Main technical characteristics

[Environmental]

——Operation temperature:

Olive-green cadmium plating:-65℃～+175℃

Electroless nickel plating:-65℃～+200℃

——high temperature resistance: 1000 h

——Relative humidity: 98% at 40℃

——Air leakage rate:≤16 cm^3/h at a pressure differential of 2 atmospheres

——Salt spray

Olive-green cadmium plating: 500 h

Electroless nickel plating: 48 h

——Fluid immersion resistance: against various fuels, coolant, solvent

[Mechanical]

——Retention force of insert installed in the shell: 7 bars

——Retention force of contacts installed in the insulator:

Contact size	22D	20#	16#	12#	8#	4#
Max load(N)	45	67	110	150	150	150

——Mating and unmating force

Shell size	Max mating force(N)	Min unmating force(N)
11	20×10	12×10
13	30×10	13×10
15	35×10	15×10
17	50×10	16×10
19	55×10	18×10
21	65×10	22×10
23	80×10	27×10
25	102×10	34×10

——Durability: 500 cycles

——Random vibration: 10～2000Hz, peak value of acceleration 28g

——Sinusoid vibration: 10～2000Hz, peak value of acceleration 30g

——Shock: 3ms one thirds sinusoid, peak value of acceleration 150g

[Electrical]

——Rated current of contact:

Contact size	22D	20#	16#	12#	8#	4#
Rated current(A)	5	7.5	13	23	60	100

——Contact resistance:

Contact size	22D	20#	16#	12#	8#	4#
Contact resistance(mΩ)	8	4.7	2	1.1	0.6	0.26

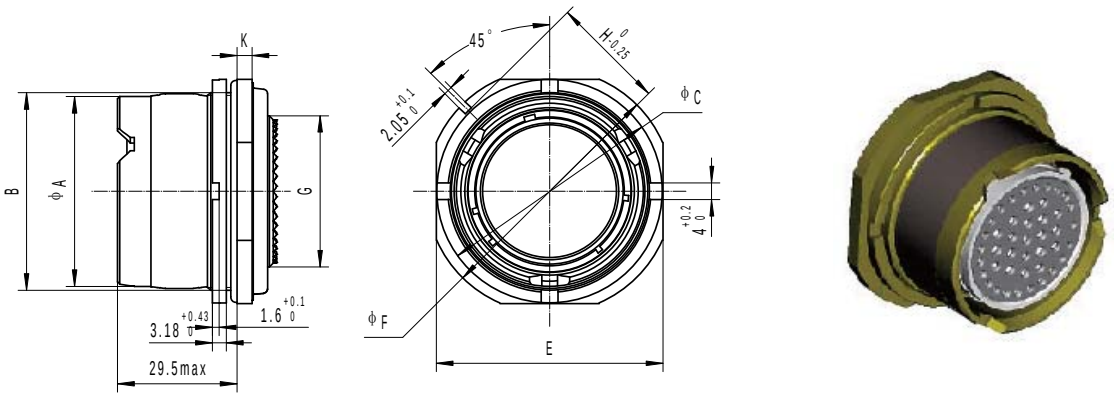
——Insulation resistance:

Normal ≥5000MΩ； high temperature ≥1000MΩ

——Service rating

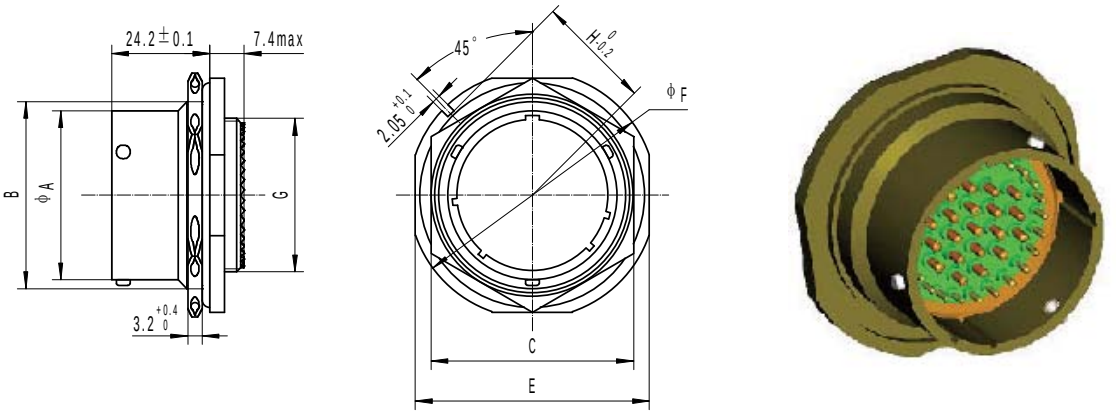
Operation class	Withstanding voltage at sea level (Vrms)	Withstand voltage at 21000-meter altitude (Vrms)	Operating voltage	
			Vrms	Vdc
M	1300	800	400	550
N	1000	600	300	400
I	1800	1000	600	850
II	2300	1000	900	1250

Outline dimension [Jam nut plug LAH.....]



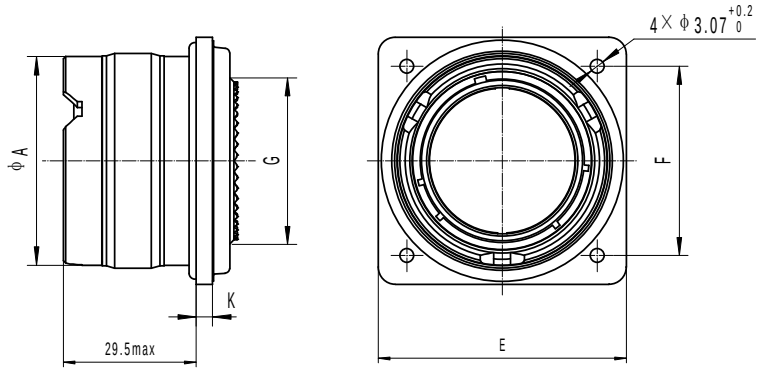
Shell size	A	Thread B UNEF-2A	C	E	F	Thread G UNEF-2A	H	K
11	23.00	1.0000-20	32.23	32.16	38.10	0.5625-24	16.92	2.77
13	26.80	1.1250-18	35.25	36.34	41.28	0.6875-24	18.51	2.77
15	30.00	1.2500-18	38.40	38.51	44.45	0.8125-20	20.10	2.77
17	33.22	1.3750-18	41.60	41.69	49.23	0.9375-20	22.67	2.77
19	36.20	1.5000-18	46.30	46.43	52.37	1.0625-18	24.26	3.56
21	39.40	1.6250-18	49.60	49.64	55.58	1.1875-18	25.84	3.56
23	42.60	1.7500-18	52.70	52.78	58.72	1.3125-18	27.43	3.56
25	45.68	1.8750-16	53.93	54.03	59.10	1.4375-18	27.58	3.56

[Jam nut receptacle LAH49680]



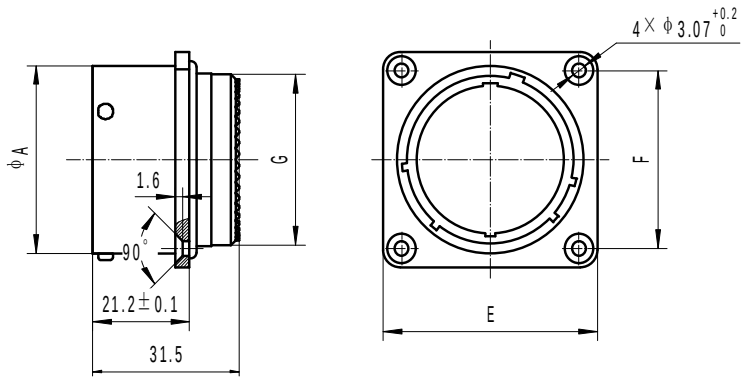
Shell size	A	Thread B UNEF-2A	C	E	F	Thread G UNEF-2A	H
11	17.81	0.8125-20	25.80	31.49	35.20	0.5625-24	15.33
13	21.62	1.0000-20	30.00	34.69	38.38	0.6875-24	16.92
15	24.80	1.1250-18	33.00	37.79	41.55	0.8125-20	18.51
17	27.97	1.2500-18	37.00	40.99	44.73	0.9375-20	20.10
19	30.69	1.3750-18	40.00	45.79	49.51	1.0625-18	22.67
21	33.86	1.5000-18	43.00	48.99	52.65	1.1875-18	24.26
23	37.04	1.6250-18	46.00	52.09	55.86	1.3125-18	25.84
25	40.22	1.7500-18	51.20	55.29	59.00	1.4375-18	27.43

[Square flange plug LAH27999]



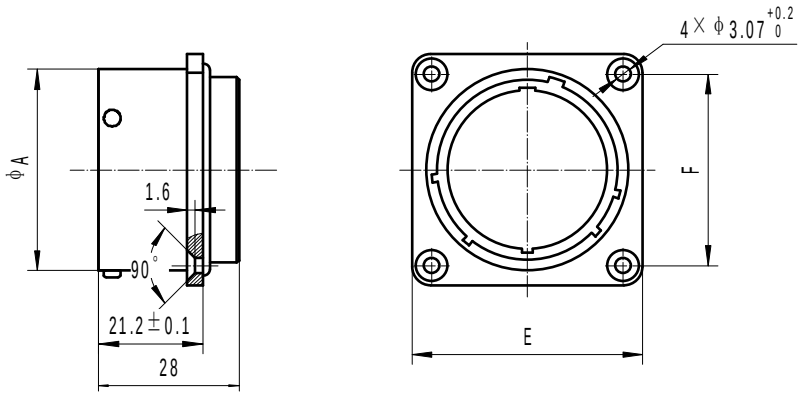
Shell size	A	E	F	Thread G UNEF-2A	K
11	23.00	33.60	25.50	0.5625-24	2.77
13	26.80	36.30	28.00	0.6875-24	2.77
15	30.00	39.50	30.00	0.8125-20	2.77
17	33.22	41.69	32.00	0.9375-20	2.77
19	36.20	46.43	35.00	1.0625-18	3.56
21	39.40	49.64	37.00	1.1875-18	3.56
23	42.60	53.00	39.50	1.3125-18	3.56
25	45.68	54.50	41.50	1.4375-18	3.56

[Wall-mounting square flange receptacle (front mounting) LAH27466]



Shell size	A	E	F	Thread G UNEF-2A
11	17.81	28.30	20.62	0.5625-24
13	21.62	30.70	23.01	0.6875-24
15	24.80	32.30	24.61	0.8125-20
17	27.97	34.70	26.97	0.9375-20
19	30.69	37.10	29.36	1.0625-18
21	33.86	39.70	31.75	1.1875-18
23	37.04	42.90	34.93	1.3125-18
25	40.22	46.00	38.10	1.4375-18

[Box square flange receptacle (front mounting) LAH27496]



Shell size	A	E	F
11	17.81	28.30	20.62
13	21.62	30.70	23.01
15	24.80	32.30	24.61
17	27.97	34.70	26.97
19	30.69	37.10	29.36
21	33.86	39.70	31.75
23	37.04	42.90	34.93
25	40.22	46.00	38.10

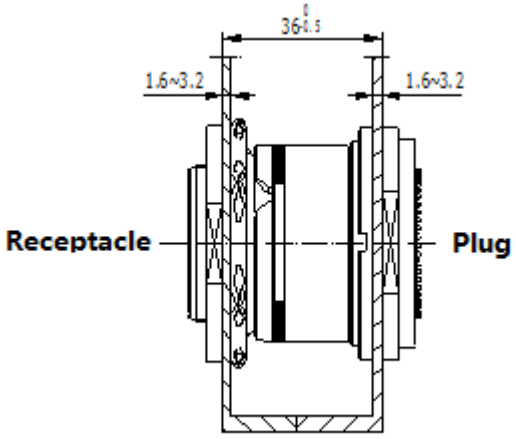
Installation

Notes:——The dimension between the two flanges is critical for it assures the technical characteristics after mating.

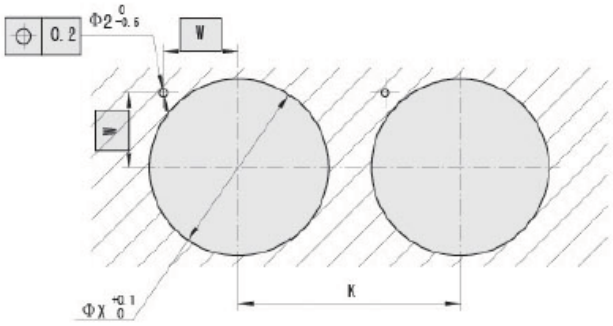
——The guide system independent of the connector makes the float unit in place

——no mechanical pressure should be put on the rear of plug by cables.

Mated connectors (jam nut plug and jam nut receptacle)



Panel cutout dimensions and recommended nut coupling torque (applicable to jam nut plug and receptacle)

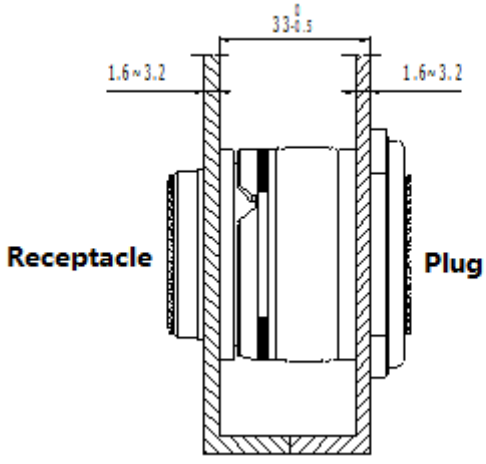


Note: The smallest hole is for interference assembly of stainless steel dowel.

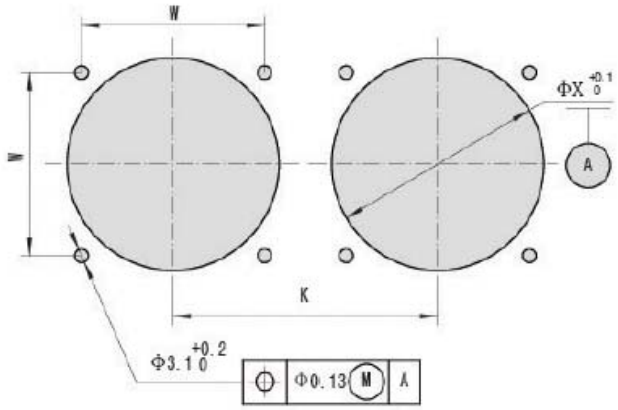
Shell size of plug	K（min）	W	X	Nut coupling torque	
				min	max
11	32.60	12.81	25.58	6.2	6.8
13	36.00	13.94	28.80	7.9	8.5
15	39.60	15.06	31.98	9.0	9.6
17	43.30	16.88	35.15	10.2	10.7
19	47.00	18.00	38.28	11.3	12.4
21	50.60	19.12	41.50	12.4	13.6
23	54.20	20.24	44.68	13.6	14.7
25	59.70	20.30	48.08	15.8	16.9

Shell size of receptacle	K（min）	W	X	Nut coupling torque	
				min	max
11	32.60	11.69	20.88	4.5	5.7
13	36.00	12.81	25.58	6.2	6.8
15	39.60	13.94	28.80	7.9	8.5
17	43.30	15.06	31.98	9.0	9.6
19	47.00	16.88	35.15	10.2	10.7
21	50.60	18.00	38.28	11.3	12.4
23	54.20	19.12	41.50	12.4	13.6
25	59.70	20.24	44.68	13.6	14.7

Mated connectors（square flange plug and square flange receptacle）



[Panel cutout dimensions for square flange plug]



Shell size	Mounting Dimension for Plug		
	ΦX +0.1 0	W	K, Min.
11	25.58	25.5	36
13	28.80	28	39.6
15	31.98	30	43.3
17	35.15	32	47
19	38.28	35	50.6
21	41.50	37	54.2
23	44.68	39.5	59.7
25	48.08	41.5	59.7

Shell size	Mounting Dimension for Receptacle		
	ΦX +0.1 0	W	K, Min.
11	16.78	20.62	36
13	19.98	23.01	39.6
15	22.88	24.61	43.3
17	25.88	26.97	47
19	29.08	29.36	50.6
21	32.28	31.75	54.2
23	34.08	34.93	59.7
25	37.28	38.1	59.7