

# LOOP INDUCTANCE BY SIZE AND NUMBER OF TURNS

Note: Optimum operation range is between 70 $\mu$ h and 200 $\mu$ h

4 FOOT LOOP WIDTH											
Loop Size (ft)	Inductance ( $\mu$ h)				Loop Size (ft)	Inductance ( $\mu$ h)			Loop Size (ft)	Inductance ( $\mu$ h)	
	2 Turn	3 Turn	4 Turn	5 Turn		1 Turn	2 Turn	3 Turn		1 Turn	2 Turn
4 x 4	20	44	78	125	4 x 35	35	105	235	4 x 70	67	201
4 x 6	25	56	100		4 x 40	39	119	266	4 x 75	71	215
4 x 10	36	81	144		4 x 45	44	132		4 x 80	76	228
4 x 15	50	112	199		4 x 50	49	146		4 x 85	81	242
4 x 20	64	143	253		4 x 55	53	160		4 x 90	85	256
4 x 25	78	174			4 x 60	58	174		4 x 95	90	270
4 x 30	91	204			4 x 65	62	187		4 x 100	94	283

6 FOOT LOOP WIDTH											
Loop Size (ft)	Inductance ( $\mu$ h)				Loop Size (ft)	Inductance ( $\mu$ h)			Loop Size (ft)	Inductance ( $\mu$ h)	
	1 Turn	2 Turn	3 Turn	4 Turn		1 Turn	2 Turn	3 Turn		1 Turn	2 Turn
6 x 4	8	25	56	100	6 x 35	38	116	259	6 x 70	72	217
6 x 6	10	31	70	124	6 x 40	43	130		6 x 75	77	231
6 x 10	14	43	96	171	6 x 45	48	145		6 x 80	82	246
6 x 15	19	58	129	229	6 x 50	53	159		6 x 85	87	260
6 x 20	24	72	161	286	6 x 55	58	173		6 x 90	91	275
6 x 25	29	87	194		6 x 60	63	188		6 x 95	96	289
6 x 30	34	101	226		6 x 65	67	202		6 x 100	101	303

All values are calculated using 14Ga. wire and a loop having a 20' twisted lead wire  
 Changing the wire gauge will change these values (+ -) 0.02%  
 Changing the lead length will change these values (+ -) 0.22 $\mu$ h/ft

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