

## EN2997Y(E) Qualified Product

### Product Description

Sealtron is a manufacturer of EN2997 Y and YE hermetic connectors and is qualified to the ASD (formerly known as Association Europeene des Constructeurs de Materiel Aerospatial or AECMA) specification. We offer a full range of receptacles: EN2997-005 Class Y and YE, EN2997-006 Class Y & YE and EN2997-007 Class Y & YE in shell sizes 8 thru 28.

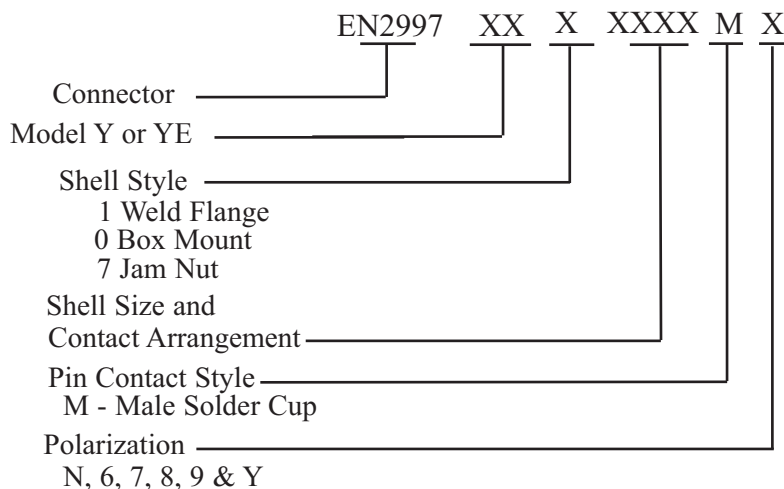
Principle design features include: metal-to-metal grounding between receptacles and mating plugs, passivated stainless steel shell material and Gold plated electrical contacts with solder cup terminations. The product is qualified to operate up to 260° Celsius (cyclical) and will withstand an extended range of fluids in an aerospace environment.

For customers who prefer solder eyelet style terminations on their electrical contacts or thermocouple (Type K) pins, these are available as commercial equivalents that “meet the design requirements” of EN2997, but cannot be marked with the EN part number nor certified to the specification.

Sealtron’s quality system is registered to AS9100 and ISO 9001:2000. The company is also a manufacturer of U. S. Military qualified product to MIL-DTL-26482 Series I & II, MIL-DTL-38999 Series I, II, & III and MIL-DTL-83723 and of ESC 10 connectors to the SBAC specification.

### EN Part Numbering Systems

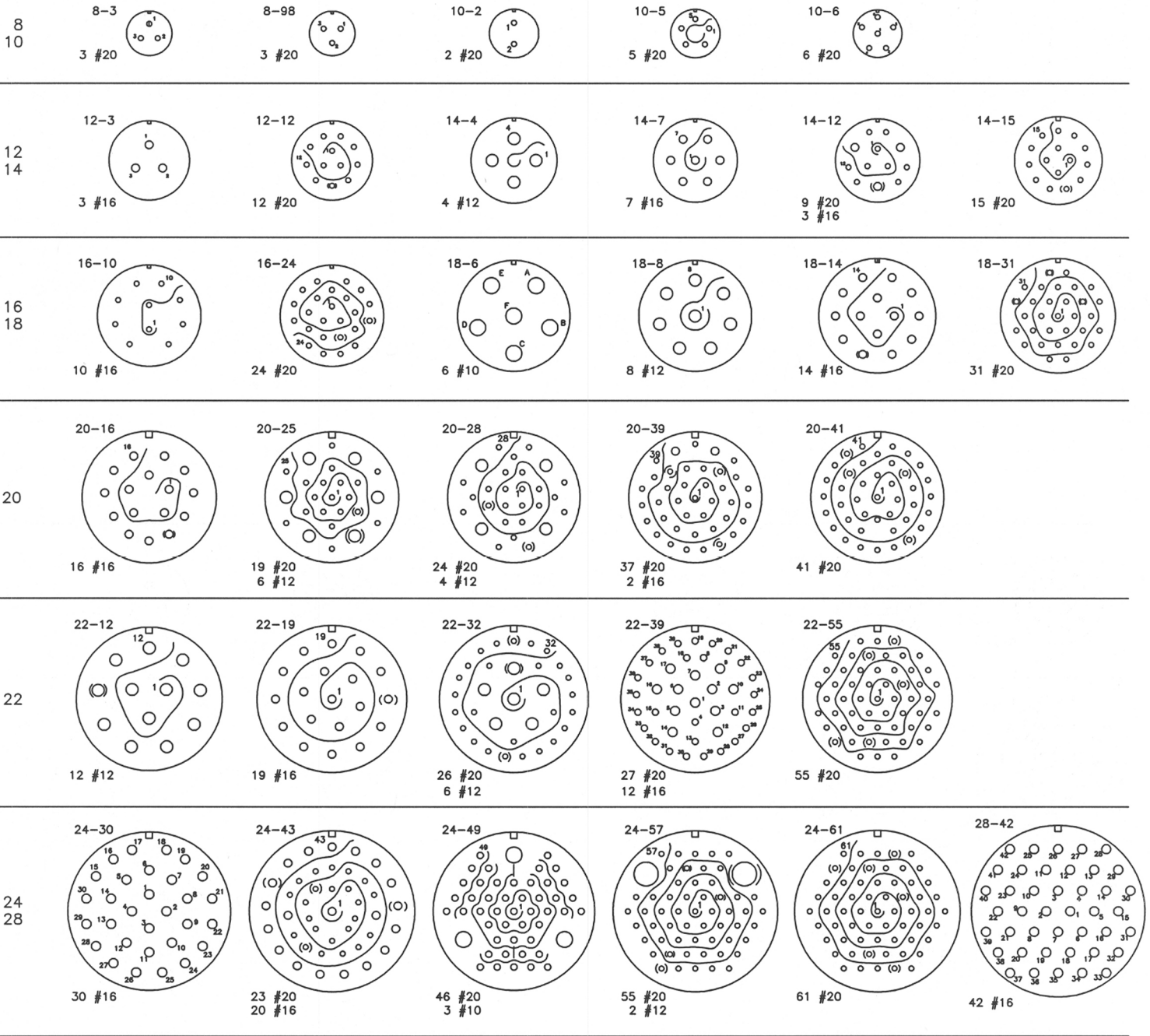
Connector types will be identified in the following manner:



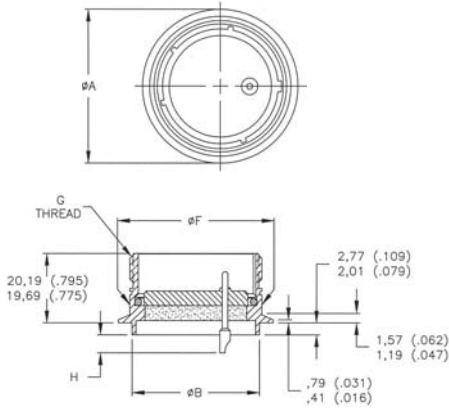
**Insert Arrangements**

Engaging face of pin insert shown

Other arrangements as shown in MIL-Std-1554 available by special order.  
Contact factory for availability



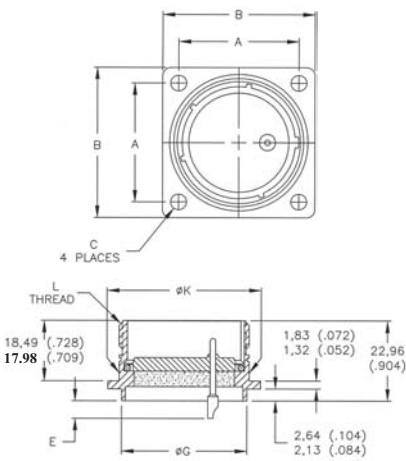
**EN2997 Y(E)1**  
Round Flange Mount



Shell Size	$\phi A$		$\phi B$		$\phi F$		G Thread BS 1580 Class 2A				
	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch			
08	18.36	.723	17.86	.703	12.70	.500	12.55	.494	14.27	.562	.5625-24 UNEF
10	21.59	.850	21.08	.830	14.27	.562	14.12	.556	17.68	.696	.6875-24 UNEF
12	26.80	1.055	26.29	1.035	19.05	.750	18.90	.744	22.23	.875	.8750-20 UNEF
14	27.94	1.100	27.43	1.080	20.62	.812	20.47	.806	23.77	.936	.9375-20 UNEF
16	30.99	1.220	30.48	1.200	23.80	.937	23.65	.931	26.97	1.062	1.0625-18 UNEF
18	34.39	1.354	33.78	1.330	26.97	1.062	26.82	1.056	30.15	1.187	1.1875-18 UNEF
20	37.34	1.470	36.83	1.450	30.15	1.187	30.00	1.181	33.32	1.312	1.3125-18 UNEF
22	40.64	1.600	40.13	1.580	33.32	1.312	33.17	1.306	36.50	1.437	1.4375-18 UNEF
24	43.68	1.720	43.17	1.700	36.50	1.437	36.35	1.431	39.67	1.562	1.5625-18 UNEF
28	50.21	1.977	49.70	1.957	42.82	1.686	42.67	1.680	46.02	1.812	1.8125-16 UN

CONTACT Size	MAX		MIN	
	mm	Inch	mm	Inch
20	4,93	.194	3,40	.134
16 & 12	5,69	.224	4,17	.164

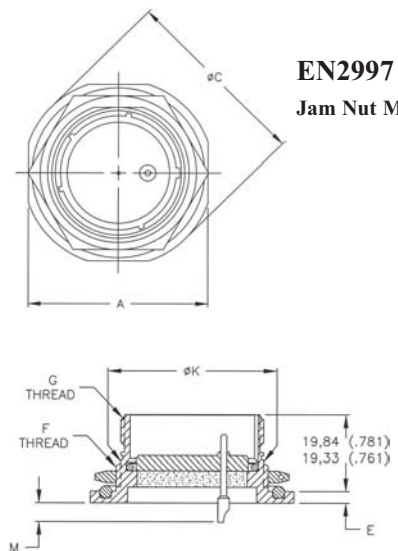
**EN2997 Y(E)0**  
Square Flange Mount



Shell Size	A		B		$\phi C$		$\phi K$		L Thread BS 1580 Class 2A		$\phi G$				
	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch			
08	15.09	.594	20.75	.817	20.49	.807	3.05	.120	14.27	.562	.5625-24 UNEF	12.70	.500	12.55	.494
10	18.26	.719	23.93	.942	23.67	.932			17.67	.696	.6875-24 UNEF	14.27	.562	14.12	.556
12	20.62	.812	26.32	1.036	26.06	1.026			22.22	.875	.8750-20 UNEF	19.05	.750	18.90	.744
14	23.01	.906	28.71	1.130	28.45	1.120			23.77	.936	.9375-20 UNEF	20.62	.812	20.47	.806
16	24.61	.969	31.88	1.255	31.62	1.245			26.97	1.062	1.0625-18 UNEF	23.80	.937	23.65	.931
18	26.97	1.062	34.24	1.348	33.98	1.338			30.15	1.187	1.1875-18 UNEF	26.97	1.062	26.82	1.056
20	29.36	1.156	36.63	1.442	36.37	1.432			33.32	1.312	1.3125-18 UNEF	30.15	1.187	30.00	1.181
22	31.75	1.250	39.80	1.567	39.54	1.557			36.49	1.437	1.4375-18 UNEF	33.32	1.312	33.17	1.306
24	34.92	1.375	43.39	1.708	43.13	1.698	3.81	.150	39.67	1.562	1.5625-18 UNEF	36.50	1.437	36.35	1.431
28	39.67	1.562	50.93	2.005	50.67	1.995			46.02	1.812	1.8125-16 UN	42.82	1.686	42.67	1.680

CONTACT Size	MAX		MIN	
	mm	Inch	mm	Inch
20	4,93	.194	3,40	.134
16 & 12	5,69	.224	4,17	.164

**EN2997 Y(E)7**  
Jam Nut Mount



Shell Size	A		$\phi C$		E		F Thread BS 1580 Class 2A		G Thread BS 1580 Class 2A		$\phi K$ MAX					
	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch	MAX mm	MIN Inch				
08	24.89	.980	24.10	.949	27.38	1.078	26.59	1.047	3.48	.137	2.46	.097	.6250-20 UN	.5625-24 UNEF	14.27	.562
10	28.04	1.104	27.25	1.073	30.28	1.192	29.49	1.161					.7500-20 UNEF	.6875-24 UNEF	17.68	.696
12	32.79	1.291	32.00	1.260	35.05	1.380	34.26	1.349					.9375-20 UNEF	.8750-20 UNEF	22.23	.875
14	35.33	1.391	34.54	1.360	38.51	1.516	37.72	1.485					1.0000-20 UNEF	.9375-20 UNEF	23.77	.936
16	38.51	1.561	37.72	1.485	41.68	1.641	40.89	1.610					1.1250-18 UNEF	1.0625-18 UNEF	26.97	1.062
18	41.68	1.641	40.89	1.610	44.86	1.766	44.07	1.735					1.2500-18 UNEF	1.1875-18 UNEF	30.15	1.187
20	44.86	1.766	44.07	1.735	49.63	1.954	48.84	1.923					1.3750-18 UNEF	1.3125-18 UNEF	33.32	1.312
22	49.63	1.954	48.84	1.923	52.78	2.078	51.99	2.047	3.76	.148	3.25	.128	1.5000-18 UNEF	1.4375-18 UNEF	36.50	1.437
24	52.81	2.079	52.05	2.048	55.42	2.182	54.66	2.152					1.6250-18 UNEF	1.5625-18 UNEF	39.67	1.562
28	59.21	2.331	58.42	2.300	61.82	2.434	61.04	2.403					1.8750-16 UN	1.8125-16 UN	46.02	1.812

Shell Size	M Contact Size 20		M Contact Size 16 & 12					
	mm	Inch	mm	Inch				
8 to 20	4,57	.180	3,05	.120	5,33	.210	3,81	.150
22 to 28	4,29	.169	2,77	.109	5,05	.199	3,53	.139

## General Specifications

**Temperature:**

Class Y - 65° C to + 200° C

Class YE - 65° C to + 260° C cyclical

**Amperage:**

#20 Contact - 5.5 A

#16 Contact - 11 A

#12 Contact - 20 A

**Fluid Immersion:**

Synthetic Lube Oil

Per MIL-L-23699

Hydraulic Fluid

Per MIL-H-5606

Ethylene Glycol

Per MIL-A-8243

1,1,1, Trichloroethane

Kerosene MIL-T-5624

Skydrol LD4

Freon TF

Per MIL-C-81302

Bromochloromethane

Per MIL-B-4394

White Spirit BS 245

(Stoddard Solvent)

Genklene BS 4487

**Air Leakage (Hermeticity):**

Leakage rate less than .01 microns per cubic foot per hour(1x 10<sup>-7</sup> cc/sec) of Helium at 15 psi.

**Insert Retention:**

Shell Size	Test Pressure kPa	Test Pressure lbf/in <sup>2</sup>
8 to 12	1035	150
14 to 18	690	100
20 to 22	517	75
24 to 28	414	60

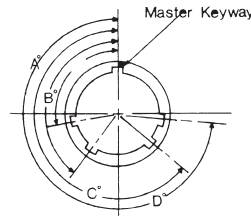
**Dielectric Withstanding Voltage:**

Altitude	Test Voltage	Duration
Sea Level	1500v rms 45-65 HZ	60 secs
70,000 ft.	1375v rms 45-65 HZ	60 secs

**Thermal Shock:**

No evidence of damage detrimental to the operation of the connector after testing at less than 4°C (39°F) to greater than 90°C(204°F)

## Master Keyway Position



	SIZE 08				SIZE 10				SIZE 12THRU 28			
Position	A°	B°	C°	D°	A°	B°	C°	D°	A°	B°	C°	D°
Normal	105	140	215	265	105	140	215	265	105	140	215	265
6	102	132	248	320	102	132	248	320	18	149	192	259
7	80	118	230	312	80	118	230	312	92	152	222	342
8	35	140	205	275	35	140	205	275	84	152	204	334
9	64	155	234	304	64	155	234	304	24	135	199	240
Y	N/A	N/A	N/A	N/A	25	115	220	270	98	152	268	338