

MIL-C-38999 Series I LJT Series Bayonet Coupled Crimp Circular Connectors

Features

- Lightweight Space-saving design
- Durability – 500 cycles
- EMI Shielded
- 100% Scoop-proof

Customer Options

Shell sizes	– 9
Contact arrangements	– 100+
Circuit sizes	– 1 to 128

Specifications

Operating Temperature	– -55°C up to 200°C
Current Rating	
Contact Size 20	– 7.5A
Contact Size 16	– 13A
Voltage Rating (sea level)	
Service Rating I	– 600VAC(rms)
Service Rating II	– 900VAC(rms)

Tooling

Crimp Tool	– M22520/1-01
Positioner	– M22520/1-04
Insert/Remove*	– M81969/14-03**
Insert/Remove*	– M81969/14-10***

* Plastic Tool ** For Size 16 Contacts. *** For Size 20 Contacts

Related Information

Detailed catalogue – 12-090-14
Solder, PCB, Wire Wrap, Coax, Fiber & Filter optional

Part Number System: (refer to Part Number Make-up for assistance – opposite)

LJT XX XX-XX-X X X (X)

CONNECTOR TYPE

LJT: Standard Mil-C-38999 I
High Temperature, Chemical & Fuel
Resistant versions available upon request

SHELL STYLE

- 00: Wall Mount Receptacle
- 01: Line Receptacle
- 02: Box Mount Receptacle
- 06: Straight Plug
- 07: Jam-Nut Receptacle
- 08: 90° Plug (AAO)
- I: Solder Mount Rec. (Hermetic only)

SERVICE CLASS

- RP: Potting Boot + Grommet
- RE: Environmental Sealed Can add SR
- RT: Environmental w/o rear Accessory
- Y: Hermetically Sealed
- A: Fixed Solder Contacts (LTD only)

For Cadmium-free Zinc Cobalt plating consult representative SR = Strain Relief

DEVIATIONS

Finish	Suffix	WSR Suffix
Cadmium Plated Ni Base		(SR)
Olive Drab Cadmium Plated, Ni Base	(014)	(386)
Electroless Ni	(023)	(424)
Anodic Coating (Alumilite)	(005)	(300)
Chromate treated (Iridite 14-2)	(011)	(344)

ALTERNATE KEYING

Blank: Normal Position
See detailed catalogue for variations

CONTACT STYLE

- P: Pins
- S: Sockets

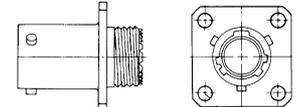
INSERT ARRANGEMENTS

See Insert Arrangement Table
(page C-12 and C-13)

SHELL SIZE

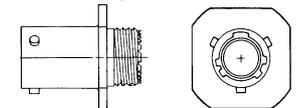
See Insert Arrangement Table
(page C-12 and C-13)

Part Number Make-up LJT00...



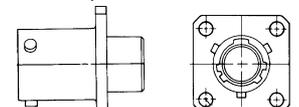
Wall Mount Receptacle

Part Number Make-up LJT01RE... LTJ01A...



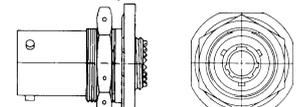
Line Receptacle

Part Number Make-up LJT02RE... LTJ02A... Cannot add SR



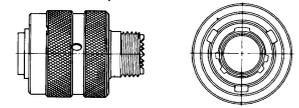
Box Mount Receptacle

Part Number Make-up LJT07...



Jam Nut Receptacle

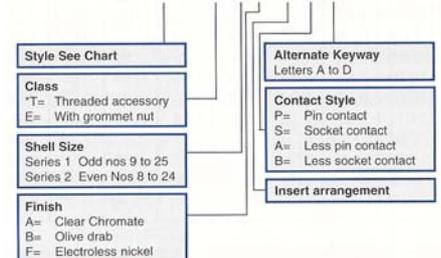
Part Number Make-up LJT06...



Straight Plug

MS Part Numbering System

MS27467 T-11B-35 S A



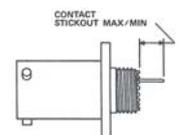
* Not available in box mount receptacle style

Style Chart Series 1

Style	LJT	MS Series 1	BS Series	HE308
Wall mount receptacle	00	27466	C6160	00
Back wall mount receptacle	PQ00	27856	C6163	
Box mount receptacle	02	27496	C6162	
Long box mount receptacle	02 (853)	-	-	-
	07	27468	C6167	07
Back box receptacle	P02	27505	C6164	
Grounded plug	06	27467	C6166	06

Contacts – PCB, Wire Wrap

See page C-13 for a list of PINS, SOCKETS, COAX and POWER contacts available.



For further variations and information, consult representative

LJT Accessories – Cable Clamp for Crimp type Housing (if ordered separately to connector)

Part Number System:	Finish (-XX9 standard)	Diagram
10-405982-XXX	Chromate Treat –XX0	
SHELL SIZE 9/11/13/15/17/19/21/23/25	Anodic Coating –XX5	
	Cadmium Plated Nickel Base –XX7	
FINISH See adjacent table	Olive Drab, Cadmium, Nickel Base –XX9	
	Electroless Nickel –XXG	

LJT Accessories – Heat Shrinkable Backshells (shielded)

Part Number:	Shell Size	Finish	Type	Backshell Configuration (-X)			Diagram
				-1	-2	-3	
ABK A-WAR-X	9	Olive Drab Cadmium	Shielded	Straight	45°	Right Angle	
ABK A-WBR-X	11						
ABK A-WCR-X	13						
ABK A-WDR-X	15						
ABK A-WER-X	17						
ABK A-WFR-X	19						
ABK A-WGR-X	21						
ABK A-WHR-X	23						
ABK A-WJR-X	25						

Alternatives: Unshielded Replace R with U, Electroless Nickel replace W with F.

LJT Accessories - Caps

Shell Size	Part Numbers:		Chain length	Cap & Chain for Receptacle Cadmium Plate, Ni Base		Chain length
	Cap & Chain for Plugs Cadmium Plate, Ni Base			Cap & Chain for Receptacle Cadmium Plate, Ni Base		
9	10-421399-099		76.2mm	10-427406-099		76.2mm
11	10-421399-119			10-427406-119		
13	10-421399-139			10-427406-139		
15	10-421399-159		88.9mm	10-427406-159		88.9mm
17	10-421399-179			10-427406-179		
19	10-421399-199			10-427406-199		
21	10-421399-219		101.6mm	10-427406-219		101.6mm
23	10-421399-239			10-427406-239		
25	10-421399-259			10-427406-259		
Diagram						

Alternate Cap finishes (Replace last digit): 0=Chromate, 5=Anodic, G=Electroless Ni
Connectors individually packaged with crimp contacts (bulk contacts available) and insert/extract tool.

MIL-C-38999 Series II JT Series Bayonet Coupled Crimp Circular Connectors

Features

- Lightweight Space-saving design
- Durability – 500 cycles
- EMI Shielded Optional

Customer Options

Shell sizes	– 9
Contact arrangements	– 100+
Circuit sizes	– 1 to 128

Specifications

Operating Temperature	– -55°C up to 200°C
Current Rating	
Contact Size 20	– 7.5A
Contact Size 16	– 13A
Voltage Rating (sea level)	
Service Rating I	– 600VAC(rms)
Service Rating II	– 900VAC(rms)

Tooling

Crimp Tool	– M22520/1-01
Positioner	– M22520/1-04
Insert/Remove*	– M81969/14-03**
Insert/Remove*	– M81969/14-10***

* Plastic Tool ** For Size 16 Contacts. *** For Size 20 Contacts

Related Information

Detailed catalogue – 12-090-14
Solder, PCB, Wire Wrap, Coax, Fiber & Filter optional

Part Number System: (refer to Part Number Make-up for assistance – opposite)

JT XX XX-XX-X X X (X)

CONNECTOR TYPE

JT: Standard Mil-C-38999 II
JTS: High Temperature
JTN: Chemical & Fuel Resistant

SHELL STYLE

00: Wall Mount Receptacle
01: Line Receptacle
02: Box Mount Receptacle
06: Straight Plug
07: Jam-Nut Receptacle
08: 90° Plug (AAO)
I: Solder Mount Rec. (Hermetic only)

SERVICE CLASS

RP: Potting Boot + Grommet
RE: Environmental Sealed Can add SR
RT: Environmental w/o rear Accessory
Y: Hermetically Sealed
A: Fixed Solder Contacts (LTD only)

For Cadmium-free Zinc Cobalt plating consult representative SR = Strain Relief

DEVIATIONS

Finish	Suffix	WSR Suffix
Cadmium Plated Ni Base		(SR)
Olive Drab Cadmium Plated, Ni Base	(014)	(386)
Electroless Ni	(023)	(424)
Anodic Coating (Alumilite)	(005)	(300)
Chromate treated (Iridite 14-2)	(011)	(344)

ALTERNATE KEYING

Blank: Normal Position
See detailed catalogue for variations

CONTACT STYLE

P: Pins
S: Sockets

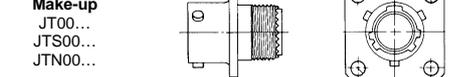
INSERT ARRANGEMENTS

See Insert Arrangement Table (page C-12 and C-13)

SHELL SIZE

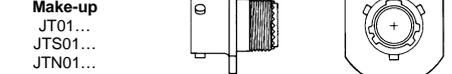
See Insert Arrangement Table (page C-12 and C-13)

Part Number Make-up



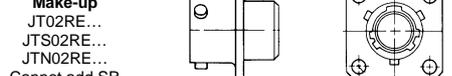
Wall Mount Receptacle

Part Number Make-up



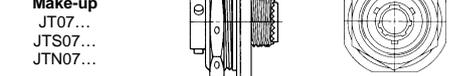
Line Receptacle

Part Number Make-up



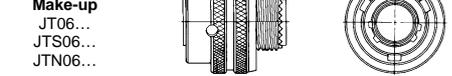
Box Mount Receptacle

Part Number Make-up



Jam Nut Receptacle

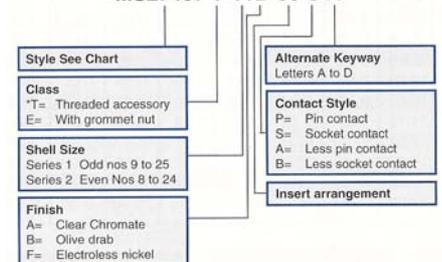
Part Number Make-up



Straight Plug

MS Part Numbering System

MS27467 T-11B-35 S A



* Not available in box mount receptacle style

Style Chart Series 2

Style	JT	Pan	BS series 2	MS series 2	HE309
Wall mount receptacle	00	-	C2022	27472	
Back wall mount receptacle	PO00	B	C2023	27497	03
Box mount receptacle	02	-	C2251	27499	
Long box mount receptacle	02 (053)	-	C2552	27513	
Jam nut	07	A	C2024	27474	07
Back box receptacle	P02	E	C2253	27508	
Plug	06	F	C2020	27473	06
Grounded plug	G06	FG	C2021	27484	G06

Contacts – PCB, Wire Wrap

See page C-13 for a list of PINS, SOCKETS, COAX and POWER contacts available



JT Accessories – Cable Clamp for Crimp type Housing (if ordered separately to connector)

Part Number System:	Finish (-XX9 standard)	Diagram
10-405982-XXX	Chromate Treat -XX0	
SHELL SIZE 8/10/12/14/16/18/20/22/24	Anodic Coating -XX5	
FINISH See adjacent table	Cadmium Plated Nickel Base -XX7	
	Olive Drab, Cadmium, Nickel Base -XX9	
	Electroless Nickel -XXG	

JT Accessories – Heat Shrinkable Backshells (shielded)

Part Number:	Shell Size	Finish	Type	Backshell Configuration (-X)			Diagram
				-1	-2	-3	
ABK A-WAR-X	8	Olive Drab Cadmium	Shielded	Straight	45°	Right Angle	
ABK A-WBR-X	10						
ABK A-WCR-X	12						
ABK A-WDR-X	14						
ABK A-WER-X	16						
ABK A-WFR-X	18						
ABK A-WGR-X	20						
ABK A-WHR-X	22						
ABK A-WJR-X	24						

Alternatives: Unshielded Replace R with U, Electroless Nickel replace W with F.

JT Accessories - Caps

Shell Size	Part Numbers:		Chain length	Chain length
	Cap & Chain for Plugs Cadmium Plate, Ni Base	Cap & Chain for Receptacle Cadmium Plate, Ni Base		
8	10-241801-089	10-241800-089	76.2mm	76.2mm
10	10-241801-109	10-241800-109		
12	10-241801-129	10-241800-129		
14	10-241801-149	10-241800-149	88.9mm	88.9mm
16	10-241801-169	10-241800-169		
18	10-241801-189	10-241800-189		
20	10-241801-209	10-241800-209	101.6mm	101.6mm
22	10-241801-229	10-241800-229		
24	10-241801-249	10-241800-249		

Alternate Cap finishes (Replace last digit): 0=Chromate, 5=Anodic, G=Electroless Ni
Connectors individually packaged with crimp contacts (bulk contacts available) and insert/extract tool.

MIL-C-38999 Series III Tri-Start Series Threaded Coupled Crimp Circular Connectors

Features

- Metal & Composite shells available
- Composite up to 70% lighter than metal
- Durability – up to 1500 cycles
- EMI Shielded Min 65dB @ 10GHz
- 100% Scoop-proof
- ESD protected
- Anti-Decoupling Device

Specifications

- Operating Temperature – -55°C up to 200°C
- Current Rating
- Contact Size 20 – 7.5A
- Contact Size 16 – 13A
- Voltage Rating (sea level)
- Service Rating I – 600VAC(rms)
- Service Rating II – 900VAC(rms)

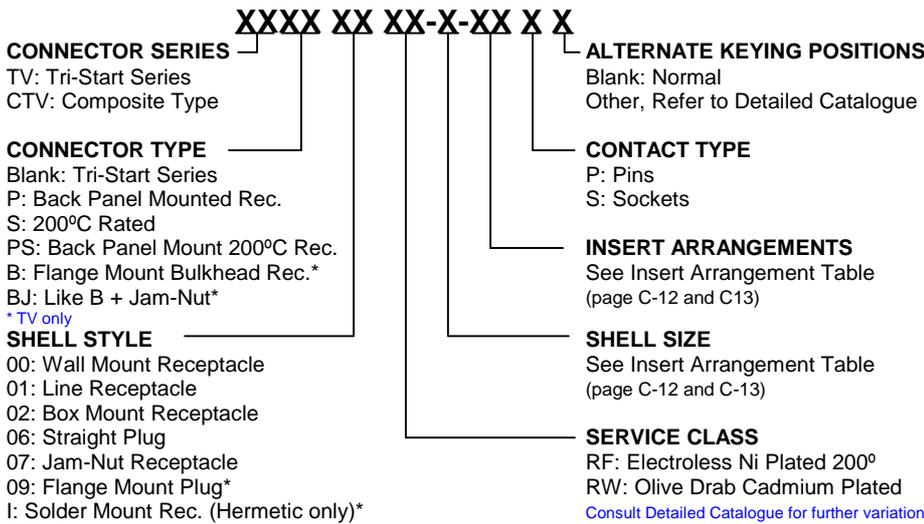
Related Information

- Detailed catalogue – 12-092-10
- Shell sizes – 9, Insert arrangements – 58,
- Circuit sizes – 2 to 128
- [Solder, PCB, Wire Wrap, Coax, Fiber & Filter optional](#)

Tooling

- Crimp Tool – M22520/1-01
- Positioner – M22520/1-04
- Insert/Remove (Plastic) – M81969/14-03 (Contact 16)
- Insert/Remove (Plastic) – M81969/14-10 (Contact 20)

Part Number System: (refer to Part Number Make-up for assistance – opposite)



For Black Anodized finish or Cadmium-free Zinc Cobalt plating consult representative
Marine Nickel Aluminum Bronze for Naval Applications available upon request

TV Accessories – Cable Clamp

Part Number System:	Finish (-XX9 standard)	Diagram
10-595103-XXX	Chromate Treat -XX0	
SHELL SIZE 9/11/13/15/17/19/21/23/25	Anodic Coating -XX5	
	Cadmium Plated Nickel Base -XX7	
	Olive Drab, Cadmium, Nickel Base -XX9	
	Electroless Nickel -XXG	
FINISH See adjacent table		

TV Accessories – Heat Shrinkable Backshells (shielded)

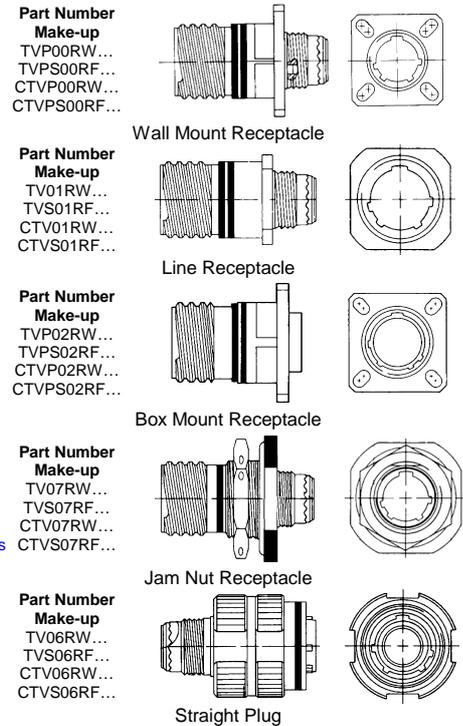
Part Number:	Shell Size	Finish	Type	Backshell Configuration (-X)			Diagram
				-1	-2	-3	
ABK B-WAR-X	9	Olive Drab Cadmium	Shielded	Straight	45°	Right Angle	
ABK B-WBR-X	11						
ABK B-WCR-X	13						
ABK B-WDR-X	15						
ABK B-WER-X	17						
ABK B-WFR-X	19						
ABK B-WGR-X	21						
ABK B-WHR-X	23						
ABK B-WJR-X	25						

Alternatives: Unshielded Replace R with U, Electroless Nickel replace W with F

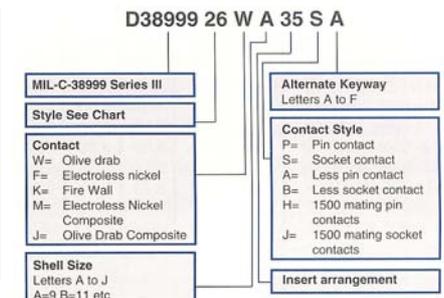
TV Accessories - Caps

Shell Size	Part Numbers:			
	Cap & Chain with Plug Ring for Plugs	Chain length	Cap & Chain with Receptacle Ring for Rec.	Chain length
9	10-553998-099	127mm + Ring	10-553120-099	88.9mm + Ring
11	10-553998-119			
13	10-553998-139			
15	10-553998-159			
17	10-553998-179			
19	10-553998-199			
21	10-553998-219			
23	10-553998-239			
25	10-553998-259			
Diagram				

Connectors individually packaged with crimp contacts (bulk contacts available) and insert/extract tool.



MS Part Numbering System

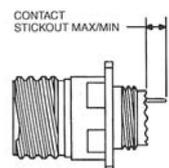


Style Chart Series 3

Style	TV	D38999	BS Series 3	JN1034
Back wall mount receptacle	(S) P00	20	C6170	A
Jam nut	(S) 07	24	C6177	B
Back box receptacle	(S) P02	-	-	F
Grounded plug	(S) 06	26	C6176	G
Lanyard release	FBR	31	-	E

Contacts – PCB, Wire Wrap

See page C-13 for a list of PINS, SOCKETS, COAX and POWER contacts available.



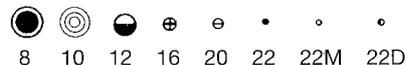
For further variations and information, consult representative

Mil-C-38999 Insert Arrangements

Series I	8-2	9-3	9-6	9-7	9-22	9-35	9-44	8-97	9-98	10-01	11-2	11-4	11-5
Series II	8-3	8-6	9-7	9-22	8-35	8-44	8-97	9-98	8-98	11-01	11-2	10-4	10-5
Series III	8-3	8-6	9-7	9-22	9-35	8-44	8-97	9-98	8-98	11-01	11-2	10-4	10-5
Rating	M	M	M	M	I	M	M	M	I	M	I	I	I
Contacts	2x20	3x20	6x22M	7x22M	2x20	6x22D	4x22	2x20 2x22M	3x20	1x8(twinax)***	2x16	4x20	5x20
Series I	11-6	11-13	11-35	11-98	11-99	13-3	13-4	13-8	13-22	13-35			
Series II	11-6	10-13	10-35	10-98	10-99	12-3	12-4	12-8	12-22	12-35			
Series III	11-6	10-13	10-35	10-98	10-99	12-3	12-4	12-8	12-22	12-35			
Rating	I	M	M	I	I	II	I	I	M	M			
Contacts	6x20	13x22M	13x22D*	6x20	7x20	3x16	4x16*	8x20	22x22M	22x22D*			
Series I	13-98	15-4	15-5	15-15	15-18	15-19	15-35	15-37					
Series II	12-98	14-4	14-5	14-15	14-18	14-19	14-35	14-37					
Series III	13-98	14-4	14-5	14-15	14-18	14-19	14-35	14-37					
Rating	I	I	II	II	I	I	M	M					
Contacts	10x20*	4x12	5x16*	14x20 1x16	18x20	19x20*	37x22D*	37x22M					
Series I	15-68	15-97	17-2	17-6	17-8	17-13	17-22(US)	17-26					
Series II	14-68	14-97	17-2	16-6	16-8	16-13	17-22(US)	16-26					
Series III	13-98	15-97	17-2	16-6	16-8	16-13	17-22(US)	16-26					
Rating	I	I	M	I	II	I	M	I					
Contacts	8x16	8x20 4x16*	38x22D 1x8(Coax)	6X12*	8x16*	13x16	2x12(Coax) 2x8(Coax)	26x20*					
Series I	17-35	17-42	17-55	17-99	19-11	18-11	18-17	19-28					
Series II	16-35	16-42	16-55	16-99	18-11	18-11	19-17	18-28					
Series III	17-35	16-42	16-55	17-99	19-11	19-11	19-17	18-28					
Rating	M	M	M	I	II	II	M	I					
Contacts	55x22D*	42x22	55x22M	21x20 2x16*	11x16*	11x16*	1x20 4x12 2x8(twinax)***	26x20 2x16					
Series I	19-32	19-35	19-53	19-66	19-67	19-68	18-96	21-1					
Series II	18-32	18-35	18-53	18-66	19-67	18-68	18-96	20-1					
Series III	19-32	19-35	18-53	18-66	19-67	18-68	18-96	20-1					
Rating	I	M	M	M	M	I	I	M					
Contacts	32x20*	66x22D*	53x22	66x22M	67x22M	18x16	9x12	79x22M					
Series I	21-2	21-11	21-16	21-24	21-25	21-27	21-35	21-39					
Series II	20-2	20-11	20-16	21-24	21-25	21-27	20-35	20-39					
Series III	20-2	20-11	20-16	21-24	21-25	21-27	21-35	21-39					
Rating	M	I	II	I	I	I	M	I					
Contacts	65x22	11x12*	16x16*	24x20	25x20	27x20	79x22D*	37x20 2x16*					
Series I	21-41	21-75	21-79	23-1	23-2	23-5	23-6	23-14					
Series II	20-41	21-75	21-79	22-1	22-2	23-5	23-6	22-14					
Series III	21-41	21-75	21-79	22-1	22-2	23-5	23-6	22-14					
Rating	I	M	II	M	M	M	M	I					
Contacts	41x20*	4x8(Coax)*	17x22D 2x8(Twinax)	100x22M	85x22	5x8(Twinax)	6x8(Twinax)	14x12					

Contact Legend

Front end of pins illustrated



For further variations and information, consult representative

Mil-C-38999 Insert Arrangements continued

Series I Series II Series III Rating Contacts	23-21 22-21 23-21 II 21x16*	23-32 22-32 I 32x20	23-34 I 34x20	23-35 22-35 23-35 M 100x22D*	23-36 I 36x20	23-53 22-53 23-53 I 53x20*	23-54 M 40x22D 9x16 4x12	23-55 22-55 23-55 I 55x20
Series I Series II Series III Rating Contacts	23-97 II 16x16	23-99 II 11x16	25-1 24-1 M 128x22M	25-2 24-2 M 100x22	25-4 24-4 25-4 I 48x20 8x16	25-7 25-7 M 97x22D 2x8(Twinax)	25-8 M 8x8(Twinax)**	25-11 N 2x20 9x10
Series I Series II Series III Rating Contacts	25-17 M 36x22D 6x8(Twinax)**	25-19 24-19 25-19 I 19x12	25-20 25-20 N 10x20 13x16 3x8(Twinax) 4x12(Coax)	25-24 24-24 25-24 I 12x16 12x12	25-26 I 16x20 5x12 4x8(Coax)	25-29 24-29 25-29 I 29x16	25-35 24-35 25-35 M 128x22D	25-37 24-37 25-37 I 37x16
						<p>Contact Legend Front end of pins illustrated</p>		
Series I Series II Series III Rating Contacts	25-43 24-43 25-43 I 23x20 20x16	25-46 I 40x20 4x16 2x8(Coax)	25-61 24-61 25-61 I 61x20	25-61 24-61 25-61 I 61x20	25-64 N 22x22D 3x20 11x16 2x12 3x8(Twinax)**	M 18x22D 28x20 18x16***		

C

Contacts

Size	Crimp Contacts			PCB Contacts		
	Pins	Sockets		Pins	Sockets	
8 (Coax)*	LJT/JT/TV/CTV 21-33102-21	JT N/A	LJT/TV/CTV 21-33101-21	LJT/JT/TV/CTV 21-33967-15(LJT/TV/CTV)	JT	LJT/TV/CTV 21-33921-15
8 (Twinax)**	21-33190-529	N/A	21-33191-530			
10 Power	10-251415-105	N/A	10-407035-105			
12	10-251415-12H	10-251416-125	10-597261-121	10-597502-15		
16	10-251415-165	10-251416-165	10-597261-161	10-497695-15	10-497631-25	10-497650-15
20	LP-251415-205	10-597261-202	10-597261-201	10-497640-15	10-497641-25	10-497643-15
22	10-251415-225(JT/LJT)	10-251416-225	10-407035-225(LJT)			
22M	10-251415-235(JT/LJT)	10-251416-235	10-407035-235(LJT)	10-407552-15	10-407553-15	
22D	LP-251415-725	10-597261-722	10-597261-721			10-497623-15

* Coax cable RG 180B/U & RG195A/U

** Twinax cable M17/M176-00002

Please request technical information to verify dimensions and application. Various other dimension options are available upon request. Fibre Optic options are available.

For PCB Pin & Socket Ø, maximum & Minimum stick-out – contact representative

AAO

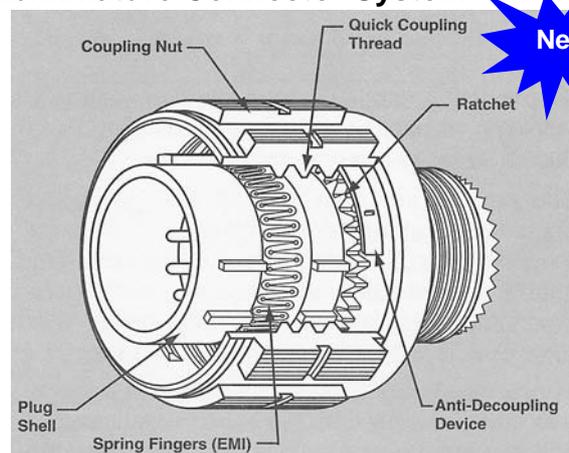
Amphe-Lite Series Commercial 38999 Subminiature Connector System

Features

- Based on the Mil-C-38999 Series III Connector System
- Up to 30% more economical than composite connectors (CTV)
- Class F provides – EMI Shielded and grounded thru electroless nickel plating and spring grounding rings
- Class X – Non-conductive version
- Resists severe corrosion (Salt spray test to minimum 2000Hrs)
- One turn for complete mate
- Scoop-proof
- Can be fitted with Signal, Power, RF and Fibre Optic Contacts
- Detailed Catalogue 12-094

For ordering information please contact an Amphenol representative.

AAO 12-094



For further variations and information, consult representative