

SL LIGHT LOAD SPRINGS

JIS B 5012

Outside Dia.	Inside Dia.	Free Length	Spring Code	Spring Constant	0.3 million		0.5 million		1 million	
					Deflection	Load	Deflection	Load	Deflection	Load
					mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
10	5	20	SL 10 - 020	1.81	8.0	14.5 (142.2)	7.2	13 (127.5)	6.4	11.5 (112.8)
		25	SL 10 - 025	1.45	10.0		9.0		8.0	
		30	SL 10 - 030	1.21	12.0		10.8		9.6	
		35	SL 10 - 035	1.03	14.0		12.6		11.2	
		40	SL 10 - 040	0.90	16.0		14.4		12.8	
		45	SL 10 - 045	0.80	18.0		16.2		14.4	
		50	SL 10 - 050	0.73	20.0		18.0		16.0	
		55	SL 10 - 055	0.66	22.0		19.8		17.6	
		60	SL 10 - 060	0.60	24.0		21.6		19.2	
		65	SL 10 - 065	0.55	26.0		23.4		20.8	
		70	SL 10 - 070	0.51	28.0		25.2		22.4	
75	SL 10 - 075	0.48	30.0	27.0	24.0					
80	SL 10 - 080	0.45	32.0	28.8	25.6					
12	6	20	SL 12 - 020	2.63	8.0	21 (206)	7.2	19 (186.3)	6.4	17 (166.7)
		25	SL 12 - 025	2.10	10.0		9.0		8.0	
		30	SL 12 - 030	1.75	12.0		10.8		9.6	
		35	SL 12 - 035	1.50	14.0		12.6		11.2	
		40	SL 12 - 040	1.32	16.0		14.4		12.8	
		45	SL 12 - 045	1.17	18.0		16.2		14.4	
		50	SL 12 - 050	1.05	20.0		18.0		16.0	
		55	SL 12 - 055	0.96	22.0		19.8		17.6	
		60	SL 12 - 060	0.88	24.0		21.6		19.2	
		65	SL 12 - 065	0.81	26.0		23.4		20.8	
		70	SL 12 - 070	0.75	28.0		25.2		22.4	
75	SL 12 - 075	0.70	30.0	27.0	24.0					
80	SL 12 - 080	0.66	32.0	28.8	25.6					
14	7	25	SL 14 - 025	2.80	10.0	28 (275)	9.0	25 (245)	8.0	22 (216)
		30	SL 14 - 030	2.34	12.0		10.8		9.6	
		35	SL 14 - 035	2.00	14.0		12.6		11.2	
		40	SL 14 - 040	1.75	16.0		14.4		12.8	
		45	SL 14 - 045	1.56	18.0		16.2		14.4	
		50	SL 14 - 050	1.40	20.0		18.0		16.0	
		55	SL 14 - 055	1.27	22.0		19.8		17.6	
		60	SL 14 - 060	1.17	24.0		21.6		19.2	
		65	SL 14 - 065	1.08	26.0		23.4		20.8	
		70	SL 14 - 070	1.00	28.0		25.2		22.4	
		75	SL 14 - 075	0.93	30.0		27.0		24.0	
80	SL 14 - 080	0.87	32.0	28.8	25.6					
90	SL 14 - 090	0.77	36.0	32.4	28.8					
16	8	25	SL 16 - 025	3.50	10.0	35 (343)	9.0	32 (314)	8.0	28 (275)
		30	SL 16 - 030	2.92	12.0		10.8		9.6	
		35	SL 16 - 035	2.50	14.0		12.6		11.2	
		40	SL 16 - 040	2.19	16.0		14.4		12.8	
		45	SL 16 - 045	1.95	18.0		16.2		14.4	
		50	SL 16 - 050	1.75	20.0		18.0		16.0	
		55	SL 16 - 055	1.60	22.0		19.8		17.6	
		60	SL 16 - 060	1.46	24.0		21.6		19.2	
		65	SL 16 - 065	1.35	26.0		23.4		20.8	
		70	SL 16 - 070	1.25	28.0		25.2		22.4	
		75	SL 16 - 075	1.17	30.0		27.0		24.0	
80	SL 16 - 080	1.10	32.0	28.8	25.6					
90	SL 16 - 090	0.98	36.0	32.4	28.8					
100	SL 16 - 100	0.88	40.0	36.0	32.0					
18	9	25	SL 18 - 025	4.30	10.0	43 (422)	9.0	39 (382)	8.0	34 (333)
		30	SL 18 - 030	3.58	12.0		10.8		9.6	
		35	SL 18 - 035	3.07	14.0		12.6		11.2	
		40	SL 18 - 040	2.69	16.0		14.4		12.8	
		45	SL 18 - 045	2.39	18.0		16.2		14.4	
		50	SL 18 - 050	2.15	20.0		18.0		16.0	
		55	SL 18 - 055	1.96	22.0		19.8		17.6	
		60	SL 18 - 060	1.79	24.0		21.6		19.2	
		65	SL 18 - 065	1.66	26.0		23.4		20.8	
		70	SL 18 - 070	1.54	28.0		25.2		22.4	
		75	SL 18 - 075	1.44	30.0		27.0		24.0	
		80	SL 18 - 080	1.35	32.0		28.8		25.6	
		90	SL 18 - 090	1.20	36.0		32.4		28.8	
100	SL 18 - 100	1.07	40.0	36.0	32.0					



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Outside Dia.	Inside Dia.	Free Length	Spring Code	Spring Constant	0.3 million		0.5 million		1 million	
					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
20	10	25	SL 20 - 025	5.40	10.0	54 (530)	9.0	49 (481)	8.0	43 (422)
		30	SL 20 - 030	4.50	12.0		10.8		9.6	
		35	SL 20 - 035	3.86	14.0		12.6		11.2	
		40	SL 20 - 040	3.38	16.0		14.4		12.8	
		45	SL 20 - 045	3.00	18.0		16.2		14.4	
		50	SL 20 - 050	2.70	20.0		18.0		16.0	
		55	SL 20 - 055	2.45	22.0		19.8		17.6	
		60	SL 20 - 060	2.25	24.0		21.6		19.2	
		65	SL 20 - 065	2.08	26.0		23.4		20.8	
		70	SL 20 - 070	1.93	28.0		25.2		22.4	
		75	SL 20 - 075	1.80	30.0		27.0		24.0	
		80	SL 20 - 080	1.69	32.0		28.8		25.6	
		90	SL 20 - 090	1.50	36.0		32.4		28.8	
		100	SL 20 - 100	1.35	40.0		36.0		32.0	
		125	SL 20 - 125	1.08	50.0		45.0		40.0	
150	SL 20 - 150	0.90	60.0	54.0	48.0					
22	11	25	SL 22 - 025	6.70	10.0	67 (657)	9.0	60 (588)	8.0	54 (530)
		30	SL 22 - 030	5.60	12.0		10.8		9.6	
		35	SL 22 - 035	4.80	14.0		12.6		11.2	
		40	SL 22 - 040	4.20	16.0		14.4		12.8	
		45	SL 22 - 045	3.72	18.0		16.2		14.4	
		50	SL 22 - 050	3.35	20.0		18.0		16.0	
		55	SL 22 - 055	3.05	22.0		19.8		17.6	
		60	SL 22 - 060	2.80	24.0		21.6		19.2	
		65	SL 22 - 065	2.58	26.0		23.4		20.8	
		70	SL 22 - 070	2.40	28.0		25.2		22.4	
		75	SL 22 - 075	2.23	30.0		27.0		24.0	
		80	SL 22 - 080	2.10	32.0		28.8		25.6	
		90	SL 22 - 090	1.86	36.0		32.4		28.8	
		100	SL 22 - 100	1.68	40.0		36.0		32.0	
		125	SL 22 - 125	1.34	50.0		45.0		40.0	
150	SL 22 - 150	1.12	60.0	54.0	48.0					
25	12.5	25	SL 25 - 025	8.40	10.0	84 (824)	9.0	76 (745)	8.0	67 (657)
		30	SL 25 - 030	7.00	12.0		10.8		9.6	
		35	SL 25 - 035	6.00	14.0		12.6		11.2	
		40	SL 25 - 040	5.25	16.0		14.4		12.8	
		45	SL 25 - 045	4.67	18.0		16.2		14.4	
		50	SL 25 - 050	4.20	20.0		18.0		16.0	
		55	SL 25 - 055	3.82	22.0		19.8		17.6	
		60	SL 25 - 060	3.50	24.0		21.6		19.2	
		65	SL 25 - 065	3.23	26.0		23.4		20.8	
		70	SL 25 - 070	3.00	28.0		25.2		22.4	
		75	SL 25 - 075	2.80	30.0		27.0		24.0	
		80	SL 25 - 080	2.63	32.0		28.8		25.6	
		90	SL 25 - 090	2.33	36.0		32.4		28.8	
		100	SL 25 - 100	2.10	40.0		36.0		32.0	
		125	SL 25 - 125	1.68	50.0		45.0		40.0	
150	SL 25 - 150	1.40	60.0	54.0	48.0					
175	SL 25 - 175	1.20	70.0	63.0	56.0					
27	13.5	25	SL 27 - 025	10.00	10.0	100 (981)	9.0	90 (883)	8.0	80 (785)
		30	SL 27 - 030	8.33	12.0		10.8		9.6	
		35	SL 27 - 035	7.14	14.0		12.6		11.2	
		40	SL 27 - 040	6.25	16.0		14.4		12.8	
		45	SL 27 - 045	5.56	18.0		16.2		14.4	
		50	SL 27 - 050	5.00	20.0		18.0		16.0	
		55	SL 27 - 055	4.55	22.0		19.8		17.6	
		60	SL 27 - 060	4.17	24.0		21.6		19.2	
		65	SL 27 - 065	3.85	26.0		23.4		20.8	
		70	SL 27 - 070	3.57	28.0		25.2		22.4	
		75	SL 27 - 075	3.33	30.0		27.0		24.0	
		80	SL 27 - 080	3.13	32.0		28.8		25.6	
		90	SL 27 - 090	2.78	36.0		32.4		28.8	
		100	SL 27 - 100	2.50	40.0		36.0		32.0	
		125	SL 27 - 125	2.00	50.0		45.0		40.0	
150	SL 27 - 150	1.67	60.0	54.0	48.0					
175	SL 27 - 175	1.43	70.0	63.0	56.0					



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					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
30	16	25	SLR 30 - 025	12.11	10.0	114 (1,117.2)	9.0	102.6 (1,005.5)	8.0	91.2 (893.8)
		30	SLR 30 - 030	10.08	12.0		10.8		9.6	
		35	SLR 30 - 035	8.65	14.0		12.6		11.2	
		40	SLR 30 - 040	7.56	16.0		14.4		12.8	
		45	SLR 30 - 045	6.73	18.0		16.2		14.4	
		50	SLR 30 - 050	6.05	20.0		18.0		16.0	
		55	SLR 30 - 055	5.50	22.0		19.8		17.6	
		60	SLR 30 - 060	5.04	24.0		21.6		19.2	
		65	SLR 30 - 065	4.65	26.0		23.4		20.8	
		70	SLR 30 - 070	4.32	28.0		25.2		22.4	
		75	SLR 30 - 075	4.03	30.0		27.0		24.0	
		80	SLR 30 - 080	3.78	32.0		28.8		25.6	
		90	SLR 30 - 090	3.36	36.0		32.4		28.8	
		100	SLR 30 - 100	3.02	40.0		36.0		32.0	
		125	SLR 30 - 125	2.42	50.0		45.0		40.0	
		150	SLR 30 - 150	2.01	60.0		54.0		48.0	
175	SLR 30 - 175	1.72	70.0	63.0	56.0					
200	SLR 30 - 200	1.51	80.0	72.0	64.0					
35	17.5	40	SL 35 - 040	10.31	16.0	165 (1,618)	14.4	149 (1,461)	12.8	132 (1,295)
		45	SL 35 - 045	9.17	18.0		16.2		14.4	
		50	SL 35 - 050	8.25	20.0		18.0		16.0	
		55	SL 35 - 055	7.50	22.0		19.8		17.6	
		60	SL 35 - 060	6.87	24.0		21.6		19.2	
		65	SL 35 - 065	6.35	26.0		23.4		20.8	
		70	SL 35 - 070	5.89	28.0		25.2		22.4	
		75	SL 35 - 075	5.50	30.0		27.0		24.0	
		80	SL 35 - 080	5.15	32.0		28.8		25.6	
		90	SL 35 - 090	4.58	36.0		32.4		28.8	
		100	SL 35 - 100	4.12	40.0		36.0		32.0	
		125	SL 35 - 125	3.30	50.0		45.0		40.0	
		150	SL 35 - 150	2.75	60.0		54.0		48.0	
		175	SL 35 - 175	2.35	70.0		63.0		56.0	
200	SL 35 - 200	2.06	80.0	72.0	64.0					
35	20.5	40	SLR 35 - 040	9.15	16.0	143.2 (1,403.4)	14.4	128.9 (1,263.2)	12.8	114.6 (1,123.1)
		45	SLR 35 - 045	8.42	18.0		16.2		14.4	
		50	SLR 35 - 050	7.85	20.0		18.0		16.0	
		55	SLR 35 - 055	7.42	22.0		19.8		17.6	
		60	SLR 35 - 060	6.70	24.0		21.6		19.2	
		65	SLR 35 - 065	6.25	26.0		23.4		20.8	
		70	SLR 35 - 070	5.45	28.0		25.2		22.4	
		75	SLR 35 - 075	5.28	30.0		27.0		24.0	
		80	SLR 35 - 080	4.90	32.0		28.8		25.6	
		90	SLR 35 - 090	4.20	36.0		32.4		28.8	
		100	SLR 35 - 100	3.75	40.0		36.0		32.0	
		125	SLR 35 - 125	3.00	50.0		45.0		40.0	
		150	SLR 35 - 150	2.40	60.0		54.0		48.0	
		175	SLR 35 - 175	2.20	70.0		63.0		56.0	
200	SLR 35 - 200	1.80	80.0	72.0	64.0					
40	20	40	SL 40 - 040	13.50	16.0	216 (2,120)	14.4	194 (1,903)	12.8	173 (1,697)
		50	SL 40 - 050	10.80	20.0		18.0		16.0	
		60	SL 40 - 060	9.00	24.0		21.6		19.2	
		70	SL 40 - 070	7.71	28.0		25.2		22.4	
		80	SL 40 - 080	6.75	32.0		28.8		25.6	
		90	SL 40 - 090	6.00	36.0		32.4		28.8	
		100	SL 40 - 100	5.40	40.0		36.0		32.0	
		125	SL 40 - 125	4.32	50.0		45.0		40.0	
		150	SL 40 - 150	3.60	60.0		54.0		48.0	
		175	SL 40 - 175	3.08	70.0		63.0		56.0	
		200	SL 40 - 200	2.70	80.0		72.0		64.0	
		250	SL 40 - 250	2.16	100.0		90.0		80.0	



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					Deflection	Load	Deflection	Load	Deflection	Load
mm	mm	mm		Kgf / mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)
40	25.5	40	SLR 40 - 040	9.30	16.0	139.4 (1,366.1)	14.4	125.5 (1,229.9)	12.8	111.5 (1,092.7)
		50	SLR 40 - 050	7.75	20.0		18.0		16.0	
		60	SLR 40 - 060	6.20	24.0		21.6		19.2	
		70	SLR 40 - 070	5.00	28.0		25.2		22.4	
		80	SLR 40 - 080	4.35	32.0		28.8		25.6	
		90	SLR 40 - 090	3.85	36.0		32.4		28.8	
		100	SLR 40 - 100	3.50	40.0		36.0		32.0	
		125	SLR 40 - 125	2.80	50.0		45.0		40.0	
		150	SLR 40 - 150	2.25	60.0		54.0		48.0	
		175	SLR 40 - 175	1.95	70.0		63.0		56.0	
		200	SLR 40 - 200	1.65	80.0		72.0		64.0	
		250	SLR 40 - 250	1.50	100.0		90.0		80.0	
50	25	50	SL 50 - 050	16.89	20.0	338 (3,310)	18.0	304 (2,980)	16.0	270 (2,650)
		60	SL 50 - 060	14.08	24.0		21.6		19.2	
		70	SL 50 - 070	12.07	28.0		25.2		22.4	
		80	SL 50 - 080	10.56	32.0		28.8		25.6	
		90	SL 50 - 090	9.38	36.0		32.4		28.8	
		100	SL 50 - 100	8.45	40.0		36.0		32.0	
		125	SL 50 - 125	6.76	50.0		45.0		40.0	
		150	SL 50 - 150	5.63	60.0		54.0		48.0	
		175	SL 50 - 175	4.82	70.0		63.0		56.0	
		200	SL 50 - 200	4.22	80.0		72.0		64.0	
		250	SL 50 - 250	3.38	100.0		90.0		80.0	
		300	SL 50 - 300	2.81	120.0		108.0		96.0	
50	30.5	50	SLR 50 - 050	11.90	20.0	251 (2,459.8)	18.0	225.9 (2,213.8)	16.0	200.8 (1,967.8)
		60	SLR 50 - 060	10.60	24.0		21.6		19.2	
		70	SLR 50 - 070	9.00	28.0		25.2		22.4	
		80	SLR 50 - 080	7.65	32.0		28.8		25.6	
		90	SLR 50 - 090	6.75	36.0		32.4		28.8	
		100	SLR 50 - 100	5.85	40.0		36.0		32.0	
		125	SLR 50 - 125	4.90	50.0		45.0		40.0	
		150	SLR 50 - 150	3.55	60.0		54.0		48.0	
		175	SLR 50 - 175	3.00	70.0		63.0		56.0	
		200	SLR 50 - 200	2.65	80.0		72.0		64.0	
		250	SLR 50 - 250	2.40	100.0		90.0		80.0	
		300	SLR 50 - 300	2.20	120.0		108.0		96.0	
60	30	60	SL 60 - 060	20.25	24.0	486 (4,770)	21.6	437 (4,290)	19.2	389 (3,810)
		70	SL 60 - 070	17.35	28.0		25.2		22.4	
		80	SL 60 - 080	15.18	32.0		28.8		25.6	
		90	SL 60 - 090	13.50	36.0		32.4		28.8	
		100	SL 60 - 100	12.15	40.0		36.0		32.0	
		125	SL 60 - 125	9.72	50.0		45.0		40.0	
		150	SL 60 - 150	8.10	60.0		54.0		48.0	
		175	SL 60 - 175	6.94	70.0		63.0		56.0	
		200	SL 60 - 200	6.07	80.0		72.0		64.0	
		250	SL 60 - 250	4.86	100.0		90.0		80.0	
		300	SL 60 - 300	4.05	120.0		108.0		96.0	
		60	35.5	60	SLR 60 - 060		16.80		24.0	
70	SLR 60 - 070			14.40	28.0	25.2	22.4			
80	SLR 60 - 080			12.10	32.0	28.8	25.6			
90	SLR 60 - 090			10.65	36.0	32.4	28.8			
100	SLR 60 - 100			9.80	40.0	36.0	32.0			
125	SLR 60 - 125			8.50	50.0	45.0	40.0			
150	SLR 60 - 150			6.80	60.0	54.0	48.0			
175	SLR 60 - 175			6.00	70.0	63.0	56.0			
200	SLR 60 - 200			5.20	80.0	72.0	64.0			
250	SLR 60 - 250			3.90	100.0	90.0	80.0			
300	SLR 60 - 300			3.10	120.0	108.0	96.0			

