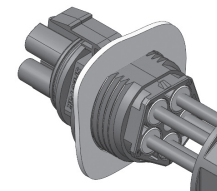


Figure 6

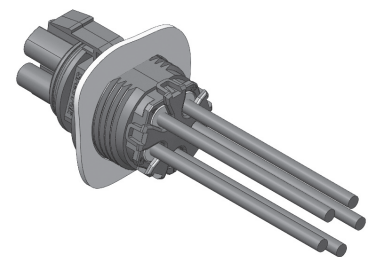


Figure 7