

Amphenol

MIL-C-38999

Full range catalogue



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Amphenol Ltd

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MIL-C-38999 range

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MIL-C-38999 connectors are designed & approved to meet the most stringent requirements of the military and aerospace industry. Within the connector range Amphenol produce 4 series of connectors. These cover low profile light weight to ruggedised scoop proof connectors. All connectors are rated at 175°C for olive drab finish and 200°C for electroless Nickel. A Cadmium free olive drab version is available. Contact counts in the connectors range from 1 to 128 with five sizes of contact and over 100 insert planforms are available. With this broad range, a MIL-C-38999 connector is suitable for the majority of harsh environment applications



JT Light weight low profile bayonet connector. Ideal for use in avionics box and other limited space conditions.

Approved to: MIL-C-38999 series 2
BS9520 G0002
PAN 6433-1
HE309



SJT A light weight scoop proof bayonet connector intermountable with MIL-C-26482 type connectors. Commonly used on European military aircraft

Approved to: LN29729
VG96912
PAN 6433-2
JN1003

LJT A range of rugged scoop proof bayonet connector suitable for general duty applications ie. ground support systems.

Approved to: MIL-C-38999 series 1
BS9522 F0029, BS9520 G0001
HE308



TV Highest performance connector with quick threaded coupling mechanism. Used in high vibration & EMI/RFI environments and on portable communication systems. A stainless steel connector firewall version is available for use on engine harnesses.

CTV Composite light weight connector ideal for use in aircraft or extreme salt spray environments.

TVRB Marine Nickel Aluminium Bronze version chosen for use on standard naval applications.

Approved to: MIL-C-38999 series 3
BS9522 F0039 / BS9520 G0003
JN1034



TVP00R CTVP00R BS-C6170 D38999/20 JN1034A Wall mounting receptacle	10
TVP02R CTV02R JN1034F Box mounting receptacle	11
TV06R BS-C6176 D38999/26 Straight plug JN1034C	12
TV07R CTV07R BS-C6177 D38999/24 JN1034B Jam nut receptacle	13
TV JN1034D Dummy receptacle	14
TVPS02Y D38999/21 Hermetic box mounting receptacle	15
TVS07Y D38999/23 Hermetic jam nut receptacle	16
TVS1Y D388999/25 Hermetic solder mounting receptacle	17
TV - Cable Clamp	18
TV - Receptacle protection cap	19
TV - Plug protection cap	20
LJT00R BS-C6160 MS27466 HE308-00T Wall mounting receptacle	21
LJTPO0R BS-C6163 MS27656 Wall mounting receptacle (back panel mounting)	22
LJT02R BS-C6162 MS27496 Box mounting receptacle	23
LJTPO2R BS-C6164 MS27505 Box mounting receptacle (back panel mounting)	23
LJT06R BS-C6166 MS27467 HE308-06T Straight plug	24
LJT06R (WXX) BS-C6165 Straight Plug (with heavy duty coupling ring)	25
LJT07R BS-C6167 MS27468 HE308-07T jam nut receptacle	26
LJT00 MS27469 Hermetic wall mounting receptacle	27
LJT07 MS27470 Hermetic jam nut receptacle	28
LJT1Y MS27471 Hermetic solder mounting receptacle	29
LJT Receptacle protection cap	30
LJT Plug protection cap	31
JT00R BS-C2022 MS27472 Wall mounting receptacle	32
JTPO0R BS-C2023 MS27497 HE309 O3T PAN 6432-1B Wall mounting receptacle (back panel mounting)	33
JT02R BS-C2251 MS27499 Box mounting receptacle	34
JTPO2R BS-C2253 MS27508E PAN 6433-1E Box mounting receptacle (back panel mounting)	35
JT06R BS-C2020 MS27473 HE309 O6T PAN 6433-IF - Ungrounded	36
JTG06R BS-C2021 MS27484 HE309 G06T PAN 6433-IFG - Grounded straight plug	36
JT07R BS-C2024 MS27474 HE309-07T PAN 6433-1A Jam nut receptacle	37
JT00 MS27475 Hermetic wall mounting receptacle	38
JT02 MS27476 Hermetic box mounting receptacle	39
JT07 MS27477 Hermetic jam nut receptacle	40
JT1 MS27478 Hermetic solder mounting receptacle	41
JT PAN 6433-IM Receptacle protection cap	42
JT PAN 6433-IM Plug protection cap	43
JT/LJT Cable Clamp	44
SJT00RT JN1003-B PAN 6433-2B VG96912-A Wall mounting receptacle	45
SJTPO2RE Box mounting receptacle (back panel mounting)	46
SJT02RE JN1003-H Box Mounting Receptacle	47
SJT06RT/SJTG06RT JN1003-FG PAN 6433-2F, PAN 6433-2FG VG96912-D, VG96912-E Straight plugs	48
SJT07RT JN1003-A PAN 6433-2A VG96912-B Jam nut receptacle	49
SJT JN1003-R Dummy receptacle	50
SJT B JN1003-J Through Bulkhead	51
SJT1Y JN1003-E Hermetic solder mounting receptacle	52
SJT07Y - Hermetic Jam nut receptacle	53
SJT - Accessories Cable Clamp	54
SJT - Accessories Receptacle protection cap	55
SJT - Accessories Plug protection cap	56
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Specifications

Contact Rating

Contact Size	22D	22M	22	20	16	12	8
Wire Size	Test Current						
28	1.5	1.5	-	-	-	-	-
26	2.0	2.0	2.0	-	-	-	-
24	3.0	3.0	3.0	3.0	-	-	-
22	5.0	-	5.0	5.0	-	-	-
20	-	-	-	7.5	7.5	-	-
18	-	-	-	-	10.0	-	-
16	-	-	-	-	13.0	-	-
14	-	-	-	-	-	17.0	-
12	-	-	-	-	-	23.0	-
10	-	-	-	-	-	-	-
8	-	-	-	-	-	-	46.0
6	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
Hermetic Contacts	3	2	3	5	10	17	N/A
Crimp Well Data							
Diameter ± 0.01	0.0345	0.0280	0.0365	0.047	0.067	0.100	0.181
Depth	0.141	0.141	0.141	0.209	0.209	0.209	0.394
Maximum Milivolt Drop							
Crimp Contacts	73	45	73	55	49	42	26
Hermetic Contacts	85	60	85	60	85	85	N/A
Hermetic Contacts according to M39029 Standard	803	803	803	605	539	462	N/A

Tested using silver plated wire

Service Rating**

Service Rating	Suggested Operating Voltage (Sea Level)		Test Voltage (Sea Level)	Test Voltage 50,000ft	Test Voltage 70,000ft	Test Voltage 110,000ft
	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
H	900	1250	2300 VRMS	800 VRMS	500 VRMS	200 VRMS

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

EMI shielding effectiveness

Frequency MHz	Leakage attenuation (dB) Minimum				
	Series II	Series III			Series I & SJT
	Finish B and F	Class K and Y	Class F, N, M and S	Class W and J	Finish B and F
100	65	80	90	90	90
200	60	75	88	88	88
300	55	73	88	88	88
400	55	71	87	87	87
800	45	66	85	85	85
1,000	45	65	85	85	85
1,500	-	59	76	69	69
2,000	-	55	70	65	65
3,000	-	52	69	61	61
4,000	-	50	68	58	58
6,000	-	48	66	55	55
10,000	-	45	65	50	50

Fluid Immersion

- | | | |
|--|---|---|
| (a) MIL-H-5606 | (i) Isopropyl alcohol per TT-1-735, grade A or B mixed one part by volume with three parts by volume of mineral spirits per TT-T-291, type 1 or P-D-680, type 1 | (k) Azeotrope or trichlorotrifluoroethane (Freon TMC or equal) and methylene chloride |
| (b) M2-V chevroni | (j) 1-1-1 trichloroethane | (l) Coolant-dielectric fluid synthetic silicate ester base |
| (c) MIL-T-5624 (grade JP-5) | | |
| (d) MIL-L-7803 | | |
| (e) MIL-L-23699 | | |
| (f) MIL-A-8243 | | |
| (g) MIL-L-25769 (Diluted for cleaning) | | |
| (h) MIL-G-3056 Type 1 | | |

Insert availability and identification

JT	LJT	TV	SJT	Status	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size										
						Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8 == (Twinax)	10 (Power)	12 Coax	
8-2				B	#P			M	2											
8-3				B	#P			M	3											
8-6	9-3			B	#			M	6			6								
	9-6			C	X			M	7			7								
	9-7			C	X			M	7			7								
	9-7			B	#			M	7			7								
	9-22			B	#			I	2											
8-35				A	X			M	2											
	9-35	9-35	8-35	A	X	P	P	M	6	6										
8-44				B	X			M	4											
	9-44			B	X			M	4				4							
8-97				B	#			M	4											
8-98			8.98	A	X			I	3											
	9-98	9-98		A	X	P	P	I	3											
		11-01			2			M	1											1
		11-01			2			M	1											
	11-2	11-2			2			I	2											2
10-4					2			I	2											
	11-4				2			I	4											4
10-5					2			I	4											4
	11-5	11-5	10-5		X			I	5											5
					2			I	5											5
	11-6			B	#			I	6											6
10-13				C	X			M	13											
	11-13			C	X			M	13			13								
10-35			10-35	A	X			M	13	13										
	11-35	11-35	10.35	A	X	P	P	M	13	13										
10-98				A	X			I	6											6
	11-98	11-98		A	X			I	6											6
10-99					X			I	7											7
	11-99				P			I	7											7
12-3					X			II	3											3
	13-3				P			II	3											3
12-4			12-4		X			I	4											4
	13-4	13-4			X	P	P	I	4											4
12-8			12-8		X			I	8											8
	13-8	13-8			X			I	8											8
12-22				C	X			M	22				22							
	13-22			C	X			M	22				22							
12-35			12-35	A	X			M	22	22										
	13-35	13-35		A	X	P	P	M	22	22										
12-98			12-98	A	X			I	10											10
	13-98	13-98		A	X			I	10											10
14-4				B	2			I	4											4
	15-4			B	3			I	4											4
14-5			14-5	A	X			II	5											5
	15-5	15-5		A	X			II	5											5
14-15			14-15		X			I	15											14
	15-15	15-15			X			I	15											14
14-18			14-18	A	X			I	18											18
	15-18	15-18		A	X			I	18											18
14-19			14-19	A	X			I	19											19
	15-19	15-19		A	X	P	P	I	19											19
14-35			14-35	A	X			M	37	37										
	15-35	15-35		A	X	P	P	M	37	37										
14-37				C	X			M	37											37
	15-37			C	X			M	37											37
14-68				B	2			I	8											8
	15-68			B	3			I	8											8
14-97			14-97	A	2			I	12											8
	15-97	15-97		A	2			I	12											8
	17-2	17-2		B	2			M	39	38										1
16-6			16-6		X			I	6											6
	17-6	17-6			X	P	P	I	6											6
16-8			16-8		X			II	8											8
	17-8	17-8			X			II	8											8
16-13					2			i	13											13
	17-13			B	2			i	13											13
16-26			16-26	A	x			I	26											26
	17-26	17-26		A	X			I	26											26
16-35			16-35	A	X			M	55	55										
	17-35	17-35		A	X	P	P	M	55	55										
16-42				B	X			M	42											42
	17-42			B	P			M	42											42
16-55				C	X			M	55											55
	17-55			C	X			M	55											55
16-99			16-99		X			I	23											21
	17-99	17-99			X			I	23											21
18-11			18-11		X			II	11											11
	19-11	19-11			X			II	11											11
		19-17	18-17		2			M	17	10										1
					2			M	17	10										4
18-28					X			i	28											26
	19-28				P			i	28											2
18-30					X			I	30											29
	19-30				P			I	30											1
18-32			18-32		X			I	32											32
	19-32	19-32			X	P	P	I	32											32

(A) Preferred (2) Not tooled for RP or O2RE (P) Pin insert only (S) Socket inserts only
 (B) Non preferred (3) Pin insert only, not tooled for RP or O2RE * Same as H with interfacial seal ** Two size 16 contacts dedicated to fiber optics
 (C) Inactive (#) Solder contact version only † For RG180/Uand RG195/U Cables only †† Size 8 Coax, Twinax and Power contacts are interchangeable
 (X) Fully Tooled

NOTE: MS Connector 21-75 is supplied with size 8 twinax. Proprietary connector 21-75 is supplied with size 8 coax

Insert availability and identification

JT	LJT	TV	SJT	Status	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size									
						Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8 == (Twinax)	10 (Power)	12 Coax
18-35			18-35	A	X			M	66	66									
	19-35	19-35		A	X														
18-53				B	X			M	53			53							
	19-53			B	P														
18-66				C	X			M	66		66								
	19-66			C	X														
	19-67			B	3			M	67		67								
18-68				B	2			I	18				18						
	19-68			B	3														
18-96				B	2			I	9				9						
20-1				C	X			M	79		79								
	21-1			C	X														
20-2			20-2	B	X			M	65			65							
	21-2			B	2														
20-11			20-11		3			I	11					11					
	21-11	21-11			X														
20-16			20-16		X			II	16					16					
	21-16	21-16			X		P	P											
	21-24			B	#			I	24				24						
	21-25			B	#			I	25				25						
	21-27			B	#			I	27				27						
20-35			20-35	A	X			M	79	79									
	21-35	21-35		A	X														
20-39			20-39		X			I	39				37	2					
	21-39				X														
20-41			20-41	A	X			I	41				41						
	21-41	21-41		A	X														
	21-75	21-75	20-75	B	2			M	4					4☞☞	(See Note)				
	21-79		20-79	B	2			II	19	17					2☞☞				
	21-79			B	2														
22-1			22-1	2	X			M	100		100								
	23-1			C	X														
22-2			22-2	B	V			M	85			85							
	23-2			B	X														
22-14				B	2			I	14					14					
	23-14			B	3														
22-21			22-21		X			II	21					21					
	23-21	23-21			X														
22-32					X			I	32				32						
	23-34			B	#			I	34				34						
22-35			22-35	A	X			M	100	100									
	23-35	23-35		A	X														
	23-36			B	#			I	36				36						
22-53			22-53		P			I	53				53						
	23-53	23-53			X														
	23-54	23-54			2			M	53	40			9	4					
22-55					X			I	55				55						
	23-55	23-55			3														
	23-97			B	#			II	16				16						
	23-99			B	#			II	11				11						
24-1				C	X			M	128		128								
	25-1			C	X														
24-2			24-2	B	X			M	100			100							
	25-2			B	X														
24-4			24-4		X			I	56				48	8					
	25-4	25-4			X														
	25-7		24-7	B	2			M	99	97						2			
	25-11	25-11	24-11		2			N	11				2					9	
24-19			24-19		2			I	19					19					
	25-19	25-19			2														
	25-20	25-20	24-20	A	2			N	30			10	13**			3			4
24-24			24-24		X			I	24				12	12					
	25-24	25-24			X														
	25-26				2			I	25				16	5	4				
24-29			24-29		X			I	29					29					
	25-29	25-29			X														
24-35			24-35	A	X			M	128	128									
	25-35	25-35		A	X														
24-37			24-37	B	2			I	37				37						
	25-37	25-37		B	2														
	25-41		24-41		2			N	41	22			3	11	2			3	
24-43			24-43		3			I	43				23	20					
	25-43	25-43			2														
	25-46	25-46	24-46		2			I	46				40	4		2☞			
24-61			24-61		X		P	P	I	61			61						
	25-61	25-61			X														
	25-64				2			M	64	18			28	18					

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 (X) Fully Tooled

NOTE: MS Connector 21-75 is supplied with size 8 twinax. Proprietary connector 21-75 is supplied with size 8 coax

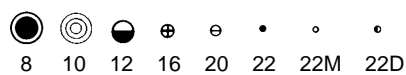
Insert arrangements

8-2	8-3 9-3	8-6* 9-6	9-7	9-22	8-35 9-35	8-44* 9-44	8-97	8-98 9-98	10-01 11-01	11-2	10-4 11-4	10-5 11-5			
11-6	10-13* 11-13	10-35 11-35	10-98 11-98	10-99 11-99	12-3 13-3	12-4 13-4	12-8 13-8	12-22* 13-22	12-35 13-35						
12-98 13-98	14-4 15-4	14-5 15-5	14-15 15-15	14-18 15-18	14-19 15-19	14-35 15-35	14-37* 15-37								
14-68 15-68	14-97 15-97	17-2	16-6 17-6	16-8 17-8	16-13 17-13	16-26 17-26									
16-35 17-35	16-42 17-42	16-55 17-55	16-99 17-99	18-11 19-11	18-17 19-17										
18-28 19-28	18-30 19-30	18-32 19-32	18-35 19-35	18-53 19-53	18-66* 19-66										

* Inactive

Contact Legend

Front end of pins illustrated



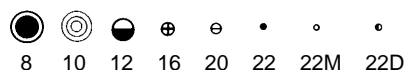
Insert arrangements

19-67	18-68 19-68	18-96	20-1* 21-1	20-2* 21-2
20-11 21-11	20-16 21-16	21-24	21-25	21-27
20-35 21-35	20-39 21-39	20-41 21-41	20-75 21-75	20-79 21-79
22-1* 23-1	22-2* 23-2	22-14 23-14	22-21 23-21	22-32 23-32
23-34	22-35 23-35	23-36	22-53 23-53	

* Inactive

Contact Legend

Front end of pins illustrated



Insert arrangements

22-54 23-54	22-55 23-55	23-97	23-99	24-1 25-1
24-2 25-2	24-4 25-4	24-7 25-7	24-11 25-11	
24-19 25-19	24-20 25-20	24-24 25-24	25-26	
24-29 25-29	24-35 25-35	24-37 25-37	24-43 25-43	

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Contact Legend

Front end of pins illustrated

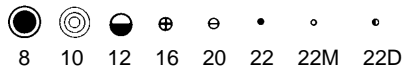


Insert arrangements

<p>24-46 25-46</p>	<p>24-61 25-61</p>
<p>24-41 25-41</p>	<p>25-64</p>

Contact Legend

Front end of pins illustrated



New Inserts

<p>23-5</p>	<p>23-6</p>	<p>25-8</p>