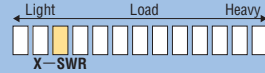
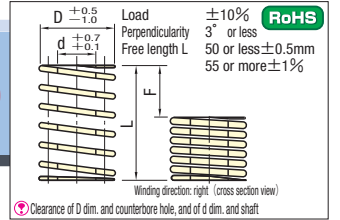


# COIL SPRINGS

—X-SWR—



PRINTED IN RED



D	d	L	Spring constant		F=L×55%		Catalogue No.
			N/mm (kgf/mm)	Fmm	Load N (kgf)	Type D-L	
Operation count 1,000,000							
10.5	6	15	10.49	[1.07]	6.7	70.6 (7.2)	<b>X-SWR 10.5</b> — 15
		20	7.85	[0.80]	9.0		20
		25	6.28	[0.64]	11.2		25
		30	5.20	[0.53]	13.5		30
		35	4.51	[0.46]	15.7		35
		40	3.92	[0.40]	18.0		40
		45	3.53	[0.36]	20.2		45
		50	3.14	[0.32]	22.5		50
		55	2.84	[0.29]	24.7		55
		60	2.65	[0.27]	27.0		60
		65	2.45	[0.25]	29.2		65
		70	2.26	[0.23]	31.5		70
		75	2.06	[0.21]	33.7		75
		80	1.96	[0.20]	36.0		80
		12.5	7	15	11.77		[1.20]
20	8.83			[0.90]	9.0	20	
25	7.06			[0.72]	11.2	25	
30	5.88			[0.60]	13.5	30	
35	5.00			[0.51]	15.7	35	
40	4.41			[0.45]	18.0	40	
45	3.92			[0.40]	20.2	45	
50	3.53			[0.36]	22.5	50	
55	3.24			[0.33]	24.7	55	
60	2.94			[0.30]	27.0	60	
65	2.75			[0.28]	29.2	65	
70	2.55			[0.26]	31.5	70	
75	2.35			[0.24]	33.7	75	
80	2.26			[0.23]	36.0	80	
90	1.96			[0.20]	40.5	90	
100	1.77	[0.18]	45.0	100			
14.5	9	20	10.89	[1.11]	9.0	98.1 (10)	<b>X-SWR 14.5</b> — 20
		25	8.73	[0.89]	11.2		25
		30	7.26	[0.74]	13.5		30
		35	6.28	[0.64]	15.7		35
		40	5.49	[0.56]	18.0		40
		45	4.81	[0.49]	20.2		45
		50	4.31	[0.44]	22.5		50
		55	3.92	[0.40]	24.7		55
		60	3.63	[0.37]	27.0		60
		65	3.33	[0.34]	29.2		65
		70	3.14	[0.32]	31.5		70
		75	2.94	[0.30]	33.7		75
		80	2.75	[0.28]	36.0		80
		90	2.45	[0.25]	40.5		90
		100	2.16	[0.22]	45.0		100
125	1.77	[0.18]	56.2	125			
17	11	25	14.81	[1.51]	11.2	166.7 (17)	<b>X-SWR 17</b> — 25
		30	12.36	[1.26]	13.5		30
		35	10.59	[1.08]	15.7		35
		40	9.22	[0.94]	18.0		40
		45	8.24	[0.84]	20.2		45
		50	7.45	[0.76]	22.5		50
		55	6.77	[0.69]	24.7		55
		60	6.18	[0.63]	27.0		60
		65	5.69	[0.58]	29.2		65
		70	5.30	[0.54]	31.5		70
		75	4.90	[0.50]	33.7		75
		80	4.61	[0.47]	36.0		80
		90	4.12	[0.42]	40.5		90
		100	3.73	[0.38]	45.0		100
		125	2.94	[0.30]	56.2		125
150	2.45	[0.25]	67.5	150			

D	d	L	Spring constant		F=L×55%		Catalogue No.
			N/mm (kgf/mm)	Fmm	Load N (kgf)	Type D-L	
Operation count 1,000,000							
21	13	30	19.61	[2.00]	13.5	264.8 (27)	<b>X-SWR 21</b> — 30
		35	16.77	[1.71]	15.7		35
		40	14.71	[1.50]	18.0		40
		45	13.04	[1.33]	20.2		45
		50	11.77	[1.20]	22.5		50
		55	10.69	[1.09]	24.7		55
		60	9.81	[1.00]	27.0		60
		65	9.02	[0.92]	29.2		65
		70	8.43	[0.86]	31.5		70
		75	7.85	[0.80]	33.7		75
		80	7.35	[0.75]	36.0		80
		90	6.57	[0.67]	40.5		90
		100	5.88	[0.60]	45.0		100
		125	4.71	[0.48]	56.2		125
		150	3.92	[0.40]	67.5		150
175	3.33	[0.34]	78.7	175			
200	2.94	[0.30]	90.0	200			
26	16.5	30	26.87	[2.74]	13.5	362.8 (37)	<b>X-SWR 26</b> — 30
		35	23.05	[2.35]	15.7		35
		40	20.20	[2.06]	18.0		40
		45	17.95	[1.83]	20.2		45
		50	16.08	[1.64]	22.5		50
		55	14.61	[1.49]	24.7		55
		60	13.44	[1.37]	27.0		60
		65	12.36	[1.26]	29.2		65
		70	11.47	[1.17]	31.5		70
		75	10.79	[1.10]	33.7		75
		80	10.10	[1.03]	36.0		80
		90	8.92	[0.91]	40.5		90
		100	8.04	[0.82]	45.0		100
		110	7.35	[0.75]	49.5		110
		125	6.47	[0.66]	56.2		125
150	5.39	[0.55]	67.5	150			
175	4.61	[0.47]	78.7	175			
200	4.02	[0.41]	90.0	200			
31	21	40	25.10	[2.56]	18.00	451.1 (46)	<b>X-SWR 31</b> — 40
		45	22.26	[2.27]	20.2		45
		50	20.01	[2.04]	22.5		50
		55	18.14	[1.85]	24.7		55
		60	16.67	[1.70]	27.0		60
		65	15.40	[1.57]	29.2		65
		70	14.32	[1.46]	31.5		70
		75	13.34	[1.36]	33.7		75
		80	12.55	[1.28]	36.0		80
		90	11.18	[1.14]	40.5		90
		100	10.00	[1.02]	45.0		100
		110	9.12	[0.93]	49.5		110
		125	8.04	[0.82]	56.2		125
		150	6.67	[0.68]	67.5		150
		175	5.69	[0.58]	78.7		175
200	5.00	[0.51]	90.0	200			
250	4.02	[0.41]	112.5	250			
300	3.33	[0.34]	135.0	300			

D	d	L	Spring constant		F=L×55%		Catalogue No.
			N/mm (kgf/mm)	Fmm	Load N (kgf)	Type D-L	
Operation count 1,000,000							
39	26	40	27.26	[2.78]	18.0	490.3 (50)	<b>X-SWR 39</b> — 40
		45	24.22	[2.47]	20.2		45
		50	21.77	[2.22]	22.5		50
		55	19.81	[2.02]	24.7		55
		60	18.14	[1.85]	27.0		60
		65	16.77	[1.71]	29.2		65
		70	15.59	[1.59]	31.5		70
		75	14.51	[1.48]	33.7		75
		80	13.63	[1.39]	36.0		80
		90	12.06	[1.23]	40.5		90
		100	10.89	[1.11]	45.0		100
		110	9.90	[1.01]	49.5		110
		125	8.73	[0.89]	56.2		125
		150	7.26	[0.74]	67.5		150
		175	6.18	[0.63]	78.7		175
200	5.49	[0.56]	90.0	200			
250	4.31	[0.44]	112.5	250			
300	3.63	[0.37]	135.0	300			
46	32	50	24.42	[2.49]	22.5	549.2 (56)	<b>X-SWR 46</b> — 50
		55	22.16	[2.26]	24.7		55
		60	20.30	[2.07]	27.0		60
		65	18.83	[1.92]	29.2		65
		70	17.46	[1.78]	31.5		70
		75	16.28	[1.66]	33.7		75
		80	15.30	[1.56]	36.0		80
		90	13.53	[1.38]	40.5		90
		100	12.16	[1.24]	45.0		100
		110	11.08	[1.13]	49.5		110
		125	9.81	[1.00]	56.2		125
		150	8.14	[0.83]	67.5		150
		175	6.96	[0.71]	78.7		175
		200	6.08	[0.62]	90.0		200
		250	4.90	[0.50]	112.5		250
300	4.02	[0.41]	135.0	300			

- Product Line-up
- Instructions and precautions for the use of coil springs

Order Example: **Catalogue No. X-SWR 22-100**

Stock availability: Red : SGP stock, Grey : Not available

Delivery: **SGP Stock**

For area out of Singapore, please refer to P.I.

● Load calculation method: Load=Spring constant×Deflection  
(SI unit) N=N/mm×Fmm  
kgf=kgf/mm×Fmm  
(kgf=N×0.101972)

The sizes in grey are not available. If you would like MISUMI to stock any particular size please contact us misumi\_pm@misumi.com.sg