

Amphenol® FTV Series Tri-Start™ Subminiature Cylindrical Filters

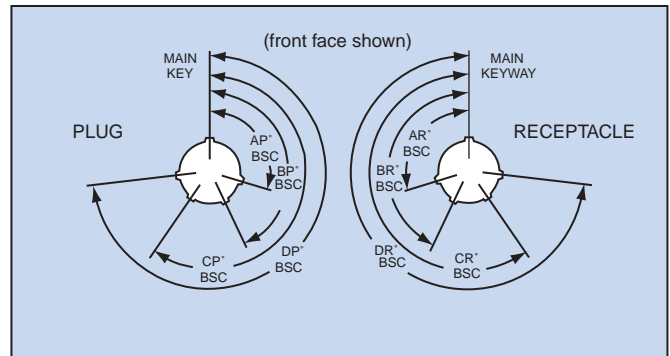
The Amphenol® FTV Series demonstrates unsurpassed technical leadership. With the added feature of the filter, this high performance general duty threaded connector is designed to withstand the pressures of severe environment applications.

- Intermateable with MIL-DTL-38999 Series III connectors (see Catalog 12-092)
- Quick Mating – completely mates in a 360° turn of the coupling nut
- Lockwiring Eliminated – incorporates anti-decoupling device
- Contact Protection – 100% “scoop-proof”
- Improved Moisture Resistance – prevents electrolytic erosion of contacts
- Corrosion Resistant – 500 hour salt spray olive drab cadmium over nickel plating, class RW, or stainless steel shells



FTV Master Key/Keyway Rotation

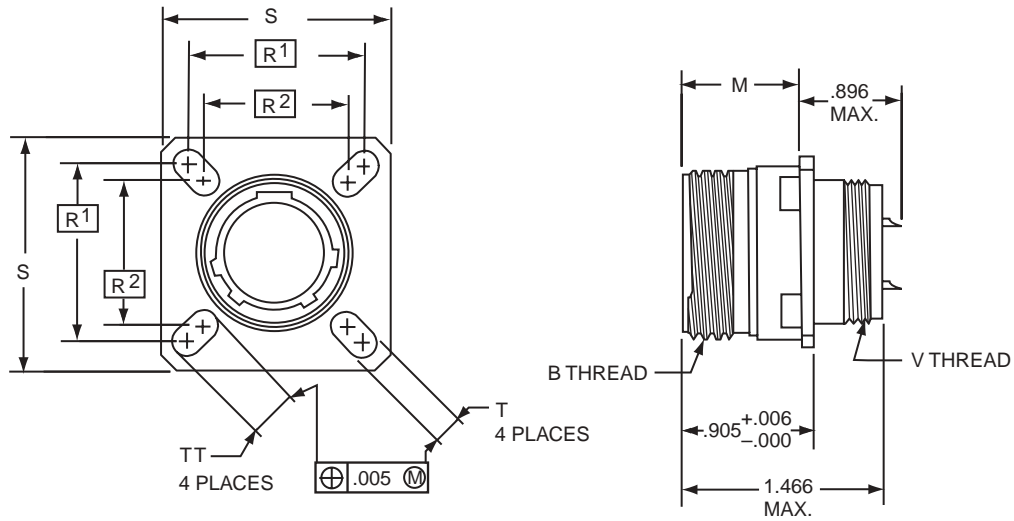
Shell Size	Key & Keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
	E	91	131	197	240
11, 13, 15	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
	E	51	141	184	242
17 and 19	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
21, 23, 25	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272



All angles are BSC
The insert arrangement does not rotate with main key/keyway.



wall mounting receptacle



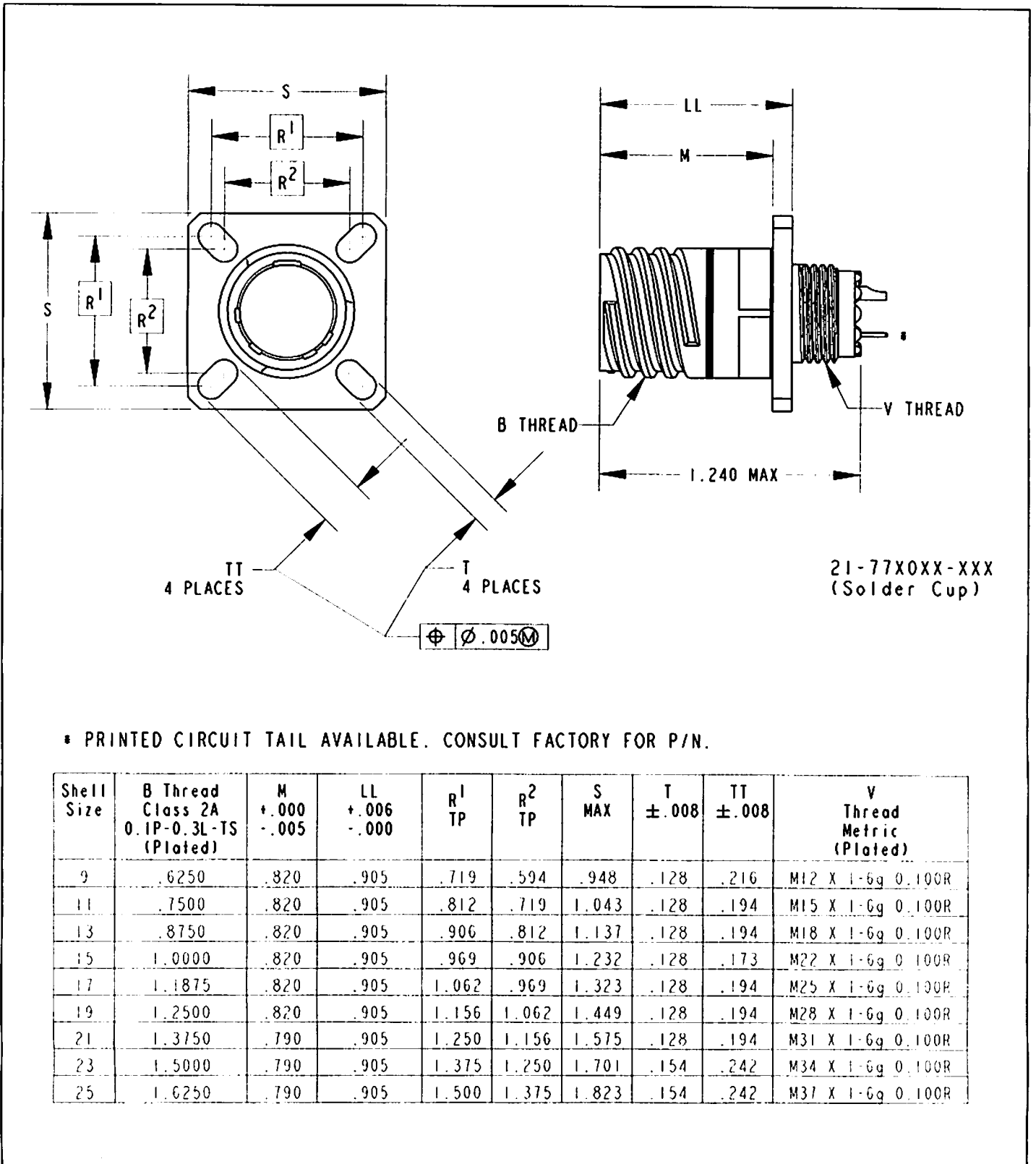
21-52X0XX-XXX

For ordering information, see how to order page 72.
 Plug movement required to clear FTV receptacles: .625 min.

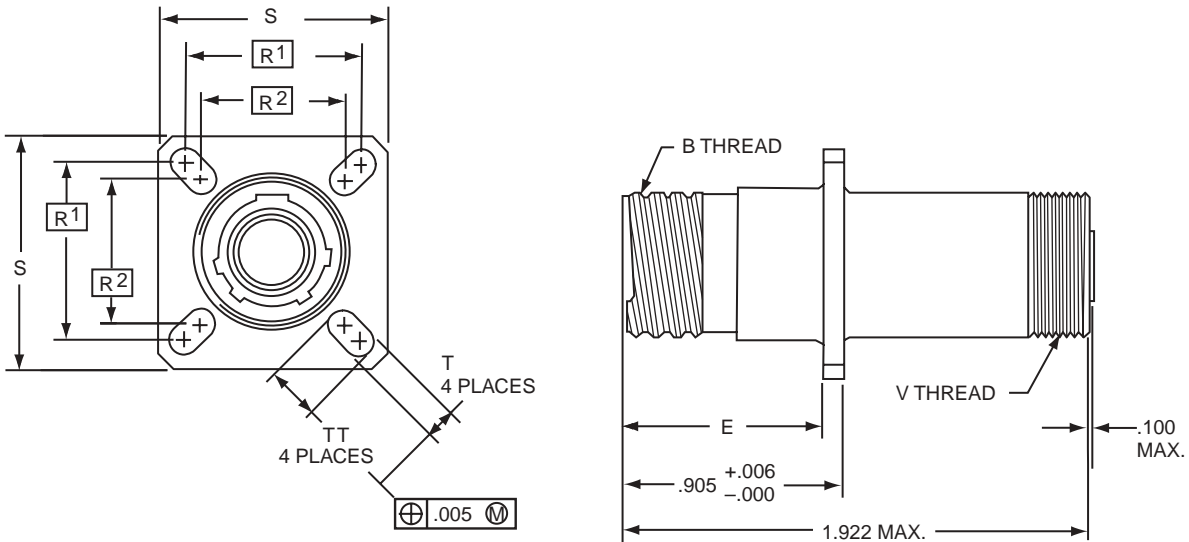
Shell Size	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M $^{+.000}_{-.005}$	R ¹ TP	R ² TP	S $\pm .010$	T $^{+.008}_{-.006}$	V Thread Metric (Plated)	TT $^{+.008}_{-.006}$
9	.6250	.820	.719	.594	.938	.128	M12X1-6g0.100R	.216
11	.7500	.820	.812	.719	1.031	.128	M15X1-6g0.100R	.194
13	.8750	.820	.906	.812	1.125	.128	M18X1-6g0.100R	.194
15	1.0000	.820	.969	.906	1.219	.128	M22X1-6g0.100R	.173
17	1.1875	.820	1.062	.969	1.312	.128	M25X1-6g0.100R	.194
19	1.2500	.820	1.156	1.062	1.438	.128	M28X1-6g0.100R	.194
21	1.3750	.790	1.250	1.156	1.562	.128	M31X1-6g0.100R	.194
23	1.5000	.790	1.375	1.250	1.688	.154	M34X1-6g0.100R	.242
25	1.6250	.790	1.500	1.375	1.812	.154	M37X1-6g0.100R	.242

All dimensions for reference only.

FTV (D38999/20 length) wall mounting receptacle



wall mounting receptacle (UTS crimp)



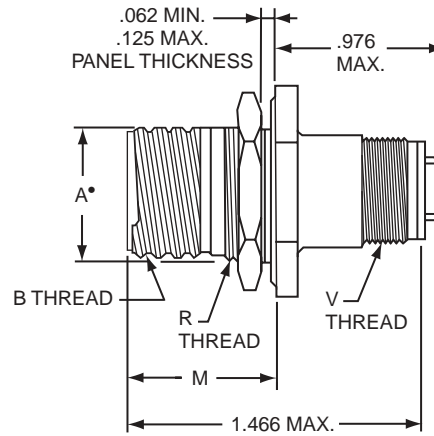
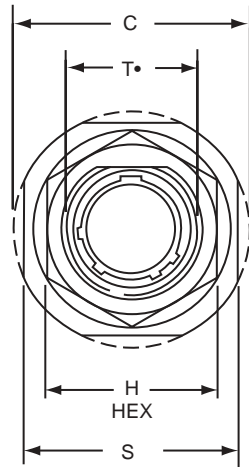
**21-50X0XX-XXX
UTS (Crimp) Contact
MIL-C-39029/57**

For ordering information, see how to order page 72.

Shell Size	B Thread Class 2A 0.1P-0.3L-TS (Plated)	E $+ .000$ $- .005$	R ¹ TP	R ² TP	S $\pm .010$	T $+ .008$ $- .006$	V Thread Metric (Plated)	TT $+ .008$ $- .006$
9	.6250	.820	.719	.594	.938	.128	M15X1-6g0.100R	.216
11	.7500	.820	.812	.719	1.031	.128	M18X1-6g0.100R	.194
13	.8750	.820	.906	.812	1.125	.128	M22X1-6g0.100R	.194
15	1.0000	.820	.969	.906	1.219	.128	M25X1-6g0.100R	.173
17	1.1875	.820	1.062	.969	1.312	.128	M28X1-6g0.100R	.194
19	1.2500	.820	1.156	1.062	1.438	.128	M31X1-6g0.100R	.194
21	1.3750	.790	1.250	1.156	1.562	.128	M34X1-6g0.100R	.194
23	1.5000	.790	1.375	1.250	1.688	.154	M37X1-6g0.100R	.242
25	1.6250	.790	1.500	1.375	1.812	.154	M41X1-6g0.100R	.242

All dimensions for reference only.

jam nut receptacle



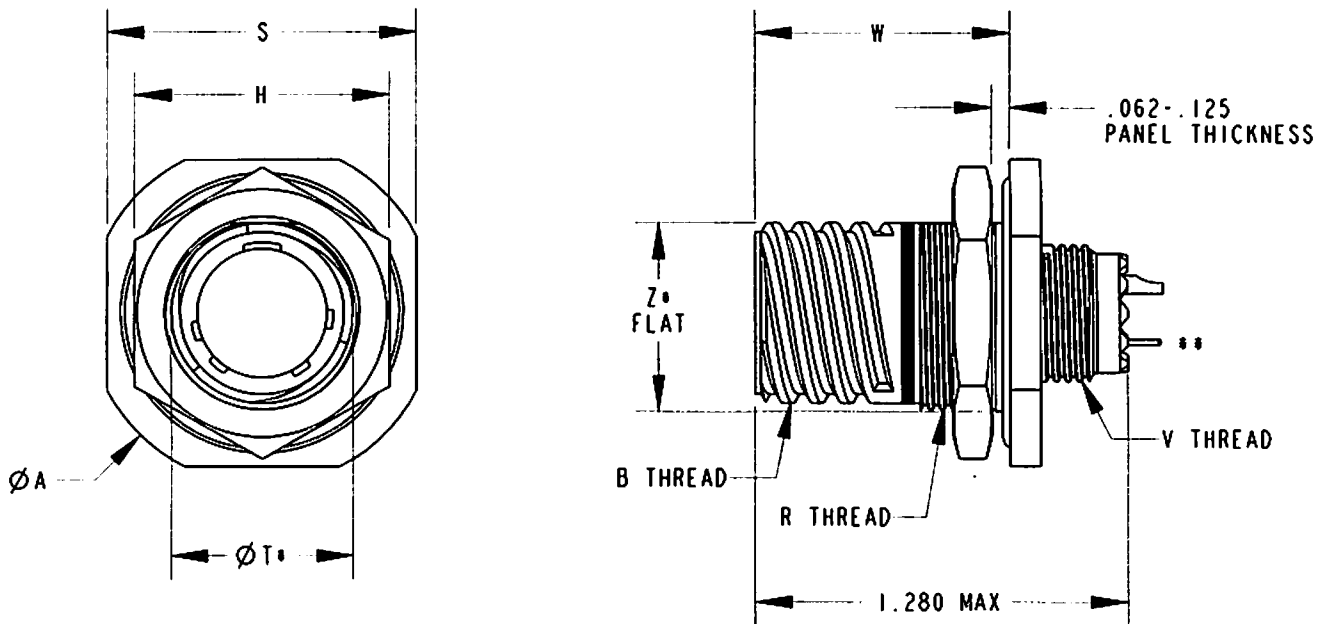
21-52X7XX-XXX

- “D” shaped mounting hole dimensions
For ordering information, see how to order page 72.
Plug movement required to clear FTV receptacles: .625 min.

Shell Size	A* +.000 -.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	H Hex +.017 -.016	M +.011 -.010	R Thread (Plated)	S +.011 -.010	T* +.010 -.000	V Thread Metric (Plated)
9	.669	.6250	1.199	.875	.871	M17X1-6g0.100R	1.062	.697	M12X1-6g0.100R
11	.769	.7500	1.386	1.000	.871	M20X1-6g0.100R	1.250	.822	M15X1-6g0.100R
13	.955	.8750	1.511	1.188	.878	M25X1-6g0.100R	1.375	1.007	M18X1-6g0.100R
15	1.084	1.0000	1.636	1.312	.878	M28X1-6g0.100R	1.500	1.134	M22X1-6g0.100R
17	1.208	1.1875	1.761	1.438	.878	M32X1-6g0.100R	1.625	1.259	M25X1-6g0.100R
19	1.333	1.2500	1.949	1.562	.878	M35X1-6g0.100R	1.812	1.384	M28X1-6g0.100R
21	1.459	1.3750	2.073	1.688	.878	M38X1-6g0.100R	1.938	1.507	M31X1-6g0.100R
23	1.575	1.5000	2.199	1.812	.878	M41X1-6g0.100R	2.062	1.634	M34X1-6g0.100R
25	1.709	1.6250	2.323	2.000	.878	M44X1-6g0.100R	2.188	1.759	M37X1-6g0.100R

All dimensions for reference only.

FTV (D38999/24 length) jam nut receptacle



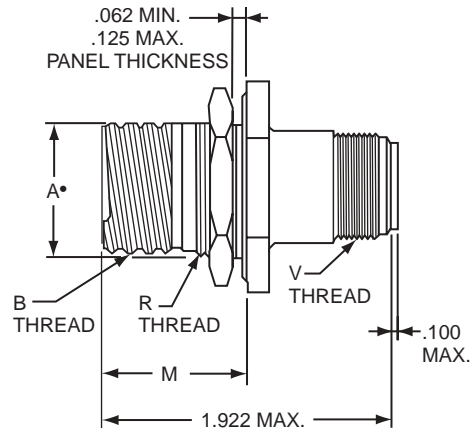
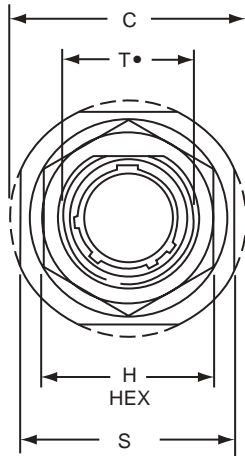
21-77X7XX-XXX
(Solder Cup)

** PRINTED CIRCUIT TAIL AVAILABLE. CONSULT FACTORY FOR P/N.

* "D" SHAPED MOUNTING HOLE DIMENSIONS

Shell Size	ØA MAX	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 -.016	R Thread Metric (Plated)	S ±.010	ØT* +.010 -.000	V Thread Metric (Plated)	W +.011 -.010	Z* Flat +.000 -.010
9	1.199	.6250	.875	M17 X 1-6g 0.100R	1.062	.691	M12 X 1-6g 0.100R	.871	.669
11	1.386	.7500	1.000	M20 X 1-6g 0.100R	1.250	.822	M15 X 1-6g 0.100R	.871	.769
13	1.511	.8750	1.188	M25 X 1-6g 0.100R	1.375	1.007	M18 X 1-6g 0.100R	.878	.955
15	1.636	1.0000	1.312	M28 X 1-6g 0.100R	1.500	1.134	M22 X 1-6g 0.100R	.878	1.084
17	1.761	1.1875	1.438	M32 X 1-6g 0.100R	1.625	1.259	M25 X 1-6g 0.100R	.878	1.208
19	1.949	1.2500	1.562	M35 X 1-6g 0.100R	1.812	1.384	M28 X 1-6g 0.100R	.878	1.333
21	2.073	1.3750	1.688	M38 X 1-6g 0.100R	1.938	1.507	M31 X 1-6g 0.100R	.878	1.459
23	2.199	1.5000	1.812	M41 X 1-6g 0.100R	2.062	1.634	M34 X 1-6g 0.100R	.878	1.575
25	2.323	1.6250	2.000	M44 X 1-6g 0.100R	2.188	1.759	M37 X 1-6g 0.100R	.878	1.709

jam nut receptacle (UTS crimp)



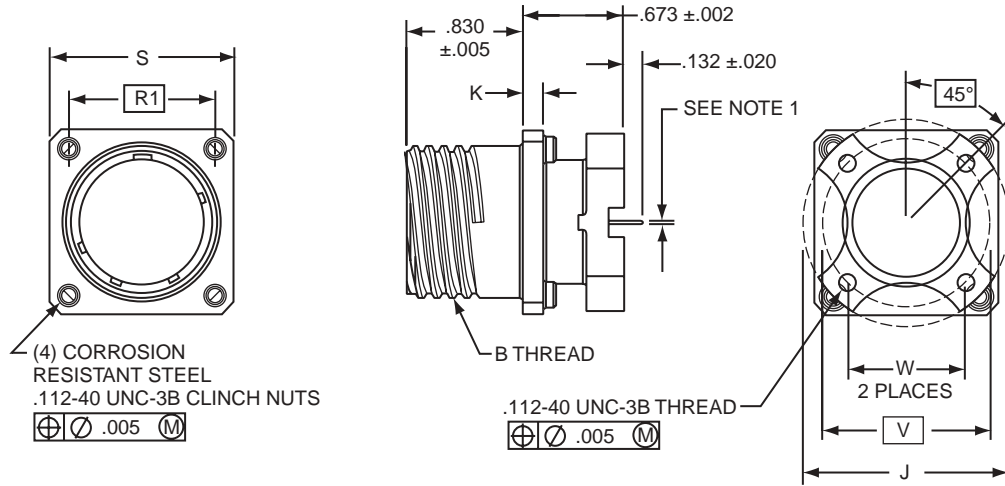
**21-50X7XX-XXX
UTS (Crimp) Contact
MIL-C-39029**

- "D" shaped mounting hole dimensions
- For ordering information, see how to order page 72.
- Plug movement required to clear FTV receptacles: .625 min.

Shell Size	A* +.000 -.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	H Hex +.017 -.016	M ±.005	R Thread (Plated)	S +.011 -.010	T* +.010 -.000	V Thread Metric (Plated)
9	.669	.6250	1.199	.875	.871	M17X1-6g0.100R	1.062	.697	M15X1-6g0.100R
11	.769	.7500	1.386	1.000	.871	M20X1-6g0.100R	1.250	.822	M18X1-6g0.100R
13	.955	.8750	1.511	1.188	.878	M25X1-6g0.100R	1.375	1.007	M22X1-6g0.100R
15	1.084	1.0000	1.636	1.312	.878	M28X1-6g0.100R	1.500	1.134	M25X1-6g0.100R
17	1.208	1.1875	1.761	1.438	.878	M32X1-6g0.100R	1.625	1.259	M28X1-6g0.100R
19	1.333	1.2500	1.949	1.562	.878	M35X1-6g0.100R	1.812	1.384	M31X1-6g0.100R
21	1.459	1.3750	2.073	1.688	.878	M38X1-6g0.100R	1.938	1.507	M34X1-6g0.100R
23	1.575	1.5000	2.199	1.812	.878	M41X1-6g0.100R	2.062	1.634	M37X1-6g0.100R
25	1.709	1.6250	2.323	2.000	.878	M44X1-6g0.100R	2.188	1.759	M41X1-6g0.100R

All dimensions for reference only.

box mount receptacle (printed circuit board mount)



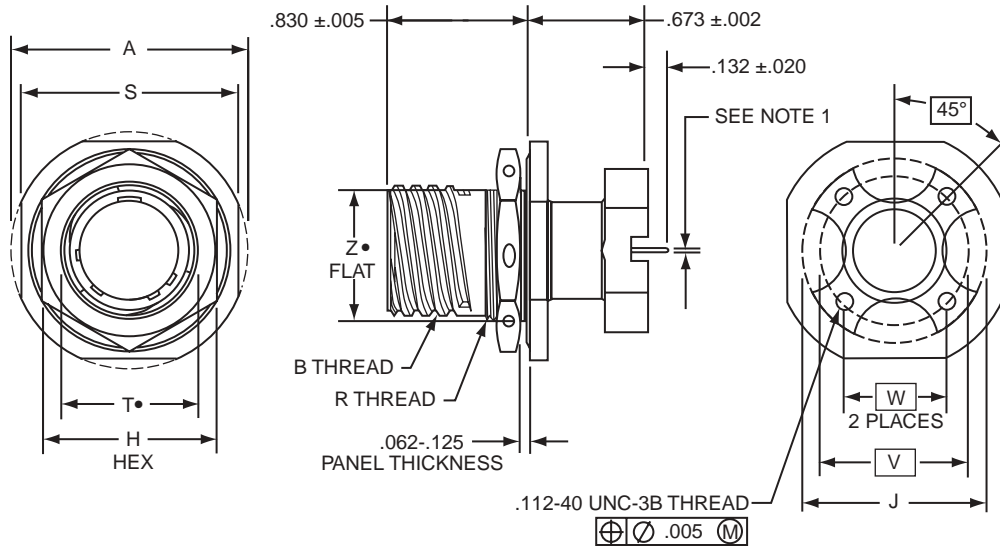
21-80X2XX-XXX

- Standard tail for size 22 is $.020 \pm .001$.
Standard tail for size 20 is $.030 \pm .001$.
For ordering information, see how to order page 72.

Shell Size	B Thread Class 2A 0.1P-0.3L-TS (Plated)	J Dia. $\pm .005$	K $\pm .005$	R ¹ TP	S $\pm .010$	PCB Mounting Dimensions	
						W TP	V Dia. TP
9	.6250	1.016	.085	.719	.938	.532	.752
11	.7500	1.062	.085	.812	1.031	.601	.850
13	.8750	1.250	.085	.906	1.125	.703	.994
15	1.0000	1.375	.085	.969	1.219	.791	1.119
17	1.1875	1.500	.085	1.062	1.312	.875	1.237
19	1.2500	1.625	.085	1.156	1.438	.975	1.379
21	1.3750	1.750	.115	1.250	1.562	1.053	1.489
23	1.5000	1.875	.115	1.375	1.688	1.145	1.619
25	1.6250	2.000	.115	1.500	1.812	1.233	1.744

All dimensions for reference only.

jam nut receptacle (printed circuit board mount)



21-80X7XX-XXX

- Standard tail for size 22 is $.020 \pm .001$.
Standard tail for size 20 is $.030 \pm .001$.
- "D" shaped mounting hole dimensions
- For ordering information, see how to order page 72.

Shell Size	A Dia. $\pm .010$	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex $+ .017 - .016$	J Dia. $\pm .005$	R Thread Metric (Plated)	S $\pm .015$	T• Dia. $+ .010 - .000$	PCB Mounting Dimensions		Z• Flat $+ .000 - .010$
								W TP	V Dia. TP	
9	1.188	.6250	.875	1.016	M17X1-6g0.100R	1.062	.697	.532	.752	.669
11	1.375	.7500	1.000	1.062	M20X1-6g0.100R	1.250	.822	.601	.850	.769
13	1.500	.8750	1.188	1.250	M25X1-6g0.100R	1.375	1.007	.703	.994	.955
15	1.625	1.0000	1.312	1.375	M28X1-6g0.100R	1.500	1.134	.791	1.119	1.084
17	1.750	1.1875	1.438	1.500	M32X1-6g0.100R	1.625	1.259	.875	1.237	1.208
19	1.937	1.2500	1.562	1.625	M35X1-6g0.100R	1.812	1.384	.975	1.379	1.333
21	2.062	1.3750	1.688	1.750	M38X1-6g0.100R	1.937	1.507	1.053	1.489	1.459
23	2.188	1.5000	1.812	1.875	M41X1-6g0.100R	2.062	1.634	1.145	1.619	1.575
25	2.312	1.6250	2.000	2.000	M44X1-6g0.100R	2.188	1.759	1.233	1.744	1.709

All dimensions for reference only.