

38999 SJT	38999 II	38999 III	Series	Series	Series	Military	JT/LJT	Solder	Crimp	Hermetics			Service Rating	Total Contacts	Contact Size									
			JT II	LJT I	TV III	TV III				Class H	Class Y	TV*			22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
26482 Matrix 2	SJT	II	8-2■					P					M	2			2							
			8-3■					X	NA	P	P		M	3			3							
				9-3■				X																
					9-5★■								Grounded	1										1
83723 III Matrix Pyle	SJT	II	8-6					X	X	P	P		M	6		6								
				9-6				X	X	P	P		M	7		7								
				9-7■				X					M	2			2							
				9-22■				X					I	2										
5015 Crimp Rear Release Matrix	SJT	II	8-35						X	P	P		M	6	6									
				9-35	9-35	A35			X	P	P	P	M	4			4							
			8-44						X	P	P		M	2			2							
				9-44					X				M	4										
26500 Pyle	SJT	II			9-94 ■				◆				M	2			2							
			8-97■					X					M	4		2	2							
			8-98					S	X	P	P		I	3			3							
				9-98	9-98	A98		X	X	P	P	P	I	2				2						
Printed Circuit Board	SJT	II		11-2★	11-2★	B2			X	P**			I	4			4							
			10-4					3					I	5			5							
				11-4	11-4			X	S1/2				I	6			6							
			10-5					X	X	P	P		I	13		13								
EMI Filter Transient	SJT	II		11-5	11-5	B5		X	X			P	I	13										
				11-6■				S					I	4			4							
			10-13					X	X	P/S	P/S		M	13		13								
				11-13				X	X	P/S	P/S		M	13	13									
Fiber Optics	SJT	II		11-35	11-35	B35			X	P/S	P/S	P	M	4	4									
					11-54 ■			X	◆				I	6			6							
			10-98					X	X	P/S	P/S		I	7			7							
				11-98	11-98	B98		X	X	P/S	P/S	P	I	3				3						
High Speed Contacts	SJT	II	12-3					X	X	◆	P	P		II	4			4						
				13-3■					P				I	4										
			12-4					X	X	P	P		I	8			8							
				13-4★	13-4★	C4		X	X	P	P	P	I	4										
Options Others	SJT	II	12-8					X	X	P	P		I	8										
				13-8	13-8	C8		X	X	P	P	P	I	4										
					13-13■								I, Fiber Optic	4			2**	2						
			12-22					X	X	P/S	P/S		M	22		22								
Others	SJT	II		13-22				X	X	P/S	P/S		M	22	22									
			12-35					X	X	P/S	P/S		M	4			2	2						
				13-35	13-35	C35			X	P/S	P/S	P	I	10			10							
					13-63■				◆				I	4										
Others	SJT	II	12-98					X	X	P/S	P/S		I	10										
				13-98	13-98	C98		X	X	P/S	P/S	P	I	4										
			14-4■					2					I	5			5							
				15-4■	15-4■			2	◆				I	15			14	1						
Others	SJT	II	14-5					X	X	P	P		II	15										
				15-5★	15-5★	D5		X	X	P	P	P	I	15										
			14-15					X	X	P	P		I	15			14	1						
				15-15	15-15	D15		X	X	P/S	P/S	P	I	15			14	1						

- X Completely tooling.
 • Majority of tooling is completed (contact Amphenol Aerospace for availability).
 ◆ Not tooled for 02-R.
 P Available with Pin contacts only
 S Available with Socket contacts only
 P/S Available with Pin contacts or Socket contacts
 ★ Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type.
 ■ Not Mil-Qualified.
 ◆ 21-75 is Mil-Qualified with twinax contacts only.
 Note: MS connector 21-75 is supplied with size 8 twinax.
 Commercial connector 21-75 is supplied with size 8 coax.

- * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
 ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic section for more information.
 *** For use in MIL-STD-1760 applications (see pages 40 & 41).
 † For RG 180/U and RG 195/U cables only.
 †† Size 8 Coax and Twinax are interchangeable.
 (2) Not Tooled for RP or 02RE
 (3) Pin inserts only, not tooled for RP or 02RE (Consult Sidney, NY for avail.)
 (5) MS Connector 21-79 has provision for two size 8 coax contacts.
 Coax contacts are not supplied unless specified by customer.

MIL-DTL-38999, Series I LJT, II JT, III TV

Insert Availability and Identification Chart

Series	Series	Series	Military	JT/LJT		Hermetics					Contact Size									
JT II	LJT I	TV III	TV III	Solder	Crimp	Class H	Class Y	TV*	Service Rating	Total Contacts	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
14-18				X	X	P/S	P/S		I	18				18						
	15-18	15-18	D18	X	X	P/S	P/S	P	I	19				19						
14-19				X	X				I	37										
	15-19	15-19	D19		X	P	P	P	M	37	37									
14-35					X	P	P		M	37		37								
	15-35	15-35	D35		X	P/S	P/S	P	M	37										
14-37				X	X	P	P		M	8										
	15-37			X	X	P	P		1	8					8					
14-68				X	2	P	P		I	12				8	4					
	15-68			X	2				I	39	38									1
14-97				X	X	P	P	P	M	6					6					
	15-97	15-97	D97	X	X	P	P	P	I	8					8					
	17-2	17-2	E2		X	+			II	8					8					
16-6					X	P	P		I	13										
	17-6	17-6	E6		X	P	P	P	I	4						2		2		
16-8				X	X	P/S	P/S	P	Coax	24	22							2		
	17-8★	17-8★	E8	X	X	P/S	P/S	P	M	26				26						
16-13					2				I	55	55									
	17-13				2				M	42			42							
	17-22	17-22★			+				M	2										2
	17-25				2				I	26										
16-26				X	X	P/S	P/S		I	55		55								
	17-26	17-26	E26	X	X	P/S	P/S	P	M	42			42							
16-35					X	P	P		M	2										2
	17-35	17-35	E35	X	X	P	P	P	M	55										
16-42					X				M	10	8							2		
	17-42				P				I/Coax	23				21	2					
	17-52				X	+			Inst.	17				16						1
16-55				X	X	P/S	P/S		II	11					11					
	17-55			X	X	P/S	P/S		M	18	14									4
	17-60				X				I	28				26	2					
16-99				X	X	P	P		I	30				29	1					
	17-99	17-99	E99	X	X	P	P	P	M	15	12					1			2	
	19-AD				X	+			I	32				32						
18-11				X	X	P	P		M	66	66									
	19-11★	19-11★	F11	X	X	P	P	P	M	53			53							
	19-18	19-18	F18		2	X			M	66		66								
18-28				X	X				I	67										
	19-28	19-28	F28	X	P	X			M	18				18						
18-30				X	X				I	9						9				
	19-30			X	P				M	79		79								
	19-31				X				I	65			65							
18-32				X	X	P/S	P/S		M	11						11				
	19-32	19-32	F32	X	X	P/S	P/S	P	M	79										
18-35					X	P	P		M	66										
	19-35	19-35	F35		X	P	P	P	M	53			53							
18-53				X	X				M	66		66								
	19-53				P				M	67		67								
18-66				X	X	P	P		M	18					18					
	19-66				X	P	P		I	9						9				
	19-67			X	3	S	S		M	79										
18-68					2				I	11										
	19-68				3				I	9										
18-96					2				M	65			65							
20-1					X	P	P		M	79										
	21-1				X	P/S	P/S		M	65										
20-2					X				M	11										
	21-2				X				I	11										
20-11					3				I	11										
	21-11★	21-11★	G11		X				I	11										

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

38999 SJT	III	II	I		Series	Series	Series	Military	JT/LJT		Hermetics					Contact Size									
					JT II	LJT I	TV III	TV III	Solder	Crimp	H	Y	TV*	Service Rating	Total Contacts	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
					20-16				X	X	P/S	P/S		II	16					16					
						21-16★	21-16★	G16	X	X	P	P	P												
26482 Matrix 2						21-25■			X					I	25				25						
						21-27■			X					I	27				27						
							21-29 ■			X				I	27				19	4	4				
					20-35					X		P	P		M	79	79								
83723 III Matrix Pyle						21-35	21-35	G35		X	P/S	P/S	P												
					20-39				X	X	P	P		I	39				37	2					
						21-39	21-39	G39	X	X	P	P	P												
					20-41				X	X	P	P		I	41				41						
5015 Crimp Rear Release Matrix						21-41	21-41	G41	X	X	P/S	P/S	P												
						21-75★	21-75★◇	G75		2	X			N	M	4							4	(4)	
						21-79■	21-79 ■			2	X			II	19	17						2	(5)		
					22-1					X	P/S	P/S		M	100		100								
26500 Pyle						23-1				X	P	P													
					22-2				X	X	P	P		M	85			85							
						23-2			X	X	P	P		M	85										
						23-6★■	23-6★■			P				M	6										6
Printed Circuit Board						22-14■				2	◆			I	14					14					
						23-14■	23-14 ■			2	◆														
					22-21				X	X	P	P		II	21				21						
						23-21★	23-21★	H21	X	X	P	P	P												
EMI Filter Transient					22-32				X	X	P	P		I	32				32						
						23-32■			X	P															
						23-34■			X					I	34				34						
					22-35					X	P/S	P/S		M	100	100									
Fiber Optics						23-35	23-35	H35		X	P	P	P												
					22-53■					P				I	53				53						
						23-53	23-53	H53	X	X	P/S	P/S	P												
						23-54 ■				X				M	53	40			9	4					
High Speed Contacts					22-55				X	X	P	P		I	55				55						
						23-97■			X					II	16				16						
						23-99■			X					II	11				11						
					24-1					X	P	P		M	128		128								
Options Others						25-1				X	P	P													
					24-2					X				M	100			100							
						25-2				X															
					24-4					X	P	P		I	56				48	8					
Options Others						25-4	25-4	J4		X			P												
						25-7■	25-7	J7		X				M	99	97							2		
						25-8★		J8		◆				Twinax	8									8	
						25-11***		J11		2	◆			N	11				2			9			
Options Others						25-17 ■				◆				M	42	36									6
					24-19■					X	P	P		I	19					19					
						25-19★	25-19★	J19		X			P												
						25-20■	25-20***	J20		2	◆			N	30				10	13	4				3
Options Others					24-24					X	P	P		I	24					12	12				
						25-24★	25-24★	J24		X	P	P													
						25-26 ■				◆				I	25				16		5		4		
					24-29					X				I	29					29					
Options Others						25-29★	25-29★	J29	X	X															

- X Completely tooled.
- Majority of tooling is completed (contact Amphenol Aerospace for availability).
 - ◆ Not tooled for 02-R.
 - P Available with Pin contacts only
 - S Available with Socket contacts only
 - P/S Available with Pin contacts or Socket contacts
 - ★ Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type.
 - Not Mil-Qualified.
 - ◆ 21-75 is Mil-Qualified with twinax contacts only.
 - * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).

- ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic Section for more information.
- *** For use in MIL-STD-1760 applications (see pages 40 & 41).
- † For RG 180/U and RG 195/U cables only.
- †† Size 8 Coax and Twinax are interchangeable.
- (2) Not Tooled for RP or 02RE
- (3) Pin inserts only, not tooled for RP or 02RE (Consult Sidney, NY for avail.)
- (4) MS connector 21-75 is supplied with size 8 twinax. Commercial connector 21-75 is supplied with size 8 coax.
- (5) MS Connector 21-79 has provision for two size 8 coax contacts. Coax contacts are not supplied unless specified by customer.

MIL-DTL-38999, Series I LJT, II JT, III TV

Insert Availability and Identification Chart

Series	Series	Series	Military	JT/LJT		Hermetics					Contact Size										
JT II	LJT I	TV III	TV III	Solder	Crimp	H	Y	TV*	Service Rating	Total Contacts	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)	8 Quadrax
24-35					X	P	P		New	128	128										
	25-35	25-35	J35		X	P	P	P	M												
24-37					X				I	37					37						
	25-37★	25-37★	J37		X																
24-43■					3				I	43				23	20						
	25-43	25-43	J43	X	2	◆															
	25-46	25-46	J46		2	◆			I	46				40	4				2		
24-61				X	X	P	P		I	61				61							
	25-61	25-61	J61	X	X	P	P	P													
		25-62■			X	◆			I	12					8						4
		25-90■			◆				I	46				40	4					2	
		25-F4 ■			X				M/I	66	49				13	4					

- X Completely tooled.
 ♦ Not tooled for 02-R.
 P Pin inserts only (contact Amphenol Aerospace for socket availability).
 ★ Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type.
 ■ Not Mil-Qualified.

TV Series III

Select Shell Size - Special Insert Arrangement

(Not Mil-Spec Qualified)

Shell Size- Insert Arrg.	Crimp	Hermetics*	Service Rating	Total Contacts	Comments	Contact Size				
						22D	20	16	12	8†† (Twinax)
9-2	X		I	2	Formerly Pyle		2			
15-4	X		II	4	Formerly Pyle			4		
15-25	X		M	25	Formerly Pyle	22		3		
17-20	X		M	20	Formerly Pyle		16	4		
21-12	X		I	12	Formerly Pyle		3		9	
21-21	X		M/Inst.	41	Improved sealing	32			9	
21-99	X		M	16	Formerly Pyle	5			11	
25-92	X		M	101	Formerly Pyle	92		9		
25-97	X		M	42	Formerly Pyle	26		3	13	

Select Non-Standard Shell Size

- Special Insert Arrangement

Shell Size- Insert Arrg.	Crimp	Hermetics*	Service Rating	Total Contacts	Contact Size				
					22D	20	8	4	0
25-16	X		M	8		6		2	
25L-3	X		II	3			1	2	
25L-7	X		II	7			7		
33-3	X		II	3				1	2
33-5	X		II	5				5	
33-6	X		II	6			2	4	
37-5	X		II	4					4

(Insert arrangements requiring non-standard shells or larger contacts)

- X Completely tooled.
 • Majority of tooling is completed (contact Amphenol Aerospace for availability).
 ♦ Not tooled for 02-R.
 P Pin inserts only (contact Amphenol Aerospace for socket availability).
 ★ Ground plane proprietary option available. Arrangement 9-5 is exclusively ground plane type.
 ■ Not Mil-Qualified.
 * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
 ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic section for more information.
 *** For use in MIL-STD-1760 applications (pgs. 40 & 41).
 † For RG 180/U and RG 195/U cables only.
 †† Size 8 Coax and Twinax are interchangeable.
 Note: 25L-3 and 25L-7 require longer shells.

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Front face of pin inserts illustrated

38999

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Shell Size &
Insert Arrg. for:

Series II JT	8-2	8-3	8-6	8-35	8-44	8-97	8-98					
Series I LJT		9-3	9-6	9-7	9-22	9-35	9-44	9-98				
Series III TV			9-5	9-35		9-94	9-98					
Service Rating	M	M	Grounded	M	M	I	M	M	I			
Number of Contacts	2	3	1	6	7	2	6	4	2	2	3	
Contact Size	20	20	8 Twinax	22M	22M	20	22D	22	20	22M	20	20

Shell Size &
Insert Arrg. for:

Series II JT		10-4	10-5		10-13	10-35		10-98	10-99	12-3
Series I LJT	11-2	11-4	11-5	11-6	11-13	11-35		11-98	11-99	13-3
Series III TV	11-2	11-4	11-5			11-35	11-54	11-98	11-99	
Service Rating	I	I	I	I	M	M	II	I	I	II
Number of Contacts	2	4	5	6	13	13	4	6	7	3
Contact Size	16	20	20	20	22M	22D	22D	20	20	16

Shell Size &
Insert Arrg. for:

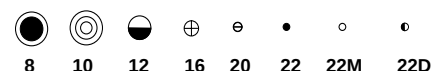
Series II JT	12-4	12-8	12-22	12-35	12-98	14-4	14-5	14-15			
Series I LJT	13-4	13-8	13-22	13-35	13-98	15-4	15-5	15-15			
Series III TV	13-4	13-8		13-35	13-63	13-98	15-4	15-5	15-15		
Service Rating	I	I	M	M	I	I	II	I	I		
Number of Contacts	4	8	22	22	2	2	10	4	5	14	1
Contact Size	16	20	22M	22D	16	12	20	12	16	20	16

Shell Size &
Insert Arrg. for:

Series II JT	14-18	14-19	14-35	14-37	14-68	14-97						
Series I LJT	15-18	15-19	15-35	15-37	15-68	15-97						17-2
Series III TV	15-18	15-19	15-35			15-97						17-2
Service Rating	I	I	M	M	I	I	M					
Number of Contacts	18	19	37	37	8	8	4	38	1			
Contact Size	20	20	22D	22M	16	20	16	22D	8 Twinax			

Shell Size &
Insert Arrg. for:

Series II JT	16-6	16-8	16-13		16-26	
Series I LJT	17-6	17-8	17-13	17-22	17-25	17-26
Series III TV	17-6	17-8		17-22		17-26
Service Rating	I	II	I	Coax	M	I
Number of Contacts	6	8	13	2	2	26
Contact Size	12	16	16	12 Coax 8 Coax	22D 8 Coax	20



MIL-DTL-38999, Series I LJT, II JT, III TV Insert Arrangements

Front face of pin inserts illustrated

Shell Size & Insert Arrg. for:					
Series II JT	16-35	16-42	16-55	16-99	18-11
Series I LJT	17-35	17-42	17-55	17-99	19-11
Series III TV	17-35		17-52	17-60	17-99
Service Rating	M	M	M	I/Coax	I
Number of Contacts	55	42	55	8 2	11
Contact Size	22D	22	22M	22D 8 Coax	20 16

Shell Size & Insert Arrg. for:				
Series II JT		18-28	18-30	18-32
Series I LJT	19-18	19-28	19-30	19-32
Series III TV	19-18	19-28	19-31	19-32
Service Rating	M	M	I	M
Number of Contacts	14 4	26 2	29 1	2 1 12
Contact Size	22D 8 Twinax	20 18	20 16	8 Coax 12 22D

Shell Size & Insert Arrg. for:				
Series II JT	18-53	18-66		18-68
Series I LJT	19-53	19-66	19-67	19-68
Series III TV				
Service Rating	M	M	M	I
Number of Contacts	53	66	67	18
Contact Size	22	22M	22M	16

Shell Size & Insert Arrg. for:				
Series II JT		20-1	20-2	20-11
Series I LJT		21-1	21-2	21-11
Series III TV	19-AD			21-11
Service Rating	Inst.	M	M	I
Number of Contacts	16 1	79	65	11
Contact Size	20 8 Twinax	22M	22	12



CONTACT LEGEND 8 10 12 16 20 22D

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

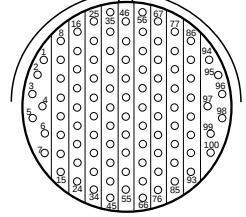
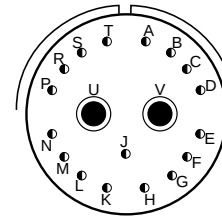
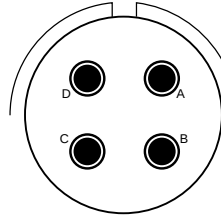
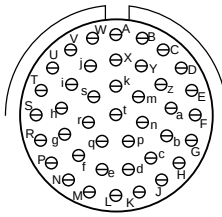
Options
Others

Front face of pin inserts illustrated



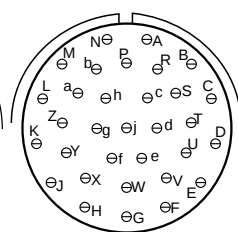
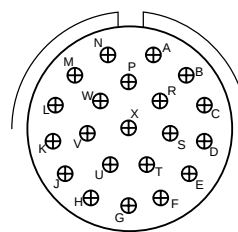
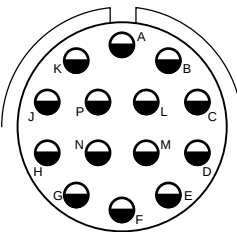
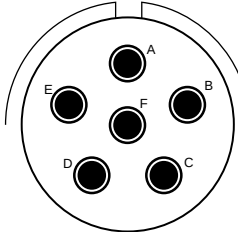
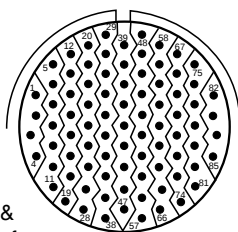
Shell Size &
Insert Arrg. for:

Series II JT	20-35	
Series I LJT	21-25	21-27
Series III TV	21-29	21-35
Service Rating	I	I
Number of Contacts	25	27
Contact Size	20	20



Shell Size &
Insert Arrg. for:

Series II JT	20-39	20-41	21-75	21-79	22-1
Series I LJT	21-39	21-41	21-75	21-79	23-1
Series III TV	21-39	21-41	21-75	21-79	
Service Rating	I	I	N	II	M
Number of Contacts	37	2	4	17 (See Note)	100
Contact Size	20	16	(See Note)	22D	22M

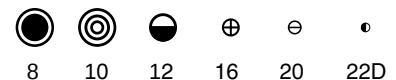


Shell Size &
Insert Arrg. for:

Series II JT	22-2	22-14	22-21	22-32
Series I LJT	23-2	23-14	23-21	23-32
Series III TV	23-6	23-14	23-21	
Service Rating	M	I	II	I
Number of Contacts	85	14	21	32
Contact Size	22	12	16	20

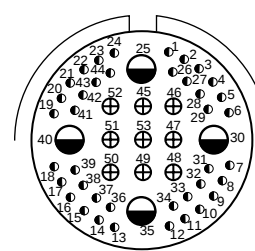
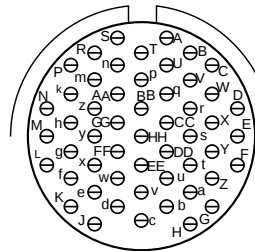
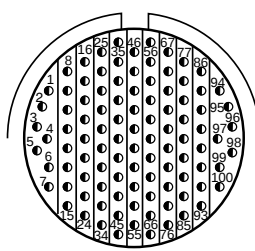
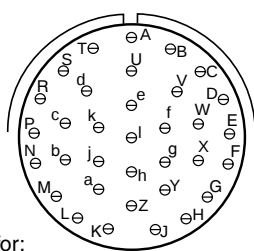
Note: MS connector 21-75 is supplied with four size 8 twinax contacts.
Commercial connector 21-75 is supplied with four size 8 coax contacts.
MS connector 21-79 has provision for two size 8 coax contacts.
Coax contacts are not supplied unless specified by customers.

CONTACT LEGEND



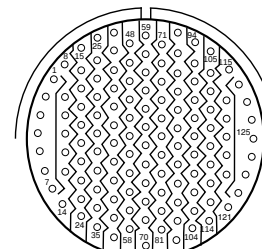
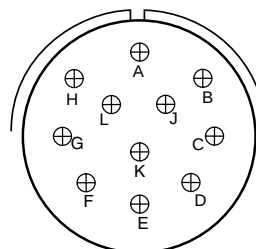
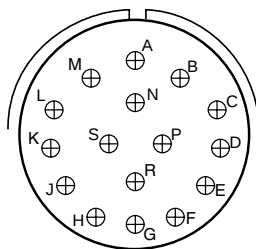
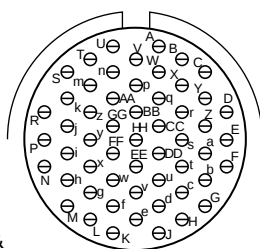
MIL-DTL-38999, Series I LJT, II JT, III TV Insert Arrangements

Front face of pin inserts illustrated



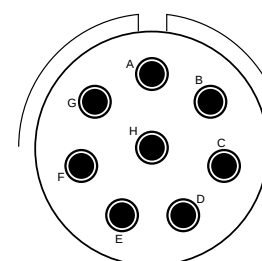
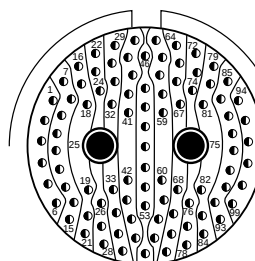
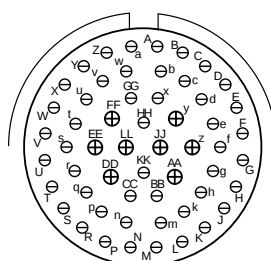
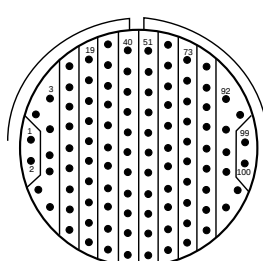
Shell Size &
Insert Arrg. for:

Series II JT		22-35	22-53	
Series I LJT	23-34	23-35	23-53	
Series III TV		23-35	23-53	23-54
Service Rating	I	M	I	M
Number of Contacts	34	100	53	40 9 4
Contact Size	20	22D	20	22D 16 12



Shell Size &
Insert Arrg. for:

Series II JT	22-55			24-1
Series I LJT	23-55	23-97	23-99	25-1
Series III TV	23-55			
Service Rating	I	II	II	M
Number of Contacts	55	16	11	128
Contact Size	20	16	16	22M



Shell Size &
Insert Arrg. for:

Series II JT	24-2	24-4		
Series I LJT	25-2	25-4	25-7	
Series III TV		25-4	25-7	25-8
Service Rating	M	I	M	Twinax
Number of Contacts	100	48 8	97 2	8
Contact Size	22	20 16	22D 8 Twinax	8 Twinax

*** For use in MIL-STD-1760 applications (see pages 40 and 41).



CONTACT LEGEND 8 10 12 16 20 22D

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

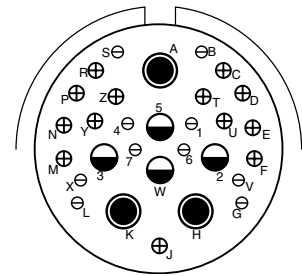
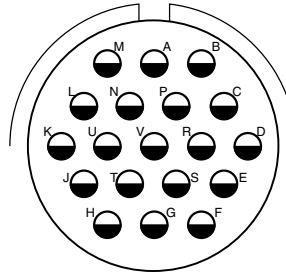
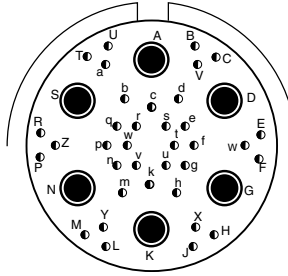
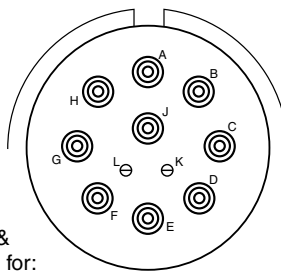
EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

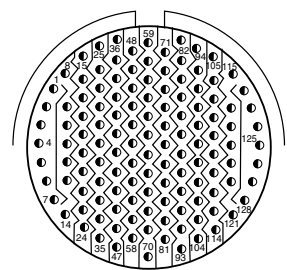
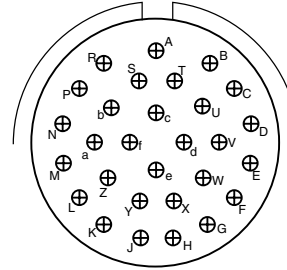
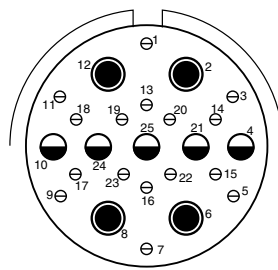
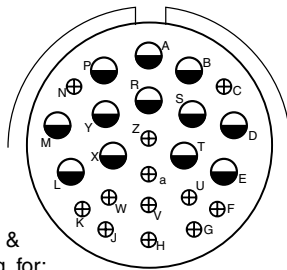
Front face of pin inserts illustrated



Shell Size &
Insert Arrg. for:

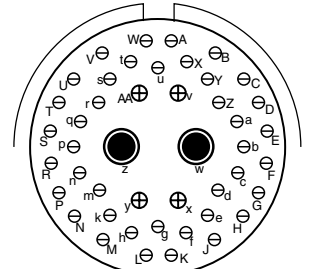
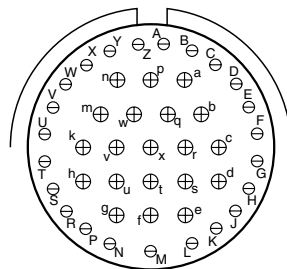
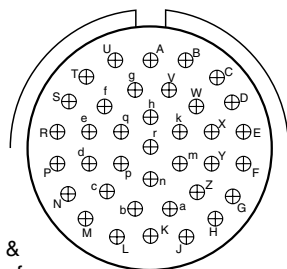
Series II JT					24-19							
Series I LJT		25-11			25-19			25-20				
Series III TV		25-11***			25-17			25-19		25-20***		
Service Rating		N			M			I			N	
Number of Contacts		2	9	36	6	19	10	13	3	4		
Contact Size		20	10	22D	8 Twinax	12	20	16	8 Twinax	12 Coax		

(With Matched Impedance)



Shell Size &
Insert Arrg. for:

Series II JT	24-24				24-29	24-35
Series I LJT	25-24				25-29	25-35
Series III TV	25-24				25-26	25-29
Series III TV	25-24				25-26	25-29
Service Rating	I				I	M
Number of Contacts	12	12	16	5	4	29
Contact Size	16	12	20	12	8 Coax	16
						22D



Shell Size &
Insert Arrg. for:

Series II JT	24-37	25-43	25-46
Series I LJT	25-37	25-43	25-46
Series III TV	25-37	25-43	25-46
Service Rating	I	I	I
Number of Contacts	37	23 20	40 4 2
Contact Size	16	20 16	20 16 8 Coax

† Coax contacts for RG180/U or RG195/U cable.



38999



83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle



Fiber Optics

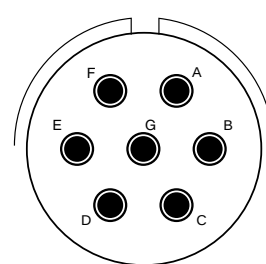
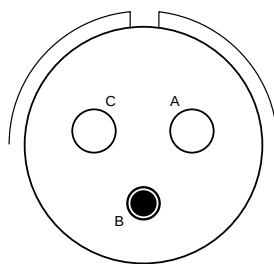
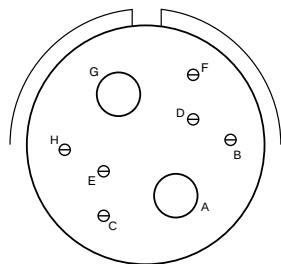


High Speed Contacts

Options
Others

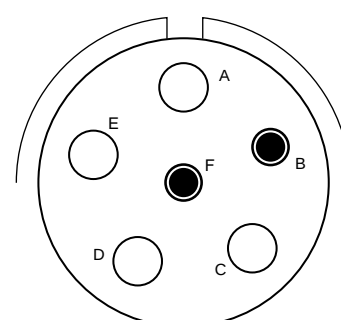
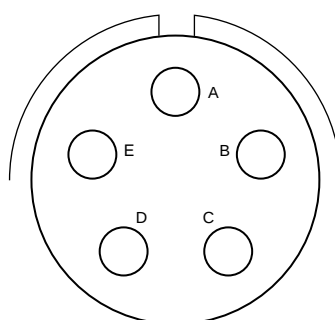
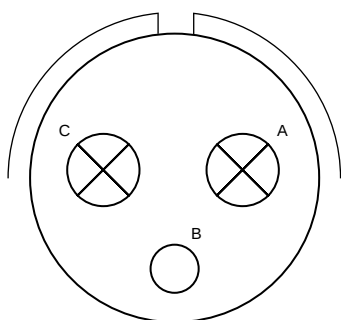
Non-Standard Shells or Large Contacts

Front face of pin inserts illustrated



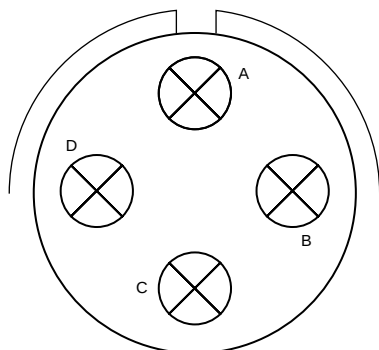
Shell Size &
Insert Arrg. for:

Series III TV	25-16	25L-3	25L-7
Service Rating	M	II	II
Number of Contacts	6 2	1 2	7
Contact Size	20 4	8 4	8



Shell Size &
Insert Arrg. for:

Series III TV	33-3	33-5	33-6
Service Rating	II	II	II
Number of Contacts	1 2	5	2 4
Contact Size	4 0	4	8 4

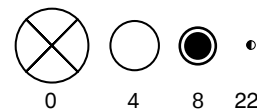


Shell Size &
Insert Arrg. for:

Series III TV	37-5
Service Rating	II
Number of Contacts	4
Contact Size	0

NOTE: Some specials shown here were formerly known as Pyle arrangements. Consult Amphenol for how to order information for connectors with these inserts.

Consult Amphenol Aerospace for longer shell drawings.



CONTACT LEGEND

MIL-DTL-38999, Series I LJT, II JT, III TV Specifications/ Contacts

CONTACT RATING

Contact Size	Test Current (Amps)		Maximum Millivolt Drop Crimp*	Maximum Millivolt Drop	
	Crimp	Hermetic		Solder*	Hermetic*
22M	3	2	45	20	60
22D	5	3	73		85
22	5	3	73	20	85
20	7.5	5	55	20	60
16	13	10	49	20	85
12	23	17	42	20	85
10 (Power)	33	NA	33	NA	NA
8 (Power)	46	NA	26	NA	NA
4	80	NA	23	NA	NA
0	150	NA	21	NA	NA

Contact Size	Crimp Well Data		Solder Well Data	
	Well Diameter	Normal Well Depth	Well Diameter	Nominal Well Depth
22M	.028 ± .001	.141	.029 +.004 - .000	
22D	.0345 ± .0010	.141	.036 +.004 - .000	.094
22	.0365 ± .0010	.141	.036 +.004 - .000	.094
20	.047 ± .001	.209	.044 +.004 - .004	.125
16	.067 ± .001	.209	.078 +.000 - .004	.141
12	.100 ± .002	.209	.116 +.004 - .002	.141
10 (Power)	.137 ± .002	.355	NA	NA
8	.181 ± .002	.490	NA	NA
4	.281 ± .002	.490	NA	NA
0	.453 ± .002	.585	NA	NA

*When tested using silver plated wire.

SERVICE RATING**

Service Rating	Suggested Oper. 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	500	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 position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

MIL-DTL-38999 Series III STANDARD 500 CYCLE CONTACTS FOR TV AND CTV, P & S

Contact Size	TV/CTV Pins		TV/CTV Sockets	
	Military No.	Supersedes	Military No.	Supersedes
8 (Coax)*	M39029/60-367	MS27536	M39029/59-366	MS27535
8 (Power)	Contact Factory	"	"	"
8 (Twinax)	M39029/90-529**	N/A	M39029/91-530	N/A
10 (Power)	M39029/58-528	N/A	M39029/56-527	N/A
12	M39029/58-365	MS27493-12	M39029/56-353	MS27490-12
16	M39029/58-364	MS27493-16	M39029/56-352	MS27490-16
20	M39029/58-363	MS27493-20	M39029/56-351	MS27490-20
22D	M39029/58-360	MS27493-22D	M39029/56-348	MS27490-22D
4	N/A	N/A	N/A	N/A
0	N/A	N/A	N/A	N/A

** For use with M17/M176-00002 cable.

† Optional design - see slash sheet MS39029.

For other contact options available for use in Tri-Start connectors, (wire wrap, thermocouple, fiber optic) consult Amphenol. Wire wrap data given on next page.

Above part numbers include standard 500 cycle finish designation - gold plating over suitable underplate in accordance with SAE AS39029. For other finish variations, consult Sidney, NY.

*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 Tri-Start connectors, see High Speed Contact section of this catalog or consult Amphenol, Sidney, NY.

MIL-DTL-38999 Series III 1500 CYCLE CONTACTS FOR CTV, CLASSES H & J

Contact Size	CTV Pins			CTV Sockets		
	Commercial No.	Military No.	Supersedes	Commercial No.	Military No.	Supersedes
12	10-597072-2X	M39029/107-623	—	10-597073-2X	M39029/106-617	—
16	10-597068-2X	M39029/107-622	—	10-597069-2X	M39029/106-616	—
20	10-597064-2X	M39029/107-621	—	10-597065-2X	M39029/106-615	—
22D	10-597058-3X	M39029/107-620	—	10-597061-2X	M39029/106-614	—

MIL-DTL-38999 Series II JT/ Series I LJT CRIMP CONTACTS

Contact Size	JT/LJT Pins MS No.	JT Socket MS No.	LJT Sockets MS No.	Contact Size	JT/LJT Pins MS No.	JT Socket MS No.	LJT Sockets MS No.
8 (Coax)*	M39029/60-367	NA	M39029/59-366	20	M39029/58-363	M39029/57-357	M39029/56-351
8 (Twinax)	M39029/90-529**	NA	M39029/91-530	22	M39029/58-362	M39029/57-356	M39029/56-350
10 (Power)	M39029/58-528	NA	M39029/56-527	22M	M39029/58-361	M39029/57-355	M39029/56-349
12	M39029/58-365	M39029/57-359	M39029/56-353	22D	M39029/58-360	M39029/57-354	M39029/56-348
16	M39029/58-364	M39029/57-358	M39029/56-352				

FINISH DATA MIL-DTL-38999, Tri-Start Series III TV

Aluminum Shell Components Non-Hermetic		
Finish	Service Class	
	Military	Commercial
Anodic Coating (Non-Conductive)	C	RX**
Electroless Nickel	F (Metal)	RF
	M (Composite)	
Olive Drab Cadmium Plate Nickel Base	W (Metal)	RW
	J (Composite)	
Stainless Steel with Nickel Plate	S	RS
Stainless Steel	K	RK
Duralon plated	T	DT
Zinc-Nickel Plated	Z	ZN

Hermetic Shell Components		
Material/Finish	Service Class	
	Military	Commercial
Stainless Steel	Y	Y
Stainless Steel with Nickel Plate	N	YN

**Add Suffix (005) to part number.

FINISH DATA MIL-DTL-38999, Series I LJT, II JT

Aluminum Shell Components Non-Hermetic					
Finish	Suffix		Indicated Finish Standard for JT Types Listed Below	Indicated Finish Standard for LJT Types Listed Below	
	Military	Commercial			
Cadmium Plated Nickel Base	MS (A)	—	(SR)	JT/JTG/JTL/JTP	LJT/LJTP
Anodic Coating (Alumilite)	MS (C)	(005)	(300)	JTS/JTPS/JTLS	LJTPS/LJTS
Chromate Treated (Iridite 14-2)		(011)	(344)	JTN/JTPN/JTLN	LJTN/LJTPN
Olive Drab Cadmium Plate Nickel Base	MS (B)	(014)	(386)		
Electroless Nickel	MS (F)	(023)	(424)		
Nickel-PTFE		(038)			

Hermetic Connectors				
Finish	Suffix		Indicated Finish Standard for JT Types Listed Below	Indicated Finish Standard for LJT Types Listed Below
	Military	Commercial		
Carbon Steel Shell Tin Plated Shell and Contacts			JT()H / JT()Y JTL()H / JTL()Y	LJT()Y LJT()H
Carbon Steel Shell Tin Plated Shell and Gold Plated Contacts	MS (D)			
Stainless Steel Shell Gold Plated Contacts	MS (E)	(162)	JTS()Y JTLS()Y	LJTS()Y

Amphenol MIL-DTL-38999, Series III, TV



**New
Featured**



**New
Featured**

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• Breakaway MIL-STD-1760 How to Order (Military)	41
• Breakaway Hybrid, Low Profile Lanyard Release Plug	42
• Stores Management Type II, Rail Launch (MIL-STD-1760)	42
• HD38999 (High Density, Crimp) Plugs and Receptacles / How to Order	43, 44
• Accessories, Contacts, and Tools see pages	89-108

MIL-DTL-38999 Series III Typical Markets:

- Military & Commercial Aviation
- Military Vehicles
- Missiles & Ordnance
- C4ISR
- Space Applications

Amphenol
Aerospace



Tri-Start™ MIL-DTL-38999 Series III

with Metal Shells - Aluminum, Stainless Steel, Class K Firewall
Amphenol® Tri-Start MIL-DTL-38999* Series III Connectors offer the highest performance capabilities for both general duty and severe environment applications. Meeting or exceeding MIL-DTL-38999 Series III requirements, the Tri-Start connector with standard metal shells (aluminum or stainless steel with several finish options) offers these features:

- **EMI Shielding** - solid metal to metal coupling, grounding fingers, electroless nickel plating, and thicker wall sections provide superior EMI shielding capability of 65dB minimum at 10 GHz
- **Contact Protection** - recessed pins in this 100% scoop-proof connector minimize potential contact damage
- **Moisture Resistance** - improved interfacial seal design helps prevent electrolytic erosion of contacts
- **Corrosion Resistance** - shells of stainless steel or cadmium over nickel plating withstand a 500 hour salt spray exposure
- **Vibration/Shock** - operates under severe high temperature vibration, through 200°C
- **Firewall Capability** - available in a stainless steel shell, class RK, RS
- **Lockwiring Eliminated** - unique, self-locking, quick coupling connector eliminates lockwiring
- **Quick Coupling** - completely mates and self-locks in a 360° turn of the coupling nut
- **Inventory Support Commonality** - uses standard MIL-DTL-38999 contacts, application tools, insert arrangements
- **Electrostatic Discharge Protection (ESD)** - protection for sensitive circuitry without diodes, varistors, etc., with the use of the Faraday Cage principle which shunts high voltage, high current discharge events (see page 422)
- **Hermetic** - air leakage limited to $1 \times 10^{-7} \text{ cm}^3$ per second optional
- **Qualified Specifications** - Stainless Steel qualified to BACC63DB and BACC63DC specifications

Optional Shell Geometries

Amphenol offers a number of different shell configurations to fit your needs.

- Deep Reach Shells - For increased panel thickness
- Stand-off Flange Shells - For attachments to Printed Circuit boards.
- Connector with Integral Strain Reliefs

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

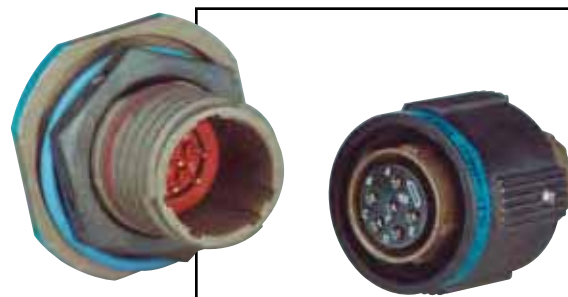
Applicable Patents:

Tri-Start™ Connector Patent 4,109,990.

Composite Connector Patents:

4,268,103; 4,648,670; 4,682,832; 4,703,987.

Clutch-Lok® Patent 6,152,753.



Series III

Composite Tri-Start,
Qualified to MIL-DTL-38999, Rev. J

MIL-Qualified to MIL-DTL-38999, Rev. K, the Amphenol® Composite Tri-Start Connector offers a lightweight, corrosion resistant connector with the same high performance features as its metal counterpart. The Composite Tri-Start Connector also includes the following features:

- **Lightweight** - 17% – 70% weight savings (17–40% weight savings vs. Aluminum) (60–70% weight savings vs. Stainless steel) See Composite weight comparison chart on page 20.
- **Corrosion Resistance** - available in standard MIL-DTL-38999 olive drab cadmium (-65°C to 175°C) and electroless nickel plating (-65°C to 200°C), both with standing 2000 hours of salt spray exposure. The base material is able to withstand an indefinite exposure to salt spray.
- **Durability** - 1500 couplings minimum (in reference to connector couplings, not contacts)
- **Extended Life Contact** - Mil-approved plating process which provides 1500 couplings minimum
- Qualified to BACC63CT and BACC63CU specifications

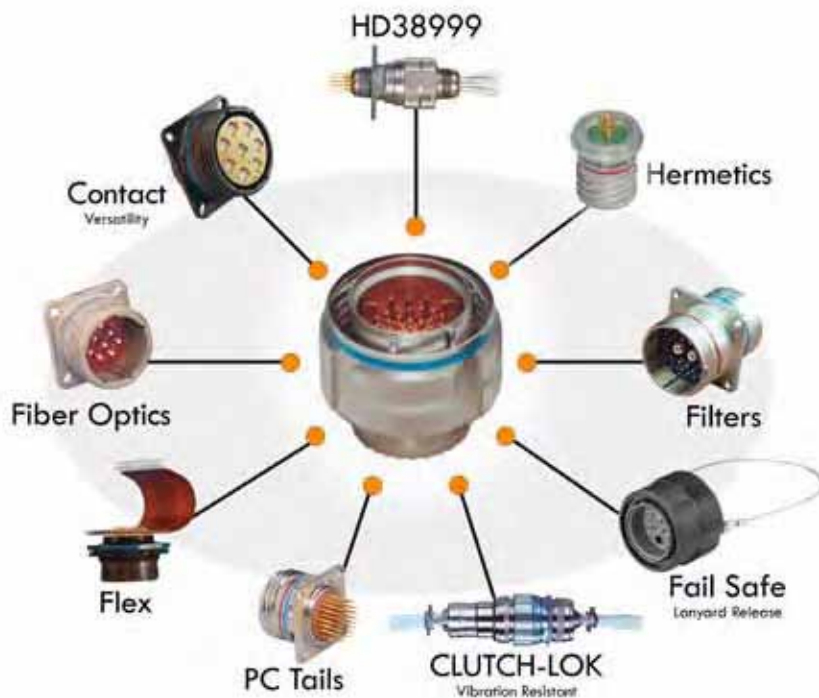


CLUTCH-LOK™ MIL-DTL-38999 Series III High Vibration Connector

The Tri-Start option CLUTCH-LOK offers all advantages of stainless steel/Class K firewall for MIL-DTL-38999 Series III connectors, plus a unique clutch design that actually tightens itself under vibration.
Features include:

- High degree of differential torque
 - No settling back to the next ratchet tooth
 - Completely intermateable with all existing MIL-DTL-38999 Series III connectors
 - Offers advantage in inaccessible, hard to reach areas where mating torque is difficult to apply and complete coupling is not verifiable by inspection
- See page 29 for description, 22 – 24 for ordering.

Series III, TV Tri-Start Connectors, offer more versatility & options than any other interconnection family!



High reliability and increased versatility best describe Amphenol MIL-DTL-38999, Series III circular connectors. Originally designed for the harshest of environments and most demanding of applications, Amphenol MIL-DTL-38999 Series III, Tri-Start connectors continue to evolve in pace with the needs of an ever-changing market.

Amphenol Tri-Start connectors can be configured with a number of application specific technologies like Filters, Hermetics, PC Tails, Fiber Optics, Flex, CLUTCH-LOK, Fail Safe, and contacts. Flexibility aids in design optimization through the combination of different technologies within a common, time-tested, harsh environment connector body.

For more information about options please call 800-678-0141 or visit www.amphenol-aerospace.com.

Performance

Designed for Performance

Numerous advantages in performance capability are designed into the Amphenol Tri-Start Connector. A positive metal to metal coupling design, grounding fingers, and electroless nickel plating provide superior EMI shielding capability of 65 dB minimum at 10 GHz.

Acme threads provide coupling durability. Thicker wall sections and a greater coupling surface area improve strength and shock resistance. Blunting of the thread on both the coupling nut and receptacle eliminates cross coupling. The connector quickly mates and self locks in a 360° turn of the coupling nut.

Elongated mounting holes permit the Tri-Start Connector to intermount with various existing MIL-Spec box or wall mount receptacles, giving it a design replacement advantage.

Shells of stainless steel, or cadmium over nickel plating prevent severe corrosion. Resistance is tested through exposure to a 500 hour salt spray. Composite versions provide protection from salt spray exposure for 2000 hours. Other finish options are available; see how to order Tri-Start metal and Tri-Start Composite.

Recessed pins minimize potential contact damage in this 100% scoop-proof connector. In a blind mating application, mating shells cannot "scoop" the pins and cause a shorting or bending of contacts.

The design of the Amphenol Tri-Start interfacial seal meets the MIL-DTL-38999 Series III requirements for electrolytic erosion resistance.

A rigid dielectric insert with excellent electrical characteristics provides durable protection to the contacts. The socket contacts are probe proof, and all contacts are rear removable. They are plated in the standard 50 micro inches minimum gold, with 100 micro inches as an option, and are available in standard Tri-Start insert arrangements and special Pyle® insert arrangements in sizes 10 power, 12, 16, 20 and 22D contacts. Special insert patterns are also available with larger contacts in sizes 4 and 0.

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Depending on the shell style, shell size and contact count, weight savings can range from 17% to 40% compared to standard aluminum product

Tri-Start Weight in Ounces (includes contacts)

Weight

	Wall Mount Receptacle (00 • Military D38999/20)						Jam Nut Receptacle (07) • Military D38999/24						Plug (06) • Military D38999/26					
	Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite	
	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
9-35	.7216	.7840	.3248	.3777	.2588	.3121	1.1472	1.2096	.4416	.5040	.3489	.4413	1.0736	1.1360	.4236	.4625	.2606	.2994
9-98	.7216	.7776	.2496	.3056	.1664	.2224	1.1472	1.2032	.4416	.4976	.3744	.4640	1.0736	1.1296	.3968	.4624	.2991	.2337
11-35	.9488	1.0800	.3632	.4960	.2753	.4081	1.4304	1.5632	.5936	.7264	.4679	.6007	1.2480	1.3808	.5312	.6389	.3450	.4582
11-98	.9488	1.0620	.3632	.4768	.2753	.3889	1.4304	1.5440	.5936	.7072	.4679	.5815	1.2480	1.3616	.5330	.6283	.3468	.4457
13-8	1.2096	1.3888	.4800	.6592	.3696	.5488	1.9104	2.0896	.7664	.9456	.6560	.8352	1.8048	1.9840	.7936	.9728	.5237	.5952
13-35	1.2160	1.4320	.4864	.7024	.3762	.5922	1.9168	2.1328	.7728	.9888	.6136	.8296	1.8112	2.0272	.8000	.8472	.5301	.6531
13-98	1.2160	1.4016	.4864	.6720	.3762	.5618	1.9168	2.1024	.7728	.9584	.6136	.7992	1.8112	1.9968	.7978	.9856	.5244	.7157
15-5	1.5312	1.7904	.6352	.8944	.5027	.7619	2.3792	2.6384	.9728	1.2320	.7749	1.0341	2.2704	2.5456	.9632	1.1719	.6450	.8467
15-18	1.5456	1.8416	.7760	.9456	.6432	.8128	2.3936	2.6896	.9872	1.2832	.8544	1.1504	2.2848	2.5808	.9776	1.2736	.6594	.8208
15-35	1.5424	1.8768	.6464	.9808	.5139	.8483	2.3904	2.7344	.9840	1.3280	.7861	1.1301	2.2816	2.6256	1.2179	1.3184	.8961	1.0002
17-6	2.1488	2.5904	.9360	1.3776	.7812	1.2228	2.9152	3.3568	1.2336	1.6752	.9940	1.4356	2.5008	3.1024	1.1408	1.7424	.8160	1.4176
17-26	2.1344	2.5600	.9216	1.3472	.7668	1.1924	2.9008	3.3264	1.2192	1.6448	.9796	1.4052	2.4864	2.9120	1.1264	1.3343	.8017	.8062
17-35	2.1360	2.6640	.9232	1.4512	.7684	1.2964	2.9024	3.4304	1.2208	1.7488	.9812	1.5092	2.4880	3.0160	1.1280	1.5497	.8033	1.2144
19-11	2.2592	2.6656	.9696	1.4528	.7925	1.2757	3.4352	3.9184	1.4720	1.9552	1.2033	1.6865	2.9808	3.4640	1.3472	1.8304	.9632	1.4464
19-32	2.1888	2.7264	.9760	1.5136	.7989	1.3365	3.4416	3.9792	1.4784	2.0160	1.2097	1.7473	2.9872	3.5248	1.3536	1.8912	.9696	1.5072
19-35	2.1920	2.8432	.9792	1.6304	.8021	1.4533	3.4448	4.0960	1.4816	2.1328	1.2129	1.8641	2.9904	3.6416	1.3568	2.0080	.9728	1.6240
21-11	2.7456	3.4640	1.3088	2.0272	1.1088	1.8272	3.9712	4.6896	1.8128	2.5312	1.6128	2.3312	3.4448	4.1632	1.7344	2.5312	1.3039	1.8710
21-16	2.6784	3.3168	1.2416	1.8800	1.0422	1.6806	3.9040	4.5424	1.7456	2.3840	1.4505	2.0889	3.3776	4.0160	1.6672	2.3168	1.2352	1.8736
21-35	2.6672	3.4992	1.2304	2.0624	1.0310	1.8630	3.8928	4.7248	1.7344	2.5664	1.4393	2.2713	3.3664	4.1984	1.6560	2.2309	1.2255	1.8003
21-41	2.6768	3.3600	1.2400	1.9232	1.0406	1.7238	3.9024	4.5856	1.7440	2.4272	1.4489	2.1321	3.3760	3.5792	1.6656	1.8688	1.2336	1.4368
23-21	3.0352	3.8624	1.4496	2.2768	1.2279	2.0551	4.2368	5.0640	1.9440	2.7712	1.6368	2.4640	3.7920	4.6192	1.9216	2.7488	1.4637	2.2896
23-35	3.0240	4.0448	1.4384	2.4592	1.2167	2.2375	4.2256	5.2464	1.9328	2.9536	1.6256	2.6464	3.7808	4.8016	1.9104	2.6087	1.4525	2.1507
23-53	2.8992	3.9072	1.4560	2.4816	1.2343	2.2599	4.2432	5.1088	1.9504	2.8160	1.6432	2.5088	3.7984	4.6640	1.9280	2.7936	1.4672	2.2384
25-4	3.4512	4.4800	1.7312	2.8816	1.4864	2.1904	4.8048	5.8272	2.2016	3.2480	1.9568	2.8720	4.2224	5.2496	2.2128	3.2560	1.7133	2.4163
25-19	3.5312	4.7264	1.8112	3.0064	1.5664	2.7616	4.8848	6.0816	2.2816	3.4784	2.0368	3.2336	4.3024	5.4992	2.2928	3.4896	1.7933	2.7058
25-20	3.8190	4.7150	2.0173	3.1125	1.7733	2.8512	5.1430	6.0380	2.4877	3.5421	2.1872	3.2416	4.4350	5.3300	2.2580	3.0182	1.8288	2.8928
25-35	3.4416	4.6656	1.7216	2.9456	1.4776	2.7016	4.7952	6.0192	2.1920	3.4160	1.8915	3.1155	4.2128	5.4368	2.2032	3.4272	1.7037	2.9277
25-61	3.4304	4.4848	1.7282	2.7648	1.4841	2.5208	4.7840	5.8384	2.1808	3.2352	1.8803	2.9347	4.2016	5.2560	2.1920	3.2464	1.6912	2.7456

All weight measurements are for reference only.

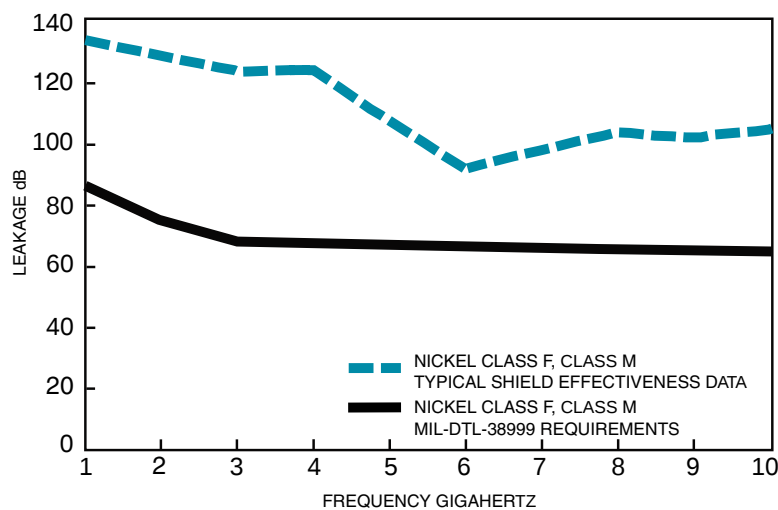
TRI-START, SERIES III TYPICAL SHIELDING EFFECTIVENESS TEST DATA

EMI/EMP SHIELDING EFFECTIVENESS dB
TESTING BY TRIAXIAL METHOD



TRI-START, SERIES III TYPICAL SHIELDING EFFECTIVENESS TEST DATA

EMI/EMP SHIELDING EFFECTIVENESS dB
TESTING BY MODE STIRRING METHOD



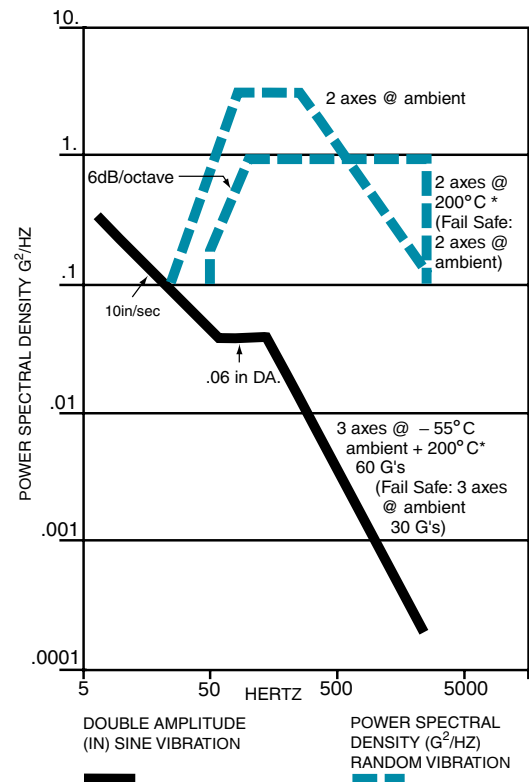
Amphenol® Tri-Start connectors provide EMI/EMP shielding capability which exceeds MIL-DTL-38999 Series III requirements.

The TV and CTV Series III connector with standard solid metal to metal coupling, EMI grounding fingers and conductive finishes has proven to be the ultimate in EMI/EMP shielding effectiveness. The charts illustrate shielding effectiveness data which is typical of Tri-Start connectors tested with the nickel finish (Class F-metal, Class M-composite) over a wide frequency range.

The vibration capability of the Tri-Start Series is shown in the chart below. This illustrates the most severe vibration envelope of *any* qualified connector available today.

These capabilities along with a +200°C, -65°C temperature rating and superior moisture sealing protection provide the user with a connector that can withstand the most rigorous application.

TRI-START VIBRATION CRITERIA



* Dependant on shell finish

Test data beyond 2GHz is subject to equipment variation.

NOTE: For test data information on the new Clutch-Lok Tri-Start, high vibration connectors, consult Amphenol Aerospace.

III	38999
II	
I	
SJT	
Matrix 2	26482
Matrix	83723 III
Pyle	
Crimp Rear Release Matrix	5015
	26500 Pyle
Printed Circuit Board	
EMI Filter Transient	
Fiber Optics	
High Speed Contacts	
Options Others	

Easy Steps to build a part number... Tri-Start Series III TV

1. 2. 3. 4. 5. 6. 7.

Commercial	Shell Style	Service Class	Shell Size— Insert Arrangement	Contact Type	Alternate Keying Position	Special Variations
TVPS	00	RF	9-35	P	B	(XXX)
Military	Shell Style	Service Class	Shell Size— Insert Arrangement	Contact Type	Alternate Keying Position	
D38999/	20	J	G35	P	N	

Step 1. Select a Connector Type

Step 2. Select a Shell Style

	Designates
TV	Tri-Start Series Connector
TVP	Back panel mounted receptacle
TVS	200° C rated
TVPS	Panel mounted, 200°C rated receptacle
MTV	CLUTCH-LOK connector with "MS" stamping (Note: remove dashes in how to order part number when ordering CLUTCH-LOK)
CTV	Composite MIL-DTL-38999 Series III Connector
CTVP	Panel mounted composite receptacle
CTVS	200° C rated, composite
CTVPS	Composite Panel mounted, 200° rated receptacle
D38999	Military MIL-DTL-38999 Series III Connector

COMMERCIAL					MILITARY			Designates
TVP, TVPS, CTVP, CTVPS	TV, CTV	TVS	CTVS	CLUTCH-LOK	D38999 Military	D38999 Military Composite	MTV, D38999 CLUTCH-LOK	
00					20	20		Wall Mount Receptacle
02								Box Mount Receptacle
					21			Box Mount Receptacle Hermetic
	01	01	01					Line Receptacle
	06	06	06		26	26		Straight Plug
	07	07	07		24	24		Jam Nut Receptacle
	09	09						Flange Mounted Plug
					23			Jam Nut Receptacle Hermetic
		I			25			Solder Mount Receptacle Hermetic
		HI			27			Weld Mounted Receptacle, (Hermetic) Only
				26			26	CLUTCH-LOK high vibration straight plug (service Classes RK & RS only)
					29			Lanyard release plug with pin contacts
					30			Lanyard release plug with socket contacts
					31			Lanyard release plug for MIL-STD-1760 with pin contacts
					32			Plug protection cap
					33			Receptacle protection cap

Wall Mount Receptacle



Line Receptacle



Box Mount Receptacle



Straight Plug



Jam Nut Receptacle



Flange Mounting Plug



Deep Reach Receptacle



Solder Mount Hermetic Receptacle



Lanyard Release Plug



MIL-DTL-38999, Series III TV

How to Order (Military and Commercial)

Step 3. Select a Service Class

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
		RX				

TV, TVP	CTV, CTVP	CTVS, CTVPS	TVS	TVPS	CLUTCH-LOK	Military	Finish	Description
			RX			C	Anodic Coating	Alternate finish, Non-conductive, anodic coated aluminum, 500 hour salt spray, 200°C. Consult Amphenol, Sidney NY for details, options and availability of non-cadmium or nickel finishes.
		RF-Composite	RF-Metal	RF-Metal		F-Metal M-Composite	Electroless Nickel	electroless nickel plated aluminum (composite) optimum EMI shielding effectiveness-65dB @ 10GHz specification min., 48 hour salt spray, 200°C (Composite-2000 hours dynamic salt spray).
		RGF-Composite	RGF-Metal				Electroless Nickel	electroless nickel plated ground plane aluminum (composite), 200°C
						G	Electroless Nickel	Space grade, electroless nickel, 48 hour salt spray, 200°C
RGW-Metal	RGW-Composite						Olive Drab Cadmium	Olive drab cadmium plated ground plane aluminum (composite), 175°C
			RK**	RK**	RK**	K	Passivated Stainless Steel	Corrosion resistant stainless steel, firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 200°C
			RL	RL		L	Stainless Steel w/ Nickel Plate	Corrosion resistant steel, electro deposited nickel, 500 hour salt spray, 200°C, non firewall
RW-Metal	RW-Composite					W-Metal J-Composite	Olive Drab Cadmium	Corrosion resistant olive drab cadmium plate aluminum (composite), 500 hour salt spray, EMI -50 dB @ 10 GHz specification min., 175°C (Composite-2000 hours dynamic salt spray).
			Y	Y		Y	Stainless Steel	Hermetic seal, passivated stainless steel, 200°C
			RS*	RS*	RS*	S	Stainless Steel w/ Nickel Plate	(Non-hermetic connectors), Nickel plated, corrosion resistant steel, firewall capability, 500 hour salt spray, 200°
			YN	YN		N	Stainless Steel w/ Nickel Plate	(Hermetic connectors), Nickel plated corrosion resistant steel, 200°C
DT						T	Durmalon plated	Nickel-PTFE alternative to Cadmium. Corrosion resistant, 500 hour salt spray, EMI-50dB at 10GHz specification min., 175°C
ZN						Z	Zinc-Nickel Plated	Zinc-Nickel Alternative to Cadmium corrosion resistant, 500 hour salt spray, Conductive, -65°C to +175°C

Quadrax or Differential Twinax:

* Consult Amphenol Aerospace, Sidney, NY for availability. **Coaxial arrangements are not available in these classes.

The incorporation of Quadrax or Differential Twinax contacts requires a modified connector to accommodate keyed contacts.

* D38999/26KJ20PN, is a series III stainless steel plug with twin axial and coaxial contacts that may not meet the firewall requirement of the specification.

D38999/26KJ61HN, is a series III stainless steel plug with high durability contacts. However, the connector will be limited to 500 cycles of durability.

Insert arrangements using multi-axial (i.e. coax, twinax, triax shielded) contacts should not be used in firewall applications.

Step 4. Select a Shell Size & Insert

Arrangement see pg. 4-7

Shell Size & Insert

Arrangement are on pages 4-7. First number represents Shell Size, second number is the Insert Arrangement.

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
			22-2	P		

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts
H	1500 Cycle Pin Contacts
J	1500 Cycle Socket Contacts
A	Same as "P" except supplied less pin Contacts (For Military D38999 prefix only)
B	Same as "S" except supplied less socket contacts (A & B designate nonstandard contact applications) (For Military D38999 prefix only)
X	Eyelet contacts, hermetics only

Step 6. Select an Alternate Keying Position

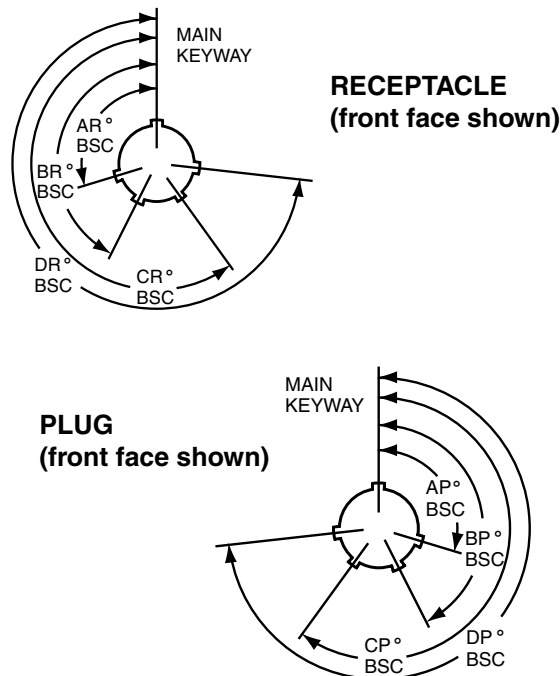
Key/Keyway Position

Shell Size	Key & Keyway Arrangement Identification Letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9	N*	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	E	91	131	197	240
	N*	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
17 and 19	D	119	146	176	298
	E	51	141	184	242
	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
21, 23, and 25	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
	N*	80	142	196	293
	A	135	170	200	310
25L, 33, and 37	B	49	169	188	244
	C	66	140	188	257
	D	62	145	188	280
	E	79	153	188	272

* An "N" designation is used on D38999 military part number but not on the commercial versions

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
					B	

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Master key stay fixed, minor keys rotate. Inserts are not rotated in conjunction with the master key/keyway.



Step 7. Special Variations

Consult Amphenol Aerospace, Sidney NY for variations.

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
						(xxx)

Easy Steps to build a part number... Boeing BACC63 CT & CU

1. 2. 3. 4. 5. 6. 7. 8.

Boeing Basic Number	Style	Shell Size	Shell Finish & Contact	Insert Arrangement	Contact Type	Alternate Keying Position	Ordering Option
BACC63	CT	15	—	19	P	N	H

Composite

Step 1. Boeing Number BACC63

Step 2. Select a Style

	Designates
CT	Composite Plug
CU	Composite Receptacle

Step 3. Shell Size 15

	Designates
15	One Shell Size

Step 4. Select a Shell Finish & Contact

	Designates
C	CT Style Only. Cadmium Plated, Grounded
D	Cadmium Plated, ungrounded
G	Nickel Plated, Grounded
—	Nickel Plated, Ungrounded

Step 5. Insert Arrangements-
Consult Amphenol Aerospace for insert Arrangements available.

Step 6. Select a Contact Type

	Designates
P	Pin
S	Socket

Step 7. Select an Alternate Keying Position

	Designates
N	Normal
A-E	Alternates

Step 8. Ordering Option

	Designates
H	Without Contacts & Seal Plugs
Blank	With contacts and seal plugs

Easy Steps to build a part number... Boeing BACC63 DB & DC

1. 2. 3. 4. 5. 6. 7. 8.

Boeing Basic Number	Style	Shell Size	Separator	Insert Arrangement	Contact Type	Alternate Keying Position	Ordering Option
BACC63	DB	15	—	19	P	N	H
BACC63	DC	17	—	8	P	N	H

Stainless Steel

Step 1. Boeing Number BACC63

Step 2. Select a Style

	Designates
DB	Stainless Steel Plug
DC	Stainless Steel Receptacle

Step 3. Select a Shell Size

	Designates
9-25	Shell Size

Step 4. Separator

	Designates
—	Separator

Step 5. Insert Arrangements-
Consult Amphenol Aerospace for insert Arrangements available.

Step 6. Select a Contact Type

	Designates
P	Pin
S	Socket

Step 7. Select an Alternate Keying Position

	Designates
N	Normal
A-E	Alternates

Step 8. Ordering Option

	Designates
H	Without Contacts & Seal Plugs
Blank	With contacts and seal plugs

III
II
I
SJT
38999

Matrix 2
26482

Matrix
Pyle
83723 III

Crimp Rear
Release Matrix
5015

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

TVP00R (D38999/20) - Crimp, Metal

CTVP00R (D38999/20) - Crimp, Composite

Wall Mounting Receptacle

38999

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

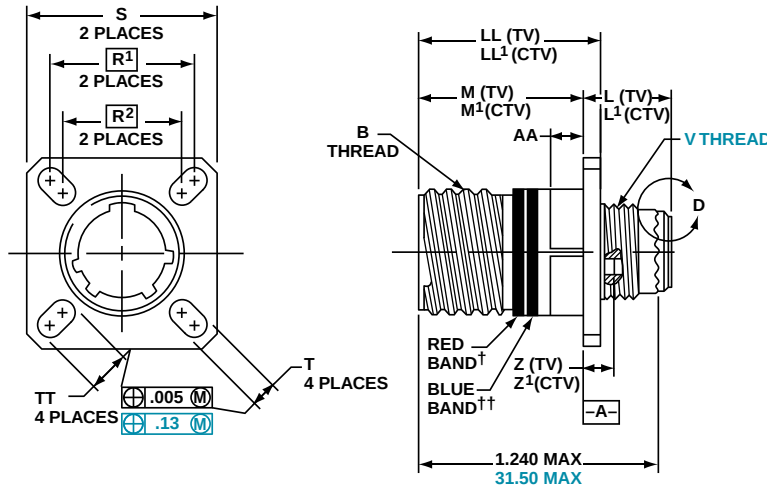
High Speed
Contacts

Options
Others

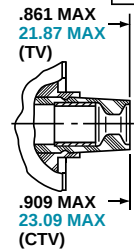
PART

To complete,
see how to order
pages 22-24.

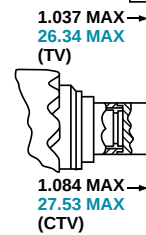
Connector Type	Shell Style	Service Class	Shell Size & Insert Arr	Contact Type	Alternate Position	Special Variations
TVP	00	RW	9-35	P	B	(453)
TVPS	00	RK	X-X	X	X	(XXX)
TVPS	00	RF	X-X	X	X	(XXX)
TVPS	00	RS	X-X	X	X	(XXX)
CTVP	00	RW	X-X	X	X	(XXX)
CTVPS	00	RF	X-X	X	X	(XXX)
D38999/	20	X	X-X	X	X	NA



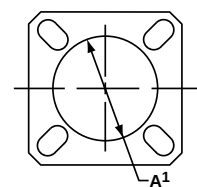
VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-



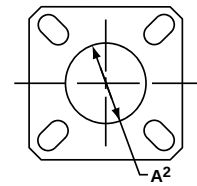
VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



PANEL HOLE
DIMENSIONS



BACK PANEL
MOUNTING



FRONT PANEL
MOUNTING

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P=0.3L-TS (Plated)	L Max. (TV)	L ¹ Max. (CTV)	M +.000 - .005 (TV)	M ¹ +.000 - .005 (CTV)	R ¹	R ²	S Max.	T ±.008	Z Max. (TV)	Z ¹ Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL ¹ ±.005 (CTV)	TT ±.008
9	A	.6250	.469	.514	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.469	.514	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.469	.514	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.469	.514	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.469	.514	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.469	.514	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.500	.545	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.500	.545	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.500	.545	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

Shell Size	MS Shell Size Code	L Max. (TV)	L ¹ Max. (CTV)	M +.00 - .13 (TV)	M ¹ +.00 - .13 (CTV)	R ¹	R ²	S Max.	T ±.20	V Thread Metric	Z Max. (TV)	Z ¹ Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max.	LL +.15 - .00 (TV)	LL ¹ ±.13 (CTV)	TT ±.20
9	A	11.91	13.06	20.83	19.63	18.26	15.09	24.1	3.25	M12X1-6g	3.89	5.03	16.66	13.11	5.94	22.99	23.06	5.49
11	B	11.91	13.06	20.83	19.63	20.62	18.26	26.5	3.25	M15X1-6g	3.89	5.03	20.22	15.88	5.94	22.99	23.06	4.93
13	C	11.91	13.06	20.83	19.63	23.01	20.62	28.9	3.25	M18X1-6g	3.89	5.03	23.42	19.05	5.94	22.99	23.06	4.93
15	D	11.91	13.06	20.83	19.63	24.61	23.01	31.3	3.25	M22X1-6g	3.89	5.03	26.59	23.01	5.94	22.99	23.06	4.39
17	E	11.91	13.06	20.83	19.63	26.97	24.61	33.7	3.25	M25X1-6g	3.89	5.03	30.96	25.81	5.94	22.99	23.06	4.93
19	F	11.91	13.06	20.83	19.63	29.36	26.97	36.9	3.25	M28X1-6g	3.89	5.03	32.94	28.98	5.94	22.99	23.06	4.93
21	G	12.70	13.84	20.07	18.82	31.75	29.36	40.1	3.25	M31X1-6g	4.65	5.79	36.12	32.16	5.18	22.99	22.96	4.93
23	H	12.70	13.84	20.07	18.82	34.93	31.75	43.3	3.91	M34X1-6g	4.65	5.79	39.29	34.93	5.18	22.99	22.96	6.15
25	J	12.70	13.84	20.07	18.82	38.10	34.93	46.4	3.91	M37X1-6g	4.65	5.79	42.47	37.69	5.18	22.99	22.96	6.15

All dimensions for reference only

□ Designates true position dimensioning

TVP02R – Crimp, Metal

CTVP02R – Crimp, Composite

Box Mounting Receptacle

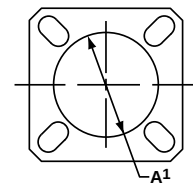
PART

To complete,
see how to order
pages 22-24.

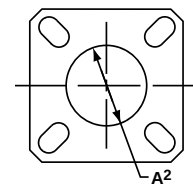
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVP	02	RW	9-35	P	B	(453)
TVPS	02	RK	X-X	X	X	(XXX)
TVPS	02	RF	X-X	X	X	(XXX)
TVPS	02	RS	X-X	X	X	(XXX)
CTVP	02	RW	X-X	X	X	(XXX)
CTVPS	02	RF	X-X	X	X	(XXX)



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING



FRONT PANEL MOUNTING

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Consult Amphenol Aerospace for availability of composite box mount receptacles.

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P=0.3L-TS (Plated)	L Max. (TV)	L ¹ Max. (CTV)	M +.000 - .005 (TV)	M ¹ +.000 - .005 (CTV)	R ¹	R ²	S Max.	T ±.008	Z. Max. (TV)	Z ¹ Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL ¹ ±.005 (CTV)	TT ±.008
9	A	.6250	.205	.250	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.205	.250	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.205	.250	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.205	.250	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.205	.250	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.205	.250	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.235	.280	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.235	.280	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.235	.280	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

Inches

Shell Size	MS Shell Size Code	L Max. (TV)	L ¹ Max. (CTV)	M +.00 - .13 (TV)	M ¹ +.00 - .13 (CTV)	R ¹	R ²	S Max.	T ±.20	Z. Max. (TV)	Z ¹ Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max.	LL +.15 - .00 (TV)	LL ¹ ±.13 (CTV)	TT ±.20
9	A	5.21	6.35	20.83	19.63	18.26	15.09	24.1	3.25	3.89	5.03	16.66	13.11	5.94	22.99	23.06	5.49
11	B	5.21	6.35	20.83	19.63	20.62	18.26	26.5	3.25	3.89	5.03	20.22	15.88	5.94	22.99	23.06	4.93
13	C	5.21	6.35	20.83	19.63	23.01	20.62	28.9	3.25	3.89	5.03	23.42	19.05	5.94	22.99	23.06	4.93
15	D	5.21	6.35	20.83	19.63	24.61	23.01	31.3	3.25	3.89	5.03	26.59	23.01	5.94	22.99	23.06	4.39
17	E	5.21	6.35	20.83	19.63	26.97	24.61	33.7	3.25	3.89	5.03	30.96	25.81	5.94	22.99	23.06	4.93
19	F	5.21	6.35	20.83	19.63	29.36	26.97	36.9	3.25	3.89	5.03	32.94	28.98	5.94	22.99	23.06	4.93
21	G	5.97	7.11	20.07	18.82	31.75	29.36	40.1	3.25	4.65	5.79	36.12	32.16	5.18	22.99	22.96	4.93
23	H	5.97	7.11	20.07	18.82	34.92	31.75	43.3	3.91	4.65	5.79	39.29	34.93	5.18	22.99	22.96	6.15
25	J	5.97	7.11	20.07	18.82	38.10	34.92	46.4	3.91	4.65	5.79	42.47	37.69	5.18	22.99	22.96	6.15

Millimeters

All dimensions for reference only



Designates true position dimensioning

Straight Plug

PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	06	RW	9-35	P	B	(453)
TVS	06	RK	X-X	X	X	(XXX)
TVS	06	RF	X-X	X	X	(XXX)
TVS	06	RS	X-X	X	X	(XXX)
CTV	06	RW	X-X	X	X	(XXX)
CTVS	06	RF	X-X	X	X	(XXX)
D38999/	26	X	X-X	X	X	NA

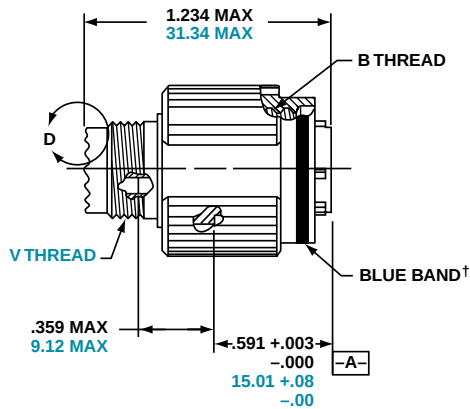
METAL



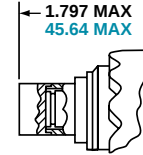
VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-



COMPOSITE



VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2B (Plated)	Q Dia. Max.
9	A	.6250	.858
11	B	.7500	.984
13	C	.8750	1.157
15	D	1.0000	1.280
17	E	1.1875	1.406
19	F	1.2500	1.516
21	G	1.3750	1.642
23	H	1.5000	1.768
25	J	1.6250	1.890

Millimeters

Shell Size	MS Shell Size Code	Q Max.	V Thread Metric
9	A	21.8	M12X1-6g
11	B	25.0	M15X1-6g
13	C	29.4	M18X1-6g
15	D	32.5	M22X1-6g
17	E	35.7	M25X1-6g
19	F	38.5	M28X1-6g
21	G	41.7	M31X1-6g
23	H	44.9	M34X1-6g
25	J	48.0	M37X1-6g

All dimensions for reference only.

TV26/MTV26 – Crimp, Metal CLUTCH-LOK™ Plug

For High Vibration Applications

PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	26	RK	9-35	P	N	(453)
TV	26	RS	X-X	X	N	(XXX)
MTV	26	RK	X-X	X	N	(XXX)
MTV	26	RS	X-X	X	N	(XXX)

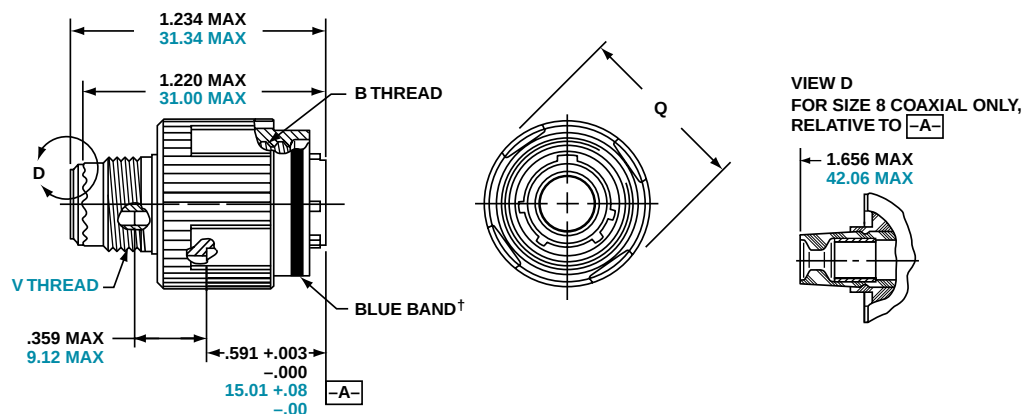
For parts with MS Stamping use MTV26() part number as shown above.

Designed for high vibration and harsh environments such as aircraft gas turbine engines, the CLUTCH-LOK is also an ideal choice for demanding applications such as aircraft, space and military ground vehicles. The unique clutch design of the Amphenol CLUTCH-LOK means that you don't have to compromise the need for quick, smooth mating of plugs and receptacles in order to get increased uncoupling torque.

The CLUTCH-LOK has proven to not only remain mated and pass all the Series III specification requirements, it also has proven to actually tighten itself under vibration. This is a powerful advantage over the traditionally high vibration application connectors. The CLUTCH-LOK is also a tremendous advantage in inaccessible, hard to reach areas where mating torque is difficult to apply and complete coupling is not verifiable by inspection.

CLUTCH-LOK features and benefits:

- High degree of differential torque
- Infinite free coupling and positive metal-to-metal bottoming with each mating
- No settling back to the next ratchet tooth
- Available with stainless steel shells and Class K firewall inserts
- All the advantages of MIL-DTL-38999 Series III including EMI/RFI shielding, electrolytic erosion resistance and contact protection with recessed pins
- Enhanced connector performance at affordable prices
- Completely intermateable with all existing MIL-DTL-38999 Series III connectors
- Fully QPL'd



† Blue band indicates rear release contact retention system

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2B (Plated)	Q Dia. Max.
9	A	.6250	.858
11	B	.7500	.984
13	C	.8750	1.157
15	D	1.0000	1.280
17	E	1.1875	1.406
19	F	1.2500	1.516
21	G	1.3750	1.642
23	H	1.5000	1.768
25	J	1.6250	1.890

All dimensions for reference only.

Shell Size	MS Shell Size Code	Q Max.	V Thread Metric
9	A	21.8	M12X1-6g
11	B	25.0	M15X1-6g
13	C	29.4	M18X1-6g
15	D	32.5	M22X1-6g
17	E	35.7	M25X1-6g
19	F	38.5	M28X1-6g
21	G	41.7	M31X1-6g
23	H	44.9	M34X1-6g
25	J	48.0	M37X1-6g

Jam Nut Receptacle

PART

To complete,
see how to order
pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	07	RW	9-35	P	B	(453)
TVS	07	RK	X-X	X	X	(XXX)
TVS	07	RF	X-X	X	X	(XXX)
TVS	07	RS	X-X	X	X	(XXX)
CTV	07	RW	X-X	X	X	(XXX)
CTVS	07	RF	X-X	X	X	(XXX)
D38999/	24	X	X-X	X	X	NA



† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

★ .059 dia min.

1.5 dia min., 3 lockwire holes Formed lockwire hole design (6 holes) is optional Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max.	D ¹ +.010 - .000	D ² +.000 - .010	H Hex +.017 - .016	S ±.010
9	A	.6250	1.199	.700	.670	.875	1.062
11	B	.7500	1.386	.825	.770	1.000	1.250
13	C	.8750	1.511	1.010	.955	1.188	1.375
15	D	1.0000	1.636	1.135	1.085	1.312	1.500
17	E	1.1875	1.761	1.260	1.210	1.438	1.625
19	F	1.2500	1.949	1.385	1.335	1.562	1.812
21	G	1.3750	2.073	1.510	1.460	1.688	1.938
23	H	1.5000	2.199	1.635	1.585	1.812	2.062
25	J	1.6250	2.323	1.760	1.710	2.000	2.188

Millimeters

Shell Size	MS Shell Size Code	C Max.	D ¹ +.25 - .00	D ² +.00 - .25	H Hex +.43 - .41	S ±.25	V Thread Metric
9	A	30.45	17.78	17.02	22.23	26.97	M12X1-6g
11	B	35.20	20.96	19.59	25.40	31.75	M15X1-6g
13	C	38.38	25.65	24.26	30.18	34.93	M18X1-6g
15	D	41.55	28.83	27.56	33.32	38.10	M22X1-6g
17	E	44.73	32.01	30.73	36.53	41.28	M25X1-6g
19	F	49.50	35.18	33.91	39.67	46.02	M28X1-6g
21	G	52.65	38.35	37.08	42.80	49.23	M31X1-6g
23	H	55.85	41.53	40.26	46.02	52.37	M34X1-6g
25	J	59.00	44.70	43.43	50.80	55.58	M37X1-6g

All dimensions for reference only NOTE: Deep reach receptacles are available for panel thicknesses up to .750 max.

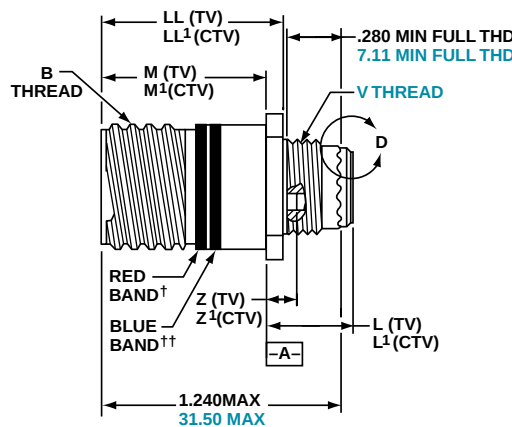
TV01R – Crimp, Metal CTV01R – Crimp, Composite

Line Receptacle

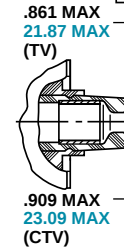
PART

To complete,
see how to order
pages 22-24.

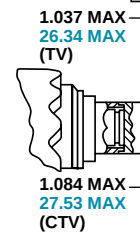
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	01	RW	9-35	P	B	(453)
TVS	01	RF	X-X	X	X	(XXX)
CTV	01	RW	X-X	X	X	(XXX)
CTVS	01	RF	X-X	X	X	(XXX)



VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-



VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2A (Plated)	M +.000 - .005 (TV)	M¹ +.000 - .005 (CTV)	L Max. (TV)	L¹ Max. (CTV)	S ±.010 (TV)	S¹ ±.010 (CTV)	Z Max (TV)	Z¹ Max (CTV)	GG ±.010 (TV)	GG¹ ±.010 (CTV)	LL +.006 - .000 (TV)	LL¹ ±.005 (CTV)
9	A	.6250	.820	.773	.469	.514	.675	.635	.153	.198	.812	.699	.905	.908
11	B	.7500	.820	.773	.469	.514	.800	.765	.153	.198	.905	.875	.905	.908
13	C	.8750	.820	.773	.469	.514	.925	.885	.153	.198	1.093	1.007	.905	.908
15	D	1.0000	.820	.773	.469	.514	1.050	1.100	.153	.198	1.219	1.140	.905	.908
17	E	1.1875	.820	.773	.469	.514	1.238	1.197	.153	.198	1.375	1.229	.905	.908
19	F	1.2500	.820	.773	.469	.514	1.300	1.260	.153	.198	1.469	1.380	.905	.908
21	G	1.3750	.790	.741	.500	.545	1.425	1.385	.183	.228	1.625	1.493	.905	.904
23	H	1.5000	.790	.741	.500	.545	1.550	1.510	.183	.228	1.750	1.626	.905	.904
25	J	1.6250	.790	.741	.500	.545	1.675	1.635	.183	.228	1.875	1.777	.905	.904

Millimeters

Shell Size	MS Shell Size Code	M +.00 - .013 (TV)	M¹ +.00 - .13 (CTV)	L Max. (TV)	L¹ Max. (CTV)	S ±.25 (TV)	S¹ ±.010 (CTV)	V Thread Metric	Z Max (TV)	Z¹ Max (CTV)	GG ±.25 (TV)	GG¹ ±.25 (CTV)	LL +.15 - .00 (TV)	LL¹ ±.13 (CTV)
9	A	20.83	19.63	11.91	13.06	17.15	16.13	M12X1-6g	3.89	5.03	20.62	17.75	22.99	23.06
11	B	20.83	19.63	11.91	13.06	20.32	19.43	M15X1-6g	3.89	5.03	22.99	22.22	22.99	23.06
13	C	20.83	19.63	11.91	13.06	23.50	22.47	M18X1-6g	3.89	5.03	27.76	25.57	22.99	23.06
15	D	20.83	19.63	11.91	13.06	26.67	27.94	M22X1-6g	3.89	5.03	30.96	28.95	22.99	23.06
17	E	20.83	19.63	11.91	13.06	31.45	30.40	M25X1-6g	3.89	5.03	34.93	31.21	22.99	23.06
19	F	20.83	19.63	11.91	13.06	33.02	32.00	M28X1-6g	3.89	5.03	37.31	35.05	22.99	23.06
21	G	20.07	18.82	12.70	13.84	36.20	35.18	M31X1-6g	4.65	5.79	41.28	37.92	22.99	22.96
23	H	20.07	18.82	12.70	13.84	39.37	38.35	M34X1-6g	4.65	5.79	44.45	41.30	22.99	22.96
25	J	20.07	18.82	12.70	13.84	42.55	41.53	M37X1-6g	4.65	5.79	47.63	45.13	22.99	22.96

All dimensions for reference only

38999

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

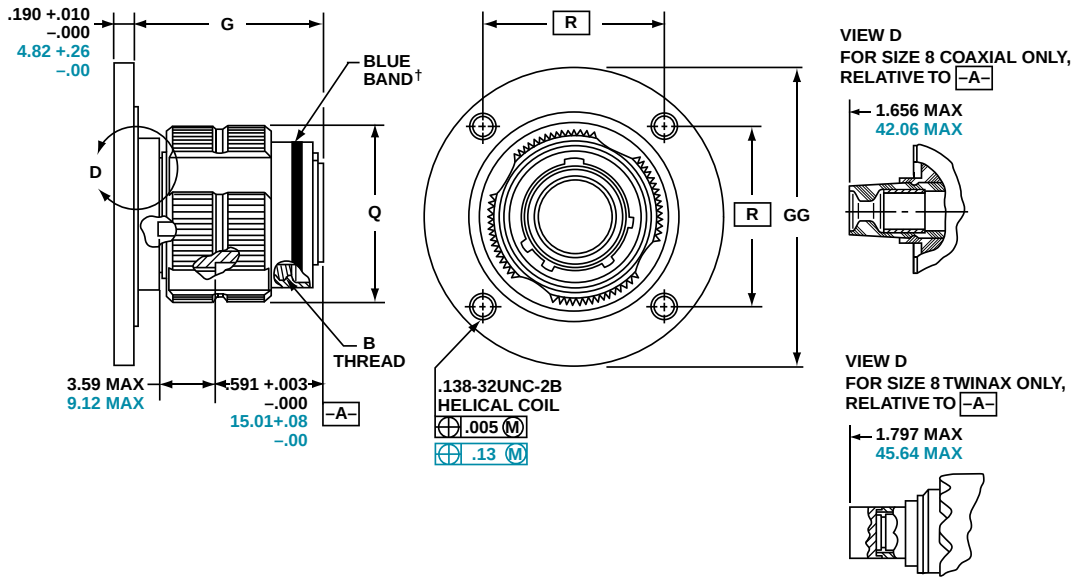
High Speed Contacts

Options Others

PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	09	RW	9-35	P	B	(453)
TVS	09	RF	X-X	X	X	(XXX)



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS-2A (Plated)	G ±.060	Q Dia. Max	R	GG Dia ±.005
9**	A	.6250	1.106	.859	1.038	1.838
11	B	.7500	1.106	.969	1.115	1.948
13**	C	.8750	1.106	1.141	1.240	2.124
15	D	1.0000	1.106	1.266	1.327	2.248
17	E	1.1875	1.106	1.391	1.417	2.375
19	F	1.2500	1.356	1.500	1.557	2.495
21	G	1.3750	1.356	1.625	1.624	2.568
23	H	1.5000	1.356	1.750	1.713	2.723
25	J	1.6250	1.356	1.875	1.801	2.848

Millimeters

Shell Size	MS Shell Size Coded	G ±.152	Q Dia. Max	R	GG Dia ±.13
9**	A	28.09	21.82	26.37	46.69
11	B	28.09	24.62	28.32	49.48
13**	C	28.09	28.98	31.50	53.95
15	D	28.09	32.16	33.71	57.10
17	E	28.09	35.33	35.99	60.33
19	F	34.44	38.10	39.55	63.37
21	G	34.44	41.28	41.25	65.23
23	H	34.44	44.45	43.51	69.16
25	J	34.44	47.63	45.75	72.34

All dimensions for reference only

** Partially tooled. Consult Amphenol Aerospace for availability

□ Designates true position dimensioning

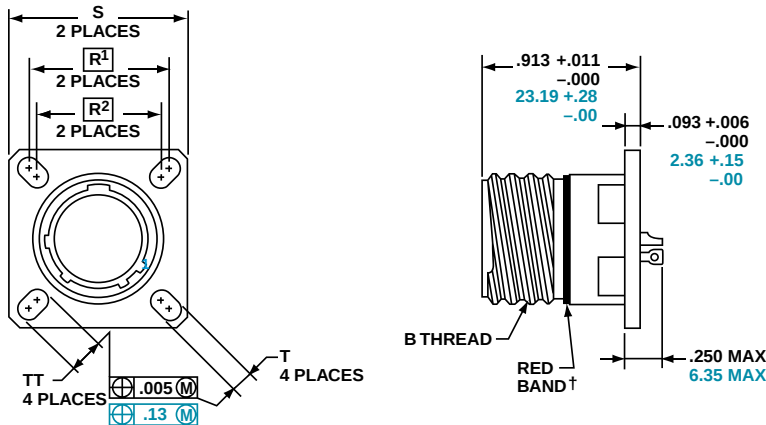
TVPS02Y (D38999/21) – Hermetic
Stainless Steel

Box Mounting Receptacle



PART #
To complete, see how to
order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVPS	02	Y	9-35	P	B	(453)
TVPS	02	YN	X-X	X	X	(XXX)
D38999/	21	X	X-X	X	X	NA



† Red band indicates fully mated
NOTE: Consult Amphenol Aerospace for availability of non-glass-sealed versions
with printed circuit tail contacts.

Inches

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS (Plated)	R1	R2	S ±.010	T ±.008	TT ±.008
9	A	.6250	.719	.594	.938	.128	.216
11	B	.7500	.812	.719	1.031	.128	.194
13	C	.8750	.906	.812	1.125	.128	.194
15	D	1.0000	.969	.906	1.219	.128	.173
17	E	1.1875	1.062	.969	1.312	.128	.194
19	F	1.2500	1.156	1.062	1.438	.128	.194
21	G	1.3750	1.250	1.156	1.562	.128	.194
23	H	1.5000	1.375	1.250	1.688	.154	.242
25	J	1.6250	1.500	1.375	1.812	.154	.242

Millimeters

Shell Size	MS Shell Size Coded	R1	R2	S ±.25	T ±.20	TT ±.20
9	A	18.26	15.09	23.83	3.25	5.49
11	B	20.62	18.26	26.19	3.25	4.93
13	C	23.01	20.62	28.58	3.25	4.93
15	D	24.61	23.01	30.96	3.25	4.39
17	E	26.97	24.61	33.32	3.25	4.93
19	F	29.36	26.97	36.53	3.25	4.93
21	G	31.75	29.36	39.67	3.25	4.93
23	H	34.93	31.75	42.88	3.91	6.15
25	J	38.10	34.93	46.02	3.91	6.15

All dimensions for reference only

Designates true position dimensioning

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

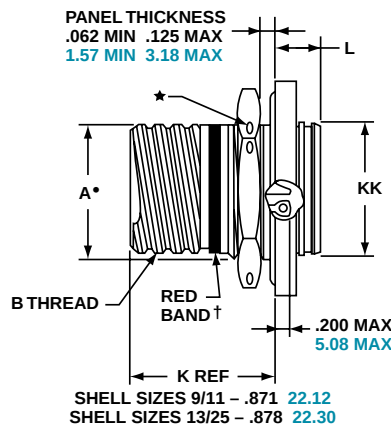
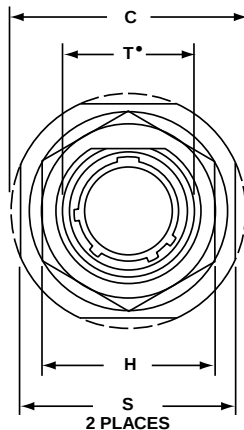
Options
Others

Jam Nut Receptacle

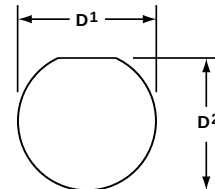
PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	07	Y	9-35	P	B	(453)
TVS	07	YN	X-X	X	X	(XXX)
D38999/	23	X	X-X	X	X	NA



PANEL HOLE DIMENSIONS



JAM NUT D-HOLE MOUNTING

† Red band indicates fully mated

★ .059 dia min.

1.5 dia min. 3 lockwire holes

Formed lockwire hole design (6 holes) is optional.

Inches

Shell Size	MS Shell Size code	A* +.000 -.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	D ¹ +.010 -.000	D ¹ +.000 -.010	H Hex +.017 -.016	L Max	S ±.010	T* +.010 -.000	KK +.011 -.000
9	A	.669	.6250	1.199	.700	.670	.875	.357	1.062	.697	.642
11	B	.769	.7500	1.386	.825	.770	1.000	.357	1.250	.822	.766
13	C	.955	.8750	1.511	1.010	.955	1.188	.357	1.375	1.007	.892
15	D	1.084	1.0000	1.636	1.135	1.085	1.312	.357	1.500	1.134	1.018
17	E	1.208	1.1875	1.761	1.260	1.210	1.438	.357	1.625	1.259	1.142
19	F	1.333	1.2500	1.949	1.385	1.335	1.562	.381	1.812	1.384	1.268
21	G	1.459	1.3750	2.073	1.510	1.460	1.688	.381	1.938	1.507	1.392
23	H	1.575	1.5000	2.199	1.635	1.585	1.812	.381	2.062	1.634	1.518
25	J	1.709	1.6250	2.323	1.760	1.710	2.000	.381	2.188	1.759	1.642

Millimeters

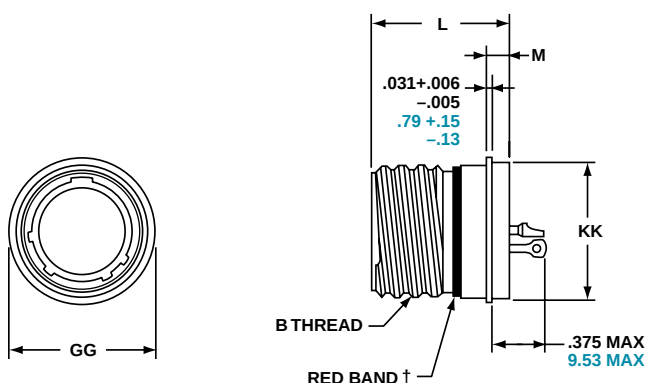
Shell Size	MS Shell Size code	A* +.00 - .25	C Max	D ¹ +.25 - .00	D ¹ +.00 - .25	H Hex +.43 -.41	L Max	S ±.25	T* +.25 -.00	KK +.28 -.00
9	A	16.99	30.45	17.78	17.02	22.23	9.07	26.97	17.70	16.31
11	B	19.53	35.20	20.96	19.59	25.40	9.07	31.75	20.88	19.46
13	C	24.26	38.38	25.65	24.26	30.18	9.07	34.93	25.58	22.66
15	D	27.53	41.55	28.83	27.56	33.32	9.07	38.10	28.80	25.86
17	E	30.68	44.73	32.01	30.73	36.53	9.07	41.28	31.98	29.01
19	F	33.86	49.50	35.18	33.91	39.67	9.68	46.02	35.15	32.21
21	G	37.06	52.65	38.35	37.08	42.80	9.68	49.23	38.28	35.36
23	H	40.01	55.85	41.53	40.26	46.02	9.68	52.37	41.50	38.56
25	J	43.41	59.00	44.70	43.43	50.80	9.68	55.58	44.68	41.71

All dimensions for reference only

• D shaped panel cut-out dimensions

TVSIY (D38999/25) – Hermetic Stainless Steel

Solder Mounting Receptacle



† Red band indicates fully mated

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 / -.005	M +.006 / -.005	GG Dia. +.011 / -.010	KK Dia. +.011 / -.005
9	A	.6250	.806	.125	.750	.672
11	B	.7500	.806	.125	.844	.781
13	C	.8750	.806	.125	.969	.906
15	D	1.0000	.806	.125	1.094	1.031
17	E	1.1875	.806	.125	1.218	1.156
19	F	1.2500	.806	.125	1.312	1.250
21	G	1.3750	.806	.125	1.438	1.375
23	H	1.5000	.838	.156	1.563	1.500
25	J	1.6250	.838	.156	1.688	1.625

Millimeters

Shell Size	MS Shell Size Code	L +.28 / -.00	M +.15 / -.13	GG Dia. +.28 / -.25	KK Dia. +.03 / -.13
9	A	20.47	3.18	19.05	17.07
11	B	20.47	3.18	21.44	19.84
13	C	20.47	3.18	24.61	23.01
15	D	20.47	3.18	27.79	26.19
17	E	20.47	3.18	30.94	29.36
19	F	20.47	3.18	33.32	31.75
21	G	20.47	3.18	36.53	34.93
23	H	21.29	3.96	39.70	38.10
25	J	21.29	3.96	42.88	41.28

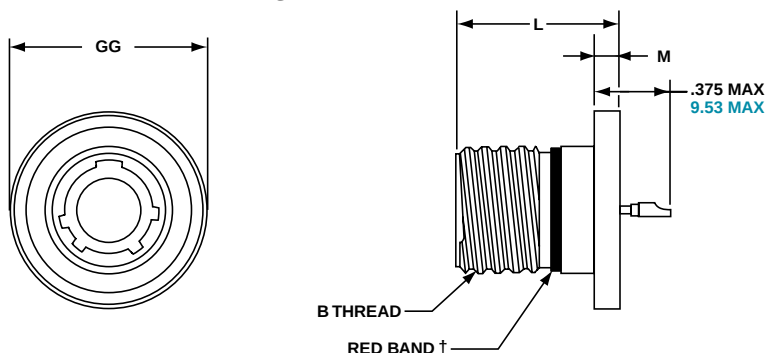
PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	I	Y	9-35	P	B	(453)
TVS	I	YN	X-X	X	X	(XXX)
D38999/	25	X	X-X	X	X	NA

TVSHIY (D38999/27) – Hermetic, Stainless Steel

Weld Mounting Receptacle



† Red band indicates fully mated

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 / -.000	M +.006 / -.005	GG Dia. +.011 / -.010
9	A	.6250	.806	.125	.973
11	B	.7500	.806	.125	1.095
13	C	.8750	.806	.125	1.221
15	D	1.0000	.806	.125	1.347
17	E	1.1875	.806	.125	1.434
19	F	1.2500	.806	.125	1.579
21	G	1.3750	.806	.125	1.721
23	H	1.5000	.838	.156	1.886
25	J	1.6250	.838	.156	1.973

Millimeters

Shell Size	MS Shell Size Code	L +.28 / -.00	M +.15 / -.13	GG Dia. +.25 / -.00
9	A	20.47	3.18	24.71
11	B	20.47	3.18	27.81
13	C	20.47	3.18	31.01
15	D	20.47	3.18	34.21
17	E	20.47	3.18	36.42
19	F	20.47	3.18	40.11
21	G	20.47	3.18	43.71
23	H	21.29	3.96	47.90
25	J	21.29	3.96	50.11

PART

To complete, see how to order pages 22-24.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	HI	Y	9-35	P	B	(453)
TVS	HI	YN	X-X	X	X	(XXX)
D38999/	27	X	X-X	X	X	NA

All dimensions for reference only

III

38999

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

Options Others

Amphenol® Tri-Start Breakaway Fail Safe Connectors provide unequalled performance in environments requiring instant disengagement.

Designed to provide quick disconnect of a connector plug and receptacle with an axial pull on the lanyard, the "Breakaway" Fail Safe connector family offers a wide range of electrical and mechanical features:

- Instant decoupling and damage free separation
- Completely intermateable with standard receptacles (D38999/20 and /24)
- Inventory support commonality through the use of standard insert arrangements and contacts

Breakaway un-mating is initiated by applying a pull force to the lanyard which causes the operating sleeve on the plug to move away from the receptacle. Coupling segments on the plug then move away from the mating receptacle while expanding, thus releasing the receptacle. After completion of the un-mating sequence, spring compression returns the sleeve and segments to their original positions. Un-mating of the plug may also be accomplished by normal rotation of the coupling ring without affecting the breakaway capability.



Amphenol offers a variety of lanyard plug styles including MIL-STD-1760 types 1, 2 and 6 for Stores Management applications.

The Tri-Start Breakaway Fail Safe connector exceeds the MIL-Spec Series III requirements for EMI/EMP shielding and features include:

- Solid metal-to-metal coupling
- EMI grounding fingers
- Conductive finishes

Amphenol Breakaway Fail Safe connectors are qualified to MIL-DTL-38999/29, /30 and /31 (for MIL-STD-1760 Stores Management applications). In fact, Amphenol offers more qualified Breakaway shell size and insert combinations than any other QPL supplier.

In addition to standard Breakaway connectors, Amphenol also manufactures custom breakaway connectors including those with:

- Highly durable non-metallic operating sleeves in a variety of lengths and diameters
- Increased pull-force capability
- Low-profile designs
- Custom lanyard lengths and backshells
- Low force separation capabilities
- Low insertion/separation force contacts
- Non-cadmium finishes

Whether you need a standard Breakaway, one of our custom Breakaways or, a unique Breakaway design, please contact your local Amphenol representative.

Contact Amphenol Aerospace for more information on breakaway, quick-disconnect connectors. Other Amphenol circular families (MIL-DTL-26482, MIL-DTL-83723) also offer breakaway quick-disconnect connectors.

See accessories for breakaway connectors on page 90.



Breakaway with Coax Contacts



Special configuration Fail Safe used on space telescope application. Lanyard is replaced by a swivel ring for remote disconnect and "wing arms" have been added for manual actuation accessibility by gloved astronauts.

PART #

To complete,
see how to order
pages 38-39.

Connector Type	Shell Style	Shell Size & Insert Arrg	Lanyard Length Code	Contact Type/ Alternate Insert Rotation
D38999	29	29	E	P
D38999	30	X-X	X	X
88	5565	X-X	X	X
91	5565	X-X	X	X

(Pins Only)

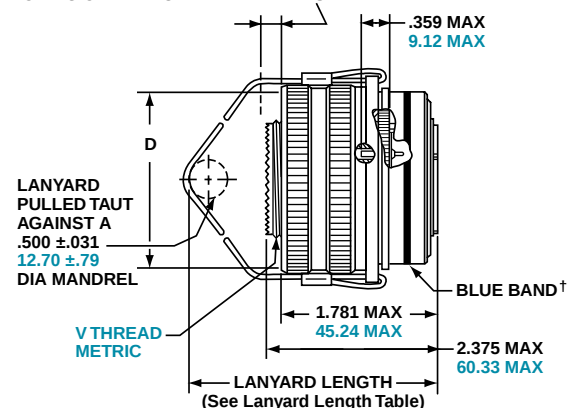
(Sockets Only)

METAL

.374 MAX

9.50 MAX

OUTER SLEEVE MOVEMENT
DURING UNMATING THREAD RELEASE



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Max	D Max Accessory Dia.
11	B	1.846	1.109
13	C	1.972	1.250
15	D	2.079	1.375
17	E	2.205	1.500
19	F	2.301	1.625
21	G	2.472	1.750
23	H	2.594	1.875
25	J	2.705	2.000

Millimeters

Shell Size	MS Shell Size Code	B Max	D Max Accessory Dia.	V Thread Metric
11	B	46.89	28.17	M15X1.0-6g
13	C	50.09	31.75	M18X1.0-6g
15	D	52.81	34.93	M22X1.0-6g
17	E	56.01	38.10	M25X1.0-6g
19	F	58.45	41.28	M28X1.0-6g
21	G	62.79	44.45	M31X1.0-6g
23	H	65.89	47.63	M34X1.0-6g
25	J	68.71	50.08	M37X1.0-6g

All dimensions for reference only

Easy Steps to build a part number... **Military**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

DOD Number Prefix	Spec Sheet Number	Service Class	Shell Size	Insert Arrangement	Lanyard Length Code	Alternate Keying Position
D38999/	29	F	E	6	P	N

Step 1. DOD Number Prefix

D38999/ designates MIL-DTL-38999, Series III, Tri-Start Connector

Step 2. Select a Specification Sheet Number

29	Designates Lanyard Release Plug with pin contacts
30	Designates Lanyard Release Plug with socket contacts

Step 3. Select a Service Class

F	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness –65dB@10 GHz specification min., 48 hour salt spray, 200°C
W	Designates corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI –50dB@10 GHz specification min., 175°C

Step 4. & 5 Insert Availability

Commercial Basic Part# Shell & Insert Arrg. Code	Shell Size- Insert Arrangement	Military Shell Size- Insert Arrangement	Service Rating	Total Contacts	Contact Size						
					22D	20	16	12	12 Coax	8 Coax	8 Twinax
88/91-556508	11-2	*	I	2			2				
06	11-35	*	M	13	13						
07	11-98	*	I	6		6					
10	13-4	*	I	4			4				
11	13-8	*	I	8		8					
14	13-35	*	M	22	22						
13	13-98	*	I	10		10					
18	15-5	*	II	5			5				
23	15-15	*	I	15		14	1				
22	15-18	*	I	18		18					
19	15-19	*	I	19		19					
20	15-35	*	M	37	37						
21	15-97	*	I	12		8	4				
33	17-2	E-2	M	39	38						1
27	17-6	E-6	I	6				6			
28	17-8	E-8	II	8			8				
29	17-26	E-26	I	26		26					
30	17-35	E-35	M	55	55						
31	17-99	E-99	I	23		21	2				
37	19-11	F-11	II	11			11				
41	19-18	F-18	M	18	14						4
38	19-28	F-28	I	28		26	2				
39	19-32	F-32	I	32		32					
40	19-35	F-35	M	66	66						
47	21-11	G-11	I	11				11			
48	21-16	G-16	II	16			16				
49	21-35	G-35	M	79	79						
51	21-39	G-39	I	39		37	2				
50	21-41	G-41	I	41		41					
57	23-21	H-21	II	21			21				
58	23-35	H-35	M	100	100						
59	23-53	H-53	I	53		53					
61	23-54	*	M	53	40		9	4			
60	23-55	*	I	55		55					
71	25-4	J-4	I	56		48	8				
63	25-7	J-7	M/Twinax	99	97					2	
64	25-8	J-8	Twinax	8							8
66	25-19	J-19	I	19				19			
74	25-20	J-20	N	30		10	13		4		3
72	25-24	J-24	I	24			12	12			
67	25-29	J-29	I	29			29				
68	25-35	J-35	M	128	128						
69	25-43	J-43	I	43		23	20				
65	25-46	*	I	46		40	4			2*	
70	25-61	J-61	I	61		61					
73	25-90	J-90	I	46		40	4			2	

*Not Mil
Qualified

D38999/29 & D38999/30 – Series III TV Breakaway Fail Safe Lanyard Release Plug

Step 6. Military/ Commercial Lanyard Length Code

Table II

Lanyard Length (in.) ± .236	Lanyard Length (mm) ± 6.0	Lanyard Length Code For Part Number
4.016	102	A
4.528	115	B
5.000	127	C
5.512	140	D
6.024	153	E
6.535	166	F
7.008	178	G
7.520	191	H
7.992	203	I
8.503	216	J
9.016	229	K
9.528	242	L
10.000	254	M
10.512	267	N
11.024	280	P
11.535	293	R
12.008	305	S
12.520	318	T
13.031	331	U
14.016	356	V
15.000	381	W
16.024	407	X
17.008	432	Y
18.031	458	Z

Step 7. Military Alternate Keying Position

For alternate positions of connector (to prevent cross-mating) see alternate positioning on page 24. (N indicates normal)

Easy Steps to build a part number... Commercial

FAIL SAFE 88-5565() & 91-5565()

Ordering procedure for example part number 88-556529-EP is shown below:

1.	2.	3.	4.	5.	6.
Service Class	Connector Type Identification	Shell Size & Insert Arrg. Code	Required Field	Lanyard Length Code	Contact Type/Alternate Keying Position
88	5565	29	0	E	P

Step 1. Select a Service Class

88	Designates corrosion resistant olive drab cadmium plate over nickel, 500 hour extended salt spray, EMI -50dB @ 10 GHz specification min., 175°C
91	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10 GHz specification min., 48 hour salt spray, 200°C

These are standard finishes. Consult Amphenol Aerospace, Sidney, NY for other variations.

Step 2. Select a Connector Type Identification

5565	Designates MIL-DTL-38999, Series III Tri-Start Lanyard Release Plug
------	---

Step 3. Select a Commercial Shell Size & Insert Arrangement Code

MIL-DTL-38999, see insert availability chart on page 38.

Step 4. Required Field

0	The required field is always a 0
---	----------------------------------

Step 5. Select a Lanyard Length Code

See Table II (to the left) for lanyard length code number.

Step 6. Select a Contact Type/Alternate Keying Position

P designates pin, S designates socket for normal positioning of contacts. When an alternate position of the connector is required to prevent cross-mating, a different letter (other than P or S) is used. See alternate positioning on page 24, then convert to Amphenol Commercial coding by the following chart.

Pin Contacts		Socket Contacts	
MS Letter	Amphenol letter	MS Letter	Amphenol Letter
PN	P (normal)	SN	S (normal)
PA	G	SA	H
PB	I	SB	J
PC	K	SC	L
PD	M	SD	N
PE	R	SE	T

III	38999
II	
I	
SJT	
Matrix 2	26482
Matrix	83723 III
Pyle	
Crimp Rear Release Matrix	5015
	26500 Pyle
Printed Circuit Board	
EMI Filter Transient	
Fiber Optics	
High Speed Contacts	
Options Others	

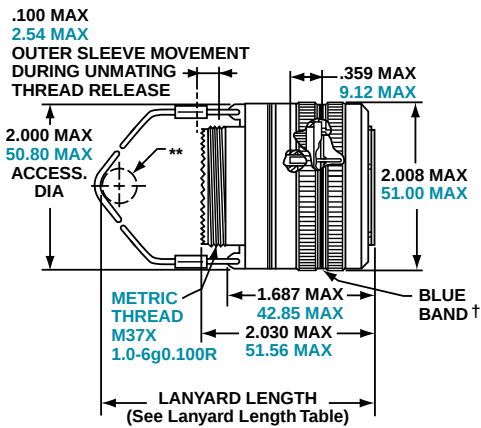
D38999/31 for MIL-STD-1760 – Series III TV Breakaway Fail Safe – Crimp, Metal Lanyard Release Plug

PIN CONTACTS ONLY,
SHELL SIZE 25 ONLY

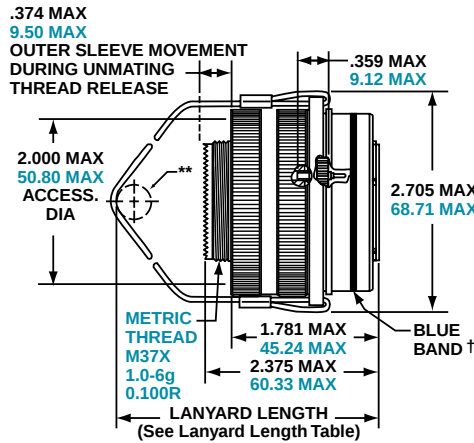
*Part number reference.
To complete, see how to order
page 41.

D38999/31
88-555875/76 Type 6
91-555875/76 Type 6
88-558518/19 Type 2
91-558518/19 Type 2
T3W-16B25-XXXX Type 1

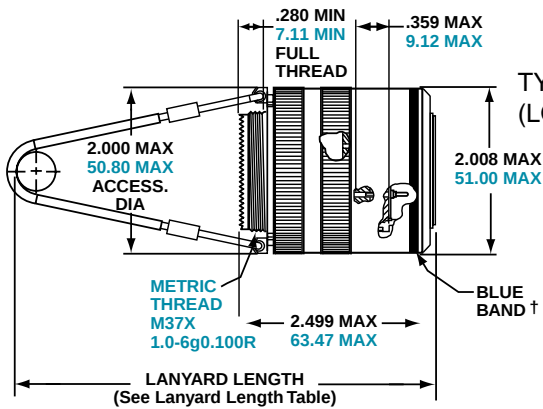
*To order by Commercial Part
numbers consult Amphenol.



TYPE 6



TYPE 2



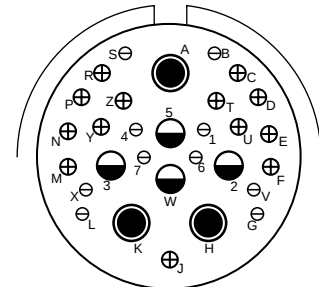
TYPE 1
(LONGER SHELL)

† Blue band indicates rear release
contact retention system
** Lanyard pulled taut against a
.500 ± .13 dia. Mandrel
All dimensions for reference only

Tri-Start Lanyard Separation Forces

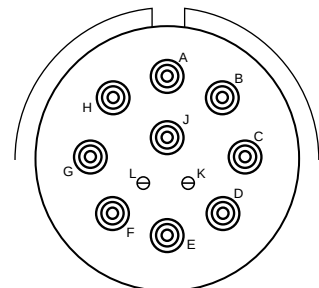
Shell Size	Straight Plug (lbs. max.)	15 Degree Pull (lbs. max.)
25	90	100

INSERT AVAILABILITY
FAIL SAFE D38999/31
FOR MIL-STD-1760



25-20

Primary Interface Signal Set



25-11

Auxiliary Power Signal Set

Contact Legend
8 (twinax) 10 (power) 12 (coax) 16 20

Pin Contact Data for MIL-STD-1760

Insert Arrangement	Service Rating	Total Con- tacts	Contact			
			20	16	12 (Coax)	8 (Twinax)
25-20	N	30	10	13	4	3

Contacts for 25-20 Pattern

Shell Size	Arrg. Number	Number of Contacts	Size Contacts	Service Rating	Contact Location	Standard Contacts	
						Pin	Socket
25	-20	3	8	Twinax	A, H, K	M39029/90-529	M39029/91-530
		4	12	Coax	2, 3 W, 5	M39029/28-211 M39029/102-558	M39029/75-416 M39029/103-559
		13	16	N	C, D, E, F, J, M, N, P, R, T, U, Y, Z	M39029/58-364	M39029/56-352
		10	20	N	B, G, L, S, V, X, 1, 4, 6, 7	M39029/58-363	M39029/56-351

Insert Arrangement	Service Rating	Total Contacts	Contact Size	
			20	10 (power)
25-11	N	11	2	9

Applications- Lanyard Release Plug

HOW TO ORDER - BY MILITARY PART NUMBER FAIL SAFE D38999/31

Ordering procedure for example part number D38999/31WE20PN1 is shown below:

Easy Steps to build a part number... Military

1.	2.	3.	4.	5.	6.	7.	8.
DOD Number Prefix	Spec Sheet Number	Service Class	Lanyard Length Code	Insert Arrangement	Contact Style	Alternate Keying Position	Type Number
D38999/	31	W	E	20	P	N	1

1. Select a DOD Number Prefix

	Designates
D38999/	MIL-DTL-38999, Series III Tri-Start Connectors

2. Specification Sheet Number

	Designates
31	Designates Lanyard Release Plug for MIL-STD-1760 with pin contacts

3. Select a Service Class

	Designates
F	Electroless nickel plated aluminum, optimum EMI shielding effectiveness –65dB @ 10 GHz specification min., 48 hour salt spray, 200°C
W	Corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI –50dB @ 10 GHz specification min., 175°C

4. Select a Lanyard Length Code

Lanyard Length (in.) ±.236	Lanyard Length (mm.) ± 6.0	Lanyard Length Code for Part Number
6.024	153.0	E
6.535	166.0	F
7.008	178.0	G
7.520	191.0	H
7.992	203.0	I
8.504	216.0	J
9.016	229.0	K
9.528	242.0	L

5. Select an Insert Arrangement

Only 11 or 20 are available contact arrangement numbers. See page 40.

6. Contact Style – P & A are Valid Options

	Designates
P	Replaces the “no designation” option in the PIN on revision C and earlier revision of the Mil-Spec.
A	Designates supplied less contacts.

7. Alternate Keying Position

	Designates
N	Is required for normal position.

8. Type Number

Type 1, 2 or 6. See drawings on page 40.

For accessories for lanyard release plugs see page 90.

III
38999
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

D38999 Type Hybrid Breakaway – Series III Crimp, Metal Shell with Composite Operating Sleeve, And Lower Profile Lanyard Release Plug

38999

SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

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

This new hybrid breakaway is the breakaway of choice for the Navy F-18 program.

Amphenol's hybrid lanyard design offers greater durability over D38999 aluminum and composite designs because of its ability to handle abuse taken after weapons release. Other advantages include:

- Lower profile compared to full metal breakaway Fail Safe connectors
- Less weight

This Hybrid Breakaway meets the applicable requirements of MIL-DTL-38999/31 including random & sine vibration, ice resistance, fluid immersion and hydrolytic stability tests. (Test reports are available upon request).

Currently the hybrid breakaway is available in shell sizes 25 and 17. It uses standard inserts available for breakaway plugs sizes 25 and 17, and is also available with inserts 25-20 and 25-11 for MIL-STD-1760. Consult Amphenol Aerospace for ordering of the new hybrid breakaway connectors. These hybrid connectors will accommodate the standard backshells for breakaway connectors shown on page 90.



New Hybrid Lanyard Release Plugs
(Metal inside shells and Composite, lower profile outer sleeves)

Stores Management Type II, Rail Launch Plugs and receptacles that meet MIL-STD-1760

Amphenol provides a Breakaway Rail Launch connector that is designed for use on aircraft that carry rail launch missiles such as AMRAAM.

These connectors are designed for blindmating of stores on rail launch applications. They consist of a buffer plug and a missile receptacle that meet the specifications of MIL-STD-1760 Stores Management.

Other features and benefits include:

- Designed to MIL-C-83538 specifications
- Bayonet and push pull coupling
- Use standard MIL-DTL-38999 crimp termination with power, coax and twinax contacts also available
- Buffer provides flame barrier
- Buffers are replaceable

Consult Amphenol Aerospace for more information and ordering.



Stores Management Type II Rail Launch Connectors

HD38999

High Density

A connector that has the
connections...

The HD38999 family of connectors was designed to work with existing mil-specified 38999 shells. To the end users familiar with standard 38999 connectors, this family of high density connectors will look, feel, and perform just like the mil-qualified connectors. Utilizing an existing mil-qualified 39029 size 23 contact and mil-qualified shells, the new system will be, in many cases, a drop-in connector. Even though the HD38999 has 30% more contacts, it still performs to minimum electrical requirements of standard 38999 connectors.



High Density Interconnects

Goes from 9 to 187 contacts!



- Aluminum
- Composite
- Stainless Steel
- Sealed
- Filtered

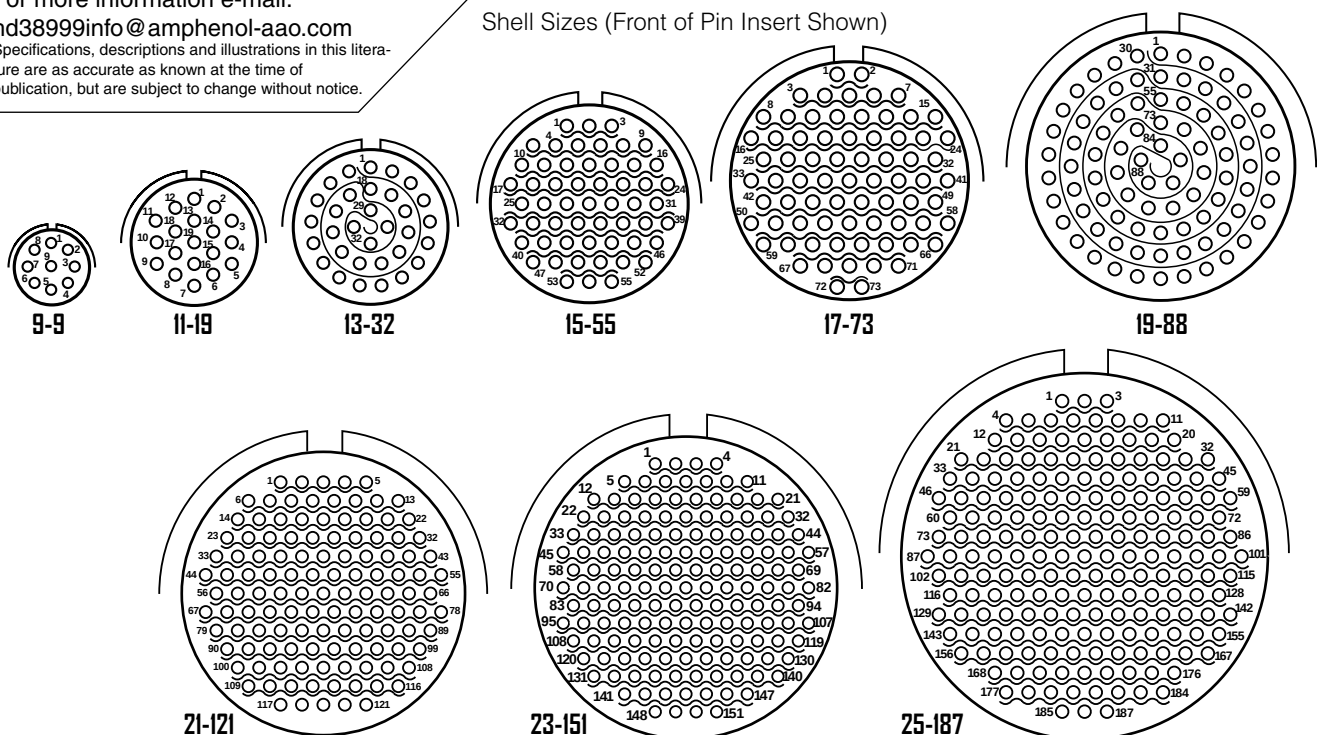


For more information e-mail:

hd38999info@amphenol-aao.com

Specifications, descriptions and illustrations in this literature are as accurate as known at the time of publication, but are subject to change without notice.

Shell Sizes (Front of Pin Insert Shown)



Front of
Pin Insert Shown.

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

38999

III
II
I
SJT

CRIMP CONTACT SIZE

SAE AS39029, SIZE 23

WIRE BARREL RANGES/CURRENT CAPABILITY

22 AWG	5.0 AMPS
24 AWG	3.0 AMPS
26 AWG	2.0 AMPS
28 AWG	1.5 AMPS

CRIMP BARREL DIAMETER

(Inches) .034-.036

CRIMP BARREL

Depth (Inches).151-.155

Note: Wire insulation diameter greater than 0.045 inches is too large for the extraction tool to work properly. Connector damage is possible.
Contact Part Numbers

Size 23 Sockets	10-597330-735	Crimp Tool - Daniels M22520/2-01
Size 23 Pins	10-597331-735	Positioner - Daniels M22520/2-13 - Pins
Sealing Plugs	10-405996-222 (M27488-22-2)	Daniels M22520/2-16 - Sockets
		Insertion/Removal Tool - Glenair 809-088

Temperature Range:
-65C to 175C

Insulation Resistance:
5000 megohms min. @ 500 VDC 25C

Dielectric Withstanding Voltage:
1000 VRMS @ Sea level

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

Options Others

Easy Steps to build a part number... HD38999



1. Connector Type	2. Shell Styles	3. Service Class	4. Shell Size - Insert arrangement	5. Contact Type	6. Alternate Positions	7. PCB Options
(P)TV	06	RW	23-151	P	B	(P25)

Step 1. Select a Connector Type

	Designates
TV	Tri-Start Series Connector
TVP	Back panel mounted receptacle
(P)	Potted version

Step 2. Select a Shell Style

	Designates
00	Wall mount receptacle
01	Line receptacle
06	Straight plug
07	Jam nut receptacle

Step 3. Select a Service Class

	Designates
RF	Electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10GHz specification min., 48 hour salt spray, 175°C
RW	Corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min., 175°C
RK	Corrosion resistant stainless steel, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 175°C
DT	Durmalon plated, alternative to Cadmium. Corrosion resistant, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min. without CR ⁶
ZN	Zinc-Nickel Alternative to Cadmium corrosion resistant, 500 hour salt spray, Conductive, -65°C to +175°C

Step 4. Select a Shell Size - Insert Arrangement

Shell Sizes are MIL-DTL-38999, Series III, plus newer High Density insert arrangements

Shell Size	Insert Arrangement	Shell Size	Insert Arrangement
9 - 9		19 - 88	
11 - 19		21 - 121	
13 - 32		23 - 151	
15 - 55		25 - 187	
17 - 73			

Step 5. Select a Contact Type

	Designates
P	Pin contacts
S	Socket contacts

Step 6. Select an Alternate Position

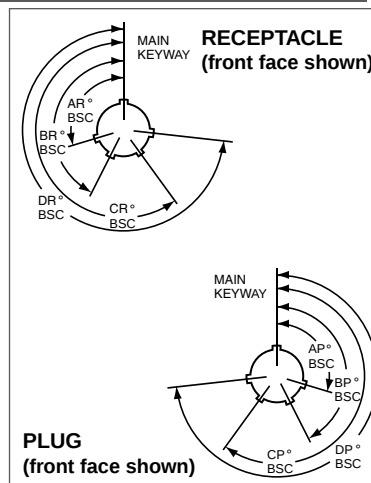
A, B, C, D, E, blank for normal

Shell Size	Key & keyway arrangement identification letter	AR ⁶ or AP ⁶ BSC	BR ⁶ or BP ⁶ BSC	CR ⁶ or CP ⁶ BSC	DR ⁶ or DP ⁶ BSC
9	N*	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	E	91	131	197	240
	N*	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
17 and 19	D	119	146	176	298
	E	51	141	184	242
	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
21, 23, and 25	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
	N*	80	142	196	293
	A	135	170	200	310

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.

Step 7. Select a PCB Contacts

Pin	Socket	Designates
P1	S1	PCB tail stickout .100" nominal +/- .040 inch
P15	S15	PCB tail stickout .150" nominal +/- .040 inch
P2	S2	PCB tail stickout .200" nominal +/- .040 inch
P25	S25	PCB tail stickout .250" nominal +/- .040 inch





Amphenol® LJT and JT Series subminiature cylindrical connectors are qualified to MIL-DTL-38999*, Series I and II respectively. These connectors were developed to meet the needs of the aerospace industry, and provided the impetus for development of the MIL-C-38999 specifications, which has been superseded by MIL-DTL-38999. Meeting or exceeding MIL-DTL-38999 requirements, Amphenol® JT/LJT connectors feature:

- **Lightweight, Space Saving Design**
- **Contact Protection** - 100% scoop-proof LJT design prevents bent pins and short circuits during mating
- **Quick Positive Coupling** - 3 point bayonet lock system
- **Mismating Eliminated** - with 5 key/keyway design
- **Error Proof Alternate Positioning** - insured by different key/keyway locations
- **EMI Shielding** - grounding fingers standard in LJT Series; optional in JT Series
- **Nine Shell Sizes and a Variety of Shell Styles**
- **Contact Options** - size 8, 10, 12, 16, 20, 22M and 22D Crimp, Solder, PCB, Wire wrap, Coax, Twinax, Triax, Thermocouple, Fiber Optic and Filter
- **Fixed Solder Contacts** - Amphenol MIL-DTL-38999 Series I LJT and II JT, are available in solder versions as both Commercial and Military qualified to MIL-DTL-27599
- **Hermetic** - air leakage limited to $1 \times 10^{-7} \text{ cm}^3$ per second optional
- **"Breakaway" Lanyard Release Style** - available in LJT plugs. Provides quick disconnect of the connector plug and receptacle with axial pull on the lanyard. See pages 78-80.
- **Inventory Support Commonality** - uses standard MIL-DTL-38999 contacts, insert arrangements and application tools.
- **RoHS Compliant Product Available** - Consult Amphenol Aerospace Operations.



Where proof of high reliability and lot control is required, MS approved equivalents to most proprietary JT and LJT connectors are available.

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

Components

Shell components are impact extruded or machined bar stock aluminum. Standard plating on shell components is cadmium over nickel. Many finishes are optional (see "Specifications" page 16). Hermetic seal receptacles are available in carbon steel or stainless steel shells. Dependable 5 key/keyway polarization with bayonet lock coupling is incorporated to aid and assure positive mating.

Insert material is a rigid dielectric with excellent electrical characteristics, providing durable protection for molded-in solder type contacts. Contrasting letter or number designations are used on insert faces.

A fluorinated silicone interfacial seal wafer is featured on the mating face of "crimp type pin" inserts. This assures complete electrical isolation of pins when connector halves are mated. In addition, a main joint gasket is installed in the receptacle for moisture sealing between connector halves. Both features are also available for hermetic receptacles.

Contacts

Maximum design flexibility is built into the JT/LJT Series, with a minimum of 2 to a maximum of 128 circuits per connector in a wide variety of contact arrangements. Contacts are available in sizes 8, 10, 12, 16, 20, 22, 22D and 22M with standard 50 micro inch minimum gold plating (100 micro inches optional). All socket contacts are probe proof. Crimp type rear removable contacts are featured in JT-R and LJT-R connectors. Solder termination contacts are also available, as well as PCB, wire wrap, thermocouple, fiber optic, coaxial, triaxial and twinax contact options.

Optional Features

High temperature capability of 392°F is available only in JTS or LJTS crimp type connectors. High temperature versions feature gold plated contacts, high temperature shell plating, stainless steel coupling nut spring, and epoxy inserts/fluorinated silicone grommet combination. Standard temperature capability for both solder and crimp is 302°F.

The JTN or LJTN type connectors are available for N_2O_4 resistance provided they are mated, and un-grommated rear faces are suitably protected. For complete listing and definition of connector types, shell styles and service classes, see How to Order, page 46. For information on Fail-Safe Lanyard Release style plugs, see pages 78-80.

III	38999	26482	83723 III	5015	26500 Pyle	Printed	EMI Filter	Fiber Optics	High Speed	Options
II		Matrix 2	Matrix	Crimp Rear		Circuit Board	Transient		Contacts	Others
I			Pyle	Release Matrix						
SJT										

How to Order (Commercial)

Easy Steps to build a commercial part number... Series I and II

1. 2. 3. 4. 5. 6. 7.

Connector Type Series I	Connector Type II	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Position	Strain Relief/Finish Variation Suffix	
LJT	JT	00	RT	9-35	P	B	SR	(014)

Step 1. Select a Connector Type

1. 2. 3. 4. 5. 6. 7.

Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
JT						

Series I	Series II	Designates
	JT	Standard Junior Tri-Lock
LJT		Long Junior Tri-Lock
LJTS	JTS	High temperature connector
LJTN	JTN	Chemical and fuel resistant
	JTL	Miniature mounting dimensions
	JTLN	Miniature mounting dimensions—Chemical resistant
	JTLS	Miniature mounting dimensions—High temperature
LJTPQ	JTPQ	Back panel mounted wall mounting receptacle
LJTP	JTP	Back panel mounted box mounting receptacle
LJTPN	JTPN	Back panel mounted—Chemical resistant
LJTPS	JTPS	Back panel mounted—High temperature
	JTG	Plug with grounding fingers*
	JTNG	Plug with grounding fingers* —Chemical resistant

*Grounding fingers standard on all LJT plugs

Step 2. Select a Shell Style... Series I & II

1. 2. 3. 4. 5. 6. 7.

Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
	00					

Lanyard Release Connector (See pages 78-80 for ordering)

	Designates
00	Wall mount receptacle
01	Line mount receptacle
02	Box mount receptacle
06	Straight plug
07	Jam nut receptacle
08	90 degree plug
I	Solder mount receptacle- hermetic
88	Fail safe lanyard release plug with corrosion resistant olive drab cadmium plate over nickel shells
91	Fail safe lanyard release plug with electroless nickel plated aluminum shells.

Series I LJT



Wall Mounting Receptacle



Line Receptacle



Jam Nut Receptacle



Straight Plug



Solder Mounting Receptacle



Lanyard Release Plug

Series II JT



Wall Mounting Receptacle



Box Mounting Receptacle



Straight Plug



Jam Nut Receptacle



90° Plug



Solder Mounting Receptacle

How to Order (Commercial)

Step 3. Select a Service Class

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
		RX				

Commercial	Solder Contacts/Connectors
P	Potting applications: These connectors are supplied with a potting boot. All shells are designed with integral features to retain potting boots.
A	General Applications
A (SR)	Threaded rear design with strain relief†
C	Pressurized applications
C (SR)	Threaded rear design with strain relief.†
E	Box mount and thru-bulkhead only with no backend threads.
H	Hermetic applications- Fused compression glass sealed inserts. Leadage rate less than .01 micron cu. ft./hr. (1 x 10 ⁻⁷ cc/sec.) at 15 psi differential.
Y	Same as "H" with interfacial seal.
T	MS27599A applications-general duty, pressurized (receptacle only)
Commercial	Crimp Contacts/Connectors
RP	Potting crimp applications. Supplied with spacer grommet and potting boot.††
RE	Environmental crimp applications. Supplied with a grommet and compression nut.† Can be supplied with strain relief integral with compression nut "RE(SR)". (JT Series only)
RGF	Electroless nickel plated ground plane aluminum, 200°C
RGW	Olive drab cadmium plated ground plane aluminum, 175°C
RT	Environmental applications. Supplied without rear accessories. Design provides serrations on rear threads of shells.

† Not applicable to box mounting style or LJT Series I.

†† Not applicable to box mounting style.

Step 4. Select a Shell Size & Insert Arrangement see page 4-7

Shell Size & Insert Arrangements are on pages 4-7.
First number represents Shell Size,
second number is the Insert Arrangement.

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
			22-2			

Step 5. Select a Contact Type

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
				P		

	Designates
P	Pin Contacts
S	Socket Contacts

 III
 II
 I
 SJT
 38999

 26482
 Matrix 2

 83723 III
 Matrix
 Pyle

 5015
 Crimp Rear
 Release Matrix

26500 Pyle

 Printed
 Circuit Board

 EMI Filter
 Transient

Fiber Optics

 High Speed
 Contacts

 Options
 Others

38999

III

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size Insert Arrg.	Contact Type	Alternate Position	Special Variations
					A	

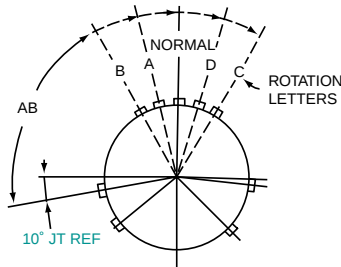
Step 6. Select an Alternate Keying Position

"A" designates Alternate keying connector assembly. Other basic alternate keys are "B", "C" and "D". No letter required for normal rotation (no rotation) position.

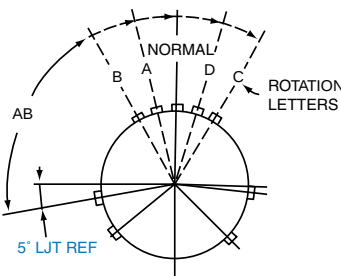
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the minor keys are fixed.

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.

The "N" designation is not referenced in part number, it is omitted.



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



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

JT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)

Shell Size	Normal	A	B	C	D
8	100°	82°	-	-	118°
10	100°	86°	72°	128°	114°
12	100°	80°	68°	132°	120°
14	100°	79°	66°	134°	121°
16	100°	82°	70°	130°	118°
18	100°	82°	70°	130°	118°
20	100°	82°	70°	130°	118°
22	100°	85°	74°	126°	115°
24	100°	85°	74°	126°	115°

LJT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)

Shell Size	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size Insert Arrg.	Contact Type	Alternate Position	Special Variations
						()

Step 7. Select a Strain Relief Option or Finish Variation Suffix

Strain Relief Options: "SR" designates a strain relief clamp. Strain reliefs are available only on Service Class "A", "C" and "RE" (see step 3. Service Class)

Finish Variation Suffix: See finish variations available in table to your right.

Finish	Military Finish Data	Finish Suffix	Finish Plus "SR" Suffix
Cadmium plated nickel base 175° C	A		(SR)
Olive drab cadmium plate nickel base 175° C	B	(014)	(386)
Electroless nickel 200° C	F	(023)	(424)
Electroless nickel, space compatible 200° C		(453)	(467)
Anodic coating (Alumilite) 200° C	C	(005)	(300)
Chromate treated (Iridite 14-2) 125° C		(011)	(344)
Passivated steel 200° C	E	-	-
Nickel-PTFE 175° C		(038)	

How to Order (Commercial)

Easy Steps to build a Military part number... Series I and II

Military

1. 2. 3. 4. 5. 6. 7.

MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Keying Position
MS27473	E	14	A	18	P	A

Step 1. Choose your Military Connector Type

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
MS27473						

Series II JT

	Designates
MS27472	Crimp Wall Mount Receptacle
MS27497	Crimp Wall Mount Receptacle Back Panel Mounting
MS27499	Crimp Box Mounting Receptacle
MS27513	Crimp Box Mounting Receptacle with grommet and compression nut
MS27508	Crimp Box Mounting Receptacle (Back Panel Mounting)
MS27473	Crimp Straight Plug
MS27484	Crimp Straight Plug with Grounding Fingers
MS27474	Crimp Jam Nut Receptacle
MS27500	Crimp 90° plug
MS27475	Hermetic Wall Mounting Receptacle
MS27476	Hermetic Box Mounting Receptacle
MS27477	Hermetic Jam Nut Receptacle
MS27478	Hermetic Solder Mounting Receptacle
MS27334	Solder Wall Mount Receptacle
MS27335	Solder Box Mounting Receptacle
MS27336	Solder Straight Plug
MS27337	Solder Jam Mounting Receptacle

Series I LJT

	Designates
MS27466	Crimp Wall Mount Receptacle
MS27656	Crimp Wall Mount Receptacle Back Panel Mounting
MS27496	Crimp Box Mounting Receptacle
MS27505	Crimp Box Mounting Receptacle (Back Panel Mounting)
MS27467	Crimp Straight Plug
MS27468	Crimp Jam Nut Receptacle
MS27469	Hermetic Wall Mounting Receptacle
MS27470	Hermetic Jam Nut Receptacle
MS27471	Hermetic Solder Mounting Receptacle
MS20026	Solder Wall Mounting Receptacle
MS20027	Solder Line Receptacle
MS20028	Solder Straight Plug
MS20029	Solder Jam Nut Receptacle

Step 2. Select a Military Service Class

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
	E					

Military	Service Class
E	Environmental crimp applications. Supplied with a grommet and compression nut.† Can be supplied with strain relief integral with compression nut "RE(SR)". (JT Series only). Box Mount versions using spacer grommets are not environmental.
P	Potting crimp applications. Supplied with spacer grommet and potting boot.††
T	Environmental applications. Supplied without rear accessories. Design provides serrations on rear threads of shells. (MS27599 applications)- General duty-pressurized (receptacles only)
Y	Hermetically interfacial seal

† Not applicable to box mounting style or LJT Series I.

†† Not applicable to box mounting style.

38999
SJT I II III

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Step 3 & 5. Select a Shell Size and Insert Arrangement from Pages 4-7

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	4. Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
		14		18		

Shell Size & Insert Arrangement are on pages 4-7. First number represents Shell Size, second number is the Insert Arrangement. Place Shell Size in box 3 and Insert Arrangement in box 5.

Step 4. Select a Military Finish

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
			A			

Finish	Military Finish Data	Finish Suffix	Finish Plus "SR" Suffix
Cadmium plated nickel base 175° C	A		(SR)
Olive drab cadmium plate nickel base 175° C	B	(014)	(386)
Electroless nickel 200° C	F	(023)	(424)
Electroless nickel, space compatible 200° C		(453)	(467)
Anodic coating (Alumilite) 200° C	C	(005)	(300)
Chromate treated (Iridite 14-2) 125° C		(011)	(344)
Passivated steel 200° C	E	-	-
Nickel-PTFE 175° C		(038)	

Step 6. Select a Military Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
					P	

Step 7. Select an Alternate Keying Position

See pg 48 for information, No letter required for normal position

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
						A

Amphenol

MIL-DTL-38999, Series II, JT



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MIL-DTL-38999 Series II Typical Markets:

- Military & Commercial Aviation
- Military Vehicles
- Missiles & Ordnance
- C4ISR

Amphenol
Aerospace

38999

III
II
I
SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

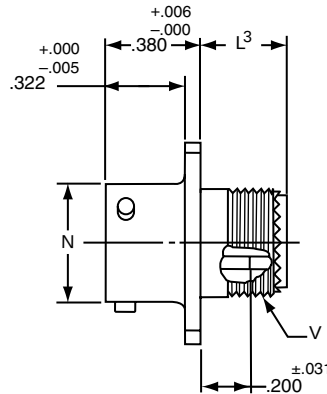
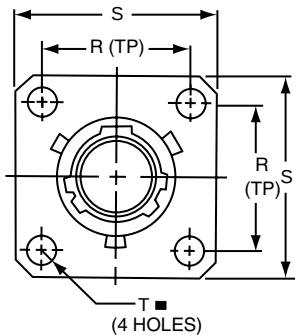
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

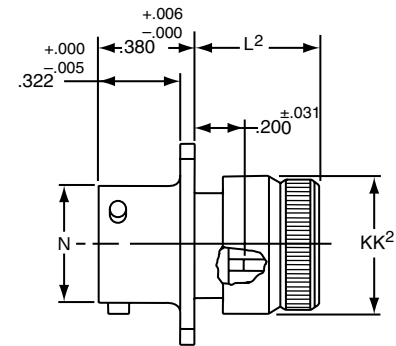
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	00	RT	22-2	P	A	(XXX)

Military

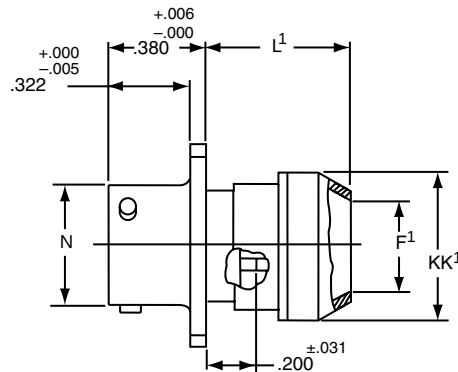
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
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MS27479	E	14	A	18	P	A



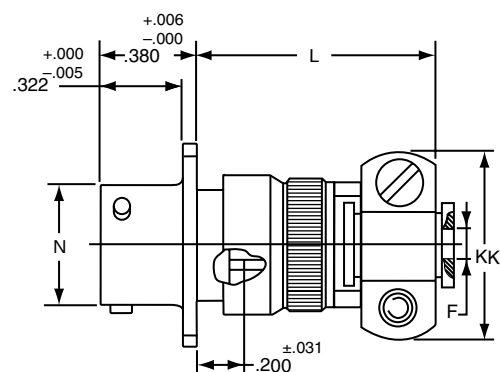
* JT00RT-XX-XXX (MS27472T)
** JTS00RT-XX-XXX (MS27479T)
*** JTN00RT-XX-XXX



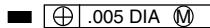
* JT00RE-XX-XXX (MS27472E)
** JTS00RE-XX-XXX (MS27479E)
*** JTN00RE-XX-XXX



* JT00RP-XX-XXX (MS27472P)
** JTS00RP-XX-XXX
*** JTN00RP-XX-XXX



* JT00RE-XX-XXX (SR)
** JTS00RE-XX-XXX (SR)
*** JTN00RE-XX-XXX (SR)



* Standard Junior Tri-Lock

** High temperature version

*** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	F Dia. +.010 -.025	F ¹ Dia. ±.010	L Max.	L ¹ Max.	L ² Max.	L ³ Max.	N +.001 -.005	R (TP)	S ±.016	T ±.005	V Thread UNEF Class 2A (Plated)	KK Max.	KK ¹ Dia. Max.	KK ² Dia. Max.
8	.125	.444	1.094	.609	.547	.500	.473	.594	.812	.120	.4375-28	.812	.625	.578
10	.188	.558	1.094	.609	.547	.500	.590	.719	.938	.120	.5625-24	.875	.750	.703
12	.312	.683	1.094	.609	.547	.500	.750	.812	1.031	.120	.6875-24	1.000	.875	.828
14	.375	.808	1.344	.609	.547	.500	.875	.906	1.125	.120	.8125-20	1.125	1.000	.953
16	.500	.909	1.344	.609	.547	.500	1.000	.969	1.219	.120	.9375-20	1.188	1.125	1.078
18	.625	1.034	1.344	.609	.547	.500	1.125	1.062	1.312	.120	1.0625-18	1.438	1.250	1.203
20	.625	1.159	1.344	.609	.547	.500	1.250	1.156	1.438	.120	1.1875-18	1.438	1.375	1.328
22	.750	1.284	1.469	.609	.547	.500	1.375	1.250	1.562	.120	1.3125-18	1.625	1.500	1.453
24	.800	1.409	1.469	.688	.547	.500	1.500	1.375	1.688	.147	1.4375-18	1.719	1.625	1.578

All dimensions for reference only.

JTPQ00R (MS27497) Series II – Crimp Wall Mounting Receptacle (Back Panel Mounting)

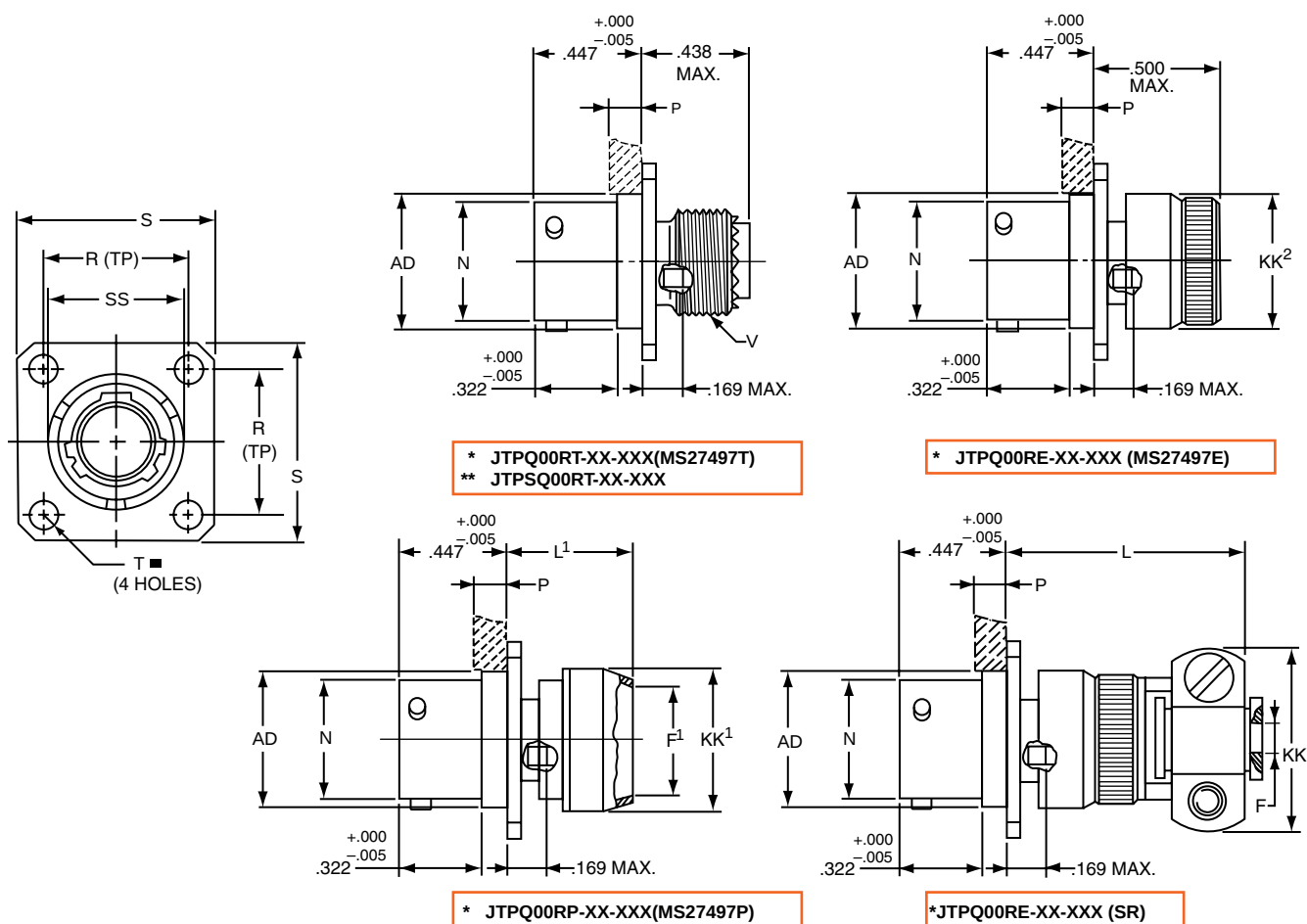
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTPQ/JTPSQ	00	RT	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27497	E	14	A	18	P	A



⊕ .005 DIA M

* Standard Junior Tri-Lock

** High temperature version

Shell Size	F Dia. +.010 -.025	F ¹ Dia. ±.010	L Max.	L ¹ Max.	N +.001 -.005	P Max. Panel Thickness	R (TP)	S ±.016	T ±.005	V Thread UNEF Class 2A (Plated)	AD Dia. ±.005	KK Max.	KK ¹ Dia. Max.	KK ² Dia. Max.	SS Dia. +.000 -.016
8	.125	.444	1.140	.468	.473	.142	.594	.812	.120	.4375-28	.516	.781	.625	.578	.563
10	.188	.558	1.140	.468	.590	.142	.719	.938	.120	.5625-24	.633	.844	.750	.703	.680
12	.312	.683	1.140	.468	.750	.142	.812	1.031	.120	.6875-24	.802	.969	.875	.828	.859
14	.375	.808	1.375	.468	.875	.142	.906	1.125	.120	.8125-20	.927	1.094	1.000	.953	.984
16	.500	.909	1.375	.468	1.000	.142	.969	1.219	.120	.9375-20	1.052	1.154	1.125	1.078	1.108
18	.625	1.034	1.375	.468	1.125	.142	1.062	1.312	.120	1.0625-18	1.177	1.406	1.250	1.203	1.233
20	.625	1.159	1.375	.468	1.250	.142	1.156	1.438	.120	1.1875-18	1.302	1.406	1.375	1.328	1.358
22	.750	1.284	1.516	.468	1.375	.142	1.250	1.562	.120	1.3125-18	1.427	1.594	1.500	1.453	1.483
24	.800	1.409	1.500	.540	1.500	.142	1.375	1.688	.147	1.4375-18	1.552	1.688	1.625	1.578	1.610

All dimensions for reference only.

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

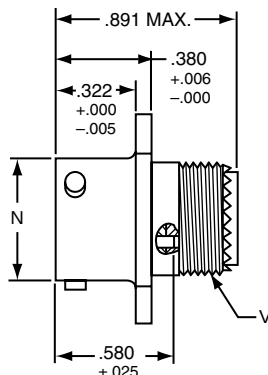
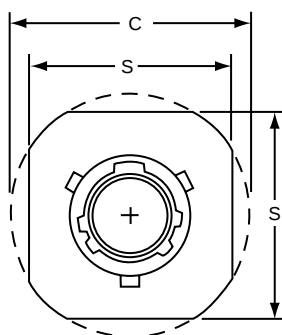
High Speed
Contacts

Options
Others

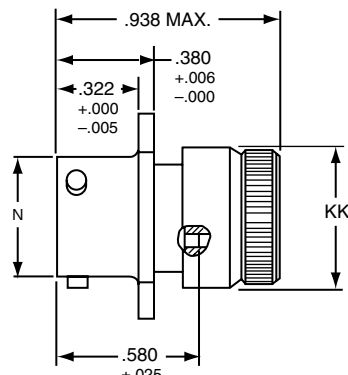
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

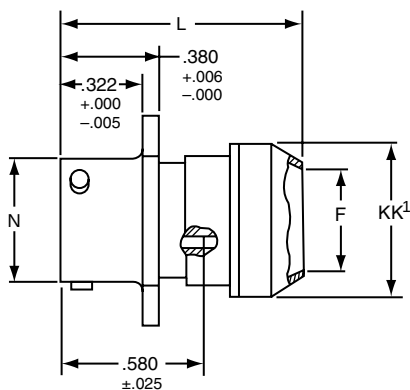
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	01	RT	22-2	P	A	(XXX)



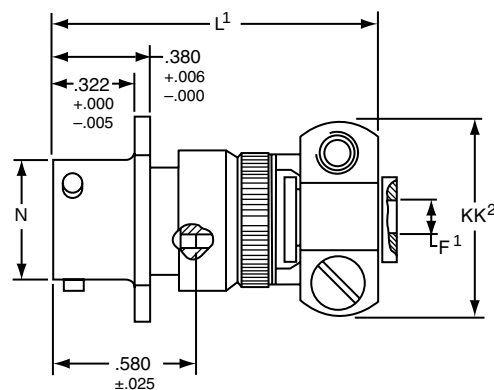
* JT01RT-XX-XXX
** JTS01RT-XX-XXX
*** JTN01RT-XX-XXX



* JT01RE-XX-XXX
** JTS01RE-XX-XXX
*** JTN01RE-XX-XXX



* JT01RP-XX-XXX
** JTS01RP-XX-XXX
*** JTN01RP-XX-XXX



* JT01RE-XX-XXX (SR)
** JTS01RE-XX-XXX (SR)
*** JTN01RE-XX-XXX (SR)

- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	C Max.	F Dia. +.010	F¹ Dia. +.010 -0.025	L Max.	L¹ Max.	N Dia. +.001 -0.005	S +.017 -0.016	V Thread UNEF Class 2A (Plated)	KK Dia. Max.	KK¹ Dia. Max.	KK² Max.
8	.965	.444	.125	1.031	1.562	.473	.812	.4375-28	.578	.625	.812
10	1.089	.558	.188	1.031	1.562	.590	.938	.5625-24	.703	.750	.875
12	1.183	.683	.312	1.031	1.562	.750	1.031	.6875-24	.828	.875	1.000
14	1.277	.808	.375	1.031	1.812	.875	1.125	.8125-20	.953	1.000	1.125
16	1.371	.909	.500	1.031	1.812	1.000	1.219	.9375-20	1.078	1.125	1.188
18	1.465	1.034	.625	1.031	1.812	1.125	1.312	1.0625-18	1.203	1.250	1.438
20	1.589	1.159	.625	1.031	1.812	1.250	1.438	1.1875-18	1.328	1.375	1.438
22	1.715	1.284	.750	1.031	1.938	1.375	1.562	1.3125-18	1.453	1.500	1.625
24	1.838	1.409	.800	1.109	1.938	1.500	1.688	1.4375-18	1.578	1.625	1.719

All dimensions for reference only.

JT02RE (MS27499) Series II – Crimp JT02RE (053) (MS27513)

Box Mounting Receptacle

PART

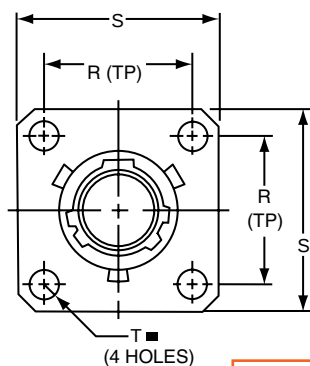
Commercial

Part number reference. To complete, see how to order pages 46-50.

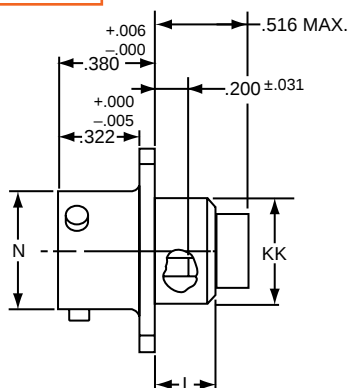
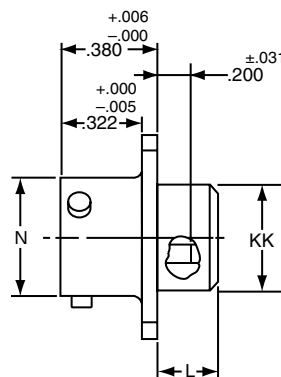
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	02	RE	22-2	P	A	(XXX)

Military

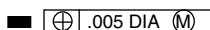
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27499	E	14	A	18	P	A
MS27513	E	14	A	18	P	A



* JT02RE-XX-XXX (MS27499)
** JTS02RE-XX-XXX
*** JTN02RE-XX-XXX



* JT02RE-XX-XXX (053) (MS27513)
** JTS02RE-XX-XXX (053)
*** JTN02RE-XX-XXX (053)



* Standard Junior Tri-Lock
** High temperature version
*** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	L Max.	N +.001 -.005	R (TP)	S ±.016	T ±.005	KK Dia. Max.
8	.286	.473	.594	.812	.120	.438
10	.286	.590	.719	.938	.120	.563
12	.286	.750	.812	1.031	.120	.688
14	.286	.875	.906	1.125	.120	.813
16	.286	1.000	.969	1.219	.120	.938
18	.286	1.125	1.062	1.312	.120	1.047
20	.286	1.250	1.156	1.438	.120	1.172
22	.286	1.375	1.250	1.562	.120	1.297
24	.286	1.500	1.375	1.688	.147	1.422

All dimensions for reference only.

NOTE: For applications requiring an environmental seal, please refer to JT00R, page 47.

38999	26482	83723	5015	26500	Printed	EMI Filter	Fiber Optics	High Speed	Options
III	Matrix 2	Matrix	Crimp Rear Release Matrix	Pyle	Circuit Board	Transient		Contacts	Others
II									
I									
SJT									

Back Panel Mounting

38999

SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

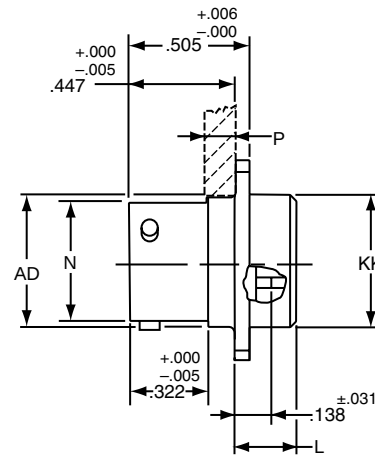
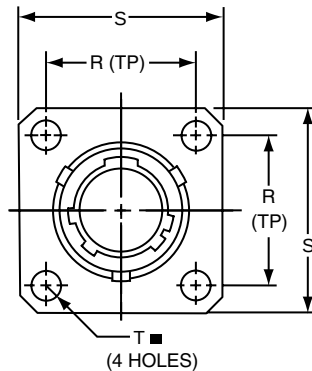
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

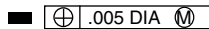
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTPS/JTPN	02	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27508	E	14	A	18	P	A



* JTP02RE-XX-XXX (MS27508E)
** JTPS02RE-XX-XXX
***JTPN02RE-XX-XXX



- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	L Max.	N +.001 -.005	P Max. Panel Thickness	R (TP)	S ±.016	T Dia. ±.005	AD Dia. ±.005	KK Dia. Max.
8	.225	.473	.147	.594	.812	.120	.516	.531
10	.225	.590	.152	.719	.938	.120	.633	.656
12	.225	.750	.152	.812	1.031	.120	.802	.828
14	.225	.875	.152	.906	1.125	.120	.927	.953
16	.225	1.000	.152	.969	1.219	.120	1.052	1.078
18	.225	1.125	.152	1.062	1.312	.120	1.177	1.203
20	.225	1.250	.179	1.156	1.438	.120	1.302	1.328
22	.225	1.375	.179	1.250	1.562	.120	1.427	1.453
24	.225	1.500	.169	1.375	1.688	.147	1.552	1.578

All dimensions for reference only.

JT06R (MS27473) Series II – Crimp Straight Plug

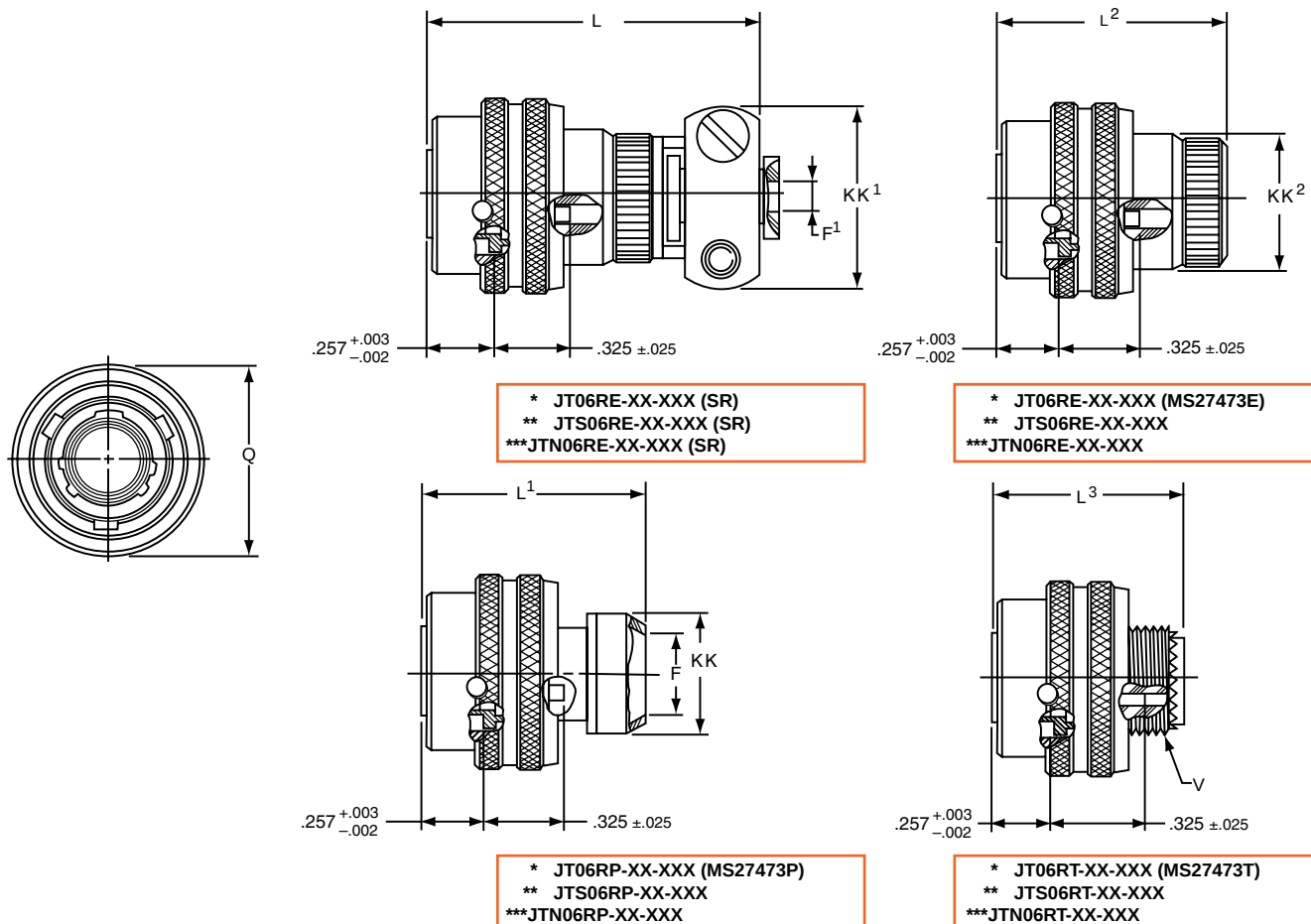
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27473	E	14	A	18	P	A



- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	F Dia.	F ¹ Dia. +.001 -.025	L Max.	L ¹ Max.	L ² Max.	L ³ Max.	Q Dia. Max.	V Thread Modified		KK Dia. Max.	KK ¹ Max.	KK ² Dia. Max.
								Class 2A UNEF	Modified Major Dia.			
8	.444	.125	1.562	1.000	.938	.891	.734	.4375-28	.421 – .417	.625	.812	.578
10	.558	.188	1.562	1.000	.938	.891	.844	.5625-24	.542 – .538	.750	.875	.703
12	.683	.312	1.562	1.000	.938	.891	1.016	.6875-24	.667 – .663	.875	1.000	.828
14	.808	.375	1.812	1.000	.938	.891	1.141	.8125-20	.791 – .787	1.000	1.125	.953
16	.909	.500	1.812	1.000	.938	.891	1.265	.9375-20	.916 – .912	1.125	1.188	1.078
18	1.034	.625	1.812	1.000	.938	.891	1.391	1.0625-18	1.034 – 1.030	1.250	1.438	1.203
20	1.159	.625	1.812	1.000	.938	.891	1.500	1.1875-18	1.158 – 1.154	1.375	1.438	1.328
22	1.284	.750	1.938	1.000	.938	.891	1.625	1.3125-18	1.283 – 1.279	1.500	1.625	1.453
24	1.409	.800	1.938	1.062	.938	.891	1.750	1.4375-18	1.408 – 1.404	1.625	1.719	1.578

All dimensions for reference only.

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

38999

III

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

Options Others

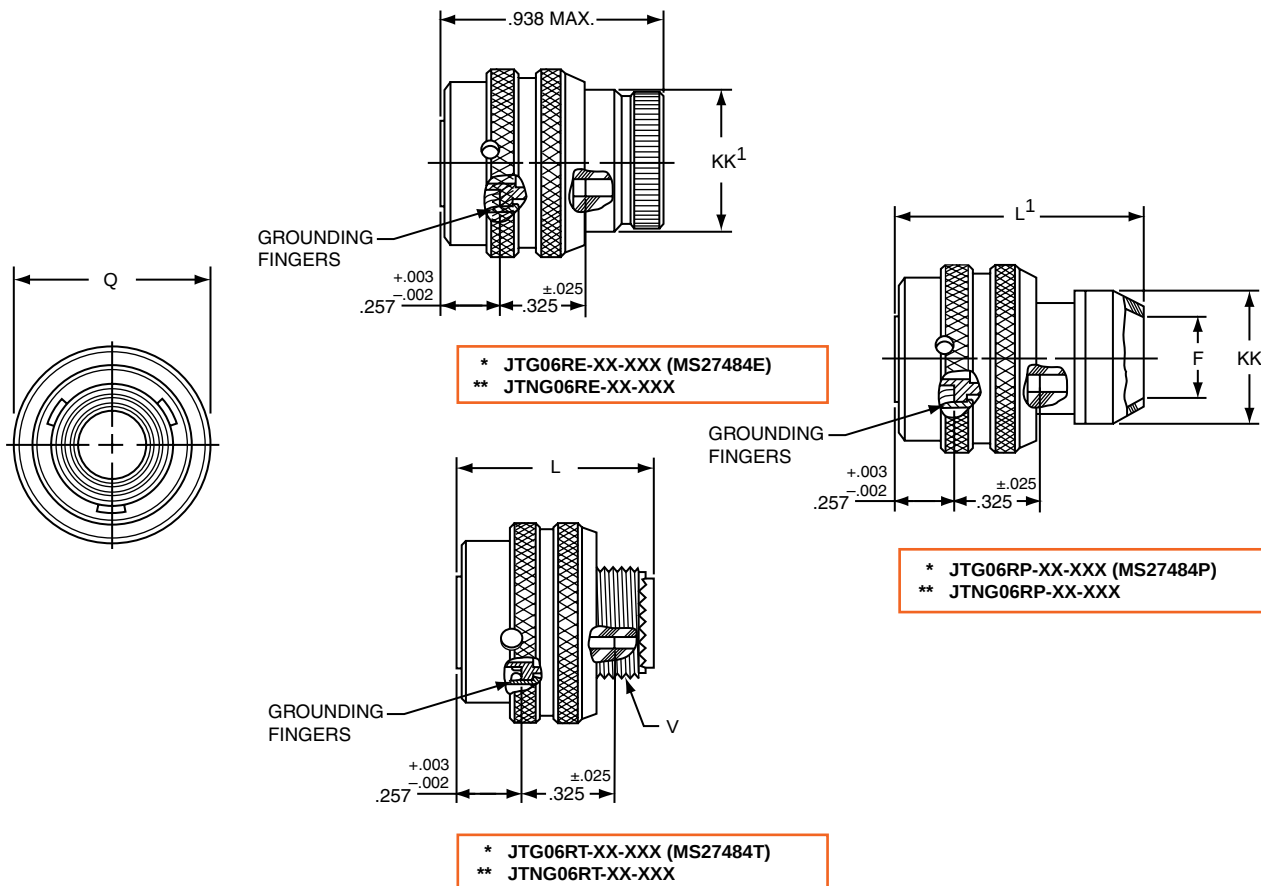
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTG/JTNG	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27484	E	14	A	18	P	A



- * Plug with grounding fingers
- ** Clear iridite finish (gold color), N_2O_4 resistant

Shell Size	F Dia.	L Max.	L ¹ Max.	Q Dia Max.	V Thread Modified		KK Dia. Max.	KK ¹ Dia. Max.
					Class 2A UNEF	Modified Major Dia.		
8	.444	.891	1.000	.734	.4375-28	.421 – .417	.625	.578
10	.558	.891	1.000	.844	.5625-24	.542 – .538	.750	.703
12	.683	.891	1.000	1.016	.6875-24	.667 – .663	.875	.828
14	.808	.891	1.000	1.141	.8125-20	.791 – .787	1.000	.953
16	.909	.891	1.000	1.265	.9375-20	.916 – .912	1.125	1.078
18	1.034	.891	1.000	1.391	1.0625-18	1.034 – 1.030	1.250	1.203
20	1.159	.891	1.000	1.500	1.1875-18	1.158 – 1.154	1.375	1.328
22	1.284	.891	1.000	1.625	1.3125-18	1.283 – 1.279	1.500	1.453
24	1.409	.891	1.062	1.750	1.4375-18	1.408 – 1.404	1.625	1.578

All dimensions for reference only.

JT07R (MS27474) Series II – Crimp Jam Nut Receptacle

PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	07	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27474	E	14	A	18	P	A

III
II
I
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

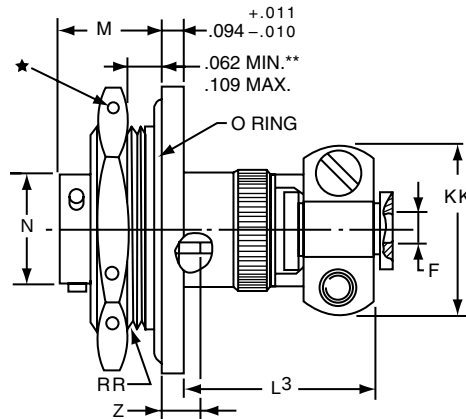
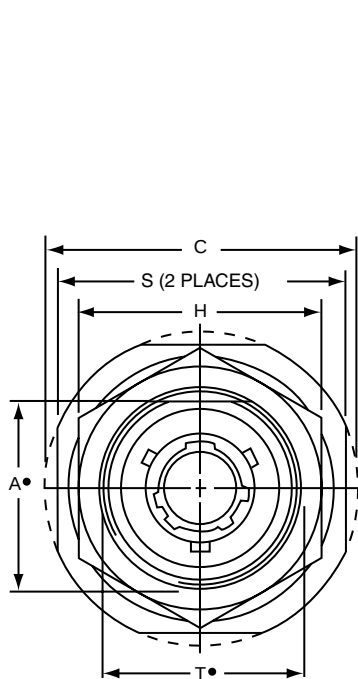
Printed
Circuit Board

EMI Filter
Transient

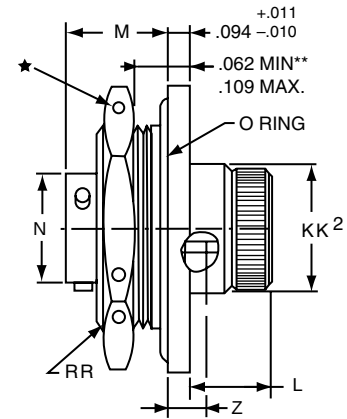
Fiber Optics

High Speed
Contacts

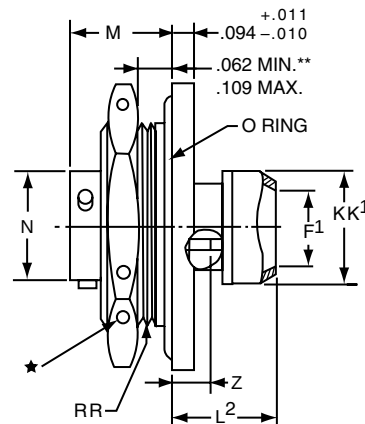
Options
Others



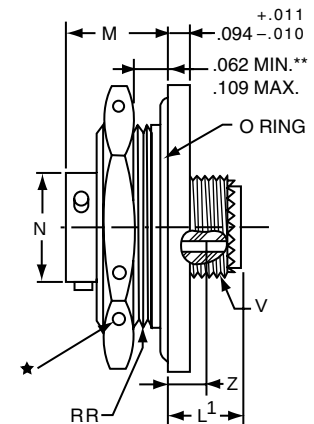
* JT07RE-XX-XXX (SR)
*** JTS07RE-XX-XXX (SR)
**** JTN07RE-XX-XXX (SR)



* JT07RE-XX-XXX (MS27474E)
*** JTS07RE-XX-XXX
**** JTN07RE-XX-XXX



* JT07RP-XX-XXX (MS27474P)
*** JTS07RP-XX-XXX
**** JTN07RP-XX-XXX



* JT07RT-XX-XXX (MS27474T)
*** JTS07RT-XX-XXX
**** JTN07RT-XX-XXX

- ★ .059 Dia. Min. 3 lockwire holes.
Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- * Standard Junior Tri-Lock
- ** Panel Thickness
- *** High temperature version
- **** Clear iridite finish (gold color), N₂O₄ resistant

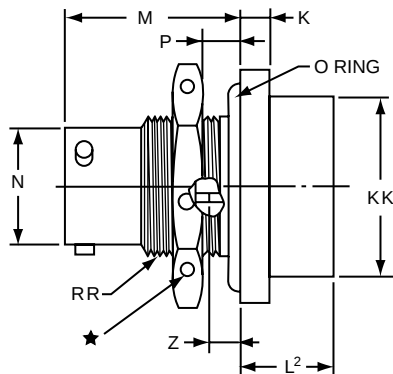
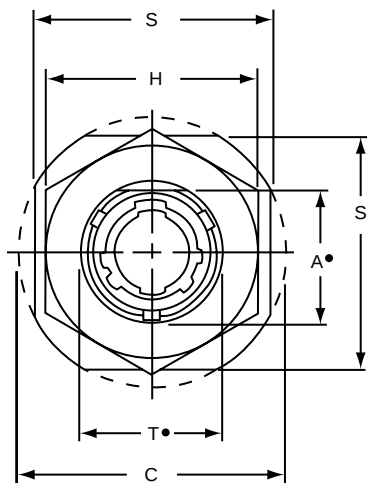
Shell Size	A* +.000 -.010	C Max.	F Dia. +.010 -.025	F ¹ Dia.	H Hex +.017 -.016	L Max.	L ¹ Max.	L ² Max.	L ³ Max.	M ±.005	N Dia. +.001 -.005	S ±.016	T* +.010 -.000	V Thread UNEF Class 2A	Z ±.031	KK Max.	KK ¹ Dia. Max.	KK ² Max.	RR Thread (Plated) Class 2A
8	.830	1.390	.125	.444	1.062	.484	.453	.563	1.047	.438	.473	1.250	.884	.4375-28	.144	.812	.625	.578	.8750-20UNEF
10	.955	1.515	.188	.558	1.188	.484	.453	.563	1.047	.438	.590	1.375	1.007	.5625-24	.144	.875	.750	.703	1.0000-20UNEF
12	1.084	1.640	.312	.683	1.312	.484	.453	.563	1.047	.438	.750	1.500	1.134	.6875-24	.144	1.000	.875	.828	1.1250-18UNEF
14	1.208	1.765	.375	.808	1.438	.484	.453	.563	1.297	.438	.875	1.625	1.259	.8125-20	.144	1.125	1.000	.953	1.2500-18UNEF
16	1.333	1.953	.500	.909	1.562	.484	.453	.563	1.297	.438	1.000	1.781	1.384	.9375-20	.144	1.188	1.125	1.078	1.3750-18UNEF
18	1.459	2.031	.625	1.034	1.688	.484	.453	.563	1.297	.438	1.125	1.890	1.507	1.0625-18	.144	1.438	1.250	1.203	1.5000-18UNEF
20	1.576	2.156	.625	1.159	1.812	.453	.422	.531	1.266	.464	1.250	2.016	1.634	1.1875-18	.188	1.438	1.375	1.328	1.6250-18UNEF
22	1.701	2.280	.750	1.284	2.000	.453	.422	.531	1.391	.464	1.375	2.140	1.759	1.3125-18	.188	1.625	1.500	1.453	1.7500-18UNS
24	1.826	2.405	.800	1.409	2.125	.375	.422	.609	1.391	.464	1.500	2.265	1.884	1.4375-18	.188	1.719	1.625	1.578	1.8750-16UN

All dimensions for reference only.

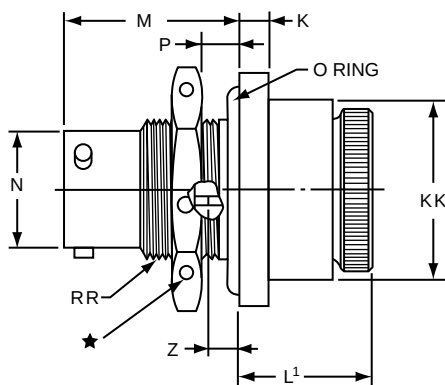
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

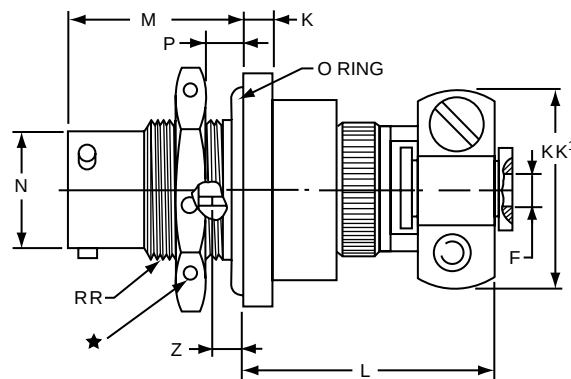
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTL/JTLS/JTLN	07	RP	22-2	P	A	(XXX)



* JTL07RP-XX-XXX
*** JTLS07RP-XX-XXX
**** JTLN07RP-XX-XXX



* JTL07RE-XX-XXX
*** JTLS07RE-XX-XXX
**** JTLN07RE-XX-XXX



* JTL07RE-XX-XXX (SR)
*** JTLS07RE-XX-XXX (SR)
**** JTLN07RE-XX-XXX (SR)

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- * Miniature mounting dimensions
- *** High temperature version
- **** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	A* +.000 -.010	C Max.	F Dia. +.010 -.025	H Hex +.017 -.016	K +.011 -.010	L Max.	L ¹ Max.	L ² Max.	M ±.005	N Dia. +.001 -.005	P Panel Thickness		S ±.016	T* +.010 -.000	Z ±.026	KK Dia. Max.	KK ¹ Max.	RR Thread Class 2A
											Min.	Max.						
8	.542	1.077	.125	.750	.125	1.062	.641	.375	.630	.473	.062	.125	.938	.572	.047	.688	.812	.5625-24UNEF
10	.669	1.203	.188	.875	.125	1.062	.641	.375	.630	.590	.062	.125	1.062	.697	.047	.812	.875	.6875-24UNEF
12	.830	1.390	.312	1.062	.125	1.062	.641	.375	.630	.750	.062	.125	1.250	.844	.047	.938	1.000	.8750-20UNEF
14	.955	1.515	.375	1.188	.125	1.062	.641	.375	.630	.875	.062	.125	1.375	1.007	.047	1.062	1.125	1.0000-20UNEF
16	1.084	1.640	.500	1.312	.125	1.062	.641	.375	.630	1.000	.062	.125	1.500	1.134	.047	1.188	1.188	1.1250-18UNEF
18	1.208	1.765	.625	1.438	.125	1.062	.641	.375	.630	1.125	.062	.125	1.625	1.259	.047	1.312	1.438	1.2500-18UNEF
20	1.333	1.953	.625	1.562	.156	1.062	.703	.328	.755	1.250	.062	.250	1.812	1.384	.172	1.469	1.438	1.3750-18UNEF
22	1.459	2.075	.750	1.688	.156	1.062	.703	.328	.755	1.375	.062	.250	1.938	1.507	.172	1.594	1.625	1.5000-18UNEF
24	1.575	2.203	.800	1.812	.156	1.062	.703	.328	.755	1.500	.062	.250	2.062	1.634	.172	1.719	1.719	1.6250-18UNEF

All dimensions for reference only.

JT08R (MS27500) Series II – Crimp 90° Plug

PART # Commercial

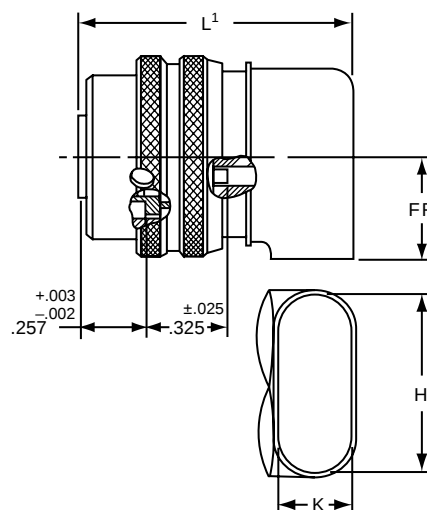
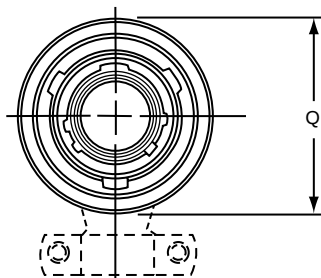
Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	08	RP	22-2	P	A	(XXX)

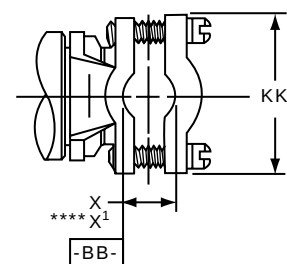
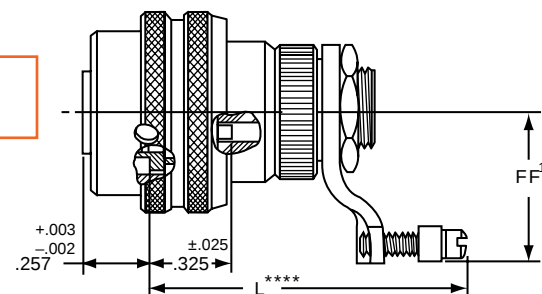
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27500	E	14	A	18	P	A

* JT08RP-XX-XXX
** JTS08RP-XX-XXX
*** JTN08RP-XX-XXX



* JT08RE-XX-XXX (MS27500E)
** JTS08RE-XX-XXX
*** JTN08RE-XX-XXX



- * Standard Junior Tri-Lock
** High temperature version
*** Clear iridite finish (gold color), N₂O₄ resistant
****Dimensions L and X¹ are applicable when the end of the screw is flush with the surface BB.

Shell Size	H ±.010	K ±.010	L Max.	L ¹ Max.	Q Dia. Max.	X Min. Cable	X ¹ Max. Cable	FF Max.	FF ¹ Max.	KK Max.
8	.547	.156	1.578	1.125	.734	.082	.234	.438	.984	.755
10	.709	.188	1.578	1.156	.844	.082	.234	.516	1.016	.755
12	.829	.281	1.656	1.250	1.016	.114	.328	.594	1.078	.817
14	1.000	.438	1.844	1.406	1.141	.176	.457	.656	1.203	.943
16	1.021	.500	2.000	1.469	1.265	.238	.634	.719	1.265	1.067
18	1.145	.562	2.046	1.531	1.391	.208	.614	.781	1.328	1.149
20	1.270	.625	2.125	1.594	1.500	.302	.608	.844	1.359	1.399
22	1.395	.688	2.250	1.656	1.625	.302	.823	.906	1.421	1.399
24	1.520	.750	2.422	1.797	1.750	.332	.853	.969	1.703	1.587

All dimensions for reference only.

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

38999

III
II
I
SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

Options Others

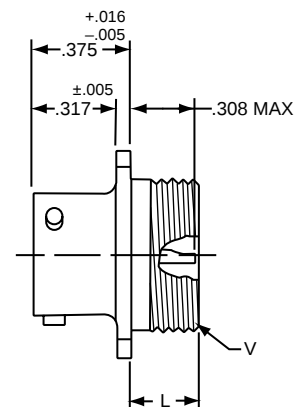
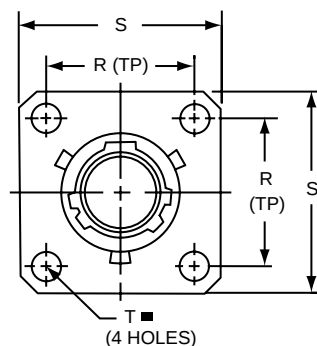
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS	00	H	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27475	Y	14	A	18	P	A
MS27482	Y	14	A	18	P	A
MS27476	Y	14	A	18	P	A



Shell Size	L Max.	N +.001 - .005	R (TP)	S ±.016	T ±.005	V Thread Class 2A
8	.234	.473	.594	.812	.120	.5625-24UNEF
10	.234	.590	.719	.938	.120	.6875-24UNEF
12	.234	.750	.812	1.031	.120	.8125-20UNEF
14	.234	.875	.906	1.125	.120	.9375-20UNEF
16	.234	1.000	.969	1.219	.120	1.0625-18UNEF
18	.234	1.125	1.062	1.312	.120	1.1875-18UNEF
20	.234	1.250	1.156	1.438	.120	1.3125-18UNEF
22	.234	1.375	1.250	1.562	.120	1.4375-18UNEF
24	.313	1.500	1.375	1.688	.147	1.5625-18UNEF

⊕ .005 DIA Ⓜ

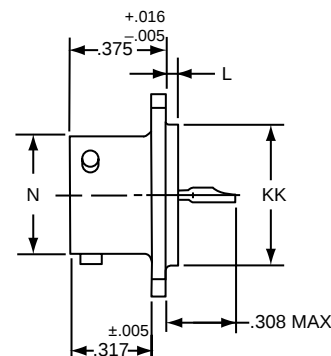
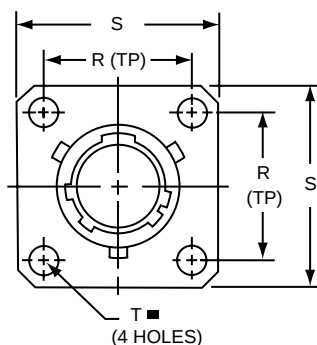
- * Standard Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

* JT00H-XX-XXX
** JT00Y-XX-XXX (MS27475YXXDXXX)
*** JTS00Y-XX-XXX (MS27482YXXEXXX)

JT02 (MS27476) Series II – Hermetic Box Mounting Receptacle

⊕ .005 DIA Ⓜ

- * Standard Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

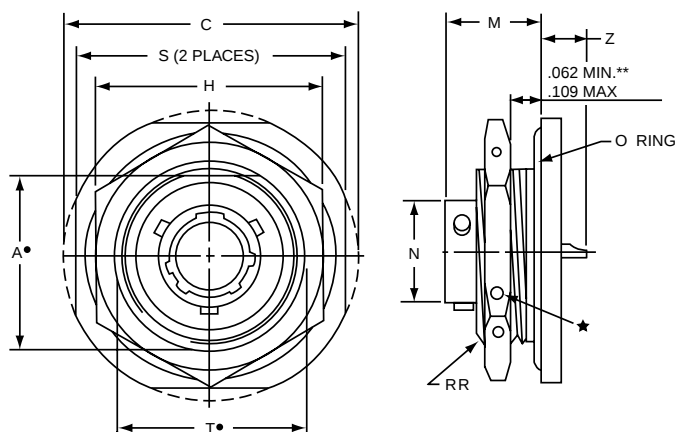


Shell Size	L +.006 - .015	N +.001 - .005	R (TP)	S ±.016	T ±.005	KK +.001 - .005
8	.051	.473	.594	.812	.120	.562
10	.051	.590	.719	.938	.120	.672
12	.051	.750	.812	1.031	.120	.781
14	.051	.875	.906	1.125	.120	.906
16	.051	1.000	.969	1.219	.120	1.031
18	.051	1.125	1.062	1.312	.120	1.156
20	.051	1.250	1.156	1.438	.120	1.250
22	.080	1.375	1.250	1.562	.120	1.375
24	.080	1.500	1.375	1.688	.147	1.500

* JT02H-XX-XXX
** JT02Y-XX-XXX (MS27476YXXDXXX)
*** JTS02Y-XX-XXX (MS27476YXXEXXX)

All dimensions for reference only.

JT07 (MS27477) Series II – Hermetic Jam Nut Receptacle



* Standard Junior Tri-Lock

★.059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.

• "D" shaped mounting hole dimensions.

** Panel Thickness

*** Interfacial seal wafer

****High temperature version, interfacial seal wafer with stainless steel shell

PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS	07	H	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27477	Y	14	A	18	P	A
MS27483	Y	14	A	18	P	A
MS27478	Y	14	A	18	P	A
MS27503	Y	14	A	18	P	A

* JT07H-XX-XXX

*** JT07Y-XX-XX (MS27477YXXDXXX)

**** JTS07Y-XX-XXX (MS27483YXXEXXX)

Shell Size	A* +.000 -.010	C Max.	H +.017 -.016	M ±.005	N +.001 -.005	S ±.016	T* +.010 -.000	Z Max.	RR Thread Class 2A
8	.830	1.390	1.062	.438	.473	1.250	.884	.244	.8750-20UNEF
10	.955	1.515	1.188	.438	.590	1.375	1.007	.244	1.0000-20UNEF
12	1.084	1.640	1.312	.438	.750	1.500	1.134	.244	1.1250-18UNEF
14	1.208	1.765	1.438	.438	.875	1.625	1.259	.244	1.2500-18UNEF
16	1.333	1.953	1.562	.438	1.000	1.781	1.384	.244	1.3750-18UNEF
18	1.459	2.031	1.688	.438	1.125	1.890	1.507	.244	1.5000-18UNEF
20	1.576	2.156	1.812	.464	1.250	2.016	1.634	.218	1.6250-18UNEF
22	1.701	2.280	2.000	.464	1.375	2.140	1.759	.218	1.7500-18UNS
24	1.826	2.405	2.125	.464	1.500	2.265	1.884	.218	1.8750-16UN

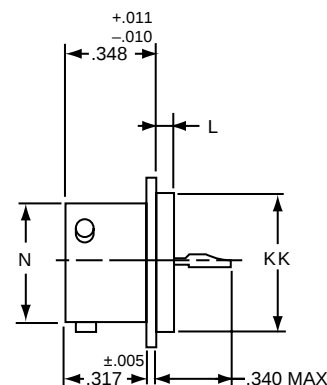
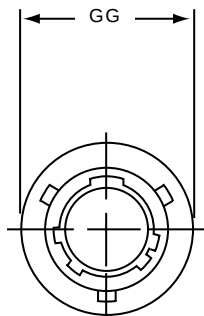
JTI (MS27478) Series II – Hermetic Solder Mounting Receptacle

* Standard Junior Tri-Lock

** Interfacial seal wafer

*** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	L +.011 -.010	N +.001 -.005	GG +.011 -.010	KK +.001 -.005
8	.078	.473	.687	.562
10	.078	.590	.797	.672
12	.078	.750	.906	.781
14	.078	.875	1.031	.906
16	.078	1.000	1.156	1.031
18	.078	1.125	1.281	1.156
20	.078	1.250	1.375	1.250
22	.107	1.375	1.500	1.375
24	.107	1.500	1.625	1.500



All dimensions for reference only.

Weld mounting hermetic receptacle also available. Consult Amphenol, Sidney, NY for availability and dimensions.

All dimensions for reference only.

38999

SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

PART

Commercial

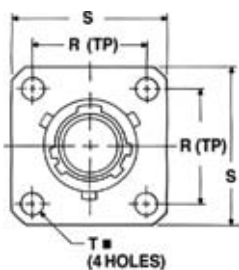
Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN	07	RE	22-2	P	A	(XXX)

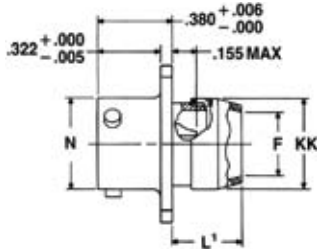
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27334	P	14	A	18	P	A
MS27335	T					

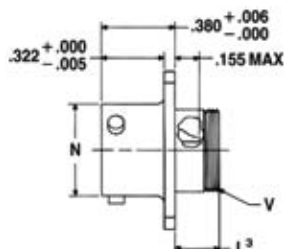
Military qualified to MIL-DTL-27599



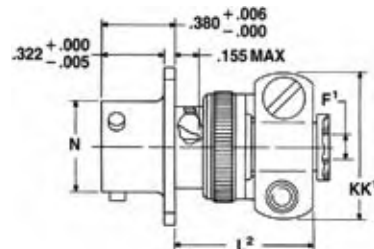
⊕ .005 DIA (M)



*JT00P-XX-XXX (MS27334P)
*JTN00P-XX-XXX



*JT00A-XX-XXX
*JT00C-XX-XXX (MS27334T)
*JTN00A-XX-XXX
*JTN00C-XX-XXX



*JT00A-XX-XXX(SR)
*JTN00A-XX-XXX(SR)
*JTN00C-XX-XXX(SR)

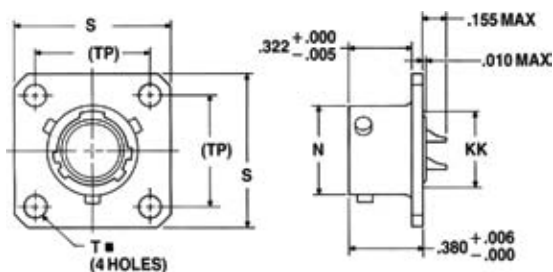
* Standard Junior Tri-Lock

NOTE: For availability of back panel mounting types, consult Amphenol, Sidney, NY.

Shell Size	F Dia. Min.	F¹ +.010 / -.025	L¹ Max.	L² Max.	L³ Max.	N +.001 / -.005	R (TP)	S ±.016	T ±.005	V Thread Modified		KK Dia. Max.	KK¹ Max.
										Size Class 2A	Modified Major Dia.		
8	.312	.125	.422	.734	.234	.473	.594	.812	.120	.4375-28UNEF	.421 - .417	.500	.812
10	.429	.188	.422	.734	.234	.590	.719	.938	.120	.5625-24UNEF	.542 - .538	.625	.875
12	.543	.312	.422	.734	.234	.750	.812	1.031	.120	.6875-24UNEF	.667 - .663	.750	1.000
14	.668	.375	.422	.797	.234	.875	.906	1.125	.120	.8125-20UNEF	.791 - .787	.875	1.125
16	.793	.500	.422	.797	.234	1.000	.969	1.219	.120	.9375-20UNEF	.916 - .912	1.000	1.188
18	.894	.625	.422	.797	.234	1.125	1.062	1.312	.120	1.0625-18UNEF	1.034 - 1.030	1.109	1.438
20	1.019	.625	.422	.859	.234	1.250	1.156	1.438	.120	1.1875-18UNEF	1.158 - 1.154	1.234	1.438
22	1.144	.750	.422	.859	.234	1.375	1.250	1.562	.120	1.3125-18UNEF	1.283 - 1.279	1.359	1.625
24	1.269	.800	.422	.922	.313	1.500	1.375	1.688	.147	1.4375-18UNEF	1.408 - 1.404	1.484	1.719

JT02 (MS27335) Series II – Solder Box Mounting Receptacle

Military qualified to MIL-DTL-27599



⊕ .005 DIA (M)

* Standard Junior Tri-Lock

NOTE: For availability of back panel mounting types, consult Amphenol, Sidney, NY.

Shell Size	N +.001 / -.005	R (TP)	S ±.016	T ±.005	KK Max.
8	.473	.594	.812	.120	.391
10	.590	.719	.938	.120	.508
12	.750	.812	1.031	.120	.622
14	.875	.906	1.125	.120	.749
16	1.000	.969	1.219	.120	.872
18	1.125	1.062	1.312	.120	.976
20	1.250	1.156	1.438	.120	1.101
22	1.375	1.250	1.562	.120	1.226
24	1.500	1.375	1.688	.147	1.351

All dimensions for reference only.

*JT02P-XX-XXX
*JT02A-XX-XXX
*JT02C-XX-XXX (MS27335T)
*JTN02P-XX-XXX
*JTN02A-XX-XXX
*JTN02C-XX-XXX

JT06 (MS27336) Series II – Solder Straight Plug

Military qualified to MIL-DTL-27599

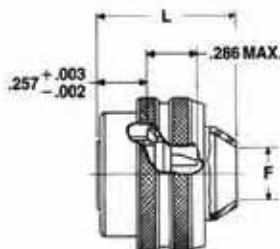
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

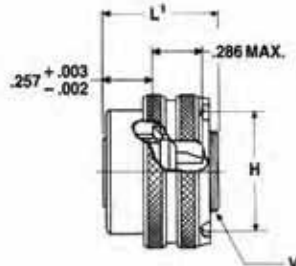
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN/JTG/JTNG	06	RE	22-2	P	A	(XXX)

Military

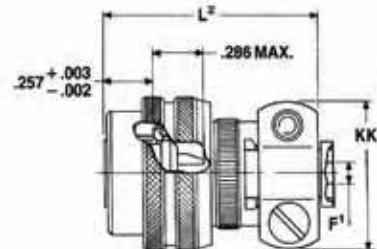
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27336	P	14	A	18	P	A



*JT06P-XX-XXX (MS27336P)
*JTN06P-XX-XXX



*JT06A-XX-XXX (MS27336T)
*JTN06A-XX-XXX



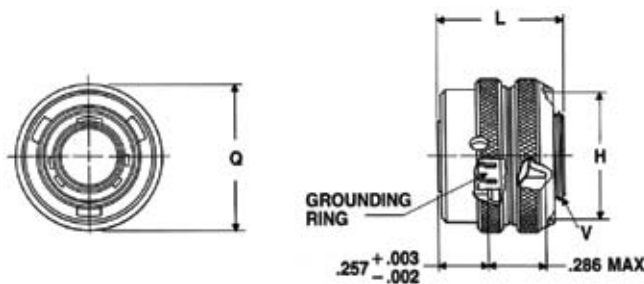
*JT06A-XX-XXX(SR)
*JTN06A-XX-XXX(SR)

*Standard Junior Tri-Lock

Shell Size	F Min.	F ¹ +.010 - .025	H +.010 - .001	L Max.	L ¹ Max.	L ² Max.	Q Max.	V Thread Modified		KK Max.
								Size Class 2A	Modified Major Dia.	
8	.312	.125	.635	.812	.625	1.109	.734	.4375-28UNEF	.421 - .417	.812
10	.429	.188	.734	.812	.625	1.109	.844	.5625-24UNEF	.542 - .538	.875
12	.543	.312	.870	.812	.625	1.109	1.016	.6875-24UNEF	.667 - .663	1.000
14	.668	.375	.996	.812	.625	1.172	1.141	.8125-20UNEF	.791 - .787	1.125
16	.793	.500	1.122	.828	.625	1.172	1.265	.9375-20UNEF	.916 - .912	1.188
18	.894	.625	1.246	.828	.625	1.172	1.391	1.0625-18UNEF	1.034 - 1.030	1.438
20	1.019	.625	1.372	.828	.625	1.234	1.500	1.1875-18UNEF	1.158 - 1.154	1.438
22	1.144	.750	1.496	.828	.625	1.234	1.625	1.3125-18UNEF	1.283 - 1.279	1.625
24	1.269	.800	1.622	.906	.688	1.297	1.750	1.4375-18UNEF	1.408 - 1.404	1.719

Military qualified to MIL-DTL-27599

JTG06A Series II – Solder Straight Plug (With Grounding Ring)



*JTG06A-XX-XXX
**JTN06A-XX-XXX

* Plug with grounding fingers

** Coupling nut is clear iridite finish (gold color), shell and grounding fingers are gold plated N₂O₄ resistant.

Shell Size	H Dia. +.010 - .001	L Max.	Q Dia. Max.	V Thread Modified	
				Size Class 2A	Modified Major Dia.
8	.635	.625	.734	.4375-28UNEF	.421 - .417
10	.734	.625	.844	.5625-24UNEF	.542 - .538
12	.870	.625	1.016	.6875-24UNEF	.667 - .663
14	.996	.625	1.141	.8125-20UNEF	.791 - .787
16	1.122	.625	1.265	.9375-20UNEF	.916 - .912
18	1.246	.625	1.391	1.0625-18UNEF	1.034 - 1.030
20	1.372	.625	1.500	1.1875-18UNEF	1.158 - 1.154
22	1.496	.625	1.625	1.3125-18UNEF	1.283 - 1.279
24	1.622	.688	1.750	1.4375-18UNEF	1.408 - 1.404

All dimensions for reference only.

38999

III

II

SJT

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

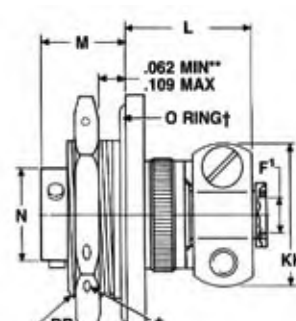
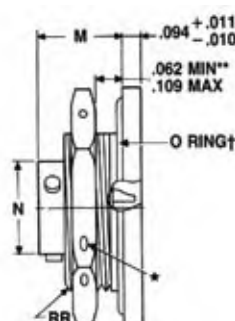
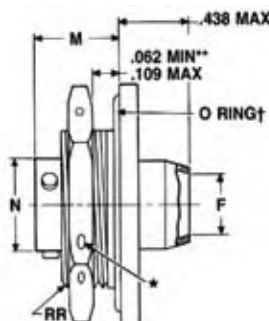
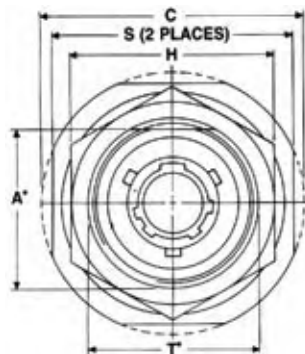
Options Others

PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN	P	RE	22-2	P	A	(XXX)

Military qualified to MIL-DTL-27599



- * .059 dia. min. 3 lockwire holes
- "D" shaped mounting hole dimensions.
- * Standard Junior Tri-Lock
- ** Panel thickness
- † O Ring not furnished with MS27337

*JT07P-XX-XXX (MS27337P)
*JTN07P-XX-XXX

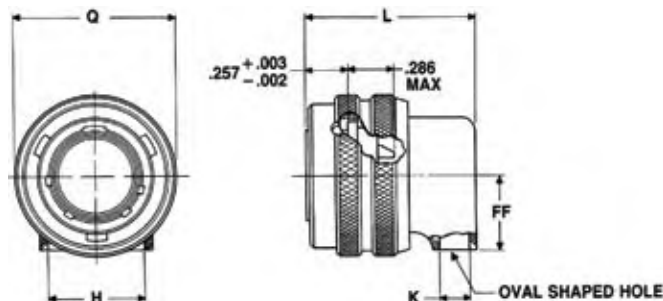
*JT07A-XX-XXX
*JT07C-XX-XXX
*JTN07A-XX-XXX
*JTN07C-XX-XXX

*JT07A-XX-XXX(SR)
*JTN07A-XX-XXX(SR)
*JTN07C-XX-XXX(SR)

Shell Size	A* +.000 -.010	C Max.	F Min.	F ¹ +.010 -.025	H +.017 -.016	L Max.	M ±.005	N +.001 -.005	S ±.016	T* +.010 -.000	KK Max.	RR Thread Class 2A
8	.830	1.390	.312	.125	1.062	.666	.438	.473	1.250	.884	.812	.8750-20UNEF
10	.955	1.515	.429	.188	1.188	.666	.438	.590	1.375	1.007	.875	1.0000-20UNEF
12	1.084	1.640	.543	.312	1.312	.666	.438	.750	1.500	1.134	1.000	1.1250-18UNEF
14	1.208	1.765	.668	.375	1.438	.729	.438	.875	1.625	1.259	1.125	1.2500-18UNEF
16	1.333	1.953	.793	.500	1.562	.729	.438	1.000	1.781	1.384	1.188	1.3750-18UNEF
18	1.459	2.031	.894	.625	1.688	.729	.438	1.125	1.890	1.507	1.438	1.5000-18UNEF
20	1.576	2.156	1.019	.625	1.812	.765	.464	1.250	2.016	1.634	1.438	1.6250-18UNEF
22	1.701	2.280	1.144	.750	2.000	.765	.464	1.375	2.140	1.759	1.625	1.7500-18UNS
24	1.826	2.405	1.269	.800	2.125	.828	.464	1.500	2.265	1.884	1.719	1.8750-16UN

JT08 Series II – Solder 90° Plug

Military qualified to MIL-DTL-27599



*JT08P-XX-XXX
*JTN08P-XX-XXX

* To complete order number see page 46.

Shell Size	H Min.	K Min.	L Max.	Q Max.	FF Max.
8	.396	.126	.891	.734	.391
10	.532	.141	.906	.844	.438
12	.694	.173	.938	1.016	.516
14	.814	.266	1.031	1.141	.594
16	.985	.423	1.188	1.265	.656
18	1.006	.485	1.250	1.391	.719
20	1.130	.547	1.312	1.500	.781
22	1.255	.610	1.375	1.625	.844
24	1.380	.673	1.516	1.750	.906

All dimensions for reference only.

Amphenol

MIL-DTL-38999, Series I, LJT



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MIL-DTL-38999 Series I Typical Markets:

- Military & Commercial Aviation
- Military Vehicles
- Missiles & Ordnance
- C4ISR

Amphenol
Aerospace

38999

SJT I

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed Circuit Board

EMI Filter Transient

Fiber Optics

High Speed Contacts

Options Others

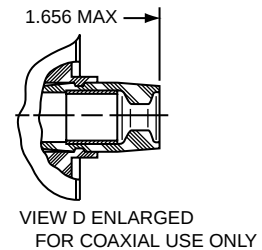
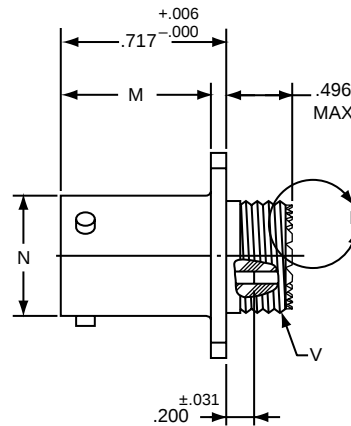
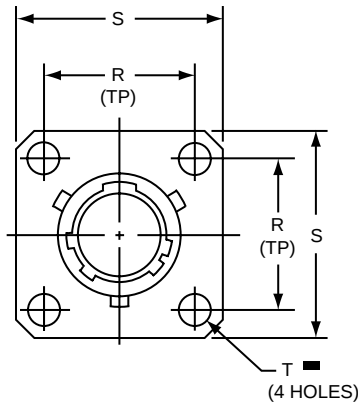
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

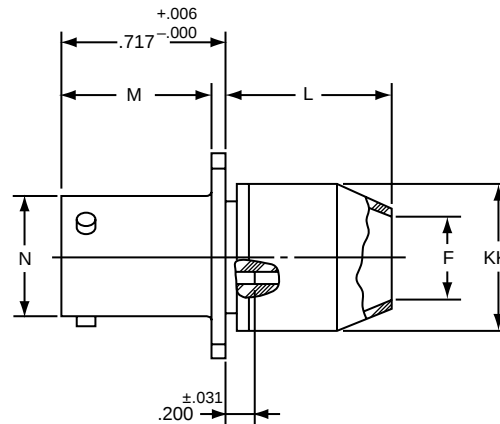
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	00	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27466	E	14	A	18	P	A



LJT00RE-XX-XXX (MS27466E)
LJT00RT-XX-XXX (MS27466T)



LJT00RP-XX-XXX (MS27466P)

⊕ .005 DIA ⊕

Shell Size	F Dia. ±.010	L Max.	M +.000 - .005	N +.001 - .005	R (TP)	S ±.016	T Dia. ±.005	V Thread Class 2A (Plated)	KK Dia. Max
9	.444	.813	.632	.572	.719	.938	.128	.4375-28 UNEF	.608
11	.558	.813	.632	.700	.812	1.031	.128	.5625-24 UNEF	.734
13	.683	.813	.632	.850	.906	1.125	.128	.6875-24 UNEF	.858
15	.808	.813	.632	.975	.969	1.219	.128	.8125-20 UNEF	.984
17	.909	.813	.632	1.100	1.062	1.312	.128	.9375-20 UNEF	1.110
19	1.034	.813	.632	1.207	1.156	1.438	.128	1.0625-18 UNEF	1.234
21	1.159	.906	.602	1.332	1.250	1.562	.128	1.1875-18 UNEF	1.360
23	1.284	.906	.602	1.457	1.375	1.688	.147	1.3125-18 UNEF	1.484
25	1.409	.906	.602	1.582	1.500	1.812	.147	1.4375-18 UNEF	1.610

All dimensions for reference only.

LJTPQ00R (MS27656) Series I – Crimp Wall Mounting Receptacle (Back Panel Mounting)

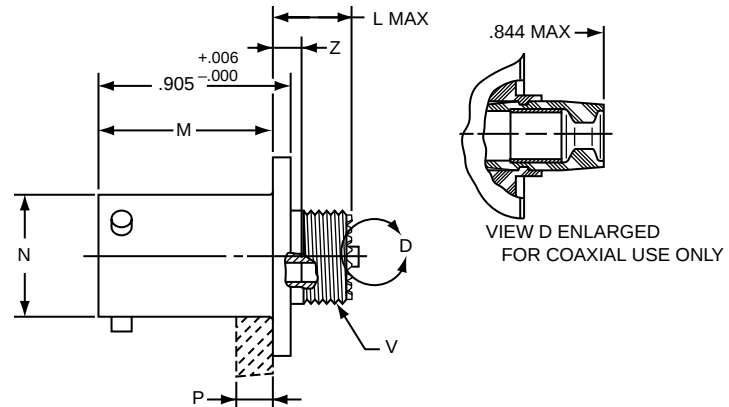
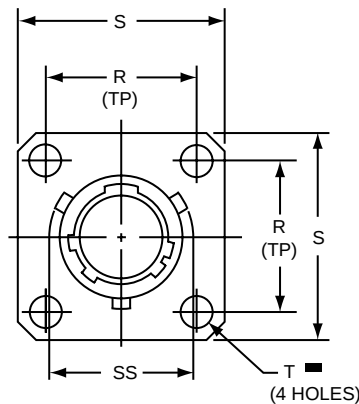
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

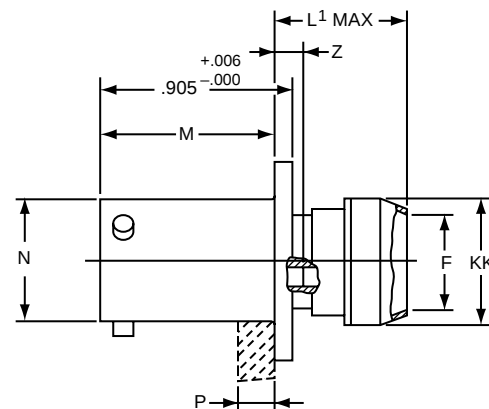
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJTPQ	00	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27656	E	14	A	18	P	A



LJTPQ00RE-XX-XXX (MS27656E)
LJTPQ00RT-XX-XXX (MS27656T)



LJTPQ00RP-XX-XXX (MS27656P)

⊕ .005 DIA M

Shell Size	F Dia. ±.010	L Max.	L ¹ Max.	M +.000 - .005	N Dia.	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Dia. ±.005	V Thread Class 2A (Plated)	Z Max	KK Dia. Max	SS Dia. +.000 - .016
9	.444	.453	.641	.820	.572	.234	.719	.938	.128	.4375-28 UNEF	.138	.625	.662
11	.558	.453	.641	.820	.700	.234	.812	1.031	.128	.5625-24 UNEF	.138	.750	.810
13	.683	.453	.641	.820	.850	.234	.906	1.125	.128	.6875-24 UNEF	.138	.875	.960
15	.808	.453	.641	.820	.975	.234	.969	1.219	.128	.8125-20 UNEF	.138	1.000	1.085
17	.909	.453	.641	.820	1.100	.234	1.062	1.312	.128	.9375-20 UNEF	.138	1.125	1.210
19	1.034	.453	.641	.820	1.207	.234	1.156	1.438	.128	1.0625-18 UNEF	.138	1.250	1.317
21	1.159	.484	.672	.790	1.332	.204	1.250	1.562	.128	1.1875-18 UNEF	.168	1.375	1.442
23	1.284	.484	.672	.790	1.457	.204	1.375	1.688	.147	1.3125-18 UNEF	.168	1.500	1.567
25	1.409	.484	.672	.790	1.582	.193	1.500	1.812	.147	1.4375-18 UNEF	.168	1.625	1.692

All dimensions for reference only.

Note: MS27656 superseded MS 27515.

38999

SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

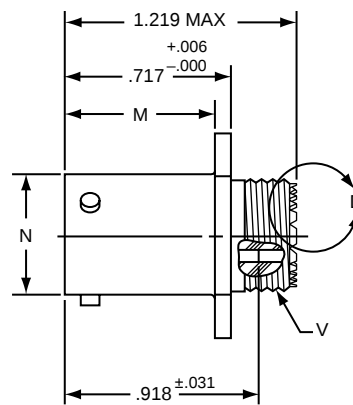
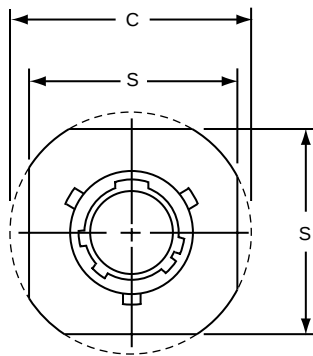
High Speed
Contacts

Options
Others

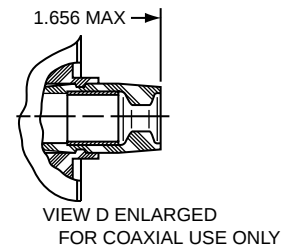
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	01	RE	22-2	P	A	(XXX)



LJT01RE-XX-XXX
LJT01RT-XX-XXX



Shell Size	C Max.	M +.000 -.005	N +.001 -.005	S ±.016	V Thread Class 2A (Plated)
9	1.094	.632	.572	.938	.4375-28 UNEF
11	1.188	.632	.700	1.031	.5625-24 UNEF
13	1.281	.632	.850	1.125	.6875-24 UNEF
15	1.375	.632	.975	1.219	.8125-20 UNEF
17	1.469	.632	1.100	1.312	.9375-20 UNEF
19	1.594	.632	1.207	1.438	1.0625-18 UNEF
21	1.719	.602	1.332	1.562	1.1875-18 UNEF
23	1.844	.602	1.457	1.688	1.3125-18 UNEF
25	1.969	.602	1.582	1.812	1.4375-18 UNEF

All dimensions for reference only.

Box Mounting Receptacle (Back Panel Mounting)

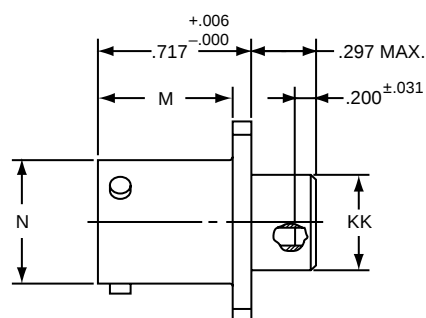
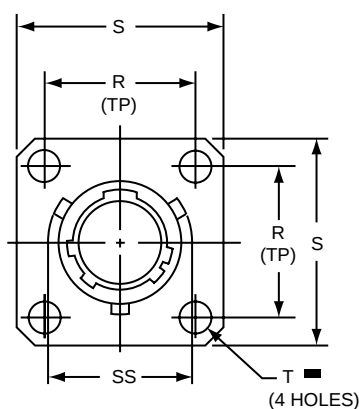
PART #**Commercial**

Part number reference. To complete, see how to order pages 46-50.

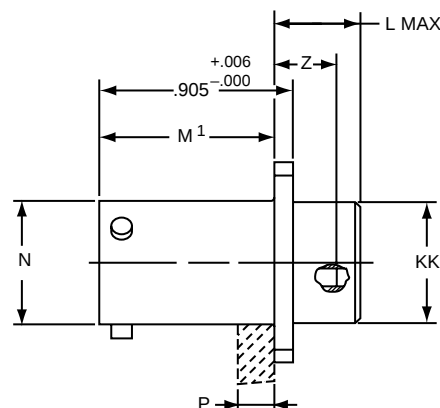
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTP	02	RE	22-2	P	A	(XXX)

Military

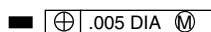
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27496	E	14	A	18	P	A
MS27505	E	14	A	18	P	A



LJT02RE-XX-XXX (MS27496E)



LJTP02RE-XX-XXX (MS27505E)



Shell Size	L Max.	M +.000 -.005	M ¹ +.001 -.005	N Dia +.001 -.005	P Max. Panel Thickness	R (TP)	S +.011 -.010	T Dia. ±.005	Z ±.031	KK Dia. +.006 -.005	SS Dia. +.000 -.016
9	.203	.632	.820	.572	.234	.719	.938	.128	.107	.433	.662
11	.203	.632	.820	.700	.234	.812	1.031	.128	.107	.557	.810
13	.203	.632	.820	.850	.234	.906	1.125	.128	.107	.676	.960
15	.203	.632	.820	.975	.234	.969	1.219	.128	.107	.801	1.085
17	.203	.632	.820	1.100	.234	1.062	1.312	.128	.107	.926	1.210
19	.203	.632	.820	1.207	.234	1.156	1.438	.128	.107	1.032	1.317
21	.234	.602	.790	1.332	.204	1.250	1.562	.128	.137	1.157	1.442
23	.234	.602	.790	1.457	.204	1.375	1.688	.147	.137	1.282	1.567
25	.234	.602	.790	1.582	.193	1.500	1.812	.147	.137	1.407	1.692

All dimensions for reference only.

38999

SJT I II III

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear Release Matrix

26500 Pyle

Printed

Circuit Board

EMI Filter

Transient

Fiber Optics

High Speed

Contacts

Options

Others

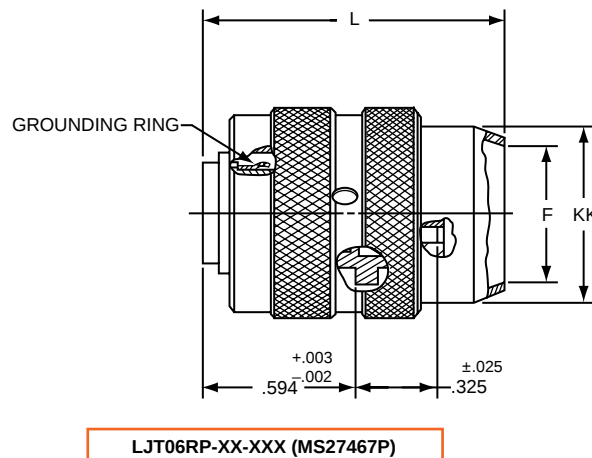
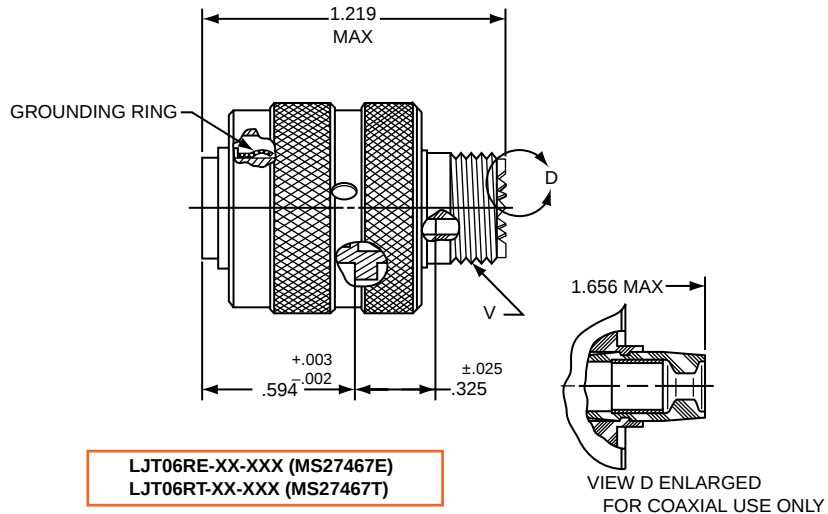
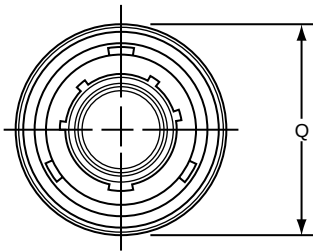
PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27467	E	14	A	18	P	A



Shell Size	F Dia. ±.010	L Max.	Q Max.	V Thread Class 2A (Plated)	KK Dia. Max.
9	.444	1.531	.844	.4375-28 UNEF	.608
11	.528	1.531	.969	.5625-24 UNEF	.734
13	.683	1.531	1.141	.6875-24 UNEF	.858
15	.808	1.531	1.266	.8125-20 UNEF	.984
17	.909	1.531	1.391	.9375-20 UNEF	1.110
19	1.034	1.531	1.500	1.0625-18 UNEF	1.234
21	1.159	1.625	1.625	1.1875-18 UNEF	1.360
23	1.284	1.625	1.750	1.3125-18 UNEF	1.484
25	1.409	1.625	1.875	1.4375-18 UNEF	1.610

All dimensions for reference only.

LJT07R (MS27468) Series I – Crimp Jam Nut Receptacle

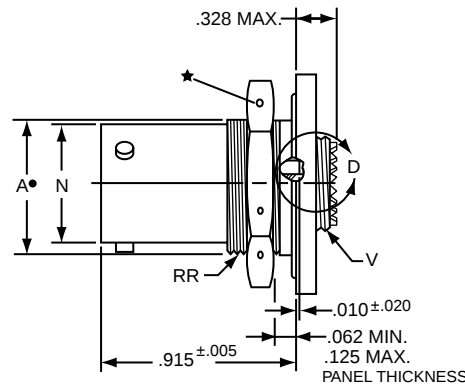
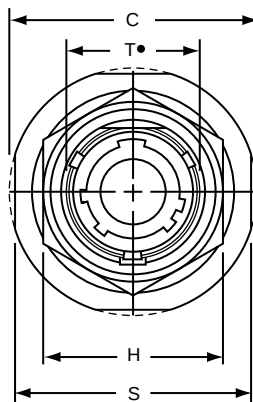
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

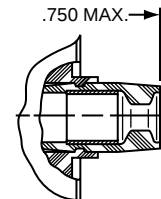
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	07	RE	22-2	P	A	(XXX)

Military

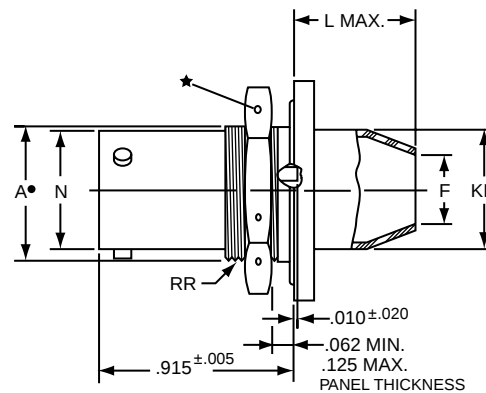
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27498	E	14	A	18	P	A



LJT07RE-XX-XXX (MS27468E)
LJT07RT-XX-XXX (MS27468T)



VIEW D ENLARGED
FOR COAXIAL USE ONLY



LJT07RP-XX-XXX (MS27468P)

- ★ .059 Dia. Min. 3 lockwire holes.
- Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.

Shell Size	A* +.000 -.010	C Max.	F Dia. ±.010	H Hex +.017 -.016	L Max.	N +.001 -.005	S ±.016	T* +.010 -.000	V Thread Class 2A (Plated)	KK Dia. Max.	RR Thread Class 2A (Plated)
9	.669	1.199	.444	.875	.625	.572	1.062	.697	.4375-28 UNEF	.608	.6875-24 UNEF
11	.769	1.386	.558	1.000	.625	.700	1.250	.822	.5625-24 UNEF	.734	.8125-20 UNEF
13	.955	1.511	.683	1.188	.625	.850	1.375	1.007	.6875-24 UNEF	.858	1.0000-20 UNEF
15	1.084	1.636	.808	1.312	.625	.975	1.500	1.134	.8125-20 UNEF	.984	1.1250-18 UNEF
17	1.208	1.761	.909	1.438	.625	1.100	1.625	1.259	.9375-20 UNEF	1.110	1.2500-18 UNEF
19	1.333	1.949	1.034	1.562	.656	1.207	1.812	1.384	1.0625-18 UNEF	1.234	1.3750-18 UNEF
21	1.459	2.073	1.159	1.688	.750	1.332	1.938	1.507	1.1875-18 UNEF	1.360	1.5000-18 UNEF
23	1.580	2.199	1.284	1.812	.750	1.457	2.062	1.634	1.3125-18 UNEF	1.484	1.6250-18 UNEF
25	1.709	2.323	1.409	2.000	.750	1.582	2.188	1.759	1.4375-18 UNEF	1.610	1.7500-18 UNS

All dimensions for reference only.

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

38999

SJT I

26482

Matrix 2

83723 III

Matrix Pyle

5015

Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

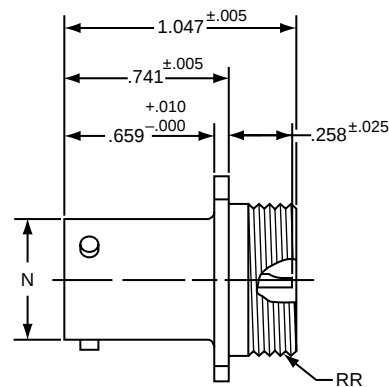
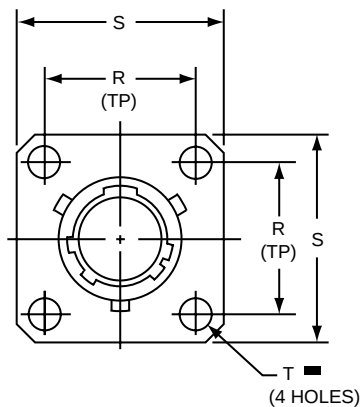
PART # Commercial

Part number reference. To complete,
see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTS	00	Y	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27469	Y	14	D	18	P	A



- * LJT00H-XX-XXX
- ** LJT00Y-XX-XXX (MS27469YXXD)
- *** LJTS00Y-XX-XXX (MS27469YXXE)

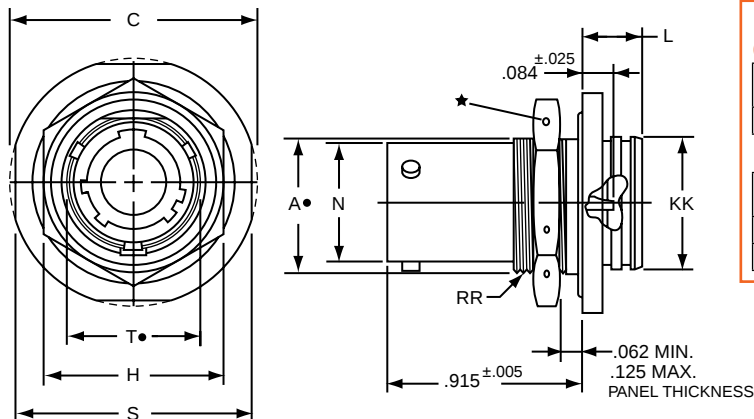
⊕ .005 DIA M

- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. +.001 -.005	R (TP)	S ±.016	T Dia. ±.005	RR Thread Class 2A
9	.572	.719	.938	.128	.6875-24 UNEF
11	.700	.812	1.031	.128	.8125-20 UNEF
13	.850	.906	1.125	.128	.9375-20 UNEF
15	.975	.969	1.219	.128	1.0625-18 UNEF
17	1.100	1.062	1.312	.128	1.1875-18 UNEF
19	1.207	1.156	1.438	.128	1.3125-18 UNEF
21	1.332	1.250	1.562	.128	1.4375-18 UNEF
23	1.457	1.375	1.688	.147	1.5625-18 UNEF
25	1.582	1.500	1.812	.147	1.6875-18 UNEF

All dimensions for reference only.

LJT07 (MS27470) Series I – Hermetic Jam Nut Receptacle



PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTS	H	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27470	Y	14	A	18	P	A
MS27471	Y	14	A	18	P	A

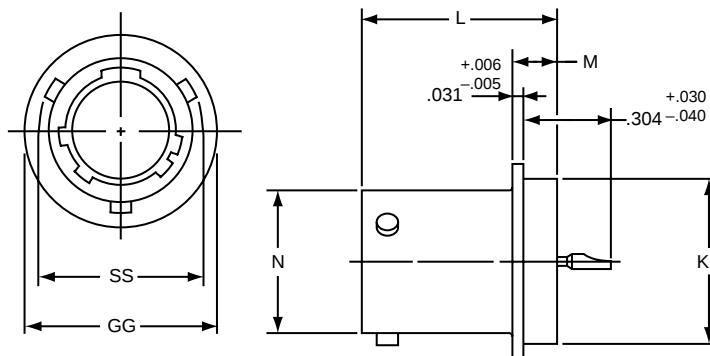
Shell Size	A* +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.000 -.005	S ±.016	T* +.010 -.000	KK +.011 -.000	RR Thread Class 2A (Plated)
9	.669	1.199	.875	.297	.572	1.062	.697	.642	.6875-24 UNEF
11	.769	1.386	1.000	.297	.700	1.250	.822	.766	.8125-20 UNEF
13	.955	1.511	1.188	.297	.850	1.375	1.007	.892	1.0000-20 UNEF
15	1.084	1.636	1.312	.297	.975	1.500	1.134	1.018	1.1250-18 UNEF
17	1.208	1.761	1.438	.297	1.100	1.625	1.259	1.142	1.2500-18 UNEF
19	1.333	1.949	1.562	.328	1.207	1.812	1.384	1.268	1.3750-18 UNEF
21	1.459	2.073	1.688	.328	1.332	1.938	1.507	1.392	1.5000-18 UNEF
23	1.580	2.199	1.812	.328	1.457	2.062	1.634	1.518	1.6250-18 UNEF
25	1.709	2.328	2.000	.328	1.582	2.188	1.759	1.642	1.7500-18 UNS

All dimensions for reference only.

- * LJT07H-XX-XXX
- ** LJT07Y-XX-XXX (MS27470YXXD)
- *** LJTS07Y-XX-XXX (MS27470YXXE)

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- * *Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

LJTI (MS27471) Series I – Hermetic Solder Mounting Receptacle



- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. +.001 -.005	SS Dia. +.000 -.016	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010	KK Dia. +.001 -.005
9	.572	.662	.789	.125	.750	.672
11	.700	.810	.789	.125	.844	.781
13	.850	.960	.789	.125	.969	.906
15	.975	1.085	.789	.125	1.094	1.031
17	1.100	1.210	.789	.125	1.218	1.156
19	1.207	1.317	.789	.125	1.312	1.250
21	1.332	1.442	.789	.125	1.438	1.375
23	1.457	1.567	.821	.156	1.563	1.500
25	1.582	1.692	.821	.156	1.688	1.625

- * LJTIH-XX-XXX
- ** LJTIY-XX-XXX (MS27471YXXD)
- *** LJTSIY-XX-XXX (MS27471YXXE)

All dimensions for reference only.
Weld mounting hermetic receptacle also available.
Consult Amphenol, Sidney, NY for availability and dimensions.

PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	00	P	22-2	P	A	(XXX)

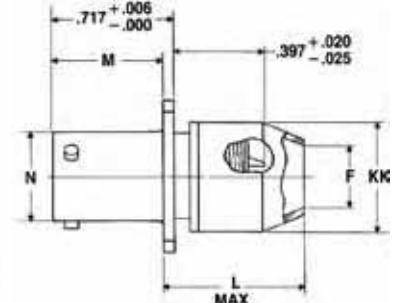
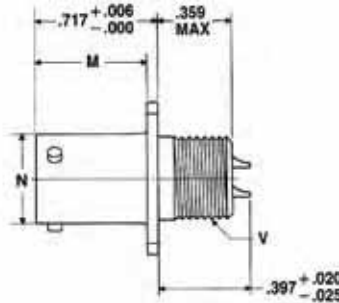
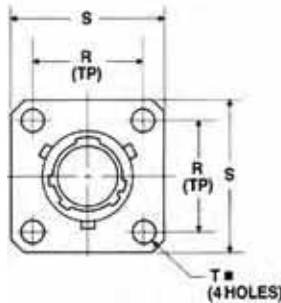
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS20026	T	14	A	18	P	A
MS20027	T	14	A	18	P	A

Military qualified to MIL-DTL-27599

LJT00T-XX-XXX (MS20026T)

LJT00P-XX-XXX



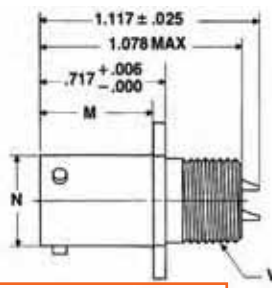
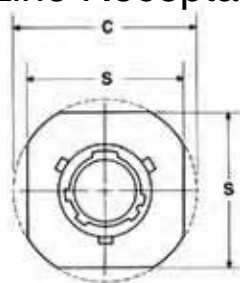
■ $\varnothing$.005 DIA (M)

NOTE: For availability of back panel mounting types, check with nearest sales office or call Amphenol, Sidney, NY.

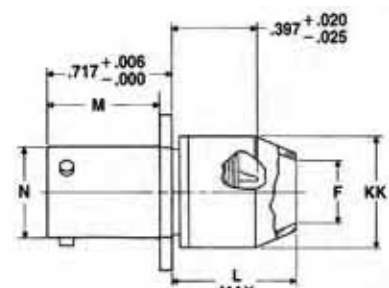
Shell Size	F Dia.	L Max.	M +.000 / -.005	N +.001 / -.005	R (TP)	S ±.016	T Dia. ±.005	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	.327	.625	.632	.572	.719	.938	.128	.4375-28	.608
11	.444	.625	.632	.700	.812	1.031	.128	.5625-24	.734
13	.558	.625	.632	.850	.906	1.125	.128	.6875-24	.858
15	.683	.625	.632	.975	.969	1.219	.128	.8125-20	.984
17	.808	.625	.632	1.100	1.062	1.312	.128	.9375-20	1.110
19	.909	.625	.632	1.207	1.156	1.438	.128	1.0625-18	1.234
21	1.034	.703	.602	1.332	1.250	1.562	.128	1.1875-18	1.360
23	1.159	.703	.602	1.457	1.375	1.688	.147	1.3125-18	1.484
25	1.284	.703	.602	1.582	1.500	1.812	.147	1.4375-18	1.610

LJT01 (MS20027) Series I – Solder Line Receptacle

Military qualified to MIL-DTL-27599



LJT01T-XX-XXX (MS20027T)



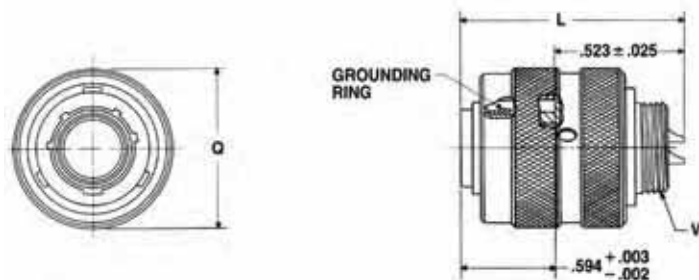
LJT01P-XX-XXX

Shell Size	C Max.	F Dia.	L Max.	M +.000 / -.005	N +.001 / -.005	S ±.016	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	1.094	.327	.625	.632	.572	.938	.4375-28	.608
11	1.188	.444	.625	.632	.700	1.031	.5625-24	.734
13	1.281	.558	.625	.632	.850	1.125	.6875-24	.858
15	1.375	.683	.625	.632	.975	1.219	.8125-20	.984
17	1.469	.808	.625	.632	1.100	1.312	.9375-20	1.110
19	1.594	.909	.625	.632	1.207	1.438	1.0625-18	1.234
21	1.719	1.034	.703	.602	1.332	1.562	1.1875-18	1.360
23	1.844	1.159	.703	.602	1.457	1.688	1.3125-18	1.484
25	1.969	1.284	.703	.602	1.582	1.812	1.4375-18	1.610

All dimensions for reference only.

LJT06 (MS20028) Series I – Solder Straight Plug

Military qualified to MIL-DTL-27599



PART # Commercial

Part number reference. To complete, see how to order pages 46-50.

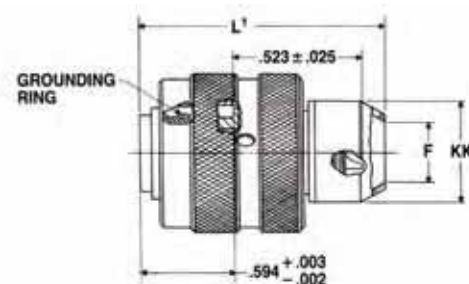
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	06	T	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS20028	T	14	A	18	P	A
MS20029	T	14	A	18	P	A

LJT06T-XX-XXX (MS20028T)

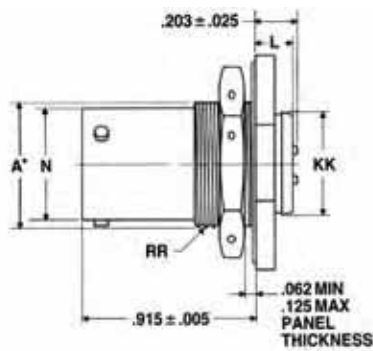
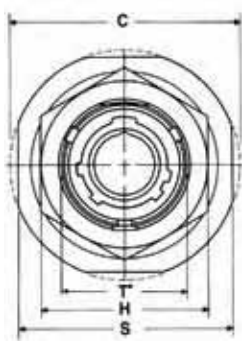
Shell Size	F Dia.	L Max.	L ¹ Max.	Q Max.	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	.327	1.128	1.488	.844	.4375-28	.608
11	.444	1.128	1.488	.969	.5625-24	.734
13	.558	1.128	1.488	1.141	.6875-24	.858
15	.683	1.128	1.488	1.266	.8125-20	.984
17	.808	1.128	1.488	1.391	.9375-20	1.110
19	.909	1.128	1.488	1.500	1.0625-18	1.234
21	1.034	1.128	1.566	1.625	1.1875-18	1.360
23	1.159	1.128	1.566	1.750	1.3125-18	1.484
25	1.284	1.191	1.644	1.875	1.4375-18	1.610



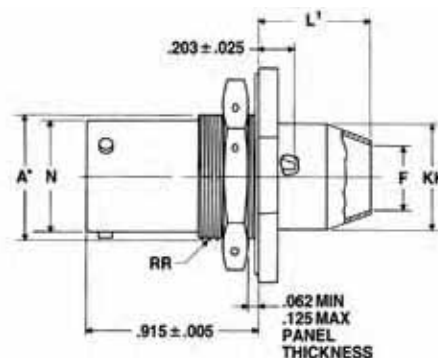
LJT06P-XX-XXX

LJT07 (MS20029) Series I – Solder Jam Nut Receptacle

Military qualified to MIL-DTL-27599



LJT07T-XX-XXX (MS20029T)



LJT07P-XX-XXX (MS20029P)

- "D" shaped mounting hole dimensions

Shell Size	A* +.000 - .010	C Max.	F Dia.	H Hex +.017 - .016	L Max.	L ¹ Max.	N +.001 - .005	S ±.016	T* +.010 - .000	KK +.011 - .000	KK ¹ Dia. Max.	RR Thread Class 2A (Plated)
9	.669	1.199	.327	.875	.234	.625	.572	1.062	.697	.516	.608	.6875-24UNEF
11	.769	1.386	.444	1.000	.234	.625	.700	1.250	.822	.642	.734	.8125-20UNEF
13	.955	1.511	.558	1.188	.234	.625	.850	1.375	1.007	.766	.858	1.0000-20UNEF
15	1.084	1.636	.683	1.312	.234	.625	.975	1.500	1.134	.892	.984	1.1250-18UNEF
17	1.208	1.761	.808	1.438	.234	.625	1.100	1.625	1.259	1.018	1.110	1.2500-18UNEF
19	1.333	1.949	.909	1.562	.266	.625	1.207	1.812	1.384	1.142	1.234	1.3750-18UNEF
21	1.459	2.073	1.034	1.688	.266	.656	1.332	1.938	1.507	1.268	1.360	1.5000-18UNEF
23	1.580	2.199	1.159	1.812	.266	.750	1.457	2.062	1.634	1.392	1.484	1.6250-18UNEF
25	1.709	2.323	1.284	2.000	.266	.750	1.582	2.188	1.759	1.518	1.610	1.7500-18UNS

All dimensions for reference only.

INSERT AVAILABILITY

Shell Size / Insert Arrangement	Service Rating	Total Contacts	Contact Size						
			22D	20	16	12	12 Coax	8 Coax*	8 Twinax
11-2	I	2			2				
11-35	M	13	13						
11-98	I	6		6					
13-4	I	4			4				
13-8	I	8		8					
13-35	M	22	22						
13-98	I	10		10					
15-5	II	5			5				
15-15	I	15		14	1				
15-18	I	18		18					
15-19	I	19		19					
15-35	M	37	37						
15-97	I	12		8	4				
17-6	I	6				6			
17-8	II	8			8				
17-26	I	26		26					
17-35	M	55	55						
17-99	I	23		21	2				
19-11	II	11			11				
19-32	I	32		32					
19-35	M	66	66						
21-11	I	11				11			
21-16	II	16			16				
21-35	M	79	79						
21-39	I	39		37	2				
21-41	I	41		41					
23-21	II	21			21				
23-35	M	100	100						
23-53	I	53		53					
23-54	M	53	40		9	4			
23-55	I	55		55					
25-4	I	56		48	8				
25-19	I	19				19			
25-20	N	30		10	13		4		3
25-24	I	24			12	12			
25-29	I	29			29				
25-35	M	128	128						
25-43	I	43		23	20				
25-46	I	46		40	4			2*	
25-61	I	61		61					

LJT Lanyard Separation Forces

Shell Size	Straight Plug (lbs. max.)	15 Degree Pull (lbs. Max.)
11 13 15	45	55
17 19 21 23 25	90	100

* For RG 180/U and RG 195/U cables only. (Check Amphenol Aerospace, Sidney, NY for other cable applications). For availability of other insert arrangements and accessories consult Amphenol Aerospace.

TABLE I INSERT ARRANGEMENT CODE

Basic Part Number	MIL-DTL-38999 Insert Arrangement
88/91-538808	11-2
06	11-35
07	11-98
10	13-4
11	13-8
13	13-98
14	13-35
18	15-5
23	15-15
22	15-18
19	15-19
20	15-35
27	17-6
28	17-8
29	17-26
30	17-35
31	17-99
37	19-11
39	19-32
40	19-35
47	21-11
48	21-16
49	21-35
50	21-41
51	21-39
57	23-21
58	23-35
59	23-53
61	23-54
60	23-55
66	25-19
74	25-20
67	25-29
68	25-35
69	25-43
70	25-61
71	25-46
72	25-2
74	25-4

TABLE II LANYARD LENGTH CODES

Lanyard Length (in.) ±.250	MS	Commercial Code
4.000		40
4.250		41
4.500		42
4.750		43
5.000		50
5.250		51
5.500		52
5.750		53
6.000	No	60
6.250	Code	61
6.500		62
6.750	Std.	63
7.000	Length	70
7.250	6.250	71
7.500		72
7.750		73
8.000		80
8.250		81
8.500		82
8.750		83
9.000		90
9.250		91
9.500		92
9.750		93

Series I, LJT Breakaway Fail Safe Lanyard Release Plug How to Order, cont.

HOW TO ORDER - BY MILITARY PART NUMBER FAIL SAFE MS27661

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrg.	Contact Style	Alternate Position
MS27661	T	17	B	35	P	A

1. MS27661 Number

MS Number designates MIL-DTL-38999, Series I
LJT Lanyard Release Plug

2. Select a Service Class

E	For environmental crimp applications (inactive for new design)
T	For environmental crimp applications with serrations on rear threads of shell

3. Select a Shell Size

MIL-DTL-38999, sizes 11 through 25, see chart on page 78.

4. Select a Finish

B	Designates corrosion resistant olive drab cadmium plated aluminum, 500 hour extended salt spray, EMI shielding effectiveness -50dB @ 10 GHz specification min., 175°C
F	Designates electroless nickel plated aluminum, 48 hour salt spray, EMI shielding effectiveness -65dB @ 10 GHz500 specification min., 200°C

These are standard finishes. Consult Amphenol Aerospace for variations.

5. Select an Insert Arrangement

MIL-DTL-38999, see insert identification chart on page 78.

6. Select a Contact Style

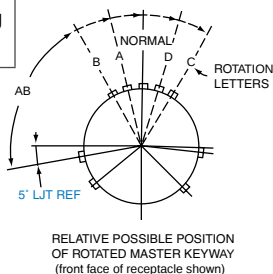
P	Designates Lanyard Release plug with pin contacts
S	Designates Lanyard Release plug with socket contacts

7. Alternate Keying Position

For alternate Position of connector (to prevent cross-mating) see LJT key/keyway rotation below.
(No letter is required for normal)

LJT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°



HOW TO ORDER - BY COMMERCIAL PART NUMBER FAIL SAFE 88-5388 OR 91-5388

1.	2.	3.	4.	5.
Finish	Connector Type Identification	Shell Size & Insert Arrangement	Lanyard Length Code	Contact Type Alternate Rotation of Insert
88	5388	29	40	P

1. Select a Finish

88	Designates corrosion resistant olive drab cadmium plate over nickel, 500 hour extended salt spray, EMI -50dB @ 10 GHz specification min., 175°C
91	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10 GHz specification min., 48 hour salt spray, 200°C

These are standard finishes. Consult Amphenol Aerospace, Sidney, NY for variations.

2. Connector Type Identification

5388	Designates MIL-DTL-38999, Series I LJT Lanyard Release Plug
-------------	---

3. Select a Shell Size and Insert Arrangement

Shell sizes are MIL-DTL-38999, Series III from sizes 11 thru 25. The basic part number selected specifies the insert arrangement. See Table I (page 78) for coded part number that correlates to insert arrangement.

4. Select a Lanyard Length Code

See Table II (page 78) for lanyard length code number.

5. Select a Contact Type/Alternate Rotation of Insert

P	Designates Lanyard Release plug with pin contacts
S	Designates Lanyard Release plug with socket contacts

When an alternate position of the connector is required to prevent cross-mating, a different letter (other than P or S) is used. See alternate positioning for LJT (to your left), then convert to Amphenol commercial coding by the following chart below.

Pin Contacts		Socket Contacts	
MS Letter	Amphenol Letter	MS Letter	Amphenol Letter
P	P (normal)	S	S (normal)
PA	E	SA	F
PB	R	SB	T
PC	W	SC	X
PD	Y	SD	Z

III
II
I
38999
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Amphenol LJT Breakaway Fail Safe Connectors provide unequaled performance in environments requiring instant disengagement.

Designed to provide quick disconnect of a connector plug and receptacle with an axial pull on the lanyard, the "Breakaway" Fail Safe connector family offers a wide range of electrical and mechanical features:

- Instant decoupling and damage free separation
- Completely intermateable with standard LJT receptacles
- Inventory support commonality through the use of standard insert arrangements and contacts

Breakaway un-mating is initiated by applying a pull force to the lanyard which causes the operating sleeve on the plug to move away from the receptacle. Coupling segments on the plug then move away from the mating receptacle while expanding, thus releasing the receptacle. After completion of the un-mating sequence, spring compression returns the sleeve and segments to their original positions. Un-mating of the plug may also be accomplished by normal rotation of the coupling ring without affecting the breakaway capability.

The LJT Breakaway Fail Safe connector features which provide EMI EMP shielding in excess of MIL-DTL-38999 Series I requirements:

- Solid metal-to-metal coupling
- EMI grounding fingers
- Conductive finishes

Contact Amphenol Aerospace for more information on breakaway, quick-disconnect connectors. Other Amphenol cylindrical families (MIL-DTL-38999 Series III, MIL-DTL-26482, MIL-DTL-83723) also offer breakaway quick-disconnect connectors.

PART # Part number reference. To complete, see how to order pages 79.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
88/91	5388	T	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27661	T	14	A	18	P	A

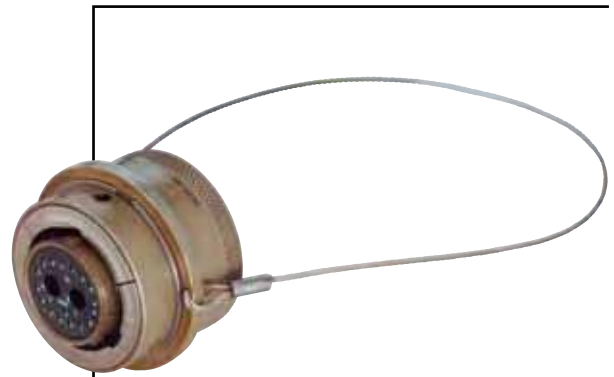
LJT Fail Safe 88-5388/91-5388 (MS27661)

Lanyard Release Plug

* To complete order number see page 79.

Shell Size	A Dia. Max.	B Max.	D Max. Accessory Dia.	L Max.	V Thread UNEF Class 2A (Plated)
11	1.393	1.797	.740	1.703	.5625-24
13	1.558	1.969	.926	1.703	.6875-24
15	1.669	2.078	1.051	1.703	.8125-20
17	1.797	2.203	1.176	1.703	.9375-20
19	1.926	2.323	1.300	1.703	1.0625-18
21	2.054	2.469	1.426	1.703	1.1875-18
23	2.183	2.594	1.551	1.703	1.3125-18
25	2.293	2.703	1.676	1.766	1.4375-18

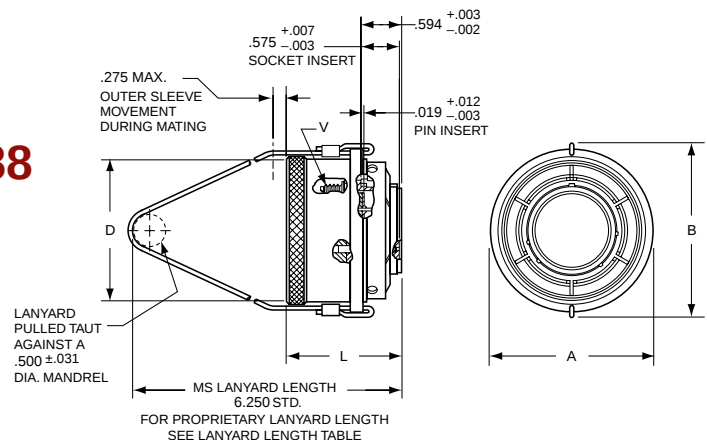
All dimensions for reference only.



LJT Breakaway Fail Safe

In addition to standard Breakaway connectors, Amphenol also manufactures custom breakaway connectors including those with:

- Increased pull-force capability
- Custom lanyard lengths and backshells
- Low force separation capabilities
- Low insertion/separation force contacts
- Non-cadmium finishes
- Custom JT Series Breakaway designs have been developed for special applications; however the LJT Series is recommended over the JT Series for the quick-disconnect breakaway style.



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

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• How to Order, Alternate Rotations	83
• Insert Availability and Identification	84

SJT Shell Styles:

• Crimp Wall Mounting Receptacle SJT00RT, Crimp Wall Mounting Receptacle for Back Panel Mounting SJTP00RT	85
• Crimp Box Mounting Receptacle for Back Panel Mounting SJTP02RE, Crimp Jam Nut Receptacle SJT07RT	86
• Crimp Straight Plug SJT06RT, Crimp Straight Plug with Grounding Fingers SJTG06RT	87
• Hermetic Solder Mounting Receptacle SJTIY, Hermetic Jam Nut Receptacle SJT07Y	88
• Accessories, Contacts, and Tools see pages	89-108



SJT Typical Markets:

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

Amphenol
Aerospace

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	Contact Size	Crimp Well Data	
	Standard	Hermetic				Well Diameter	Min. Well Depth
22M	3	2	45	60	22M	.028 ±.001	.141
22D	5	3	73	85	22D	.0345 ±.0010	.141
22	5	3	73	85	22	.0365 ±.0010	.141
20	7.5	5	55	60	20	.047 ±.001	.209
16	13	10	49	85	16	.067 ±.001	.209
12	23	17	42	85	12	.100 ±.002	.209
10 Power	33	NA	33	NA	10 (Power)	.137 ±.002	.355

* When using silver plated wire

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.

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 1.0×10^{-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

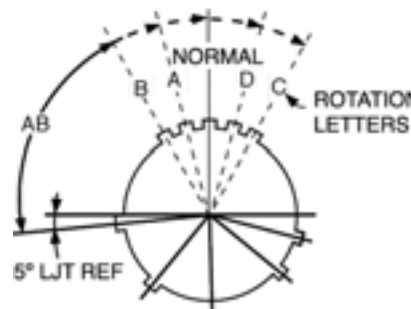
	Designates
P	Pin Contacts
S	Socket Contacts

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	

Shell Size	Crimp	Hermetics* Class Y	Service Rating	Total Contacts	Contact Size									
					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 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 than 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

38999
III
II
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Shell Size	Crimp	Hermetics* Class Y	Service Rating	Total Contacts	Contact Size									
					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.

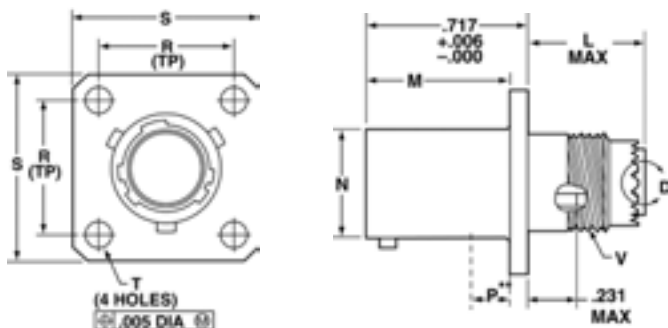
*** Two size 16 contacts dedicated to fiber optics. Consult Amphenol or Fiber Optic Section for more information.

† 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



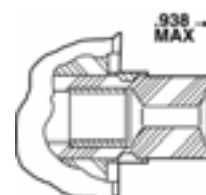
PART # *To complete, see how to order pages 83-84.

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	VThread Modified			N +.001 - .005	P** Max
						Class 2A UNEF (Plated)	Modified Major Dia.			
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

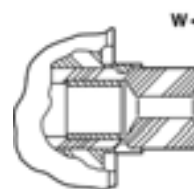
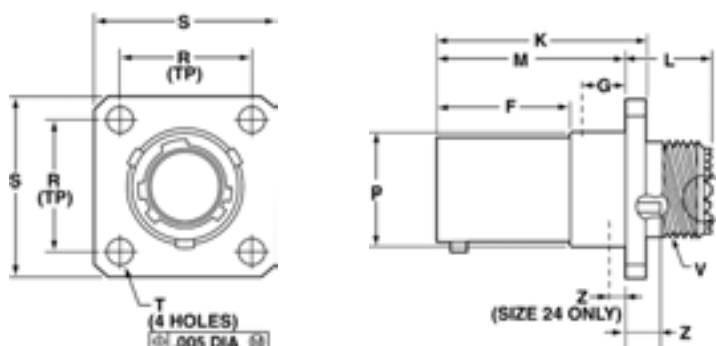


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FOR COAXIAL USE ONLY

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)



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FOR COAXIAL USE ONLY

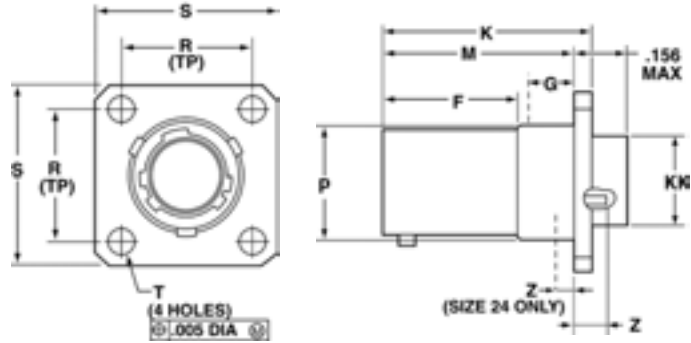
SJTP00RT

Shell Size	F +.000 - .005	K +.006 - .000	L Max.	M +.000 - .005	R (TP)	S +.011 - .010	T ±.005	Z ±.031	VThread 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.

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)



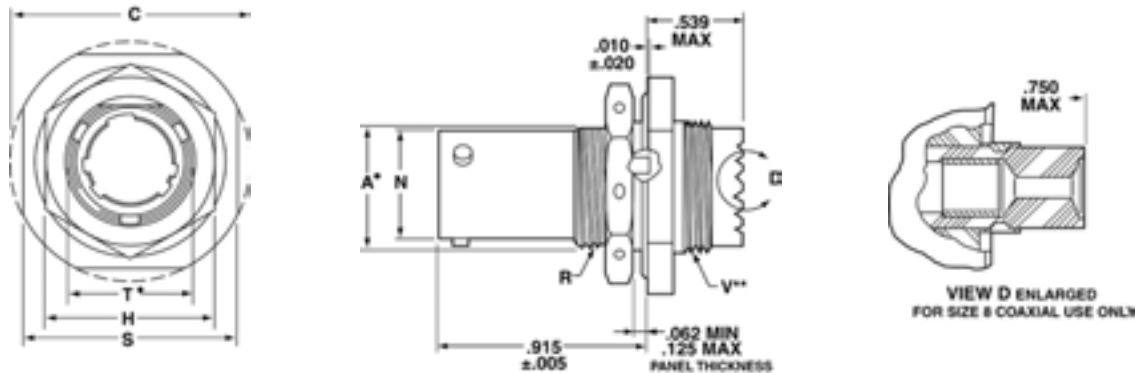
SJTP02RE

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

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 – Crimp Jam Nut Receptacle



SJT07RT

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

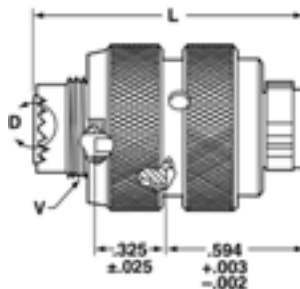
Shell Size	A* +.000 -.010	H Hex +.017 -.016	S ±.016	VThread Class 2A UNEF (Plated)	RThread Class 2A UNEF (Plated)	N +.001 -.005	C Max.	T* +.010 -.000
8	.542	.750	.938	.5625-24	.5625-24	.473	1.078	.572
10	.669	.875	1.062	.6875-24	.6875-24	.590	1.203	.697
12	.830	1.062	1.250	.8125-20	.8750-20	.750	1.391	.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.

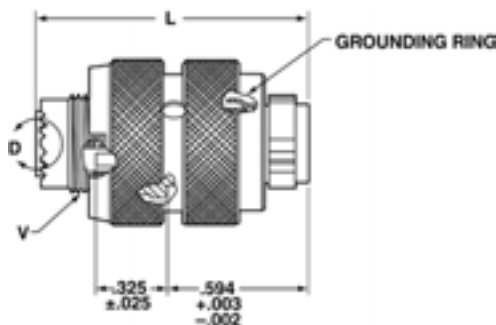
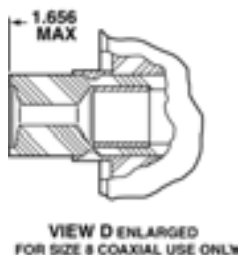
SJT06RT/SJTG06RT – Crimp Straight Plug/Straight Plug (with Grounding Fingers)

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.	VThread		
			Class 2A UNEF (Plated)	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.

38999
SJT

26482
Matrix 2

83723
Matrix Pyle

5015
Crimp Rear Release Matrix

26500
Pyle

Printed
Circuit Board

EMI Filter
Transient

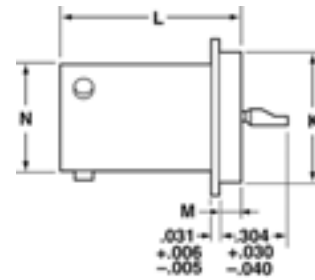
Fiber Optics

High Speed
Contacts

Options
Others

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

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



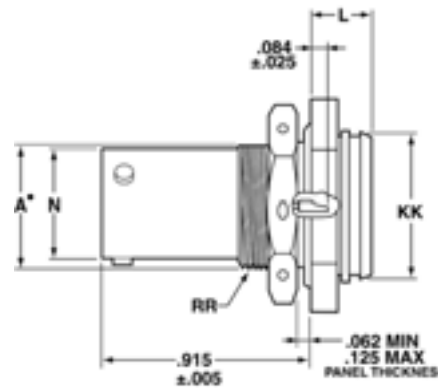
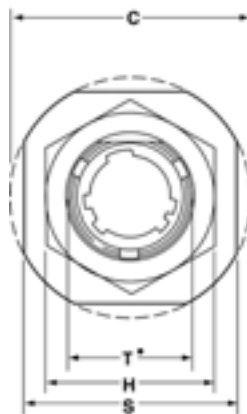
SJTIY

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

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

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

SJT07Y – Hermetic Jam Nut Receptacle



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.

MIL-DTL-38999 Series III, II, I, and SJT

Accessories, Contacts, and Tools



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

SJT

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

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



III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series III TV

Amphenol offers a full range of accessories that are designed to enhance the performance of Amphenol Breakaway connectors.

Low Profile Backshells in shell size 25 with the following features:

- Olive drab cadmium finish
- 90 degree termination
- Low profile design with three heights ranging from 1.010 to 1.660
- Rear access covers to help ease harness assembly and repairability
- Amphenol part numbers: 10-640000-XXX



Backshells are offered for use with Breakaway Fail Safe Connectors in three heights.



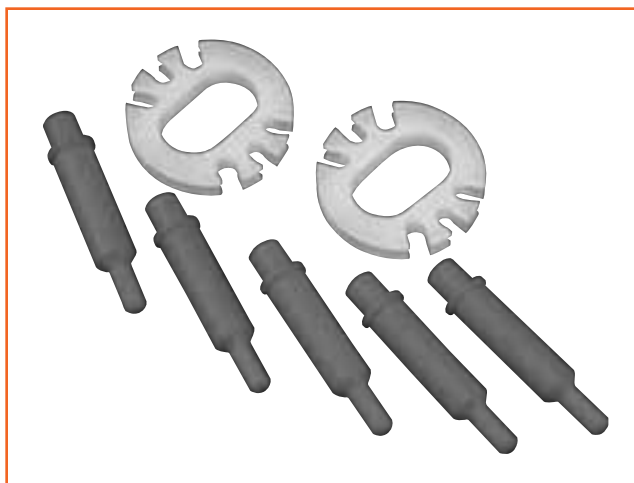
Dummy Contacts

- Available in size 12 and size 8
- Provide a cost effective alternative for sealing unused contact cavities
- Size 8 part number: T3-4008-59P
- Size 12 part number: T3-4012-59P

Wire Combs

- Available for the 25-20 insert pattern to help to stabilize and prevent contact side loading
- Amphenol part number: 21-33626-XXX

For information on how to order these accessory products for Breakaway Fail Safe connectors consult Amphenol Aerospace.

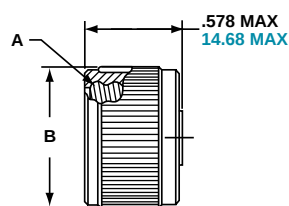


Accessory products for Breakaway Connectors: Dummy Contacts and Wire Combs

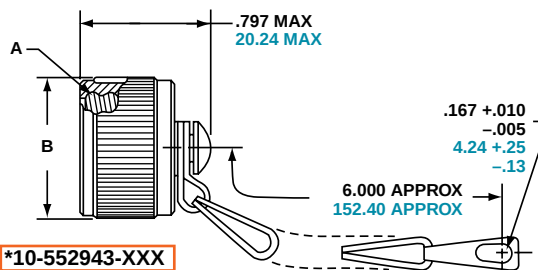
MIL-DTL-38999, Series III TV

Receptacle Protection Cap

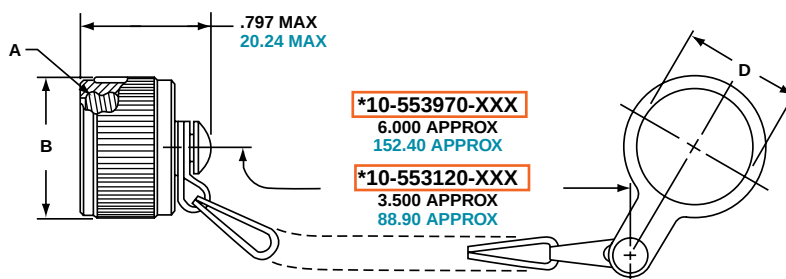
Series III TV



*10-553310-XXX



*10-552943-XXX



*10-553970-XXX

6.000 APPROX
152.40 APPROX

*10-553120-XXX

3.500 APPROX
88.90 APPROX

* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base, **10-552943-119**

Inches

Shell Size	A Thread Class 2B 0.1P-0.3L-TS	B Dia. Max.	D Dia. +.010 -.000
9	.6250	.875	.703
11	.7500	1.000	.844
13	.8750	1.125	1.016
15	1.0000	1.250	1.141
17	1.1875	1.438	1.266
19	1.2500	1.500	1.391
21	1.3750	1.625	1.516
23	1.5000	1.750	1.641
25	1.6250	1.875	1.766

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

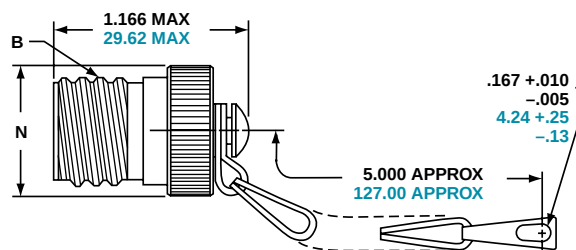
Consult Amphenol Aerospace for availability of stainless steel protection caps.

All dimensions for reference only.
For MS protection caps, see page 95.

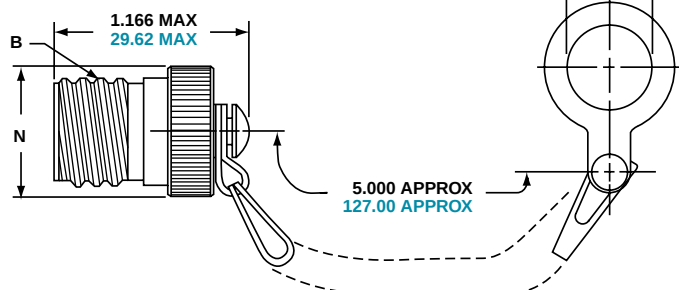
Shell Size	MS Shell Size Code	B Dia. Max.	D Dia. +.25 -.00
9	A	22.23	17.86
11	B	25.40	21.44
13	C	28.58	25.81
15	D	31.75	28.98
17	E	36.53	32.16
19	F	38.10	35.33
21	G	41.28	38.51
23	H	44.45	41.68
25	J	47.63	44.86

Series III TV

*10-552944-XXX



*10-553998-XXX



* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base, 10-552944-119

Inches

Shell Size	A Thread Class 2B 0.1P-0.3L-TS	D Dia. +.010 -.000	N Dia. Max.
9	.6250	.516	.895
11	.7500	.641	1.000
13	.8750	.766	1.171
15	1.0000	.891	1.299
17	1.1875	1.016	1.436
19	1.2500	1.141	1.543
21	1.3750	1.266	1.670
23	1.5000	1.343	1.787
25	1.6250	1.516	1.914

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Consult Amphenol Aerospace for availability of stainless steel protection caps.

All dimensions for reference only.
For MS protection caps, see page 95.

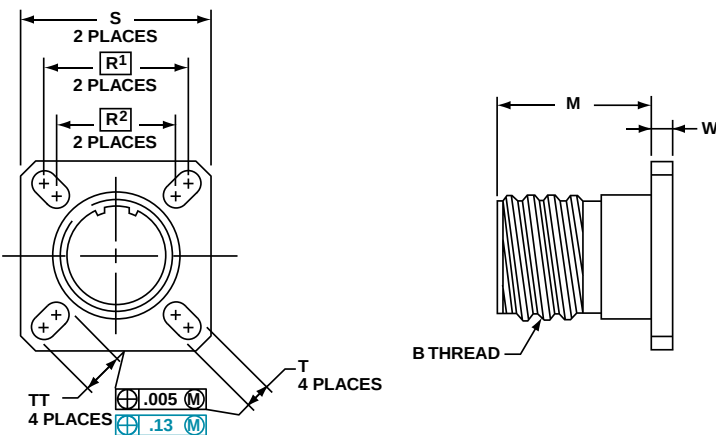
Shell Size	MS Shell Size Code	D Dia. +.25 -.00	N Dia. Max.
9	A	13.11	22.73
11	B	16.28	25.40
13	C	19.46	29.74
15	D	22.63	32.99
17	E	25.81	36.47
19	F	28.98	39.19
21	G	32.16	42.42
23	H	34.11	45.39
25	J	38.51	48.62

MIL-DTL-38999, Series III TV
Dummy Receptacle

Series III TV

Part number reference.
See note below to complete.

* 10-553974-XXX



* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base, 10-553974-119

Inches									
Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS (Plated)	M +.020 -.000	R ¹	R ²	S ±.010	T ±.008 -.006	W ±.010	TT ±.008 -.006
9	A	.6250	.822	.719	.594	.938	.128	.098	.216
11	B	.7500	.822	.812	.719	1.031	.128	.098	.194
13	C	.8750	.822	.906	.812	1.125	.128	.098	.194
15	D	1.0000	.822	.969	.906	1.219	.128	.098	.173
17	E	1.1875	.822	1.062	.969	1.312	.128	.098	.194
19	F	1.2500	.822	1.156	1.062	1.438	.128	.098	.194
21	G	1.3750	.791	1.250	1.156	1.562	.128	.125	.194
23	H	1.5000	.791	1.375	1.250	1.688	.154	.125	.242
25	J	1.6250	.791	1.500	1.375	1.812	.154	.125	.242

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Millimeters									
Shell Size	MS Shell Size Coded	M +.51 -.00	R ¹	R ²	S ±.25	T +.20 -.15	W ±.25	TT +.20 -.15	
9	A	20.88	18.26	15.09	23.83	3.25	2.49	5.49	
11	B	20.88	20.62	18.26	26.19	3.25	2.49	4.93	
13	C	20.88	23.01	20.62	28.58	3.25	2.49	4.93	
15	D	20.88	24.61	23.01	30.96	3.25	2.49	4.93	
17	E	20.88	26.97	24.61	33.32	3.25	2.49	4.93	
19	F	20.88	29.36	26.97	36.53	3.25	2.49	4.93	
21	G	20.09	31.75	29.36	39.67	3.25	3.18	4.93	
23	H	20.09	34.93	31.75	42.88	3.91	3.18	6.15	
25	J	20.09	38.10	34.93	46.02	3.91	3.18	6.15	

All dimensions for reference only



Designates true position dimensioning

III38999

II

I

SJT

26482Matrix 2

83723 IIIMatrix Pyle

5015Crimp RearRelease Matrix

26500 Pyle

PrintedCircuit Board

EMIFilterTransient

Fiber Optics

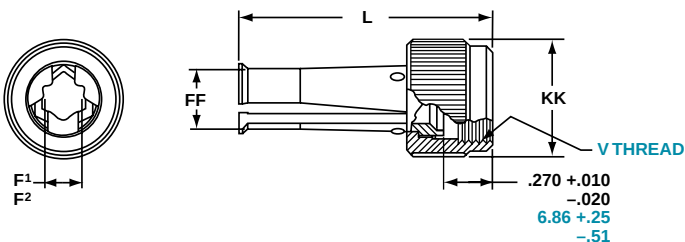
High SpeedContacts

OptionsOthers

Series III TV

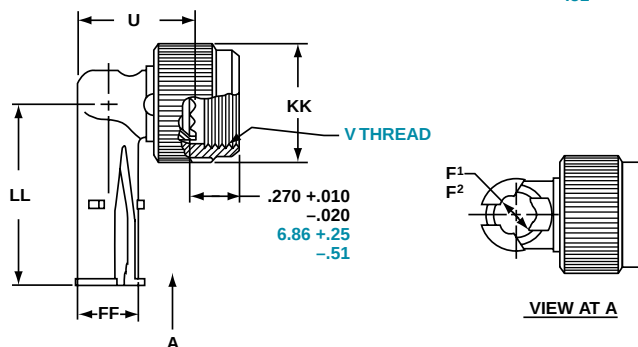
Straight Style

*10-552681-XXX metal coupling



90 Degree Elbow Style

*10-552682-XXX metal coupling



* To complete order number, see suffix chart below. Examples:
Clamp with metal coupling nut for shell size 11 with olive drab cadmium nickel base, 10-552681-119.

Inches

Shell Size	MS Shell Size Code	F ¹ Min. Dia. Cable	F ² Max. Dia. Cable	L Max.	U Max.	FF Dia. Max.	KK Dia. Max.	LL Max.
9	A	.094	.203	1.431	.656	.347	.629	1.015
11	B	.141	.250	1.431	.688	.394	.756	1.062
13	C	.172	.323	1.431	.750	.467	.883	1.125
15	D	.203	.422	1.431	.859	.566	1.011	1.328
17	E	.234	.500	1.431	.937	.644	1.138	1.392
19	F	.265	.562	1.431	1.000	.706	1.265	1.453
21	G	.297	.625	1.492	1.062	.769	1.393	1.609
23	H	.328	.703	1.492	1.141	.847	1.488	1.656
25	J	.359	.765	1.492	1.203	.909	1.616	1.719

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium Nickel Base	-XX9
Electroless Nickel	-XXG

Shell Size	MS Shell Size Code	F ¹ Min. Dia. Cable	F ² Max. Dia. Cable	L Max.	U Max.	V Thread Metric	FF Dia. Max.	KK Dia. Max.	LL Max.
9	A	2.39	5.16	36.35	16.66	M12X1-6H	8.81	15.98	25.78
11	B	3.58	6.35	36.35	17.48	M15X1-6H	10.01	19.20	26.97
13	C	4.37	8.20	36.35	19.05	M18X1-6H	11.86	22.43	28.58
15	D	5.16	10.72	36.35	21.82	M22X1-6H	14.38	25.68	33.73
17	E	5.94	12.70	36.35	23.80	M25X1-6H	16.36	28.91	35.36
19	F	6.73	14.27	36.35	25.40	M28X1-6H	17.93	32.13	36.91
21	G	7.54	15.88	37.90	26.97	M31X1-6H	19.53	35.38	40.87
23	H	8.83	17.86	37.90	28.98	M34X1-6H	21.51	37.80	42.06
25	J	9.12	19.43	37.90	30.56	M37X1-6H	23.09	41.05	43.66

All dimensions for reference only.

MIL-DTL-38999, Series III TV

Contacts, Sealing Plugs, Protective Caps

Series III TV

STANDARD 500 CYCLE CONTACTS FOR TV AND CTV, P & S

Contact Size	TV/CTV Pins		TV/CTV Sockets	
	Military No.	Supersedes	Military No.	Supersedes
8 (Coax)*	M39029/60-367	MS27536	M39029/59-366	MS27535
8 (Power)	Contact Factory	NA	NA	NA
8 (Twinax)**	M39029/90-529	N/A	M39029/91-530	N/A
10 (Power)	M39029/58-528	N/A	M39029/56-527	N/A
12	M39029/58-365	MS27493-12	M39029/56-353	MS27490-12
16	M39029/58-364	MS27493-16	M39029/56-352	MS27490-16
20	M39029/58-363	MS27493-20	M39029/56-351	MS27490-20
22D	M39029/58-360	MS27493-22D	M39029/56-348	MS27490-22D
4	N/A	N/A	N/A	N/A
0	N/A	N/A	N/A	N/A

Above part numbers include standard 500 cycle finish designation - gold plating over suitable underplate in accordance with SAE AS39029. For other finish variations, consult Amphenol.

*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 MIL-DTL-38999 Series III connectors, see the High Speed Contact section of this catalog consult Amphenol, Sidney, NY

** For use with M17/M176-00002 cable.
For other contact options available for use in Tri-Start connectors, (wire wrap, thermocouple, fiber optic) consult Amphenol.

1500 CYCLE CONTACTS FOR CTV, CLASSES H & J

Contact Size	CTV Pins			CTV Sockets		
	Commercial No.	Military No.	Supersedes	Commercial No.	Military No.	Supersedes
12	10-597072-2X	M39029/107-623	—	10-597073-2X	M39029/106-617	—
16	10-597068-2X	M39029/107-622	—	10-597069-2X	M39029/106-616	—
20	10-597064-2X	M39029/107-621	—	10-597065-2X	M39029/106-615	—
22D	10-597058-3X	M39029/107-620	—	10-597061-2X	M39029/106-614	—

PLASTIC PROTECTION CAPS

Shell Size	Plug	Receptacle
9	10-70506-14	10-70500-10
11	10-70506-16	10-70500-12
13	10-70500-18	10-70500-14
15	10-70500-20	10-70500-16
17	10-70500-22	10-70500-19
19	10-70500-24	10-70500-20
21	10-70524-1	10-70500-22
23	10-70506-28	10-70500-24
25	10-70500-28	10-70524-1

SEALING PLUGS

Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	N/A
8 (Twinax)	T3-4008-59P	N/A
8 (Power)	10-405996-83	MS27488-8-3
10 (Power)	T3-4010-59P	M85049/81-10
12	10-405996-122	MS27488-12-2
16	10-405996-162	MS27488-16-2
20	10-405996-202	MS27488-20-2
22D	10-405996-222	MS27488-22-2
4	10-405996-43	MS27488-4-3
0	10-405996-03	MS27488-0-3

MS METAL PROTECTION CAPS

Shell Size	MS Shell Size Code	MS Plug Protection Cap	MS Receptacle Protection Cap
9	A	D38999/32W9X*	D38999/33W9X*
11	B	D38999/32W11X*	D38999/33W11X*
13	C	D38999/32W13X*	D38999/33W13X*
15	D	D38999/32W15X*	D38999/33W15X*
17	E	D38999/32W17X*	D38999/33W17X*
19	F	D38999/32W19X*	D38999/33W19X*
21	G	D38999/32W21X*	D38999/33W21X*
23	H	D38999/32W23X*	D38999/33W23X*
25	J	D38999/32W25X*	D38999/33W25X*

* To complete order number, replace X with applicable letter as follows:

R - designates eyelet type

N - designates washer type

MS metal protection caps are supplied with service class W which designates corrosion resistant olive drab cadmium plate aluminum.

Consult Amphenol, Sidney, NY for more detailed information on ordering MS Metal protection caps.

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

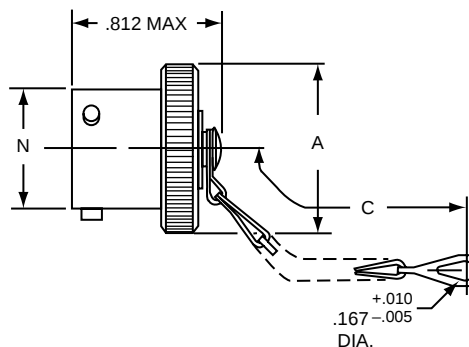
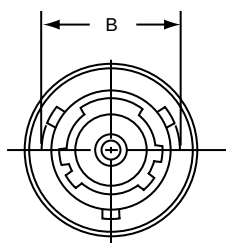
EMI Filter
Transient

Fiber Optics

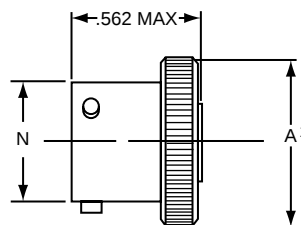
High Speed
Contacts

Options
Others

Series II JT



* 10-547138-XXX (MS27510XXXC)



* 10-241853-XXX (MS27510XXXA)

For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10- part number, they will be stamped with said number.

* To complete order number, add shell size and suffix number.

For example, shell size 10 with cadmium plate, nickel base would be 10-241853-107, MS27510A10C or MS27510A10A).

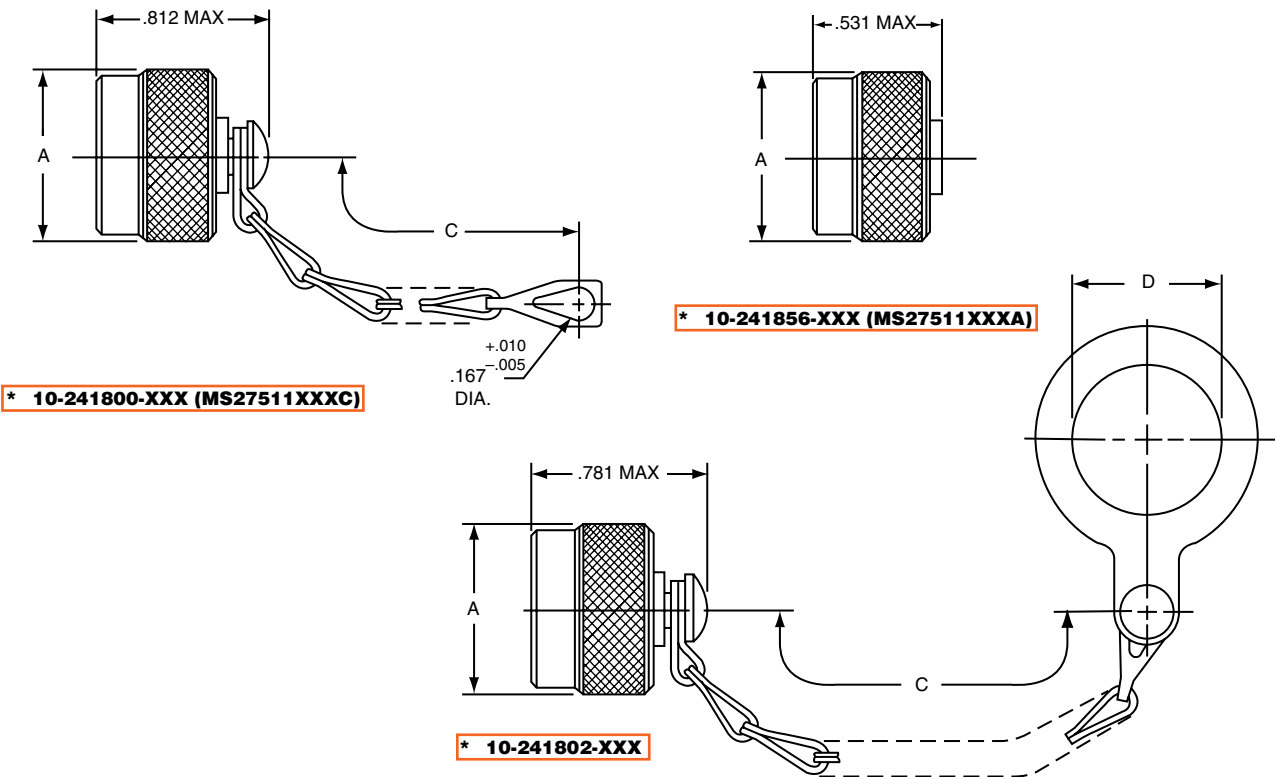
Shell Size	A Dia. Max.	A ¹ Dia. Max.	B +.000 -.016	C Approx.	N Dia. +.001 -.005
8	.719	.703	.563	3.000	.473
10	.844	.828	.680	3.000	.590
12	1.000	.984	.859	3.500	.750
14	1.125	1.109	.984	3.500	.875
16	1.250	1.234	1.108	3.500	1.000
18	1.375	1.359	1.233	3.500	1.125
20	1.500	1.484	1.358	4.000	1.250
22	1.625	1.609	1.483	4.000	1.375
24	1.750	1.734	1.610	4.000	1.500

Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

All dimensions for reference only.

MIL-DTL-38999, Series II JT
Receptacle Protection Cap

Series II JT



For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10- part number, they will be stamped with said number.

* To complete order number, add shell size and suffix number.

For example, shell size 10 with cadmium plate, nickel base would be 10-241802-107, MS27511A10C, MS27511A10A

Shell Size	A Dia. Max.	C Approx.	D +.010 -.000
8	.719	3.000	.891
10	.844	3.000	1.016
12	1.000	3.500†	1.141
14	1.125	3.500	1.266
16	1.250	3.500	1.391
18	1.375	3.500	1.516
20	1.500	4.000	1.641
22	1.625	4.000	1.766
24	1.750	4.000	1.891

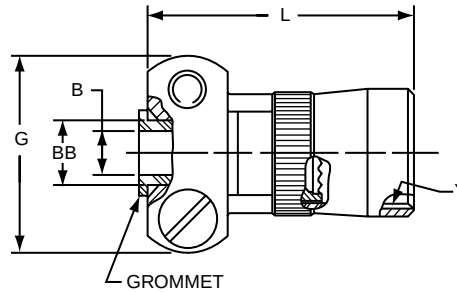
†3.000 for MS27511
All dimensions for reference only.

Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic Coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless nickel	-XXG	FXXC	FXXA

- 38999
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 5015 Crimp Rear Release Matrix
- 26500 Pyle
- Printed Circuit Board
- EMI Filter Transient
- Fiber Optics
- High Speed Contacts
- Options Others

Series II JT

Series I LJT



*** 10-405982-XXX (MS27506XXX-2 reference M85049/49)**

For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10-part number, they will be stamped with said number.

*To complete order number, add shell size and suffix number.

Finish	10-Number Suffix	MS27506 Suffix	M85049/49 Suffix
Chromate treat	-XX0		NA
Anodic coating	-XX5	CXX-2	(-2-XXA)
Cadmium plate nickel base	-XX7	AXX-2	NA
Olive drab, cadmium, nickel base	-XX9	BXX-2	(-2-XXW)
Electroless nickel	-XXG	FXX-2	(-2-XXN)

For example: Shell size 10 with cadmium plate, nickel base would be

10-405982-107 or M85049/49-2-10W

Shell Size	B Dia. +.010-.025	G Max.	L Max.	Y Thread (Modified)		BB Dia. +.000 -.011	Screw Size
				Size Class 2B	Modified Minor Dia.		
8	.125	.775	.984	.4375-28UNEF	.399 – .405	.250	6-32UNC
10	.188	.837	.984	.5625-24UNEF	.524 – .529	.312	6-32UNC
12	.312	.963	.984	.6875-24UNEF	.649 – .654	.438	6-32UNC
14	.375	1.087	1.234	.8125-20UNEF	.766 – .771	.562	6-32UNC
16	.500	1.150	1.234	.9375-20UNEF	.891 – .896	.625	6-32UNC
18	.625	1.400	1.234	1.0625-18UNEF	1.002 – 1.007	.750	8-32UNC
20	.625	1.400	1.234	1.1875-18UNEF	1.135 – 1.140	.750	8-32UNC
22	.750	1.587	1.359	1.3125-18UNEF	1.252 – 1.257	.938	8-32UNC
24	.800	1.681	1.281	1.4375-18UNEF	1.377 – 1.382	1.000	8-32UNC

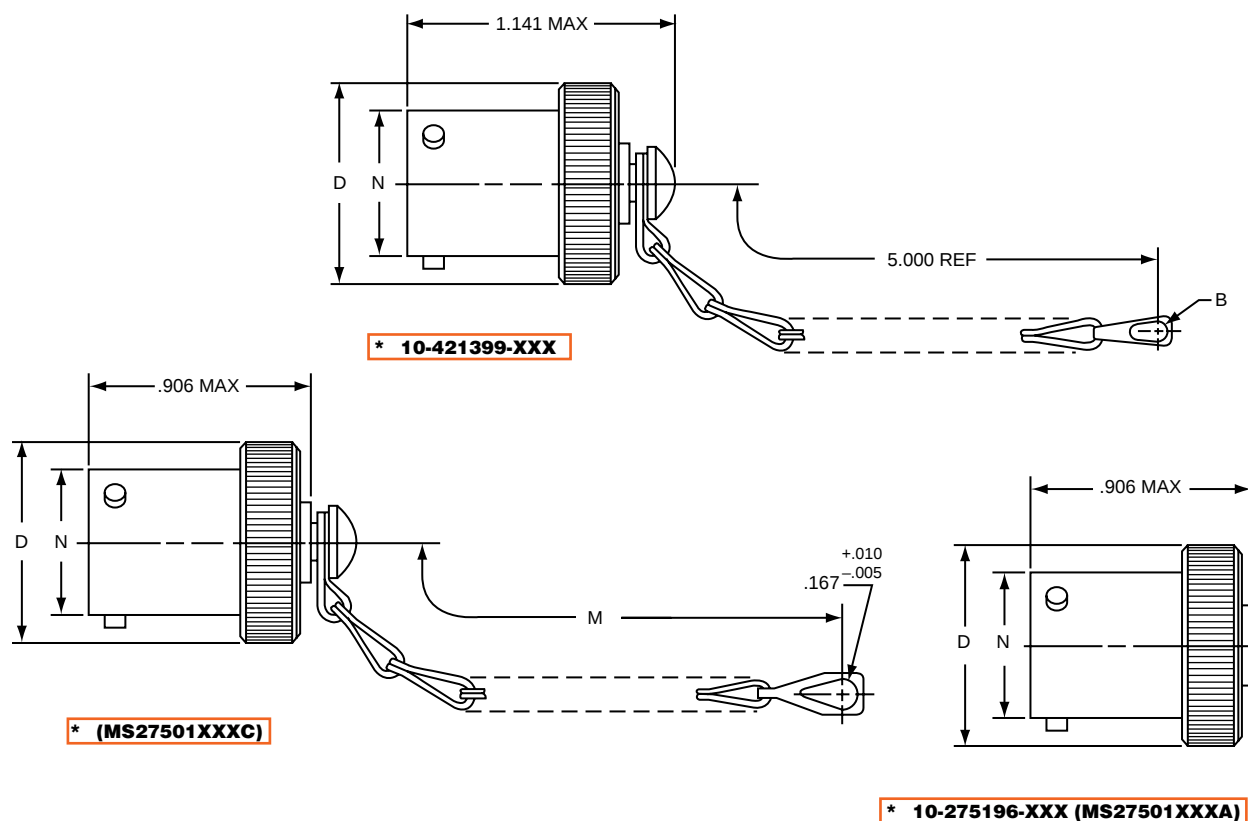
All dimensions for reference only.

Note: For solder type cable clamp **10-241055-XXX (M85049/49)** consult Amphenol, Sidney, NY.

MIL-DTL-38999, Series I LJT

Plug Protection Cap

Series I LJT



*To complete order number, add shell size and suffix number.

For example, shell size 11 with cadmium plate, nickel base would be **10-421399-117, MS27501A11C, MS27501A11A.**

Shell Size	B Dia. Ref	D Dia. Max.	M $\pm .250$	N Dia. $+.001$ $-.005$
9	.180	.812	3.000	.572
11	.180	.938	3.000	.700
13	.180	1.062	3.500	.850
15	.180	1.188	3.500	.975
17	.180	1.312	3.500	1.100
19	.209	1.438	3.500	1.207
21	.209	1.562	4.000	1.332
23	.209	1.688	4.000	1.457
25	.209	1.812	4.000	1.582

All dimensions for reference only.

Finish	10- Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5		
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless nickel	-XXG	FXXC	FXXA

38999
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

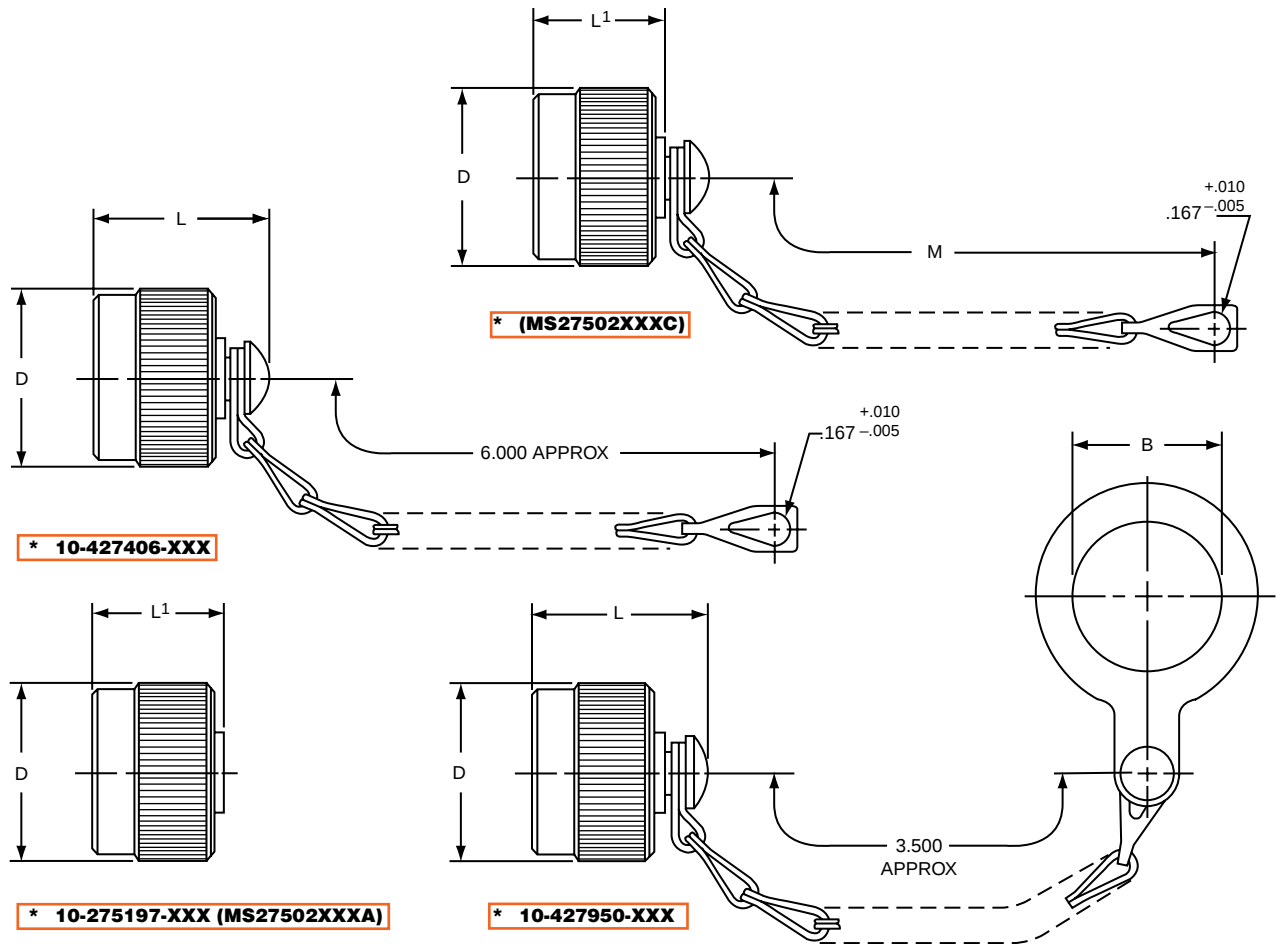
EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series I LJT



For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10- part number, they will be stamped with said number.

*To complete order number, add shell size and suffix number.

For example, shell size 11 with cadmium plate, nickel base would be 10-427406-117, MS27502A11C, MS27502A11A.

Shell Size	B Dia. +.010 -.000	D Dia. Max.	L Max.	L ¹ Max	M ±.250
9	.703	.844	1.070	.844	3.000
11	.844	.969	1.070	.844	3.000
13	1.016	1.125	1.070	.844	3.500
15	1.141	1.250	1.070	.844	3.500
17	1.266	1.406	1.070	.844	3.500
19	1.391	1.500	1.070	.844	3.500
21	1.516	1.625	1.070	.844	4.000
23	1.641	1.750	1.070	.844	4.000
25	1.766	1.875	1.089	.875	4.000

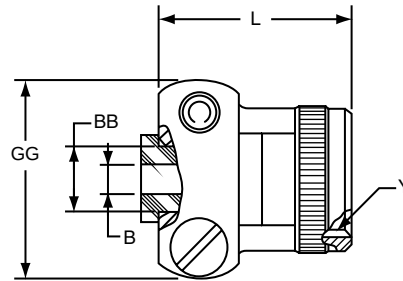
Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

All dimensions for reference only.

MIL-DTL-38999, Series I LJT

Strain Relief (Solder Type)

Series I LJT



*** 10-436792-XXX**

For military type cable clamp see MS27506 or M85049/49 on page 98.

*To complete order number, add shell size and suffix number.

Finish	10-Number Suffix
Chromate treat	-XX0
Anodic coating	-XX5
Cadmium Plate Nickel base	-XX7
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

For example: Shell size 11 with cadmium plate, nickel base would be **10-436792-117**.

Shell Size	B Dia. +.010 -.025	L Max.	Y Thread Class 2B (Plated)	GG Max.	BB Dia. +.000 -.011
9	.125	.859	.4375-28 UNEF	.775	.250
11	.188	.859	.5625-24 UNEF	.837	.312
13	.312	.859	.6875-24 UNEF	.963	.438
15	.375	1.109	.8125-20 UNEF	1.087	.562
17	.500	1.109	.9375-20 UNEF	1.150	.625
19	.625	1.109	1.0625-18 UNEF	1.400	.750
21	.625	1.109	1.1875-18 UNEF	1.400	.750
23	.750	1.234	1.3125-18 UNEF	1.587	.938
25	.800	1.234	1.4375-18 UNEF	1.681	1.000

All dimensions for reference only.

38999
I
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series II JT

Series I LJT

JT/LJT Crimp Contacts

Contact Size	Pins (JT/LJT) MS No.	JT Sockets MS. No	LJT Sockets MS. No
8 (Coax)*	M39029/60-367	NA	M39029/59-366
8 (Twinax)	M39029/90-529***	NA	M39029/91-530
10 (Power)	M39029/58-528	NA	M39029/56-527
12	M39029/58-365	M39029/57-359	M39029/56-353
16	M39029/58-364	M39029/57-358	M39029/56-352
20	M39029/58-363	M39029/57-357	M39029/56-351
22	M39029/58-362	M39029/57-356	M39029/56-350
22M	M39029/58-361	M39029/57-355	M39029/56-349
22D	M39029/58-360	M39029/57-354	M39029/56-348

THERMOCOUPLE CONTACTS

Contact Size	Material	JT/LJT Pins	JT Sockets	LJT Sockets
20	Chromel	10-407862-310	10-407863-310	10-407236-310
	Alumel	10-407862-320	10-407863-320	10-407865-320
	Iron	10-407862-335	10-407863-335	10-407865-335
	Constantan	10-407862-342	10-407863-342	10-407865-342

Partial Listing. If you do not see the contact for your application, consult Amphenol Aerospace, Sidney, N.Y.

THERMOCOUPLE CONTACTS PYLE VERSION

Contact Size	Pins (JT/LJT)		Sockets (LJT)		Material
	Spec Number	Pyle Number	Spec Number	Pyle Number	
22D	M39029/87-472	T3-4022-10P	M39029/88-484	T3-4122-10P	CHROMEL
22D	M39029/87-471	T3-4022-10R	M39029/88-483	T3-4122-10R	ALUMEL
20	M39029/87-476	T3-4020-10P	M39029/88-488	TS-4120-10P	CHROMEL
20	M39029/87-475	T3-4020-10R	M39029/88-487	T3-4120-10R	ALUMEL
16	M39029/87-480	T3-4016-10P	M39029/88-492	T3-4116-10P	CHROMEL
16	M39029/87-479	T3-4016-10R	M39029/88-491	T3-4116-10R	ALUMEL

PLASTIC PROTECTION CAPS

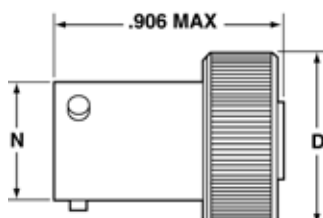
Shell Size	Plug	Receptacle
8	10-70500-10	10-70506-10S
9	10-70506-14	10-70500-10
10	10-70506-14	10-70506-12
11	10-70506-16	10-70500-12
12	10-70506-16	10-70506-14
13	10-70506-18	10-70500-14
14	10-70506-18	10-70506-16
15	10-70506-20	10-70500-16
16	10-70506-20	10-70506-18
17	10-70506-22	10-70500-18
18	10-70506-22	10-70506-20
19	10-70506-24	10-70500-20
20	10-70506-24	10-70506-22
21	10-70576-24	10-70500-22
22	10-70576-24	10-70506-24
23	10-70506-28	10-70500-24
24	10-70506-28	10-70576-24
25	10-558651-25	10-70506-28

SEALING PLUGS

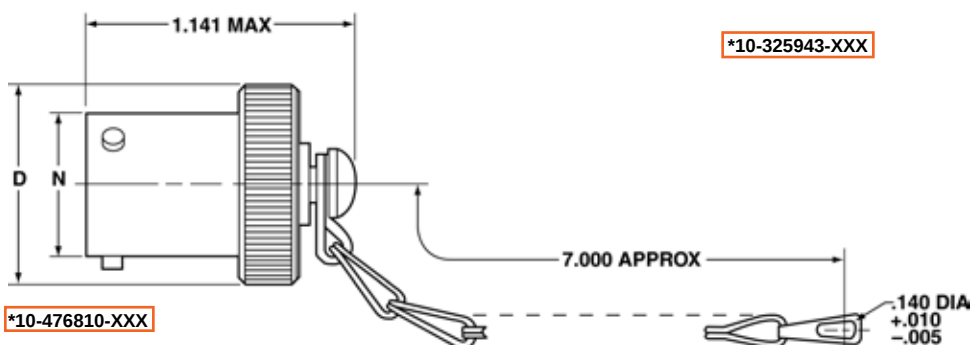
Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	MS27488-8
8 (Twinax)	T3-4008-59P	N/A
10 (Power)	10-576225	N/A
12	10-405996-12	MS27488-12
16	10-405996-16	MS27488-16
20	10-405996-20	MS27488-20
22	10-405996-22	MS27488-22
22M	10-405996-22	MS27488-22
22D	10-405996-22	MS27488-22

SJT

PLUG PROTECTION CAP



*10-476801-XXX



*10-476810-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.

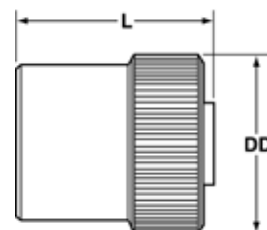
Plug Shell Size	D Dia. Max.	N Dia. +.001 -.005
8	.688	.473
10	.812	.590
12	.969	.750
14	1.094	.875
16	1.219	1.000
18	1.344	1.125
20	1.469	1.250
22	1.594	1.375
24	1.719	1.500

All dimensions for reference only

Finish
 Bright Cadmium Plated Nickel Base
 Anodic Coating (Alumilite)
 Chromate Treated (Iridite 14-2)
 Olive Drab Cadmium Plate Nickel Base
 Electroless Nickel Coating

Suffix
 XX7
 XX5
 XX0
 XX9
 XXG

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, 10-325943-107.

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

 III
 II
 I
SJT

 26482
 Matrix 2

 83723 III
 Matrix
 Pyle

 5015
 Crimp Rear
 Release Matrix

26500 Pyle

 Printed
 Circuit Board

 EMI Filter
 Transient

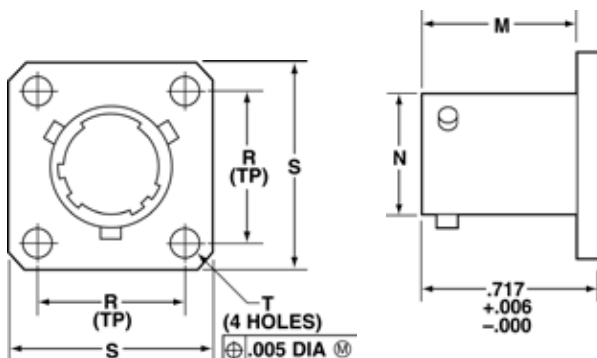
Fiber Optics

 High Speed
 Contacts

 Options
 Others

SJT

DUMMY RECEPTACLE



*10-476807-XXX

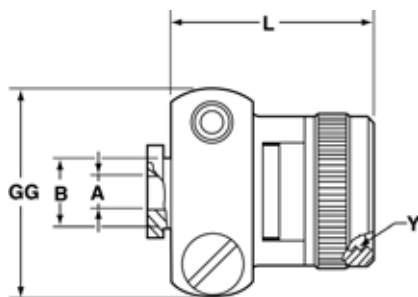
Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

* 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

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.

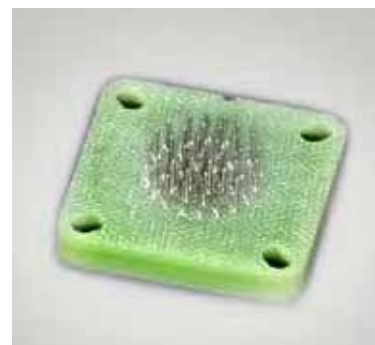
For other contact options available for use in SJT connectors, (wire-wrap, thermocouple, fiber optic) consult Amphenol, Sidney, NY.

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

for Flex Print or PC Board
Series III TV
Series II JT
Series I LJT
**Mounts to all MIL-DTL-38999 and
*MIL-DTL-26482 Connectors**

Termination of PC tail connectors to a flex print or a printed circuit board represents a major cost in the manufacturing process for users. When adding flex or printed circuit board assemblies to an expensive filter or filter/transient protection connector, the total cost of a failed solder joint, a bent pin, or an unanticipated electrical failure becomes prohibitive. The universal header assembly from Amphenol provides for easy separation of the connector from the board on these occasions. The header assembly is comprised of a short pin/socket contact. The tail end of the contact is soldered to the through hole of the flex or printed circuit board. The socket is embedded in the insulator, making electrical contact with the printed circuit tail of the connector.


**Headers provide easy
separation of the
connector from the PC board.**
Header Assemblies Provide Cost Savings

Incorporation of the header assembly provides the user with time and cost saving potentials. These header assemblies can be vapor phase or wave soldered to flex or printed circuit boards prior to the receipt of the EMI/EMP connector. Headers can be installed to standard connectors, allowing for electrical testing that would adversely affect the sensitive diodes, MOV's or capacitors in the EMI/EMP connectors. Expensive connector assemblies can be easily removed from and reattached to the header assembly as the manufacturing process dictates.

Mounting Applications

Shell modifications are recommended, but are not necessary. The header assembly can be attached to connectors with standard flange placement or directly to the circuit board. The ideal application would involve either a single flange moved all the way to the rear of the connector or a double flange. Cinch nuts can be installed in either flange to allow easier mounting to the panel or the header assembly. The forward flange would mount the connector to the panel; the rear flange would be used to mount the header assembly. Various types of captivated or loose attaching screws can be utilized for unique applications.

Amphenol universal headers are slotted to allow mounting to all series of MIL-DTL-38999 or MIL-DTL-26482* connectors without special alterations. They are of similar dimension as the flange of the mounting connector and are approximately .185 inches (4.70 mm) thick.

* For information on Header Assemblies for MIL-DTL-26482 connector consult Amphenol, Sidney NY.

Cylindrical Configuration

- 3 PCB stickout dimensions are available.
- Size 22 contacts use .175 thick headers
- Size 16 to 20 contacts use .195 thick headers
- Consult Amphenol, Sidney NY for additional configurations.
- Headers for cylindrical connectors accommodate up to 128 pins. For MIL-DTL-38999 insert arrangements chart see pages 4-7 and insert drawings on pages 8-14.

Mounting to Rectangular ARINC Connectors

- Headers for ARINC connector arrangements accommodate up to 150 pins
- Consult Amphenol, Sidney, NY for ARINC configurations and detailed dimensions.

Materials

- Body is molded or machined from FR-4.
- Electrical engagement areas of the header contact are plated with .00003 inches minimum of gold over .00005 inches minimum of nickel.

See drawing of standard header on next page.

38999
SJT
26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle
Printed
Circuit Board

EMI Filter
Transient

Fiber Optics
High Speed
Contacts

Options
Others

MIL-DTL-38999, Series III TV, II JT, I LJT

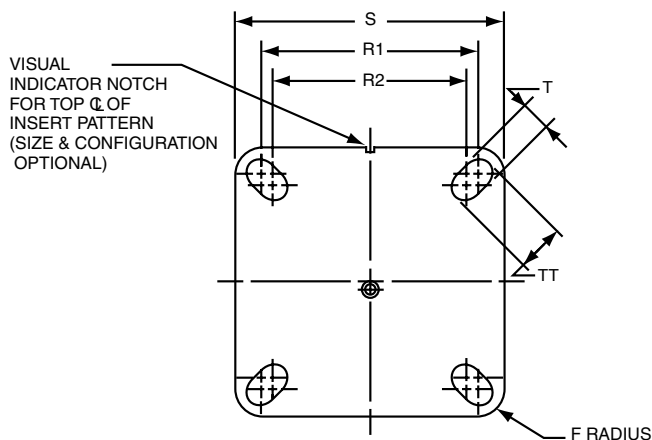
Universal "Header Assembly" for Flex Print or PC Board Connectors

Series III TV

Series II JT

Series I LJT

The drawing below shows the standard header assembly for use with MIL-DTL-38999 connectors. Consult Amphenol Aerospace, Sidney NY for drawings of headers for ARINC configurations.

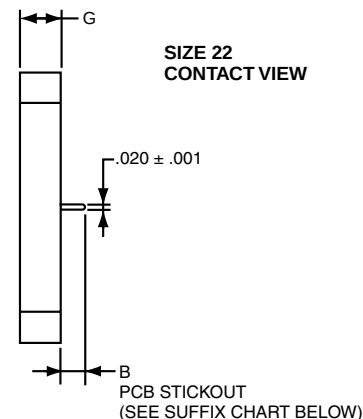


Assembly Part Number	Shell Size	F Radius	G ± .005	S ± .005	T + - .008 - .006	R1 TP†	R2 TP†	TT + .008 - .006
21-904008-XX()	8/9	.094		.938	.128	.719	.594	.216
21-904010-XX()	10/11	.094		1.031	.128	.812	.719	.194
21-904012-XX()	12/13	.094		1.125	.128	.906	.812	.194
21-904014-XX()	14/15	.125		1.219	.128	.969	.906	.173
21-904016-XX()	16/17	.125		1.312	.128	1.062	.969	.194
21-904018-XX()	18/19	.125		1.438	.128	1.156	1.062	.194
21-904020-XX()	20/21	.125		1.562	.128	1.250	1.156	.194
21-904022-XX()	22/23	.125		1.688	.154	1.375	1.250	.242
21-904024-XX()	24/25	.125		1.812	.154	1.500	1.375	.242

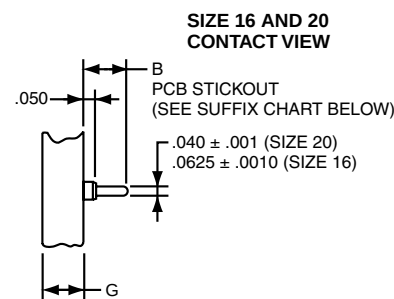
See Suffix Chart

Assemblies containing Size 22 contacts only: .175
Assemblies containing Size 16 or 20 contacts: .195

† TP designates true position dimensioning.



SIZE 22
CONTACT VIEW



SIZE 16 AND 20
CONTACT VIEW

NOTE:
Size 22 accepts .018 to .022 dia. PCB tails.
Size 16 accepts .048 to .064 dia. PCB tails.
Size 20 accepts .037 to .043 dia. PCB tails.

HOW TO ORDER INFORMATION

For Header Assembly with MIL-DTL-38999 Connectors

Use coded number as follows:

21-9040 XX - XX X

Designates Amphenol Header Assembly
Shell size designation for MIL-DTL-38999 Series I, II, III and IV see Suffix chart.
Arrangement number - See MIL-STD-1560 or MIL-STD-1669. See insert availability charts on pages 4-7.
Contact PCB Stickout designation See Suffix chart.

For how to order information on adapters to be used with ARINC connectors, consult Amphenol, Sidney NY.

ASSEMBLY NUMBER SUFFIX CHART

Shell Size Designation*	Arrangement Number Suffix***	Contact PCB Stickout**	
		Suffix	B ± .015 Stickout
08	Insert Arrangement Suffix from MIL-STD-1560 or MIL-STD-1669	1	.120
10		2	.185
12		3	.270
14			
16			
18			
20			
22			
24			

*Shell size designation for MIL-DTL-38999 Series I, II, III and IV and MIL-DTL-26482 Series 1 and 2.

Examples: Shell size 9 use 08. Shell size 25 use 24.

** Size 22 contacts available in all 3 stickout lengths. Size 16 and 20 contacts available only in .185 and .270 lengths.

*** Insert arrangement 14-97 and 15-97 are not available at this time. Consult Amphenol, Sidney NY for information.

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			
	MS Part Number	Color	Angle Type		Straight Type Commercial Part No.	Color
			MS Part No.	Commercial Part No.		
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				
	MS Part Number	Color	For Unwired Contacts Commercial Part No.	Angle Type		Straight Type Commercial Part No.	Color
				MS Part No.	Commercial Part No.		
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.

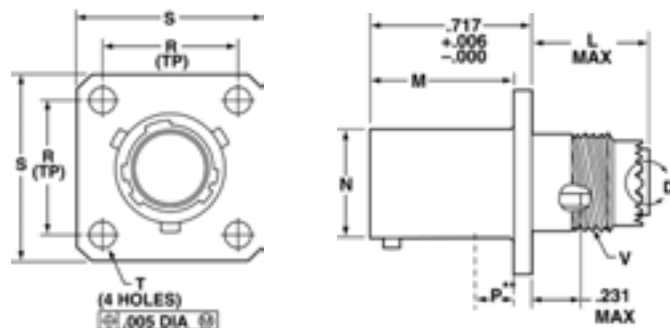
* Double end insertion/removal tool.

** Twinax insertion tools are available only in a straight type, metal version.

† To be determined.

†† Contact Daniels Manufacturing Co. for availability.

SJT00RT – Crimp Wall Mounting Receptacle



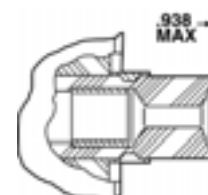
PART # *To complete, see how to order pages 83-84.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arr	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	VThread Modified		N +.001 -.005	P** Max
						Class 2A UNEF (Plated)	Modified Major Dia.		
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

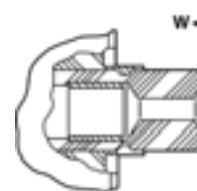
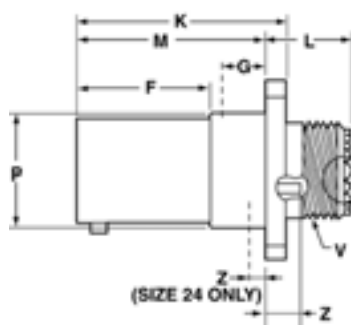
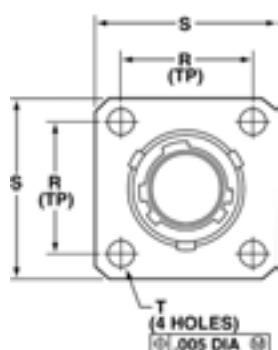


VIEW D ENLARGED
FOR COAXIAL USE ONLY

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 Arr	Contact Type	Alternate Positions	Special Variations
SJTP	00	RT	X-X	X	X	(XXX)



VIEW D ENLARGED
FOR COAXIAL USE ONLY

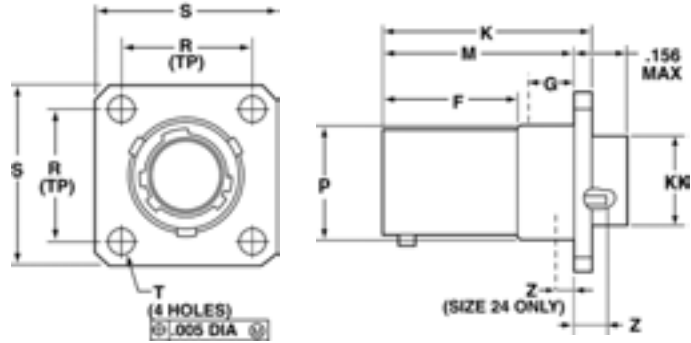
SJTP00RT

Shell Size	F +.000 -.005	K +.006 -.000	L Max.	M +.000 -.005	R (TP)	S +.011 -.010	T ±.005	Z ±.031	VThread 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.

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)



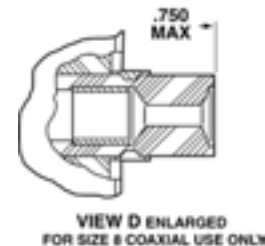
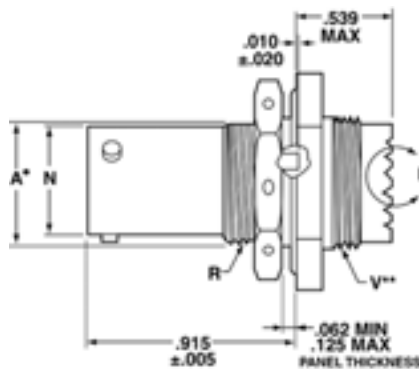
SJTP02RE

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

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 – Crimp Jam Nut Receptacle



SJT07RT

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

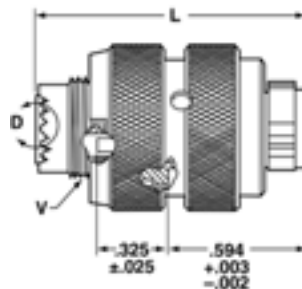
Shell Size	A* +.000 -.010	H Hex +.017 -.016	S ±.016	VThread Class 2A UNEF (Plated)	RThread Class 2A UNEF (Plated)	N +.001 -.005	C Max.	T* +.010 -.000
8	.542	.750	.938	.5625-24	.5625-24	.473	1.078	.572
10	.669	.875	1.062	.6875-24	.6875-24	.590	1.203	.697
12	.830	1.062	1.250	.8125-20	.8750-20	.750	1.391	.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.

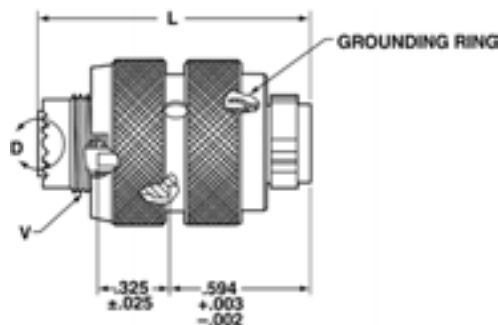
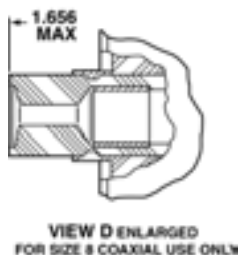
SJT06RT/SJTG06RT – Crimp Straight Plug/Straight Plug (with Grounding Fingers)

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.	VThread		
			Class 2A UNEF (Plated)	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.

38999
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

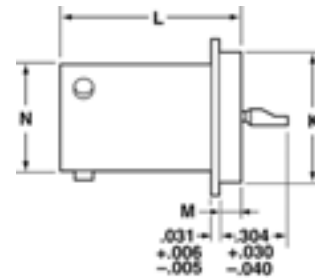
Fiber Optics

High Speed
Contacts

Options
Others

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

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



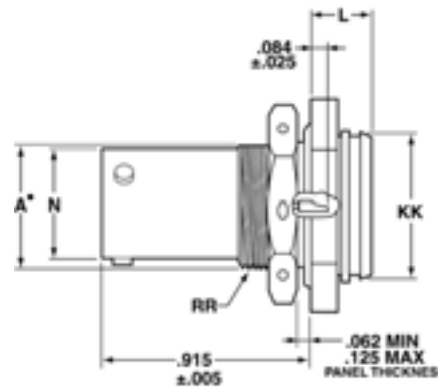
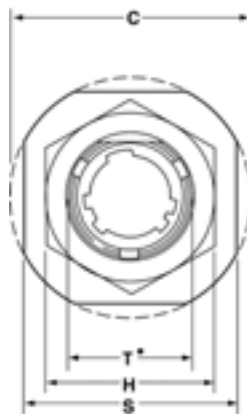
SJTIY

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

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

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

SJT07Y – Hermetic Jam Nut Receptacle



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.

MIL-DTL-38999 Series III, II, I, and SJT

Accessories, Contacts, and Tools



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

SJT

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

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



III
II
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series III TV

Amphenol offers a full range of accessories that are designed to enhance the performance of Amphenol Breakaway connectors.

Low Profile Backshells in shell size 25 with the following features:

- Olive drab cadmium finish
- 90 degree termination
- Low profile design with three heights ranging from 1.010 to 1.660
- Rear access covers to help ease harness assembly and repairability
- Amphenol part numbers: 10-640000-XXX



Backshells are offered for use with Breakaway Fail Safe Connectors in three heights.



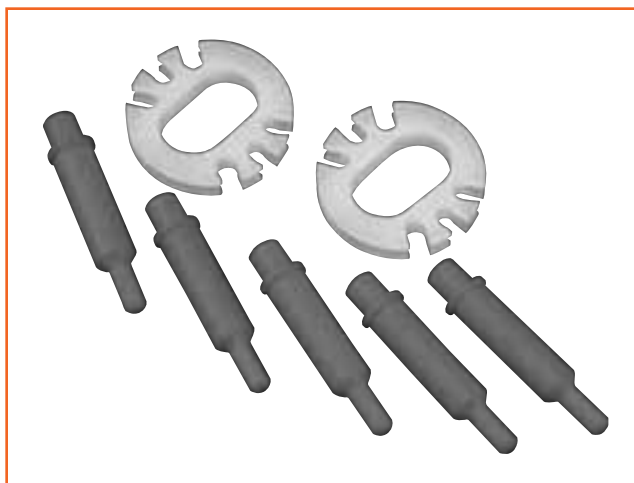
Dummy Contacts

- Available in size 12 and size 8
- Provide a cost effective alternative for sealing unused contact cavities
- Size 8 part number: T3-4008-59P
- Size 12 part number: T3-4012-59P

Wire Combs

- Available for the 25-20 insert pattern to help to stabilize and prevent contact side loading
- Amphenol part number: 21-33626-XXX

For information on how to order these accessory products for Breakaway Fail Safe connectors consult Amphenol Aerospace.

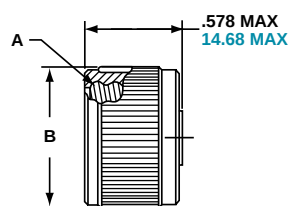


Accessory products for Breakaway Connectors: Dummy Contacts and Wire Combs

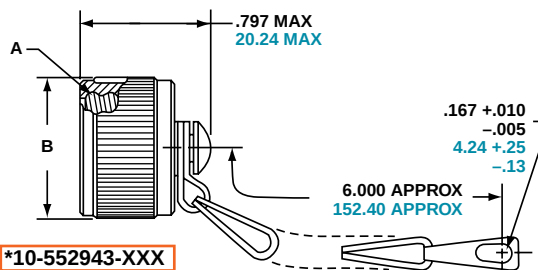
MIL-DTL-38999, Series III TV

Receptacle Protection Cap

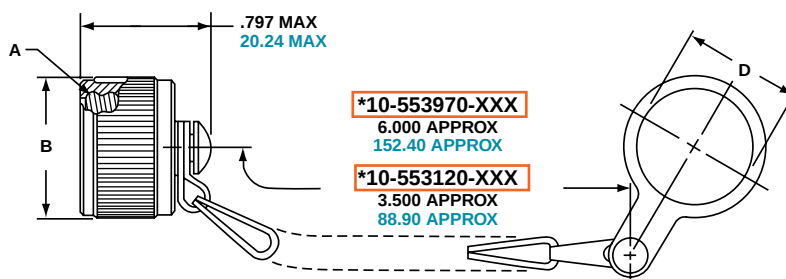
Series III TV



*10-553310-XXX



*10-552943-XXX



*10-553970-XXX

6.000 APPROX
152.40 APPROX

*10-553120-XXX

3.500 APPROX
88.90 APPROX

* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base, **10-552943-119**

Inches

Shell Size	A Thread Class 2B 0.1P-0.3L-TS	B Dia. Max.	D Dia. +.010 -.000
9	.6250	.875	.703
11	.7500	1.000	.844
13	.8750	1.125	1.016
15	1.0000	1.250	1.141
17	1.1875	1.438	1.266
19	1.2500	1.500	1.391
21	1.3750	1.625	1.516
23	1.5000	1.750	1.641
25	1.6250	1.875	1.766

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Consult Amphenol Aerospace for availability of stainless steel protection caps.

All dimensions for reference only.
For MS protection caps, see page 95.

Shell Size	MS Shell Size Code	B Dia. Max.	D Dia. +.25 -.00
9	A	22.23	17.86
11	B	25.40	21.44
13	C	28.58	25.81
15	D	31.75	28.98
17	E	36.53	32.16
19	F	38.10	35.33
21	G	41.28	38.51
23	H	44.45	41.68
25	J	47.63	44.86

III
II
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

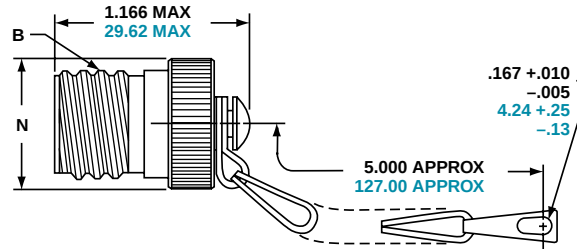
Fiber Optics

High Speed
Contacts

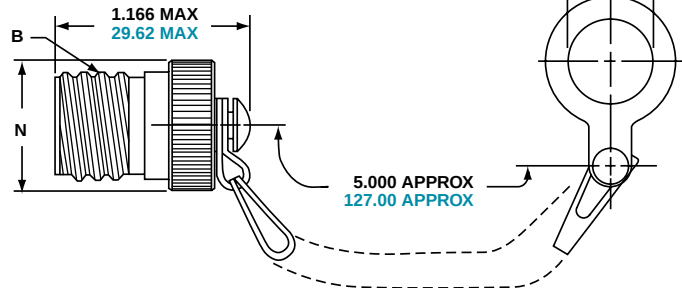
Options
Others

Series III TV

*10-552944-XXX



*10-553998-XXX



* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base, 10-552944-119

Inches

Shell Size	A Thread Class 2B 0.1P-0.3L-TS	D Dia. +.010 -.000	N Dia. Max.
9	.6250	.516	.895
11	.7500	.641	1.000
13	.8750	.766	1.171
15	1.0000	.891	1.299
17	1.1875	1.016	1.436
19	1.2500	1.141	1.543
21	1.3750	1.266	1.670
23	1.5000	1.343	1.787
25	1.6250	1.516	1.914

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Consult Amphenol Aerospace for availability of stainless steel protection caps.

All dimensions for reference only.
For MS protection caps, see page 95.

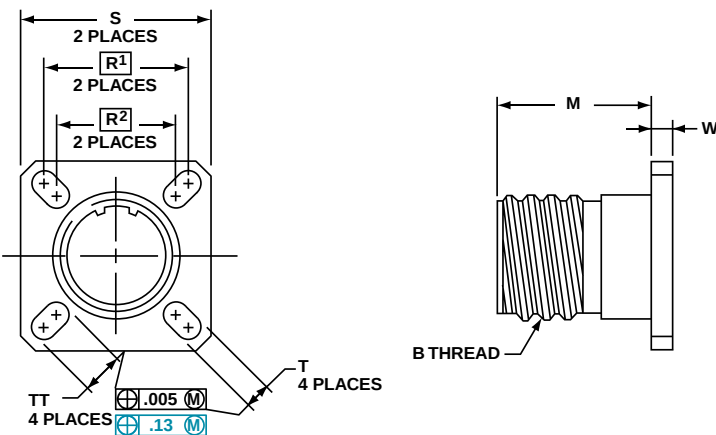
Shell Size	MS Shell Size Code	D Dia. +.25 -.00	N Dia. Max.
9	A	13.11	22.73
11	B	16.28	25.40
13	C	19.46	29.74
15	D	22.63	32.99
17	E	25.81	36.47
19	F	28.98	39.19
21	G	32.16	42.42
23	H	34.11	45.39
25	J	38.51	48.62

MIL-DTL-38999, Series III TV
Dummy Receptacle

Series III TV

Part number reference.
See note below to complete.

* 10-553974-XXX



* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel
base, 10-553974-119

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS (Plated)	M +.020 -.000	R ¹	R ²	S ±.010	T ±.008 -.006	W ±.010	TT ±.008 -.006
9	A	.6250	.822	.719	.594	.938	.128	.098	.216
11	B	.7500	.822	.812	.719	1.031	.128	.098	.194
13	C	.8750	.822	.906	.812	1.125	.128	.098	.194
15	D	1.0000	.822	.969	.906	1.219	.128	.098	.173
17	E	1.1875	.822	1.062	.969	1.312	.128	.098	.194
19	F	1.2500	.822	1.156	1.062	1.438	.128	.098	.194
21	G	1.3750	.791	1.250	1.156	1.562	.128	.125	.194
23	H	1.5000	.791	1.375	1.250	1.688	.154	.125	.242
25	J	1.6250	.791	1.500	1.375	1.812	.154	.125	.242

Inches

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Shell Size	MS Shell Size Coded	M +.51 -.00	R ¹	R ²	S ±.25	T +.20 -.15	W ±.25	TT +.20 -.15
9	A	20.88	18.26	15.09	23.83	3.25	2.49	5.49
11	B	20.88	20.62	18.26	26.19	3.25	2.49	4.93
13	C	20.88	23.01	20.62	28.58	3.25	2.49	4.93
15	D	20.88	24.61	23.01	30.96	3.25	2.49	4.93
17	E	20.88	26.97	24.61	33.32	3.25	2.49	4.93
19	F	20.88	29.36	26.97	36.53	3.25	2.49	4.93
21	G	20.09	31.75	29.36	39.67	3.25	3.18	4.93
23	H	20.09	34.93	31.75	42.88	3.91	3.18	6.15
25	J	20.09	38.10	34.93	46.02	3.91	3.18	6.15

Millimeters

All dimensions for reference only

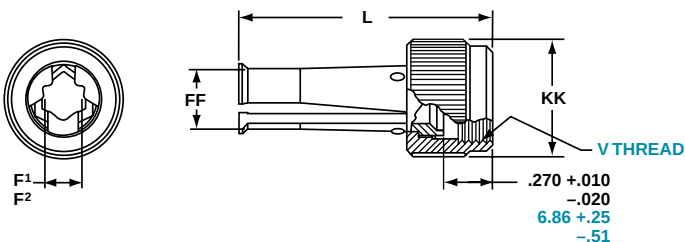
Designates true position dimensioning

III	38999	26482	83723 III	5015	26500 Pyle	Printed	EMI Filter	Fiber Optics	High Speed	Options
II		Matrix 2	Matrix	Crimp Rear		Circuit Board	Transient		Contacts	Others
I			Pyle	Release Matrix						
SJT										

Series III TV

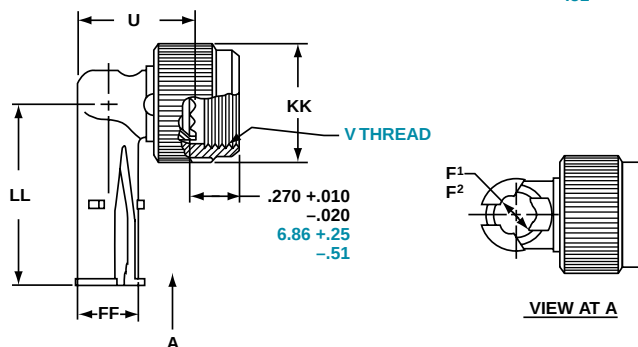
Straight Style

***10-552681-XXX** metal coupling



90 Degree Elbow Style

***10-552682-XXX** metal coupling



* To complete order number, see suffix chart below. Examples:
Clamp with metal coupling nut for shell size 11 with olive drab cadmium nickel base, **10-552681-119**.

Inches

Shell Size	MS Shell Size Code	F ¹ Min. Dia. Cable	F ² Max. Dia. Cable	L Max.	U Max.	FF Dia. Max.	KK Dia. Max.	LL Max.
9	A	.094	.203	1.431	.656	.347	.629	1.015
11	B	.141	.250	1.431	.688	.394	.756	1.062
13	C	.172	.323	1.431	.750	.467	.883	1.125
15	D	.203	.422	1.431	.859	.566	1.011	1.328
17	E	.234	.500	1.431	.937	.644	1.138	1.392
19	F	.265	.562	1.431	1.000	.706	1.265	1.453
21	G	.297	.625	1.492	1.062	.769	1.393	1.609
23	H	.328	.703	1.492	1.141	.847	1.488	1.656
25	J	.359	.765	1.492	1.203	.909	1.616	1.719

Millimeters

Finish	10-No Suffix
Olive Drab, Cadmium Nickel Base	-XX9
Electroless Nickel	-XXG

Shell Size	MS Shell Size Code	F ¹ Min. Dia. Cable	F ² Max. Dia. Cable	L Max.	U Max.	V Thread Metric	FF Dia. Max.	KK Dia. Max.	LL Max.
9	A	2.39	5.16	36.35	16.66	M12X1-6H	8.81	15.98	25.78
11	B	3.58	6.35	36.35	17.48	M15X1-6H	10.01	19.20	26.97
13	C	4.37	8.20	36.35	19.05	M18X1-6H	11.86	22.43	28.58
15	D	5.16	10.72	36.35	21.82	M22X1-6H	14.38	25.68	33.73
17	E	5.94	12.70	36.35	23.80	M25X1-6H	16.36	28.91	35.36
19	F	6.73	14.27	36.35	25.40	M28X1-6H	17.93	32.13	36.91
21	G	7.54	15.88	37.90	26.97	M31X1-6H	19.53	35.38	40.87
23	H	8.83	17.86	37.90	28.98	M34X1-6H	21.51	37.80	42.06
25	J	9.12	19.43	37.90	30.56	M37X1-6H	23.09	41.05	43.66

All dimensions for reference only.

MIL-DTL-38999, Series III TV

Contacts, Sealing Plugs, Protective Caps

Series III TV

STANDARD 500 CYCLE CONTACTS FOR TV AND CTV, P & S

Contact Size	TV/CTV Pins		TV/CTV Sockets	
	Military No.	Supersedes	Military No.	Supersedes
8 (Coax)*	M39029/60-367	MS27536	M39029/59-366	MS27535
8 (Power)	Contact Factory	NA	NA	NA
8 (Twinax)**	M39029/90-529	N/A	M39029/91-530	N/A
10 (Power)	M39029/58-528	N/A	M39029/56-527	N/A
12	M39029/58-365	MS27493-12	M39029/56-353	MS27490-12
16	M39029/58-364	MS27493-16	M39029/56-352	MS27490-16
20	M39029/58-363	MS27493-20	M39029/56-351	MS27490-20
22D	M39029/58-360	MS27493-22D	M39029/56-348	MS27490-22D
4	N/A	N/A	N/A	N/A
0	N/A	N/A	N/A	N/A

Above part numbers include standard 500 cycle finish designation - gold plating over suitable underplate in accordance with SAE AS39029. For other finish variations, consult Amphenol.

*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 MIL-DTL-38999 Series III connectors, see the High Speed Contact section of this catalog consult Amphenol, Sidney, NY

** For use with M17/M176-00002 cable.

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

1500 CYCLE CONTACTS FOR CTV, CLASSES H & J

Contact Size	CTV Pins			CTV Sockets		
	Commercial No.	Military No.	Supersedes	Commercial No.	Military No.	Supersedes
12	10-597072-2X	M39029/107-623	—	10-597073-2X	M39029/106-617	—
16	10-597068-2X	M39029/107-622	—	10-597069-2X	M39029/106-616	—
20	10-597064-2X	M39029/107-621	—	10-597065-2X	M39029/106-615	—
22D	10-597058-3X	M39029/107-620	—	10-597061-2X	M39029/106-614	—

PLASTIC PROTECTION CAPS

Shell Size	Plug	Receptacle
9	10-70506-14	10-70500-10
11	10-70506-16	10-70500-12
13	10-70500-18	10-70500-14
15	10-70500-20	10-70500-16
17	10-70500-22	10-70500-19
19	10-70500-24	10-70500-20
21	10-70524-1	10-70500-22
23	10-70506-28	10-70500-24
25	10-70500-28	10-70524-1

SEALING PLUGS

Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	N/A
8 (Twinax)	T3-4008-59P	N/A
8 (Power)	10-405996-83	MS27488-8-3
10 (Power)	T3-4010-59P	M85049/81-10
12	10-405996-122	MS27488-12-2
16	10-405996-162	MS27488-16-2
20	10-405996-202	MS27488-20-2
22D	10-405996-222	MS27488-22-2
4	10-405996-43	MS27488-4-3
0	10-405996-03	MS27488-0-3

MS METAL PROTECTION CAPS

Shell Size	MS Shell Size Code	MS Plug Protection Cap	MS Receptacle Protection Cap
9	A	D38999/32W9X*	D38999/33W9X*
11	B	D38999/32W11X*	D38999/33W11X*
13	C	D38999/32W13X*	D38999/33W13X*
15	D	D38999/32W15X*	D38999/33W15X*
17	E	D38999/32W17X*	D38999/33W17X*
19	F	D38999/32W19X*	D38999/33W19X*
21	G	D38999/32W21X*	D38999/33W21X*
23	H	D38999/32W23X*	D38999/33W23X*
25	J	D38999/32W25X*	D38999/33W25X*

* To complete order number, replace X with applicable letter as follows:

R - designates eyelet type

N - designates washer type

MS metal protection caps are supplied with service class W which designates corrosion resistant olive drab cadmium plate aluminum.

Consult Amphenol, Sidney, NY for more detailed information on ordering MS Metal protection caps.

III
II
I
SJT
38999

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

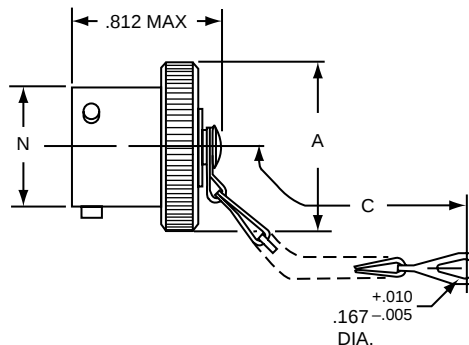
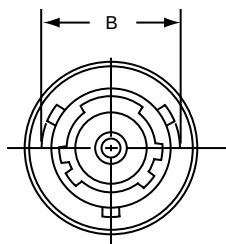
EMI Filter
Transient

Fiber Optics

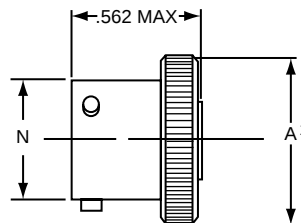
High Speed
Contacts

Options
Others

Series II JT



* 10-547138-XXX (MS27510XXXC)



* 10-241853-XXX (MS27510XXXA)

For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10- part number, they will be stamped with said number.

* To complete order number, add shell size and suffix number.

For example, shell size 10 with cadmium plate, nickel base would be 10-241853-107, MS27510A10C or MS27510A10A).

Shell Size	A Dia. Max.	A ¹ Dia. Max.	B +.000 -.016	C Approx.	N Dia. +.001 -.005
8	.719	.703	.563	3.000	.473
10	.844	.828	.680	3.000	.590
12	1.000	.984	.859	3.500	.750
14	1.125	1.109	.984	3.500	.875
16	1.250	1.234	1.108	3.500	1.000
18	1.375	1.359	1.233	3.500	1.125
20	1.500	1.484	1.358	4.000	1.250
22	1.625	1.609	1.483	4.000	1.375
24	1.750	1.734	1.610	4.000	1.500

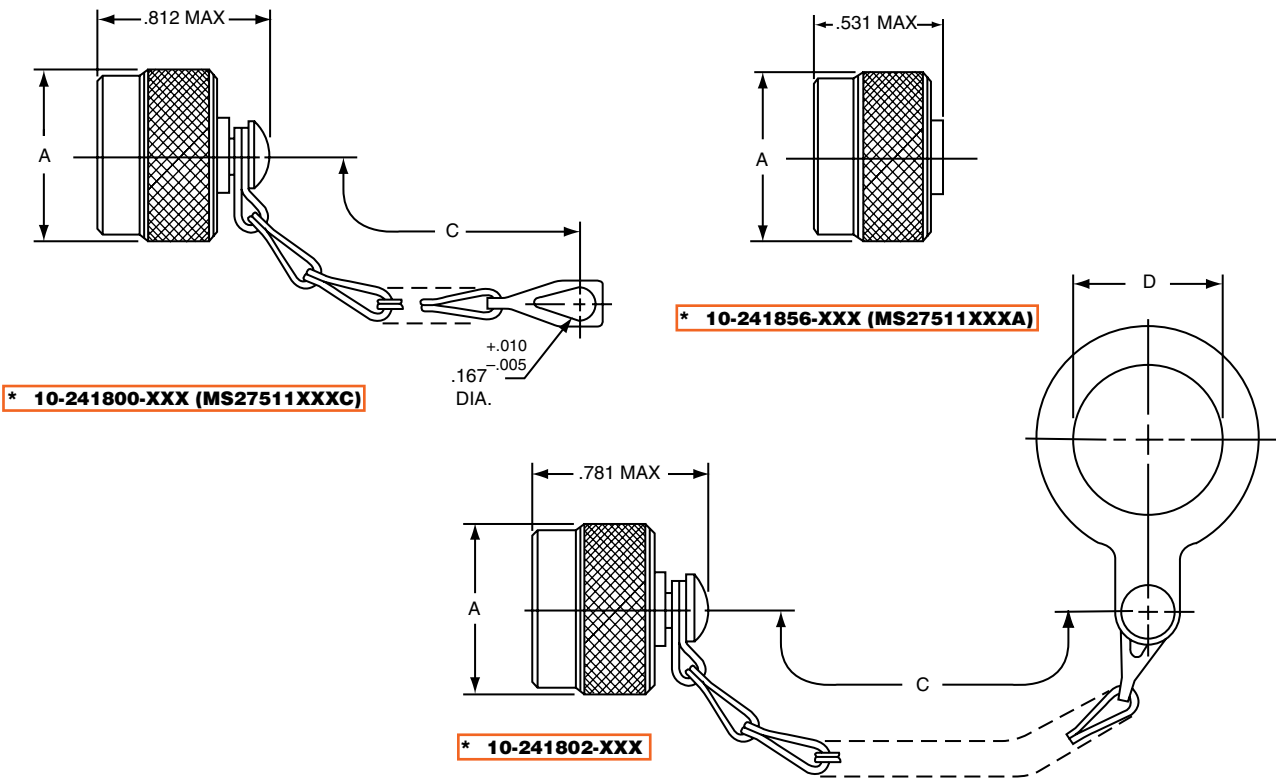
Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

All dimensions for reference only.

MIL-DTL-38999, Series II JT

Receptacle Protection Cap

Series II JT



For MS stamping identification, accessories must be ordered by MS part number.
 If ordered by 10- part number, they will be stamped with said number.
 * To complete order number, add shell size and suffix number.
 For example, shell size 10 with cadmium plate, nickel base would be **10-241802-107, MS27511A10C, MS27511A10A**

Shell Size	A Dia. Max.	C Approx.	D +.010 - .000
8	.719	3.000	.891
10	.844	3.000	1.016
12	1.000	3.500†	1.141
14	1.125	3.500	1.266
16	1.250	3.500	1.391
18	1.375	3.500	1.516
20	1.500	4.000	1.641
22	1.625	4.000	1.766
24	1.750	4.000	1.891

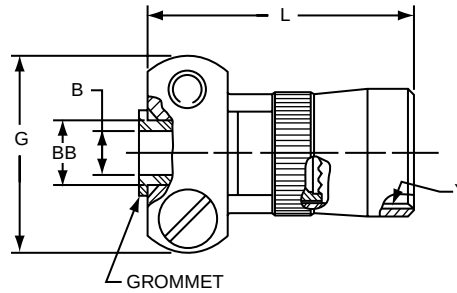
†3.000 for MS27511
 All dimensions for reference only.

Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic Coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless nickel	-XXG	FXXC	FXXA

- III
- II
- I
- SJT
- 26482
- Matrix 2
- 83723
- Matrix
- III
- Pyle
- 5015
- Crimp Rear
- Release Matrix
- 26500
- Pyle
- Printed
- Circuit Board
- EMI Filter
- Transient
- Fiber Optics
- High Speed
- Contacts
- Options
- Others

Series II JT

Series I LJT



*** 10-405982-XXX (MS27506XXX-2 reference M85049/49)**

For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10-part number, they will be stamped with said number.

*To complete order number, add shell size and suffix number.

Finish	10-Number Suffix	MS27506 Suffix	M85049/49 Suffix
Chromate treat	-XX0		NA
Anodic coating	-XX5	CXX-2	(-2-XXA)
Cadmium plate nickel base	-XX7	AXX-2	NA
Olive drab, cadmium, nickel base	-XX9	BXX-2	(-2-XXW)
Electroless nickel	-XXG	FXX-2	(-2-XXN)

For example: Shell size 10 with cadmium plate, nickel base would be

10-405982-107 or M85049/49-2-10W

Shell Size	B Dia. +.010-.025	G Max.	L Max.	Y Thread (Modified)		BB Dia. +.000 -.011	Screw Size
				Size Class 2B	Modified Minor Dia.		
8	.125	.775	.984	.4375-28UNEF	.399 – .405	.250	6-32UNC
10	.188	.837	.984	.5625-24UNEF	.524 – .529	.312	6-32UNC
12	.312	.963	.984	.6875-24UNEF	.649 – .654	.438	6-32UNC
14	.375	1.087	1.234	.8125-20UNEF	.766 – .771	.562	6-32UNC
16	.500	1.150	1.234	.9375-20UNEF	.891 – .896	.625	6-32UNC
18	.625	1.400	1.234	1.0625-18UNEF	1.002 – 1.007	.750	8-32UNC
20	.625	1.400	1.234	1.1875-18UNEF	1.135 – 1.140	.750	8-32UNC
22	.750	1.587	1.359	1.3125-18UNEF	1.252 – 1.257	.938	8-32UNC
24	.800	1.681	1.281	1.4375-18UNEF	1.377 – 1.382	1.000	8-32UNC

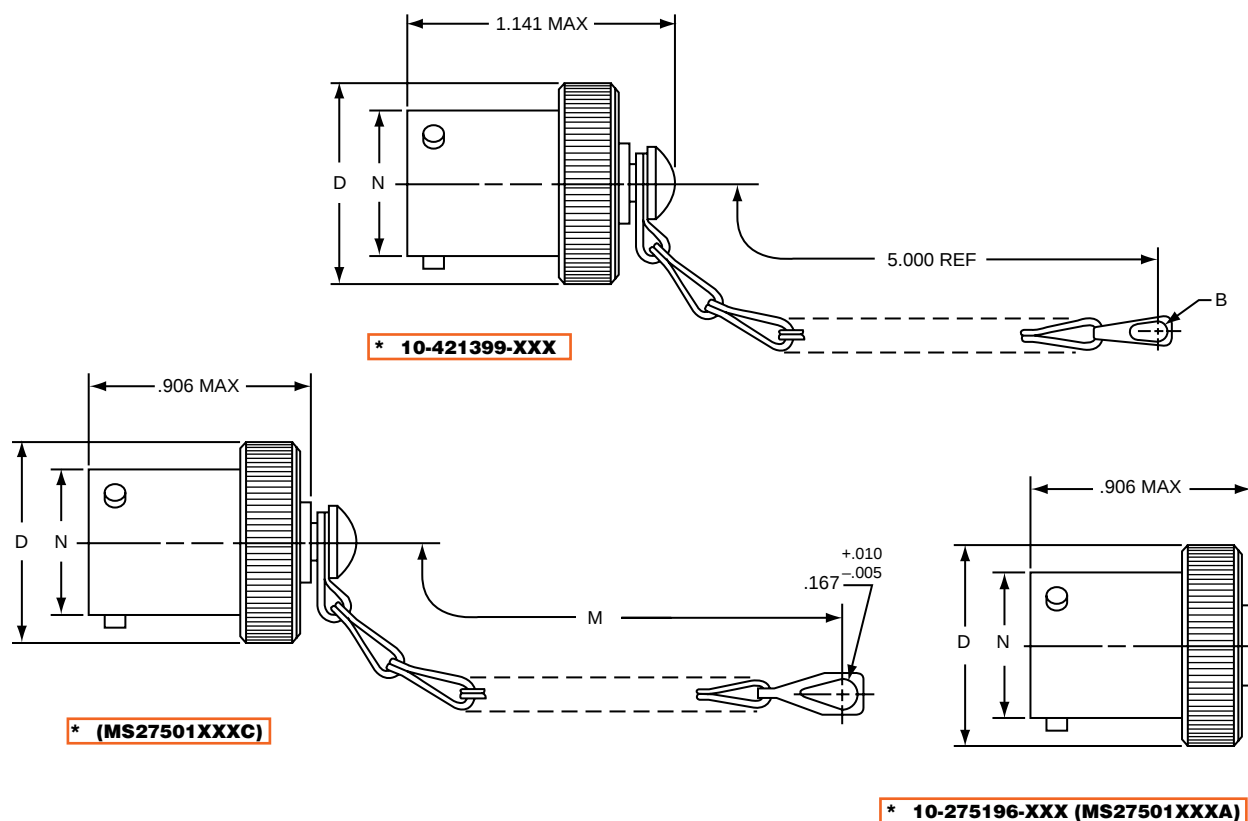
All dimensions for reference only.

Note: For solder type cable clamp **10-241055-XXX (M85049/49)** consult Amphenol, Sidney, NY.

MIL-DTL-38999, Series I LJT

Plug Protection Cap

Series I LJT



*To complete order number, add shell size and suffix number.

For example, shell size 11 with cadmium plate, nickel base would be **10-421399-117, MS27501A11C, MS27501A11A.**

Shell Size	B Dia. Ref	D Dia. Max.	M $\pm .250$	N Dia. $+.001$ $-.005$
9	.180	.812	3.000	.572
11	.180	.938	3.000	.700
13	.180	1.062	3.500	.850
15	.180	1.188	3.500	.975
17	.180	1.312	3.500	1.100
19	.209	1.438	3.500	1.207
21	.209	1.562	4.000	1.332
23	.209	1.688	4.000	1.457
25	.209	1.812	4.000	1.582

All dimensions for reference only.

Finish	10- Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5		
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless nickel	-XXG	FXXC	FXXA

38999
I
SJT

26482
Matrix 2

83723 III
Matrix
Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

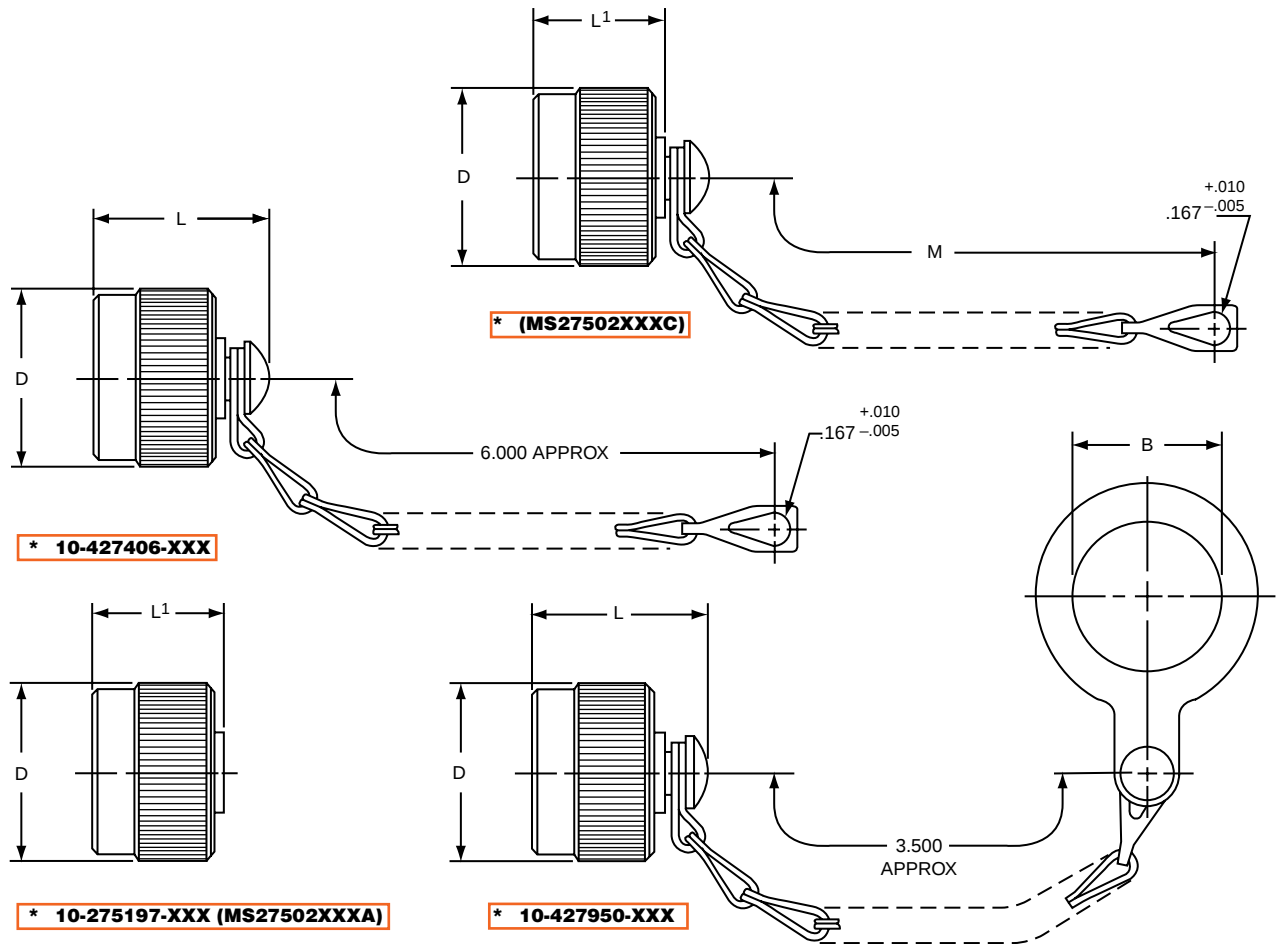
EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series I LJT



For MS stamping identification, accessories must be ordered by MS part number.

If ordered by 10- part number, they will be stamped with said number.

*To complete order number, add shell size and suffix number.

For example, shell size 11 with cadmium plate, nickel base would be 10-427406-117, MS27502A11C, MS27502A11A.

Shell Size	B Dia. +.010 -.000	D Dia. Max.	L Max.	L ¹ Max	M ±.250
9	.703	.844	1.070	.844	3.000
11	.844	.969	1.070	.844	3.000
13	1.016	1.125	1.070	.844	3.500
15	1.141	1.250	1.070	.844	3.500
17	1.266	1.406	1.070	.844	3.500
19	1.391	1.500	1.070	.844	3.500
21	1.516	1.625	1.070	.844	4.000
23	1.641	1.750	1.070	.844	4.000
25	1.766	1.875	1.089	.875	4.000

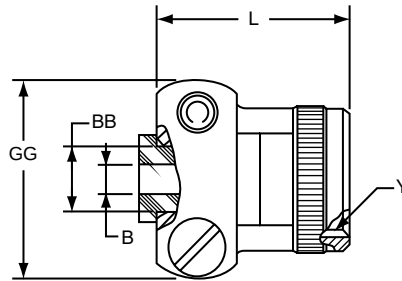
Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate treat	-XX0		
Anodic coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

All dimensions for reference only.

MIL-DTL-38999, Series I LJT

Strain Relief (Solder Type)

Series I LJT



*** 10-436792-XXX**

For military type cable clamp see MS27506 or M85049/49 on page 98.

*To complete order number, add shell size and suffix number.

Finish	10-Number Suffix
Chromate treat	-XX0
Anodic coating	-XX5
Cadmium Plate Nickel base	-XX7
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

For example: Shell size 11 with cadmium plate, nickel base would be **10-436792-117**.

Shell Size	B Dia. +.010 -.025	L Max.	Y Thread Class 2B (Plated)	GG Max.	BB Dia. +.000 -.011
9	.125	.859	.4375-28 UNEF	.775	.250
11	.188	.859	.5625-24 UNEF	.837	.312
13	.312	.859	.6875-24 UNEF	.963	.438
15	.375	1.109	.8125-20 UNEF	1.087	.562
17	.500	1.109	.9375-20 UNEF	1.150	.625
19	.625	1.109	1.0625-18 UNEF	1.400	.750
21	.625	1.109	1.1875-18 UNEF	1.400	.750
23	.750	1.234	1.3125-18 UNEF	1.587	.938
25	.800	1.234	1.4375-18 UNEF	1.681	1.000

All dimensions for reference only.

38999
I
SJT

26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

High Speed
Contacts

Options
Others

Series II JT

Series I LJT

JT/LJT Crimp Contacts

Contact Size	Pins (JT/LJT) MS No.	JT Sockets MS. No	LJT Sockets MS. No
8 (Coax)*	M39029/60-367	NA	M39029/59-366
8 (Twinax)	M39029/90-529***	NA	M39029/91-530
10 (Power)	M39029/58-528	NA	M39029/56-527
12	M39029/58-365	M39029/57-359	M39029/56-353
16	M39029/58-364	M39029/57-358	M39029/56-352
20	M39029/58-363	M39029/57-357	M39029/56-351
22	M39029/58-362	M39029/57-356	M39029/56-350
22M	M39029/58-361	M39029/57-355	M39029/56-349
22D	M39029/58-360	M39029/57-354	M39029/56-348

THERMOCOUPLE CONTACTS

Contact Size	Material	JT/LJT Pins	JT Sockets	LJT Sockets
20	Chromel	10-407862-310	10-407863-310	10-407236-310
	Alumel	10-407862-320	10-407863-320	10-407865-320
	Iron	10-407862-335	10-407863-335	10-407865-335
	Constantan	10-407862-342	10-407863-342	10-407865-342

Partial Listing. If you do not see the contact for your application, consult Amphenol Aerospace, Sidney, N.Y.

THERMOCOUPLE CONTACTS PYLE VERSION

Contact Size	Pins (JT/LJT)		Sockets (LJT)		Material
	Spec Number	Pyle Number	Spec Number	Pyle Number	
22D	M39029/87-472	T3-4022-10P	M39029/88-484	T3-4122-10P	CHROMEL
22D	M39029/87-471	T3-4022-10R	M39029/88-483	T3-4122-10R	ALUMEL
20	M39029/87-476	T3-4020-10P	M39029/88-488	TS-4120-10P	CHROMEL
20	M39029/87-475	T3-4020-10R	M39029/88-487	T3-4120-10R	ALUMEL
16	M39029/87-480	T3-4016-10P	M39029/88-492	T3-4116-10P	CHROMEL
16	M39029/87-479	T3-4016-10R	M39029/88-491	T3-4116-10R	ALUMEL

PLASTIC PROTECTION CAPS

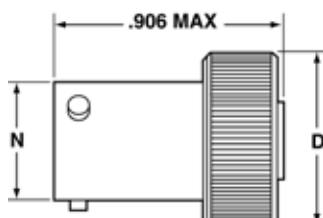
Shell Size	Plug	Receptacle
8	10-70500-10	10-70506-10S
9	10-70506-14	10-70500-10
10	10-70506-14	10-70506-12
11	10-70506-16	10-70500-12
12	10-70506-16	10-70506-14
13	10-70506-18	10-70500-14
14	10-70506-18	10-70506-16
15	10-70506-20	10-70500-16
16	10-70506-20	10-70506-18
17	10-70506-22	10-70500-18
18	10-70506-22	10-70506-20
19	10-70506-24	10-70500-20
20	10-70506-24	10-70506-22
21	10-70576-24	10-70500-22
22	10-70576-24	10-70506-24
23	10-70506-28	10-70500-24
24	10-70506-28	10-70576-24
25	10-558651-25	10-70506-28

SEALING PLUGS

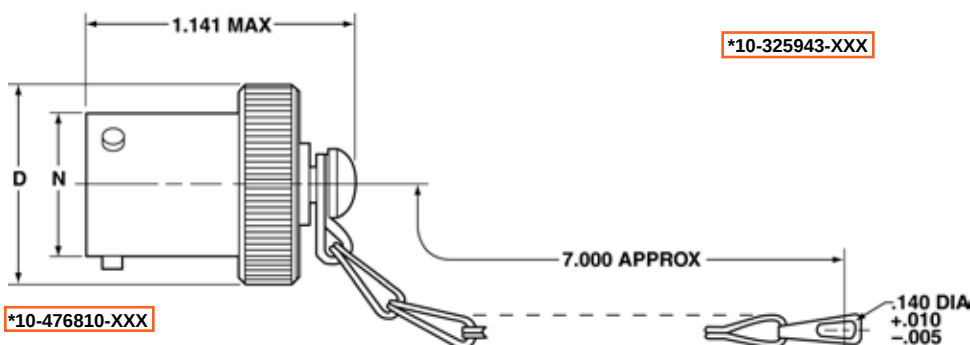
Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	MS27488-8
8 (Twinax)	T3-4008-59P	N/A
10 (Power)	10-576225	N/A
12	10-405996-12	MS27488-12
16	10-405996-16	MS27488-16
20	10-405996-20	MS27488-20
22	10-405996-22	MS27488-22
22M	10-405996-22	MS27488-22
22D	10-405996-22	MS27488-22

SJT

PLUG PROTECTION CAP



*10-476801-XXX



*10-476810-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.

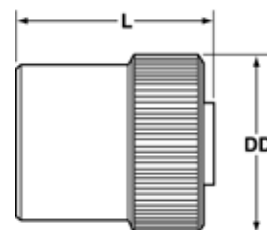
Plug Shell Size	D Dia. Max.	N Dia. +.001 -.005
8	.688	.473
10	.812	.590
12	.969	.750
14	1.094	.875
16	1.219	1.000
18	1.344	1.125
20	1.469	1.250
22	1.594	1.375
24	1.719	1.500

All dimensions for reference only

Finish
 Bright Cadmium Plated Nickel Base
 Anodic Coating (Alumilite)
 Chromate Treated (Iridite 14-2)
 Olive Drab Cadmium Plate Nickel Base
 Electroless Nickel Coating

Suffix
 XX7
 XX5
 XX0
 XX9
 XXG

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, 10-325943-107.

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

38999
 III
 II
 I
 SJT

26482
 Matrix 2

83723 III
 Matrix
 Pyle

5015
 Crimp Rear
 Release Matrix

26500 Pyle

Printed
 Circuit Board

EMI Filter
 Transient

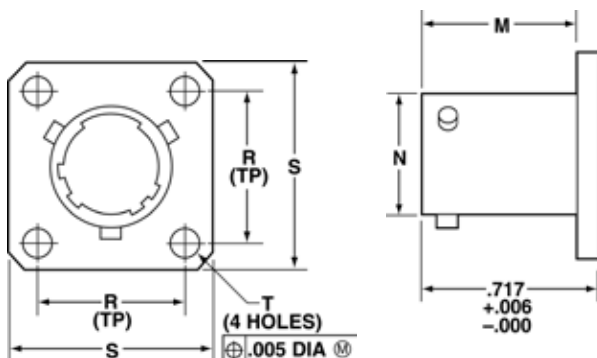
Fiber Optics

High Speed
 Contacts

Options
 Others

SJT

DUMMY RECEPTACLE



*10-476807-XXX

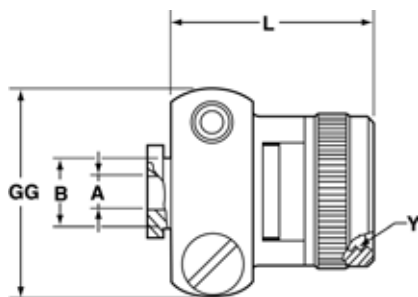
Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

* 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

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.

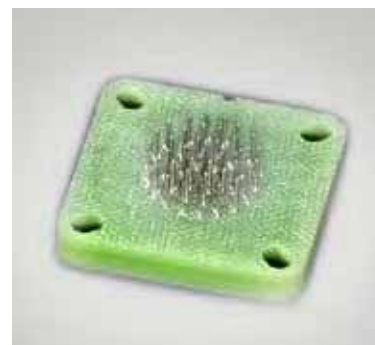
For other contact options available for use in SJT connectors, (wire-wrap, thermocouple, fiber optic) consult Amphenol, Sidney, NY.

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

for Flex Print or PC Board
Series III TV
Series II JT
Series I LJT
**Mounts to all MIL-DTL-38999 and
*MIL-DTL-26482 Connectors**

Termination of PC tail connectors to a flex print or a printed circuit board represents a major cost in the manufacturing process for users. When adding flex or printed circuit board assemblies to an expensive filter or filter/transient protection connector, the total cost of a failed solder joint, a bent pin, or an unanticipated electrical failure becomes prohibitive. The universal header assembly from Amphenol provides for easy separation of the connector from the board on these occasions. The header assembly is comprised of a short pin/socket contact. The tail end of the contact is soldered to the through hole of the flex or printed circuit board. The socket is embedded in the insulator, making electrical contact with the printed circuit tail of the connector.



Headers provide easy separation of the connector from the PC board.

Header Assemblies Provide Cost Savings

Incorporation of the header assembly provides the user with time and cost saving potentials. These header assemblies can be vapor phase or wave soldered to flex or printed circuit boards prior to the receipt of the EMI/EMP connector. Headers can be installed to standard connectors, allowing for electrical testing that would adversely affect the sensitive diodes, MOV's or capacitors in the EMI/EMP connectors. Expensive connector assemblies can be easily removed from and reattached to the header assembly as the manufacturing process dictates.

Mounting Applications

Shell modifications are recommended, but are not necessary. The header assembly can be attached to connectors with standard flange placement or directly to the circuit board. The ideal application would involve either a single flange moved all the way to the rear of the connector or a double flange. Cinch nuts can be installed in either flange to allow easier mounting to the panel or the header assembly. The forward flange would mount the connector to the panel; the rear flange would be used to mount the header assembly. Various types of captivated or loose attaching screws can be utilized for unique applications.

Amphenol universal headers are slotted to allow mounting to all series of MIL-DTL-38999 or MIL-DTL-26482* connectors without special alterations. They are of similar dimension as the flange of the mounting connector and are approximately .185 inches (4.70 mm) thick.

* For information on Header Assemblies for MIL-DTL-26482 connector consult Amphenol, Sidney NY.

Cylindrical Configuration

- 3 PCB stickout dimensions are available.
- Size 22 contacts use .175 thick headers
- Size 16 to 20 contacts use .195 thick headers
- Consult Amphenol, Sidney NY for additional configurations.
- Headers for cylindrical connectors accommodate up to 128 pins. For MIL-DTL-38999 insert arrangements chart see pages 4-7 and insert drawings on pages 8-14.

Mounting to Rectangular ARINC Connectors

- Headers for ARINC connector arrangements accommodate up to 150 pins
- Consult Amphenol, Sidney, NY for ARINC configurations and detailed dimensions.

Materials

- Body is molded or machined from FR-4.
- Electrical engagement areas of the header contact are plated with .00003 inches minimum of gold over .00005 inches minimum of nickel.

See drawing of standard header on next page.

38999
SJT
26482
Matrix 2

83723 III
Matrix Pyle

5015
Crimp Rear
Release Matrix

26500 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics
High Speed
Contacts

Options
Others

MIL-DTL-38999, Series III TV, II JT, I LJT

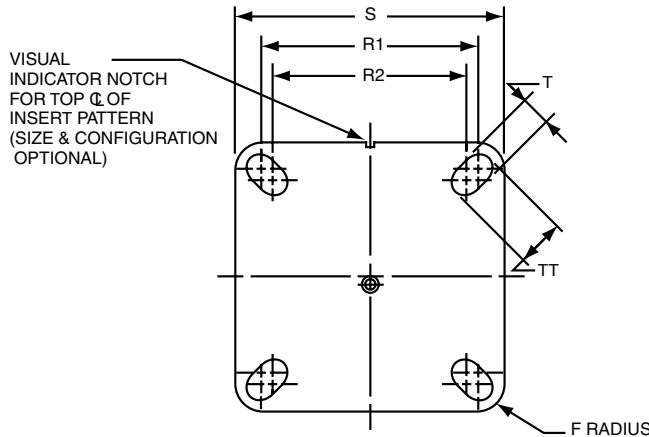
Universal "Header Assembly" for Flex Print or PC Board Connectors

Series III TV

Series II JT

Series I LJT

The drawing below shows the standard header assembly for use with MIL-DTL-38999 connectors. Consult Amphenol Aerospace, Sidney NY for drawings of headers for ARINC configurations.

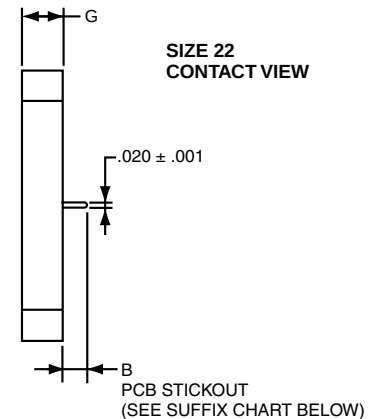


Assembly Part Number	Shell Size	F Radius	G ± .005	S ± .005	T + .008 - .006	R1 TP†	R2 TP†	TT + .008 - .006
21-904008-XX()	8/9	.094		.938	.128	.719	.594	.216
21-904010-XX()	10/11	.094		1.031	.128	.812	.719	.194
21-904012-XX()	12/13	.094		1.125	.128	.906	.812	.194
21-904014-XX()	14/15	.125		1.219	.128	.969	.906	.173
21-904016-XX()	16/17	.125		1.312	.128	1.062	.969	.194
21-904018-XX()	18/19	.125		1.438	.128	1.156	1.062	.194
21-904020-XX()	20/21	.125		1.562	.128	1.250	1.156	.194
21-904022-XX()	22/23	.125		1.688	.154	1.375	1.250	.242
21-904024-XX()	24/25	.125		1.812	.154	1.500	1.375	.242

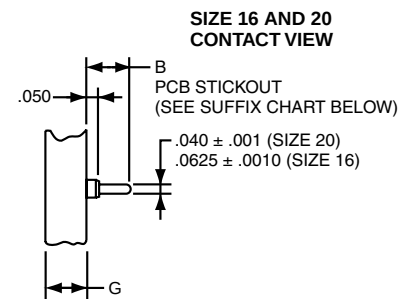
See Suffix Chart

Assemblies containing Size 22 contacts only: .175
Assemblies containing Size 16 or 20 contacts: .195

† TP designates true position dimensioning.



SIZE 22
CONTACT VIEW



SIZE 16 AND 20
CONTACT VIEW

NOTE:
Size 22 accepts .018 to .022 dia. PCB tails.
Size 16 accepts .048 to .064 dia. PCB tails.
Size 20 accepts .037 to .043 dia. PCB tails.

HOW TO ORDER INFORMATION

For Header Assembly with MIL-DTL-38999 Connectors

Use coded number as follows:

21-9040 XX - XX X

Designates Amphenol Header Assembly
Shell size designation for MIL-DTL-38999 Series I, II, III and IV see Suffix chart.
Arrangement number - See MIL-STD-1560 or MIL-STD-1669. See insert availability charts on pages 4-7.
Contact PCB Stickout designation See Suffix chart.

For how to order information on adapters to be used with ARINC connectors, consult Amphenol, Sidney NY.

ASSEMBLY NUMBER SUFFIX CHART

Shell Size Designation*	Arrangement Number Suffix***	Contact PCB Stickout**	
		Suffix	B ± .015 Stickout
08	Insert Arrangement Suffix from MIL-STD-1560 or MIL-STD-1669	1	.120
10		2	.185
12		3	.270
14			
16			
18			
20			
22			
24			

*Shell size designation for MIL-DTL-38999 Series I, II, III and IV and MIL-DTL-26482 Series 1 and 2.

Examples: Shell size 9 use 08. Shell size 25 use 24.

** Size 22 contacts available in all 3 stickout lengths. Size 16 and 20 contacts available only in .185 and .270 lengths.

*** Insert arrangement 14-97 and 15-97 are not available at this time. Consult Amphenol, Sidney NY for information.

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			
	MS Part Number	Color	Angle Type		Straight Type 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				
	MS Part Number	Color	For Unwired Contacts Commercial Part No.	Angle Type		Straight Type 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.