Amphenol
SJT Series

TABLE OF CONTENTS

Amphenol SJT Connectors -
Scoop-Proof Design of LJT Series & Standard Mounting Dimensions of JT Series - Meet European Specification Applications

SJT Shell Styles:

SJT Typical Markets:

- Military & Commercial Aviation (older designs)
- Applications Complaint with European Specifications:
  PAN6433-2, LN29729, VG96912
- Military Vehicles

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Amphenol® SJT connectors combine unique design features of the scoop-proof LJT series within standard mounting dimensions of JT types. Available in a wide range of shell sizes, finishes, insert arrangements and accessories, the SJT features:

- **100% scoop-proof design** – basic MIL-DTL-38999 Series I* lengths
- **Standard mounting dimensions** – MIL-DTL-38999, Series III** dimensions
- **Compliance with European Specifications** – PAN6433-2, LN29729, VG96912

Components

Standard connectors use aluminum shells. Standard plating on shell components is cadmium over nickel with many optional finishes available. A dependable 5-key/keyway shell polarization with bayonet-lock coupling is incorporated to aid and assure positive mating.

The insert material is a high-temperature, rigid dielectric polymer providing excellent electrical characteristics. A fluorinated silicone interfacial seal is featured on the mating face of the pin inserts, assuring complete electrical isolation of the pins when connector halves are mated. Contrasting letter or number designations are used on the insert faces. A main joint gasket is installed in the receptacles for moisture sealing between connector halves.

Serrated and threaded shells, with a moisture sealing pilot for back shells, accept a wide range of accessories.

Hermetic seal receptacles are available in carbon steel or stainless steel shells.

Contacts

Rear insertable/rear release crimp contacts are standard in SJT connectors. Power contacts are available in sizes 10, 12, 16, 20, 22M and 22D. All socket contacts are probe proof. Standard contact plating is 50 mμ minimum gold. Coaxial contacts are available in sizes 8, 12 and 16 to accommodate a wide range of coaxial cables; see Coaxial contact information in the High Speed Contact section of this catalog. Size 8 and 12 Twinax contacts are also available; see Concentric Twinax contact information in the High Speed Contact section of this catalog.

Optional Features

Special adaptations of the SJT are available for hermetic and high temperature applications. The SJTS high temperature connector is rated at 392°F. SJT hermetic receptacles are described on page 88.

Specials

Special types are available, such as connectors less contacts and circular rack and panel connectors with solderless wrap contacts. A complete listing of connector types, shell styles and service classes appears on page 83, How to Order. For further information on special application requirements, contact an Amphenol Sales Person or visit www.amphenol-aerospace.com/support to find a sales person in your area.

*MIL-DTL-38999 Series I supersedes MIL-C-38999 Series I.
**MIL-DTL-38999 Series III supersedes MIL-C-38999 Series III.

CONTACT RATING

Contact Size	Test Current		Maximum Millivolt Drop Crimp*	Maximum Millivolt Drop Hermetic
	Standard	Hermetic		
22M	3	2	45	60
22D	5	3	73	85
22	5	3	73	85
20	7.5	5	55	60
16	13	10	49	85
12	23	17	42	85
10 Power	33	NA	33	NA

* When using silver plated wire

Contact Size	Crimp Well Data	
	Well Diameter	Min. Well Depth
22M	.028 ±.001	.141
22D	.0345 ±.0010	.141
22	.0365 ±.0010	.141
20	.047 ±.001	.209
16	.067 ±.001	.209
12	.100 ±.002	.209
10 (Power)	.137 ±.002	.355

SERVICE RATING**

Service Rating	Suggested Operating Voltage (Sea Level)		Test Voltage (Sea Level)	Test Voltage 50,000 Ft.	Test Voltage 70,000 Ft.	Test Voltage 110,000 Ft.
	AC (RMS)	DC				
M	400	550	1300 VRMS	550 VRMS	350 VRMS	200 VRMS
N	300	450	1000 VRMS	400 VRMS	260 VRMS	200 VRMS
I	600	850	1800 VRMS	600 VRMS	400 VRMS	200 VRMS
II	900	1250	2300 VRMS	800 VRMS	500 VRMS	200 VRMS

** Please note that the establishment of electrical safety factors is left entirely in the designer's hands, since he is in the best possible position to know what peak voltage, switching surges, transients, etc., can be expected in a particular circuit.

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Easy Steps to build a part number... SJT

1.	2.	3.	4.	5.	6.	7.
Connector Type SJT	Shell Style	Service Class	Shell Size-Insert Arrangement.	Contact Type	Alternate Keying Position	Finish Variations Suffix
SJT	00	RT	18-66	P	A	(XXX)

Step 1. Select a Connector Type

	Designates
SJT	Standard scoop-proof Junior Tri-Lock Connector
SJTS	High Temperature Connector
SJTG	Plug with Grounding Fingers
SJTP	Back Panel Mounted

Step 2. Select a Shell Style

	Designates
00	Wall Mount Receptacle
06	Straight Plug
07	Jam Nut Receptacle
I	Solder Mount Receptacle – Hermetic

Step 3. Select a Service Class

	Designates
Y	For hermetic applications. . . Fused compression glass sealed inserts. Leakage rate less than 1.0 x 10^{-6} cc/sec. at 15 psi differential; with interfacial seal.
RT	For environmental applications – supplied without rear accessories. Design provides serrations on rear threads of shells with moisture sealing pilot for back shells.

For additional information defining complete description of service class, consult Amphenol, Sidney, NY.

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 84. To view Insert Arrangement illustrations see pgs. 8-12.

Shell Size & Insert Arrangements are together in one chart. First number represents Shell Size, second number is the Insert Arrangement. Only selected illustrations are available for SJT on pages 8-12. Please refer to chart on page 84 for select Insert Arrangements.

Step 5. Select a Contact Type

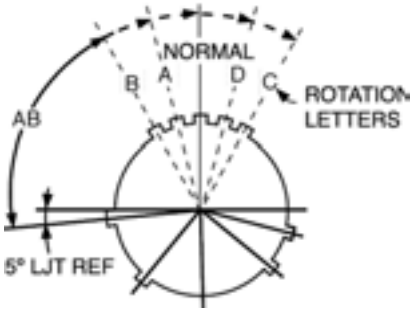
	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Select an Alternate Keying Position

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.
AB angles shown are viewed from the front face of the connector. A receptacle is shown below. The angles for the plug are exactly the same, except the direction of rotation is opposite of that shown for the receptacle.

Key/Keyway Rotation
AB ANGLE OF ROTATION (Degrees)

Shell Size	Normal	A	B	C	D
8	95				
10	95	81	67	123	109
12	95	75	63	127	115
14	95	74	61	129	116
16	95	77	65	125	113
18	95	77	65	125	113
20	95	77	65	125	113
22	95	80	69	121	110
24	95	80	69	121	110



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

Step 7. Select a Finish Variation Suffix

FINISH DATA

Aluminum Shell Components Non-Hermetic		
Finish	Suffix	Indicated Finish Standard for SJT Types
Bright Cadmium Plated Nickel Base		SJT/SJTG
Anodic Coating (Alumilite)	(005)	
Chromate Treated (Iridite 14-2)	(011)	
Olive Drab Cadmium Plate Nickel Base	(014)	
Electroless Nickel Coating	(023)	
Hermetic Connectors		
Carbon Steel Shell, Tin Plated Shell and Contacts		SJT( )Y
Stainless Steel Shell, Gold Plated Contacts	Consult Amphenol	

					Contact Size									
Shell Size	Crimp	Hermetics* Class Y	Service Rating	Total Contacts	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8††† (Twinax)
8-6	X		M	6		6								
8-35	X		M	6	6									
8-44	X		M	4			4							
8-98	X		I	3				3						
10-2	X		I	2					2					
10-4	✦		I	4				4						
10-5	X		I	5				5						
10-13	X		M	13		13								
10-35	X		M	13	13									
10-98	X		I	6				6						
12-4	X		I	4					4					
12-8	X		I	8				8						
12-22	X		M	22		22								
12-35	X		M	22	22									
12-98	X	X	I	10				10						
14-5	X		II	5					5					
14-15	X		I	15				14	1					
14-18	X		I	18				18						
14-19	X	X	I	19				19						
14-35	X	X	M	37	37									
14-37	X	X	M	37		37								
14-97	X		I	12				8	4					
16-2	✦		M	39	38									1**
16-6	X		I	6						6				
16-8	X		II	8					8					
16-13	✦		I	13					13					
16-26	X		I	26				26						
16-35	X		M	55	55									
16-42	X		M	42			42							
16-55	X		M	55		55								
16-99	X	X	I	23				21	2					
18-11	X		II	11					11					
18-32	X		I	32				32						
18-35	X	X	M	66	66									
18-66	X	X	M	66		66								
20-1	X	X	M	79		79								
20-2	X		M	65			65							
20-11	X		I	11						11				
20-16	X		II	16					16					
20-35	X	X	M	79	79									
20-39	X		I	39				37	2					
20-41	X		I	41				41						
20-75	✦		M	4									4††	
20-79	✦		II	19	17								2†	
22-1	X	X	M	100		100								
22-2	X		M	85			85							
22-21	X		II	21					21					
22-35	X	X	M	100	100									
22-53	X		I	53				53						
24-1	X		M	128		128								
24-2	X		M	100			100							
24-4	X		I	56				48	8					
24-7	X		M	99	97									2**
24-11	✦		N	11				2				9		
24-19	X		I	19						19				
24-20	✦		N	30				10	13***		4			3
24-24	X		I	24					12	12				
24-29	X		I	29					29					
24-35	X		M	128	128									
24-37	X		I	37					37					
24-43	✦		I	43				23	20					
24-46	✦		I	46				40	4				2††	
24-61	X		I	61				61						

✦ Not tooled for 02-RE
* Pin inserts only (contact Amphenol for socket availability).
** twinax contacts for MIL-C-17/176-00002 cable.
*** Two size 16 contacts dedicated to fiber optics. Consult Amphenol or Fiber Optic Section for more information.

† Must be ordered separately
†† Coax Contacts for RG180 or RG195 cable.
††† Size 8 Coax and Twinax are interchangeable. For availability of size 12 twinax contacts, consult Amphenol, Sidney, NY

Amphenol Aerospace
New, Featured Products

Amphenol has become the leader in interconnection products through its long history of engineering expertise for product solution solving. New and innovative solutions are under development every day within our highly skilled engineering departments who are teamed with marketing product managers and production specialists. They are always striving to meet new customer requirements in ever changing markets. The teams have a customer-driven approach to produce the end result: quality interconnect products that meet or exceed customer demands.

New/Featured

Breakaway Hybrid, Low Profile Lanyard Release Plug
Page 42

New Hybrid Lanyard Breakaway Fail Safe Connector with a composite thermoplastic outer operating sleeve for greater durability.

Solution: Navy F-18 program needed a break away plug that would have greater durability in weapons release application.

New/Featured

New HD38999 (High Density, Crimp) Plugs and receptacles
Page 43, 44

The HD38999 family of connectors was designed to work with existing Mil-specified 38999 shells. The HD38999 has 30% more contacts, it still performs to minimum electrical requirements of standard 38999 connectors.

Solution: 30% more contact density in 38999 Series III Shells

New/Featured

Matrix MIL-DTL-5015 with RADSOK® Contacts
Page 193

A special design of the Matrix MIL-DTL-5015, Series II connectors has added high amperage with the RADSOK® contacts in the plug instead of standard rear release crimp contacts.

Solution: Higher amperage capability in Matrix MIL-DTL-5015

New/Featured

Filter Connector with High Density Patterns
Page 289

New High Density Patterns are available in Filter 38999 connectors in standard Mil-Spec or filter length shells. They provide 30% more contact that standard insert arrangement patterns. See page 43 for ordering information.

Solution: Higher contact density and custom stand-off shell designs

New/Featured

ARINC 801 Connectors
Page 356

Designed for use in Amphenol ARINC 801 fiber optic connectors - manufactured to comply with ARINC 801. Genderless terminus allows for use on both sides of a connector.

Solution: Fiber Optic Termini & Connector that meet ARINC specifications

New/Featured

MT Ferrule Connectors
Page 359

Amphenol offers a multi-channel circular connector with high density MT fiber optics. High fiber density in a relatively small circular connector package with all the advantages of the MIL-DTL-38999 series III connector.

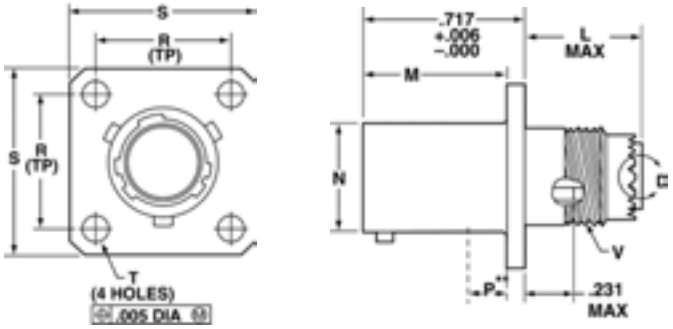
Solution: Higher Density Fiber Optics in MIL-DTL-38999

					Contact Size									
Shell Size	Crimp	Hermetics* Class Y	Service Rating	Total Contacts	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8††† (Twinax)
8-6	X		M	6		6								
8-35	X		M	6	6									
8-44	X		M	4			4							
8-98	X		I	3				3						
10-2	X		I	2					2					
10-4	✦		I	4				4						
10-5	X		I	5				5						
10-13	X		M	13		13								
10-35	X		M	13	13									
10-98	X		I	6				6						
12-4	X		I	4					4					
12-8	X		I	8				8						
12-22	X		M	22		22								
12-35	X		M	22	22									
12-98	X	X	I	10				10						
14-5	X		II	5					5					
14-15	X		I	15				14	1					
14-18	X		I	18				18						
14-19	X	X	I	19				19						
14-35	X	X	M	37	37									
14-37	X	X	M	37		37								
14-97	X		I	12				8	4					
16-2	✦		M	39	38									1**
16-6	X		I	6						6				
16-8	X		II	8					8					
16-13	✦		I	13					13					
16-26	X		I	26				26						
16-35	X		M	55	55									
16-42	X		M	42			42							
16-55	X		M	55		55								
16-99	X	X	I	23				21	2					
18-11	X		II	11					11					
18-32	X		I	32				32						
18-35	X	X	M	66	66									
18-66	X	X	M	66		66								
20-1	X	X	M	79		79								
20-2	X		M	65			65							
20-11	X		I	11						11				
20-16	X		II	16					16					
20-35	X	X	M	79	79									
20-39	X		I	39				37	2					
20-41	X		I	41				41						
20-75	✦		M	4									4††	
20-79	✦		II	19	17								2†	
22-1	X	X	M	100		100								
22-2	X		M	85			85							
22-21	X		II	21					21					
22-35	X	X	M	100	100									
22-53	X		I	53				53						
24-1	X		M	128		128								
24-2	X		M	100			100							
24-4	X		I	56				48	8					
24-7	X		M	99	97									2**
24-11	✦		N	11				2				9		
24-19	X		I	19						19				
24-20	✦		N	30				10	13***		4			3
24-24	X		I	24					12	12				
24-29	X		I	29					29					
24-35	X		M	128	128									
24-37	X		I	37					37					
24-43	✦		I	43				23	20					
24-46	✦		I	46				40	4				2††	
24-61	X		I	61				61						

✦ Not tooled for 02-RE
* Pin inserts only (contact Amphenol for socket availability).
** twinax contacts for MIL-C-17/176-00002 cable.
*** Two size 16 contacts dedicated to fiber optics. Consult Amphenol or Fiber Optic Section for more information.

† Must be ordered separately
†† Coax Contacts for RG180 or RG195 cable.
††† Size 8 Coax and Twinax are interchangeable. For availability of size 12 twinax contacts, consult Amphenol, Sidney, NY

SJT00RT – Crimp
Wall Mounting Receptacle



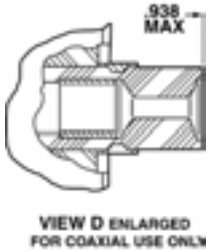
PART # *To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJT	00	RT	X-X	X	X	(XXX)

Note: Standard wall mount may be back panel mounted where panel thickness does not exceed these dimensions. For thicker panel applications, SJTP00RT should be used.

Shell Size	L Max	M +.000 –.005	R (TP)	S ±.016	T ±.005	V Thread Modified Class 2A UNEF (Plated)	V Thread Modified Major Dia.		N +.001 –.005	P** Max
8	.500	.632	.594	.812	.120	.4375-28	.421 –	.417	.473	.117
10	.500	.632	.719	.938	.120	.5625-24	.542 –	.538	.590	.117
12	.500	.632	.812	1.031	.120	.6875-24	.667 –	.663	.750	.117
14	.500	.632	.906	1.125	.120	.8125-20	.791 –	.787	.875	.117
16	.500	.632	.969	1.219	.120	.9375-20	.916 –	.912	1.000	.117
18	.500	.632	1.062	1.312	.120	1.0625-18	1.034 –	1.030	1.125	.117
20	.500	.602	1.156	1.438	.120	1.1875-18	1.158 –	1.154	1.250	.087
22	.500	.602	1.250	1.562	.120	1.3125-18	1.283 –	1.279	1.375	.087
24	.550	.602	1.375	1.688	.147	1.4375-18	1.408 –	1.404	1.500	.055

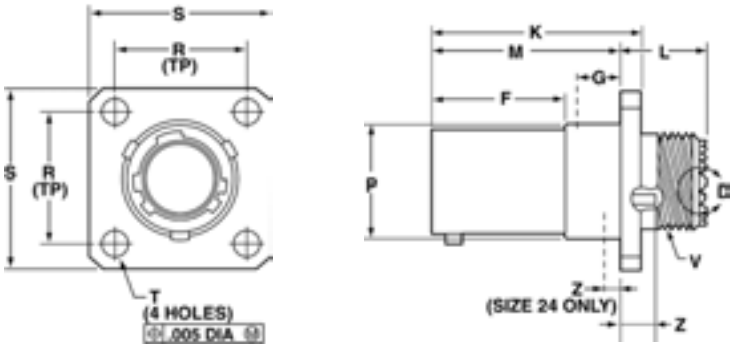
SJT00RT

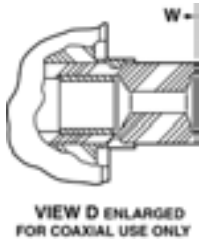


SJTP00RT – Crimp
Wall Mounting Receptacle
(Back Panel Mounting)

PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJTP	00	RT	X-X	X	X	(XXX)





SJTP00RT

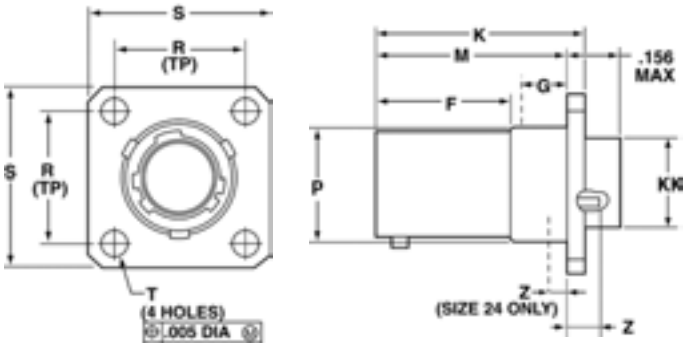
Shell Size	F +.000 –.005	K +.006 –.000	L Max.	M +.000 –.005	R (TP)	S +.011 –.010	T ±.005	Z ±.031	V Thread Class 2A (Plated) UNEF	P Dia. +.001 –.005	W Max.	G Max.
8	.609	.945	.539	.860	.594	.812	.120	.062	.4375-28	.516	.812	.345
10	.609	.945	.539	.860	.719	.938	.120	.062	.5625-24	.633	.812	.345
12	.609	.945	.539	.860	.812	1.031	.120	.062	.6875-24	.802	.812	.345
14	.609	.945	.539	.860	.906	1.125	.120	.062	.8125-20	.927	.812	.345
16	.609	.945	.539	.860	.969	1.219	.120	.062	.9375-20	1.052	.812	.345
18	.609	.945	.539	.860	1.062	1.312	.120	.062	1.0625-18	1.177	.812	.345
20	.609	.945	.539	.860	1.156	1.438	.120	.062	1.1875-18	1.302	.812	.345
22	.609	.945	.539	.860	1.250	1.562	.120	.062	1.3125-18	1.427	.812	.345
24	.750	1.085	.493	1.000	1.375	1.688	.147	.078	1.4375-18	1.552	.781	.452

All dimensions for reference only.

SJTP02RE – Crimp
Box Mounting Receptacle (Back Panel Mounting)

PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJTP	02	RE	X-X	X	X	(XXX)



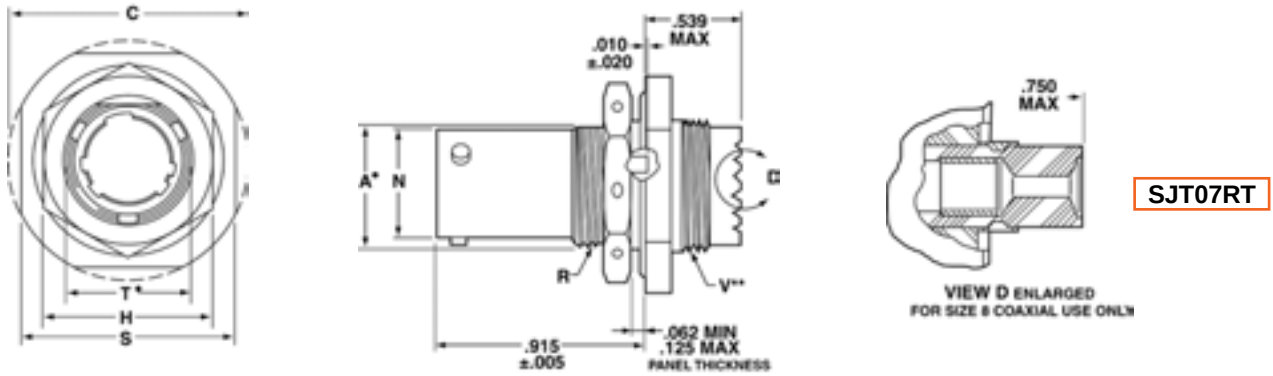
SJTP02RE

Shell Size	F +.000 –.005	K +.006 –.000	M +.000 –.005	R (TP)	S +.011 –.010	T ±.005	Z ±.031	P Dia. +.001 –.005	KK Dia. +.005 –.002	G Max.
8	.609	.945	.860	.594	.812	.120	.062	.516	.417	.345
10	.609	.945	.860	.719	.938	.120	.062	.633	.538	.345
12	.609	.945	.860	.812	1.031	.120	.062	.802	.663	.345
14	.609	.945	.860	.906	1.125	.120	.062	.927	.787	.345
16	.609	.945	.860	.969	1.219	.120	.062	1.052	.912	.345
18	.609	.945	.860	1.062	1.312	.120	.062	1.177	1.030	.345
20	.609	.945	.860	1.156	1.438	.120	.062	1.302	1.154	.345
22	.609	.945	.860	1.250	1.562	.120	.062	1.427	1.279	.345
24	.750	1.085	1.000	1.375	1.688	.147	.078	1.552	1.404	.452

SJT07RT – Crimp
Jam Nut Receptacle

PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJT	07	RT	X-X	X	X	(XXX)



SJT07RT

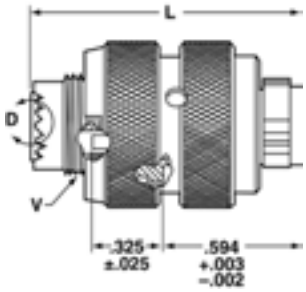
• "D" shaped panel cut-out dimensions
** Oversize threads. Check accessory threads before ordering

Shell Size	A• +.000 –.010	H Hex +.017 –.016	S ±.016	V Thread Class 2A UNEF (Plated)	R Thread Class 2A UNEF (Plated)	N +.001 –.005	C Max.	T• +.010 –.000
8	.542	.750	.938	.5625-24	.5625-24	.473	1.078	.572
10	.669	.875	1.062	.6875-24	.6875-24	.590	1.203	.697
12	.830	1.062	1.250	.8125-20	.8750-20	.750	1.391	.884
14	.955	1.188	1.375	.9375-20	1.0000-20	.875	1.515	1.007
16	1.084	1.312	1.500	1.0625-18	1.1250-18	1.000	1.641	1.134
18	1.208	1.438	1.625	1.1875-18	1.2500-18	1.125	1.766	1.259
20	1.333	1.562	1.812	1.3125-18	1.3750-18	1.250	1.953	1.384
22	1.459	1.688	1.938	1.4375-18	1.5000-18	1.375	2.078	1.507
24	1.580	1.812	2.062	1.4375-18	1.6250-18	1.500	2.203	1.634

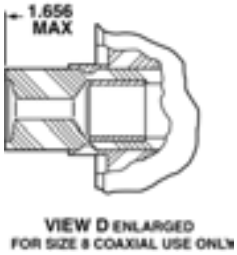
All dimensions for reference only.

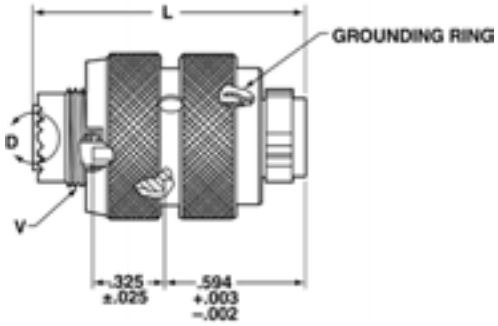
PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJT	06	RT	X-X	X	X	(XXX)
SJTG	06	RT	X-X	X	X	(XXX)



SJT06RT





SJTG06RT

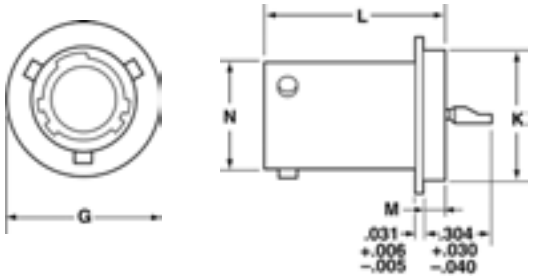
Shell Size	L Max	Q Dia. Max.	V Thread Class 2A UNEF (Plated)	V Thread Modified Major Dia.	
8	1.219	.734	.4375-28	.421 –	.417
10	1.219	.844	.5625-24	.542 –	.538
12	1.219	1.016	.6875-24	.667 –	.663
14	1.219	1.141	.8125-20	.791 –	.787
16	1.219	1.265	.9375-20	.916 –	.912
18	1.219	1.391	1.0625-18	1.034 –	1.030
20	1.219	1.500	1.1875-18	1.158 –	1.154
22	1.219	1.625	1.3125-18	1.283 –	1.279
24	1.258	1.750	1.4375-18	1.408 –	1.404

All dimensions for reference only.

SJTIY – Hermetic
Solder Mounting Receptacle

PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJT	I	Y	X-X	X	X	(XXX)



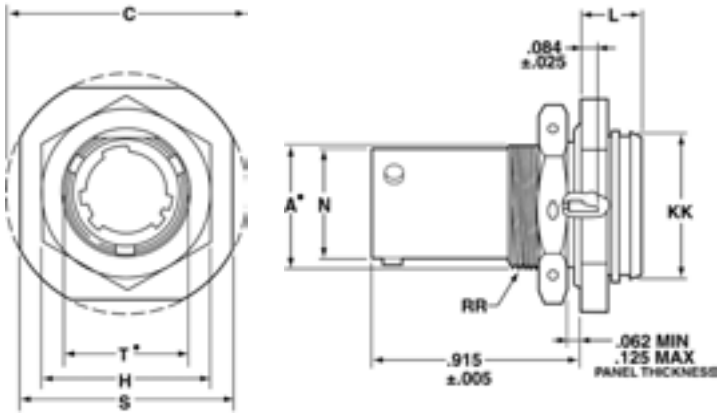
SJTIY

Shell Size	L +.011 –.000	M +.006 –.005	G Dia. +.011 –.010	K Dia. +.001 –.005	N +.001 –.005
8	.789	.125	.687	.562	.473
10	.789	.125	.797	.672	.590
12	.789	.125	.906	.781	.750
14	.789	.125	1.031	.906	.875
16	.789	.125	1.156	1.031	1.000
18	.789	.125	1.281	1.156	1.125
20	.789	.125	1.375	1.250	1.250
22	.821	.156	1.500	1.375	1.375
24	.821	.156	1.625	1.500	1.500

SJT07Y – Hermetic
Jam Nut Receptacle

PART # To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Positions	Special Variations
SJT	07	Y	X-X	X	X	(XXX)



SJT07Y

- "D" shaped panel cut-out dimensions

Shell Size	N +.001 –.005	C Max.	A• +.000 –.010	L Max.	H Hex +.017 –.016	S ±.016	KK +.011 –.000	RR Thread Class 2A UNEF (Plated)	T• +.010 –.000
8	.473	1.078	.542	.297	.750	.938	.642	.5625-24	.572
10	.590	1.203	.669	.297	.875	1.062	.766	.6875-24	.697
12	.750	1.391	.830	.297	1.062	1.250	.892	.8750-20	.884
14	.875	1.515	.955	.297	1.188	1.375	1.018	1.0000-20	1.007
16	1.000	1.641	1.084	.297	1.312	1.500	1.142	1.1250-18	1.134
18	1.125	1.766	1.208	.328	1.438	1.625	1.268	1.2500-18	1.259
20	1.250	1.953	1.333	.328	1.562	1.812	1.392	1.3750-18	1.384
22	1.375	2.078	1.459	.328	1.688	1.938	1.518	1.5000-18	1.507
24	1.500	2.203	1.580	.328	1.812	2.062	1.642	1.6250-18	1.634

All dimensions for reference only.

Series III TV | Series II JT | Series I LJT | SJT

Amphenol Aerospace is the leader in Interconnect solutions and provides companies with a product portfolio of connectors, accessories, cable assemblies and system integration for most applications across various industries. With connectors conforming to Military, Aerospace and Industrial standards in US, Europe and Asia, Amphenol assumes the leadership in meeting the interconnect needs of these market segments.

MIL-DTL-38999 Series III TV Tri-Start

- Backshells Accessories
- Dummy Contacts
- Wire Combs
- Receptacle Protection Cap
- Plug Protection Cap
- Dummy Receptacle
- Cable Clamps
- Contacts-Printed Circuit Board Wire Wrap
- Header Assembly

Application Tools

- Crimp Tools
- Insertion Tools
- Removal Tools

MIL-DTL-38999 Series II JT

- Receptacle Protection Cap
- Plug Protection Cap
- Strain Relief (Solder/Crimp Type)
- Contacts-Printed Circuit Board Wire Wrap
- Header Assembly

Application Tools

- Crimp Tools
- Insertion Tools
- Removal Tools

MIL-DTL-38999 Series I LJT

- Receptacle Protection Cap
- Plug Protection Cap
- Dummy Receptacle
- Cable Clamps
- Contacts-Printed Circuit Board Wire Wrap
- Header Assembly

Application Tools

- Crimp Tools
- Insertion Tools
- Removal Tools

SJT

- Receptacle Protection Cap
- Plug Protection Cap
- Dummy Receptacle
- Cable Clamps

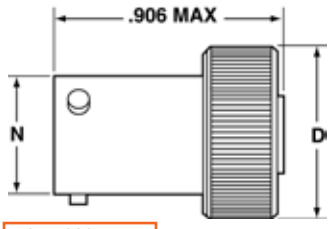
Application Tools

- Crimp Tools
- Insertion Tools
- Removal Tools

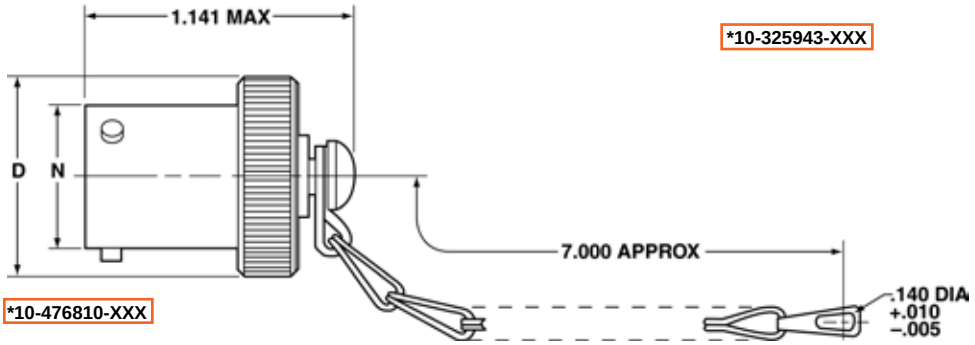
Amphenol Aerospace

SJT

PLUG PROTECTION CAP

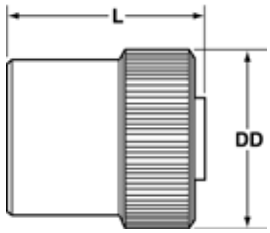


*10-476801-XXX



*10-476810-XXX

RECEPTACLE PROTECTION CAP



*10-325943-XXX

*To complete order number, add shell size and suffix number. For example, shell size 10 with bright cadmium plated nickel base, 10-476810-107.

Plug Shell Size	D Dia. Max.	N Dia. +.001 –.005
8	.688	.473
10	.812	.590
12	.969	.750
14	1.094	.875
16	1.219	1.000
18	1.344	1.125
20	1.469	1.250
22	1.594	1.375
24	1.719	1.500

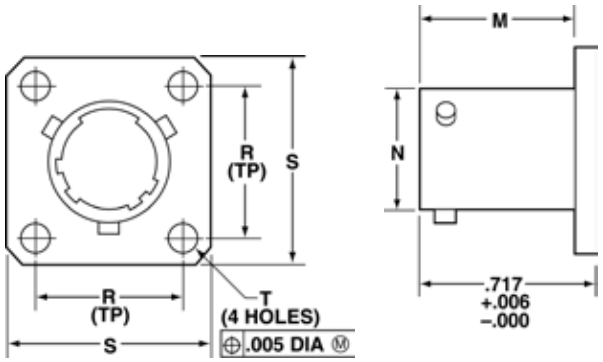
All dimensions for reference only

*To complete order number, add shell size and suffix number. For example, shell size 10 with bright cadmium plated nickel base, 10-325943-107.

Receptacle Shell Size	DD Dia. Max.	L Max.
8	.734	.828
10	.844	.828
12	1.016	.828
14	1.141	.828
16	1.265	.828
18	1.391	.828
20	1.500	.828
22	1.625	.828
24	1.750	.859

Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

DUMMY RECEPTACLE



*10-476807-XXX

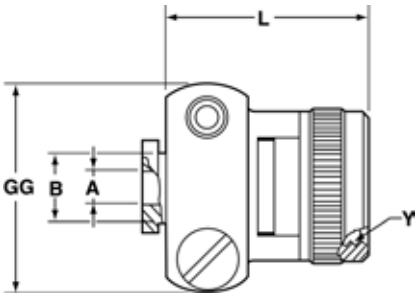
Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

* To complete order number, add shell size and suffix number. For example, shell size 10 with bright cadmium plated nickel base, 10-476807-107.

Dummy Receptacle Shell Size	D Dia. Max.	L Max.
8	.734	.828
10	.844	.828
12	1.016	.828
14	1.141	.828
16	1.265	.828
18	1.391	.828
20	1.500	.828
22	1.625	.828
24	1.750	.859

All dimensions for reference only

CABLE CLAMP



*10-476808-XXX

Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

* To complete order number, add shell size and suffix number. For example, shell size 10 with bright cadmium plated nickel base, 10-476808-107.

Cable Clamp Shell Size	A Dia. +.010 −.025	B Dia. +.000 −.011	L Max.	Y Thread Class 2B UNEF (Plated)	GG Max.
8	.125	.250	.922	.4375-28	.775
10	.188	.312	.922	.5625-24	.837
12	.312	.438	.922	.6875-24	.963
14	.375	.562	1.172	.8125-20	1.087
16	.500	.625	1.172	.9375-20	1.150
18	.625	.750	1.172	1.0625-18	1.400
20	.625	.750	1.172	1.1875-18	1.400
22	.750	.938	1.297	1.3125-18	1.587
24	.800	1.000	1.297	1.4375-18	1.681

All dimensions for reference only

Amphenol Aerospace

CONTACTS & SEALING PLUGS

Contact Size	SJT Pins	SJT Sockets	Sealing Plugs
8 (Coax)	21-33102-21**	21-33101-21**	10-482099-8
8 (Twinax)	21-33190-529†	21-33191-530†	10-482099-8
10 (Power)	10-251415-105	10-407035-105	Not Available
12	10-251415-12H	10-407035-125	10-405996-12 Yellow
16	10-251415-165	10-407035-165	10-405996-16 Blue
20	10-251415-205	10-407035-205 10-497403-205††	10-405996-20 Red
22*	10-251415-225	10-407035-225	10-405996-22 Black
22M*	10-251415-235	10-407035-235	10-405996-22 Black
22D	10-251415-725	10-407035-725	10-405996-22 Black

Above part numbers include standard finish designation – gold plating over suitable underplate in accordance with SAE AS39029. For other finish variations, consult Amphenol, Sidney, NY.

* Inactive for new design.

** 21-33102-21 and 21-33101-21 are for use with RG180B/U and RG195A/U cable. For other size 8 coax or optional sizes 12 and 16 coax contacts available for use in SJT connectors, see catalog 12-130 or consult Amphenol, Sidney, NY.

† 21-33190-529 and 21-33191-530 are for use with M17/176-00002 cable.

†† Optional design – see slash sheet MS39029.

For other contact options available for use in SJT connectors, (wire-wrap, thermocouple, fiber optic) consult Amphenol, Sidney, NY.

PLASTIC PROTECTION CAPS

Shell Size	Plug	Receptacle
8	10-70500-10	10-70506-10S
10	10-70500-14	10-70506-12
12	10-70500-16	10-70506-14
14	10-70500-18	10-70506-16
16	10-70500-20	10-70506-18
18	10-70500-22	10-70506-20
20	10-70500-24	10-70506-22
22	10-70524-1	10-70506-24
24	10-70506-28	10-70524-1

Series III TV | **Series II JT** | **Series I LJT** | **SJT**

The following data includes information pertaining to the application tools which have been established for crimping, inserting, and removing contacts incorporated in the TV, CTV and MIL-DTL-38999 Series III connectors. For additional information on coax, twinax and triax contact tools see High Speed Contact section of this catalog. All crimping tools included are the "full cycling" type and when used as specified in the installation instructions (L-624 and L-844) covering the TV, CTV and MS series connectors, will provide reliable crimped wire to contact terminations. There is a possibility of additional crimping tools other than those included being available at present or in the future for this specific application.

CRIMPING TOOLS

Contact Size/Type	Crimping Tool	Turret Die or Positioner
12 Pin and Socket	M22520/1-01	M22520/1-04
16 Pin and Socket	M22520/1-01 M22520/7-01	M22520/1-04 M22520/7-04
20 Pin and Socket	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 M22520/2-10 M22520/7-08
22, 22D, 22M Pin	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07
22, 22D, 22M Socket Series I, III	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05
22D Socket Series II	M22520/2-01 M22520/7-01	M22520/2-06 M22520/7-06
8 Twinax Center Pin and Socket	M22520/2-01	M22520/2-37
8 Twinax Intermediate Outer Pin & Socket	M22520/5-01	M22520/5-200

Where 2 or 3 tools are listed for a contact size, only one tool and its die or positioner are required to crimp the contact. The above crimping tools and positioners are available from the approved tool manufacturer.

Contact Size/Type	Crimping Tool	Turret Die or Positioner
8 Coaxial Inner Pin and Socket	M22520/2-01	M22520/2-31
8 Coaxial Outer Pin and Socket	M22520/5-01	M22520/5-05 Die Closure B
	M22520/5-01	M22520/5-41 Die Closure B
	M22520/10-01	M22520/10-07 Die Closure B
16 Coaxial Inner Pin and Socket	M22520/2-01	M22520/2-35
16 Coaxial Outer Pin and Socket	M22520/4-01	M22520/4-02
12 Coaxial Inner Pin and Socket	M22520/2-01	M22520/2-34
12 Coaxial Outer Pin and Socket	M22520/31-01	M22520/31-02
10 (Power)	TP-201423	

INSERTION TOOLS

Use with Contact Size	Plastic Tools		Metal Tools			
			Angle Type		Straight Type	
	MS Part Number	Color	MS Part No.	Commercial Part No.	Commercial Part No.	Color
10 (Power	M81969/14-05*	Gray / (White)	M81969/8-11	†	†	Green
12	M81969/14-04*	Yellow / (White)	M81969/8-09	11-8674-12	11-8794-12	Yellow
16	M81969/14-03*	Blue / (White)	M81969/8-07	11-8674-16	11-8794-16	Blue
20	M81969/14-10*	Red / (Orange)	M81969/8-05	11-8674-20	11-8794-20	Red
22	M81969/14-09	Brown/White	M81969/8-03	11-8674-22	11-8794-22	Brown
22D, 22M	M81969/14-01*	Green / (White)	M81969/8-01	11-8674-24	11-8794-24	Black
8 Coaxial	None Required					
8 Twinax	None		M81969/46-06**	None		Red

REMOVAL TOOLS

Use with Contact Size	Plastic Tools		Metal Tools				
				Angle Type		Straight Type	
	MS Part Number	Color	For Unwired Contacts Commercial Part No.	MS Part No.	Commercial Part No.	Commercial Part No.	Color
10 (Power)	M81969/14-05*	(Gray) / White	†	M81969/8-12	†	†	Green / White
12	M81969/14-04*	(Yellow) / White	11-10050-11	M81969/8-10	11-8675-12	11-8795-12	Yellow / White
16	M81969/14-03*	(Blue) / White	11-10050-10	M81969/8-08	11-8675-16	11-8795-16	Blue / White
20	M81969/14-10*	(Orange) / Red	11-10050-9	M81969/8-06	11-8675-20	11-8795-20	Red / Orange
22	M81969/14-09*	(Brown)/White	11-10050-8	M81969/8-04	11-8675-22	11-8795-22	Brown/White
22D, 22M	M81969/14-01*	(Green) / White	11-10050-7	M81969/8-02	11-8675-24	11-8795-24	Green / White
8 Coaxial	M81969/14-12	Green	None	None	11-9170	DRK264-8††	N/A
8 Twinax	M81969/14-12	Green	None	M81969/46-12**	11-9170	N/A	N/A

The M81969/8, 11-8674, 11-8675, and 11-8794 metal contact insertion and removal tools will accommodate wires having the maximum outside diameter as follows: Contact size 12: dia. is .155, size 16: dia. is .109, size 20: dia. is .077, size 22D: dia. is .050. When wire diameters exceed those specified, the plastic tools must be used.

* Double end insertion/removal tool.
** Twinax insertion tools are available only in a straight type, metal version.

† To be determined.
†† Contact Daniels Manufacturing Co. for availability.