

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 **809857**
 - Turret positioner **809858**
(Position number 5)
 - Removal tool **809944**
- **For size 4 contacts**
 - Crimping pliers **809947**
& a pair of jaws (One of the jaws is equipped with a positioning stop)
 - Removal tool (4 are needed) **809948**
- **For the rear accessories:** 2 possibilities
 - ① ITS System
 - Pliers **809949**
 - Tool **809950**
 - Tool **809951**
 - ② BAND-IT System
 - Tool **809952**

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).

- **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 size16 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.
- **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).

Figure 1

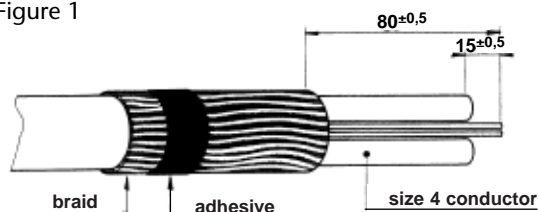


Figure 2

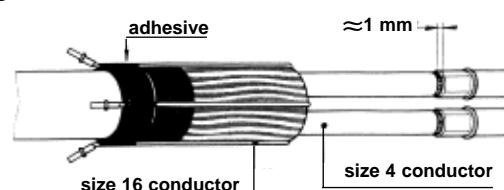
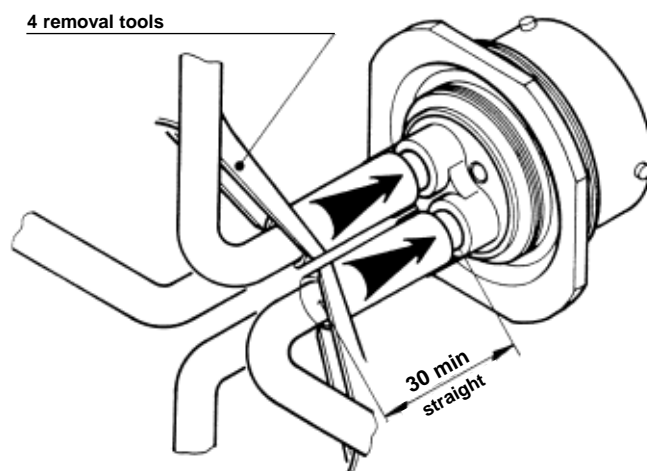


Figure 3

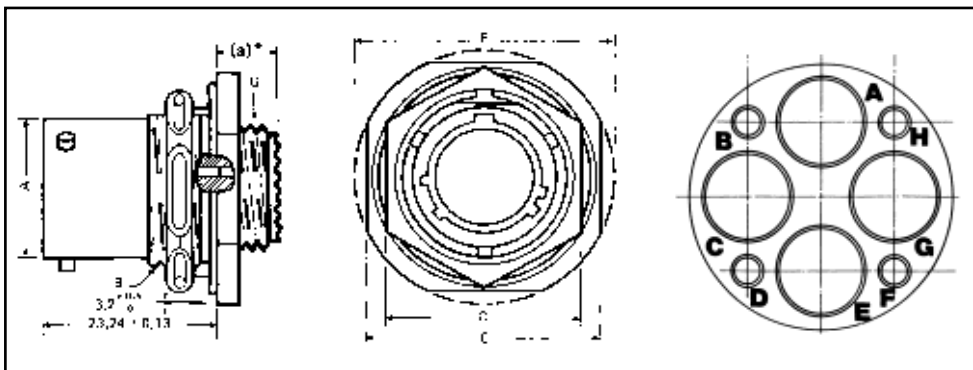


• **07 receptacle**

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

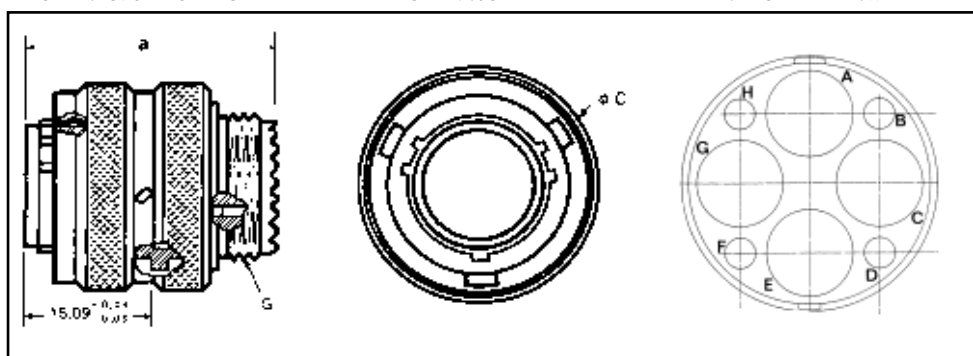


• **Plug**

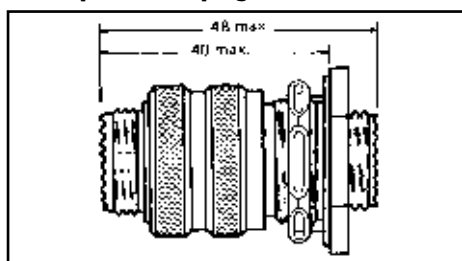
G = 1.4375 - 18 2A UNEF

C = 47.63mm

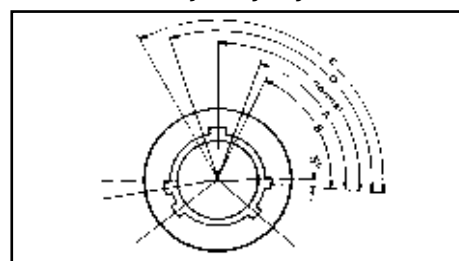
a = 31 mm Max



• **Receptacle and plug mated**



• **Position of major keyway**



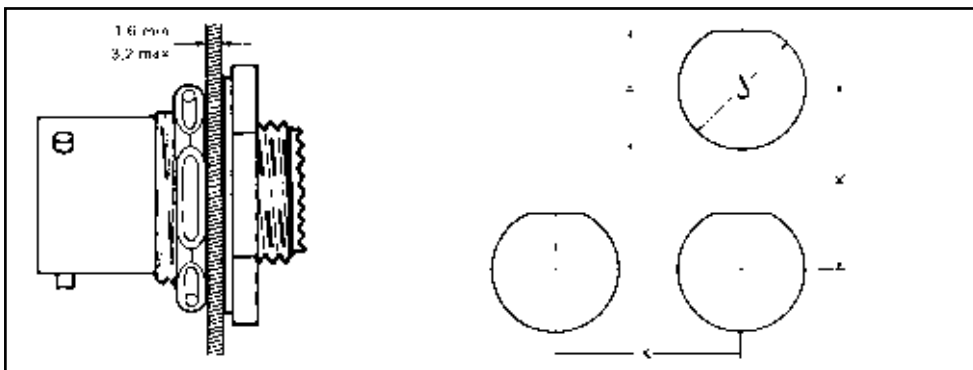
A = 80° B = 69° C = 121° D = 110°
Receptacle: front face shown

• **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 LJ T 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

**Amphenol Socapex**

Immeuble le Doublon - 11, avenue Dubonnet
92407 Courbevoie Cedex

Tel. : (33) 1 49 05 30 00 - Fax : (33) 1 49 05 30 44

Technical support

Tel. : (33) 4 50 89 28 00

The information given in this document are as a guideline only.
We reserve the right to modify our products in any way we deem necessary.
Any duplication is prohibited, unless approved in writing.