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cannon

38999-Style Connectors



ITT

ENGINEERED FOR LIFE

Cannon 38999-Style Series I, II, III Connectors

ITT Cannon connectors set the industry standard for performance and reliability in the most demanding conditions and harshest environments. Our 38999-Style Series I, II, III Connectors are designed to withstand the extreme shock, exposure and vibration that are commonplace in Defense and Commercial Aerospace applications.

We offer lightweight, space-saving solutions to our military customers, coupled with high bandwidth and high power for severe service application needs. More than a century of experience, coupled with unparalleled engineering and testing resources, has established ITT Cannon as one of the premier providers of interconnect solutions worldwide.

With a proven track record for engineering and manufacturing excellence, ITT Cannon continues to deliver a broad range of innovative products and solutions that enable our customers to meet their most demanding design requirements, where impeccable reliability and safety are essential.



Example Application Areas

- Defense
 - Military aircraft
 - Military communication systems
 - Hand held and vehicle platforms
 - Military ground support systems
 - Military computer systems
 - Harsh environment platforms
 - Blind mate applications
 - High density, low signal platforms
 - Hand held and vehicle platforms
 - Unmanned systems
- Aerospace
 - Aircraft engines
 - General electric testing equipment
 - Commercial business aviation
 - Aerospace launch vehicles

38999-Style Connectors: Precision Engineered, Lightweight & Rugged

ITT Cannon's 38999-Style Series I, II, III Connectors are designed to tackle the most extreme conditions with exceptional versatility in the harshest environments. Small, lightweight and highly reliable, our D38999-Style connectors deliver consistency and performance when it matters most.



D38999-Style Series I (KJL)

ITT Cannon KJL 38999-Style Series I connectors offer high-density contact arrangements in a light-weight miniature circular connector. ITT Cannon KJL series connectors are an industry standard for military and aerospace applications. The environmentally sealed KJL series features quick-mating, three-point bayonet coupling and operates across a wide temperature range.



D38999-Style Series II (KJ)

ITT Cannon KJ 38999-Style Series II are a weight-reduced and low profile circular connector ideally suited for avionic applications where space and weight are prime considerations. It offers high-density contact arrangements in a light-weight miniature circular connector. ITT Cannon KJ series connectors feature a quick-mating, three-point bayonet coupling, are environmentally-sealed and operate across a wide temperature range. ITT Cannon KJ series mil spec connectors were originally designed for military vehicles and are now industry standard aerospace and military connectors.



38999-Style Series III (KJB)

The de-facto standard circular connector for use in harsh military and aerospace environments, ITT Cannon's KJB 38999-Style Series III Connectors offer high-density contact arrangements in a light-weight miniature circular connector. ITT Cannon's KJB series connectors have quick-mating, triple-lead threaded, self-locking coupling, are environmentally-sealed and operate across a wide temperature range. These connectors were originally designed for military vehicles and are now use for multiple applications throughout the Aerospace & Defense Industry.



38999-Style Series III Composite (KJB)

A lightweight standard circular connector for use in military and aerospace environments with significant weight savings over aluminium-bodied D38999-Style. High density layouts with up to 128 data connections and power contacts rated up to 23A. Features a triple-start coupling with anti-decoupling ratchet for high vibration applications, Cadmium and Electroless Nickel platings, 100 percent scoop-proof contacts and rated to 1500 mating cycles.

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In addition to our 38999-style series, we also offer these connectivity solutions:



Combo D-Sub Product offering includes ability to integrate signal and coax, high power, and high voltage.

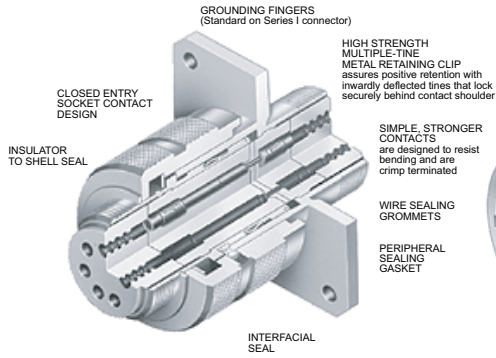


CA-Bayonet – Signal and power connectors with exceptional sealing against the ingress of fluids and will withstand the effects of high vibrations.

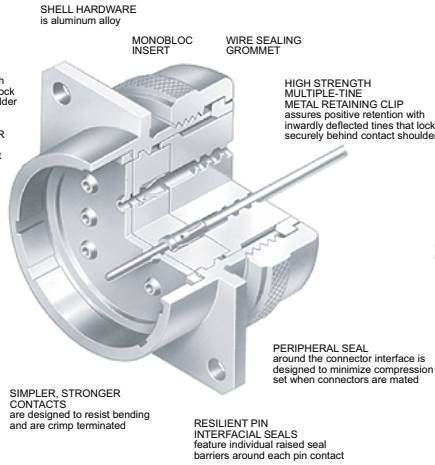


Microminiature – High performance and reliability with exceptional versatility. Available in rectangular, circular and strip configurations, many of our connectors are designed to be comparable to the MIL-DTL-83513 specification.

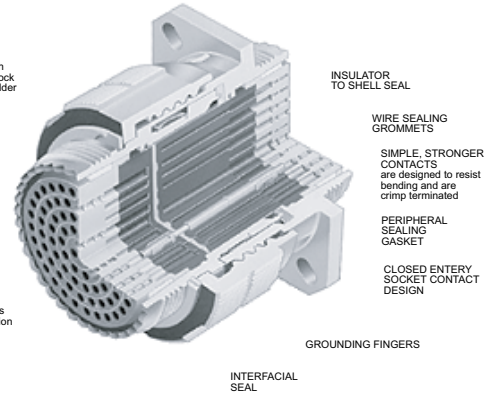
SERIES I



SERIES II



SERIES III



- Corrosion and zinc resistant shells of aluminum alloy with cadmium and zinc over nickel plating withstand a 500 hour salt spray exposure
- Rear release crimp snap-in contacts
- High contact density
- Standard MIL-C-39029 contacts, MIL-I-81969 application tools and MIL-STD 1560 insert arrangements

- Special/custom capabilities
- 100% scoop-proof - Series I and III
- Light weight /Low Profile - Series II
- Operates under severe high temperature vibration testing through 200 C - engineered for high density circuitry - Series III

- Interfacial seal helps prevent electrolytic erosion of contacts - Series III
- Superior EMI shielding provides outstanding protection up to 65dB at 10 GHZ. - Series III

Specification Comparison

Design Criteria	Series I	Series II	Series III (Aluminum)	Series III (Composite)
Low Profile/Light Weight	no	yes	no	yes
Scoop Proof	yes	no	yes	yes
Coupling System	Bayonet	Bayonet	Triple Start Thread	Triple Start Thread
Electrolytic Erosion	no	no	yes	yes
Durability (Cycles)	500	250	500	1500
High Impact Shock	yes	no	yes	yes
External Bending Moment				
Shell Size 25	650 in/lbs	150 in/lbs	1000 in/lbs	1000 in/lbs
Random Vibration "J"	49.5G, Ambient	43.7G, Ambient	49.5G, Ambient	49.5G, Ambient
Sine Vibration	60G		60G	60G
Sand, Dust, Ice	yes		yes	yes
Shell Size	9-25	8-24	9-25	9-25

Contact Rating

Contact Size	Test Current DC Test Amperage	Maximum Millivolt Drop*	Crimp Well Data	
			Well Diameter	Well Depth
22D	5	40	.0345 ± .0010	.157/.141
22M**	3	30	.0280 ± .0010	.157/.141
22**	5	40	.0365 ± .0010	.157/.141
20	7.5	35	.0470 ± .0010	.229/.209
16	13	25	.0670 ± .0010	.229/.209
12	23	25	.1000 ± .0020	.229/.209

* Maximum millivolt drop data is determined by measuring resistance of mated contacts from end to end
 ** For reference only

Performance and Material Specifications

***DISCLAIMER:** Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

MATERIALS AND FINISHES

	Aluminum		Composite	
	Receptacle	Grounded Plug	Receptacle	Grounded Plug
Shell	Aluminum alloy	Aluminum alloy*	Thermoplastic	Thermoplastic
Insulator	High grade plastic	High grade plastic	High grade plastic	High grade plastic
Contacts	Copper alloy, gold plate	Copper alloy, gold plate	Copper alloy, gold plate	Copper alloy, gold plate
Grommet and Seal	Silicone base elastomer	Silicone base elastomer	Silicone base elastomer	Silicone base elastomer
Jam Nut	Aluminum alloy	-	-	-
Grounding Spring	-	Beryllium copper	-	Beryllium copper

*Finish as noted in How To Order sections.

ELECTRICAL DATA

Contact Size: 22D, 22M*, 22*, 20, 16 and 12

Contact Rating and Wire Size Accomodation

Wire Size	Contact Size and Test Amps					
	22D	22M*	22*	20	16	12
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

*For reference only

Service Rating

Altitude	Service Rating M		Service Rating N		Service Rating I		Service Rating II	
	Mated	Unmated	Mated	Unmated	Mated	Unmated	Mated	Unmated
Sea Level	1300	1300	1000	1000	1800	1800	2300	2300
50,000 ft.	800	550	600	400	1000	600	1000	800
70,000 ft.	800	350	600	260	1000	400	1000	500
100,000 ft.	800	200	600	200	1000	200	1000	200

Test voltage, AC (rms), work voltage to be determined by application

Test Data

Test Description	Parameters
Durability	500 cycles of mating and unmating, 250 cycles for Series II with spring fingers
Temperature Range	Class F, N; - 65°C (-85°F) to + 200°C (+392°F) Class A; - 65°C (-85°F) to + 150°C (+302°F) Class B,W: - 65°C (-85°F) to + 175°C (+347°F)
Vibration	Mated connectors are vibrated with weights to simulate rear accessory loads to the following levels: Sine Vibration: Up to 60 G's - Series I & III (at rated temperature - Series III) Not applicable for Series II. Random Vibration: 43.7 Grms at rated temperature - Series III 49.5 Grms at Ambient Temperature - Series I & III 43.7 Grms at Ambient Temperature - Series II
EMI Shielding Effectiveness	Class F: EMI leakage attenuation, greater than 90dB at 100Mhz, greater than 65dB at 10 GHz. Shell to shell conductivity, 1.0 millivolt max. resistance. Class W: EMI leakage attenuation, greater than 90dB at 100 MHz, greater than 50dB at 10 GHz. Shell to shell conductivity, 2.5 millivolt max.
Corrosion Resistant	Class B, W, and Z will withstand 500 hours salt spray. Class A, F, N, will withstand 48 hours salt spray.
Fluid Immersion	Connectors are fluid resistant to many fuels, solvents, coolants and oils.
High Impact Shock	Mated connectors terminated with MIL-C-915 cable and environmentally sealed backshells will withstand high impact shock per MIL-S-901. Applicable to Series I & III only.
Altitude	Designed to operate between sea level and 100,000 ft. above sea level.
Other Environments	Mated connectors shall withstand sand and dust per method 110 of MIL-STD-202 and be ice resistant. Applicable to Series I & III only.

NOTE: For hermetic standard or test data please consult ITT.



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

www.ittcannon.com

Insert Availability and Identification

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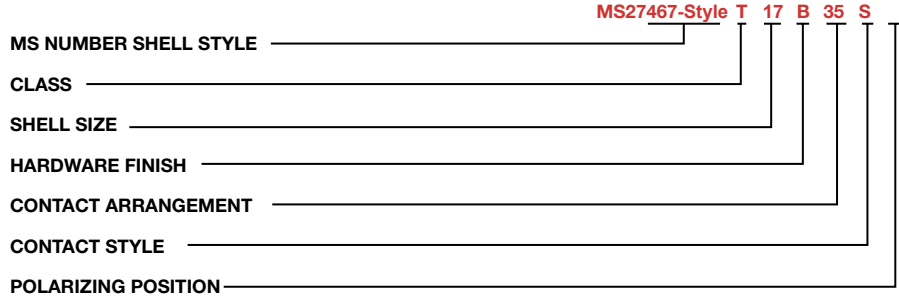
Series II	Series I & III	Service Rating	Total Contacts	Contact Size				
				22D	20	16	12	8
8-35	9-35	M	6	6				
8-98	9-98	I	3		3			
	11-4	I	4		4			
10-5	11-5	I	5		5			
10-35	11-35	M	13	13				
10-98	11-98	I	6		6			
10-99	11-99	I	7		7			
12-3		II	3				3	
12-4	13-4	I	4				4	
12-8	13-8	I	8		8			
12-35	13-35	M	22	22				
12-98	13-98	I	10		10			
14-5	15-5	II	5			5		
14-15	15-15	I	15		14	1		
14-18	15-18	I	18		18			
	15-19	I	19		19			
14-35	15-35	M	37	37				
14-97	15-97	I	12		8	4		
16-6	17-6	I	6					6
16-8	17-8	II	8			8		
16-26	17-26	I	26		26			
16-35	17-35	M	55	55				
16-99	17-99	I	23		21	2		
18-11	19-11	II	11			11		
18-28	19-28	I	28		26	2		
18-30	19-30	I	30		29	1		
18-32	19-32	I	32		32			
18-35	19-35	M	66	66				
	21-11	I	11					11
20-16	21-16	II	16			16		
20-35	21-35	M	79	79				
20-39	21-39	I	39		37	2		
20-41	21-41	I	41		41			
	21-75	M	4					4***
22-21	23-21	II	21			21		
22-32	23-32	I	32		32			
22-35	23-35	M	100	100				
22-53	23-53	I	53		53			
22-55	23-55	I	55		55			
24-4	25-4	I	56		48	8		
	25-19	I	19					19
24-24	25-24	I	24			12	12	
24-29	25-29	I	29			29		
24-35	25-35	M	128	128				
	25-37	I	37			37		
	25-43	I	43		23	20		
	25-46	I, Twinax	46		40	4		2***
	25-8	Twinax	8					8***
	25-20	N, Coax, Twinax	30		10	13	4**	3***
	25-42	I, Coax	42		38			4*
24-61	25-61	I	61		61			
	25-64	I	64	40	8	10	6	
	25-66	I	66	53	2	11		

* Coax for RG-180 cables
 ** Coax for RG-174, -179, or -316 cables
 *** Twinax for M17/176-00002 cables
 (check factory for other cable applications)

How To Order

Military Nomenclature

DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.



- MS NUMBER SHELL STYLE**
 MS27466 - Wall Mounting Receptacle
 MS27468 - Jam Nut Receptacle
 MS27467 - Grounded Plug
 MS27656 - Wall Mounting Receptacle (back panel mounting)
 MS27505 - Box Mounting Receptacle (back panel) (Class E)

- CLASS**
 E - Inactive for new design. Superseded by Class T.
 G - Environmental resistant Space Grade
 P - Environment - resistant with straight potting cup accessories
 T - Environment - resistant with accessory threads and teeth, except MS27505 (without rear accessory) (Class T not applicable to MS27505)

SHELL SIZE
 9, 11, 13, 15, 17, 19, 21, 23, and 25

- HARDWARE FINISH STANDARD**
 A - Bright cadmium over electroless nickel plate, -85°F to +302°F (-65°C to +150°C)
 B - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)
 F - Electroless nickel, -85°F to +392°F (-65°C to +200°C)

CONTACT ARRANGEMENT
 See pages 22 and 23.

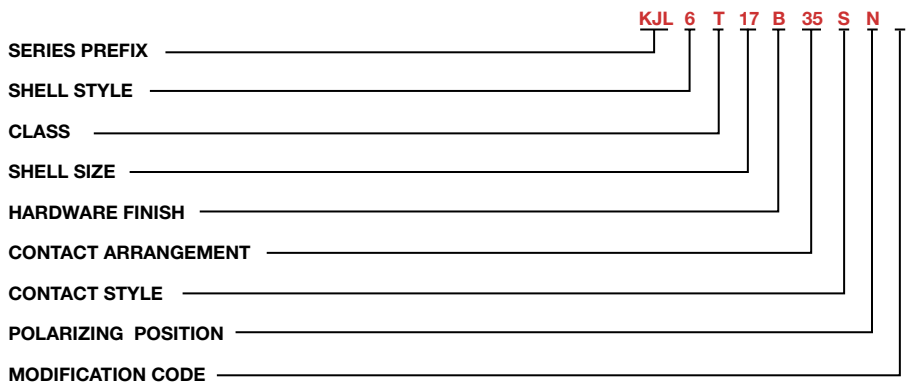
- CONTACT STYLE**
 P - Pin
 S - Socket
 *A - Less Pin Contact
 *B - Less Socket Contact

*Used only when other than power contacts are to be installed (i.e. shielded, thermocouple, etc.)

POLARIZING POSITION
 A,B,C, and D. (No letters required for normal). See page 21.

Note: To order MS connectors less standard power contacts, purchase order must state "Less Contacts"

Cannon Nomenclature



SERIES PREFIX
 KJL - Series I-Scoop proof

- SHELL STYLE**
 0 - Wall mounting receptacle
 3 - Wall mounting receptacle (back panel mounting)
 4 - Thru bulkhead receptacle*
 5 - Box mounting receptacle (back panel mounting)
 6 - Straight plug, grounded
 7 - Jam nut receptacle

- CLASS**
 E - Inactive for new design. Superseded by Class T.
 G - Environmental resistant - Space Grade
 F - Environment - resistant with strain relief accessory
 P - Environment - resistant with straight potting cup accessory
 T - Environment - resistant (without rear accessory) (Class T not applicable to KJL5)

*Consult factory for availability

SHELL SIZE
 9,11,13,15,17,19,21,23 and 25

- HARDWARE FINISH STANDARD**
 A - Bright cadmium over electroless nickel plate, -85°F to +302°F (-65°C to +150°C)
 B - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)
 N - Electroless nickel, -85°F to +392°F (-65°C to +200°C)
 Z - Zinc Nickel, Black
 - - (Dash) When using a finish modification code

CONTACT ARRANGEMENT
 See pages 22 and 23.

- CONTACT STYLE**
 P - Pin
 S - Socket
 PS - Pin-Socket (Shell style 4 only)

POLARIZING POSITION
 N (normal), A, B, C, D. See page 21.

- MODIFICATION CODE**
 L - Less contacts, not stamped on connector
 16 - Outgassed
 NASA space graded connector
 17 - Clinch Nuts installed
 4-40 Size 9-21, 6-32 Size 23-25)
 27 - Outgassed, standard connector
 A296 - Black Zinc Cobalt, RoHS Compliant



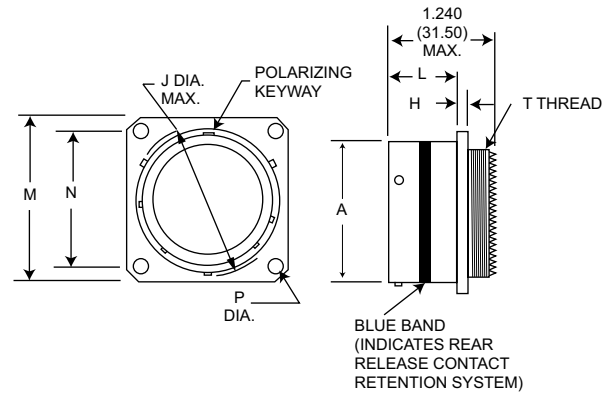
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Dimensions shown in inches (mm)
 Specifications and dimensions subject to change

Wall Mounting Receptacle

MS27466-Style
(MS service class E, P, T)

KJL0



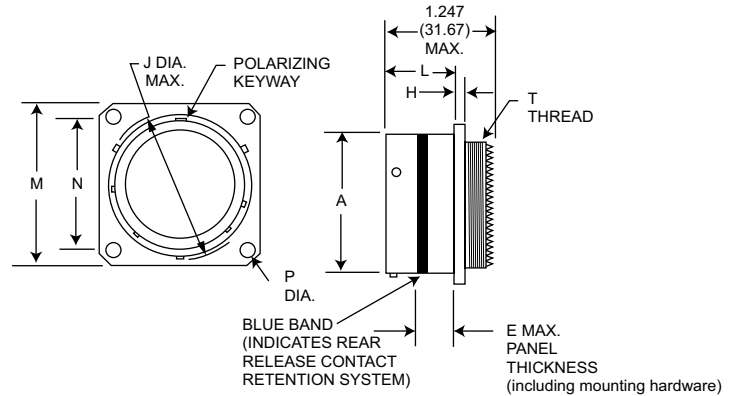
NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	H Max.	J Dia. Max.	L Max.	M Max.	N T.P.	P Dia. Max.	T Thread	Overall Length With Backshells	
									F Cable Clamp	P Potting Max.
9	.573 (14.55)	.100 (2.54)	.662 (16.81)	.632 (16.05)	.958 (24.33)	.719 (18.26)	.138 (3.51)	7/16-28UNEF-2A	1.846 (46.89)	1.451 (36.86)
11	.701 (17.81)	.100 (2.54)	.810 (20.57)	.632 (16.05)	1.051 (26.70)	.812 (20.62)	.138 (3.51)	9/16-24UNEF-2A	1.846 (46.89)	1.451 (36.86)
13	.851 (21.62)	.100 (2.54)	.960 (24.38)	.632 (16.05)	1.145 (29.08)	.906 (23.01)	.138 (3.51)	11/16-24UNEF-2A	1.846 (46.89)	1.451 (36.86)
15	.976 (24.79)	.100 (2.54)	1.085 (27.56)	.632 (16.05)	1.239 (31.47)	.969 (24.61)	.138 (3.51)	13/16-20UNEF-2A	1.846 (46.89)	1.451 (36.86)
17	1.101 (27.97)	.100 (2.54)	1.210 (30.73)	.632 (16.05)	1.332 (33.83)	1.062 (26.97)	.138 (3.51)	15/16-20UNEF-2A	1.966 (49.94)	1.451 (36.86)
19	1.208 (30.68)	.100 (2.54)	1.317 (33.45)	.632 (16.05)	1.458 (37.03)	1.156 (29.36)	.138 (3.51)	1-1/16-18UNEF-2A	1.966 (50.70)	1.451 (36.86)
21	1.333 (33.86)	.130 (3.30)	1.442 (36.63)	.602 (15.29)	1.582 (40.18)	1.250 (31.75)	.138 (3.51)	1-3/16-18UNEF-2A	1.966 (50.70)	1.451 (36.86)
23	1.458 (37.03)	.130 (3.30)	1.567 (39.80)	.602 (15.29)	1.708 (43.38)	1.375 (34.93)	.157 (3.99)	1-5/16-18UNEF-2A	1.966 (50.70)	1.451 (36.86)
25	1.583 (40.21)	.130 (3.30)	1.692 (42.98)	.602 (15.29)	1.832 (46.53)	1.500 (38.10)	.157 (3.99)	1-7/16-18UNEF-2A	1.966 (50.70)	1.451 (36.86)

Wall Mounting Receptacle (Back Panel)

MS27656-Style
(MS service class E, P, T)

KJL3



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

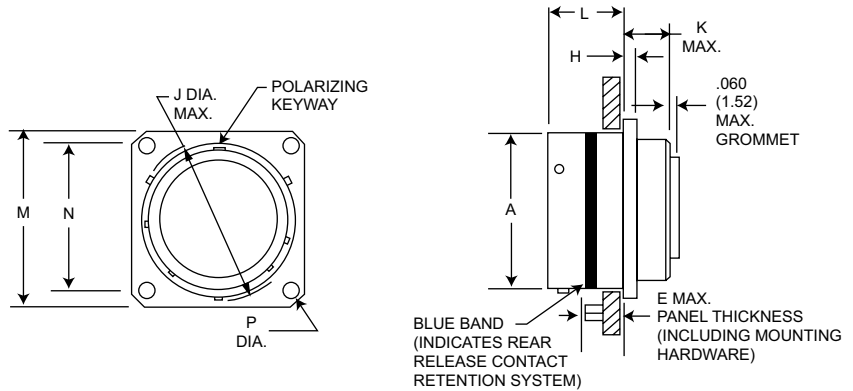
Shell Size	A Dia. Max.	E Max.	H Max.	J Dia. Max.	L Max.	M Max.	N T.P.	P Dia. Max.	T Thread	Overall Length With Backshells	
										F Cable Clamp	P Potting Max.
9	.573 (14.55)	.234 (5.94)	.100 (2.54)	.662 (16.81)	.820 (20.83)	.958 (24.33)	.719 (18.26)	.138 (3.51)	7/16-28UNEF-2A	1.805 (45.85)	1.410 (35.81)
11	.701 (17.81)	.234 (5.94)	.100 (2.54)	.810 (20.57)	.820 (20.83)	1.051 (26.70)	.812 (20.62)	.138 (3.51)	9/16-24UNEF-2A	1.805 (45.85)	1.410 (35.81)
13	.851 (21.62)	.234 (5.94)	.100 (2.54)	.960 (24.38)	.820 (20.83)	1.145 (29.08)	.906 (23.01)	.138 (3.51)	11/16-24UNEF-2A	1.805 (45.85)	1.410 (35.81)
15	.976 (24.79)	.234 (5.94)	.100 (2.54)	1.085 (27.56)	.820 (20.83)	1.239 (31.47)	.969 (24.61)	.138 (3.51)	13/16-20UNEF-2A	1.805 (45.85)	1.410 (35.81)
17	1.101 (27.97)	.234 (5.94)	.100 (2.54)	1.210 (30.73)	.820 (20.83)	1.332 (33.83)	1.062 (26.97)	.138 (3.51)	15/16-20UNEF-2A	1.935 (48.90)	1.410 (35.81)
19	1.208 (30.68)	.234 (5.94)	.100 (2.54)	1.317 (33.45)	.820 (20.83)	1.458 (37.03)	1.156 (29.36)	.138 (3.51)	1-1/16-18UNEF-2A	1.955 (49.66)	1.410 (35.81)
21	1.333 (33.86)	.204 (5.18)	.130 (3.30)	1.442 (36.63)	.790 (20.07)	1.582 (40.18)	1.250 (31.75)	.138 (3.51)	1-3/16-18UNEF-2A	1.955 (49.66)	1.410 (35.81)
23	1.458 (37.03)	.204 (5.18)	.130 (3.30)	1.567 (39.80)	.790 (20.07)	1.708 (43.38)	1.375 (34.93)	.157 (3.99)	1-5/16-18UNEF-2A	1.955 (49.66)	1.410 (35.81)
25	1.583 (40.21)	.193 (4.90)	.130 (3.30)	1.692 (42.98)	.790 (20.07)	1.832 (46.53)	1.500 (38.10)	.157 (3.99)	1-7/16-18UNEF-2A	1.955 (49.66)	1.410 (35.81)

Performance Specifications-Pages 3 and 4. Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32. Contact Arrangements - Pages 22 and 23.

Box Mounting Receptacle (Back Panel)

MS27505E-Style
(MS service class E)

KJL5E



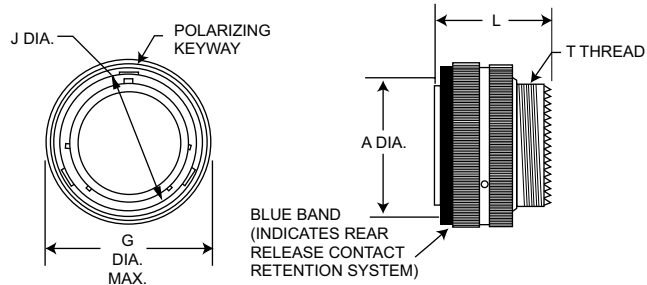
NOTE: This connector does not accommodate backshells.

Shell Size	A Dia. Max.	E Max.	H Max.	J Dia. Max.	K Max.	L Max.	M Max.	N T.P.	P Dia. Max.
9	.573 (14.55)	.234 (5.94)	.100 (2.54)	.662 (16.81)	.219 (5.56)	.820 (20.83)	.958 (24.33)	.719 (18.26)	.138 (3.51)
11	.701 (17.81)	.234 (5.94)	.100 (2.54)	.810 (20.57)	.219 (5.56)	.820 (20.83)	1.051 (26.70)	.812 (20.62)	.138 (3.51)
13	.851 (21.62)	.234 (5.94)	.100 (2.54)	.960 (24.38)	.219 (5.56)	.820 (20.83)	1.145 (29.08)	.906 (23.01)	.138 (3.51)
15	.976 (24.79)	.234 (5.94)	.100 (2.54)	1.085 (27.56)	.219 (5.56)	.820 (20.83)	1.239 (31.47)	.969 (24.61)	.138 (3.51)
17	1.101 (27.97)	.234 (5.94)	.100 (2.54)	1.210 (30.73)	.219 (5.56)	.820 (20.83)	1.332 (33.83)	1.062 (26.97)	.138 (3.51)
19	1.208 (30.68)	.234 (5.94)	.100 (2.54)	1.317 (33.45)	.219 (5.56)	.820 (20.83)	1.458 (37.03)	1.156 (29.36)	.138 (3.51)
21	1.333 (33.86)	.204 (5.18)	.130 (3.30)	1.442 (36.63)	.250 (6.35)	.790 (20.07)	1.582 (40.18)	1.250 (31.75)	.138 (3.51)
23	1.458 (37.03)	.204 (5.18)	.130 (3.30)	1.567 (39.80)	.250 (6.35)	.790 (20.07)	1.708 (43.38)	1.375 (34.93)	.157 (3.99)
25	1.583 (40.21)	.193 (4.90)	.130 (3.30)	1.692 (42.98)	.250 (6.35)	.790 (20.07)	1.832 (46.53)	1.500 (38.10)	.157 (3.99)

Straight Plug Grounded

MS2746-Style
(MS service class E, P, T)

KJL6



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Max.	G Dia. Max.	J Dia. Max.	(Class T) L Max.	T Thread	Overall Length With Backshells	
						F Cable Clamp	P Potting Max.
9	.585 (14.86)	.859 (21.82)	.483 (12.27)	1.234 (31.34)	7/16-28UNEF-2A	1.793 (45.54)	1.671 (42.44)
11	.717 (18.21)	.984 (24.99)	.611 (15.52)	1.234 (31.34)	9/16-24UNEF-2A	1.793 (45.54)	1.671 (42.44)
13	.866 (22.00)	1.156 (29.36)	.760 (19.30)	1.234 (31.34)	11/16-24UNEF-2A	1.793 (45.54)	1.671 (42.44)
15	.990 (25.15)	1.281 (32.54)	.885 (22.48)	1.234 (31.34)	13/16-20UNEF-2A	1.793 (45.54)	1.671 (42.44)
17	1.115 (28.32)	1.406 (35.71)	1.010 (25.65)	1.234 (31.34)	15/16-20UNEF-2A	1.913 (48.59)	1.671 (42.44)
19	1.222 (31.04)	1.516 (38.51)	1.115 (28.32)	1.234 (31.34)	1-1/16-18UNEF-2A	1.943 (49.35)	1.671 (42.44)
21	1.347 (34.21)	1.641 (41.68)	1.240 (31.50)	1.234 (31.34)	1-3/16-18UNEF-2A	1.943 (49.35)	1.766 (44.86)
23	1.472 (37.39)	1.766 (44.86)	1.365 (34.67)	1.234 (31.34)	1-5/16-18UNEF-2A	1.943 (49.35)	1.766 (44.86)
25	1.597 (40.56)	1.891 (48.03)	1.490 (37.85)	1.234 (31.34)	1-7/16-18UNEF-2A	1.943 (49.35)	1.766 (44.86)

Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31 and 32.

Contact Arrangements - Pages 22 and 23.



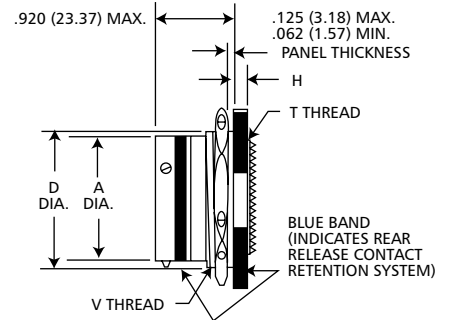
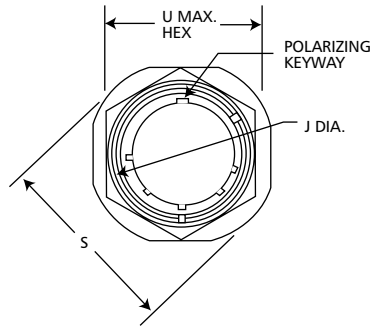
*DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

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

Jam Nut Receptacle

MS27468-Style
(MS service class E,P,T)

KJL7



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	D Max.	H Max.	J Dia. Max.	S Dia. Max.	T Thread	U Max. Hex.	V Thread Class 2A	Overall Length With Backshells	
									F Cable Clamp	P Potting Max.
9	.573 (14.55)	.655 (16.64)	.120 (3.05)	.662 (16.81)	1.204 (30.58)	7/16-28UNEF-2A	.892 (22.66)	11/16-24UNEF	1.846 (46.89)	1.451 (36.86)
11	.701 (17.81)	.755 (19.18)	.120 (3.05)	.810 (20.57)	1.391 (35.33)	9/16-24UNEF-2A	1.017 (25.83)	13/16-24UNEF	1.846 (46.89)	1.451 (36.86)
13	.851 (21.62)	.942 (23.93)	.120 (3.05)	.960 (24.38)	1.516 (35.51)	11/16-24UNEF-2A	1.205 (30.61)	1-20UNEF	1.846 (46.89)	1.451 (36.86)
15	.976 (24.79)	1.066 (27.08)	.120 (3.05)	1.085 (27.56)	1.641 (41.68)	13/16-20UNEF-2A	1.329 (33.76)	1-1/8-18UNEF	1.846 (46.89)	1.451 (36.86)
17	1.101 (27.97)	1.191 (30.25)	.120 (3.05)	1.210 (30.73)	1.766 (44.86)	15/16-20UNEF-2A	1.455 (36.96)	1-1/4-18UNEF	1.966 (49.94)	1.451 (36.86)
19	1.208 (30.68)	1.316 (33.43)	.151 (3.84)	1.317 (33.45)	1.954 (49.63)	1-1/16-18UNEF-2A	1.579 (40.11)	1-3/8-18UNEF	1.996 (50.70)	1.451 (36.86)
21	1.333 (33.86)	1.441 (36.60)	.151 (3.84)	1.442 (36.63)	2.078 (52.78)	1-3/16-18UNEF-2A	1.705 (43.31)	1-1/2-18UNEF	1.996 (50.70)	1.451 (36.86)
23	1.458 (37.03)	1.566 (39.78)	.151 (3.84)	1.567 (39.80)	2.204 (55.98)	1-5/16-18UNEF-2A	1.829 (46.46)	1-5/8-18UNEF	1.996 (50.70)	1.451 (36.86)
25	1.583 (40.21)	1.691 (42.95)	.151 (3.84)	1.692 (42.98)	2.328 (59.13)	1-7/16-18UNEF-2A	20.17 (51.23)	1-3/4-18UNS	1.996 (50.70)	1.451 (36.86)

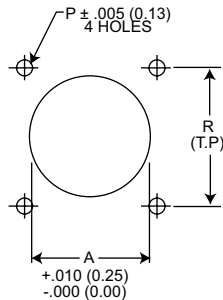
Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

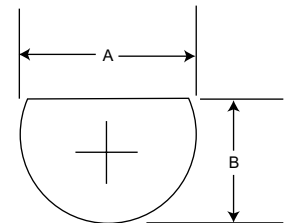
Contact Arrangements - Pages 22, 23.

Panel Cutouts

Flange Mounted Receptacles



Jam Nut Receptacles



Shell Size	A Dia.	P Dia.	(Class T)		Mtg. Screw	Shell Size	A		B	
			R				+ .010 (.25) / - .000 (.00)	+ .000 (.00) / - .010 (.25)		
9	.665 (16.89)	.128 (3.25)	.719 (18.26)		#4	9	.700 (17.78)	.670 (17.02)		
11	.812 (20.62)	.128 (3.25)	.812 (20.62)		#4	11	.825 (20.96)	.771 (19.58)		
13	.965 (24.51)	.128 (3.25)	.906 (23.01)		#4	13	1.010 (25.65)	.955 (24.26)		
15	1.085 (27.55)	.128 (3.25)	.969 (24.61)		#4	15	1.135 (28.83)	1.085 (27.56)		
17	1.250 (31.75)	.128 (3.25)	1.062 (26.97)		#4	17	1.260 (32.00)	1.210 (30.73)		
19	1.322 (33.57)	.128 (3.25)	1.156 (29.36)		#4	19	1.385 (35.18)	1.335 (33.91)		
21	1.447 (36.75)	.128 (3.25)	1.250 (31.75)		#4	21	1.510 (38.35)	1.460 (37.08)		
23	1.569 (39.85)	.154 (3.91)	1.375 (34.93)		#6	23	1.635 (41.53)	1.585 (40.26)		
25	1.703 (43.25)	.150 (3.81)	1.500 (38.10)		#6	25	1.760 (44.70)	1.710 (43.43)		

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

www.ittcannon.com

*DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.



How To Order

Military Nomenclature

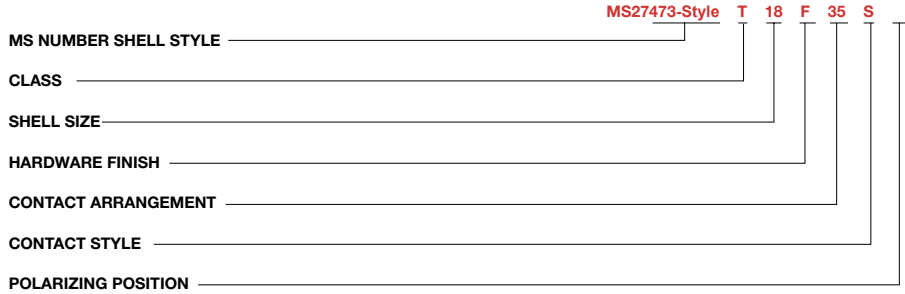
DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

MS NUMBER SHELL STYLE

- MS27472 - Wall Mounting Receptacle
- MS27473 - Straight Plug
- MS27474 - Jam Nut Receptacle
- MS27484 - Grounded Plug
- MS27497 - Wall Mounting Receptacle (back panel mounting)
- MS27513 - Box Mounting Receptacle
- MS27499 - Box Mounting Receptacle (Class E)
- MS27508 - Box Mounting (back panel mounting) (Class E)

CLASS

- E - Environment - resistant with rear accessory (without strain relief)
- G - Environmental - resistant wall mount and jam nut receptacle and plug types. Space Grade.
- P - Environment - resistant with straight potting cup accessories
- T - Environment - resistant (without rear accessory). (Class T not applicable to MS27499, MS27513, and MS27508.)



SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, 24.

HARDWARE FINISH STANDARD
 A - Bright cadmium over electroless nickel plate, - 85°F to + 302°F (- 65°C to + 150°C)
 B - Olive drab cadmium over electroless nickel plate, - 85°F to + 347°F (- 65°C to + 175°C)
 F - Electroless nickel, - 85°F to + 392°F (-65°C to + 200°C)

CONTACT ARRANGEMENT
See pages 22 and 23.

CONTACT STYLE
 P - Pin
 S - Socket
 *A - Less Pin Contact
 *B - Less Socket Contact

*Used only when other than power contacts are to be installed (i.e. shielded, thermocouple, etc.)

POLARIZING POSITION
A, B, C, and D (no letter required for normal).
See page 21.

Note: To order MS connectors less standard power contacts, purchase order must state "Less Contacts".

ITT Nomenclature

SERIES PREFIX

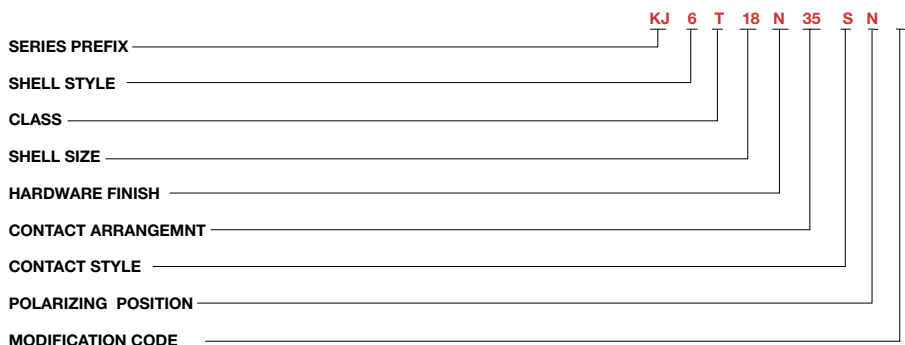
- KJ - Series II - Low Profile

SHELL STYLE

- 0 - Wall mounting receptacle
- 2 - Box mounting receptacle
- 3 - Wall mounting receptacle (back panel mounting)
- 5 - Box mounting receptacle (back panel mounting)
- 6 - Straight plug
- G6 - Straight plug, grounded
- 7 - Jam nut receptacle

CLASS

- E - Environment - resistant with rear accessory (without strain relief)
- F - Environment - resistant with strain relief accessory
- G - Environmental - resistant wall mount and jam nut receptacle and plug type. Space Grade.
- P - Environment - resistant with straight potting cup accessory
- R - Environment - resistant with full grommet seal without rear accessory; shell styles 2 and 5 only
- T - Environment - resistant (without rear accessory). (Class T not applicable to KJ2E, KJ2R, KJ5E and KJ5R.)



Note KJ supplied with exact complement of contacts.

SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, and 24.

HARDWARE FINISH STANDARD
 A - Bright cadmium over electroless nickel plate, - 85°F to + 302°F (- 65°C to + 150°C)
 B - Olive drab cadmium over electroless nickel plate, - 85°F to + 347°F (- 65°C to + 175°C)
 N - Electroless nickel, - 85°F to + 392°F (-65°C to + 200°C)
 Z - Zinc Nickel, Black
 - - (Dash) When using a finish modification code

CONTACT ARRANGEMENT
See pages 22 and 23.

CONTACT STYLE
 P - Pin
 S - Socket

POLARIZING POSITION
N (normal), A, B, C, D, see page 21.

MODIFICATION CODE
 L - Less contacts, not stamped on connector
 16 - Outgassed
 NASA space graded connector
 17 - Clinch Nuts installed
 (4-40 Size 9-21)
 27 - Outgassed, standard connector
 A296 - Black Zinc Cobalt, RoHS Compliant



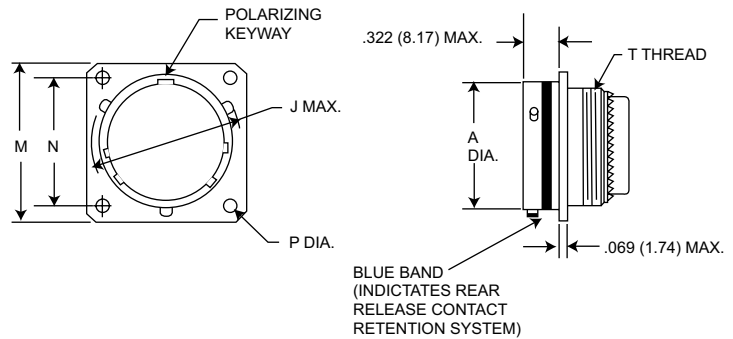
**DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.*

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

Wall Mounting Receptacle

MS27472-Style
(MS service class E, P, T)

KJ0



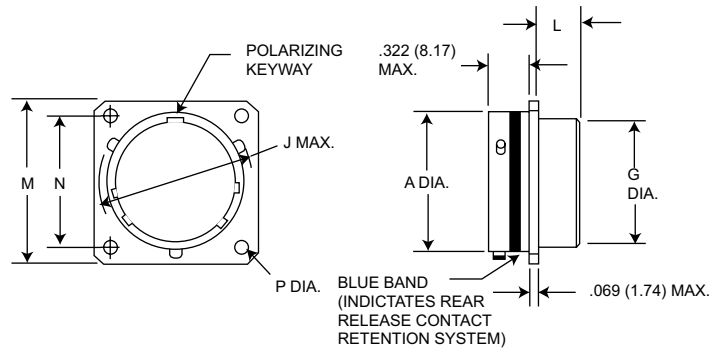
NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	J Dia. Max.	M Max.	N T.P.	P +.005 (0.13) - .010 (0.25)	T Thread	Overall length With Backshells		
							E Straight	F Cable Clamp	P Potting Max.
8	.474 (12.04)	.563 (14.30)	.828 (21.03)	.594 (15.09)	.125 (3.18)	7/16-28UNEF-2A	.850 (21.59)	1.555 (39.50)	1.020 (25.91)
10	.591 (15.01)	.680 (17.27)	.954 (24.23)	.719 (18.26)	.125 (3.18)	9/16-24UNEF-2A	.850 (21.59)	1.555 (39.50)	1.020 (25.91)
12	.751 (19.08)	.859 (21.82)	1.047 (26.59)	.812 (20.62)	.125 (3.18)	11/16-24UNEF-2A	.850 (21.59)	1.555 (39.50)	1.020 (25.91)
14	.876 (22.25)	.984 (24.99)	1.141 (28.98)	.906 (23.01)	.125 (3.18)	13/16-20UNEF-2A	.850 (21.59)	1.790 (45.47)	1.020 (25.91)
16	1.001 (25.43)	1.108 (28.14)	1.234 (31.34)	.969 (24.61)	.125 (3.18)	15/16-20UNEF-2A	.850 (21.59)	1.790 (45.47)	1.020 (25.91)
18	1.126 (28.60)	1.233 (31.32)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)	1-1/16-18UNEF-2A	.850 (21.59)	1.790 (45.47)	1.020 (25.91)
20	1.251 (31.78)	1.358 (34.49)	1.453 (36.91)	1.156 (27.36)	.125 (3.18)	1-3/16-18UNEF-2A	.850 (21.59)	1.790 (45.47)	1.020 (25.91)
22	1.376 (34.95)	1.483 (37.67)	1.578 (39.08)	1.250 (31.76)	.125 (3.18)	1-5/16-18UNEF-2A	.850 (21.59)	1.930 (49.02)	1.020 (25.91)
24	1.501 (38.13)	1.610 (40.89)	1.703 (43.26)	1.375 (34.92)	.152 (3.86)	1-7/16-18UNEF-2A	.850 (21.59)	1.900 (48.26)	1.080 (27.43)

Box Mounting Receptacle

MS27499E-Style
(MS service class E)

KJ2E



NOTE: This connector does not accommodate backshells

Shell Size	A Dia. Max.	G Dia. Max.	J Dia. Max.	L Max.	M Max.	N T.P.	P +.005 (0.13) - .010 (0.25)
8	.474 (12.04)	.421 (10.69)	.563 (14.30)	.312 (7.92)	.828 (21.03)	.594 (15.09)	.125 (3.18)
10	.591 (15.01)	.542 (13.77)	.680 (17.27)	.312 (7.92)	.954 (24.23)	.719 (18.26)	.125 (3.18)
12	.751 (19.08)	.667 (16.94)	.859 (21.82)	.312 (7.92)	1.047 (26.59)	.812 (20.62)	.125 (3.18)
14	.876 (22.25)	.791 (20.09)	.984 (24.99)	.312 (7.92)	1.141 (28.98)	.906 (23.01)	.125 (3.18)
16	1.001 (25.43)	.916 (23.27)	1.108 (28.14)	.312 (7.92)	1.234 (31.34)	.969 (24.61)	.125 (3.18)
18	1.126 (28.60)	1.034 (26.26)	1.233 (31.32)	.312 (7.92)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)
20	1.251 (31.78)	1.158 (29.41)	1.358 (34.49)	.312 (7.92)	1.453 (36.81)	1.156 (27.36)	.125 (3.18)
22	1.376 (33.95)	1.283 (32.59)	1.483 (37.67)	.312 (7.92)	1.578 (40.08)	1.250 (31.75)	.125 (3.18)
24	1.501 (38.13)	1.408 (35.76)	1.610 (40.89)	.312 (7.92)	1.703 (43.26)	1.375 (34.93)	.152 (3.86)

Performance Specifications - Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.

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

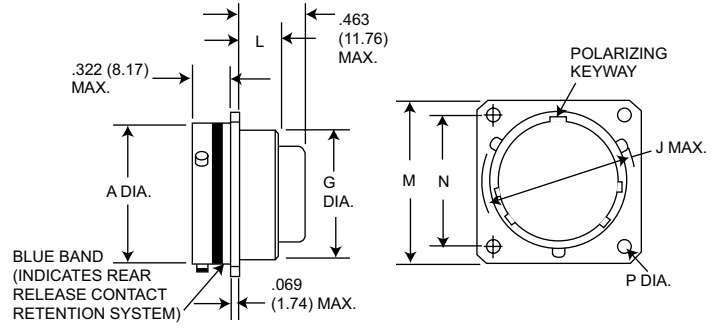
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Box Mounting Receptacle

MS27513E-Style
(MS service class E)

KJ2R



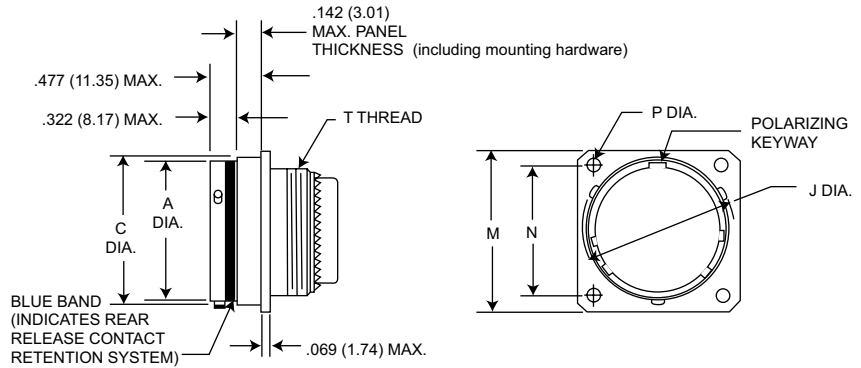
NOTE: This connector does not accommodate backshells

Shell Size	A Dia. Max.	G Dia. Max.	J Dia. Max.	L Max.	M Max.	N T.P.	P +.005 (0.13) -.010 (0.25)
8	.474 (12.04)	.421 (10.69)	.563 (14.30)	.312 (7.92)	.828 (21.03)	.594 (15.09)	.125 (3.18)
10	.591 (15.01)	.542 (13.77)	.680 (17.27)	.312 (7.92)	.954 (24.23)	.719 (18.26)	.125 (3.18)
12	.751 (19.08)	.667 (16.94)	.859 (21.82)	.312 (7.92)	1.047 (26.59)	.812 (20.62)	.125 (3.18)
14	.876 (22.25)	.791 (20.09)	.984 (24.99)	.312 (7.92)	1.141 (28.98)	.906 (23.01)	.125 (3.18)
16	1.001 (25.43)	.916 (23.27)	1.108 (28.14)	.312 (7.92)	1.234 (31.34)	.969 (24.61)	.125 (3.18)
18	1.126 (28.60)	1.034 (26.26)	1.233 (31.32)	.312 (7.92)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)
20	1.251 (31.78)	1.158 (29.41)	1.358 (34.49)	.312 (7.92)	1.453 (36.81)	1.156 (27.36)	.125 (3.18)
22	1.376 (33.95)	1.283 (32.59)	1.483 (27.67)	.312 (7.92)	1.578 (40.08)	1.250 (31.75)	.125 (3.18)
24	1.501 (38.13)	1.408 (35.76)	1.610 (40.89)	.312 (7.92)	1.703 (43.26)	1.375 (34.93)	.152 (3.85)

Wall Mounting Receptacle

MS27497-Style
(MS service class E, P, T)

KJ3



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	C Dia. Max.	J Dia. Max.	M Max.	N T.P.	P +.005 (0.13) -.010 (0.25)	T Thread	Overall Length With Backshells		
								E Straight	F Cable Clamp	P Potting Max.
8	.474 (12.04)	.522 (13.26)	.563 (14.30)	.828 (21.03)	.594 (15.09)	.125 (3.18)	7/16-28UNEF-2A	.855 (21.72)	1.570 (39.88)	1.020 (25.91)
10	.591 (15.01)	.639 (16.23)	.680 (17.27)	.954 (24.23)	.719 (18.26)	.125 (3.18)	9/16-24UNEF-2A	.855 (21.72)	1.570 (39.88)	1.020 (25.91)
12	.751 (19.08)	.808 (20.52)	.859 (21.82)	1.047 (26.59)	.812 (20.62)	.125 (3.18)	11/16-24UNEF-2A	.855 (21.72)	1.570 (39.88)	1.020 (25.91)
14	.876 (22.25)	.935 (23.75)	.984 (24.99)	1.141 (28.98)	.906 (23.01)	.125 (3.18)	13/16-20UNEF-2A	.855 (21.72)	1.780 (45.21)	1.020 (25.91)
16	1.001 (25.43)	1.058 (26.87)	1.108 (28.14)	1.234 (31.34)	.969 (24.61)	.125 (3.18)	15/16-20UNEF-2A	.855 (21.72)	1.780 (45.21)	1.020 (25.91)
18	1.126 (28.60)	1.183 (30.05)	1.233 (31.32)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)	1-1/16-18UNEF-2A	.855 (21.72)	1.780 (45.21)	1.020 (25.91)
20	1.251 (31.78)	1.308 (33.22)	1.358 (34.49)	1.453 (36.91)	1.156 (29.36)	.125 (3.18)	1-3/16-18UNEF-2A	.855 (21.72)	1.780 (45.21)	1.020 (25.91)
22	1.376 (33.95)	1.433 (36.40)	1.483 (37.67)	1.578 (40.08)	1.250 (31.75)	.125 (3.18)	1-5/16-18UNEF-2A	.855 (21.72)	1.960 (49.78)	1.020 (25.91)
24	1.501 (38.13)	1.568 (39.83)	1.610 (40.89)	1.703 (43.26)	1.375 (34.93)	.152 (3.86)	1-7/16-18UNEF-2A	.855 (21.72)	1.960 (49.78)	1.080 (27.43)

Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.



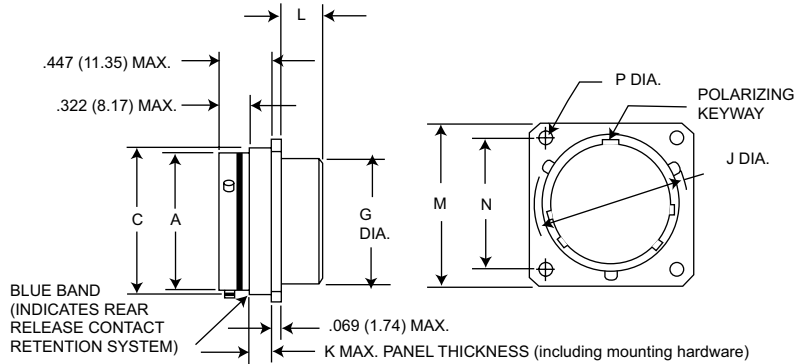
***DISCLAIMER:** Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

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

Box Mounting Receptacle (Back Panel)

(MS service class E)
MS27508E-Style
(MS service class E)

KJ5E



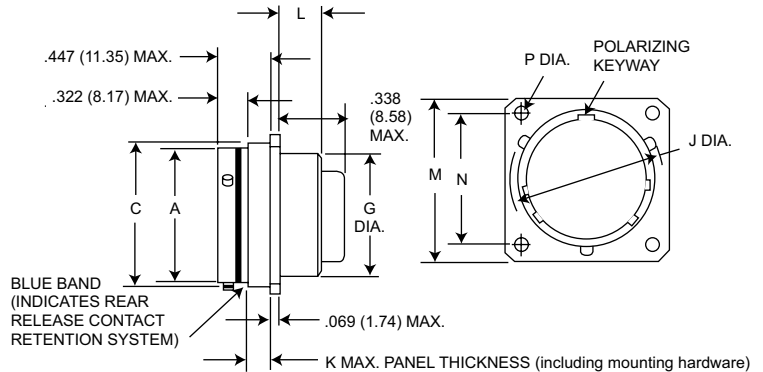
NOTE: This connector does not accommodate backshells

Shell Size	A Dia. Max.	C Dia. Max.	G Dia. Max.	J Dia. Max.	K Max.	L Max.	M Max.	N T.P	P +.005 (0.13) -0.010 (0.25)
8	.474 (12.04)	.522 (13.26)	.421 (10.69)	.563 (14.30)	.147 (3.73)	.185 (4.70)	.828 (21.03)	.594 (15.09)	.125 (3.18)
10	.591 (15.01)	.639 (16.23)	.542 (13.77)	.680 (17.27)	.152 (3.86)	.185 (4.70)	.954 (24.23)	.719 (18.26)	.125 (3.18)
12	.751 (19.08)	.808 (20.52)	.667 (16.94)	.859 (21.82)	.152 (3.86)	.185 (4.70)	1.047 (26.59)	.812 (20.62)	.125 (3.18)
14	.876 (22.25)	.935 (23.75)	.791 (20.09)	.984 (24.99)	.152 (3.86)	.185 (4.70)	1.141 (28.98)	.906 (23.01)	.125 (3.18)
16	1.001 (25.42)	1.058 (26.87)	.916 (23.27)	1.108 (28.14)	.152 (3.86)	.185 (4.70)	1.234 (31.24)	.969 (24.61)	.125 (3.18)
18	1.126 (28.60)	1.183 (30.05)	1.034 (31.34)	1.233 (31.32)	.152 (3.86)	.185 (4.70)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)
20	1.251 (31.77)	1.308 (33.22)	1.158 (34.52)	1.358 (34.49)	.179 (4.55)	.185 (4.70)	1.453 (36.91)	1.156 (29.36)	.125 (3.18)
22	1.376 (34.95)	1.433 (36.40)	1.283 (32.59)	1.483 (37.67)	.179 (4.55)	.185 (4.70)	1.578 (40.08)	1.250 (31.75)	.125 (3.18)
24	1.501 (38.13)	1.568 (39.83)	1.408 (35.76)	1.610 (40.89)	.169 (4.29)	.185 (4.70)	1.703 (43.66)	1.375 (34.92)	.152 (3.86)

Box Mounting Receptacle (Back Panel)

No MS part number

KJ5R



NOTE: This connector does not accommodate backshells

Shell Size	A Dia. Max.	C Dia. Max.	G Dia. Max.	J Dia. Max.	K Max.	L Max.	M Max.	N T.P	P +.005 (0.13) -0.010 (0.25)
8	.474 (12.04)	.522 (13.26)	.421 (10.69)	.563 (14.30)	.147 (3.73)	.185 (4.70)	.828 (21.03)	.594 (15.09)	.125 (3.18)
10	.591 (15.01)	.639 (16.23)	.542 (13.77)	.680 (17.27)	.152 (3.86)	.185 (4.70)	.954 (24.23)	.719 (18.26)	.125 (3.18)
12	.751 (19.08)	.808 (20.52)	.667 (16.94)	.859 (21.82)	.152 (3.86)	.185 (4.70)	1.047 (26.59)	.812 (20.62)	.125 (3.18)
14	.876 (22.25)	.935 (23.75)	.791 (20.09)	.984 (24.99)	.152 (3.86)	.185 (4.70)	1.141 (28.98)	.906 (23.01)	.125 (3.18)
16	1.001 (25.42)	1.058 (26.87)	.916 (23.27)	1.108 (28.14)	.152 (3.86)	.185 (4.70)	1.234 (31.24)	.969 (24.61)	.125 (3.18)
18	1.126 (28.60)	1.183 (30.05)	1.034 (31.34)	1.233 (31.32)	.152 (3.86)	.185 (4.70)	1.328 (33.73)	1.062 (26.97)	.125 (3.18)
20	1.251 (31.77)	1.308 (33.22)	1.158 (34.52)	1.358 (34.49)	.179 (4.55)	.185 (4.70)	1.453 (36.91)	1.156 (29.36)	.125 (3.18)
22	1.376 (34.95)	1.433 (36.40)	1.283 (32.59)	1.483 (37.67)	.179 (4.55)	.185 (4.70)	1.578 (40.08)	1.250 (31.75)	.125 (3.18)
24	1.501 (38.13)	1.568 (39.83)	1.408 (35.76)	1.610 (40.89)	.169 (4.29)	.185 (4.70)	1.703 (43.66)	1.375 (34.92)	.152 (3.86)

Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.

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

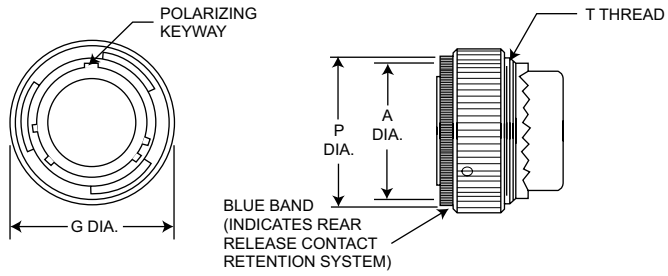
*DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.



Straight Plug

MS27473-Style
(MS service class E, P, T)

KJ6



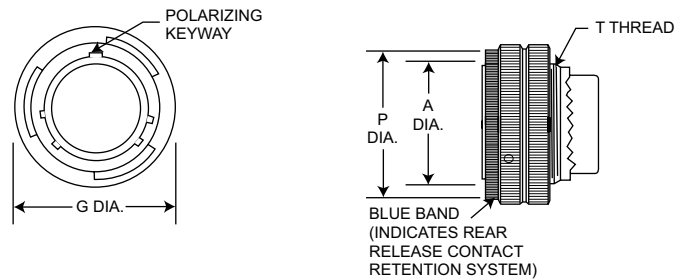
NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	G Dia. Max.	P Dia. Max.	T Thread	Overall Length With Backshells		
					E Straight	F Cable Clamp	P Potting Max.
8	.485 (12.32)	.749 (19.02)	.630 (16.00)	7/16-28UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
10	.606 (15.39)	.858 (21.79)	.752 (19.10)	9/16-24UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
12	.765 (19.43)	1.030 (26.16)	.925 (23.50)	11/16-24UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
14	.890 (22.61)	1.155 (29.34)	1.050 (26.67)	13/16-20UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
16	1.014 (25.76)	1.280 (32.51)	1.172 (29.77)	15/16-20UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
18	1.140 (28.96)	1.405 (35.69)	1.304 (33.12)	1-1/16-18UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
20	1.264 (32.11)	1.530 (38.86)	1.435 (36.45)	1-3/16-18UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
22	1.389 (35.28)	1.640 (40.66)	1.560 (39.62)	1-5/16-18UNEF-2A	1.026 (26.06)	1.930 (49.02)	1.020 (25.91)
24	1.514 (38.46)	1.765 (44.83)	1.688 (42.88)	1-7/16-18UNEF-2A	1.104 (28.04)	1.930 (49.02)	1.080 (27.43)

Straight Plug Grounded

MS27484-Style
(MS service class E, P, T)

KJG6



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	A Dia. Max.	G Dia. Max.	P Dia. Max.	T Thread	Overall Length With Backshells		
					E Straight	F Cable Clamp	P Potting Max.
8	.485 (12.32)	.749 (19.02)	.630 (16.00)	7/16-28UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
10	.606 (15.39)	.858 (21.79)	.752 (19.10)	9/16-24UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
12	.765 (19.43)	1.030 (26.16)	.925 (23.50)	11/16-24UNEF-2A	1.026 (26.06)	1.555 (39.50)	1.020 (25.91)
14	.890 (22.61)	1.155 (29.34)	1.050 (26.67)	13/16-20UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
16	1.014 (25.76)	1.280 (32.51)	1.172 (29.77)	15/16-20UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
18	1.140 (28.96)	1.405 (35.69)	1.304 (33.12)	1-1/16-18UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
20	1.264 (32.11)	1.530 (38.86)	1.435 (36.45)	1-3/16-18UNEF-2A	1.026 (26.06)	1.790 (45.47)	1.020 (25.91)
22	1.389 (35.28)	1.640 (40.66)	1.560 (39.62)	1-5/16-18UNEF-2A	1.026 (26.06)	1.930 (49.02)	1.020 (25.91)
24	1.514 (38.46)	1.765 (44.83)	1.688 (42.88)	1-7/16-18UNEF-2A	1.104 (28.04)	1.930 (49.02)	1.080 (27.43)

Performance Specifications - Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.



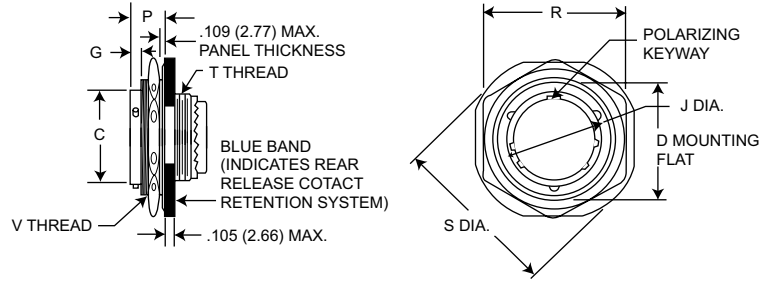
*DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

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

Jam Nut Receptacle

MS27474-Style
(MS service class E, P, T)

KJ7



NOTE: For backshell dimensions and configurations, see pages 29 and 31.

Shell Size	C Dia. Max.	D Max.	G Max.	J Max.	P Max.	R Max. Hex.	S Dia. Max.	T Thread	V Thread	Overall length With Backshells		
										E Straight	F Cable Clamp	P Potting Max.
8	.474 (12.04)	.818 (20.78)	.145 (3.68)	.563 (14.30)	.443 (11.25)	1.079 (27.41)	1.381 (35.08)	7/16-28UNEF-2A	7/8-20UNEF-2A	.840 (21.34)	1.555 (39.50)	1.020 (25.91)
10	.591 (15.01)	.942 (23.93)	.145 (3.68)	.680 (17.27)	.443 (11.25)	1.205 (30.61)	1.506 (38.25)	9/16-24UNEF-2A	1-20UNEF-2A	.840 (21.34)	1.555 (39.50)	1.020 (25.91)
12	.751 (19.08)	1.066 (27.08)	.145 (3.68)	.859 (21.82)	.443 (11.25)	1.329 (33.76)	1.631 (41.43)	11/16-24UNEF-2A	1-1/8-18UNEF-2A	.840 (21.34)	1.555 (39.50)	1.020 (25.91)
14	.876 (22.25)	1.191 (30.25)	.145 (3.68)	.984 (24.99)	.443 (11.25)	1.455 (36.96)	1.756 (44.60)	13/16-20UNEF-2A	1-1/4-18UNEF-2A	.840 (21.34)	1.790 (45.47)	1.020 (25.91)
16	1.001 (25.43)	1.321 (33.55)	.145 (3.68)	1.108 (28.14)	.443 (11.25)	1.579 (40.11)	1.944 (49.38)	1-15/16-20UNEF-2A	1-3/8-18UNEF-2A	.840 (21.34)	1.790 (45.47)	1.020 (25.91)
18	1.126 (28.60)	1.441 (36.60)	.145 (3.68)	1.233 (31.32)	.443 (11.25)	1.705 (43.31)	2.022 (51.36)	1-1/16-18UNEF-2A	1-1/2-18UNEF-2A	.840 (21.34)	1.790 (45.47)	1.020 (25.91)
20	1.251 (31.78)	1.566 (39.78)	.171 (4.34)	1.358 (34.49)	.469 (11.91)	1.829 (46.46)	2.147 (54.53)	1-3/16-18UNEF-2A	1-5/8-18UNEF-2A	.840 (21.34)	1.790 (45.47)	1.020 (25.91)
22	1.376 (33.95)	1.691 (42.95)	.171 (4.34)	1.483 (37.67)	.469 (11.91)	2.017 (51.23)	2.271 (57.68)	1-5/16-18UNEF-2A	1-3/4-18UNEF-2A	.840 (21.34)	1.930 (49.02)	1.020 (25.91)
24	1.501 (38.13)	1.816 (46.13)	.171 (4.34)	1.610 (40.89)	.469 (11.91)	2.142 (54.41)	2.396 (60.86)	1-7/16-18UNEF-2A	1-7/8-18UNEF-2A	.860 (21.84)	1.900 (48.26)	1.080 (27.43)

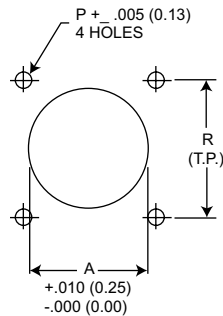
Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.

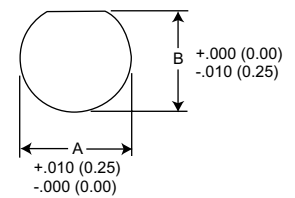
Panel Cutouts

Flange Mounted Receptacle



Shell Size	A Dia.	P Dia.	R	Mfg. Screw
8	.610 (15.49)	.125 (3.18)	.594 (15.09)	#4
10	.734 (18.64)	.125 (3.18)	.719 (18.26)	#4
12	.860 (21.84)	.125 (3.18)	.812 (20.62)	#4
14	.985 (25.02)	.125 (3.18)	.906 (23.01)	#4
16	1.110 (28.19)	.125 (3.18)	.969 (24.61)	#4
18	1.234 (31.34)	.125 (3.18)	1.062 (26.97)	#4
20	1.360 (35.54)	.125 (3.18)	1.156 (29.36)	#4
22	1.484 (37.69)	.125 (3.18)	1.250 (31.75)	#4
24	1.611 (40.92)	.152 (3.86)	1.375 (34.93)	#6

Jam Nut Receptacle



Shell Size	A Dia.	B Dia.
8	.885 (22.48)	.830 (21.08)
10	1.010 (25.65)	.955 (24.26)
12	1.135 (28.82)	1.085 (27.56)
14	1.260 (32.00)	1.210 (30.73)
16	1.385 (35.18)	1.335 (33.91)
18	1.510 (38.35)	1.460 (37.08)
20	1.635 (41.53)	1.585 (40.26)
22	1.760 (44.70)	1.710 (43.43)
24	1.885 (47.88)	1.835 (46.61)

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

www.ittcannon.com

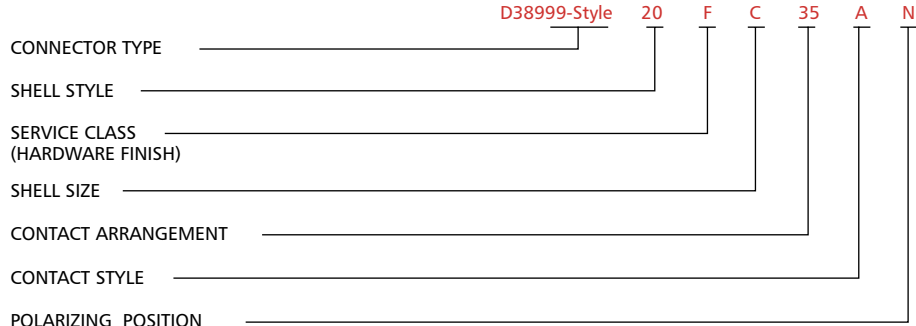
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How To Order

Military Nomenclature

DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.



CONNECTOR TYPE
D38999-Style Series III

SHELL STYLE
D38999/20-Style - Wall mount receptacle
D38999/24-Style - Jam nut receptacle
D38999/26-Style - Straight Plug, Grounded

SERVICE CLASS
(Hardware Finish)
F - Electroless nickel - 85°F to +392°F (-65°C to +200°C)
G - Electroless nickel plated. Space Grade.
W - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)

SHELL SIZE

A	B	C	D	E	F	G	H	J	Military Designation
9	11	13	15	17	19	21	23	25	Cannon Designation

CONTACT ARRANGEMENT
See pages 22, 23.

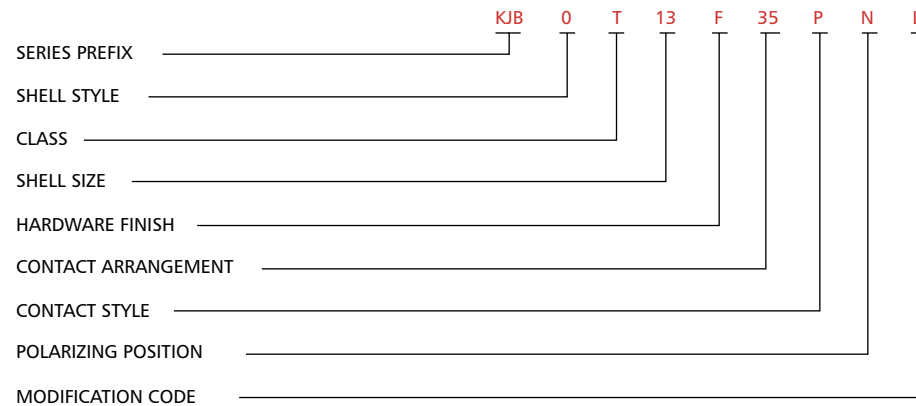
CONTACT STYLE
P - Pin contacts
S - Socket contact
A - Less Pin contacts*
B - Less Socket contact*

* Used only when other than power contacts are to be installed (i.e., shielded, thermocouple, etc.)

POLARIZING POSITION
N (normal), A, B, C, D, E. See page 19.

Note: To order MS connectors less standard power contacts, purchase order must state "Less Contacts".

Cannon Nomenclature



SERIES PREFIX
KJA/KJB* - Series III - Scoop proof, threaded coupling

SHELL STYLE
0 - Wall mount receptacle
5 - Box mount receptacle*
6 - Straight plug
7 - Jam nut receptacle

CLASS
T - Environment-resistant (without rear accessory)

* Consult factory for availability

SHELL SIZE

9	11	13	15	17	19	21	23	25	Cannon Designation
A	B	C	D	E	F	G	H	J	Military Designation

HARDWARE FINISH
F - Electroless nickel, - 85°F to +392°F (-65°C to +200°C)
G - Electroless nickel plated. Space Grade.
W - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)
Z - Zinc Nickel, Black
- - (Dash) When using a finish modification code

CONTACT ARRANGEMENTS
See pages 22 and 23.

CONTACT STYLE
P -Pin contacts
S -Socket contacts

POLARIZING POSITION
N (normal) A, B, C, D, E. See page 19.

MODIFICATION CODE
L - Less contacts, not stamped on connector
16 - Outgassed NASA space graded connector
17 - Clinch Nuts installed (4-40 Size 9-21, 6-32 Size 23-25)
27 - Outgassed, standard connector A296 Black Zinc Cobalt, RoHS Compliant

See page 26 for ordering PC Standoff Contacts using modification codes.



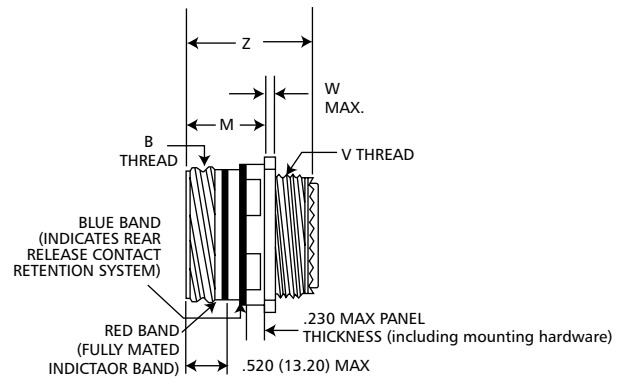
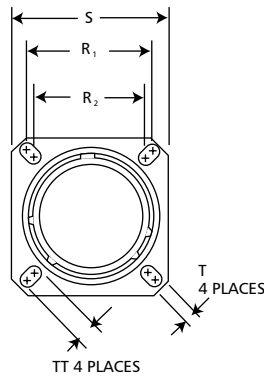
**DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.*

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

Wall Mount Receptacle

D38999/20-Style

KJA0/KJB0

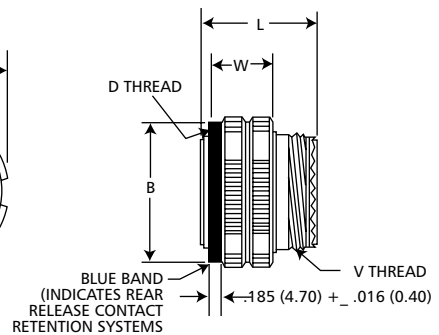
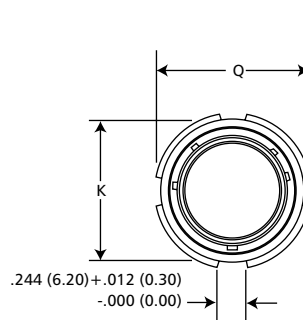


Shell Size	MS Shell size Code	B Thread Class 2A (Plated)	M +.000 (.000) - .005 (.130)	R 1	R 2	S + .012 (.300)	T +.004 (.100) - .002 (.050)	TT +.004 (.100) - .002 (.050)	Metric V Thread (Plated)	W Max.	Z +.005 (.130) - .010 (.250)
9	A	.6250-0.1P-0.3L-TS	.820 (20.83)	.719 (18.26)	.594 (15.09)	.938 (23.83)	.128 (3.25)	.216 (5.49)	M12X1-6g0.100R	.098 (2.50)	1.235 (31.36)
11	B	.7500-0.1P-0.3L-TS	.820 (20.83)	.812 (20.62)	.719 (18.26)	1.031 (26.19)	.128 (3.25)	.194 (4.93)	M15X1-6g0.100R	.098 (2.50)	1.235 (31.36)
13	C	.8750-0.1P-0.3L-TS	.820 (20.83)	.906 (23.01)	.812 (20.62)	1.125 (28.58)	.128 (3.25)	.194 (4.93)	M18X1-6g0.100R	.098 (2.50)	1.235 (31.36)
15	D	1.0000-0.1P-0.3L-TS	.820 (20.83)	.969 (24.61)	.906 (23.01)	1.219 (30.96)	.128 (3.25)	.173 (4.39)	M22X1-6g0.100R	.098 (2.50)	1.235 (31.36)
17	E	1.1875-0.1P-0.3L-TS	.820 (20.83)	1.062 (26.97)	.969 (24.61)	1.312 (33.32)	.128 (3.25)	.194 (4.93)	M25X1-6g0.100R	.098 (2.50)	1.235 (31.36)
19	F	1.2500-0.1P-0.3L-TS	.820 (20.83)	1.156 (29.36)	1.062 (26.97)	1.438 (36.53)	.128 (3.25)	.194 (4.93)	M28X1-6g0.100R	.098 (2.50)	1.235 (31.36)
21	G	1.3750-0.1P-0.3L-TS	.790 (20.07)	1.250 (31.75)	1.156 (29.36)	1.562 (39.67)	.128 (3.25)	.194 (4.93)	M31X1-6g0.100R	.126 (3.20)	1.235 (31.36)
23	H	1.5000-0.1P-0.3L-TS	.790 (20.07)	1.375 (34.92)	1.250 (31.75)	1.688 (42.88)	.154 (3.91)	.242 (6.15)	M34X1-6g0.100R	.126 (3.20)	1.235 (31.36)
25	J	1.6250-0.1P-0.3L-TS	.790 (20.07)	1.500 (38.10)	1.375 (34.92)	1.812 (46.02)	.154 (3.91)	.242 (6.15)	M37X1-6g0.100R	.126 (3.20)	1.235 (31.36)

Straight Plug Grounded

D38999/26-Style

KJA6/KJB6



Shell Size	MS Shell size Code	B +.008 (.200) - .000 (.000)	D Thread Class 2B (Plated)	K Max.	L Max.	Q Dia Max.	Metric V Thread (Plated)	W +.008 (.200) - .004 (.100)
9	A	.724 (18.40)	.6250-0.1P-0.3L-TS	.748 (19.00)	1.234 (31.34)	.859 (21.82)	M12X1-6g0.100R	.760 (19.30)
11	B	.831 (21.10)	.7500-0.1P-0.3L-TS	.862 (21.90)	1.234 (31.34)	.969 (24.61)	M15X1-6g0.100R	.760 (19.30)
13	C	1.000 (25.40)	.8750-0.1P-0.3L-TS	1.027 (26.10)	1.234 (31.34)	1.141 (28.98)	M18X1-6g0.100R	.760 (19.30)
15	D	1.130 (28.70)	1.0000-0.1P-0.3L-TS	1.153 (29.30)	1.234 (31.34)	1.266 (32.16)	M22X1-6g0.100R	.760 (19.30)
17	E	1.268 (32.20)	1.1875-0.1P-0.3L-TS	1.291 (32.80)	1.234 (31.34)	1.391 (35.53)	M25X1-6g0.100R	.760 (19.30)
19	F	1.374 (34.90)	1.2500-0.1P-0.3L-TS	1.398 (35.50)	1.234 (31.34)	1.500 (38.10)	M28X1-6g0.100R	.760 (19.30)
21	G	1.500 (38.10)	1.3750-0.1P-0.3L-TS	1.524 (38.70)	1.234 (31.34)	1.625 (41.28)	M31X1-6g0.100R	.760 (19.30)
23	H	1.618 (41.40)	1.5000-0.1P-0.3L-TS	1.642 (41.70)	1.234 (31.34)	1.750 (44.45)	M34X1-6g0.100R	.760 (19.30)
25	J	1.744 (44.30)	1.6250-0.1P-0.3L-TS	1.768 (44.90)	1.234 (31.34)	1.875 (47.62)	M37X1-6g0.100R	.760 (19.30)

Performance Specifications-Pages 3 and 4.

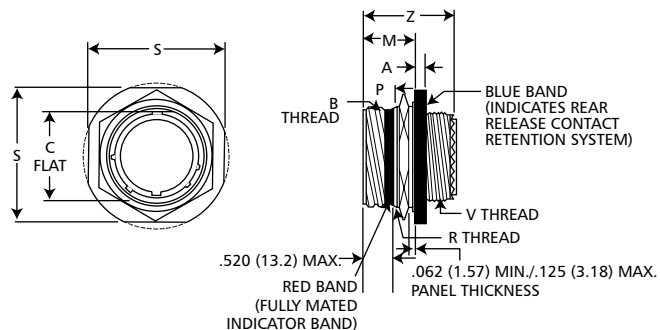
Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

Contact Arrangements - Pages 22 and 23.

Jam Nut Receptacle

D38999/24-Style

KJA7/KJB7



Shell Size	MS Shell size Code	A +.010 (.250) -.005 (.130)	B Thread Class 2A (Plated)	C +.004 (.100) -.010 (.250)	Z +.005 (.130) -.040 (.100)	M +.005 (.130) -.004 (.100)	P +.016 (.410) -.004 (.100)	S	Metric R Thread (Plated)	Metric V Thread (Plated)
9	A	.104 (2.64)	.6250-0.1P-0.3L-TS	.651 (16.53)	1.243 (31.57)	.871 (22.12)	.555 (14.10)	1.062 (26.97)	M17X1-6g0.100R	M12X1-6g0.100R
11	B	.104 (2.64)	.7500-0.1P-0.3L-TS	.751 (19.07)	1.243 (31.57)	.871 (22.12)	.555 (14.10)	1.250 (31.75)	M20X1-6g0.100R	M15X1-6g0.100R
13	C	.104 (2.64)	.8750-0.1P-0.3L-TS	.938 (23.82)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	1.375 (34.92)	M25X1-6g0.100R	M18X1-6g0.100R
15	D	.104 (2.64)	1.0000-0.1P-0.3L-TS	1.062 (26.97)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	1.500 (38.10)	M28X1-6g0.100R	M22X1-6g0.100R
17	E	.104 (2.64)	1.1875-0.1P-0.3L-TS	1.187 (30.15)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	1.625 (41.28)	M32X1-6g0.100R	M25X1-6g0.100R
19	F	.135 (3.43)	1.2500-0.1P-0.3L-TS	1.312 (33.32)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	1.812 (46.02)	M35X1-6g0.100R	M28X1-6g0.100R
21	G	.135 (3.43)	1.3750-0.1P-0.3L-TS	1.437 (36.50)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	1.938 (49.23)	M38X1-6g0.100R	M31X1-6g0.100R
23	H	.135 (3.43)	1.5000-0.1P-0.3L-TS	1.562 (39.67)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	2.062 (52.37)	M41X1-6g0.100R	M34X1-6g0.100R
25	J	.135 (3.43)	1.6250-0.1P-0.3L-TS	1.687 (42.85)	1.243 (31.57)	.878 (22.30)	.563 (14.30)	2.188 (55.38)	M44X1-6g0.100R	M37X1-6g0.100R

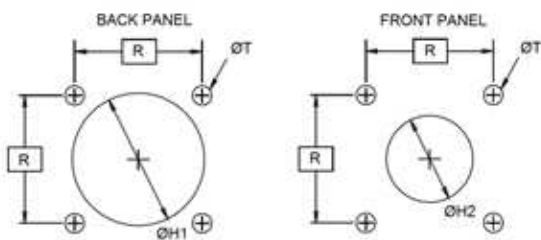
Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

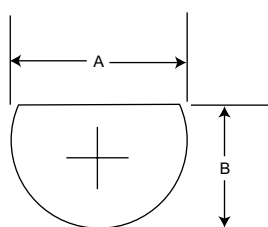
Contact Arrangements - Pages 22 and 23.

Panel Cutouts

Wall Mounted Receptacle



Jam Nut Receptacle



Shell Size	A		ØH1 (Min.)	ØH2 (Min.)	R (TP)	ØT ±.050 (.13)
	+.010 (.25) -.000 (.00)	+.000 (.00)* -.010 (.25)				
9	.693 (17.6)	.657 (16.70)	.656 (16.66)	.516 (13.11)	.719 (18.26)	.128 (3.25)
11	.825 (20.96)	.771 (19.58)	.796 (20.22)	.625 (15.88)	.812 (20.62)	.128 (3.25)
13	1.010 (25.65)	.955 (24.26)	.922 (23.42)	.750 (19.05)	.906 (23.01)	.128 (3.25)
15	1.135 (28.83)	1.085 (27.56)	1.047 (26.59)	.906 (23.01)	.969 (24.61)	.128 (3.25)
17	1.260 (32.00)	1.210 (30.73)	1.219 (30.96)	1.016 (25.81)	1.062 (26.97)	.128 (3.25)
19	1.385 (35.18)	1.335 (33.91)	1.297 (32.94)	1.141 (28.98)	1.156 (29.36)	.128 (3.25)
21	1.510 (38.35)	1.460 (37.08)	1.422 (36.12)	1.266 (36.16)	1.250 (31.75)	.128 (3.25)
23	1.635 (41.53)	1.585 (40.26)	1.547 (39.29)	1.375 (34.92)	1.375 (34.92)	.154 (3.91)
25	1.760 (44.70)	1.710 (43.43)	1.672 (42.47)	1.484 (37.69)	1.500 (38.10)	.150 (3.81)

* For Dimension B, Shell Size 9 only, tolerance is ±.004 (.10)



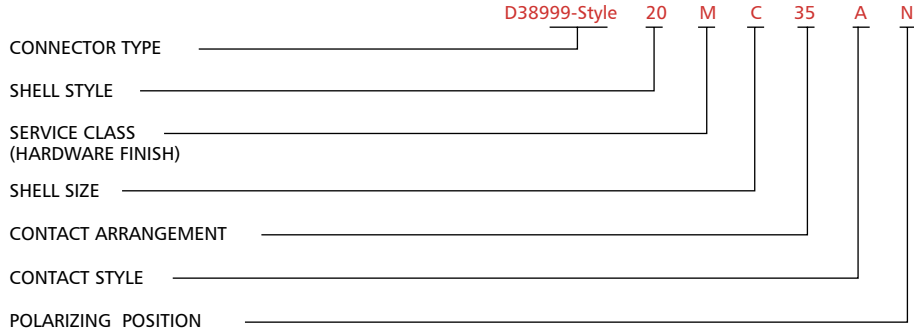
*DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

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

How To Order

Military Nomenclature

DISCLAIMER: Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.



CONNECTOR TYPE
D38999/ - 38999-Style Series III

SHELL STYLE
D38999/20 - Wall mount receptacle
D38999/26 - Straight Plug, Grounded

SERVICE CLASS
(Hardware Finish)
J - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)
M - Electroless nickel - 85°F to +392°F (-65°C to +200°C), RoHS Compliant

CONTACT ARRANGEMENT
See pages 22, 23.

CONTACT STYLE
H - Pin contacts (1500 cycle)
J - Socket contacts (1500 cycle)
P - Pin contacts
S - Socket contact
A - Less Pin contacts*
B - Less Socket contact*

* Used only when other than power contacts are to be installed (i.e., shielded, thermocouple, etc.)

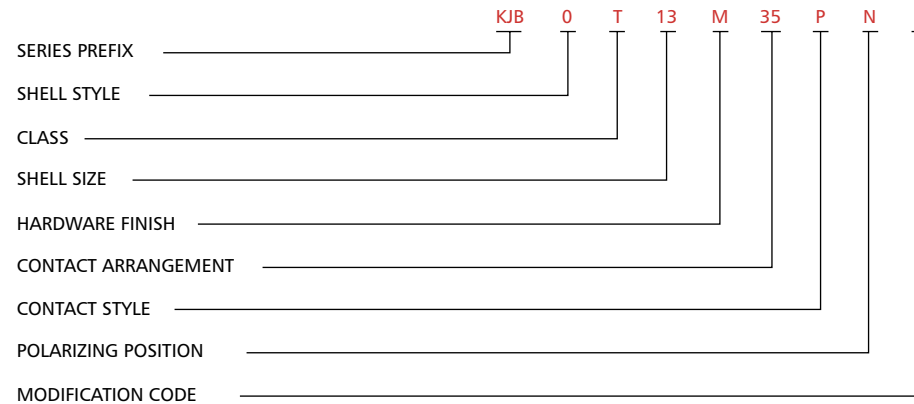
POLARIZING POSITION
N (normal), A, B, C, D, E. See page 21.

SHELL SIZE

A	B	C	D	E	F	G	H	J	Military Designation
9	11	13	15	17	19	21	23	25	Cannon Designation

Note: To order MS connectors less standard power contacts, purchase order must state "Less Contacts".

Cannon Nomenclature



SERIES PREFIX
KJB* - Series III - Scoop proof, threaded coupling

SHELL STYLE
0 - Wall mount receptacle
6 - Straight plug

CLASS
T - Environment-resistant (without rear accessory)

* Consult factory for availability

SHELL SIZE

9	11	13	15	17	19	21	23	25	Cannon Designation
A	B	C	D	E	F	G	H	J	Military Designation

HARDWARE FINISH
J - Olive drab cadmium over electroless nickel plate, -85°F to +347°F (-65°C to +175°C)
M - Electroless nickel, - 85°F to +392°F (-65°C to +200°C), RoHS Compliant

CONTACT STYLE
H - Pin contacts (1500 cycle)
J - Socket contacts (1500 cycle)
P - Pin contacts
S - Socket contacts

POLARIZING POSITION
N (normal) A, B, C, D, E. See page 21.

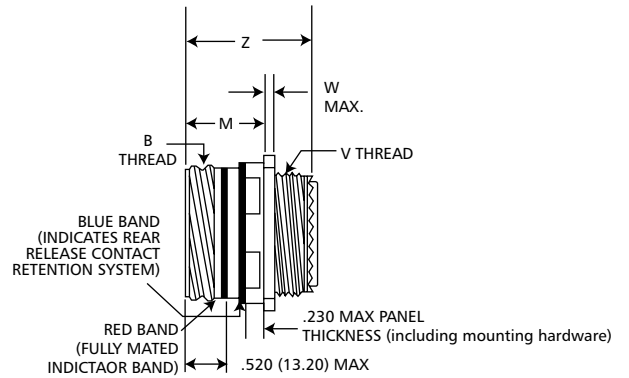
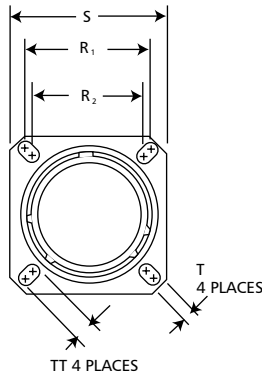
MODIFICATION CODE
L - Less contacts, not stamped on connector

CONTACT ARRANGEMENTS
See pages 22 and 23.

Wall Mount Receptacle

D38999/20-Style

KJB0T

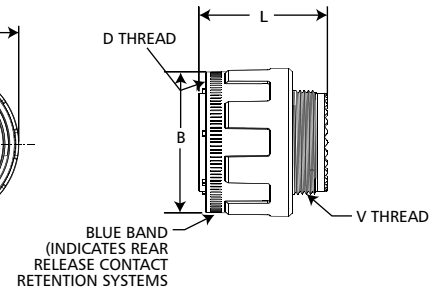
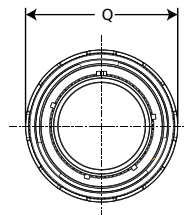


Shell Size	MS Shell size Code	B Thread Class 2A (Plated)	M +.000 (.000) -.005 (.130)	R 1	R 2	S +.012 (.300)	T +.004 (.100) -.002 (.050)	TT +.004 (.100) -.002 (.050)	Metric V Thread (Plated)	W Max.	Z +.005 (.130) -.010 (.250)
9	A	.6250-0.1P-0.3L-TS	.768 (19.50)	.719 (18.26)	.594 (15.09)	.938 (23.83)	.128 (3.25)	.216 (5.49)	M12X1-6g0.100R	.143 (3.63)	1.255 (32.00)
11	B	.7500-0.1P-0.3L-TS	.768 (19.50)	.812 (20.62)	.719 (18.26)	1.031 (26.19)	.128 (3.25)	.194 (4.93)	M15X1-6g0.100R	.143 (3.63)	1.255 (32.00)
13	C	.8750-0.1P-0.3L-TS	.768 (19.50)	.906 (23.01)	.812 (20.62)	1.125 (28.58)	.128 (3.25)	.194 (4.93)	M18X1-6g0.100R	.143 (3.63)	1.255 (32.00)
15	D	1.0000-0.1P-0.3L-TS	.768 (19.50)	.969 (24.61)	.906 (23.01)	1.219 (30.96)	.128 (3.25)	.173 (4.39)	M22X1-6g0.100R	.143 (3.63)	1.255 (32.00)
17	E	1.1875-0.1P-0.3L-TS	.768 (19.50)	1.062 (26.97)	.969 (24.61)	1.312 (33.32)	.128 (3.25)	.194 (4.93)	M25X1-6g0.100R	.143 (3.63)	1.255 (32.00)
19	F	1.2500-0.1P-0.3L-TS	.768 (19.50)	1.156 (29.36)	1.062 (26.97)	1.438 (36.53)	.128 (3.25)	.194 (4.93)	M28X1-6g0.100R	.143 (3.63)	1.255 (32.00)
21	G	1.3750-0.1P-0.3L-TS	.736 (18.70)	1.250 (31.75)	1.156 (29.36)	1.562 (39.67)	.128 (3.25)	.194 (4.93)	M31X1-6g0.100R	.171 (4.35)	1.255 (32.00)
23	H	1.5000-0.1P-0.3L-TS	.736 (18.70)	1.375 (34.92)	1.250 (31.75)	1.688 (42.88)	.154 (3.91)	.242 (6.15)	M34X1-6g0.100R	.171 (4.35)	1.255 (32.00)
25	J	1.6250-0.1P-0.3L-TS	.736 (18.70)	1.500 (38.10)	1.375 (34.92)	1.812 (46.02)	.154 (3.91)	.242 (6.15)	M37X1-6g0.100R	.171 (4.35)	1.255 (32.00)

Straight Plug Grounded

D38999/26-Style

KJB6T



Shell Size	MS Shell size Code	B +.008 (.200) -.000 (.000)	L Max.	Q Dia Max.
9	A	.811 (20.6)	1.24 (31.5)	.858 (21.8)
11	B	.929 (23.6)	1.24 (31.5)	.984 (25.0)
13	C	1.11 (28.2)	1.24 (31.5)	1.157 (29.4)
15	D	1.23 (31.3)	1.24 (31.5)	1.27 (32.5)
17	E	1.35 (34.5)	1.24 (31.5)	1.40 (35.7)
19	F	1.46 (37.3)	1.24 (31.5)	1.51 (38.5)
21	G	1.59 (40.5)	1.24 (31.5)	1.64 (41.7)
23	H	1.72 (43.7)	1.24 (31.5)	1.76 (44.9)
25	J	1.84 (46.8)	1.24 (31.5)	1.88 (48.0)

Performance Specifications-Pages 3 and 4.

Contacts, Sealing Plugs, Assembly Tools - Pages 24, 31, and 32.

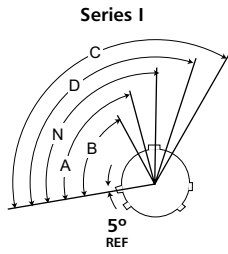
Contact Arrangements - Pages 22 and 23.



***DISCLAIMER:** Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

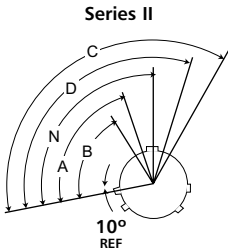
Dimensions shown in inches (mm)
Specifications and dimensions subject to change

Polarizing Positions



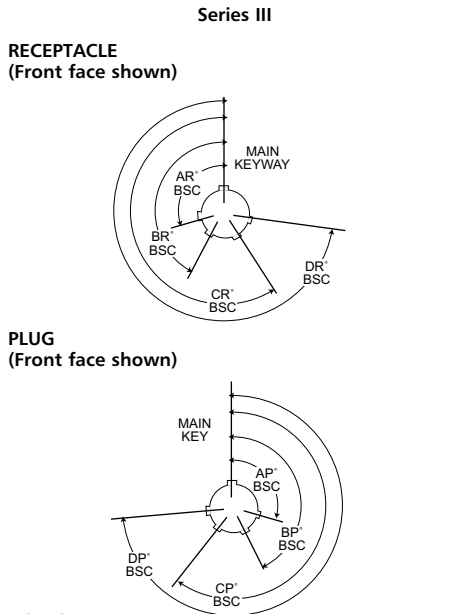
Series I
Front face of receptacle (plug opposite). Insert arrangement does not rotate with main key-keyway. The master key is rotated to provide shell polarization; the minor keys remain fixed.

Shell Size	Angle of Rotation (Degrees)				
	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°



Series II
Front face of receptacle (plug opposite). Insert arrangement does not rotate with main key-keyway. The master key is rotated to provide shell polarization; the minor keys remain fixed.

Shell Size	Angle of Rotation (Degrees)			
	Normal	A	B	C
8	100°	82°		118°
10	100°	86°	72°	128°
12	100°	80°	68°	132°
14	100°	79°	66°	134°
16	100°	82°	70°	130°
18	100°	82°	70°	130°
20	100°	82°	70°	130°
22	100°	85°	74°	126°
24	100°	85°	74°	126°



- Series III
- RECEPTACLE (Front face shown)
- PLUG (Front face shown)
- NOTES
1. All Angles are BSC
 2. The insert arrangement does not rotate with main key/keyway
 3. All minor keys are rotated to provide shell polarization, the master key remains fixed at twelve o'clock position.
 4. Polarization is different from Series I and II.

Shell Size	Key & Keyway Arrangement Identification Letter	Key Locations			
		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	E	91	131	197	240
	N	95	141	208	236
13	A	113	156	182	292
	B	90	145	195	252
and 15	C	53	156	220	255
	D	119	146	176	298
17	E	51	141	184	242
	N	80	142	196	293
and 19	A	135	170	200	310
	B	49	169	200	244
21	C	66	140	200	257
	D	62	145	180	280
23	E	79	153	197	272
	N	80	142	196	293
and 25	A	135	170	200	310
	B	49	169	200	244
25	C	66	140	200	257
	D	62	145	180	280
25	E	79	153	197	272

Contact Arrangements (Engaging View Pin Insert)

* Socket insert only

** Pin insert only (Not available in socket insert Series I and III)

Indicates layouts are available in all shell styles including MS27499, MS27508, KJ2E and KJ5E
 † Consult factory MS27505E/KJL5E insert availability

Series III	9-98	9-35	-	11-5	11-98	-	11-35	-	-	13-8
Series II	8-98†	8-35†	-	10-5†	10-98†	-	10-35†	12-3	12-4†	12-8†
Series I	9-98	9-35	11-4	11-5	11-98	11-99	11-35	-	13-4**	13-8
No. of Contacts	3 #20	6 #22D	4 #20	5 #20	6 #20	7 #20	13 #22D	3 #16	4 #16	8 #20
Service Ratings	I	M	I	I	I	I	M	II	I	I

Series III	13-98	13-35	15-5	15-15	15-18	15-19	15-35
Series II	12-98†	12-35†	14-5†	14-15†	14-18†	-	14-35†
Series I	13-98	13-35	15-5	15-15	15-18	15-19	15-35
No. of Contacts	10 #20	22 #22D	5 #16	14 #20, 1 #16	18 #20	19 #20	37 #22D
Service Ratings	I	M	II	I	I	I	M

Series III	15-97	17-6	17-8	17-26	17-35	-	16-99†
Series II	14-97†	16-6	16-8†	16-26†	16-35†	16-42†	17-99**
Series I	15-97	17-6	17-8	17-26	17-35	42 #22	17-99**
No. of Contacts	8 #20, 4 #16	6 #12	8 #16	26 #20	55 #22D	M	21 #20, 2 #16
Service Ratings	I	I	II	I	M	M	I

Series III	-	-	19-11	19-32	19-35
Series II	18-28	18-30	18-11	18-32†	18-35†
Series I	19-28**	19-30**	19-11	19-32	19-35
No. of Contacts	26 #20, 2 #16	29 #20, 1 #16	11 #16	32 #20	66 #22D
Service Ratings	I	I	II	I	M

Series III	21-11	21-16	21-35	21-39	21-41
Series II	-	20-16†	20-35†	20-39†	20-41†
Series I	21-11	21-16	21-35	21-39	21-41
No. of Contacts	11 #12	16 #16	79 #22D	37 #20, 2 #16	41 - #20
Service Ratings	I	II	M	I	I

Series III	21-75	23-21	-	23-35
Series II	-	22-21	22-32	22-35†
Series I	21-75*	23-21	23-32**	23-35
No. of Contacts	4 #8 Twinax	21 #16	32 #20	100 #22D
Service Ratings	M	II	I	M



***DISCLAIMER:** Our facility is not currently certified by the DLA and this product is not covered by the QPL/QML. Mil-Spec part numbers are only for cross reference to the Commercial Equivalent.

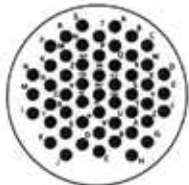
Dimensions shown in inches (mm)
 Specifications and dimensions subject to change

Contact Arrangements (Engaging View Pin Insert)

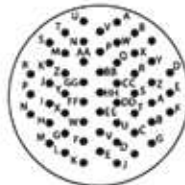
* Socket insert only

** Pin insert only (Not available in socket insert Series I and III)

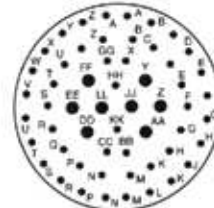
† Indicates layouts are available in all shell styles including MS27499, MS27508, KJ2E and KJ5E
 • Consult factory for MS27505E/KJL5E insert availability



23-53
 22-53†
 23-53
 53 #20
 I



23-55
 22-55†
 23-55
 55 #20
 I

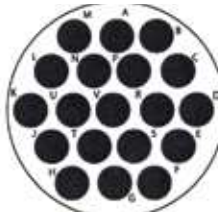


25-4
 24-4†
 25-4
 48 #20, 8 #16
 I

Series III
 Series II
 Series I
 No. of Contacts
 Service Ratings



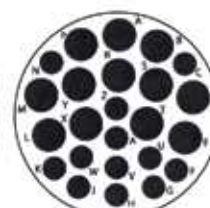
25-8
 -
 25-8**
 8 #8 Twinax
 Twinax



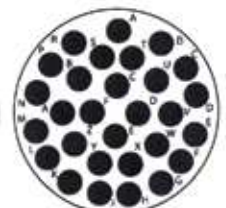
25-19
 -
 25-19
 19 #12
 I



25-20
 -
 25-20*
 3 #8 Twinax, 13 #16,
 4 #12 Coax, 10 #20
 N / Coax / Twinax

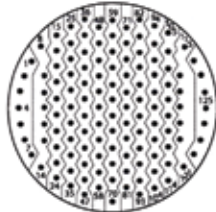


25-24
 24-24†
 25-24
 12 #16, 12 #12
 I

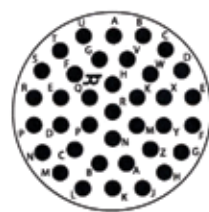


25-29
 24-29†
 25-29
 29 #16
 I

Series III
 Series II
 Series I
 No. of Contacts
 Service Ratings



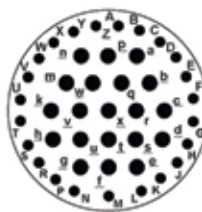
25-35
 24-35†
 25-35
 128 #22D
 M



25-37
 -
 25-37*
 37 #16
 II I



25-42
 -
 25-42*
 38 #20, 4 #8 Coax
 I, Coax

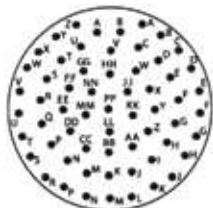


25-43
 -
 25-43
 23 #20, 20 #16
 I

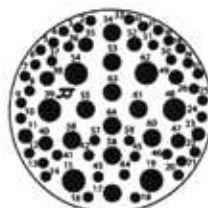


25-46
 -
 25-46
 40 #20, 4 #16, 2 #8
 Twinax

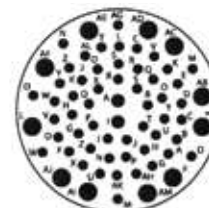
Series III
 Series II
 Series I
 No. of Contacts
 Service Ratings



25-61
 24-61†
 25-61
 61 #20
 I



25-64
 -
 25-64
 40 #22D, 8 #20
 10 #16, 6 #12
 I



25-66*
 -
 25-66*
 53 #22D, 2 #20, 11 #16
 I

Series III
 Series II
 Series I
 No. of Contacts
 Service Ratings