



ITT

Interconnect Solutions
Cannon, VEAM, BIW

Enabling miniaturization of **critical,**
soldier technology **applications**
through the fielding of the industry's most
innovative mini-circular product lines



Engineered for life

The MKJ4 features a canted retention spring disconnect coupling mechanism. This durable coupling mechanism allows quick and easy mating and demating of the connector. Ideal for battlefield and medical device equipment.

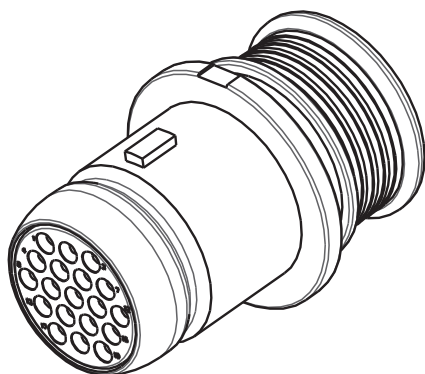
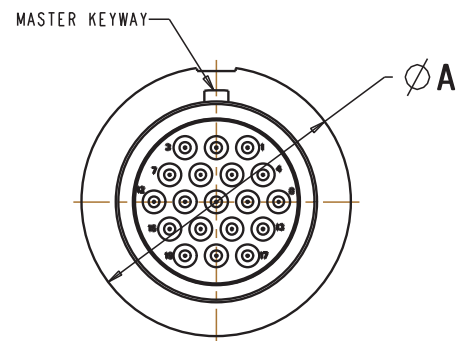
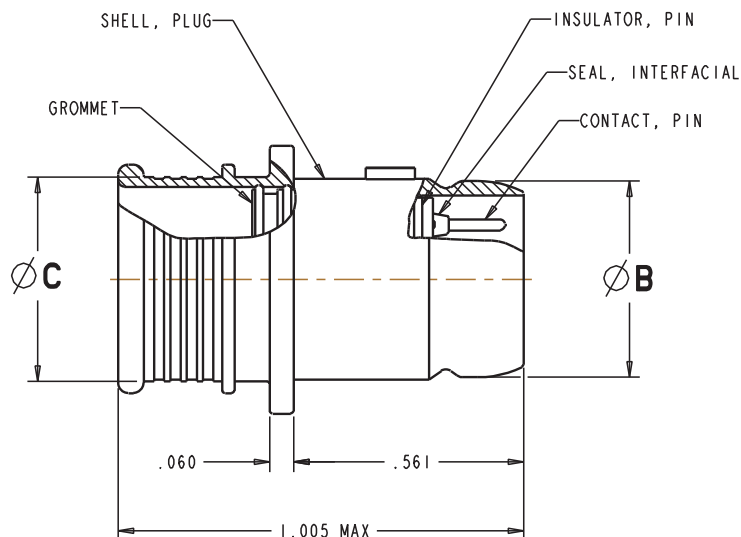
Specifications

Contact Type	Rear crimp
Contacts	Size 23 (0.076" spacing), Size 16 (.177" spacing)
Wire Size	#22 - #28 AWG (Size 23 Contacts), #16 - #20 AWG (Size 16 Contacts)
Contact Rating	5 Amps Maximum
Voltage Rating	500 VAC RMS sea level
Insulation Resistance	5,000 Megaohms minimum
Operating Temperature	-55°C to +150°C
Contact Resistance	8 Milliohms maximum
Vibration	20 g's in accordance with MIL-STD-1344 Method 2005, Condition IV
Shock	50 g's in accordance with MIL-STD-1344 Method 2004, Condition E
Durability	2,000 mating cycles
Receptacle Mounting	Jam Nut
EMI Shielding	400db attenuation, 100Mhz to 1000Mhz
Coupling	Quick disconnect (Canted Spring)
Materials	Shells - Aluminum Alloy or Stainless Steel Insulators - Thermoplastic Seals - Flurosilicone Contacts - Copper alloy with gold over nickel plating Canted Coil - Stainless Steel

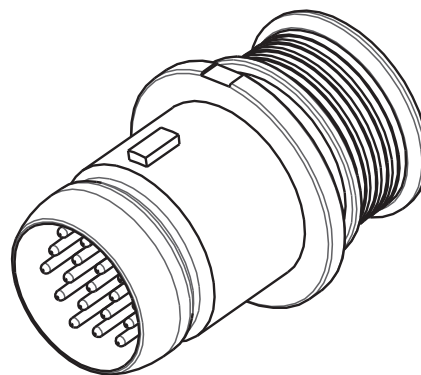
Mini Circular

B

MKJ4 Plug (Banding Platform)



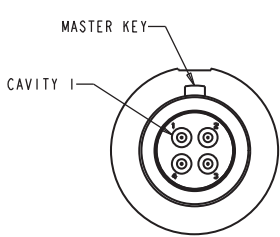
Socket Insert



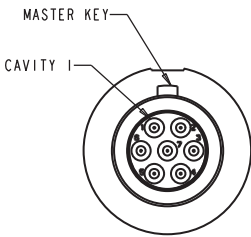
Pin Insert

MKJ4 PLUG DIMENSIONS					
LAYOUT	Ø A	Ø B	Ø C	MAX WEIGHT IN GRAMS	
				PIN	SOCKET
6-4	.485	.310	.290	2.5	3.0
6-7	.485	.310	.290	2.6	3.1
7-10	.565	.380	.390	3.7	4.5
9-19	.660	.480	.500	5.1	6.6

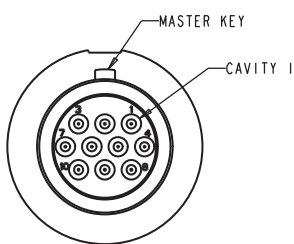
Connector Orientation Front Side



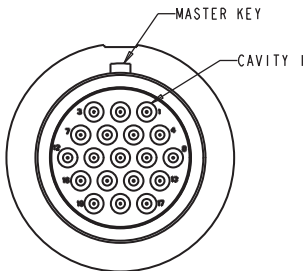
6-4 LAYOUT



6-7 LAYOUT



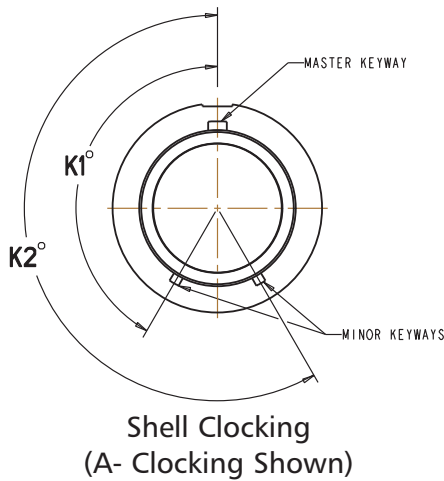
7-10 LAYOUT



9-19 LAYOUT

Note: Pin insert front side shown for reference only. Socket insert is a mirror image. Connectors shown without minor keys.

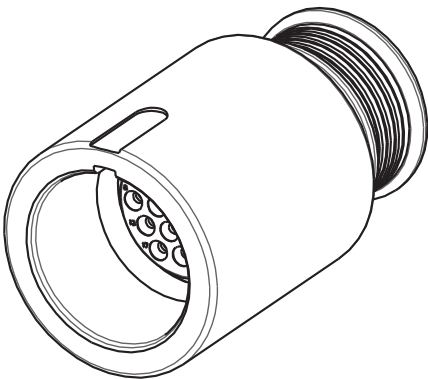
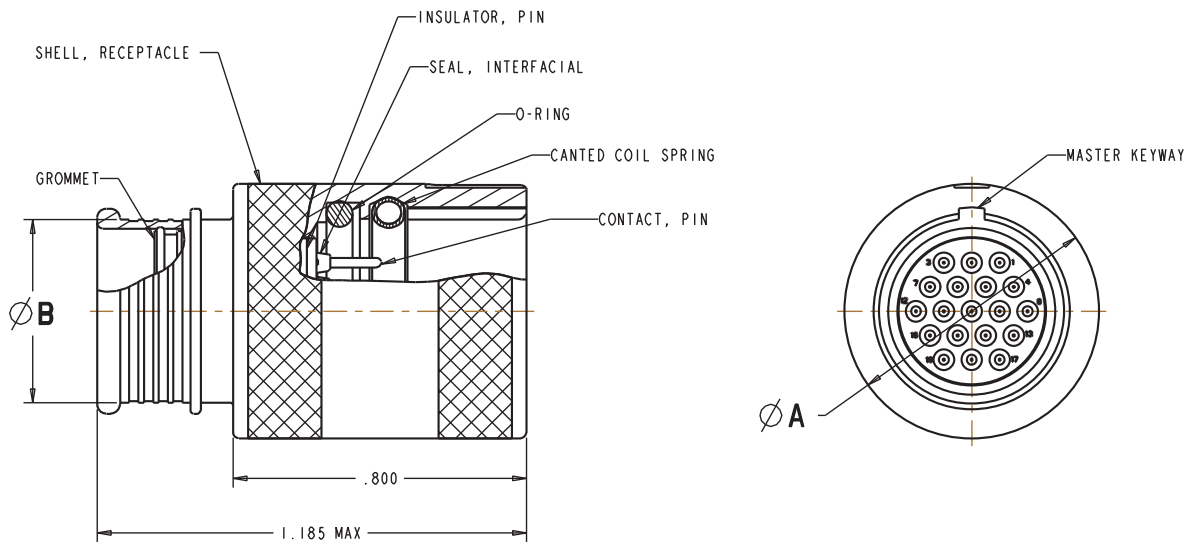
MKJ4 Receptacle Shell Clocking Positions



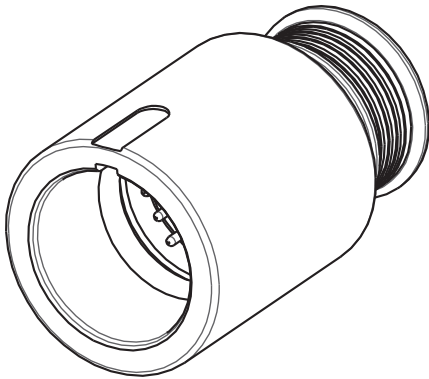
For all Shell Sizes and Clockings, the Master Keyway remains stationary at top dead center, with minor keys rotating to achieve alternate clocking positions.

SHELL CLOCKING		
POSITION	K1°	K2°
A (NORMAL)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
NO DESIGNATION	MASTER KEY ONLY NO MINOR KEYS	

MKJ4 In-Line Receptacle (Banding Platform)



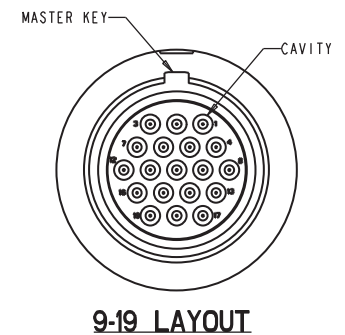
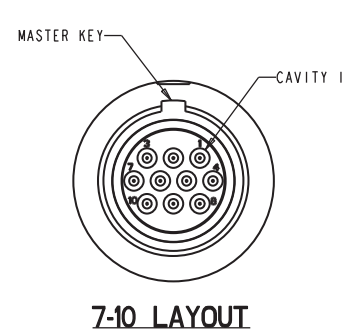
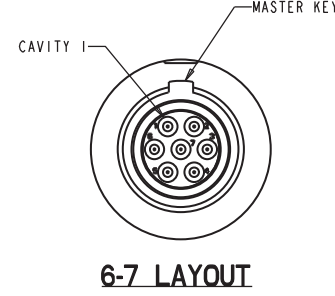
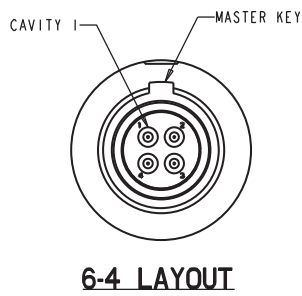
Socket Insert



Pin Insert

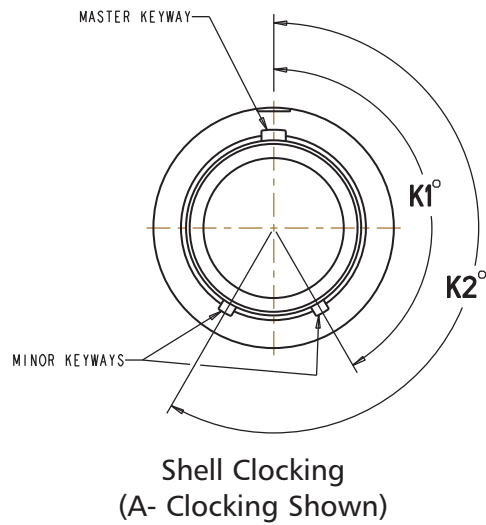
MKJ4 RECEPTACLE DIMENSIONS				
LAYOUT	Ø A	Ø B	MAX WEIGHT IN GRAMS	
			PIN	SOCKET
6-4	.520	.290	6.3	6.8
6-7	.520	.290	6.4	6.9
7-10	.580	.390	7.8	8.6
9-19	.695	.500	10.7	12.1

Receptacle Connector Orientation Front Side



Note: Pin insert front side shown for reference only. Socket insert is a mirror image.
Connectors shown without minor key ways.

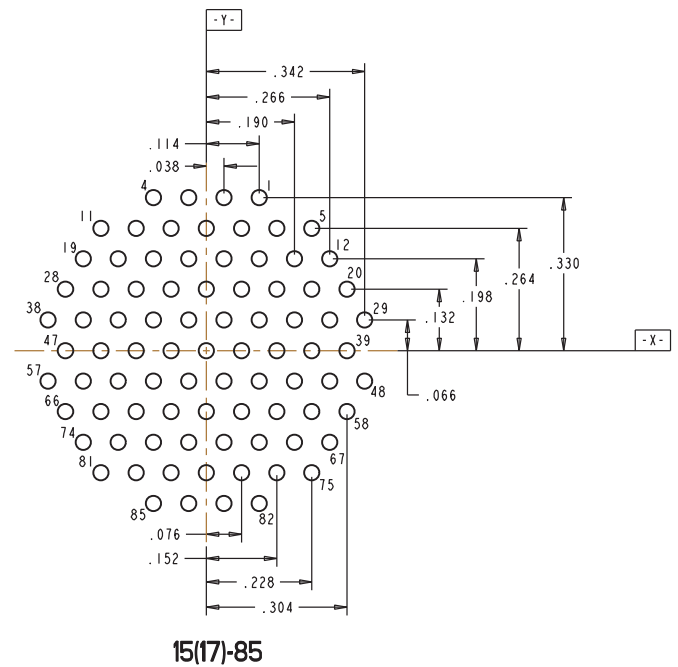
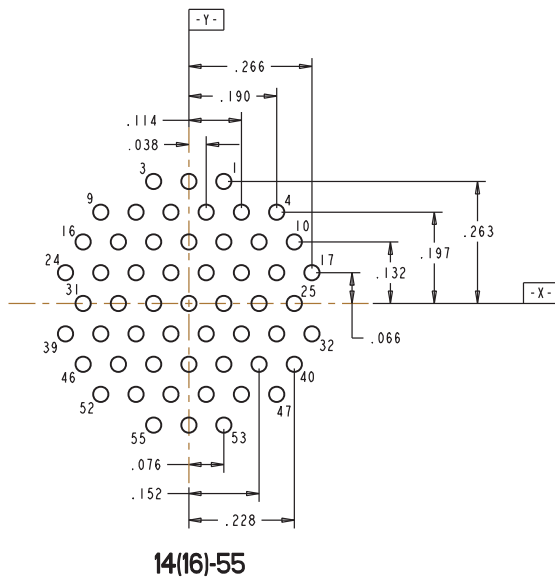
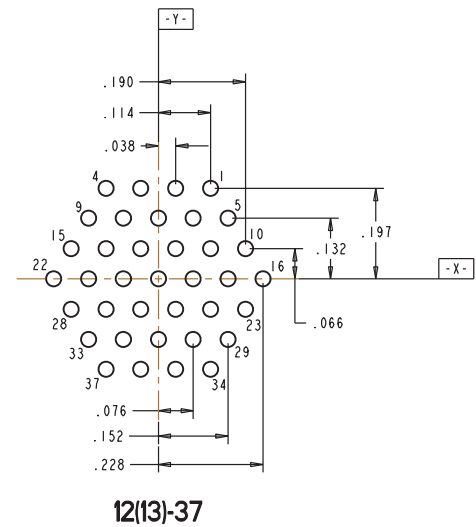
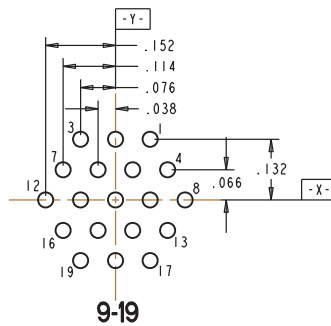
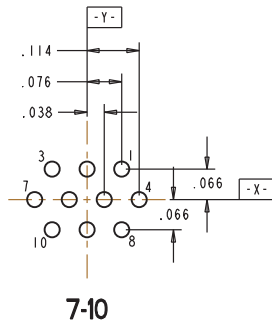
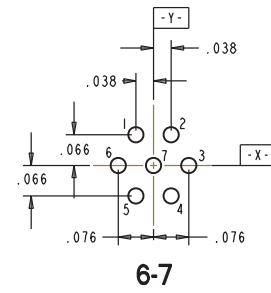
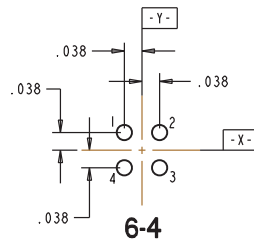
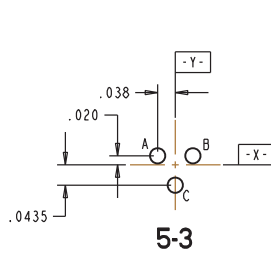
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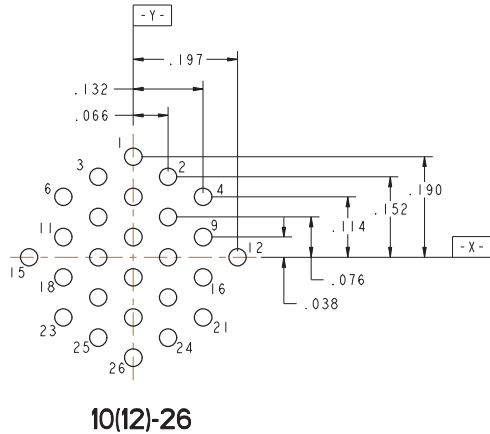
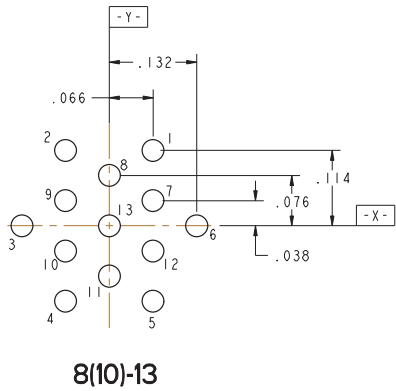
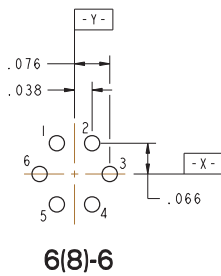
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PCB Layout Dimensions



Note: Layouts for pin connectors shown. Socket connectors are a mirror image.

PCB Layout Dimensions



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Mini Circular

Format Sheet-Tooling and Contacts MKJ

Crimp Contacts

- Pin Contacts (Size 23) 030-9649-000
- Socket contacts (Size 23) 031-9750-000

Contact Area Plating:

50 Micro inches Gold over Nickel
Accommodates Sizes #22-28 AWG Wire



Crimp Tool

- Contact Crimp Tool 995-0002-293
- Locator 995-0002-297

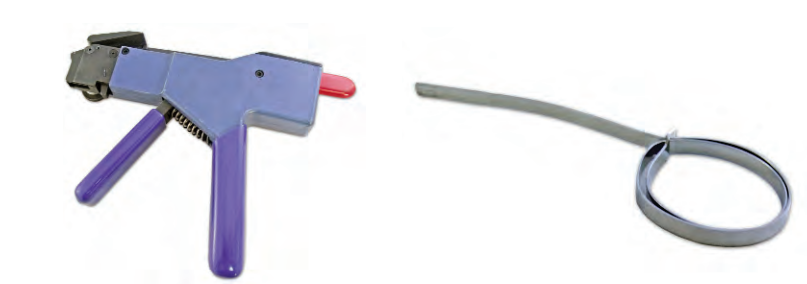


Contact Insertion/Extraction Tools

- Insertion Tool 995-0002-295
- Extraction Tool 995-0002-294

Banding Tools

- Hand banding Tool 995-0002-298
- 1/8" bands (100 pk) 995-0002-299



Banding Tools

PART NUMBER	USE ON JAMNUT SIZE / PN
317-2187-000	MKJ1 (6) MKJ0 (7)
317-2187-001	MKJ1 (7) MKJ0 (9)
317-2187-002	MKJ1 (9)
317-2187-003	MKJ1 (13)
317-2187-006	MKJ0 (6)
317-2187-007	MKJ0 (12)



Dimensions shown in inches (mm)
Specifications and dimensions subject to change

MKJ Accessories

Backshells

MKJ Banding Backshell Designator - Talking Dog

MKJB

Straight/90°

S=Straight

N=90°

C= Clamp

Backshell Designator

1, 2, 3, 4, 5, 6,

7, 8

(See Below Table)

S - 7 - 6 - W

Plating

W= OD Cad/Ni

F = Nickel

Length (straight)

6 = .750"

8 = 1.00"

0 = 90° or Clamp Version

Shell Material: 6061-T6 Aluminum

Clamp

Straight

90°



B

Mini Circular

Backshell Designator Table

Backshell Designator	1	2	3	4		5		6		7		8	
Shell Style	MKJ0, MKJ1, MKJ3, MKJ4	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5	MKJ0, MKJ1, MKJ3, MKJ4	MKJ5
Shell Size	(05) Straight	(06) Straight	(08) Straight	(07) Straight	(09) Straight	(08) Straight	(10) Straight	(09) Straight	(11) Straight	(10) Straight	(12) Straight	(12) Straight	(13) Straight

Heat Shrink Boot

MKJ Heat Shrink Boot P/N's - Straight

Shell Size	ITT P/N
5, 6, 7	980-2010-017
8, 9	980-2010-018
10, 11, 12, 13	980-2010-019

Material: Fluid resistant elastomer

Adhesive: Polyamide hot melt

MKJ Heat Shrink Boot P/N's - 90°

Shell Size	ITT P/N
5, 6, 7	980-2010-020
8, 9	980-2010-021
10, 11, 12, 13	980-2010-022

Metal Dust Caps

MKJ Aluminum Dustcap Designator- Talking Dog

MKJD

Shell Style

0, 1, 3, 4, 5

Shell Size

5, 6, 7, 8, 9,

11, 12 , 13

1 - 7 - P - F

Plating

W= OD Cad

F = Nickel

Z = Black Zinc Nickel

Gender

P= Plug

R= Receptacle

Shell Material: Alluminum Alloy



No size 11 or 12 dustcaps are available on MKJ1
No size 11 or 13 dustcaps are available on MKJ0, MKJ3, & MKJ4
No size 5, 6, 7, or 13 dustcaps are available on MKJ5