

LJT 25-1A 4x100 A

Circular power connector



MAIN CHARACTERISTICS

- **4 size 4 crimp contacts**
(male contact diameter: 7.4 mm)
- **4 size 16 crimp contacts**
(male contact diameter: 1.6 mm)
- **Working temperature:**
- 54°C/+ 64°C with a constant current of 100 A per power contact
- **Temperature range:**
- 65°C/+ 175°C
- **Insulation resistance at ambient under 500 Vdc > 5000 Mohms**
- **Lightweight space saving design**
- **Quick positive coupling:**
3 point bayonet lock system
- **100% scoop-proof for total contact protection.**
- **Keying:**
achieved by different key / keyway locations
- **Corrosion resistance:**
olive drab cadmium-plate aluminium
- **Durability:**
500 cycles
- **Contact rating:**
 - Current capability
 - 100 A (size 4 contacts)
 - 13 A (size 16 contacts)
- **Service rating M:**
 - Operating voltage at sea level : 400 Vrms
 - Test voltage unmated at sea level : 1300 Vrms
 - at 15000m / 50000 ft : 550 Vrms
 - at 21000m / 70000 ft : 350 Vrms
 - at 34000 m / 110000 ft : 200 Vrms
 - Test voltage mated, please consult us.
- **Mating force:**
F < 4.6mN
- **Disconnection force :**
0,6mN < F < 4.6mN
- **Random vibrations at 0.4g2/Hz (50 to 2000 Hz in two directions):**
no electrical discontinuities > 1µs



DESCRIPTION

This power connector from Amphenol LJT 25-1A was originally developed for military applications. Indeed, it is used in the conditioning of tanks.

This connector has the particularity to provide 4 size 4 power contacts and 4 size 16 contacts in a size 25 shell in accordance with the MIL-C-38999 Series 1 standard.

*High performance
for power supply*

APPLICATIONS

- This connector is ideally suited to harsh environment / military / aeronautic uses for power bus / loop and conditioned power supplies.

4x100 A



Amphenol

Application tools & process (coupled with backshell HE 308-35-25-30-36)

For this power connector, we recommend the use of our backshell HE 308-35 for optimum performance.

Tool references

• For size 16 contacts:

- Crimping pliers
- Turret positioner (Position number 5)
- Removal tool

809857

809858

809944

• For size 4 contacts

- Crimping pliers & a pair of jaws (One of the jaws is equipped with a positioning stop)
- Removal tool (4 are needed)

809947

809948

809943

• For the rear accessories: 2 possibilities

① ITS System

- Pliers
- Tool
- Tool

809949

809950

809951

② BAND-IT System

- Tool

809952

• Crimping process

- Crimping of size 16 contacts (Locator positioned number 5)
 - The strip length of the size 16 conductors should be 6mm.
 - Crimp the contact of each size 16 wire with the corresponding tool.
 - After having crimped the size 16 contacts fold them back and position them with adhesive (see figure 2).
- Crimping of size 4 contacts
 - The strip length of the size 4 conductors should be 13 mm.
 - Choose male or female positioning stop on your corresponding crimping tool.
 - Crimp the contacts. - According to Specification N00-040107-00

• Contact insertion

- Check the position of each contact before inserting it in the cavity.
- Insert firstly the 4 size 4 contacts in the insulator and push them until locked, and secondly do the same for size 16 contacts.

• Removal process

- Take off the heat shrink sleeve and remove the band, fold back the braid and screw off the backshell.
- Remove the size 16 contacts one by one using the tool 809944.
- Fold back size 16 wires and secure them with adhesive.
- Then remove secondly the 4 size 4 contacts at the same time, using 4 removal tools (see figure 3).

Installation instruction

• Cable preparation

- We recommend the use of the band backshell with a minimum chamber diameter of 30mm suitable for the size of conductors.
- First place the heat-shrink sleeve over the cable followed by the backshell HE308-35.

• Stripping process

- Cut the jacket from the cable taking care not to damage the braid.
- Comb the braid back and stick it to the outer jacket with adhesive.
- Trim the size 4 conductors to 65mm ensuring there is no difference in the lengths of these conductors greater than 1mm. (This is to avoid damage to clips in the insulator) (See figure 1).

Figure 1

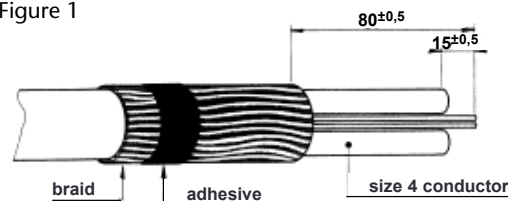


Figure 2

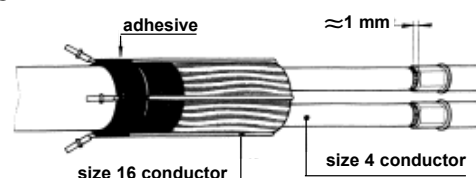
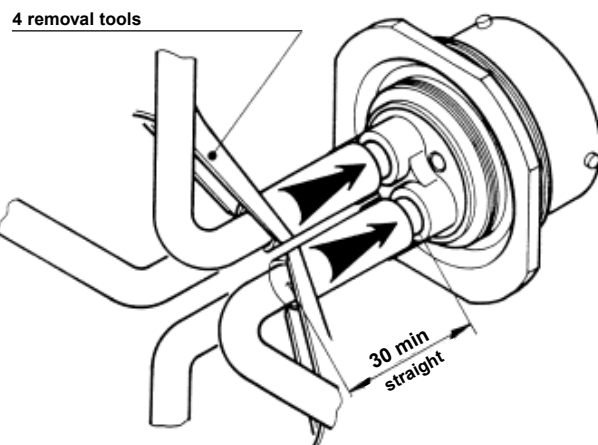


Figure 3

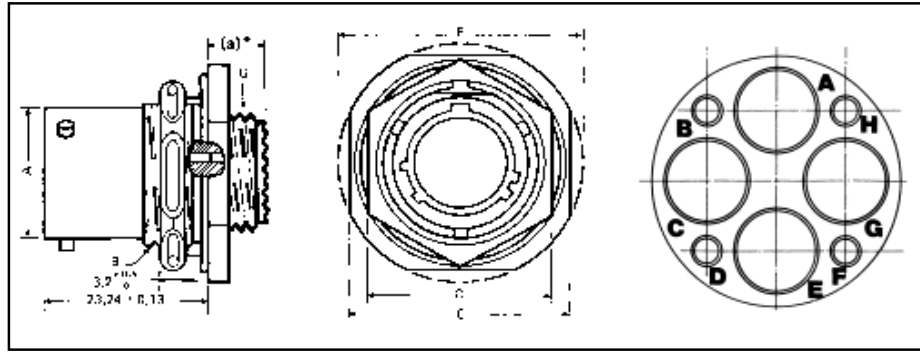


• **07 receptacle**

A = 40.18 mm
E = 55.58 mm

B = 1.7500 - 18 UNEF inches
F = 59.13 mm

C = 51.20 mm
G = 1.4375 - 18 2A UNEF

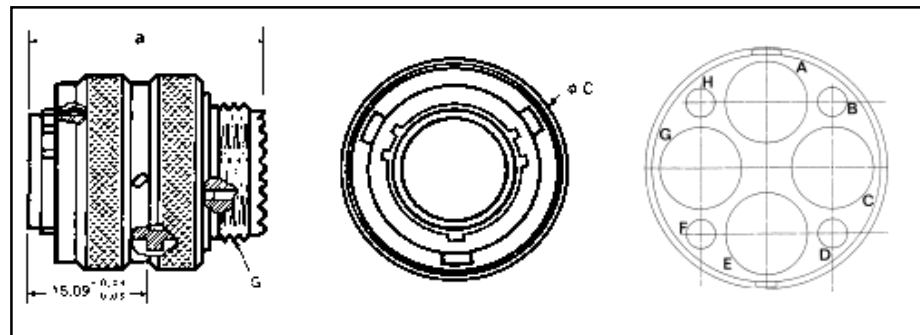


• **Plug**

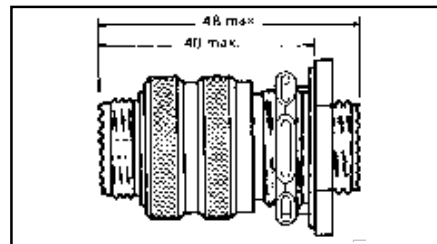
G = 1.4375 - 18 2A UNEF

C = 47.63mm

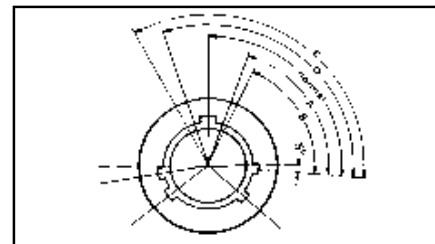
a = 31 mm Max



• **Receptacle and plug mated**



• **Position of major keyway**



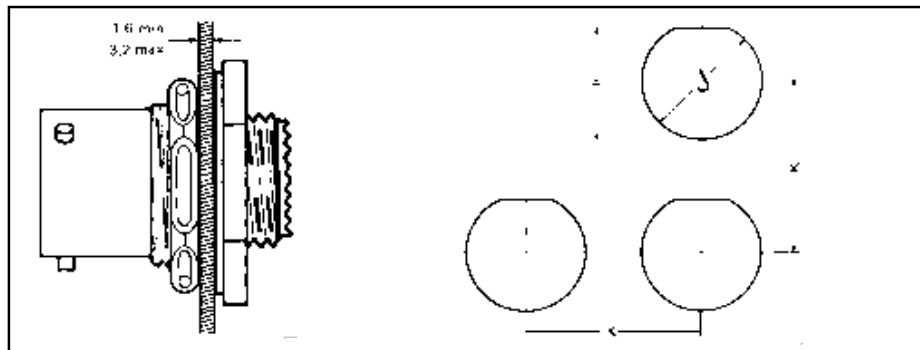
A = 80° B = 69° C = 121° D = 110°
Receptacle: front face shown

• **Panel drilling detail for jam nut receptacle**

J = 44.68 +0.25 / -0

H = 43.41 +0 / -0.25

K = 59.7 mm min



HE308 military P/N

HE308 series	Receptacle Plug	HE 308	07 06	T	25	44	P S	B	7	M
07 for jam nut receptacle 00 for square flange 06 for plug										
Service										
Shell size										
Contact arrangement										
Contacts: P for pin (for receptacle only) S for socket (for plug only)										
Coding: B: position of major keyway N for standard or A, B, C, D										
Shell finish: 7: olive-drab cadmium plated										
In accordance with DAT specification										

Proprietary P/N

LJT series	Receptacle Plug	LJT	07 06	RT	25	1A	P S	B	014
07 for jam nut receptacle 00 for square flange 01 for cable connecting receptacle 06 for plug									
Service									
Shell size									
Contact arrangement									
Contacts: P for pin (for receptacle only) S for socket (for plug only)									
Coding: B: position of major keyway Nothing for standard or A, B, C, D									
Shell finish: 014: olive-drab cadmium plated									

Backshells

The connector is compatible with all backshells available in our LJT range :

LJT SAD	HE 308-35	LJT NSA/HE30813
LJT SAC	LJT NSB	LJT NSD/HE30814

Do not hesitate to contact us for further information

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