

"SLOT TEN" 10 mm Tunable Inductors



This product will not be available in an RoHS-compliant version. Solder and certain cores contain lead.

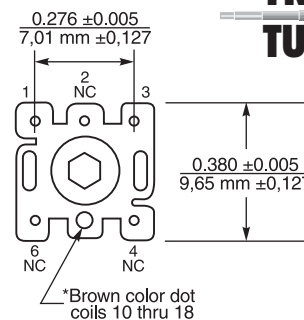
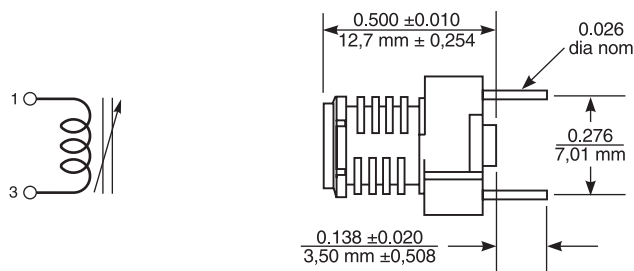
These versatile Coilcraft variable inductors operate over a wide range of frequencies. Standard inductance values are available from less than 1 μH to over 1 mH.

Coilcraft "SLOT TEN" RF coils come in an international 10 mm package. Their precision-molded slotted bobbins ensure tight tolerances and high stability.

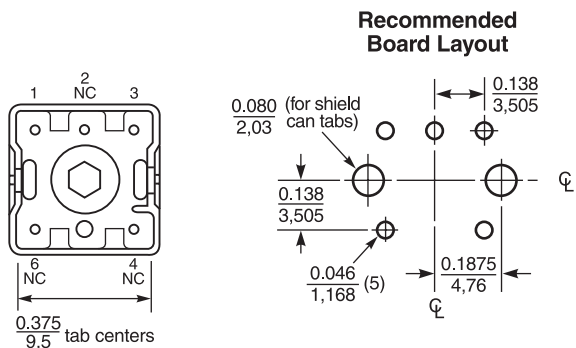
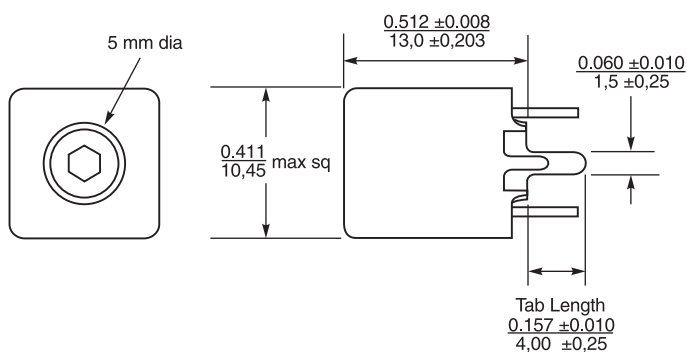
A variety of magnetic and electrostatic shielding options are offered. "SLOT TEN" coils are tuned by means of ferrite or powdered iron tuning cores.

Coilcraft **Designer's Kit M100** contains 18 shielded and 18 unshielded coils (3 each) plus extra cores and sleeves to create all of the standard values shown. To order, please contact Coilcraft or purchase on-line at <http://order.coilcraft.com>.

Unshielded (Styles 1 and 2)



With Shielded Cans (Styles 3, 4 and 5)



Resistance to soldering heat: Wave solder only. Recommended maximum board surface temperature of 168°C (334°F) for no more than three seconds. Pre-heating is recommended to minimize time over the solder nozzle.

Terminations Pins: Tin-lead over tin over copper over iron
Shield can tabs: Tin-silver over nickel over brass



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Selection Guide

Coilcraft "SLOT TEN" coils come in five different styles. Consult this table for the inductance range, relative Q and shielding options of each style. Then use the appropriate specification chart to pick a specific part number.

Style	L (μH)	Electrostatic shield	Magnetic shield	Recommended frequency	Tuning core	Relative Q	Relative cost
Style 1	0.8 – 624	No	No	Higher	Iron	Hi	Low
Style 2	0.8 – 927	No	No	↑ ↓	Ferrite	Hi	Low
Style 3	0.7 – 450	Yes	No		Iron	Low	Med
Style 4	0.8 – 624	Yes	Yes (Iron)		Iron	Med	Hi
Style 5	0.9 – 1143	Yes	Yes (Ferrite)		Ferrite	Med	Hi

Notes:

- All readings taken on Agilent/HP 4342-A Q Meter.
- L min is achieved at maximum extension of the core toward PC board. Complete tuning range is reached within the boundaries of the coil form.
- All specifications are at standard "Q" meter frequencies. L and Q readings change with frequency.
- Unshielded parts are coated with lacquer to protect the winding.
- Shielded parts have a sleeve insert to protect the winding.
- Operating temperature range –40°C to +85°C.
- Electrical specifications at 25°C.

Style 1 — Unshielded with Carbonyl E Core

Part number	Color	L min (μH)	L max (μH)	L nom (μH)	Q min @ L nom	Test frequency
SLOT TEN-1-01	Brown	0.800	1.2	1.0	48	7.9 MHz
SLOT TEN-1-02	Red	1.2	1.8	1.5	50	7.9 MHz
SLOT TEN-1-03	Orange	1.76	2.64	2.2	56	7.9 MHz
SLOT TEN-1-04	Yellow	2.56	3.84	3.2	54	7.9 MHz
SLOT TEN-1-05	Green	3.6	5.4	4.5	54	7.9 MHz
SLOT TEN-1-06	Blue	5.2	7.8	6.5	51	7.9 MHz
SLOT TEN-1-07	Violet	7.6	11.4	9.5	48	7.9 MHz
SLOT TEN-1-08	Gray	11.2	16.8	14.0	38	2.5 MHz
SLOT TEN-1-09	White	16.0	24.0	20.0	38	2.5 MHz
SLOT TEN-1-10	Black*	22.4	33.6	28.0	38	2.5 MHz
SLOT TEN-1-11	Brown*	32.0	48.0	40.0	38	2.5 MHz
SLOT TEN-1-12	Red*	46.4	69.6	58.0	47	2.5 MHz
SLOT TEN-1-13	Orange*	67.2	100.2	84.0	48	2.5 MHz
SLOT TEN-1-14	Yellow*	96	144	120.0	40	790 KHz
SLOT TEN-1-15	Green*	137.6	206.4	172.0	34	790 KHz
SLOT TEN-1-16	Blue*	200	300	250.0	39	790 KHz
SLOT TEN-1-17	Violet*	280	432	360.0	30	790 KHz
SLOT TEN-1-18	Gray*	416	624	520.0	35	790 KHz

* Coils 10 thru 18 have a brown color dot on bottom of coil base.

Style 2 — Unshielded with Ferrite Core

Part number	Color	L min (μH)	L max (μH)	L nom (μH)	Q min @ L nom	Test frequency
SLOT TEN-2-01	Brown	0.80	1.7	1.2	47	7.9 MHz
SLOT TEN-2-02	Red	1.25	2.75	2.0	48	7.9 MHz
SLOT TEN-2-03	Orange	1.75	4.0	2.9	48	7.9 MHz
SLOT TEN-2-04	Yellow	2.4	5.4	3.9	47	7.9 MHz
SLOT TEN-2-05	Green	3.5	7.8	5.6	47	7.9 MHz
SLOT TEN-2-06	Blue	4.7	10.6	7.6	46	7.9 MHz
SLOT TEN-2-07	Violet	7.4	15.6	11.5	38	2.5 MHz
SLOT TEN-2-08	Gray	11	25	18.2	40	2.5 MHz
SLOT TEN-2-09	White	16	35	25.3	40	2.5 MHz
SLOT TEN-2-10	Black*	22	50	36.5	40	2.5 MHz
SLOT TEN-2-11	Brown*	33	72	52.5	39	2.5 MHz
SLOT TEN-2-12	Red*	46	103	74.8	51	2.5 MHz
SLOT TEN-2-13	Orange*	66	136	100	40	790 KHz
SLOT TEN-2-14	Yellow*	95	198	146	44	790 KHz
SLOT TEN-2-15	Green*	136	297	216	40	790 KHz
SLOT TEN-2-16	Blue*	198	426	312	45	790 KHz
SLOT TEN-2-17	Violet*	286	630	530	33	790 KHz
SLOT TEN-2-18	Gray*	418	927	790	38	790 KHz

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Style 3—Shielded with Carbonyl E Core and Plastic Sleeve

Part number	Color	L min (μH)	L max (μH)	L nom (μH)	Q min @ L nom	Test frequency
SLOT TEN-3-01	Brown	0.70	0.94	0.82	65	7.9 MHz
SLOT TEN-3-02	Red	1.05	1.41	1.23	37	7.9 MHz
SLOT TEN-3-03	Orange	1.5	2.0	1.75	40	7.9 MHz
SLOT TEN-3-04	Yellow	2.04	2.76	2.4	40	7.9 MHz
SLOT TEN-3-05	Green	2.9	3.9	3.4	39	7.9 MHz
SLOT TEN-3-06	Blue	4.25	5.75	5.0	38	7.9 MHz
SLOT TEN-3-07	Violet	6	8.2	7.1	35	7.9 MHz
SLOT TEN-3-08	Gray	9.4	12.6	11.0	25	2.5 MHz
SLOT TEN-3-09	White	12.8	17.2	15.0	25	2.5 MHz
SLOT TEN-3-10	Black*	18.7	25.3	22.0	26	2.5 MHz
SLOT TEN-3-11	Brown*	26.4	35.6	31.0	25	2.5 MHz
SLOT TEN-3-12	Red*	37.4	50.6	44	29	2.5 MHz
SLOT TEN-3-13	Orange*	52.7	71.3	62	30	2.5 MHz
SLOT TEN-3-14	Yellow*	79	105	92	28	2.5 MHz
SLOT TEN-3-15	Green*	108.8	147.2	128	18	790 KHz
SLOT TEN-3-16	Blue*	155	208	182	20	790 KHz
SLOT TEN-3-17	Violet*	230	310	270	16	790 KHz
SLOT TEN-3-18	Gray*	336	450	390	18	790 KHz

* Coils 10 thru 18 have a brown color dot on bottom of coil base.

Style 4—Shielded with Carbonyl E Core and Sleeve

Part number	Color	L min (μH)	L max (μH)	L nom (μH)	Q min @ L nom	Test frequency
SLOT TEN-4-01	Brown	0.80	1.2	1.0	44	7.9 MHz
SLOT TEN-4-02	Red	1.2	1.8	1.5	45	7.9 MHz
SLOT TEN-4-03	Orange	1.76	2.64	2.2	48	7.9 MHz
SLOT TEN-4-04	Yellow	2.56	3.84	3.2	48	7.9 MHz
SLOT TEN-4-05	Green	3.6	5.4	4.5	46	7.9 MHz
SLOT TEN-4-06	Blue	5.2	7.8	6.5	43	7.9 MHz
SLOT TEN-4-07	Violet	7.6	11.4	9.5	40	7.9 MHz
SLOT TEN-4-08	Gray	11.2	16.8	14	32	2.5 MHz
SLOT TEN-4-09	White	16.0	24.0	20	33	2.5 MHz
SLOT TEN-4-10	Black*	22.4	33.6	28	32	2.5 MHz
SLOT TEN-4-11	Brown*	32.0	48.0	40	32	2.5 MHz
SLOT TEN-4-12	Red*	46.4	69.6	58	40	2.5 MHz
SLOT TEN-4-13	Orange*	67.2	100.8	85	40	2.5 MHz
SLOT TEN-4-14	Yellow*	96	144	120	33	790 KHz
SLOT TEN-4-15	Green*	137.6	206.4	172	28	790 KHz
SLOT TEN-4-16	Blue*	200	300	250	32	790 KHz
SLOT TEN-4-17	Violet*	288	432	360	26	790 KHz
SLOT TEN-4-18	Gray*	416	624	520	29	790 KHz

* Coils 10 thru 18 have a brown color dot on bottom of coil base.

Style 5—Shielded with Ferrite Core and Sleeve

Part number	Color	L min (μH)	L max (μH)	L nom (μH)	Q min @ L nom	Test frequency
SLOT TEN-5-01	Brown	0.86	2.0	1.4	43	7.9 MHz
SLOT TEN-5-02	Red	1.27	3.25	2.25	44	7.9 MHz
SLOT TEN-5-03	Orange	1.83	4.6	3.25	41	7.9 MHz
SLOT TEN-5-04	Yellow	2.48	6.4	4.5	40	7.9 MHz
SLOT TEN-5-05	Green	3.58	9.3	6.5	40	7.9 MHz
SLOT TEN-5-06	Blue	5.0	12.7	8.8	38	7.9 MHz
SLOT TEN-5-07	Violet	7.7	18.4	13.0	30	2.5 MHz
SLOT TEN-5-08	Gray	12.0	30.0	20.9	35	2.5 MHz
SLOT TEN-5-09	White	16	42	29.4	34	2.5 MHz
SLOT TEN-5-10	Black*	25	60	42.3	32	2.5 MHz
SLOT TEN-5-11	Brown*	36	90	62.8	30	2.5 MHz
SLOT TEN-5-12	Red*	48	126	87.2	42	2.5 MHz
SLOT TEN-5-13	Orange*	72	163	116	35	790 KHz
SLOT TEN-5-14	Yellow*	102	238	168	36	790 KHz
SLOT TEN-5-15	Green*	147	360	252	36	790 KHz
SLOT TEN-5-16	Blue*	215	522	312	45	790 KHz
SLOT TEN-5-17	Violet*	303	765	530	33	790 KHz
SLOT TEN-5-18	Gray*	440	1143	790	38	790 KHz

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