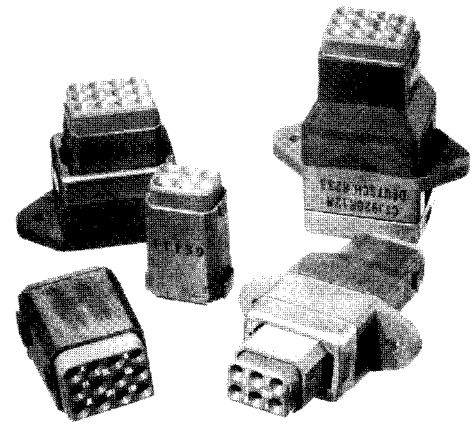


Composite Termination System

CTJ6 Series Plugs CTJ9 Series Receptacles

Small, Lightweight Modules Designed for Flange Mounting or In-Line Mounting for Simultaneous Connect/Disconnect of Many Wires.



The Deutsch CTJ6 series junction plug module mates with the CTJ9 series junction receptacle module to accept flexible circuitry, printed circuit boards, discrete wires, etc.

The receptacle module presents a cork-in-a-bottle interfacial seal between the mating halves and is environment resistant when mated with the matching CTJ6 plug module. Receptacle is available with mounting flanges for mounting to a structure or black box. The module is also available in a lightweight inline configuration to allow inline connection to a wire bundle. Contacts are locked into the modules with dielectric retention fingers. Removal of the contacts is accomplished with a simple MIL-Spec insertion/removal tool.

Dielectric Withstanding Voltage

(Meets AFLC 8027520, paragraph 3.10)
At sea level: 1500 Volts AC (RMS)
At 100,000 ft.: 200 Volts AC (RMS)

Insulation Resistance

(Meets AFLC 8027520, paragraph 3.9)
5000 megohms min. at 25°C.

Contact Resistance at 25°C

(Meets MIL-C-39029 paragraph 3.5.4)

Wire (AWG)	Test Current (Amps)	Millivolt Drop (*)
22	5	102
26	2	53
22	5	73
20	7.5	55
16	13	50
12	23	42

(*) less drop through wire

Thermal Shock

(Meets AFLC 8027520, paragraph 3.7)
After cycling the module between -55°C and +200°C it will meet all applicable electrical and mechanical requirements.

Current Rating

(Meets MIL-C-39029)

Contact Size	Max. Amps
22	5
20	7.5
16	13
12	23

Temperature

(Meets AFLC 8027520, paragraph 1.2.1)
Operative at temperatures from -65°C to +200°C.

Corrosion

(Meets AFLC 8027520, paragraph 3.11)
No decrease in performance or exposure of base metal after 48 hours of salt spray.

Vibration

(Meets AFLC 8027520, paragraph 3.19)
Maintains continuity and exhibits no mechanical or physical damage during or after the following vibration levels.

Level I—duration: 34 minutes per axis

20-90	Hz at 6dB/oct. rise
90-300	Hz at 1.0g ² /Hz
300-2000	Hz at 6dB/oct. fall

Level II—duration: 14 minutes per axis

20-40	Hz at 6dB/oct. rise
40-350	Hz at 0.5g ² /Hz
350-2000	Hz at 6dB/oct. fall

No discontinuities greater than 1 microsecond.

Usable Wire Size

(Meets AFLC 8027520, paragraph 3.4.3.1)

Contact Size	Accepts (AWG)
22	22-26
20	20-24
16	16-20
12	12 & 14

SPECIFICATIONS

Fluid Compatibility

Designed to function in most fluids encountered in many modern military or aerospace environment. Available with options to operate in the following fluid environments.
(AFLC 8027520, paragraph 1.2.9)

Classification	Fluid*
MIL-H-5606	Aircraft Hydraulic Fluid
MIL-T-5624	JP-5 Jet Fuel
MIL-L-7808	Lubricating Oil
MIL-L-23699	Lubricating Oil
MIL-A-8243	Defrosting Fluid
MIL-C-25769	Alkaline Cleaning Compound
MIL-G-3056	Gasoline

*Also: Isopropyl Alcohol, Mineral Spirits, 1-1-1 Trichloroethane, Freon TMC.

Deutsch ECD

Defense/Aerospace Operations

5733 W. Whittier Avenue

Hemet, CA (USA) 92545

Phone 909/765-2200

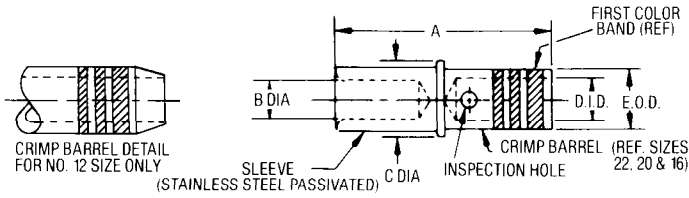
FAX 909/922-1544

This information is for reference only. Consult factory for envelope drawings, updated specifications, and additions to the product line.

DEUTSCH ECD

CTJ6 Series Plugs CTJ9 Series Receptacles

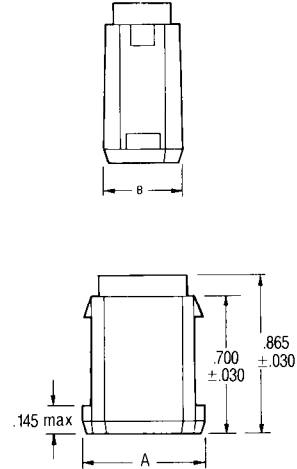
CONTACT DIMENSIONS



Size	Contact Part No.	Equivalent Military Part No.	Color Bands			A Max.	B Dia.	C Max.	D Min.	E Max.	Weight (Lbs.)
			1st	2nd	3rd						
20	CTS-S20/20	M39029/22-192	Brown	White	Red	.358	.044/.042	.094	.046	.070	.00027
12	CTS-S12/12	M39029/22-605	Blue	Black	Green	.455	.100/.097	.171	.096	.152	.00145

Wire Size	Gauge	Crimp Tool	Crimp Tool Positioner	Strip Length	Insertion & Extraction Tool	Unwired Removal Tool
20-24		MH860 (M22520/7-01)	86-20 (M22520/7-12)	.207 ± .030	M15570-20	M15574-20
12 & 14		AF8 (M22520/1-01)	M22520/1-16	.225 ± .020	81515-12	M15574-16

PLUG OUTLINE DIMENSIONS*



ALTERNATE CLOCKING DIMENSIONS

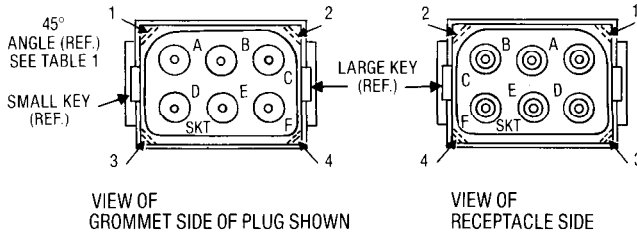
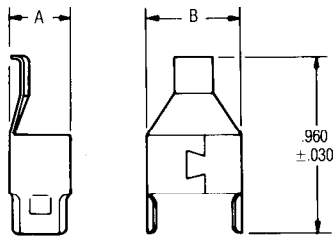


Table 1

Keying Position	45° Angle Locations
N	1 & 2
1	3 & 4
2	1 & 3
3	2 & 4

Part Number	A ± .010	B ± .010	No. of Contacts
CTJ612E02	.652	.510	2
CTJ620E06*	.530	.360	6
CTJ620E12*	.652	.510	12

STRAIN RELIEF



Part No.	Used On	B ± .030	A ± .030
1629-01-06117	6 Contact Module	.490	.320
1629-01-12117	12 Contact Module	.630	.470

Sold separately. Adapts to all plugs. Adapts to receptacles with rear package only.

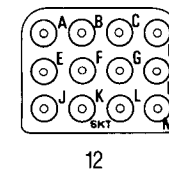
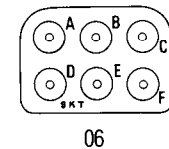
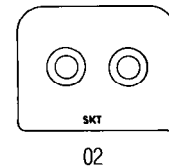
ORDERING INFORMATION

CTJ 6 20 E * * * * * - * * * *

Basic Identifier _____
 Plug Module = 6 _____
 Receptacle Module = 9 _____
 Contact Size (20) _____
 E—Standard _____
 R—Rear package available only on receptacle. _____
 Number Contacts 02 = 2 #12 _____
 06 = 6 #20 _____
 12 = 12 #20 _____
 Keying Position. Provided with two 45° corners (ref dashed lines) in place of 90° corners, at indicated location of grommet view and table 1, alternate clocking dimensions
 N = standard _____
 1 thru 3, alternate (consult factory) _____
 Modifications as required _____

LAYOUT ARRANGEMENTS*

VIEW FROM GROMMET SIDE (Plug)



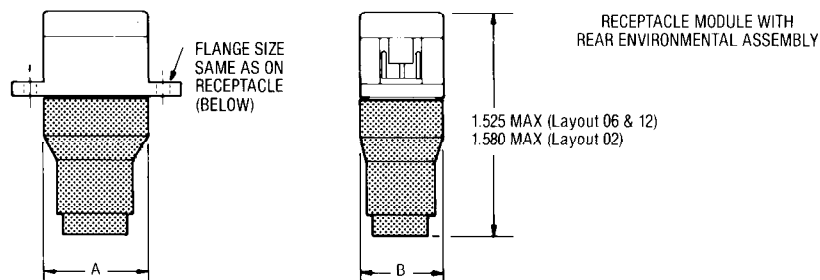
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CTJ6 Series Plugs

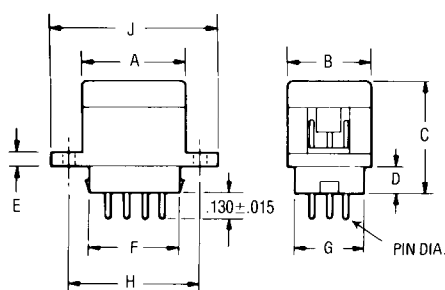
CTJ9 Series Receptacles

RECEPTACLE CONFIGURATION (With rear package)



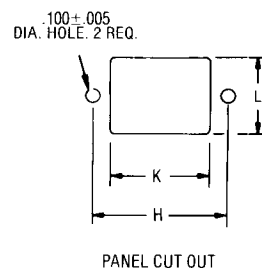
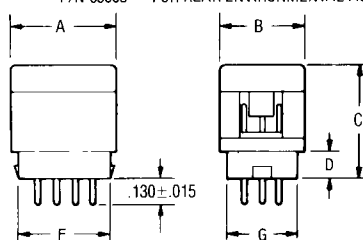
MOUNTING DIMENSIONS

FLANGE MOUNT RECEPTACLE



INLINE MOUNT RECEPTACLE

ORDER P/N 65002*** FOR STANDARD EXTENDED PINS
P/N 65003*** FOR REAR ENVIRONMENTAL ASSEMBLY



OUTLINE AND MOUNTING DIMENSIONS

Layout	Number of Contacts	A ± .030	B ± .030	C ± .030	D ± .010	E ± .010	F ± .015	G ± .015	H ± .005	J ± .030	K ± .005	L ± .005
02	2 #12	.770	.620	.750	.200	.100	.670	.510	1.000	1.300	.750	.530
06	6 #20	.650	.470	.750	.200	.100	.550	.360	.880	1.180	.600	.380
12	12 #20	.770	.620	.750	.200	.100	.670	.510	1.000	1.300	.750	.530

APPLICATIONS

Standard bulkhead

Flex tape

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Composite Termination System

CTJ6 Series CTJ9 Series

MATING/UNMATING PROCEDURE

Deutsch CTJ6 plug mates with CTJ9 receptacle as follows:

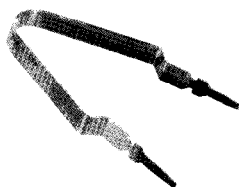
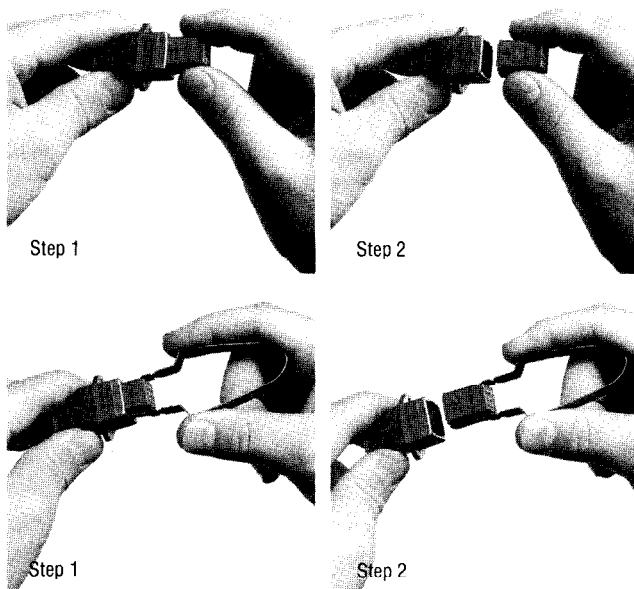
Step 1. With plug engaging surface facing toward receptacle face, and with plug 45° keying surfaces aligned with receptacle keying, insert plug into receptacle. Make sure pins of receptacle properly align with plug socket holes.

Step 2. Press firmly until audible "clicks" are heard. Plug is then correctly engaged and locked in position with receptacle.

To disengage plug and receptacle:

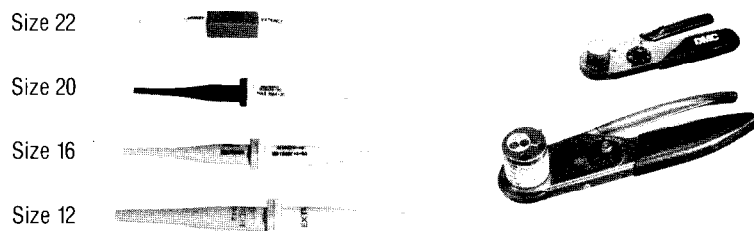
Step 1. Insert module extraction tool into spaces on both sides of receptacle. Push tool in until module locking fingers are disengaged.

Step 2. Pull extraction tool and plug out simultaneously.



Module extraction tool
Part No. CTJ-R06
sold separately

ASSEMBLY TOOLS Wire/contact assembly tools are standard military type insertion/removal tools found in most assembly areas.



Deutsch ECD
Defense/Aerospace Operations
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Contact Size	Insertion/ Removal Tool	Crimp Tool	Crimp Tool Positioner	Sealing Plug	Modular Extraction Tool
22	81515-23	M22520/7-01	M22520/7-11	1613-03-2205	CTJ-R06
20	M15570-20 M81969/14-11	M22520/7-01	M22520/7-12	81539-20	
16	M15570-16 M81969/14-03	M22520/7-01	M22520/7-13	81539-16	
12	81515-12	M22520/1-01	M22520/1-16	81539-12	

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