

## PEI-GENESIS SINGLE POLE ELECTRICAL DEVICES

### Installation Instructions - Double Set Screw

**GENERAL INFORMATION:**

**CAUTION:** Risk of Electric Shock. Disconnect power before installing connector. Never wire energised components. For installation by a qualified person in accordance with national and local electrical codes.

**CAUTION:** Use copper conductors only.

**CAUTION:** Not for interrupting current.

**CAUTION:** Rated for use with 90°C power cable types, SC, SCE, SCT, G, PPE, PPC or W

**CAUTION:** Magnetic ferrous enclosures mounting surfaces can generate heat from inductive fields.

Part Number	Reduction Sleeve	Copper Cable Size	Ampacity (Maximum)	Set Screw Torque Setting	Cable Jacket Strip Length
S120	N/A	250 Kcmil	455A	12 N-m	33mm
	R107	4/0 AWG	400A	12 N-m	33mm
	R95	3/0 AWG	350A	12 N-m	33mm
	R70	2/0 AWG	300A	12 N-m	33mm
	R50	1 AWG	220A	12 N-m	33mm
	R35	2 AWG	190A	12 N-m	33mm
	R25	4 AWG	105A	12 N-m	33mm

**Recommended Assembly Procedure:**

1. From the packaging: Remove the cable gland from the moulding and remove the contact.
2. Check the cable overall diameter. The standard Black M40A gland will facilitate cable diameter of 19-28mm. If your cable is of a diameter between 15 and 18mm diameter the Blue M40S reduction bush supplied should be fitted to the M40A cable gland. To do this remove the black rubber sealing ring inside the rear of the gland and replace with the Blue M40S bush.
3. Slide the completed cable gland along the cable jacket.
4. With care strip back the cable the insulation 33mm trying not to damage any of the conductors stranding.
5. Fit the correct end sleeve or combination of end sleeves (see table below) over the conductor strands. Take care to ensure all the wire strands are inside the end sleeve 33mm. Select the appropriate reduction sleeves and slide in sequence on to the exposed conductor stranding. Please note; all sleeves down to the size recommended for the cable must be used All the sleeves fit perfectly inside each other to create a gradual reduction span. The flared end of the sleeves should be against the cable insulation
6. Slide the cable and reduction sleeves into the back of the contact ensuring they are fully inserted inside the contact.
7. Using a 5mm Allen key tighten the set screws in the contact in accordance with the table above.
8. Now insert the contact into the rear of the insulator and align the hole in the contact so that it is in line with the holes in the insulator.
9. Now align the dowel pin with the tapered end first with the hole in the insulator. The dowel pin is designed to be a tight interference fit with insulator hole and it is necessary to drive the pin using a hammer through the insulator and contact. When fully inserted the pin will be flush with the surface of the insulator body.  
  
 Note: **Dowel pins are designed to be used only once.** In the event that the connector is unassembled a new dowel pin should be fitted on re-assembly., these are available from the factory. Also **never use a dowel pin that is not a tight interference fit** within the Insulator as this could lead to failure of the watertight barrier or allow the contact to dislodge from the insulator. Periodic checks should be made to ensure security of dowel pins.
10. Now screw the cable gland onto the insulator and tighten the body and dome nut to 11 N-m.

**\*\*\* WARNING \*\*\***

**Do not alter this product in any way. Doing so may lead to serious injury or death. Use copper conductors only. Read Instructions completely before wiring. Ensure all safety checks are carried out before and after use. This product should be installed, Inspected and maintained by qualified electricians only, in accordance with local and national electrical codes. If in doubt, seek advice from PEI Genesis.**

## PEI-GENESIS SINGLE POLE ELECTRICAL DEVICES

### Installation Instructions – Crimp

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**NOTE:** Use hand held crimp tool HT 131-C or Cordless Hydraulic 14.4v Crimping Tool: B 131-C

Part Number	Die Set Code	Copper Cable Size	Ampacity (Maximum)	Crimping Force	Number of Crimps (Equally Spaced)
C150	ME30-C	300Kcmil	505A	130 KN	2
C120	ME24-C	250Kcmil	455A	130 KN	2
C107	ME24-C	4/0 AWG	405A	130 KN	2
C95	ME19-C	3/0 AWG	350A	130 KN	2
C70	ME14-C	2/0 AWG	300A	130 KN	2
C50	ME10-C	1 AWG	220A	130 KN	2

**Recommended Assembly Procedure:**

1. A hydraulic crimping tool and hexagonal Die set is used to perform a crimp termination. Selection of the correct crimp die is essential to achieve a reliable result. As cable conductor sections vary widely, the table above is intended as a guide to appropriate die selection. Cable tensile test should be performed to ensure the final crimp termination meets the tensile and mv drop test of a particular specification.
2. Select the appropriate Die set from table. For example if you are using a C240 – 400Kcmil cable use Die set ME48.
3. Strip the cable jacket to leave 43mm of conductor exposed.
4. Slide the conductor into the rear of the contact. Take care to ensure all the wire strands are inside the contact.
5. Place the contact and cable carefully into the die set and close the crimping tool. In the case of tool HT131 the tool hands are pumped until they go no further. As the tool reaches the required compression you will feel and hear a click. The tool can then be opened to release the finished crimp.
6. More than one crimp is recommended to ensure the maximum surface area of crimp are achieved. From the above table for example the C240 contact crimp should be made in 3 equidistant positions along the contact crimp area.
7. Now insert the contact into the rear of the insulator and align the hole in the contact so that it is in line with the holes in the insulator.
8. Now align the dowel pin with the tapered end first with the hole in the insulator. The dowel pin is designed to be a tight interference fit with insulator hole and it is necessary to drive the pin using a hammer through the insulator and contact. When fully inserted the pin will be flush with the surface of the insulator body.  
  
 Note: **Dowel pins are designed to be used only once.** In the event that the connector is unassembled a new dowel pin should be fitted on re-assembly., these are available from the factory. Also **never use a dowel pin that is not a tight interference fit** within the Insulator as this could lead to failure of the watertight barrier or allow the contact to dislodge from the insulator. Periodic checks should be made to ensure security of dowel pins.
9. Now screw the cable gland onto the insulator and tighten the body and dome nut to 11 N-m.

**\*\*\* WARNING \*\*\***

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## PEI-GENESIS SINGLE POLE ELECTRICAL DEVICES

### Installation Instructions – Panel Connector

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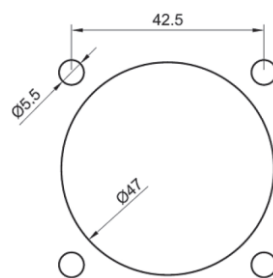
**CAUTION:** Magnetic ferrous enclosures mounting surfaces can generate heat from inductive fields.

Part Number	Contact Material	Copper Cable Size	Ampacity (Maximum)	Nut Torque Setting	Thread & Nut Size
T8	Copper	400 Kcmil	600A	14NM	M12
		350 Kcmil	570A		
		300 Kcmil	505A		
T5	Brass	250 Kcmil	455A	14NM	M12
		4/0 AWG	400A		
		3/0 AWG	350A		
		2/0 AWG	300A		
		1 AWG	220A		
		2 AWG	190A		
4 AWG	105A				

**Recommended Assembly Procedure:**

1. Remove from the packaging:
2. Attach connector to pre-drilled panel:
  - Minimum thickness of panel 0.125" (3mm).
  - Ensure supplied gasket is seated between panel and connector base
  - Using x4 M5 mounting nuts & bolts, tighten to 2.26NM

Panel Mounting Hole Dimensions



3. Attach lugged cable only to the rear of the connector by passing the M12 threaded post through the eye of the lug – Note; cable should be attached to the lug in accordance with lug suppliers specifications.
4. Screw on the supplied M12 brass nut – Note; never use any other M12 nut other than the one supplied by PEI-Genesis.
5. Tighten the M12 nut to 14NM.

**\*\*\* WARNING \*\*\***

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