



ROBUST

- Marine bronze shell
- Excellent corrosion resistance
- -65°C to +175°C operating temperature range
- Excellent EMI protection

RELIABLE

- 100% scoop proof
- Self locking threaded coupling

COMPLIANT

- STD CECC 75201-002
- RoHS compliant

VERSATILE

- Available in 9 shell sizes
- Single hole mounting
- Environmentally sealed

APPLICATIONS

- Shipboard
- Ground vehicles

DTS-B Series Bronze Connectors



38999 Series III-Style Connectors

DEUTSCH DTS-B threaded connectors are MIL-DTL-38999 Series III and STD CECC 75201-002 styles, but feature a bronze shell with a scoop-proof design, and environmental sealing to help withstand harsh marine environments.

Marine bronze offers excellent corrosion protection. The shell material is robust and inherently resists corrosion, eliminating the need for plating that can wear to expose base materials.

The DEUTSCH DTS-B Series subminiature circular connectors offer a scoop-proof design for easy, reliable mating and a threaded coupling for excellent vibration resistance. Available in nine shell sizes, the connector's arrangements, contacts and tools all conform to standard MIL-DTL 38999 Series III. Excellent corrosion resistance makes them well suited to most marine and military ground vehicle applications.



DTS-B Bronze Connectors

38999 Series III-Style Connectors

Specifications

MATERIALS

- **Shell:** Marine bronze
- **Insert:** Thermoplastic and fluorinated silicone elastomer
- **EMI Spring Fingers:** Nickel or cadmium-plated beryllium copper
- **O-Ring:** Fluorinated silicone elastomer

ENVIRONMENTAL

- **Temperature Range:** -65°C to +175°C
- **Fluid Resistance:** Fluid immersion per EIA 364.10, including resistance to
MIL-PRF-5606: Hydraulic fluid
MIL-DTL-83133: JP-8 aviation fuel
MIL-PRF-7808: Lubricating oil
MIL-PRF-23699: Lubricating oil
MIL-A-8243: Deicing/defrosting fluid
MIL-C-25769: Aircraft cleaning compound
MIL-PRF-87937: Aircraft cleaning compound
MIL-G-3056: Gasoline
- **Salt Spray:** 500 hours
- **Thermal Cycling:** per MIL-STD-1344 method 1001 test B

MECHANICAL

- **Sine Vibration:** Up to 60 g for 36 hr.
- **Random Vibration:** Up to 41.7 g for 16 hr. at 175° C
Up to 50 g for 16 hr. at ambient temperature
- **Shock:** 300 g, 3 ms in the 3 axes
- **Durability:** 500 mating cycles
- **Contact Retention:**
Size 23: 44 N (10 lb.)
Size 22D: 44 N (10 lb.)
Size 20: 67 N (15 lb.)
Size 16: 111 N (25 lb.)
Size 12: 111 N (25 lb.)
Size 8: 111 N (25 lb.)

ELECTRICAL

- **Shell-to-Shell Conductivity:** 2.5 mV max.
- **Shielding Effectiveness:** >90 dB at 100 MHz, >65 dB through 10 GHz



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Voltage Rating

Service Rating	Suggested Operating Voltage		Test Voltage at Altitude (VAC _{rms})			
	VAC _{rms}	VDC	Sea Level	50,000 Ft.	70,000 Ft.	100,000 Ft.
M	400	550	1300	550	350	200
N	300	450	1000	400	260	200
I	600	850	1800	600	400	200
II	750	1050	2300	800	500	200

Current Rating

Contact Size	Test Current (A)	Voltage Drop (mV)
23	5	73
22D	5	73
20	7.5	55
16	13	50
12	23	42
10	33	34
8	46	26

Thread Sizes

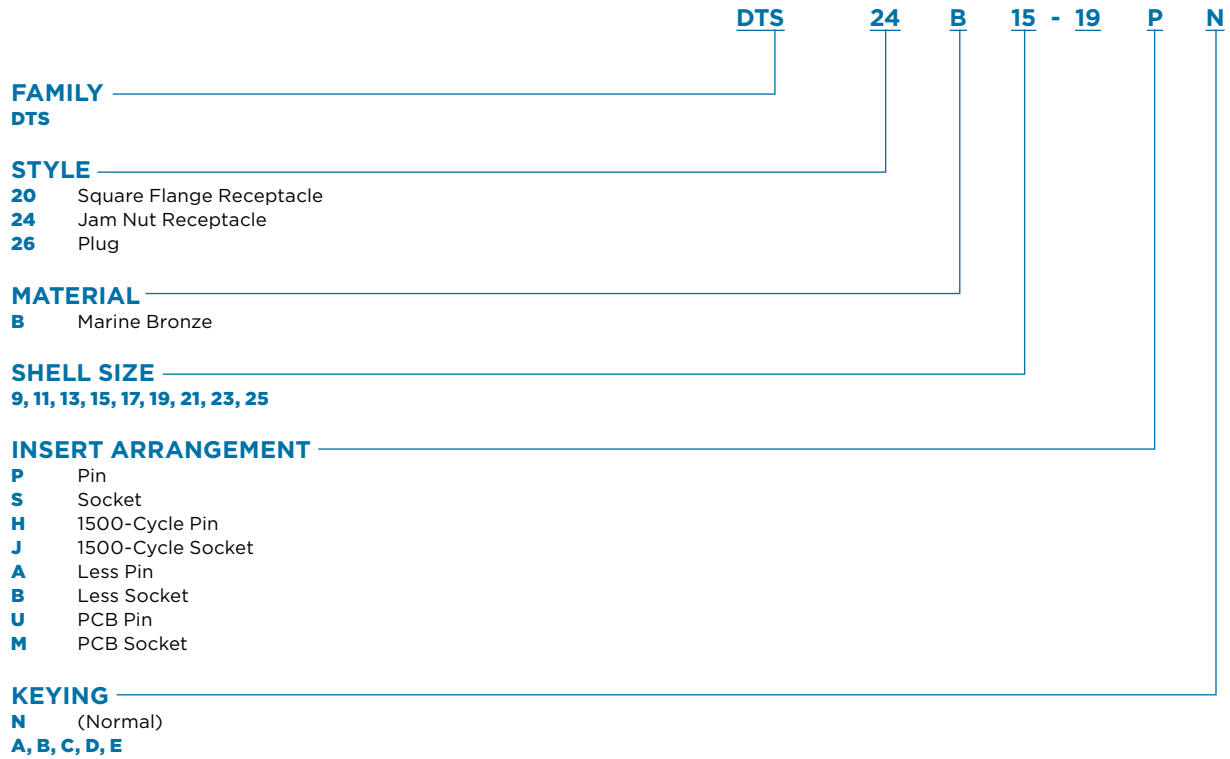
Shell Size	Accessory Thread (6g 0.100R)	Mating Thread (0.1P-0.3L)	Jam Nut Thread (6g 0.100R)
9	M12 x 1.0	.6250	M17 x 1.0
11	M15 x 1.0	.7500	M20 x 1.0
13	M18 x 1.0	.8750	M25 x 1.0
15	M22 x 1.0	1.0000	M28 x 1.0
17	M25 x 1.0	1.1875	M32 x 1.0
19	M28 x 1.0	1.2500	M35 x 1.0
21	M31 x 1.0	1.3750	M38 x 1.0
23	M34 x 1.0	1.5000	M41 x 1.0
25	M37 x 1.0	1.6250	M44 x 1.0



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Part Numbering

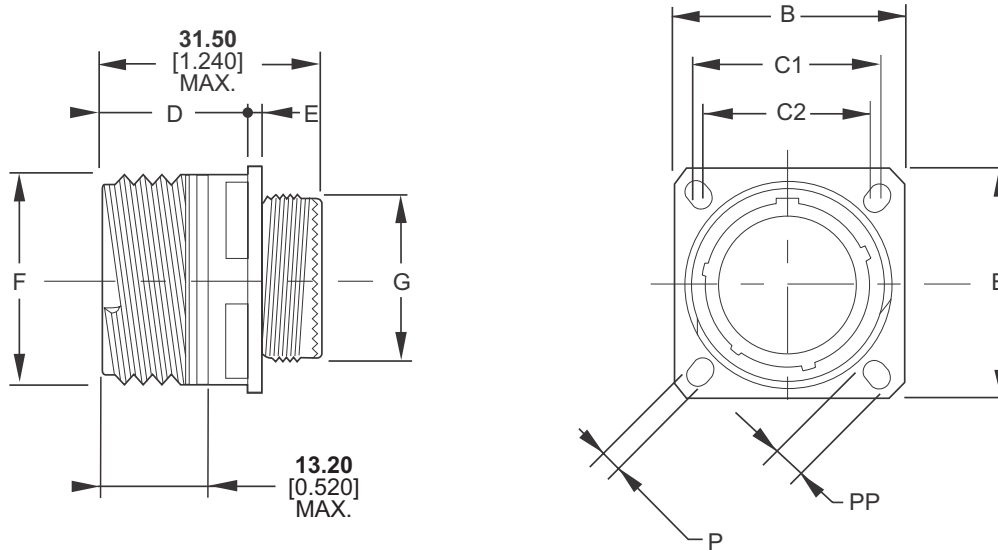




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Square Flange Receptacle
Type 20



Shell Size	B ±0.3 (±0.012)	C1	C2	D Max.	E Max.	F ±0.1 (±0.004)	G ±0.1 (±0.004)	P ±0.2 (±0.008)	PP ±0.2 (±0.008)
09	23.80 0.937	18.26 0.719	15.09 0.594	20.90 0.823	2.50 0.098	15.75 0.620	11.90 0.469	3.25 0.128	5.49 0.216
11	26.20 1.031	20.62 0.812	18.26 0.719	20.90 0.823	2.50 0.098	18.90 0.744	14.90 0.587	3.25 0.128	4.93 0.194
13	28.60 1.126	23.01 0.906	20.62 0.812	20.90 0.823	2.50 0.098	22.10 0.870	17.90 0.705	3.25 0.128	4.93 0.194
15	31.00 1.220	24.61 0.969	23.01 0.906	20.90 0.823	2.50 0.098	25.25 0.994	21.90 0.862	3.25 0.128	4.93 0.194
17	33.30 1.311	26.97 1.062	24.61 0.969	20.90 0.823	2.50 0.098	29.95 1.179	24.90 0.980	3.25 0.128	4.93 0.194
19	36.50 1.437	29.36 1.156	26.97 1.062	20.90 0.823	2.50 0.098	31.55 1.242	27.90 1.098	3.25 0.128	4.93 0.194
21	39.70 1.563	31.75 1.250	29.36 1.156	20.10 0.791	3.20 0.126	34.70 1.366	30.90 1.217	3.25 0.128	4.93 0.194
23	42.90 1.689	34.93 1.375	31.75 1.250	20.10 0.791	3.20 0.126	37.90 1.492	33.90 1.335	3.91 0.154	6.15 0.242
25	46.00 1.811	38.10 1.500	34.93 1.375	20.10 0.791	3.20 0.126	41.10 1.618	36.90 1.453	3.91 0.154	6.15 0.242

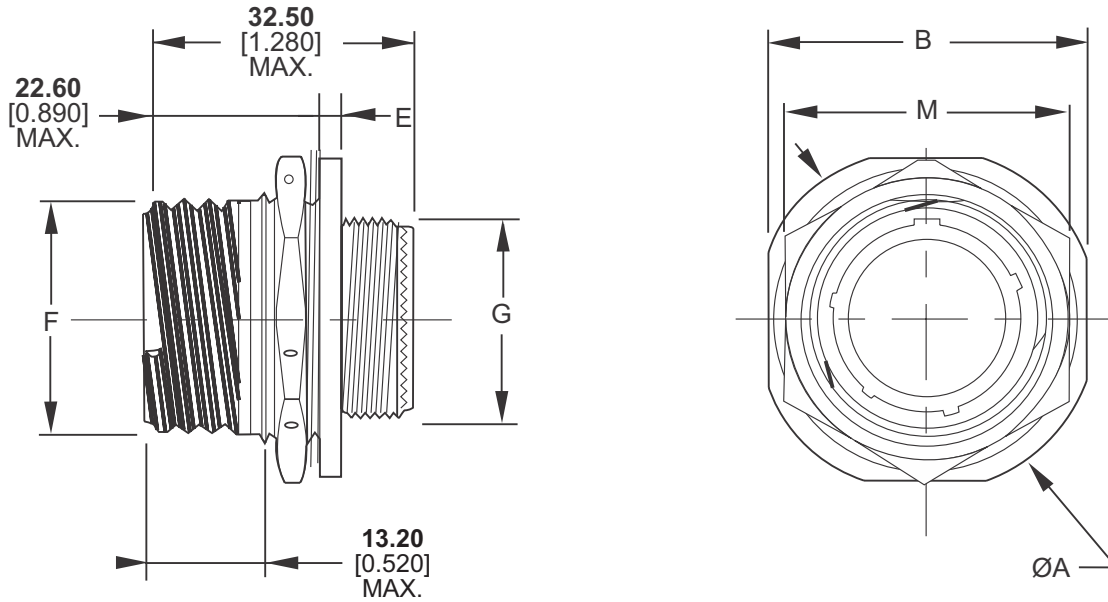
Millimeters Inches



DTS-B Bronze Connectors

38999 Series III-Style Connectors

Jam Nut Receptacle
Type 24



Shell Size	A ±0.3 (±0.012)	B ±0.4 (±0.016)	E +0.07/-0.1 (+0.028/-0.004)	F ±0.1 (±0.004)	G ±0.1 (±0.004)	M
09	30.20 1.189	27.00 1.063	2.20 0.087	15.75 0.620	11.90 0.469	21.82 0.859
11	34.90 1.374	31.80 1.252	2.20 0.087	18.90 0.744	14.90 0.587	24.99 0.984
13	38.10 1.500	34.90 1.374	2.20 0.087	22.10 0.870	17.90 0.705	29.77 1.172
15	41.30 1.626	38.10 1.500	2.20 0.087	25.25 0.994	21.90 0.862	32.91 1.296
17	44.50 1.752	41.30 1.626	2.20 0.087	29.95 1.179	24.90 0.980	36.12 1.422
19	49.20 1.937	46.00 1.811	3.00 0.118	31.55 1.242	27.90 1.098	39.25 1.545
21	52.40 2.063	49.20 1.937	3.00 0.118	34.70 1.366	30.90 1.217	42.47 1.672
23	55.60 2.189	52.40 2.063	3.00 0.118	37.90 1.492	33.90 1.335	45.61 1.796
25	58.70 2.311	55.20 2.173	3.00 0.118	41.10 1.618	36.90 1.453	49.25 1.939

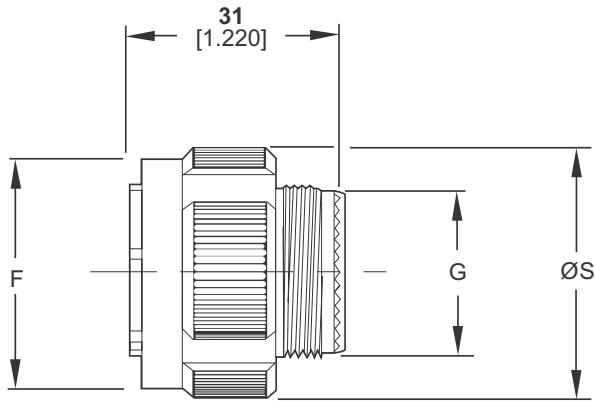
Millimeters Inches



DTS-B Bronze Connectors

38999 Series III-Style Connectors

Plug
Type 26



Shell Size	F Max.	G Max.	S Max.
09	18.40 0.724	11.90 0.469	21.80 0.858
11	21.10 0.831	14.90 0.587	25.00 0.984
13	25.40 1.000	17.90 0.705	29.40 1.157
15	28.70 1.130	21.90 0.862	32.50 1.280
17	32.20 1.268	24.90 0.980	35.70 1.406
19	34.90 1.374	27.90 1.098	38.50 1.516
21	38.10 1.500	30.90 1.217	41.70 1.642
23	41.10 1.618	33.90 1.335	44.90 1.768
25	44.30 1.744	36.90 1.453	48.00 1.890

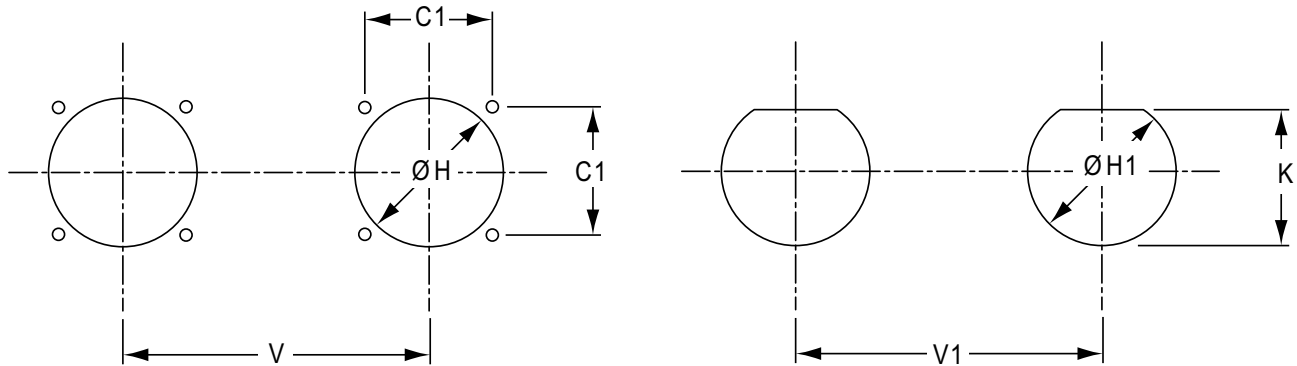
Millimeters Inches



DTS-B Bronze Connectors

38999 Series III-Style Connectors

Panel Cutouts



Square Flange Receptacle
(Type 20)

Jam Nut Receptacle
(Type 24)

Shell Size	C1	H Min.		H1 Max.	K Max.	V Min.	V1 Min.
		Front	Rear				
09	18.26 0.719	13.11 0.516	16.66 0.656	17.70 0.697	16.99 0.669	24.60 0.969	27.80 1.094
11	20.62 0.812	15.08 0.594	22.22 0.875	20.88 0.822	19.53 0.769	27.00 1.063	32.60 1.283
13	23.01 0.906	19.05 0.750	23.42 0.922	25.58 1.007	24.26 0.995	30.20 1.189	36.00 1.417
15	24.61 0.969	23.01 0.906	26.59 1.047	28.80 1.134	27.53 1.084	33.30 1.331	39.60 1.559
17	26.97 1.062	25.81 1.106	30.96 1.219	31.98 1.259	30.68 1.208	36.50 1.437	43.30 1.705
19	29.36 1.156	28.98 1.141	32.94 1.297	35.15 1.384	33.86 1.333	39.30 1.547	47.00 1.850
21	31.75 1.250	32.16 1.266	36.12 1.422	38.28 1.507	37.06 1.459	42.50 1.673	50.60 1.992
23	34.93 1.375	34.93 1.375	39.29 1.547	41.50 1.634	40.01 1.575	45.70 1.799	54.20 2.134
25	38.10 1.500	37.69 1.484	42.47 1.672	44.68 1.759	43.41 1.709	48.80 1.921	59.70 2.350

Millimeters Inches