



ITT

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Cannon, VEAM, BIW

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aviation, military, and
industrial circulars since the DC-1,
over **70 years** ago



Engineered for life



A

Circular

How To Order

Military Nomenclature

MS27467 T 17 B 35 S



- 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 Superseded by Class T.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 A-24 and A-25.

- 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 A-23.

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

Cannon Nomenclature

KJL 6 T 17 B 35 S N



- SERIES PREFIX**
 KJL - Series I-Scop 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 Superseded by Class T.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)

- 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 A-24 and A-25.

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

- POLARIZING POSITION**
 N (normal), A, B, C, D. See page A-23.

- MODIFICATION CODE**
 L - Less contacts, not stamped on connector
 16 - Outgassed NASA space graded connector
 27 - Outgassed, standard connector
 T-69 Olive Drab (Green) Zinc Cobalt





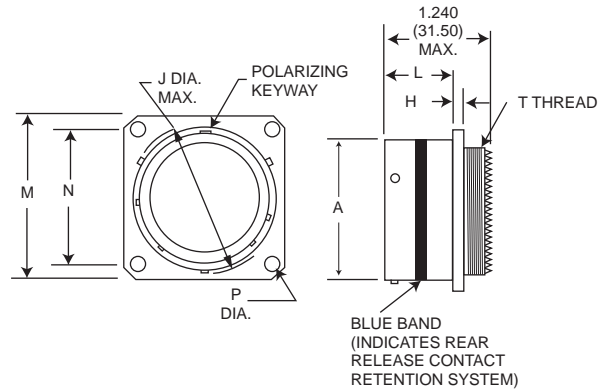
A

Circular

Wall Mounting Receptacle

MS27466
(MS service class E, P, T)

KJL0



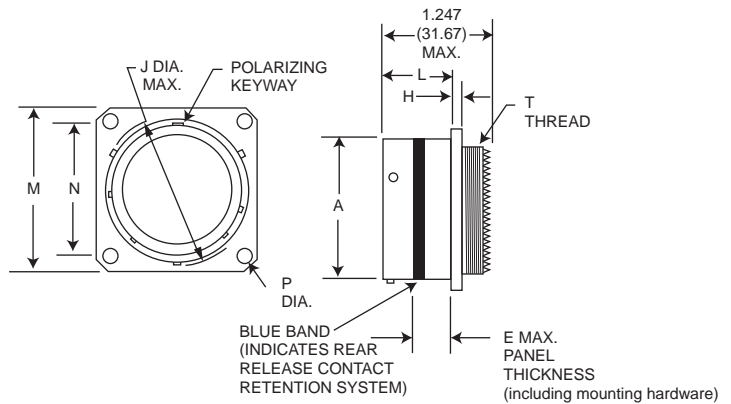
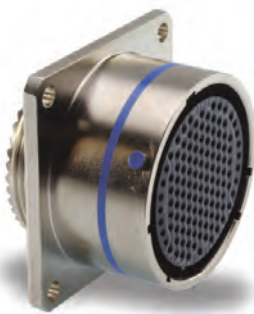
NOTE: For backshell dimensions and configurations, see pages A-30, A-32.

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
(MS service class E, P, T)

KJL3



NOTE: For backshell dimensions and configurations, see pages A-30, A-32.

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 A-7, A-8. Contacts, Sealing Plugs, Assembly Tools - Pages A-26, A-32, A-33. Contact Arrangements - Pages A-24, A-32.

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

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Cannon KJL MIL-DTL-38999 Series I Connectors



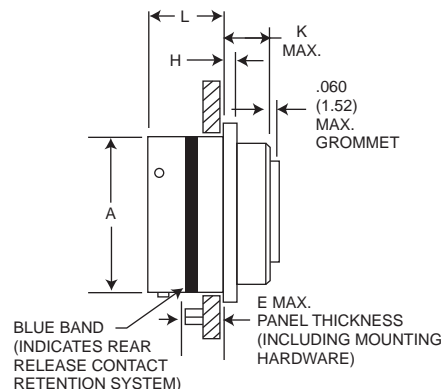
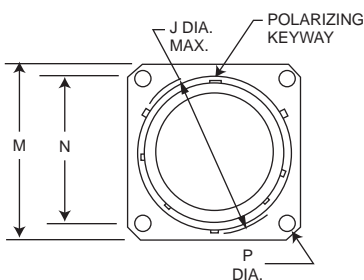
A

Circular

Box Mounting Receptacle (Back Panel)

MS27505E
(MS service class E)

KJL5E



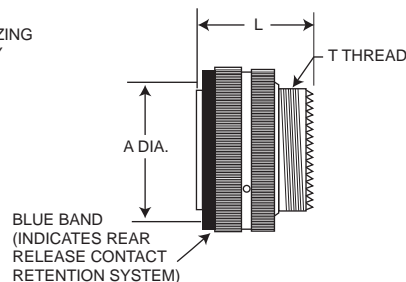
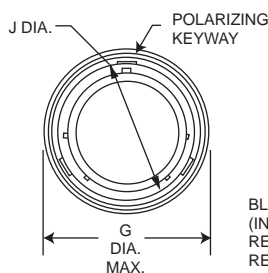
NOTE: This connector does not accommodate backshells.

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

MS27467
(MS service class E, P, T)

KJL6



NOTE: For backshell dimensions and configurations, see pages A-30, A-32.

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 A-7, A-8.

Contacts, Sealing Plugs, Assembly Tools - Pages A-26, A-32, A-33.

Contact Arrangements - Pages A-24, A-25.



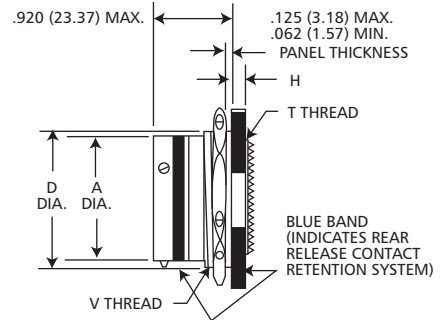
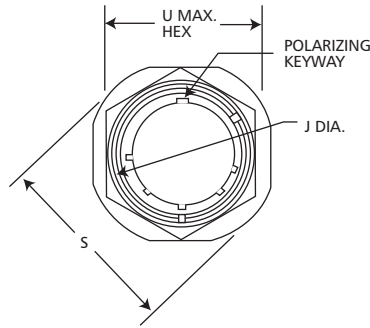
Dimensions shown in inches (mm)
Specifications and dimensions subject to change

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Jam Nut Receptacle

MS27468
(MS service class E,P,T)

KJL7



NOTE: For backshell dimensions and configurations, see pages A-30, A-32.

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)

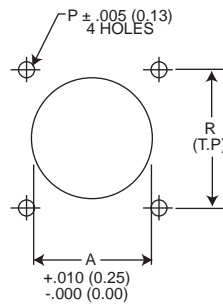
Performance Specifications-Pages A-7, A-8.

Contacts, Sealing Plugs, Assembly Tools - Pages A-26, A-32, A-33.

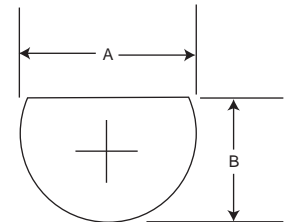
Contact Arrangements - Pages A-24, A-25.

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

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A

Circular