

Conesys Europe Hermetic Connectors

AE6 Series per MIL-DTL-26500



AE6 Series Hermetic Connectors per MIL-DTL-26500



Features and Application

AE6 Series Hermetic connector receptacles are manufactured to Conesys Europe standards and meet all the requirements of MIL-DTL-26500. AE6 Series offers hermetic connectors with bayonet and threaded coupling. These connectors are interchangeable with MIL-DTL-83723 Series III connectors (except shell size 8, threaded coupling only).

AE6 series connectors are widely used on commercial, military, and aerospace systems requiring general purpose, miniature cylindrical bayonet or threaded coupling connectors.

This family of threaded and bayonet connector receptacles is available in jam-nut mounted, which incorporate O-ring seals, designed for rear panel “D” hole mounting; solder mounted, and box mounted with a Conesys P/N only.

These hermetic connectors are available in passivated stainless steel material and tin-plated mild steel. Other materials and finish can be proposed for special applications – Please consult factory.

AE6 family connectors are available with standard solder cup and eyelet terminals and also with pin tail terminals. Contacts are tin- or gold-plated. Alternative finishes are available on request.



Insert Arrangement – Insert arrangements per MIL-STD-1554, utilizing contacts size 20, 16, and 12 are available.

Shell Polarization – Alternate key/keyway positions prevent cross mating of adjacent connectors having the same insert arrangement.

Insert Polarization – Alternate insert clocking positions prevent cross mating of adjacent connectors having the same insert arrangement.

Interfacial Pin Insert Seal – Raised moisture barriers around each receptacle pin, which mate into lead-in chamfers of the plug hard face socket insert, provide individual contact sealing.

Glass Insulator – These hermetic connectors are designed with sintered compression glass as an insulator.

Special Contacts – AE6 Series hermetic connectors are available with special contact, i.e., thermo couple (chromel, alumel, etc.). Commercial P/N only.



Performance Specifications

Operating Temperature Range

Class H: -55°C to +200°C (-67°F to +392°F)

Class Y: -55°C to +200°C (-67°F to +392°F)

Material and Finish Data (Class) – AE77 Series

Class H:

RECEPTACLE	material:	mild steel
	finish:	tin plated
CONTACTS	material:	ferrous alloy
	finish:	gold plated

Class Y (Conesys P/N only):

RECEPTACLE	material:	stainless steel
	finish:	passivated
CONTACTS	material:	ferrous alloy
	finish:	gold plated

Durability

Threaded Coupling Connectors:
 Minimum of 200 mating cycles

Bayonet Coupling Connectors:
 Minimum of 500 mating cycles

Leakage

< 1.10⁻⁷ atm.cm³.s⁻¹.

Insulation Resistance

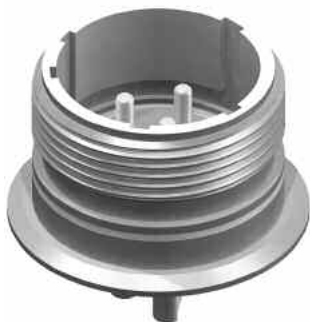
>5000 M| under 500 Vdc
 (25°C – 65% HR max.)

Withstanding Voltage

At sea level:	1500 V rms
At 15 000 m altitude:	500 V rms
At 21 000 m altitude:	375 V rms
At 33 000 m altitude:	200 V rms

Maximum Current Rating per Contact

Size 20	5 Amp
Size 16	10 Amp
Size 12	17 Amp

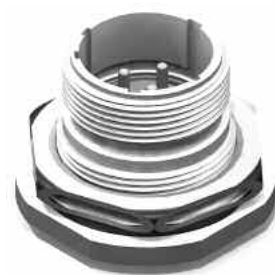


AE6 Series
Hermetic Connectors
per MIL-DTL-26500



Military and Conesys Part Number Development

Mil. Prefix	MS	24265	H	22	B	55	C	N	
Conesys Prefix	AE	665	H	22	B	55	C	N	-XXX
Shell Type (specification sheet number)									
N/A = Wall mount receptacle = 664 (Conesys)									
24265 = Jam nut receptacle = 665 (Conesys)									
27034 = Solder mount receptacle = 634 (Conesys)									
Class (Material and Finish)									
H = Shell – mild steel, tin plated = Terminals – ferrous alloy, gold plated									
Y = Shell – stainless steel, passivated (Conesys P/N only) = Terminals – ferrous alloy, gold plated									
Shell Size 8 to 24									
Coupling Type									
B = Bayonet									
T = Threaded									
Insert Arrangement See pages 129–130									
Contact Style (pin only)									
C = Solder cup									
E = Eyelet									
X = Pin tail for PCB (Conesys P/N only)									
Polarization (keying)									
N = Normal									
6, 7, 8, 9, or Y (Alternate keyed positions; Y is not available in SS 8)									
Modification or Particularities (applies to Conesys part numbers only)									
XXX = Modification									
Consult factory for details									





Terminal Configuration



Terminal Style C

Solder cup

Available in sizes 20, 16, 12, and 8

For other sizes, please consult factory.



Terminal Style E

Eyelet

Available in sizes 20 and 16

For other sizes, please consult factory.



Terminal Style X

Pin tail for PCB

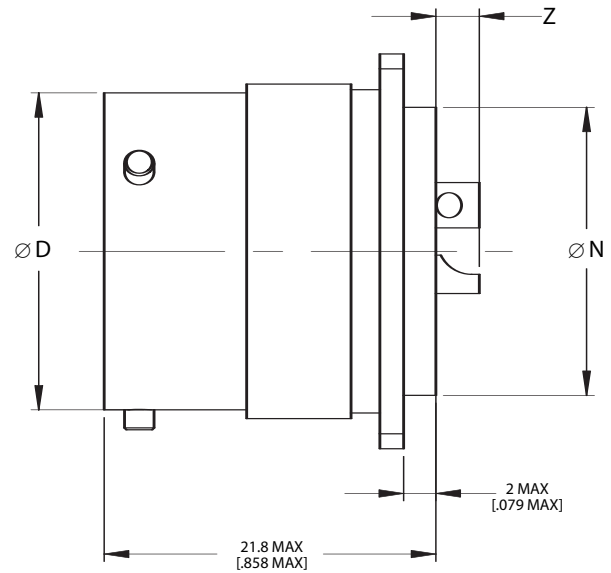
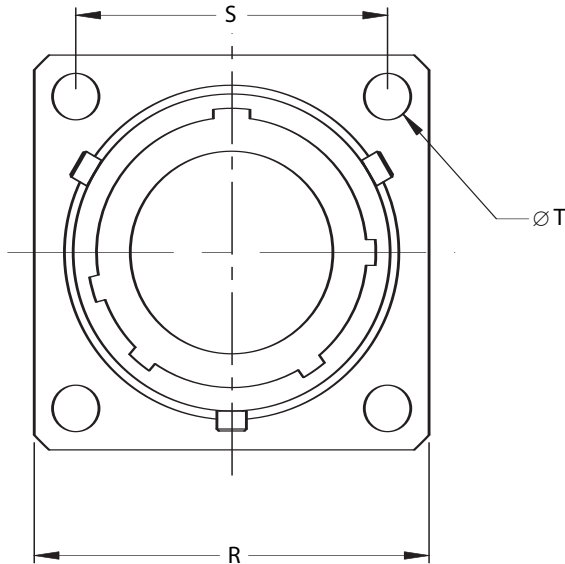
Available in sizes 22, 20, and 16

For other sizes or lengths, please consult factory.



AE664*B**

Wall Mount Receptacle – Bayonet Coupling

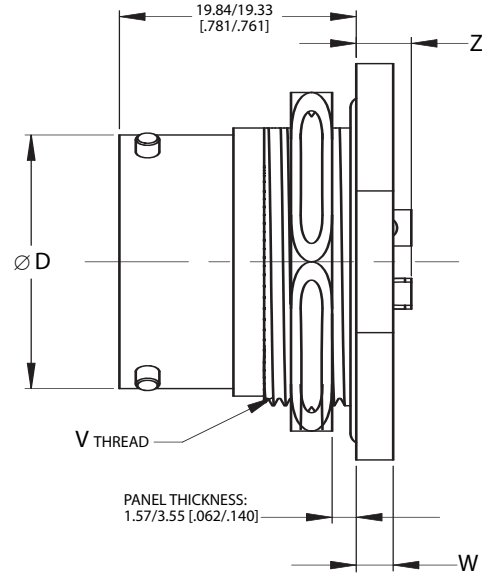
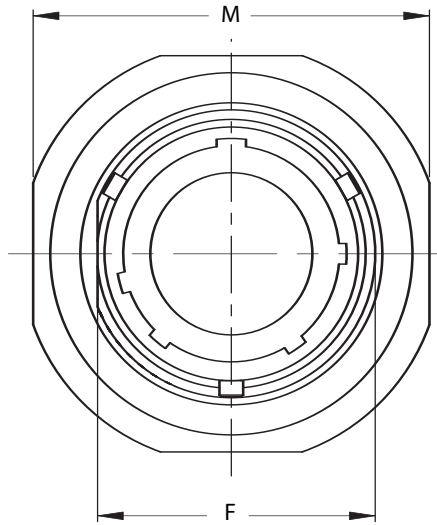


Contact Size	Z					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	3.81	.150	2.76	.109	Consult factory	
16	5.33	.510	4.34	.171	Consult factory	
12	5.58	.220	5.58	.220	Consult factory	



Shell Size	Ø D		Ø N		R		S		Ø T	
	+0.00 -0.12	+0.000 -0.005	Maximum		Maximum		(TP)		+0.00 -0.22	+0.000 -0.009
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
8	13.61	.536	11.09	.437	20.75	.817	15.09	.594	3.18	.125
10	16.74	.659	14.27	.562	23.93	.942	18.26	.719	3.18	.125
12	21.06	.829	19.05	.750	26.32	1.036	20.62	.812	3.18	.125
14	22.81	.898	20.62	.812	28.71	1.130	23.01	.906	3.18	.125
16	26.04	1.025	23.79	.937	31.88	1.255	24.61	.969	3.18	.125
18	28.73	1.131	26.97	1.062	34.24	1.348	26.97	1.062	3.18	.125
20	31.90	1.256	30.02	1.182	36.63	1.442	29.36	1.156	3.18	.125
22	35.08	1.381	33.32	1.312	39.80	1.567	31.75	1.250	3.18	.125
24	38.25	1.506	36.37	1.432	43.39	1.708	34.92	1.375	3.91	.154

MIL-DTL-26500

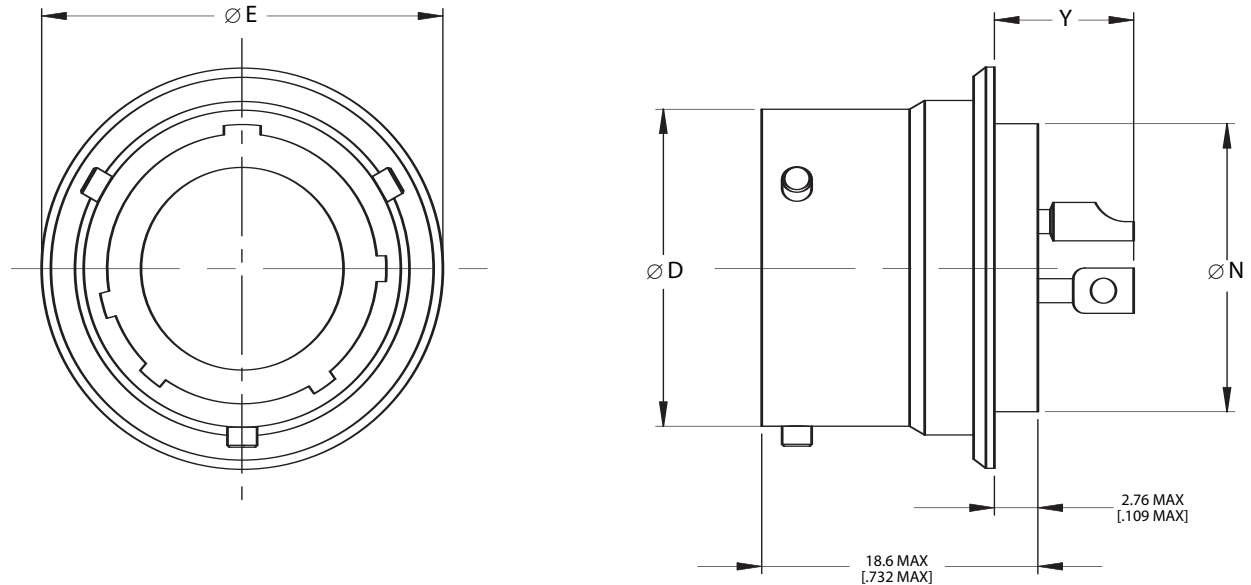


Contact Size	Z					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	4.20	.165	4.20	.165	Consult factory	
16	5.95	.234	5.95	.234	Consult factory	
12	5.95	.234	5.95	.234	Consult factory	



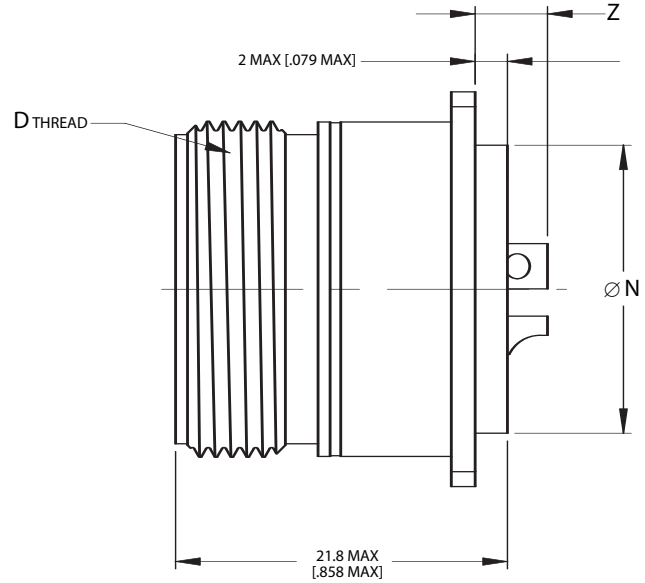
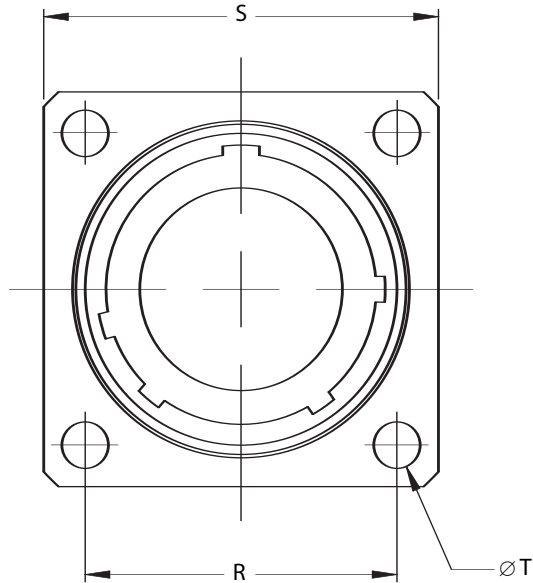
Shell Size	Ø D		F		M		V	W	
	+0.00	+0.000	Flat				Thread	±0.5 ±.020	
	-0.12	-0.005	±0.07	±.003	±0.12	±.005	Class 2A	mm	inch
	mm	inch	mm	inch	mm	inch			
8	13.61	.536	15.06	0.593	24.87	0.979	5/8-20 UN	2.97	.117
10	16.74	.659	18.24	0.718	28.04	1.104	3/4-20 UNEF	2.97	.117
12	21.06	.829	22.99	0.905	32.79	1.291	15/16-20 UNEF	2.97	.117
14	22.81	.898	24.59	0.968	35.33	1.391	1-20 UNEF	2.97	.117
16	26.04	1.025	27.76	1.093	38.51	1.516	1-1/8-20 UN	2.97	.117
18	28.73	1.131	30.91	1.217	41.68	1.641	1-1/4 UN	2.97	.117
20	31.90	1.256	34.09	1.342	44.86	1.766	1-3/8-18 UNEF	2.97	.117
22	35.08	1.381	37.26	1.467	49.63	1.954	1-1/2-20 UN	3.75	.148
24	38.25	1.506	40.44	1.592	52.81	2.079	1-5/8-18 UNEF	3.75	.148

AE634*B**
Solder Mount Receptacle – Bayonet Coupling
MS27034



Contact Size	Y					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	8.38	.330	8.38	.330	Consult factory	
16	10.16	.400	10.16	.400	Consult factory	
12	10.16	.400	10.16	.400	Consult factory	

Shell Size	Ø D		Ø N		Ø E	
	+0.00 -0.12	+0.000 -0.005	Maximum		±0.20	±.008
	mm	inch	mm	inch	mm	inch
8	13.61	.536	11.09	.437	17.90	.705
10	16.74	.659	14.27	.562	21.33	.840
12	21.06	.829	19.05	.750	26.54	1.045
14	22.81	.898	20.62	.812	27.68	1.090
16	26.04	1.025	23.79	.937	30.73	1.210
18	28.73	1.131	26.97	1.062	34.00	1.339
20	31.90	1.256	30.02	1.182	37.46	1.475
22	35.08	1.381	33.32	1.312	40.38	1.590
24	38.25	1.506	36.37	1.432	43.81	1.725



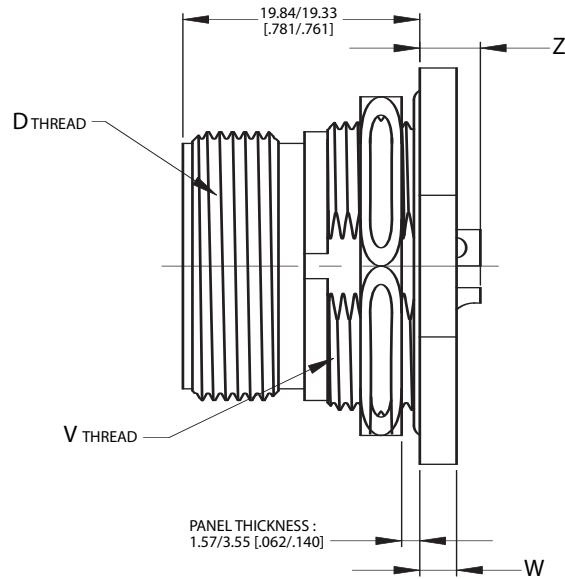
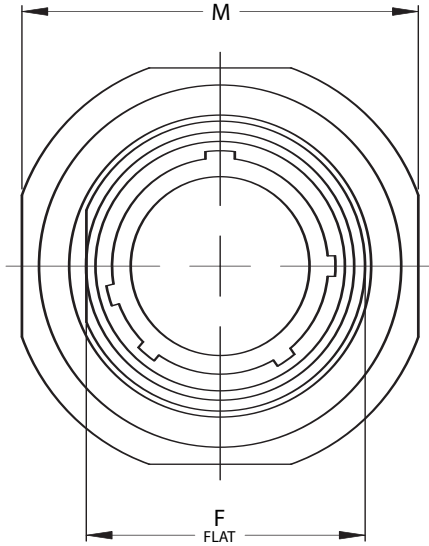
Contact Size	Z					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	3.81	.150	2.76	.109	Consult factory	
16	5.33	.510	4.34	.171	Consult factory	
12	5.58	.220	5.58	.220	Consult factory	

Shell Size	D	Ø N		R		S		Ø T	
	Thread	Maximum		Maximum		(TP)		+0.00	+0.00
	Class 2A	mm	inch	mm	inch	mm	inch	mm	inch
8	9/16-24 UNEF	11.09	.437	20.75	.817	15.09	.594	3.18	.125
10	11/16-24 UNEF	14.27	.562	23.93	.942	18.26	.719	3.18	.125
12	7/8-20 UNEF	19.05	.750	26.32	1.036	20.62	.812	3.18	.125
14	15/16-20 UNEF	20.62	.812	28.71	1.130	23.01	.906	3.18	.125
16	1-1/16-18 UNEF	23.79	.937	31.88	1.255	24.61	.969	3.18	.125
18	1-3/16-18 UNEF	26.97	1.062	34.24	1.348	26.97	1.062	3.18	.125
20	1-5/16-18 UNEF	30.02	1.182	36.63	1.442	29.36	1.156	3.18	.125
22	1-7/16-18 UNEF	33.32	1.312	39.80	1.567	31.75	1.250	3.18	.125
24	1-9/16-18 UNEF	36.37	1.432	43.39	1.708	34.92	1.375	3.91	.154

AE665*T**

Jam Nut Receptacle – Threaded Coupling

MS24265*T**

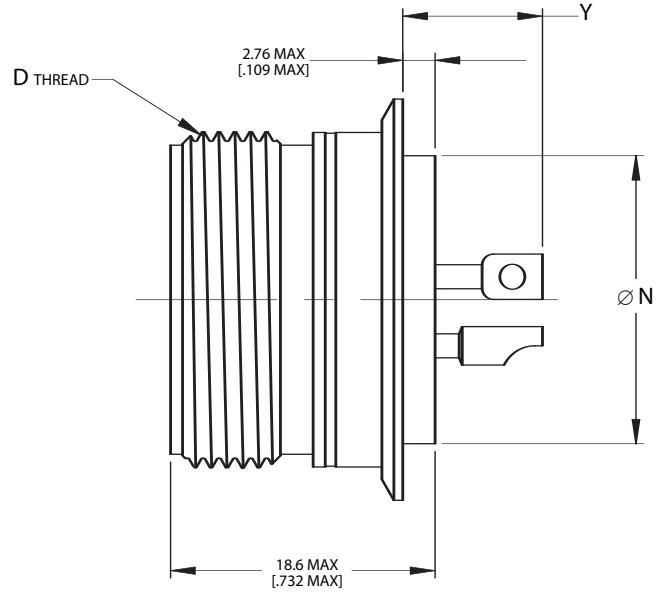
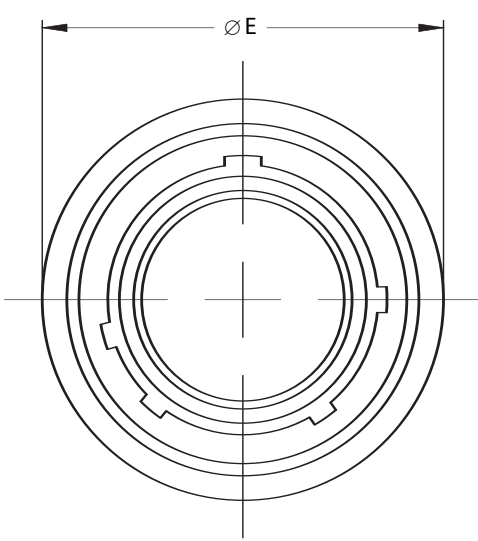


Contact Size	Z					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	4.20	.165	4.20	.165	Consult factory	
16	5.95	.234	5.95	.234	Consult factory	
12	5.95	.234	5.95	.234	Consult factory	



Shell Size	D	F		M		V	W	
	Thread	±0.07	Flat ±.003	±0.12	±.005	Thread	±0.5	±.020
	Class 2A	mm	inch	mm	inch	Class 2A	mm	inch
8	9/16-24 UNEF	15.06	0.593	24.87	0.979	5/8-20 UN	2.97	.117
10	11/16-24 UNEF	18.24	0.718	28.04	1.104	3/4-20 UNEF	2.97	.117
12	7/8-20 UNEF	22.99	0.905	32.79	1.291	15/16-20 UNEF	2.97	.117
14	15/16-20 UNEF	24.59	0.968	35.33	1.391	1-20 UNEF	2.97	.117
16	1-1/16-18 UNEF	27.76	1.093	38.51	1.516	1-1/8-20 UN	2.97	.117
18	1-3/16-18 UNEF	30.91	1.217	41.68	1.641	1-1/4 UN	2.97	.117
20	1-5/16-18 UNEF	34.09	1.342	44.86	1.766	1-3/8-18 UNEF	2.97	.117
22	1-7/16-18 UNEF	37.26	1.467	49.63	1.954	1-1/2-20 UN	3.75	.148
24	1-9/16-18 UNEF	40.44	1.592	52.81	2.079	1-5/8-18 UNEF	3.75	.148

MIL-DTL-26500



Contact Size	Y					
	Solder Cup (Style C) Maximum		Eyelet (Style E) Maximum		Pin Tail (Style X) Maximum	
	mm	inch	mm	inch	mm	inch
20	8.38	.330	8.38	.330	Consult factory	
16	10.16	.400	10.16	.400	Consult factory	
12	10.16	.400	10.16	.400	Consult factory	



Shell Size	D	Ø N		Ø E	
	Thread	Maximum		±0.20	±.008
	Class 2A	mm	inch	mm	inch
8	9/16-24 UNEF	11.09	.437	17.90	.705
10	11/16-24 UNEF	14.27	.562	21.33	.840
12	7/8-20 UNEF	19.05	.750	26.54	1.045
14	15/16-20 UNEF	20.62	.812	27.68	1.090
16	1-1/16-18 UNEF	23.79	.937	30.73	1.210
18	1-3/16-18 UNEF	26.97	1.062	34.00	1.339
20	1-5/16-18 UNEF	30.02	1.182	37.46	1.475
22	1-7/16-18 UNEF	33.32	1.312	40.38	1.590
24	1-9/16-18 UNEF	36.37	1.432	43.81	1.725

AE6 Series

Hermetic Connectors – Bayonet and Threaded Coupling per MIL-DTL-26500

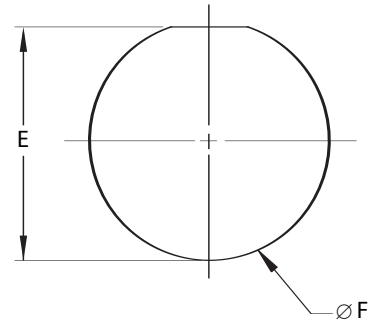
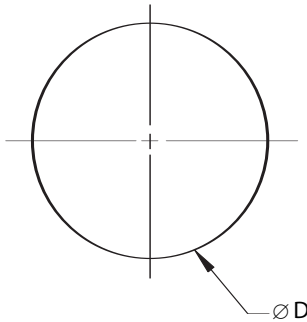
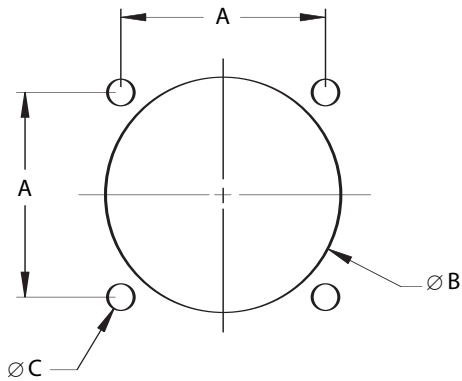


Panel Cutouts

AE664**B / AE664**T
Wall Mount Receptacle

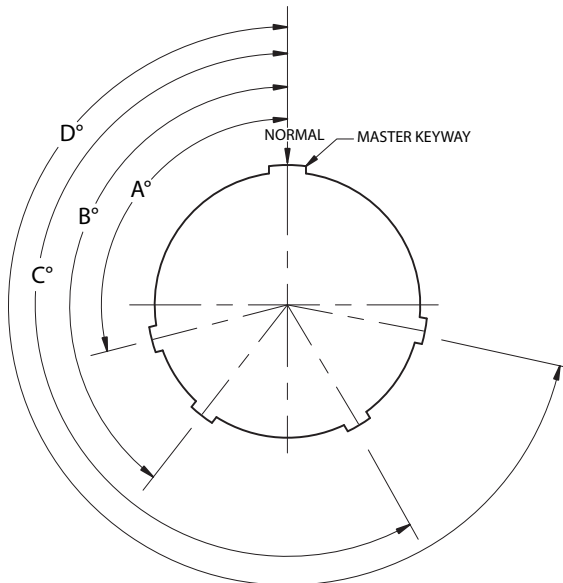
AE634**B / AE634**T
Solder Mount Receptacle

AE665**B / AE665**T
Jam Nut Receptacle



Shell Size	A		Ø B		Ø B		Ø C		Ø D		E		Ø F	
	(TP)		Back Mounting Minimum		Front Mounting Minimum		0.00	.000	+0.25	+0.010	±0.13	±.005	±0.13	±.005
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
8	15.09	.594	15.75	.620	11.35	.447	3.18	.125	11.23	.442	15.37	.605	16.13	.635
10	18.26	.719	19.00	.750	14.53	.572	3.18	.125	14.40	.567	18.64	.730	19.30	.760
12	20.62	.812	23.32	.918	19.30	.760	3.18	.125	19.18	.755	23.29	.917	24.05	.947
14	23.01	.906	25.10	.988	20.88	.822	3.18	.125	20.75	.817	24.89	.980	25.65	1.010
16	24.61	.969	28.30	1.114	24.08	.948	3.18	.125	23.93	.942	28.07	1.105	28.83	1.135
18	26.97	1.062	30.99	1.220	27.23	1.072	3.18	.125	27.10	1.067	31.12	1.225	32.00	1.260
20	29.36	1.156	34.19	1.346	30.28	1.192	3.18	.125	30.15	1.187	34.29	1.350	35.18	1.385
22	31.75	1.250	37.34	1.470	33.58	1.322	3.18	.125	33.45	1.317	37.46	1.475	38.35	1.510
24	34.92	1.375	40.54	1.596	36.63	1.442	3.91	.154	36.50	1.437	40.64	1.600	41.53	1.635

Keying Positions



Notes:

1. In the normal position (N), the insert centerline coincides with the centerline of the master keyway (key) of the shell.
2. In the alternate keying positions (6, 7, 8, 9 and Y), the minor keyways (keys) are positioned with reference to master keyway (key) as indicated in the keying position table below.

Insert Arrangement and Contact Information

Shell Size	Insert Arrangement	Quantity of Contacts			
		Total	by Size		
			20	16	12
8	08-03	3	3		
10	10-05	5	5		
12	12-03	3		3	
12	12-12	12	12		
14	14-07	7		7	
14	14-12	12	9	3	
14	14-15	15	15		
16	16-10	10		10	
16	16-24	24	24		
18	18-08	8			8
18	18-14	14		14	
18	18-31	31	31		
20	20-16	16	16		
20	20-25	25	19		6
20	20-39	39	37	2	
20	20-41	41	41		
22	22-19	19		19	
22	22-55	55	55		
24	24-30 **	30		30	
24	24-43	43	23	20	
24	24-57	57	55		2

** Non MIL-STD-1554 layout, available to Conesys P/N only.

Shell Size	Polarizing Position	Key/Keyway Positions			
		A°	B°	C°	D°
8*, 10	N	105	140	215	265
	6	102	132	248	320
	7	80	118	230	312
	8	35	140	205	275
	9	64	155	234	304
10 only	Y	25	115	220	270
12 thru 24	N	105	140	215	265
	6	18	149	192	259
	7	92	152	222	342
	8	84	152	204	334
	9	24	135	189	240
	Y	98	152	268	338

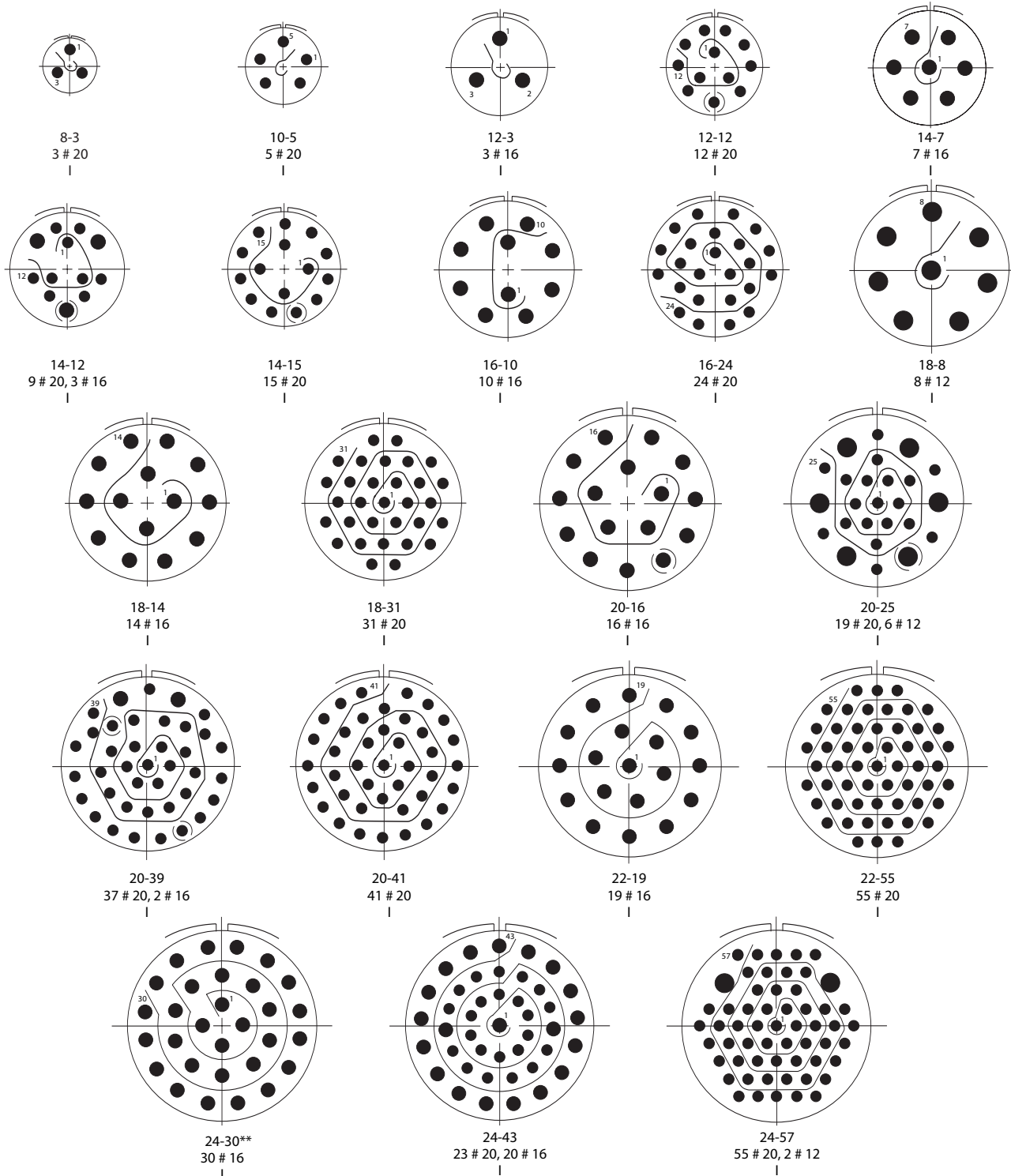
* Y position is not available for shell size 8.



AE6 Series
Insert Arrangement (Pin Front View)
 per MIL-DTL-1554



Insert Arrangement Views



** Non MIL-STD-1554 layout, available to Conesys P/N only.