

Conductive O-Seals

CONDUCTIVE ELASTOMER RING SEALS

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

O-SEALS are resilient O-rings of electrically conductive silicone elastomer. They can be manufactured from a variety of TECKNIT CONSIL® materials, and are available in round or rectangular cross-sections and provide high electrical conductivity, shielding effectiveness, and moisture or pressure sealing. They are designed for static applications in which the sealed surfaces do not move relative to each other.

APPLICATION INFORMATION

Typical applications for O-SEALS include connector, jam-nut and interfacial seals, waveguide flange seals, cap seals, and conductive moisture seals for sealing screws. Typical groove dimensions for round cross-section O-SEALS are listed in Table 1 below.

Table 1. Groove Dimensions for Round Cross-Section O-SEALS

O-SEAL Cross-Section Diameter	Groove Depth ±.003 in. [0.07 mm]	Groove Width ±.005 in. [0.12 mm]
.070 in. [1.78 mm]	.055 in. [1.40 mm]	.080 in. [2.03 mm]
.103 in. [2.62 mm]	.082 in. [2.06 mm]	.1127 in. [2.97 mm]



SPECIFICATIONS

STANDARD MATERIALS*	CONDUCTIVE FILLER	ELASTOMER	VOL. RES.(max.)
Consil-II 842	Silver plated inert particles	Silicone	.01 ohm-cm
Consil-C 871	Silver plated copper particles	Silicone	.004 ohm-cm
Consil-C 873	Silver plated copper particles	Silicone	.005 ohm-cm
Consil-A 895	Silver plated aluminum particles	Silicone	.008 ohm-cm

*For detailed material specifications see applicable data sheets.

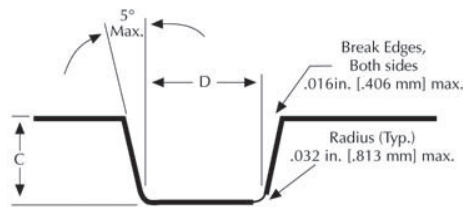


Figure 1. Groove Design

ORDERING INFORMATION

To order O-SEALS specify the TECKNIT Part Numbers shown in Tables II and III and the quantity required. For part not listed in Tables II and III, or for part numbers of other CONSIL materials, contact your nearest TECKNIT area representative or factory location to determine availability of the required tooling.



INTERFACIAL SEALS



Table 2.

CONNECTOR SHELL		DIMENSIONS					
MIL-C-26482	MIL-C-5015	I.D. ± .010 in. [0.25mm]	O.D. ± .010 [0.25 mm]	T ± .005 in. [0.13]	Consil II 842	Consil-C 871	Consil-A 895
#8		.319 [8.10]	.422 [10.72]	.075 [1.91]	84-30220	87-30220	89-50220
	#8	.328 [8.33]	.391 [9.93]	.030 [0.76]	84-30221	87-30221	89-50221
#10		.447 [11.35]	.550 [13.97]	.075 [1.91]	84-30222	87-30222	89-50222
	#10	.406 [10.31]	.469 [11.91]	.030 [0.76]	84-30223	87-30223	89-50223
#12		.547 [13.89]	.703 [17.86]	.075 [1.91]	84-30224	87-30224	89-50224
	#12	.531 [13.49]	.594 [15.09]	.030 [0.76]	84-30225	87-30225	89-50225
#14		.671 [17.04]	.828 [21.03]	.075 [1.91]	84-30226	87-30226	89-50226
	#14	.641 [16.28]	.700 [17.78]	.030 [0.76]	84-30227	87-30227	89-50227
#16		.797 [20.24]	.953 [24.21]	.075 [1.91]	84-30228	87-30228	89-50228
	#16	.781 [19.84]	.844 [21.44]	.030 [0.76]	84-30229	87-30229	89-50229
#18		.891 [22.63]	1.047 [26.59]	.075 [1.91]	84-30230	87-30230	89-50230
	#18	.891 [22.63]	.953 [24.21]	.030 [0.76]	84-30231	87-30231	89-50231
#20		1.039 [26.39]	1.172 [29.77]	.075 [1.91]	84-30232	87-30232	89-50232
	#20	.984 [24.99]	1.047 [26.59]	.030 [0.76]	84-30233	87-30233	89-50233
#22		1.141 [28.98]	1.297 [32.94]	.075 [1.91]	84-30234	87-30234	89-50234
	#22	1.109 [28.17]	1.172 [29.77]	.030 [0.76]	84-30235	87-30235	89-50235
#24		1.266 [32.16]	1.322 [36.12]	.075 [1.91]	84-30236	87-30236	89-50236
	#24	1.219 [30.96]	1.281 [32.54]	.030 [0.76]	84-30237	87-30237	89-50237
	#28	1.455 [36.96]	1.547 [39.29]	.040 [1.02]	84-30238	87-30238	89-50238
	#32	1.672 [42.47]	1.766 [44.86]	.040 [1.02]	84-30239	87-30239	89-50239
	#36	1.891 [48.03]	1.984 [50.39]	.040 [1.02]	84-30240	87-30240	89-50240

JAM NUT AND O-RING SEAL

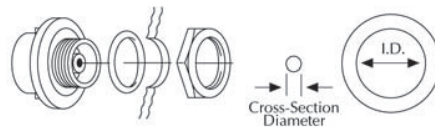


Table 3.

CONNECTOR SHELL		REFERENCE	DIMENSIONS				
MIL-C-26482	MIL-C-81511	Substitute for MS-29513 Size Reference Dash Number	I.D. ± 0.010 in. [0.25 mm]	Section Dia. ± .005 in. [0.13 mm]	Consil-II 842	Consil-C 871	Consil-A 895
		-11	.301 [7.65]	.070 [1.78]	84-30200	87-30200	89-50200
		-13	.426 [10.82]	.070 [1.78]	84-30201	87-30201	89-50201
		-14	.489 [12.42]	.070 [1.78]	84-30202	87-30202	89-50202
#6		-15	.551 [14.00]	.070 [1.78]	84-30203	87-30203	89-50203
#8		-17	.676 [17.17]	.070 [1.78]	84-30204	87-30204	89-50204
	#8	-18	.739 [18.77]	.070 [1.78]	84-30205	87-30205	89-50205
#9, 10		-19	.801 [20.35]	.070 [1.78]	84-30206	87-30206	89-50206
	#10	-20	.864 [21.95]	.070 [1.78]	84-30207	87-30207	89-50207
#11, 12		-22	.989 [25.12]	.070 [1.78]	84-30208	87-30208	89-50208
#13, 14	#14	-24	1.114 [28.30]	.070 [1.78]	84-30209	87-30209	89-50209
#15, 16	#16	-26	1.239 [31.47]	.070 [1.78]	84-30210	87-30210	89-50210
#17, 18	#18	-28	1.364 [34.65]	.070 [1.78]	84-30211	87-30211	89-50211
#19, 20			1.487 [37.77]	.103 [2.62]	84-30212	87-30212	89-50212
#21, 22			1.612 [40.94]	.103 [2.62]	84-30213	87-30213	89-50213
#23, 24			1.737 [44.12]	.103 [2.62]	84-30214	87-30214	89-50214
#25			1.862 [47.30]	.103 [2.62]	84-30215	87-30215	89-50215

