

**VERSATILE**

- Medium and high-density arrangements
- 12 shell sizes and up to 128 contacts
- 100% scoop proof design

RELIABLE

- Elastomer interface and wire seals
- RFI fingers at mating interface and 360° backshell
- Hard face socket insert
- Contact retention mechanism integral to insert

CONVENIENT

- Simple assembly techniques with standard tooling
- Standard MIL-C-39029 contacts
- Positive bayonet locking serrations

38999-Style HDJ Series Connectors

**DEUTSCH HDJ/JN1003 Medium and High Density Connectors**

The HDJ Series connectors are bayonet coupling connectors specifically designed for Eurofighter use. The range comprises plugs, receptacles, and cable accessories.

The series is intermateable and intermountable with connectors conforming to LN29729, EN3372, VG 96912 and the DEUTSCH AS range. The connectors are qualified in accordance with J 62.017.

The connectors are based on MIL-DTL-38999 Series I coupling interface lengths and Series II diameters.

Specifications

MATERIALS

- **Shell:** Aluminum alloy, plated olive drab cadmium
- **RFI Ring:** Beryllium copper, plated nickel/cadmium
- **Inserts:** Thermoplastic and fluorinated silicone elastomer
- **Contacts:** Copper alloy, plated gold

MECHANICAL

- **Vibration:** Per J62.017 para. 2.11
- **Durability:** 500 mating cycles

ENVIRONMENTAL

- **Service Temperature:** -55° C to +175° C
- **Thermal Shock:** As per J62.017 para. 2.4
- **Sealing:** Up to 30,000 m (100,000 ft.) altitude
- **Salt Spray Resistance:** per MIL-DTL-38999

ELECTRICAL



38999-Style HDJ Series Connectors

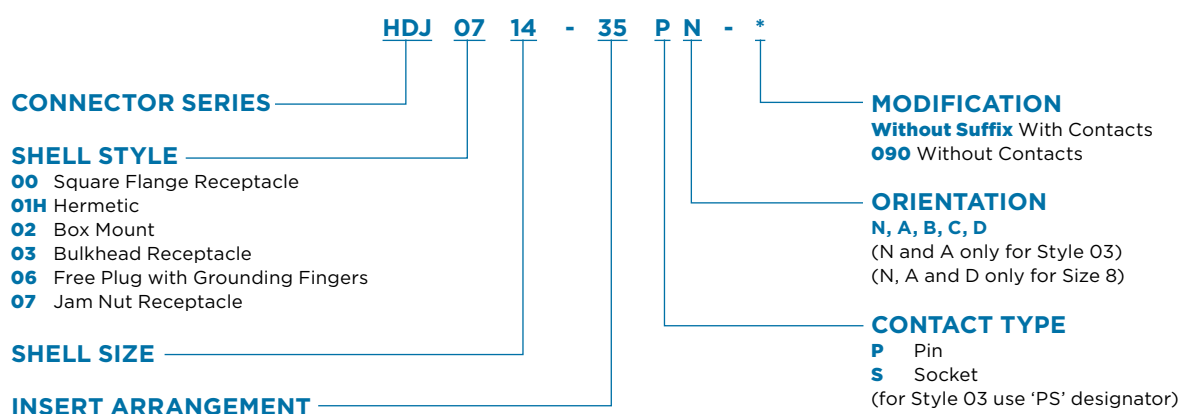
- **Insulation Resistance:** $\geq 100,000 \text{ M}\Omega$ @ 20°C
- **Contact Current Rating:**
 - Size 22: 5 A
 - Size 20: 7.5 A
 - Size 16: 13 A
 - Size 12: 23 A
 - Size 8

Dielectric Withstand Voltage

Rating Class	Dielectric Withstand Voltage ($V_{AC,rms}$)	
	Sea Level	22,000 m (70,000 ft.)
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

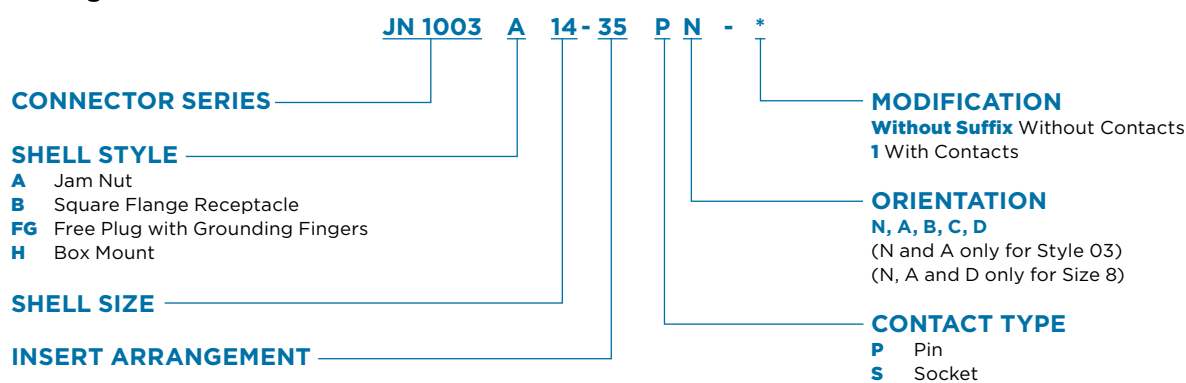
Part Numbering

DEUTSCH Series



Part Numbering

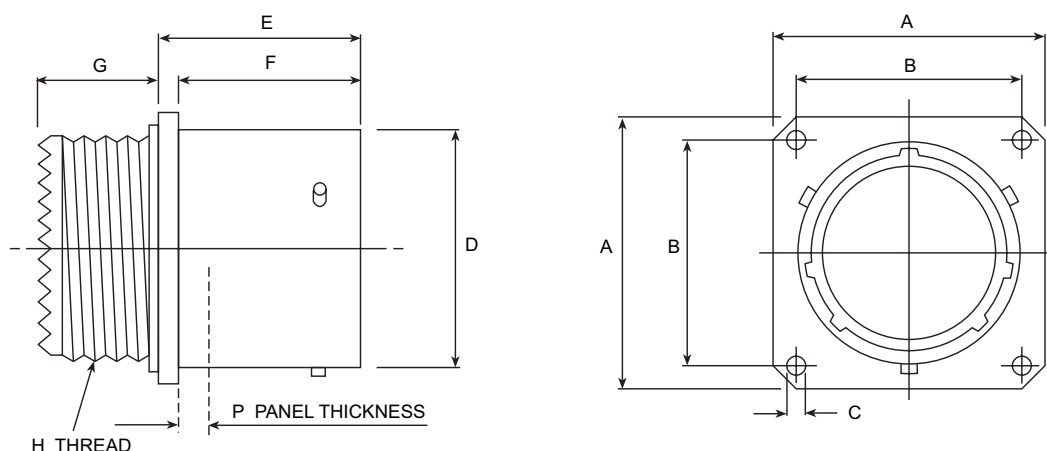
Eurofighter Series





38999-Style HDJ Series Connectors

Square Flange Receptacle - Shell Style OO (JN 1003 Style B)



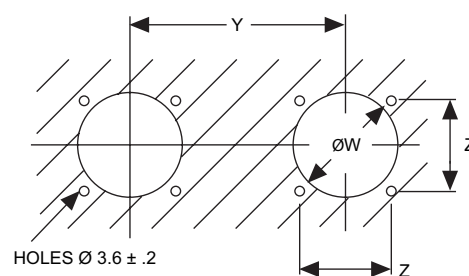
Shell Size	A ± 0.40 (± 0.016)	B ± 0.13 (± 0.005)	C ± 0.10 (± 0.004)	D $+0/-0.13$ ($+0/-0.005$)	E $+0.15$ Max. ($+0.016$)	F $+0/-0.13$ ($+0/-0.005$)	G Max.	H Thread UNEF Class 2a	P Max.
08	20.62 0.812	15.10 0.594		12.00 0.472				0.4375 - 28	
10	23.83 0.938	18.30 0.720		15.00 0.591				0.5625 - 24	
12	26.19 1.031	20.60 0.811		19.05 0.750				0.6875 - 24	
14	28.57 1.125	23.00 0.906		22.22 0.875		16.05 0.632		0.8125 - 20	
16	30.96 1.219	24.60 0.969	3.20 0.126	25.40 1.000	18.21 0.717		14.00 0.551	0.9375 - 20	3.00 0.118
18	33.32 1.312	27.00 1.063		28.57 1.125				1.0625 - 18	
20	36.53 1.438	29.40 1.157		31.75 1.250				1.1875 - 18	
22	39.67 1.562	31.80 1.252		34.92 1.375		15.29 0.602		1.3125 - 18	
24	42.90 1.689	34.90 1.374	3.70 0.146	38.10 1.500				1.4375 - 18	2.26 0.089

Millimeters Inches

Shell Size	08	10	12	14	16	18	20	22	24
W ± 0.2	13.7 0.539	16.9 0.665	21.0 0.827	24.2 0.953	27.3 1.075	30.5 1.201	33.7 1.327	36.9 1.453	40.0 1.575
Z ± 0.2	15.1 0.594	18.3 0.720	20.6 0.811	23.0 0.906	24.6 0.969	27.0 1.063	29.4 1.157	31.8 1.252	34.9 1.374
Y	28.0 1.102	31.0 1.220	36.0 1.417	41.0 1.614	43.0 1.693	46.0 1.811	53.0 2.087	58.0 2.283	61.0 2.402

Millimeters Inches

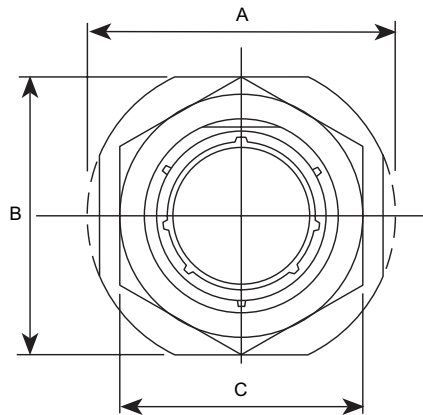
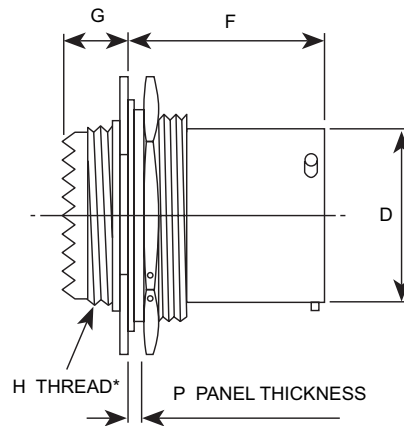
Panel Cutout





38999-Style HDJ Series Connectors

Jam Nut Receptacle - Shell Style 07 (JN 1003 Style A)



*H Thread VG 96912 Style -
Consult TE for availability.

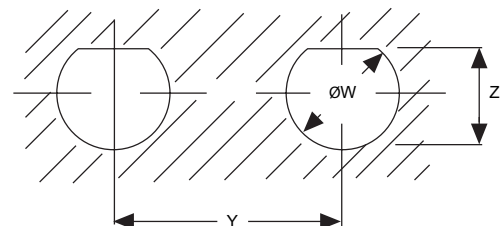
Shell Size	A Max.	B ± 0.41 (± 0.016)	C $\pm 0.43/-0.41$ ($\pm 0.017/-0.016$)	D $+0/-0.13$ ($+0/-0.005$)	F $+0.13$ ($+0.005$)	G Max.	P	H Thread UNEF Class 2a
08	27.38 1.078	23.83 0.938	19.05 0.750	12.00 0.472				0.4375 - 28
10	30.56 1.203	26.97 1.062	22.22 0.875	15.00 0.591				0.5625 - 24
12	35.33 1.391	31.75 1.250	26.97 1.062	19.05 0.750				0.6875 - 24
14	38.51 1.516	34.92 1.375	30.18 1.188	22.22 0.875				0.8125 - 20
16	41.68 1.641	38.10 1.500	33.32 1.312	25.40 1.000	23.24 0.915	14.10 0.555	3.20 0.126 Max	0.9375 - 20
18	44.86 1.766	41.27 1.625	36.53 1.438	28.57 1.125			1.60 0.063 Max	1.0625 - 18
20	49.61 1.953	46.02 1.812	39.67 1.562	31.75 1.250				1.1875 - 18
22	52.78 2.078	49.23 1.938	42.88 1.688	34.92 1.375				1.3125 - 18
24	55.96 2.203	52.37 2.062	46.02 1.812	38.10 1.500				1.4375 - 18

Millimeters Inches

Panel Cutout

Shell Size	08	10	12	14	16	18	20	22	24
W ± 0.10	14.53 0.572	17.7 0.697	22.5 0.886	25.7 1.012	28.83 1.135	32.01 1.260	35.18 1.385	38.36 1.510	41.53 1.635
Z ± 0.2	13.62 0.536	16.79 0.661	21.0 0.827	24.08 0.948	27.23 1.072	30.41 1.197	33.58 1.322	36.95 1.455	39.93 1.572
Y	28.0 1.102	31.0 1.220	36.0 1.417	41.0 1.614	43.0 1.693	46.0 1.811	53.0 2.087	58.0 2.283	61.0 2.402

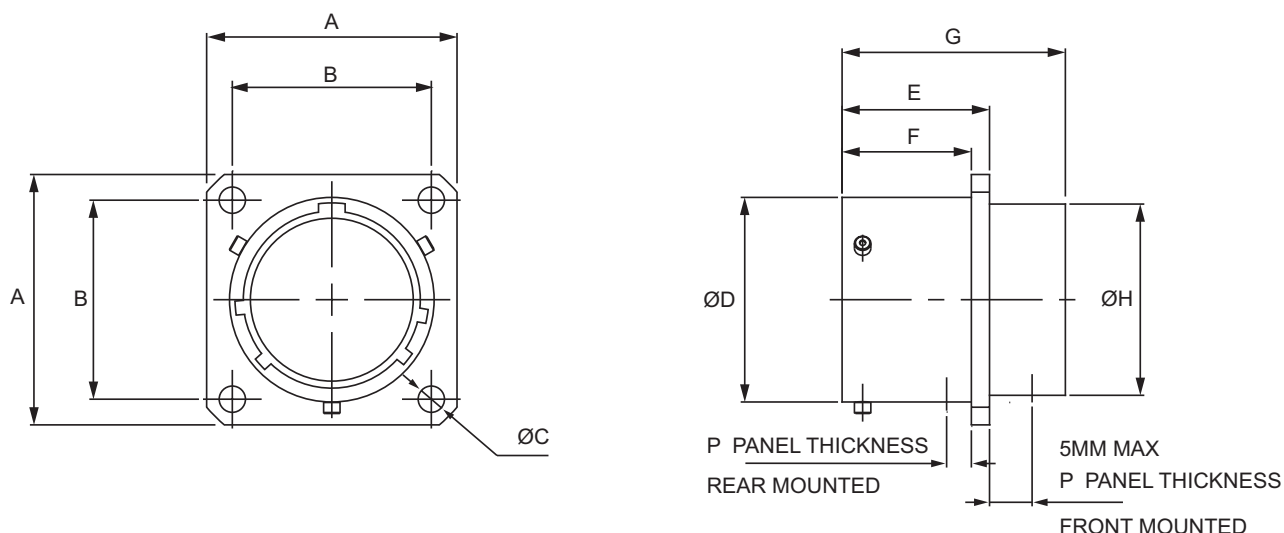
Millimeters Inches





38999-Style HDJ Series Connectors

Box Mount-Shell Style 02 (JN 1003 Style H)



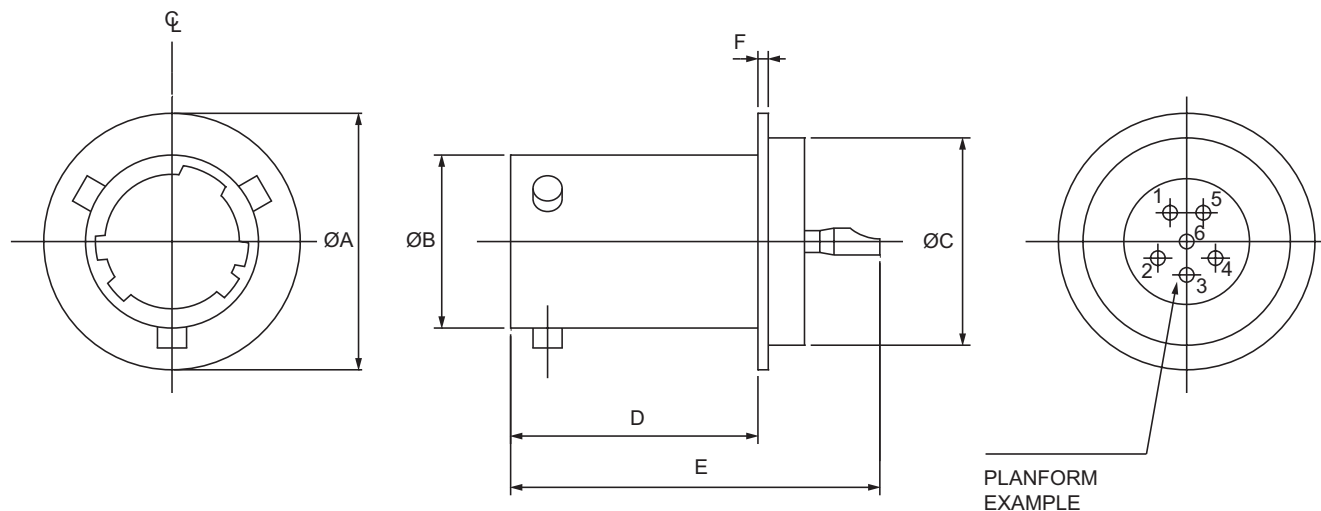
Shell Size	A ± 0.40 (± 0.016)	B ± 0.13 (± 0.005)	ØC Min.	ØD $+0.00/-0.13$ ($+0.00/-0.005$)	E $+0.15$ ($+0.016$) Max.	F $+0.00/-0.13$ ($+0.00/-0.005$)	G Max.	ØH Max.	P Max.
08	20.62 0.812	15.10 0.594		12.00 0.472				11.91 0.469	
10	23.83 0.938	18.30 0.720		15.00 0.591				15.09 0.594	
12	26.19 1.031	20.60 0.811		19.05 0.750				18.26 0.719	
14	28.57 1.125	23.00 0.906		22.22 0.875		16.05 0.632		21.44 0.844	
16	30.96 1.219	24.60 0.969	3.20 0.126	25.40 1.000	18.21 0.717		27.65 1.089	24.61 0.969	3.00 0.118
18	33.32 1.312	27.00 1.063		28.57 1.125				27.38 1.078	
20	36.53 1.438	29.40 1.157		31.75 1.250				30.56 1.203	
22	39.67 1.562	31.80 1.252		34.92 1.375				33.73 1.328	
24	42.90 1.689	34.90 1.374	3.70 0.146	38.10 1.500		15.29 0.602	28.72 1.131	36.91 1.453	2.26 0.089

Millimeters Inches



38999-Style HDJ Series Connectors

Solder Mount-Shell Style 01H (JN 1003 Style E Type)*



Shell Size	ØA ±0.05 (±0.002)	B +0.00/-0.16 (+0.00/-0.006)	C ±0.05 (±0.002)	D Max.	E ±1.16 (±0.046)	F Max.
08	17.45 0.687	12.00 0.472	14.20 0.559			
10	20.24 0.797	15.00 0.591	16.99 0.669			
12	23.01 0.906	19.05 0.750	19.76 0.778			
14	26.19 1.031	22.22 0.875	22.94 0.903	17.18 0.676	26.29 1.035	
16	29.36 1.156	25.40 1.000	26.11 1.028			0.76 0.030
18	32.54 1.281	28.57 1.125	29.29 1.153			
20	34.92 1.375	31.75 1.250	31.67 1.247			
22	38.10 1.500	34.92 1.375	34.85 1.372	17.19 0.677	26.30 1.035	
24	41.27 1.625	38.10 1.500	38.02 1.497			

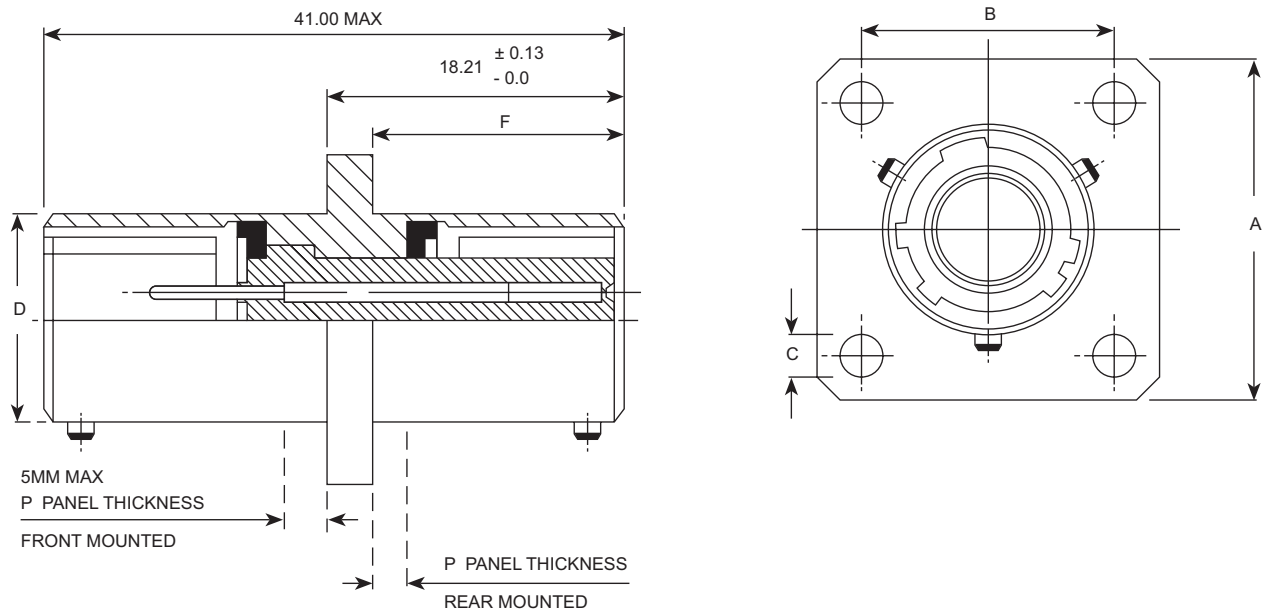
Millimeters Inches

*Shell Styles '01H' and '03' are not qualified to JN1003



38999-Style HDJ Series Connectors

Through Bulkhead Receptacle Shell Style 03 (JN 1003 Style J Type)*



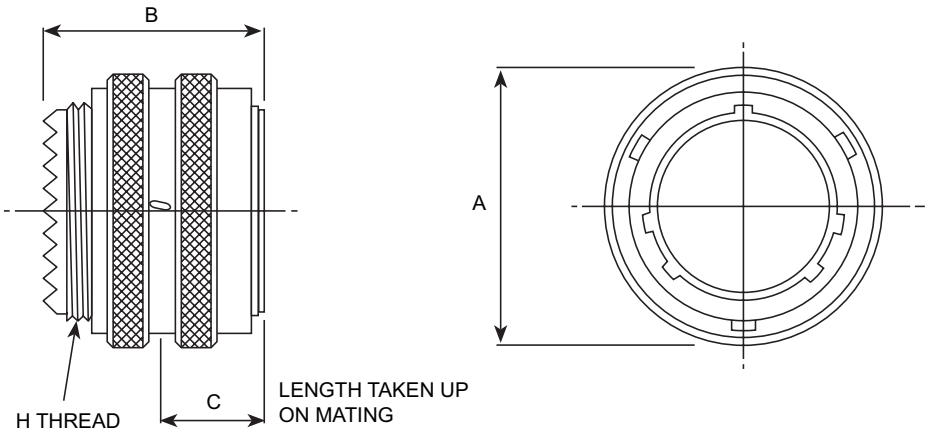
Shell Size	A +0.40 (±0.016)	B ±0.13 (±0.005)	C ±0.10 (±0.004)	D +0/-0.13 (+0/-0.005)	F +0/-0.13 (+0/-0.005)	P Max.
08	20.62 0.812	15.10 0.594		12.00 0.472		
10	23.83 0.938	18.30 0.720		15.00 0.591		
12	26.19 1.031	20.60 0.811		19.05 0.750		
14	28.57 1.125	23.00 0.906		22.22 0.875	16.05 0.632	
16	30.96 1.219	24.60 0.969	3.20 0.126	25.40 1.000		3.00 0.118
18	33.32 1.312	27.00 1.063		28.57 1.125		
20	36.53 1.438	29.40 1.157		31.75 1.250		
22	39.67 1.562	31.80 1.252		34.92 1.375	15.29 0.602	
24	42.90 1.689	34.90 1.374	3.70 0.146	38.10 1.500		2.26 0.089

Millimeters Inches



38999-Style HDJ Series Connectors

Plugs
Plug with Grounding Fingers - Shell Style 06 (JN 1003 Style FG)



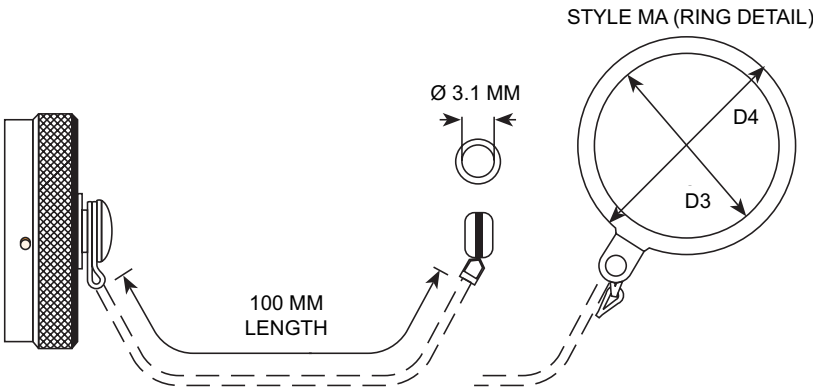
Shell Size	A Max.	B Max.	C Max.	H Thread UNEF Class 2a
08	18.64 0.734	30.00 1.181	15.00 0.591	0.4375 - 28
10	21.44 0.844			0.5625 - 24
12	25.81 1.016			0.6875 - 24
14	28.98 1.141			0.8125 - 20
16	32.13 1.265			0.9375 - 20
18	35.33 1.391			1.0625 - 18
20	38.10 1.500			1.1875 - 18
22	41.27 1.625	31.50 1.240		1.3125 - 18
24	44.45 1.750			1.4375 - 18

Millimeters Inches



38999-Style HDJ Series Connectors

Accessories
Protective Cap, Receptacle (JN 1003 Styles MA/MB)*



TE DEUTSCH Part No.	Eurofighter Ref.	Shell Size
HDJ12 - **	JN1003MB**	**
HDJ13 - **	JN1003MA**	**

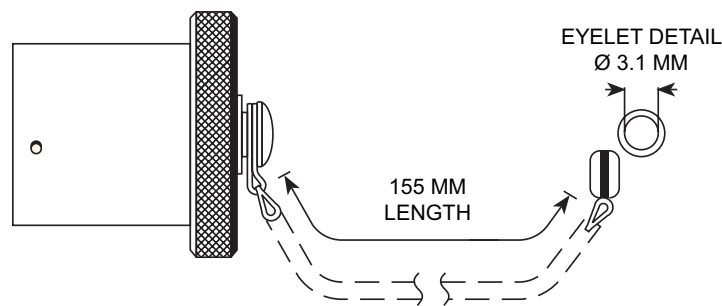
Shell Size	D3	D4
08	14.6 0.575	21.95 0.864
10	17.8 0.701	26.77 1.054
12	22.5 0.886	31.55 1.242
14	25.7 1.012	36.83 1.450
16	28.9 1.138	40.31 1.587
18	32.1 1.264	43.18 1.700
20	35.2 1.386	46.36 1.825
22	38.0 1.496	49.19 1.937
24	41.6 1.638	52.71 2.075

Millimeters Inches
*Protective caps are not qualified to JN1003



38999-Style HDJ Series Connectors

Accessories
Protective Cap, Plug (JN 1003 Style MF)



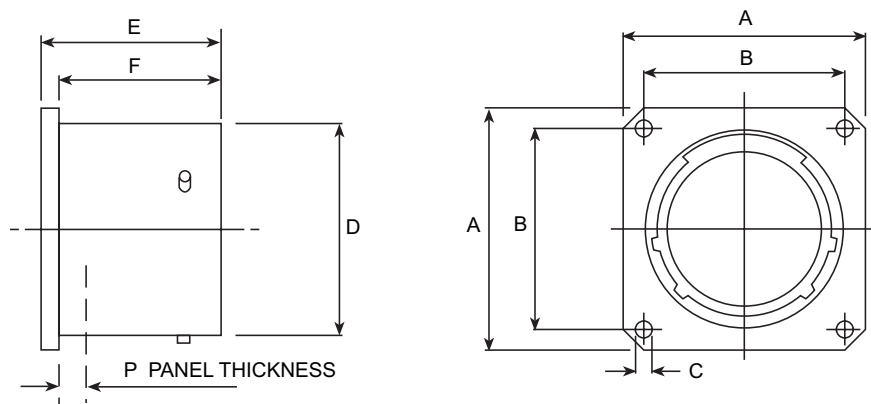
TE DEUTSCH Part No.	Eurofighter Ref.	Shell Size
HDJ11 – **	JN1003MF**	**



38999-Style HDJ Series Connectors

Accessories

Dummy Stowage (JN 1003 Style R)



TE DEUTSCH Part No.	Eurofighter Ref.	Shell Size
HDJ10 - **	JN1003R**	**

Shell Size	A +0.40 (+0.016)	B ±0.13 (±0.005)	C ±0.10 (±0.004)	D +0/-0.13 (+0/-0.005)	E +0.15 (+0.006)	F +0/-0.13 (+0/-0.005)	P Max.
08	20.62 0.812	15.10 0.594	3.20 0.126	12.00 0.472	18.21 0.717	16.05 0.632	3.00 0.118
10	23.83 0.938	18.30 0.720		15.00 0.591			
12	26.19 1.031	20.60 0.811		19.05 0.750			
14	28.57 1.125	23.00 0.906		22.22 0.875			
16	30.96 1.219	24.60 0.969		25.40 1.000			
18	33.32 1.312	27.00 1.063		28.57 1.125			
20	36.53 1.438	29.40 1.157		31.75 1.250		15.292 0.602	2.266 0.089
22	39.67 1.562	31.80 1.252	34.92 1.375				
24	42.90 1.689	34.90 1.374	38.10 1.500				

Millimeters Inches



Insert Arrangements

SIZE 8



08-35
6#22D (M)



08-98
3#20 (I)



10-35
13#22D (M)



10-98
6#20 (I)



12-04
4#16 (I)



12-35
22#22D (M)



12-98
10#20 (I)



14-19
19#20 (I)



14-35
37#22D (M)

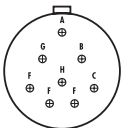


14-97
8#20 4#16 (I)

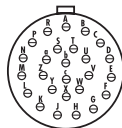


16-06
6#12 (I)

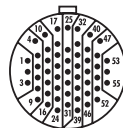
SIZE 16



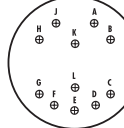
16-08
8#16 (II)



16-26
26#20 (I)

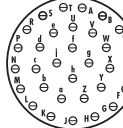


16-35
55#22D (M)



18-11
11#16 (II)

SIZE 18

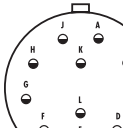


18-32
32#20 (I)

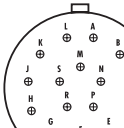


18-35
66#22D (M)

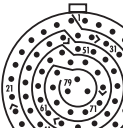
SIZE 20



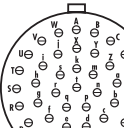
20-11
11#12 (I)



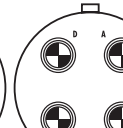
20-16
16#16 (II)



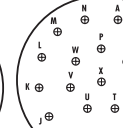
20-35
79#22D (M)



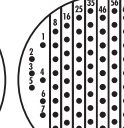
20-41
41#20 (I)



20-75
4 TWINAX #8 (M)

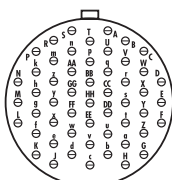


22-21
21#16 (II)

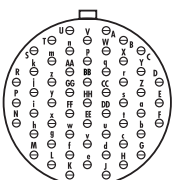


22-35
100#22D (M)

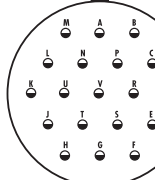
SIZE 22



22-53
53#20 (I)

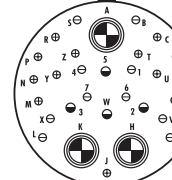


22-55
55#20 (I)



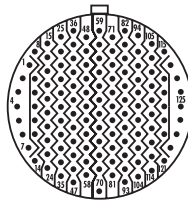
24-19
19#12 (I)

SIZE 24

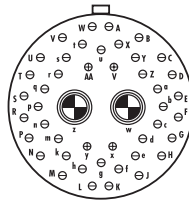


24-20
10#20 13#16 4#12
3 TWINAX #8 (N)

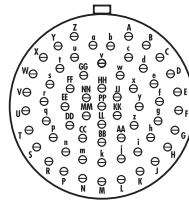
SIZE 24



24-35
128#22D (M)



24-46
40#20 4#16 2#8 COAX (I)



24-61
61#20 (I)