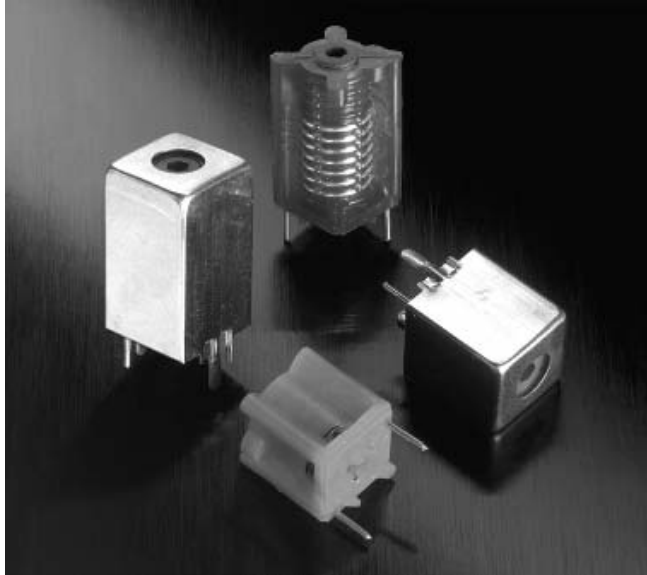


# 10 mm Tunable Coils-142, 143, 144 Series



These Coilcraft variable inductors are precision molded in plastic to ensure constant winding pitch and a consistent relationship to the printed circuit board.

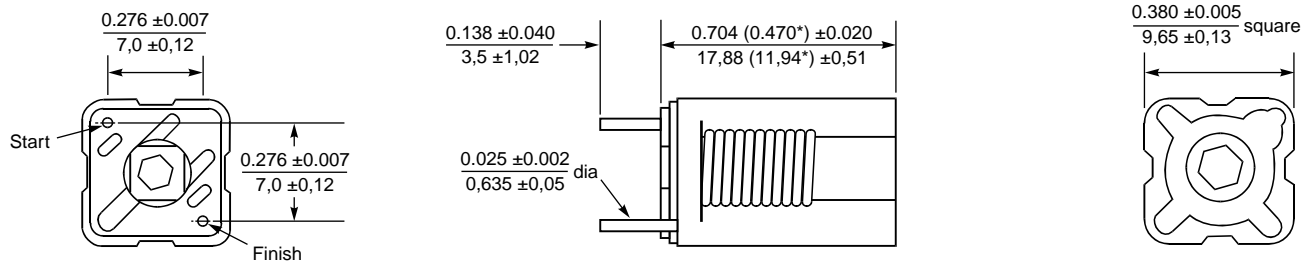
Extremely economical, even in small quantities, the coils come in standard inductance values from 0.05  $\mu\text{H}$  to 1.5  $\mu\text{H}$ . 144 Series parts are available with a tap to meet specific requirements.

Tuning is done by means of a threaded powdered iron core with a hex socket for easy, positive adjustment. Plated brass shield cans with solderable tabs are optional.

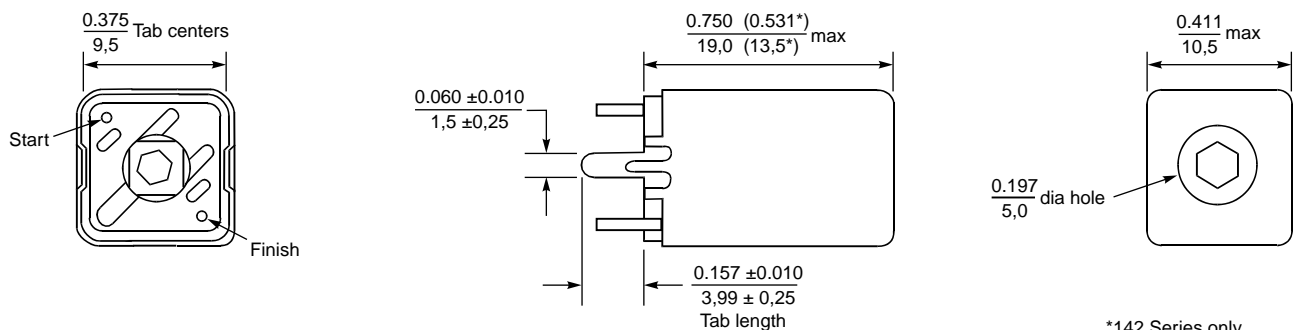
Coilcraft **Designer's Kit M102** contains samples of all standard 10 mm and 7 mm tunable inductors. To order, contact Coilcraft or visit <http://order.coilcraft.com> to purchase on-line.



## Unshielded Styles



## With Shield Can



**Coilcraft**<sup>®</sup>

Specifications subject to change without notice. Document 108-1 Revised 11/4/02

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# Unshielded

Part number	Color	Turns	No core L <sup>1</sup> ref (μH)	L min <sup>2</sup> (μH)	L nom (μH)	L max (μH)	Q min <sup>3</sup>	No core SRF min (MHz)	DCR max (mOhm)	Irms <sup>4</sup> (A)
144-01J12	Brown	1½	0.053	0.056	0.059	0.062	140	1800	7.4	11.0
144-02J12	Red	2½	0.075	0.079	0.088	0.098	145	1150	8.6	10.0
144-03J12	Orange	3½	0.099	0.104	0.123	0.142	147	900	9.7	9.6
144-04J12	Yellow	4½	0.126	0.132	0.164	0.195	150	765	10.9	9.0
144-05J12	Green	5½	0.154	0.162	0.207	0.252	154	670	12.1	8.6
144-06J12	Blue	6½	0.182	0.193	0.250	0.306	154	610	13.6	8.1
144-07J12	Violet	7½	0.214	0.240	0.298	0.356	158	525	14.7	7.8
144-08J12	Gray	8½	0.245	0.283	0.344	0.405	160	465	15.9	7.5
144-09J12	White	9½	0.274	0.328	0.387	0.446	162	420	17.1	7.2
144-10J12	Black	10½	0.307	0.391	0.442	0.493	162	390	18.5	7.0
142-01J08	Brown	1½	0.063	0.063	0.065	0.068	115	980	7.4	13.4
142-02J08	Red	2½	0.092	0.093	0.100	0.107	118	600	8.4	12.5
142-03J08	Orange	3½	0.127	0.133	0.145	0.157	120	470	9.6	11.8
142-04J08	Yellow	4½	0.166	0.174	0.196	0.218	125	420	10.8	11.1
142-05J08	Green	5½	0.212	0.226	0.256	0.287	122	370	11.9	10.5
142-06J08	Blue	6½	0.258	0.275	0.315	0.355	112	340	13.2	10.0
142-07J08	Violet	7½	0.307	0.330	0.378	0.427	112	310	14.5	9.6
142-08J08	Gray	8½	0.357	0.396	0.450	0.504	106	290	15.7	9.2
142-09J08	White	9½	0.412	0.473	0.520	0.567	110	270	16.9	8.9
142-10J08	Black	10½	0.464	0.550	0.592	0.635	104	260	18.0	8.6
143-09J12	White	9½	0.385	0.404	0.550	0.693	86	280	16.7	7.3
143-10J12	Black	10½	0.438	0.460	0.624	0.788	90	270	17.9	7.1
143-11J12	Brown	11½	0.490	0.515	0.708	0.900	78	260	19.2	6.8
143-12J12	Red	12½	0.545	0.578	0.764	0.950	84	250	20.5	6.6
143-13J12	Orange	13½	0.600	0.673	0.845	1.02	84	245	21.7	6.4
143-14J12	Yellow	14½	0.645	0.726	0.908	1.09	82	240	22.8	6.3
143-15J12	Green	15½	0.692	0.803	0.978	1.15	90	230	23.9	6.1
143-16J12	Blue	16½	0.765	0.891	1.08	1.27	74	225	25.2	6.0
143-17J12	Violet	17½	0.830	1.01	1.18	1.34	74	215	26.4	5.8
143-18J12	Gray	18½	0.895	1.10	1.25	1.40	92	195	27.6	5.7
143-19J12	White	19½	0.910	1.20	1.32	1.44	98	190	28.9	5.6
143-20J12	Black	20½	0.960	1.30	1.40	1.50	92	185	30.0	5.5

# Shielded

Part number	Color	Turns	No core L <sup>1</sup> ref (μH)	L min <sup>2</sup> (μH)	L nom (μH)	L max (μH)	Q min <sup>3</sup>	No core SRF min (MHz)	DCR max (mOhm)	Irms <sup>4</sup> (A)
144-01J12S	Brown	1½	0.050	0.052	0.053	0.054	97	2200	7.4	11.0
144-02J12S	Red	2½	0.067	0.070	0.074	0.078	98	1200	8.6	10.0
144-03J12S	Orange	3½	0.088	0.092	0.099	0.106	98	920	9.7	9.6
144-04J12S	Yellow	4½	0.106	0.111	0.122	0.133	100	790	10.9	9.0
144-05J12S	Green	5½	0.126	0.132	0.149	0.165	101	685	12.1	8.6
144-06J12S	Blue	6½	0.147	0.154	0.175	0.196	106	625	13.6	8.1
144-07J12S	Violet	7½	0.168	0.176	0.200	0.223	104	530	14.7	7.8
144-08J12S	Gray	8½	0.190	0.202	0.226	0.250	108	480	15.9	7.5
144-09J12S	White	9½	0.210	0.239	0.256	0.274	108	435	17.1	7.2
144-10J12S	Black	10½	0.232	0.270	0.282	0.295	106	420	18.5	7.0
142-01J08S	Brown	1½	0.058	0.058	0.0595	0.061	82	1230	7.4	13.4
142-02J08S	Red	2½	0.081	0.084	0.086	0.089	83	650	8.4	12.5
142-03J08S	Orange	3½	0.110	0.115	0.120	0.121	85	550	9.6	11.8
142-04J08S	Yellow	4½	0.140	0.147	0.156	0.160	88	460	10.8	11.1
142-05J08S	Green	5½	0.174	0.182	0.197	0.205	94	410	11.9	10.5
142-06J08S	Blue	6½	0.210	0.220	0.240	0.248	94	370	13.2	10.0
142-07J08S	Violet	7½	0.247	0.259	0.280	0.290	90	330	14.5	9.6
142-08J08S	Gray	8½	0.284	0.299	0.322	0.337	86	320	15.7	9.2
142-09J08S	White	9½	0.319	0.338	0.363	0.377	88	310	16.9	8.9
142-10J08S	Black	10½	0.357	0.382	0.410	0.422	82	290	18.0	8.6
143-09J12S	White	9½	0.300	0.315	0.369	0.423	80	303	16.7	7.3
143-10J12S	Black	10½	0.338	0.355	0.416	0.477	82	290	17.9	7.1
143-11J12S	Brown	11½	0.377	0.396	0.468	0.540	78	270	19.2	6.8
143-12J12S	Red	12½	0.412	0.433	0.509	0.585	80	265	20.5	6.6
143-13J12S	Orange	13½	0.452	0.475	0.556	0.637	80	265	21.7	6.4
143-14J12S	Yellow	14½	0.490	0.515	0.604	0.693	78	260	22.8	6.3
143-15J12S	Green	15½	0.522	0.583	0.660	0.738	80	250	23.9	6.1
143-16J12S	Blue	16½	0.575	0.638	0.720	0.801	76	245	25.2	6.0
143-17J12S	Violet	17½	0.612	0.693	0.770	0.846	76	240	26.4	5.8
143-18J12S	Gray	18½	0.650	0.754	0.814	0.874	82	215	27.6	5.7
143-19J12S	White	19½	0.675	0.792	0.846	0.900	80	210	28.9	5.6
143-20J12S	Black	20½	0.715	0.847	0.896	0.945	74	200	30.0	5.5

- Inductance and Q readings taken on Boonton 260-A Q meter with 16 AWG tinned copper 1/2" long soldered along leads and bent at 90° 1/4" down from standoffs. All inductance values greater than 0.1 μH read at recommended Q meter frequency; those below 0.1 μH calculated from readings taken at 50 MHz.
- L min measured with core halfway out top of form.
- Q min measured at L nom at 40 MHz.
- Average current for a 40°C rise above 25°C ambient.
- Core material: Carbonyl J  
Core length: 142 Series - 1/4"  
143, 144 Series - 3/8"
- Taps available on 144 series parts at 1/8, 3/8, 5/8 and 7/8 turn increments.
- Operating temperature range -40°C to +85°C.
- Electrical specifications at 25°C.

# Coilcraft®

Specifications subject to change without notice. Document 108-2 Revised 08/04/03

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