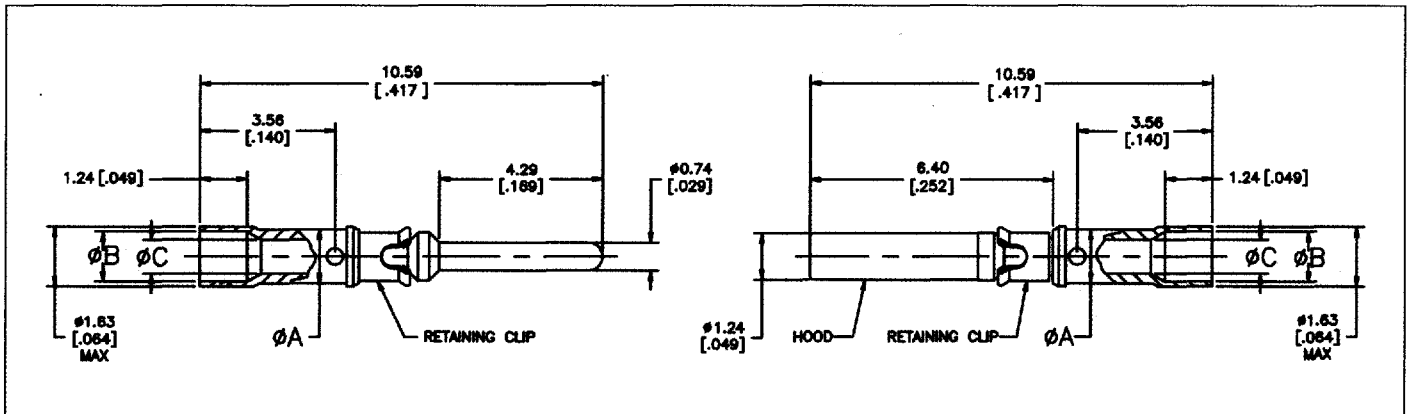
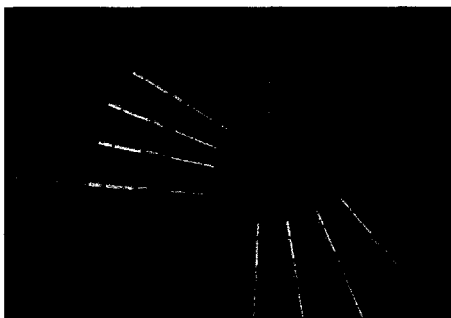
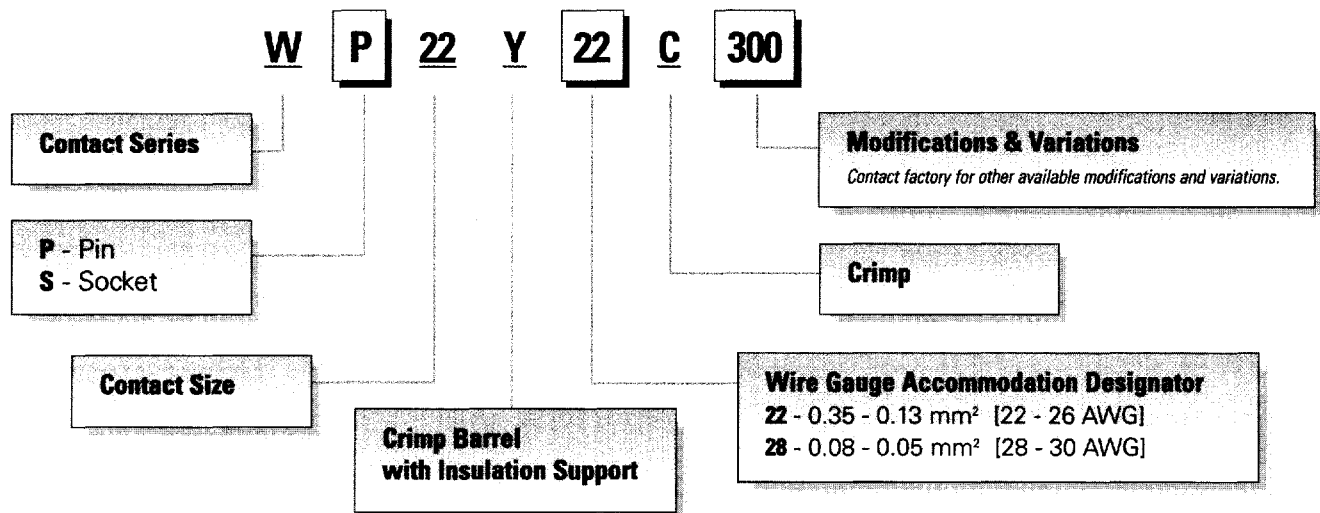


# Size 22 Contacts – Crimp Style



## Ordering Nomenclature



### Crimp/Removable Contacts

Snap-in contacts feature a unique retaining clip for reliability and ease of maintenance for serviceability. The styles shown meet most material and finish requirements. Additional mechanical versions and plating materials are available. Contact the factory for further information.

### Dimension Table

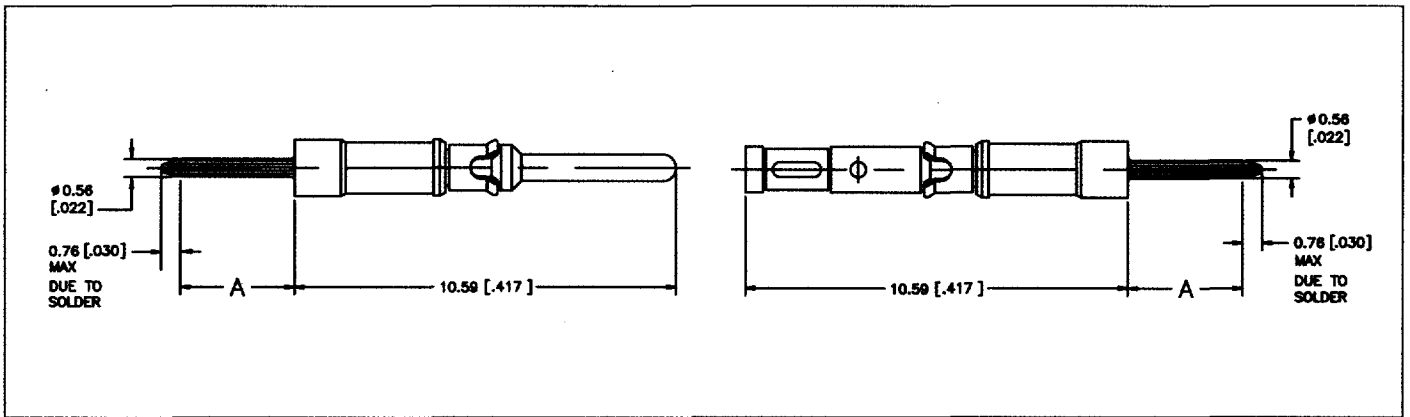
Wire Gauge Range	ØA ±0.08 [0.003]	ØB ±0.08 [0.003]	ØC ±0.08 [0.003]
0.35 - 0.13 mm <sup>2</sup> [22 - 26 AWG]	1.42 [0.056]	1.32 [0.052]	0.89 [0.035]
0.08 - 0.05 mm <sup>2</sup> [28 - 30 AWG]	0.99 [0.039]	1.19 [0.047]	0.48 [0.019]

### Materials and Finishes

Description	Material	Finish
Body	Copper Alloy	Gold Plate
Clip	Copper Alloy	Electroless Nickel, Gold Plate or None
Hood	Stainless Steel	Passivated

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in millimeters and [inches].

# Size 22 Contacts – Solder Style



## Dip Solder

Solder-coated to the requirements of MIL-STD-202, Method 208B, these contacts are widely used for interconnection to multi-layer flex circuitry or printed circuit boards.

## Ordering Nomenclature

Contact Type	Catalog Number	A ±0.13 [0.05]
Pin	WP22N20S125	3.18 [0.125]
Socket	WS22N20S125	
Pin	WP22N20S200	5.08 [0.200]
Socket	WS22N20S200	
Pin	WP22N20S350	8.89 [0.350]
Socket	WS22N20S350	
Pin	WP22N20S400	10.16 [0.400]
Socket	WS22N20S400	

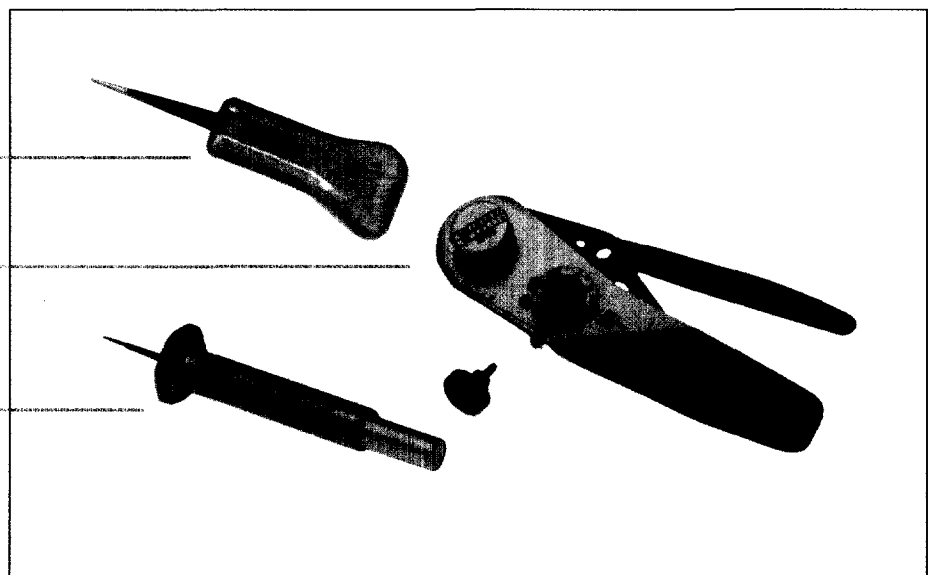
# Tools

Tools are available from  
**Koehlke Components, Inc.**  
(See page 19)

**Insertion Tool**  
TW022IT000

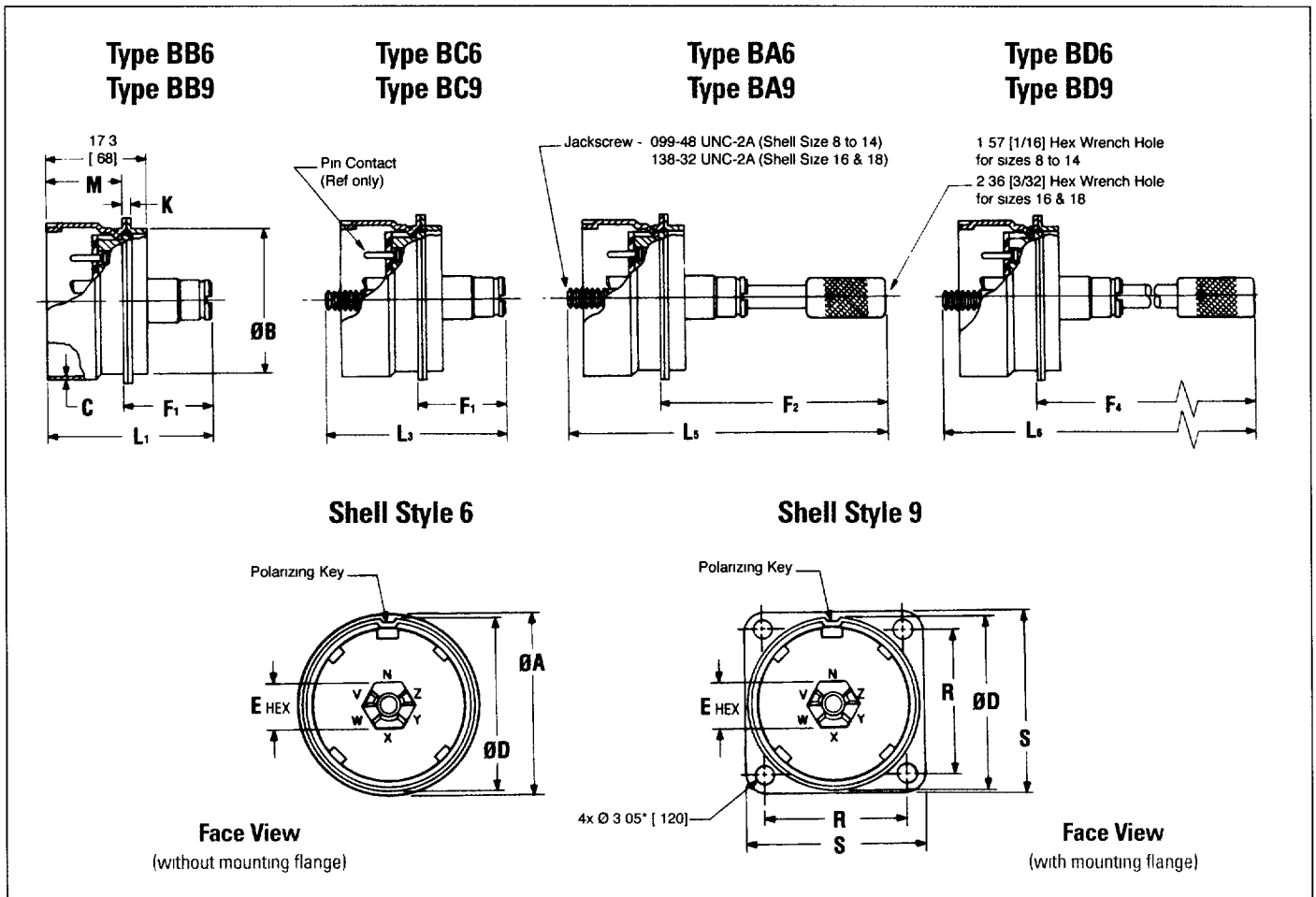
**Crimping Tool**  
Tool: M22520/2-01  
Locator Stop: TLSW22

**Removal Tool**  
TW022RT006



*Dimensions shown are for reference only. Unless otherwise specified, dimensions are in millimeters and [inches].*

# Plug – Non-Environmental with Pin Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	ØD Max.	E	F1 Max.	F2 Max.	F4 Max.	K	L1 Max.	L3 Max.	L5 Max.	L6 Max.	M	R	S ±0.38
08	1791	14 12	0 43	15 77	4 75	13 69	35 36	59 97	112	2743	30 10	50 65	75 26	13 41	15 09	20 78
10	20 70	1742	0 69	19 58	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75 26	13 16	18 26	23 98
12	23 88	20 60	0 69	25 76	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75 26	13 16	20 62	26 34
14	26 92	23 65	0 69	25 81	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75 26	13 16	23 01	28 73
16	30 23	26 95	0 69	29 11	792	14 25	35 92	69 75	163	2774	30 40	50 95	84 79	13 16	24 61	31 09
18	33 40	30 12	0 69	32 28	792	14 25	35 92	69 75	163	2774	30 40	50 95	84 79	13 16	26 97	33 48

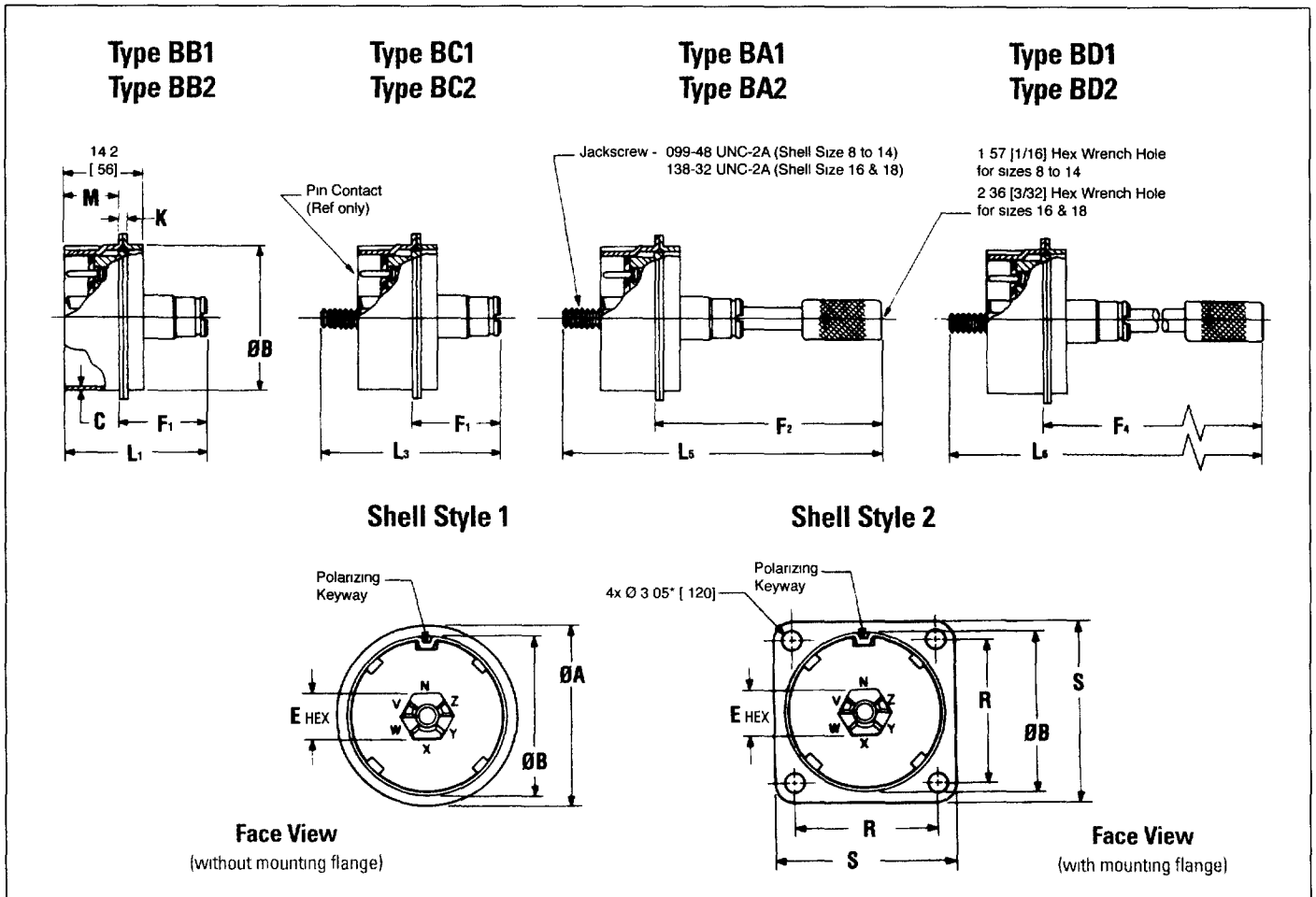
## Inches

Shell Size	ØA ±.015	ØB Max.	C ±.005	ØD Max.	E	F1 Max.	F2 Max.	F4 Max.	K	L1 Max.	L3 Max.	L5 Max.	L6 Max.	M	R	S ±.015
08	705	556	017	621	187	539	1392	2361	044	1080	1185	1994	2963	528	594	818
10	815	686	027	771	187	549	1402	2371	064	1080	1185	1994	2963	518	719	944
12	940	811	027	896	187	549	1402	2371	064	1080	1185	1994	2963	518	812	1037
14	1060	931	027	1016	187	549	1402	2371	064	1080	1185	1994	2963	518	906	1131
16	1190	1061	027	1146	312	561	1414	2746	064	1092	1197	2006	3338	518	969	1224
18	1315	1186	027	1271	312	561	1414	2746	064	1092	1197	2006	3338	518	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Receptacle – Non-Environmental with Pin Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	E	F1 Max.	F2 Max.	F4 Max.	K	L1 Max.	L3 Max.	L5 Max.	L6 Max.	M	R	S ±0.38
08	1791	14 12	0 43	4 75	13 69	35 36	59 97	1 12	24 38	30 10	50 65	75 26	10 36	15 09	20 78
10	20 70	17 42	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	18 26	23 98
12	23 88	20 60	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	20 62	26 34
14	26 92	23 65	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	23 01	28 73
16	30 23	26 95	0 69	7 92	14 25	35 92	69 75	1 63	24 69	30 40	50 95	84 79	10 11	24 61	31 09
18	33 40	30 12	0 69	7 92	14 25	35 92	69 75	1 63	24 69	30 40	50 95	84 79	10 11	26 97	33 48

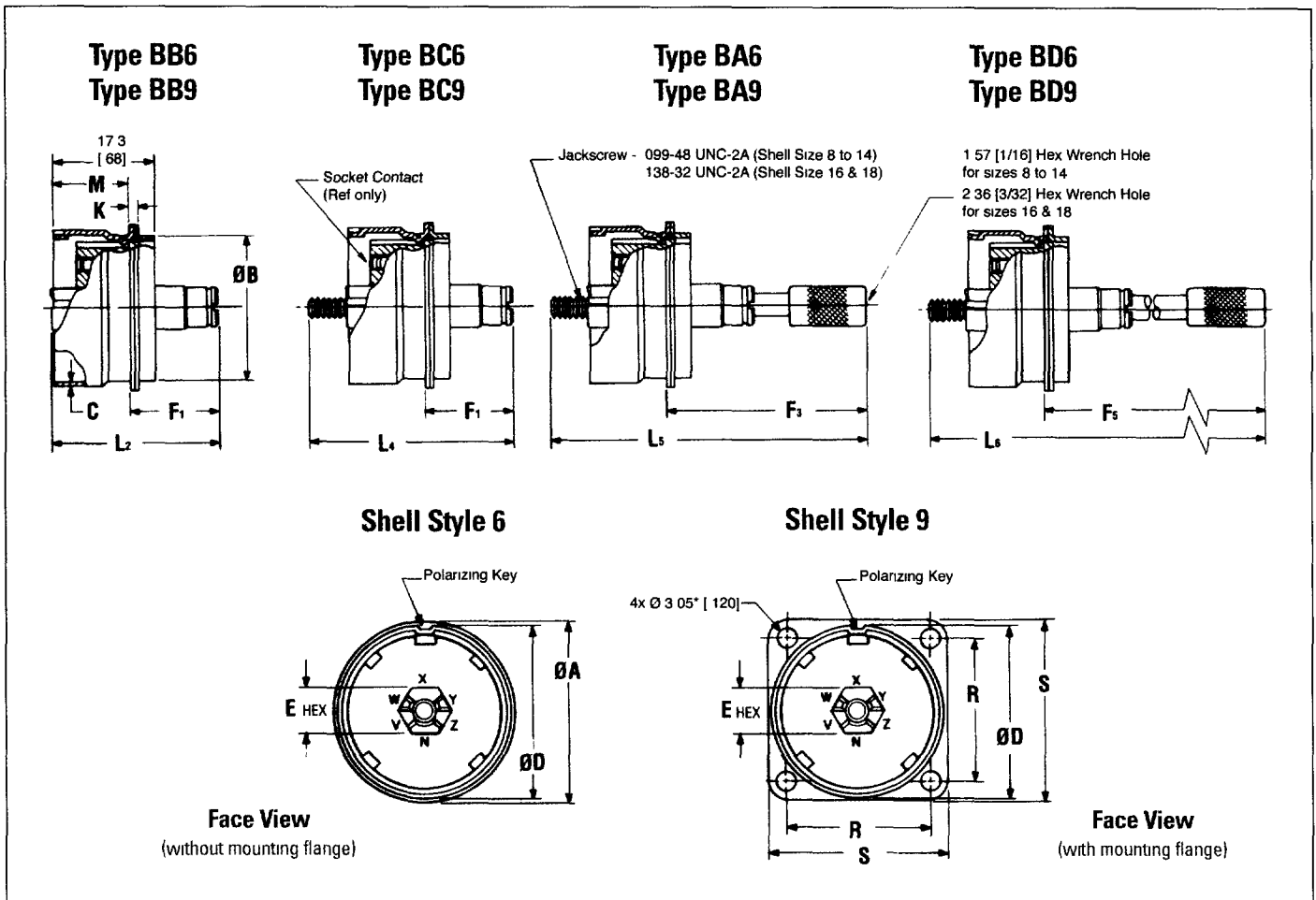
## Inches

Shell Size	ØA ±0.015	ØB Max.	C ±.005	E	F1 Max.	F2 Max.	F4 Max.	K	L1 Max.	L3 Max.	L5 Max.	L6 Max.	M	R	S ±0.015
08	705	556	017	187	539	1392	2 361	044	960	1 185	1 994	2 963	408	594	818
10	815	686	027	187	549	1 402	2 371	064	960	1 185	1 994	2 963	398	719	944
12	940	811	027	187	549	1 402	2 371	064	960	1 185	1 994	2 963	398	812	1 037
14	1 060	931	027	187	549	1 402	2 371	064	960	1 185	1 994	2 963	398	906	1 131
16	1 190	1 061	027	312	561	1 414	2 746	064	972	1 197	2 006	3 338	398	969	1 224
18	1 315	1 186	027	312	561	1 414	2 746	064	972	1 197	2 006	3 338	398	1 062	1 318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Plug – Non-Environmental with Socket Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	ØD Max.	E	F1 Max.	F3 Max.	F5 Max.	K	L2 Max.	L4 Max.	L5 Max.	L6 Max.	M	R	S ±0.38
08	1791	14 12	0 43	15 77	4 75	13 69	30 99	55 60	112	2789	34 47	50 65	75 26	13 41	15 09	20 78
10	20 70	1742	0 69	19 58	4 75	13 94	31 24	55 85	163	2789	34 47	50 65	75 26	13 16	18 26	23 98
12	23 88	20 60	0 69	25 76	4 75	13 94	31 24	55 85	163	2789	34 47	50 65	75 26	13 16	20 62	26 34
14	26 92	23 65	0 69	25 81	4 75	13 94	31 24	55 85	163	2789	34 47	50 65	75 26	13 16	23 01	28 73
16	30 23	26 95	0 69	29 11	792	14 25	31 55	65 38	163	28 19	34 77	50 95	84 79	13 16	24 61	31 09
18	33 40	30 12	0 69	32 28	792	14 25	31 55	65 38	163	28 19	34 77	50 95	84 79	13 16	26 97	33 48

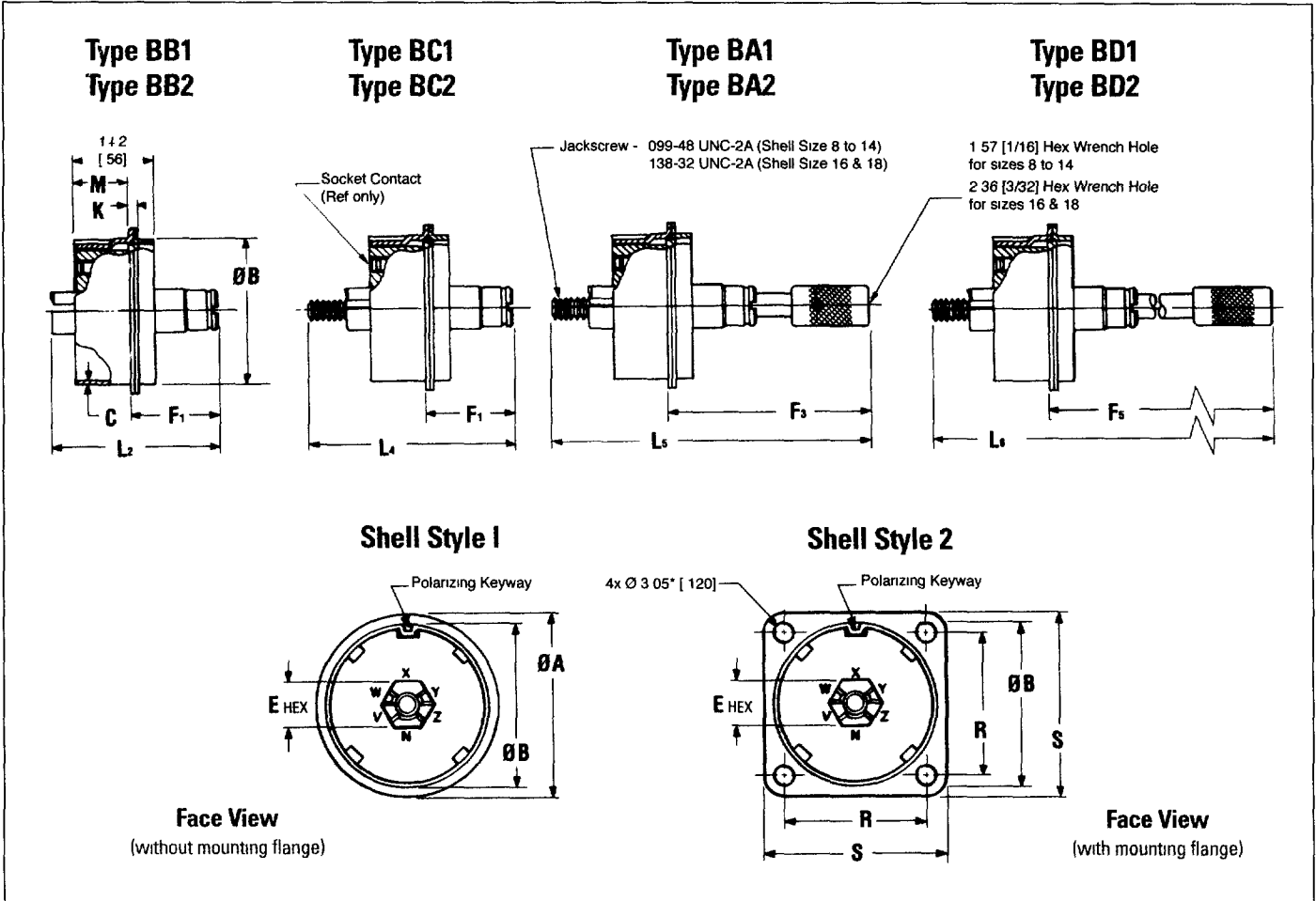
## Inches

Shell Size	ØA ±0.015	ØB Max.	C ±0.005	ØD Max.	E	F1 Max.	F3 Max.	F5 Max.	K	L2 Max.	L4 Max.	L5 Max.	L6 Max.	M	R	S ±0.015
08	705	556	017	621	187	539	1220	2 189	044	1098	1357	1994	2.963	528	594	818
10	815	686	027	771	187	549	1230	2 199	064	1098	1357	1994	2 963	518	719	944
12	940	811	027	896	187	549	1230	2 199	064	1098	1357	1994	2 963	518	812	1037
14	1060	931	027	1016	187	549	1230	2 199	064	1098	1357	1994	2 963	518	906	1131
16	1190	1061	027	1146	312	561	1242	2 574	064	1110	1369	2 006	3 338	518	969	1224
18	1315	1186	027	1271	312	561	1242	2 574	064	1110	1369	2 006	3 338	518	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Receptacle – Non-Environmental with Socket Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	E	F1 Max.	F3 Max.	F5 Max.	K	L2 Max.	L4 Max.	L5 Max.	L6 Max.	M	R	S ±0.38
08	1791	14 12	0 43	4 75	13 69	30 99	55 60	1 12	27 89	34 47	50 65	75 26	10 36	15 09	20 78
10	20 70	17 42	0 69	4 75	13 94	31 24	55 85	1 63	27 89	34 47	50 65	75 26	10 11	18 26	23 98
12	23 88	20 60	0 69	4 75	13 94	31 24	55 85	1 63	27 89	34 47	50 65	75 26	10 11	20 62	26 34
14	26 92	23 65	0 69	4 75	13 94	31 24	55 85	1 63	27 89	34 47	50 65	75 26	10 11	23 01	28 73
16	30 23	26 95	0 69	7 92	14 25	31 55	65 38	1 63	28 19	34 77	50 95	84 79	10 11	24 61	31 09
18	33 40	30 12	0 69	7 92	14 25	31 55	65 38	1 63	28 19	34 77	50 95	84 79	10 11	26 97	33 48

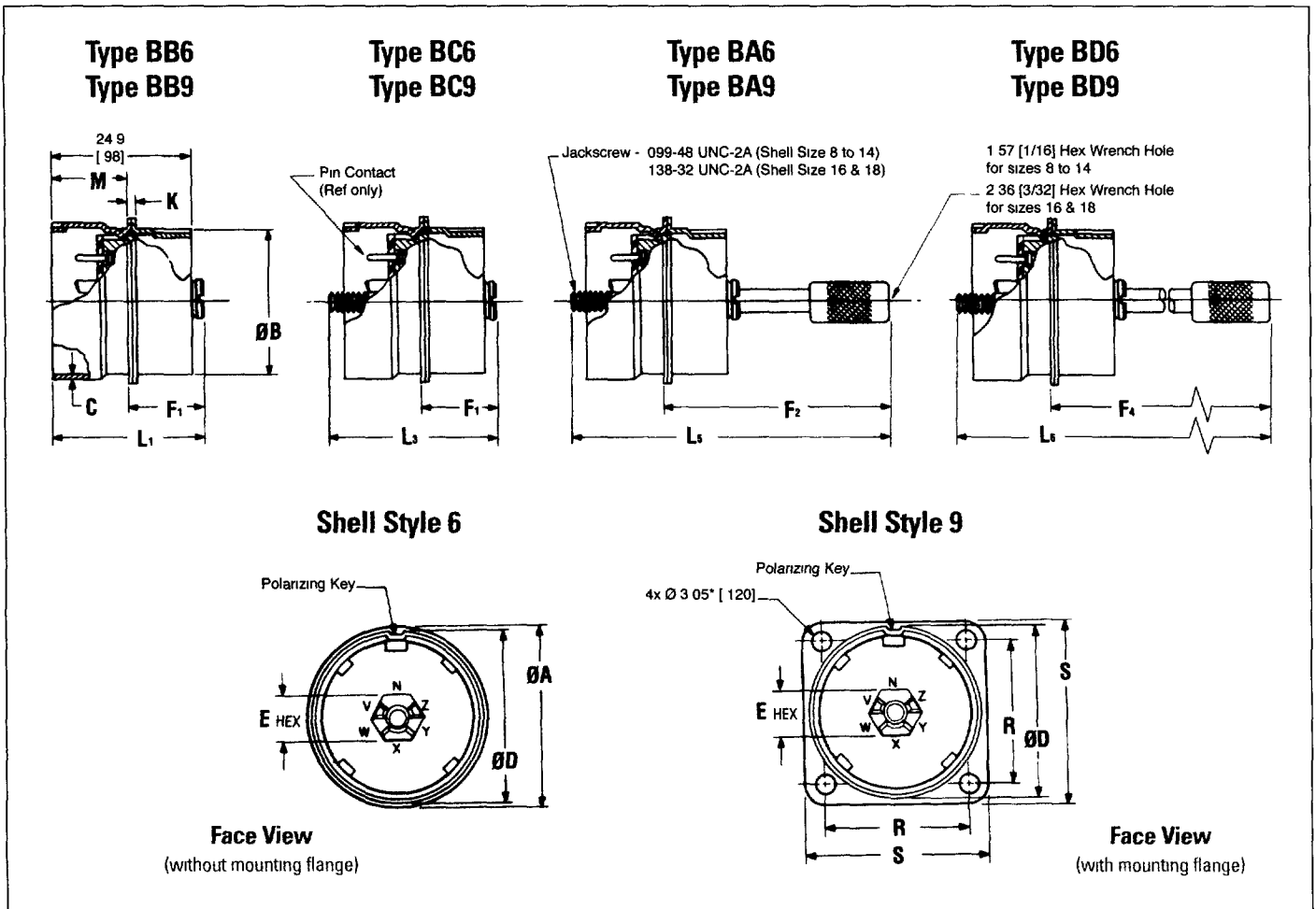
## Inches

Shell Size	ØA ±0.015	ØB Max.	C ±0.005	E	F1 Max.	F3 Max.	F5 Max.	K	L2 Max.	L4 Max.	L5 Max.	L6 Max.	M	R	S ±0.015
08	705	556	017	187	539	1 220	2 189	044	1 098	1 357	1 994	2 963	408	594	818
10	815	686	027	187	549	1 230	2 199	064	1 098	1 357	1 994	2 963	398	719	944
12	940	811	027	187	549	1 230	2 199	064	1 098	1 357	1 994	2 963	398	812	1 037
14	1 060	931	027	187	549	1 230	2 199	064	1 098	1 357	1 994	2 963	398	906	1 131
16	1 190	1 061	027	312	561	1 242	2 574	064	1 110	1 369	2 006	3 338	398	969	1 224
18	1 315	1 186	027	312	561	1 242	2 574	064	1 110	1 369	2 006	3 338	398	1 062	1 318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Plug – Potting with Pin Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	ØD Max.	E	F <sub>1</sub> Max.	F <sub>2</sub> Max.	F <sub>4</sub> Max.	K	L <sub>1</sub> Max.	L <sub>3</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.38
08	1791	14 12	0 43	15 77	4 75	13 69	35 36	59 97	112	2743	30 10	50 65	75 26	13 41	15 09	20 78
10	20 70	1742	0 69	19 58	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75 26	13 16	18 26	23 98
12	23 88	20 60	0 69	22 76	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75.26	13 16	20 62	26 34
14	26 92	23 65	0 69	25 81	4 75	13 94	35 61	60 22	163	2743	30 10	50 65	75 26	13.16	23 01	28 73
16	30 23	26 95	0 69	29 11	792	14 25	35 92	69 75	163	2774	30 40	50 95	84 79	13.16	24 61	31 09
18	33 40	30 12	0 69	32 28	792	14 25	35 92	69 75	163	2774	30 40	50 95	84 79	13 16	26 97	33 48

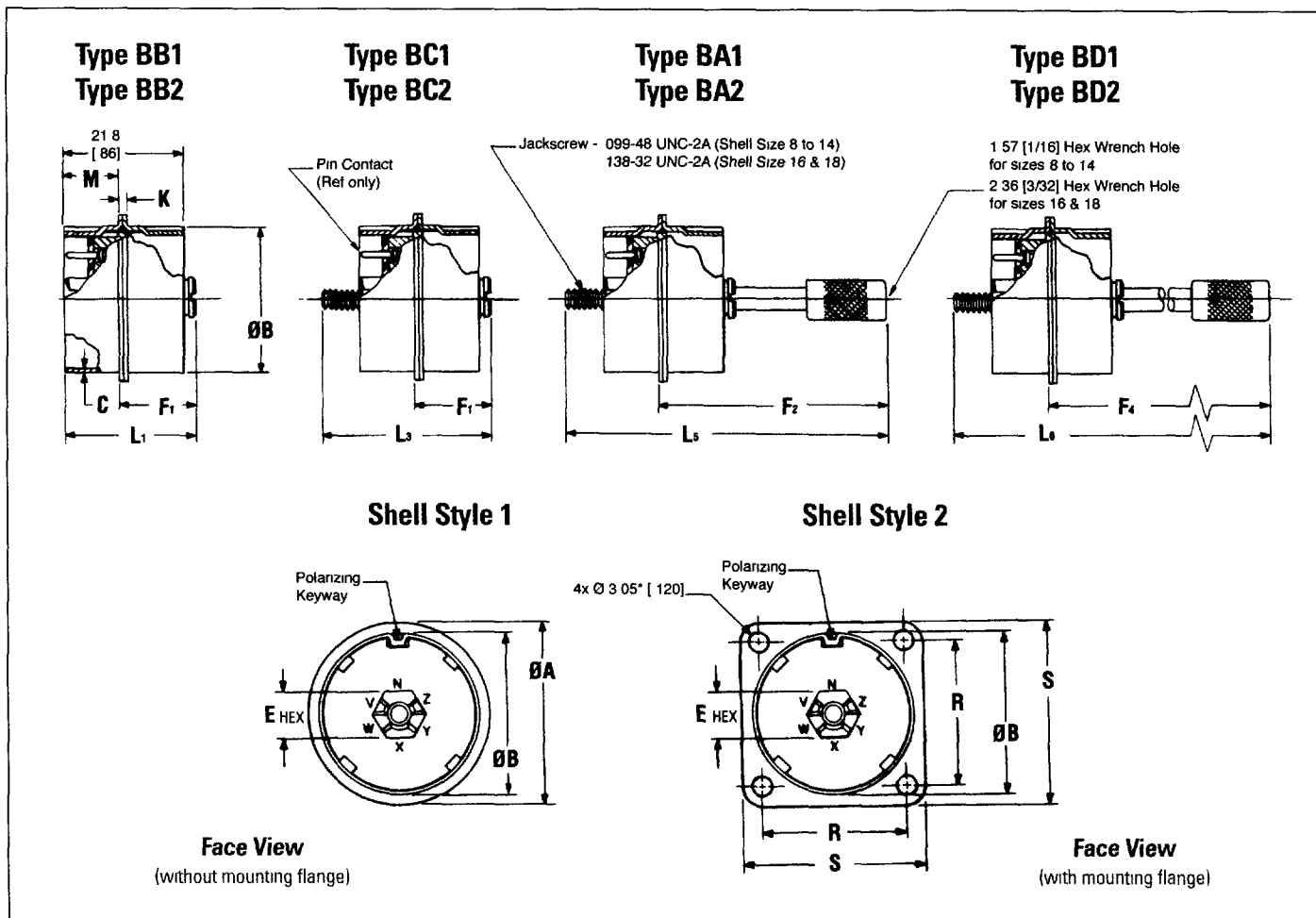
## Inches

Shell Size	ØA ±0.15	ØB Max.	C ±0.005	ØD Max.	E	F <sub>1</sub> Max.	F <sub>2</sub> Max.	F <sub>4</sub> Max.	K	L <sub>1</sub> Max.	L <sub>3</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.15
08	705	556	017	621	187	539	1392	2361	044	1080	1185	1994	2963	528	594	818
10	815	686	027	771	187	549	1402	2371	064	1080	1185	1994	2963	518	719	944
12	940	811	027	896	187	549	1402	2371	064	1080	1185	1994	2963	518	812	1037
14	1060	931	027	1016	187	549	1402	2371	064	1080	1185	1994	2963	518	906	1131
16	1190	1061	027	1146	312	561	1414	2746	064	1092	1197	2006	3338	518	969	1224
18	1315	1186	027	1271	312	561	1414	2746	064	1092	1197	2006	3338	518	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Receptacle – Potting with Pin Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	E	F <sub>1</sub> Max.	F <sub>2</sub> Max.	F <sub>4</sub> Max.	K	L <sub>1</sub> Max.	L <sub>3</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.38
08	1791	14 12	0 43	4 75	13 69	35 36	59 97	1 12	24 38	30 10	50 65	75 26	10 36	15 09	20 78
10	20 70	1742	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	18 26	23 98
12	23 88	20 60	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	20 62	26 34
14	26 92	23 65	0 69	4 75	13 94	35 61	60 22	1 63	24 38	30 10	50 65	75 26	10 11	23 01	28 73
16	30 23	26 95	0 69	7 92	14 25	35 92	69 75	1 63	24 69	30 40	50 95	84 79	10 11	24 61	31 09
18	33 40	30 12	0 69	7 92	14 25	35 92	69 75	1 63	24 69	30 40	50 95	84 79	10 11	26 97	33 48

## Inches

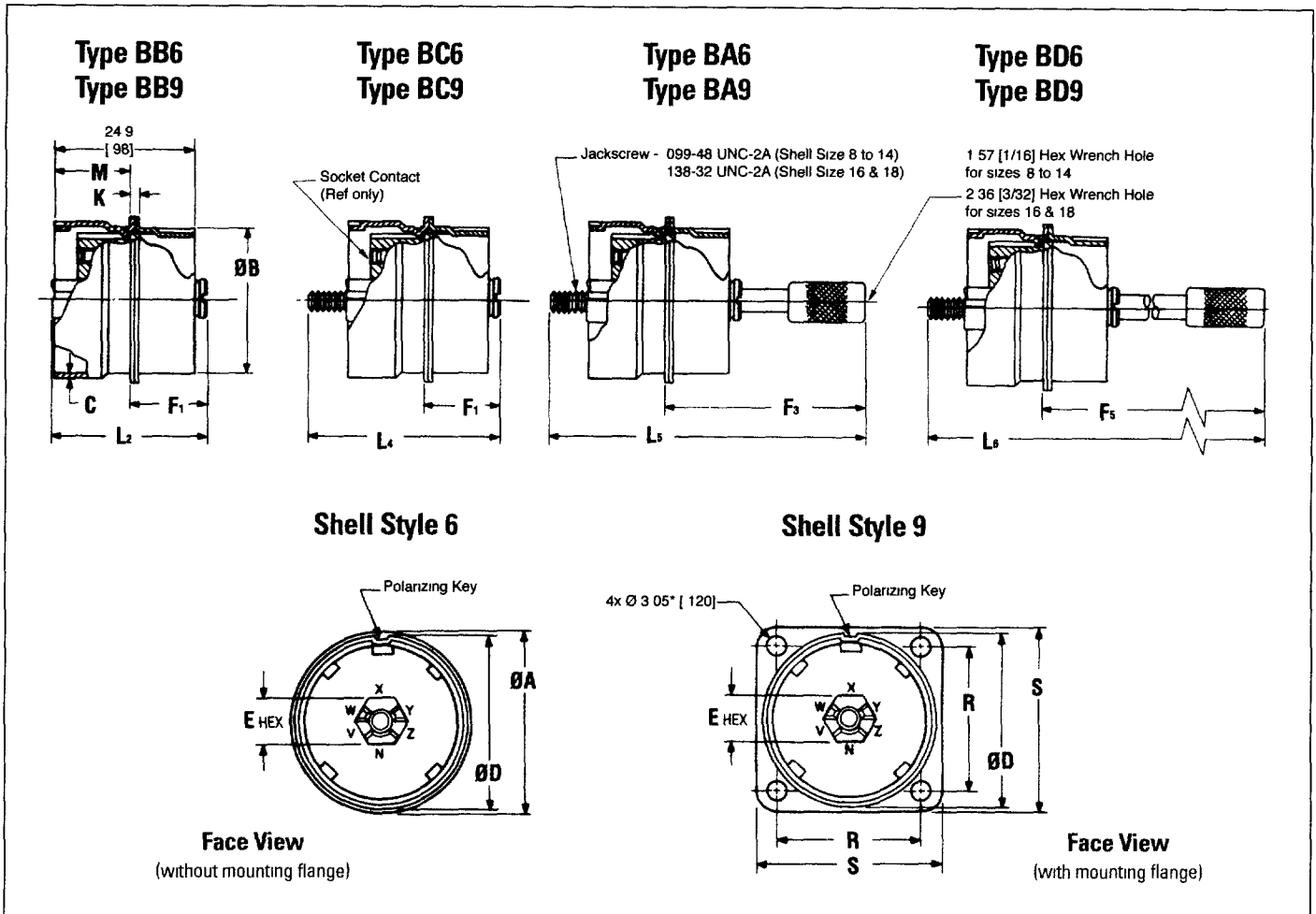
Shell Size	ØA ±.015	ØB Max.	C ±.005	E	F <sub>1</sub> Max.	F <sub>2</sub> Max.	F <sub>4</sub> Max.	K	L <sub>1</sub> Max.	L <sub>3</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±.015
08	705	556	017	187	539	1392	2361	044	960	1185	1994	2963	408	594	818
10	815	686	027	187	549	1402	2371	064	960	1185	1994	2963	398	719	944
12	940	811	027	187	549	1402	2371	064	960	1185	1994	2963	398	812	1037
14	1060	931	027	187	549	1402	2371	064	960	1185	1994	2963	398	906	1131
16	1190	1061	027	312	561	1414	2746	064	972	1197	2006	3338	398	969	1224
18	1315	1186	027	312	561	1414	2746	064	972	1197	2006	3338	398	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]



# Plug – Potting with Socket Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	ØD Max.	E	F <sub>1</sub> Max.	F <sub>3</sub> Max.	F <sub>5</sub> Max.	K	L <sub>2</sub> Max.	L <sub>4</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.38
08	17.91	14.12	0.43	15.77	4.75	13.69	30.99	55.60	1.12	27.89	34.47	50.65	75.26	13.41	15.09	20.78
10	20.70	17.42	0.69	19.58	4.75	13.94	31.24	55.85	1.63	27.89	34.47	50.65	75.26	13.16	18.26	23.98
12	23.88	20.60	0.69	22.76	4.75	13.94	31.24	55.85	1.63	27.89	34.47	50.65	75.26	13.16	20.62	26.34
14	26.92	23.65	0.69	25.81	4.75	13.94	31.24	55.85	1.63	27.89	34.47	50.65	75.26	13.16	23.01	28.73
16	30.23	26.95	0.69	29.11	7.92	14.25	31.55	65.38	1.63	28.19	34.77	50.95	84.79	13.16	24.61	31.09
18	33.40	30.12	0.69	32.28	7.92	14.25	31.55	65.38	1.63	28.19	34.77	50.95	84.79	13.16	26.97	33.48

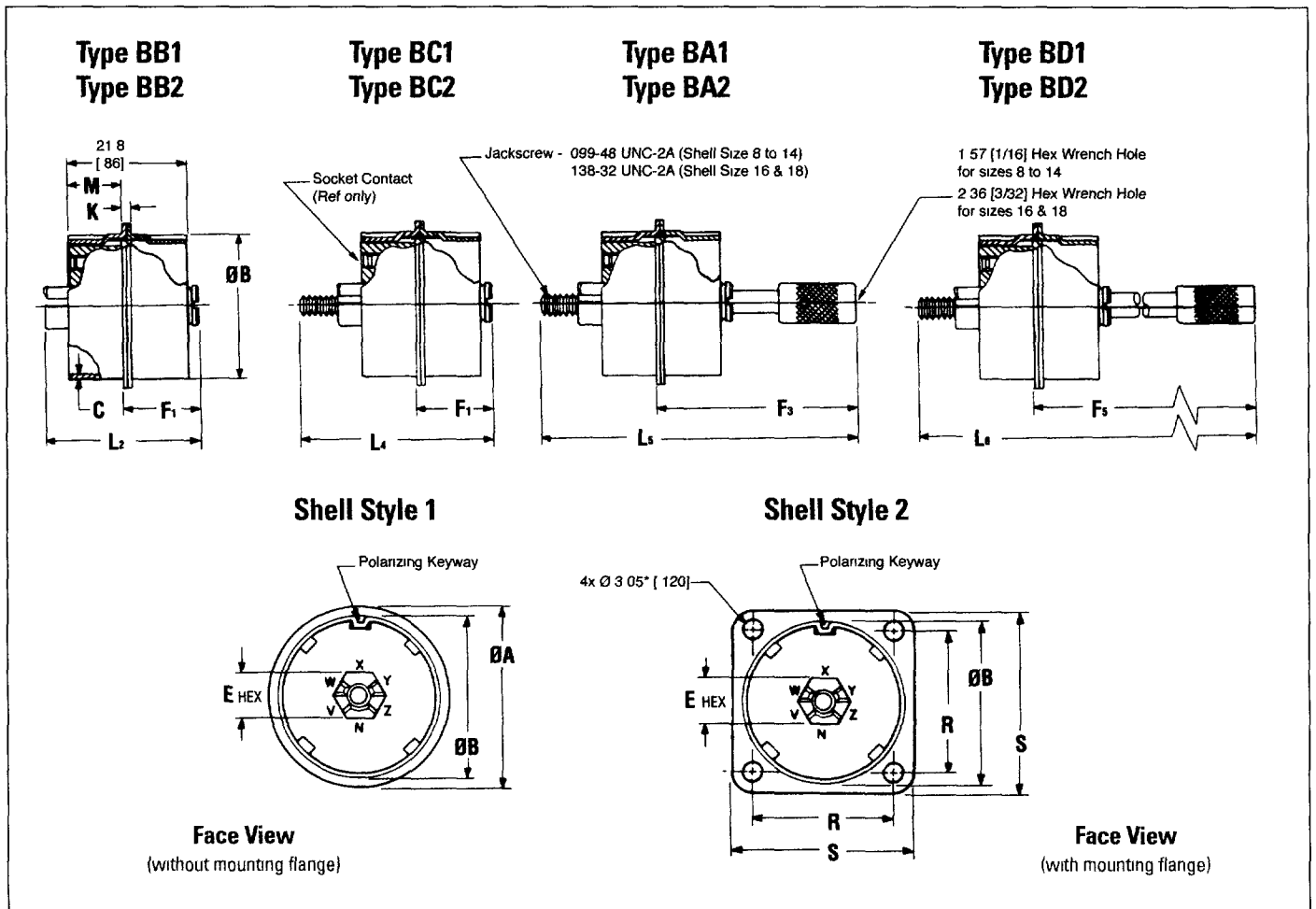
## Inches

Shell Size	ØA ±0.015	ØB Max.	C ±0.005	ØD Max.	E	F <sub>1</sub> Max.	F <sub>3</sub> Max.	F <sub>5</sub> Max.	K	L <sub>2</sub> Max.	L <sub>4</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.015
08	705	556	017	621	.187	539	1220	2189	044	1098	1357	1994	2963	528	594	818
10	815	686	027	771	.187	549	1230	2199	064	1098	1357	1994	2963	518	719	944
12	940	811	027	896	.187	549	1230	2199	064	1098	1357	1994	2963	518	812	1037
14	1060	931	027	1016	.187	549	1230	2199	064	1098	1357	1994	2963	518	906	1131
16	1190	1061	027	1146	.312	561	1242	2574	064	1110	1369	2006	3338	518	969	1224
18	1315	1186	027	1271	.312	561	1242	2574	064	1110	1369	2006	3338	518	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only Unless otherwise specified, dimensions are in millimeters and [inches]

# Receptacle – Potting with Socket Insert



## Millimeters

Shell Size	ØA ±0.38	ØB Max.	C ±0.13	E	F <sub>1</sub> Max.	F <sub>3</sub> Max.	F <sub>5</sub> Max.	K	L <sub>2</sub> Max.	L <sub>4</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.38
08	17.91	14.12	0.43	4.75	13.69	30.99	55.60	112	27.89	34.47	50.65	75.26	10.36	15.09	20.78
10	20.70	17.42	0.69	4.75	13.94	31.24	55.85	163	27.89	34.47	50.65	75.26	10.11	18.26	23.98
12	23.88	20.60	0.69	4.75	13.94	31.24	55.85	163	27.89	34.47	50.65	75.26	10.11	20.62	26.34
14	26.92	23.65	0.69	4.75	13.94	31.24	55.85	163	27.89	34.47	50.65	75.26	10.11	23.01	28.73
16	30.23	26.95	0.69	7.92	14.25	31.55	65.38	163	28.19	34.77	50.95	84.79	10.11	24.61	31.09
18	33.40	30.12	0.69	7.92	14.25	31.55	65.38	163	28.19	34.77	50.95	84.79	10.11	26.97	33.48

## Inches

Shell Size	ØA ±0.015	ØB Max.	C ±0.005	E	F <sub>1</sub> Max.	F <sub>3</sub> Max.	F <sub>5</sub> Max.	K	L <sub>2</sub> Max.	L <sub>4</sub> Max.	L <sub>5</sub> Max.	L <sub>6</sub> Max.	M	R	S ±0.015
08	705	556	017	187	539	1220	2189	044	1098	1357	1994	2963	408	594	818
10	815	686	027	187	549	1230	2199	064	1098	1357	1994	2963	398	719	944
12	940	811	027	187	549	1230	2199	064	1098	1357	1994	2963	398	812	1037
14	1060	931	027	187	549	1230	2199	064	1098	1357	1994	2963	398	906	1131
16	1190	1061	027	312	561	1242	2574	064	1110	1369	2006	3338	398	969	1224
18	1315	1186	027	312	561	1242	2574	064	1110	1369	2006	3338	398	1062	1318

\*Consult factory for other mounting hole variations

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in millimeters and [inches]

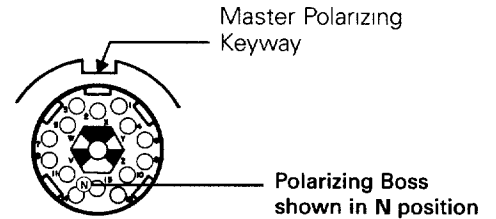
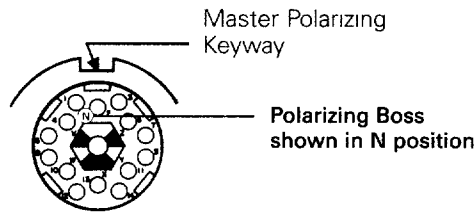
# Insert Arrangements and Polarizations

To polarize connector, boss is mounted in the insert with largest opening adjacent to desired position

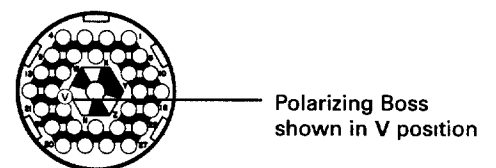
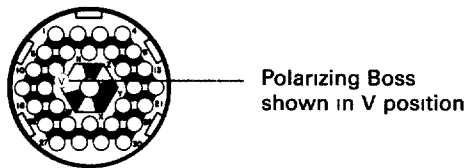
## Pin Body – Face View

## Socket Body – Face View

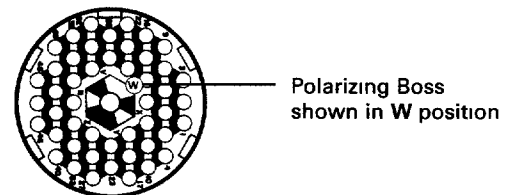
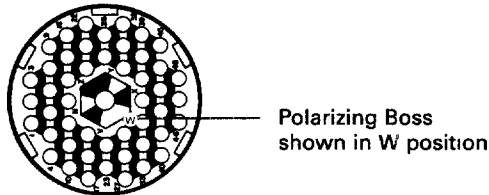
**Size 8**  
14 Contacts



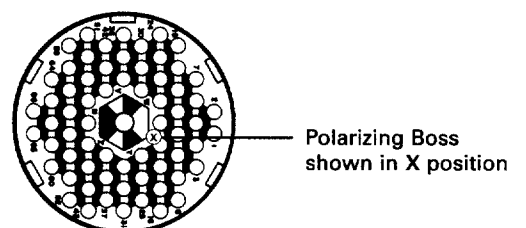
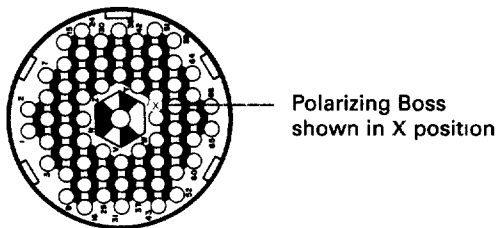
**Size 10**  
30 Contacts



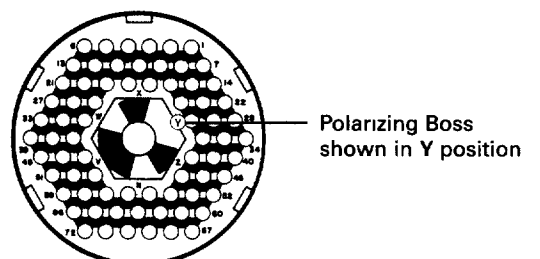
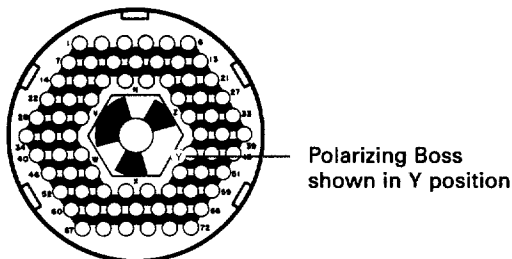
**Size 12**  
48 Contacts



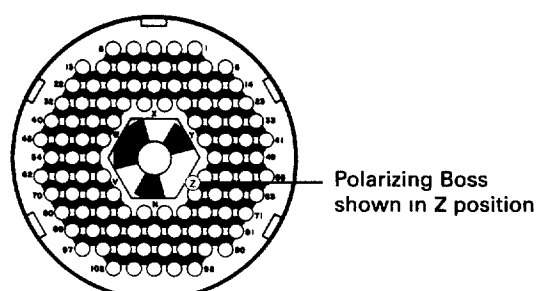
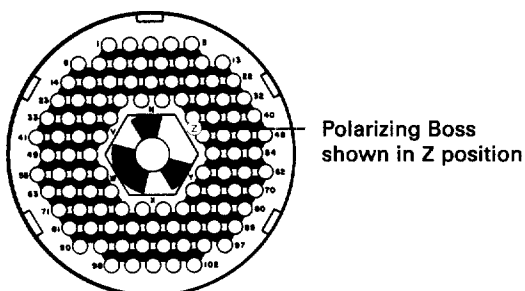
**Size 14**  
66 Contacts



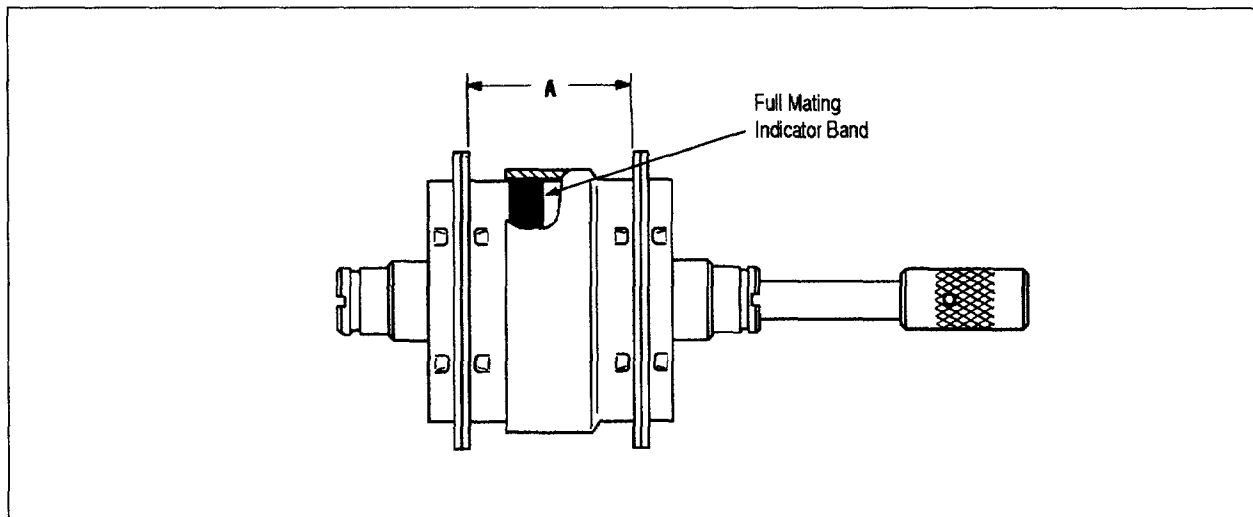
**Size 16**  
72 Contacts



**Size 18**  
102 Contacts



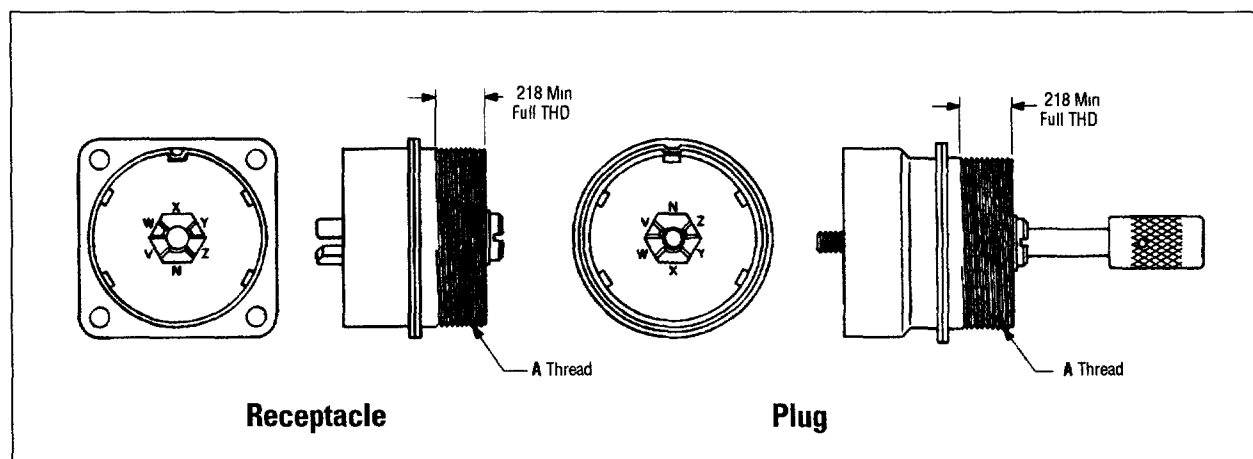
# Bulls-Eye – Mated Pair



Shell Size	A $\pm 0.51$ [.020]
08	1745 [687]
10 thru 18	1694 [667]

## Threaded Rear Shell (Class B)

Consult factory for strain relief or backshell hardware, if required.

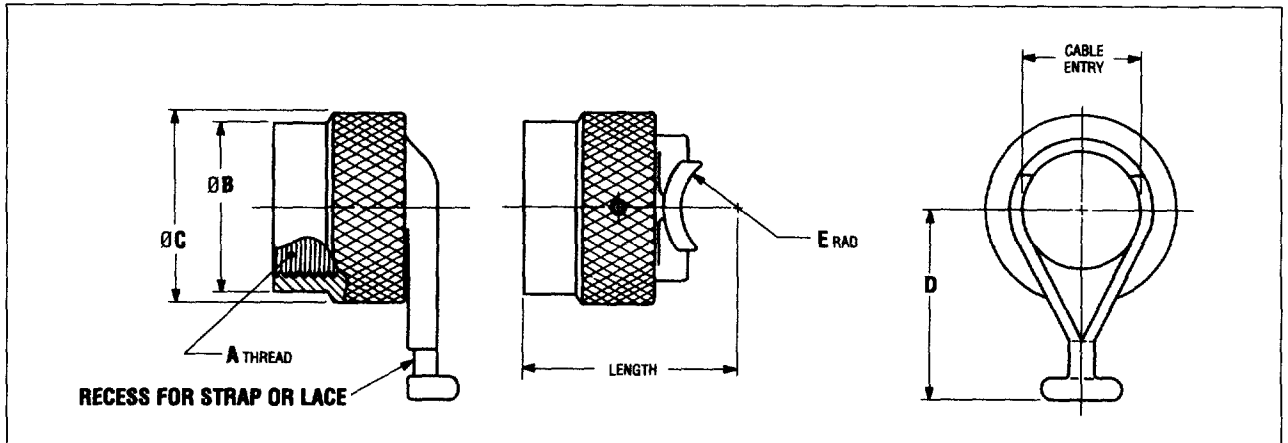


Shell Size	A Thread
08	543-36 UNS-2A
10	683-36 UNS-2A
12	806-36 UNS-2A
14	914-36 UNS-2A
16	1 052-36 UNS-2A
18	1 177-36 UNS-2A

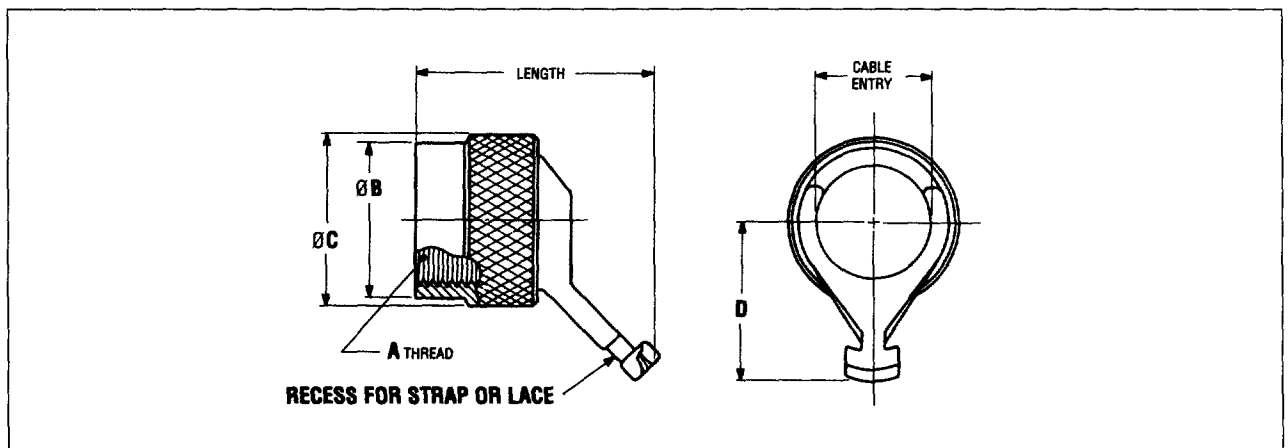
Dimensions shown are for reference only. Unless otherwise specified, dimensions are in millimeters and [inches].

# Strain Relief

Order Bulls-Eye threaded rear shell when strain relief or backshell is required\*



Shell Size	A Thread	ØB	ØC	D	E Radius	Length	Cable Entry
08	5435-36 UNS-2B	15.32 [603]	18.0 [71]	23.6 [93]	4.57 [180]	20.1 [79]	10.2 [40]
10	6830-36 UNS-2B	18.87 [743]	21.3 [84]	25.2 [99]	4.57 [180]	20.1 [79]	13.0 [51]
12	8060-36 UNS-2B	22.00 [866]	24.9 [98]	28.7 [131]	6.53 [257]	22.1 [87]	16.3 [64]
14	9145-36 UNS-2B	24.74 [974]	28.5 [112]	34.5 [136]	6.53 [257]	22.1 [87]	19.3 [76]
16	10525-36 UNS-2B	28.27 [1113]	33.3 [131]	36.8 [145]	8.13 [320]	24.1 [95]	21.6 [85]
18	11770-36 UNS-2B	31.42 [1237]	36.6 [144]	38.1 [150]	9.83 [387]	25.9 [102]	24.9 [98]



Shell Size	A Thread	ØB	ØC	D	Length	Cable Entry
08	5435-36 UNS-2B	15.32 [603]	18.0 [71]	20.32 [800]	33.8 [133]	10.2 [40]
10	6830-36 UNS-2B	18.87 [743]	21.3 [84]	21.84 [860]	33.8 [133]	13.0 [51]
12	8060-36 UNS-2B	22.00 [866]	24.9 [98]	27.94 [1100]	46.5 [183]	16.3 [64]
14	9145-36 UNS-2B	24.74 [974]	28.5 [112]	29.46 [1160]	46.5 [183]	19.3 [76]
16	10525-36 UNS-2B	28.27 [1113]	33.3 [131]	31.75 [1250]	49.0 [193]	21.6 [85]
18	11770-36 UNS-2B	31.42 [1237]	36.6 [144]	32.87 [1294]	50.6 [199]	24.9 [98]

\*Consult factory for suppliers

Dimensions shown are for reference only. Unless otherwise specified, dimensions are in millimeters and [inches]