

ITT Cannon SLC Series Snap Lock Circular Connectors



HARSH-ENVIRONMENT SNAP LOCK CIRCULAR CONNECTORS

The ITT Cannon Snap Lock Environmental series (SLC) is an environmentally-sealed, circular connector created for printed circuit board (PCB), cable-to-cable or bulkhead applications. The SLC connector series is environmentally-sealed against sand and dust and is designed for use under-the-hood, withstanding harsh off-road contaminants, including oil and antifreeze. SLC connectors are user-friendly and easy to assemble, with audible and tactile feedback. SLC connector contacts will handle up to 5 amps continuous at a fully-rated temperature range of -40°C to +125°C. The SLC series is available as a 5 pin connector and a 10 pin connector. For full details on ITT Cannon SLC series connectors, see the product specifications below.

APPLICATIONS

- Engine electronics
- Instrumentation
- Inline connections
- Sensors

FEATURES

HIGH-QUALITY CIRCULAR CONNECTOR With silicone mating, interfacial and wire seals that resist even the harshest of contaminants.

SHARED TOOLING SLC connectors use the same proven contact as SLE and CLC connectors and are assembled using the same crimping and low cost extraction tools.

CONVERTIBLE MOUNTING Simple snap-on mounting plates allow users to convert from inline connections to wall mounting, minimizing inventoried components.

STRONG CONNECTOR SNAP LOCKS Snap locks are located at either side of the SLC connectors. These locks are molded into the connector bodies and lock the connectors together when mated. To unmate, depress the snap locks simultaneously and pull the connectors apart.

TECH SPECS

MATERIALS & FINISHES

Shell	High-performance thermoplastic body, silicone wire seals
Contacts	Copper alloy
Plating	Selective gold over nickel plating on mating surface, tin/lead over nickel plating on wire crimp area







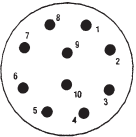

ELECTRICAL DATA

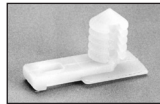
Dielectric Withstanding Voltage	1000 Vac rms at sea level
Current Rating	5 Amps continuous at 125°C
Wire Range Sizes	20-16 AWG
Contact Resistance	10 milliohms maximum
Insulation Resistance	20 megaohms minimum (USCAR)

MECHANICAL DATA

Operating Temperature	-40°C to 125°C (-40°F to 257°F)
Sealing	2-12 inches of 5% salt solution for 24 hours
Wire Sealing Range	.095"-.120" (2.42mm - 3.05mm)
Insulation Strip Length	.210" - .220" (5.33mm - 5.59mm)
Mating Life	25 cycles minimum
Salt Spray	5% solution 96 hours
Heat	125°C +/- 3° 1000 hours
Chemical Resistance	Resistant to most common automotive contaminants
Vibration	10.2 grms 20 hours minimum
Shock	100 g's 18 shocks for 6 milliseconds
Contact Type	Crimp using automatic, semi-automatic or hand tooling, printed circuit
Number of Circuits	5 to 10
Contact Insertion	From rear with no insertion tool needed
Contact Removal	From rear with low cost hand tool
Contact Retention	25 lbs. (111N) minimum
Polarization	Keys and keyways

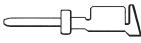


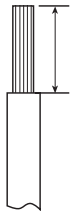





SELECT PART NUMBER

				
NUMBER OF CIRCUITS (MATING VIEW OF PLUG)	PLUGS FOR SOCKETS	RECEPTACLES		
		SNAP THRU CRIMP	CRIMP++ FOR PINS	PCB
5 	SLC5P500 098532-0011	SLC5T500 098533-0000	SLC5R500 098530-0000  Square Flange Plate 066-9504-000	SLC5B500 098531-000
10 	SLC10P500 098532-0002	SLC10T500 098533-0002	SLC10R500 098530-0002  Square Flange Plate 066-9504-001	SLC10B500 098531-002



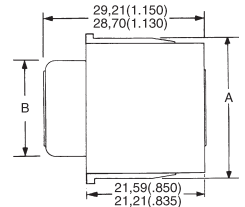
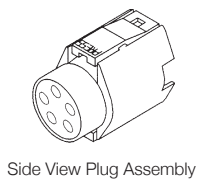
Note: A 13 Amp version using large contacts is available for most styles. Please contact us to check availability.
 ++ A push mount is available for single hole mount into a .250" (6.35mm) diameter hole and panel thickness up to .020" (.51mm) **Part # 980-0008-279**

CONTACTS

16-20 AWG	PINS FOR RECEPTACLES	SOCKETS FOR PLUGS	CRIMP TOOL	STRIP LENGTH	WIRE SEALING RANGE	WIRE HOLE FILLER	EXTRACTION TOOL
Loose	 030-2464-007	 030-2480-000 030-2480-007 Hooded	 112108-0007				
Reel of 4500 pcs.	 110238-0446	 110238-0488 110238-1016 Hooded	Automatic/ Semi-Automatic Please Contact Us	.210 - .220 IN (5.33-5.99mm)	.095 - .130 IN (2.42-3.30mm)	225-0093-000	274-7068-001 323-9519-000 Replacement Tip

DIMENSIONS

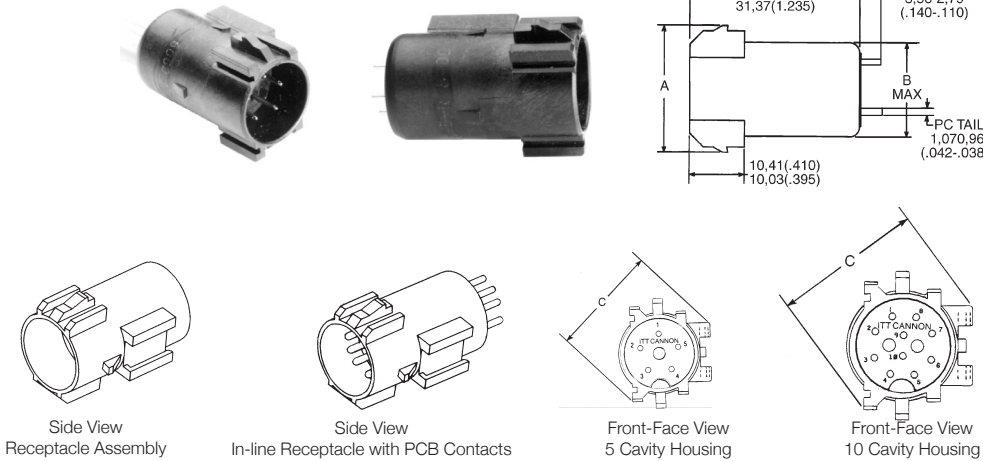
PLUG, IN-LINE (TYPE P)



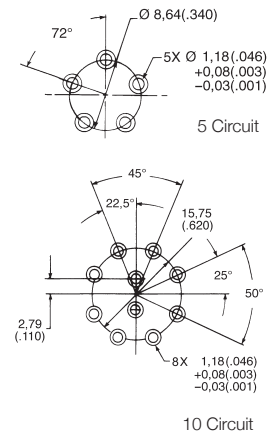
HOUSING SIZE	RATING	PART NUMBER	DESCRIPTION	A	B
5	5 Amp	098532-0011	SLC5P500	27.81 (1.095)	18.03 (.710)
10	5 Amp	098532-0002	SLC10P500	34.92 (1.375)	25.15 (.990)

All dimensions are in mm (inches) unless otherwise indicated.

RECEPTACLE, IN-LINE (TYPE R & B)

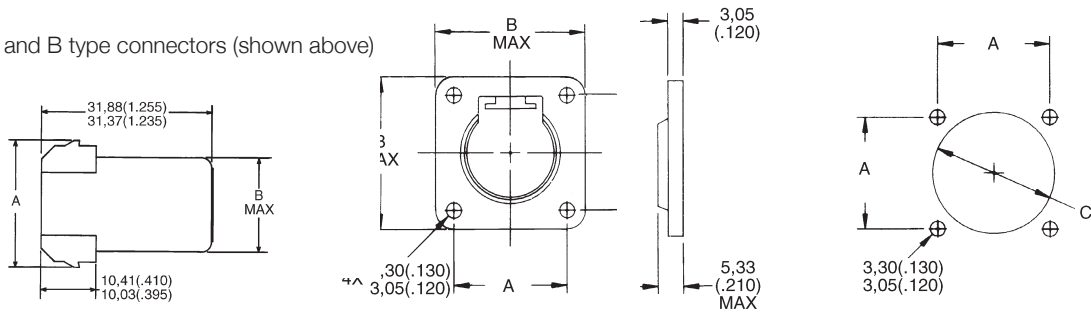


RECOMMENDED PC BOARD LAYOUT



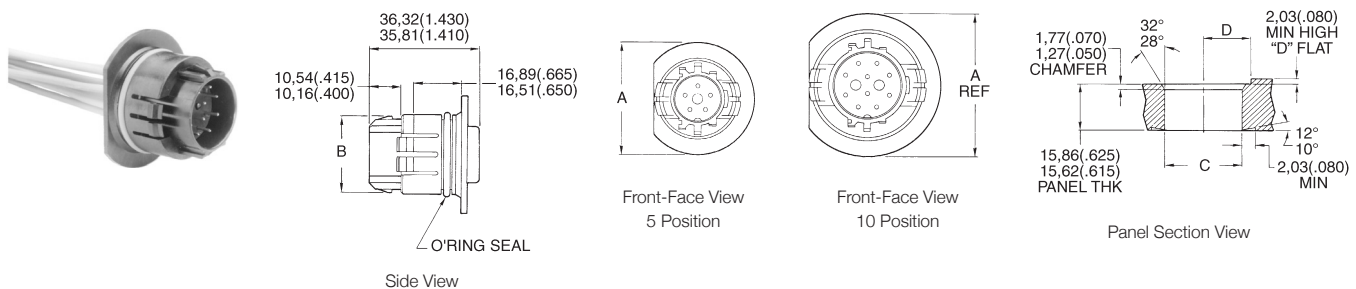
HOUSING SIZE	CRIMP		PCB		A	B	C REF.
	PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION			
5	098530-0000	SLC-5R5-00	098531-0000	SLC-5B5-00	24.13 (.950)	18.03 (.710)	24.38 (.960)
10	098530-0002	SLC-10R5-00	098531-0002	SLC-10B5-00	31.24 (1.230)	25.15 (.990)	31.62 (1.245)

Square Flange for R and B type connectors (shown above)



MATERIALS & FINISHES	HOUSING	PART NUMBER	A	B MAX	C
Material: Thermoplastic	5	066-9504-000	23.37 (.920)	31.24 (1.230)	32.50 - 31.75 (1.280 - 1.250)
Color: Black	10	066-9504-001	28.45 (1.120)	36.32 (1.430)	25.40 - 26.64 (1.000 - .970)

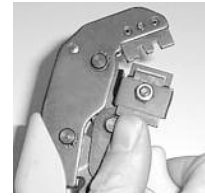
SNAP-THRU RECEPTACLE (TYPE T)



HOUSING SIZE	PART NUMBER	DESCRIPTION	A	B	C	D
5	098533-0000	SLC-5T5-00	37.21 (1.465)	24.13 (.950)	25.60 (1.008)	15.62 (.615)
10	098533-0002	SLC-10T5-00	47.62 (1.875)	31.24 (1.230)	35.05 (1.380)	20.19 (.795)

All dimensions are in mm (inches) unless otherwise indicated.

CRIMPING



STEP 1: Squeeze handles until tool has gone through a complete cycle and opens easily.

STEP 2: Select the proper cavity for the wire size to be crimped.

STEP 3: Using your thumb or forefinger, raise the spring-loaded locator on the back of the lower jaw by pushing up.

STEP 4: While the locator is in the up position, place the contact into the front of the crimp tool (crimp side up) in the proper crimp cavity (16 AWG or 20 AWG).



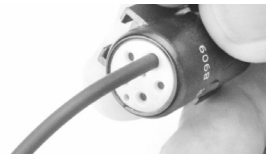
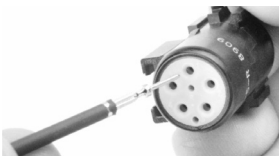
STEP 5: Release the locator. The locator should rest comfortably in the indent in the contact just above the crimp area.

STEP 6: Insert the stripped wire into the crimp area until it bottoms.

STEP 7: Firmly squeeze the handle; crimp jaw and ratchet will release.

STEP 8: Using your thumb or forefinger, raise the spring-loaded locator and remove the crimped contact and wire.

INSERTION



STEP 1: Move to the rear of the connector so that the contact cavities can be identified.

STEP 2: Insert a crimp-terminated assembly into a selected cavity.

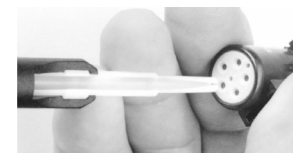
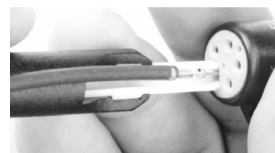
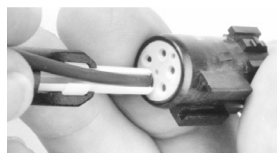
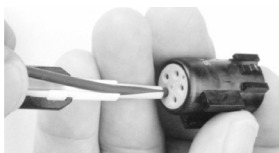
STEP 3: Continue the forward movement until an audible snap can be felt and heard. A slight pull in the opposite direction will confirm complete insertion.

CRIMP INSPECTION



STEP 1: Note that there are no unterminated wire strands and that some strand ends can be seen at the forward edge of the crimp. Also note the insulation is gripped by the smaller secondary crimp. Distortion is at a minimum, both axially and laterally – no sharp edges. Enlargement of micro section allows for final judgment of crimp quality. This test is recommended whenever new tools or new types of wire are used.

EXTRACTION WITHOUT TPA



STEP 1: Open the CET – SLC extraction tool and place it over the insulation of the wire.

STEP 2: Using a straight motion forward, insert the tool along the wire until it bottoms against the connector. Do not use a screwing motion - damage will result.

STEP 3: While the CET - SLC is bottomed, simply pull the wire/contact assembly out.

STEP 4: Remove the CET - SLC. Extraction is complete.