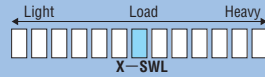
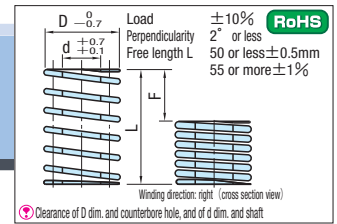


COIL SPRINGS

— LIGHT LOAD X-SWL —



PRINTED IN RED



| D | d | L | Spring constant | | F=L×32% | | F=L×36% | | Catalogue No. |
|-----------------|---|----|-----------------|------|--------------|----------|--------------|---------|---------------|
| | | | N/mm (kgf/mm) | Fmm | Load N (kgf) | Fmm | Load N (kgf) | | |
| Operation count | | | 1,000,000 | | 500,000 | | Type D-L | | |
| 8 | 4 | 10 | 24.5 (2.50) | 3.2 | 3.6 | 78 (8.0) | 88 (9.0) | X-SWL 8 | 10 |
| | | 15 | 16.3 (1.67) | 4.8 | 5.4 | | | | 15 |
| | | 20 | 12.3 (1.25) | 6.4 | 7.2 | | | | 20 |
| | | 25 | 9.8 (1.00) | 8.0 | 9.0 | | | | 25 |
| | | 30 | 8.2 (0.83) | 9.6 | 10.8 | | | | 30 |
| | | 35 | 7.0 (0.71) | 11.2 | 12.6 | | | | 35 |
| | | 40 | 6.1 (0.63) | 12.8 | 14.4 | | | | 40 |
| | | 45 | 5.4 (0.56) | 14.4 | 16.2 | | | | 45 |
| | | 50 | 4.9 (0.50) | 16.0 | 18.0 | | | | 50 |
| | | 55 | 4.5 (0.45) | 17.6 | 19.8 | | | | 55 |
| | | 60 | 4.1 (0.42) | 19.2 | 21.6 | | | | 60 |
| | | 65 | 3.8 (0.38) | 20.8 | 23.4 | | | | 65 |
| | | 70 | 3.5 (0.36) | 22.4 | 25.2 | | | | 70 |
| | | 75 | 3.3 (0.33) | 24.0 | 27.0 | | | | 75 |
| | | 80 | 3.1 (0.31) | 25.6 | 28.8 | | | | 80 |

| D | d | L | Spring constant | | F=L×32% | | F=L×36% | | Catalogue No. |
|-----------------|---|-----|-----------------|------|--------------|----------|--------------|---------|---------------|
| | | | N/mm (kgf/mm) | Fmm | Load N (kgf) | Fmm | Load N (kgf) | | |
| Operation count | | | 1,000,000 | | 500,000 | | Type D-L | | |
| 16 | 8 | 20 | 42.9 (4.38) | 6.4 | 7.2 | 275 (28) | 309 (32) | X-SWL16 | 20 |
| | | 25 | 34.3 (3.50) | 8.0 | 9.0 | | | | 25 |
| | | 30 | 28.6 (2.92) | 9.6 | 10.8 | | | | 30 |
| | | 35 | 24.5 (2.50) | 11.2 | 12.6 | | | | 35 |
| | | 40 | 21.5 (2.19) | 12.8 | 14.4 | | | | 40 |
| | | 45 | 19.1 (1.94) | 14.4 | 16.2 | | | | 45 |
| | | 50 | 17.2 (1.75) | 16.0 | 18.0 | | | | 50 |
| | | 55 | 15.6 (1.59) | 17.6 | 19.8 | | | | 55 |
| | | 60 | 14.3 (1.46) | 19.2 | 21.6 | | | | 60 |
| | | 65 | 13.2 (1.35) | 20.8 | 23.4 | | | | 65 |
| | | 70 | 12.3 (1.25) | 22.4 | 25.2 | | | | 70 |
| | | 75 | 11.4 (1.17) | 24.0 | 27.0 | | | | 75 |
| | | 80 | 10.7 (1.09) | 25.6 | 28.8 | | | | 80 |
| | | 90 | 9.5 (0.97) | 28.8 | 32.4 | | | | 90 |
| | | 100 | 8.6 (0.88) | 32.0 | 36.0 | | | | 100 |
| | | 125 | 6.9 (0.70) | 40.0 | 45.0 | | | | 125 |

| D | d | L | Spring constant | | F=L×32% | | F=L×36% | | Catalogue No. |
|-----------------|-------------|------|-----------------|------|--------------|----------|--------------|---------|---------------|
| | | | N/mm (kgf/mm) | Fmm | Load N (kgf) | Fmm | Load N (kgf) | | |
| Operation count | | | 1,000,000 | | 500,000 | | Type D-L | | |
| 25 | 12.5 | 25 | 82.4 (8.40) | 8.0 | 9.0 | 659 (67) | 741 (76) | X-SWL25 | 25 |
| | | 30 | 68.6 (7.00) | 9.6 | 10.8 | | | | 30 |
| | | 35 | 58.8 (6.00) | 11.2 | 12.6 | | | | 35 |
| | | 40 | 51.5 (5.25) | 12.8 | 14.4 | | | | 40 |
| | | 45 | 45.8 (4.67) | 14.4 | 16.2 | | | | 45 |
| | | 50 | 41.2 (4.20) | 16.0 | 18.0 | | | | 50 |
| | | 55 | 37.4 (3.82) | 17.6 | 19.8 | | | | 55 |
| | | 60 | 34.3 (3.50) | 19.2 | 21.6 | | | | 60 |
| | | 65 | 31.7 (3.23) | 20.8 | 23.4 | | | | 65 |
| | | 70 | 29.4 (3.00) | 22.4 | 25.2 | | | | 70 |
| | | 75 | 27.5 (2.80) | 24.0 | 27.0 | | | | 75 |
| | | 80 | 25.7 (2.63) | 25.6 | 28.8 | | | | 80 |
| | | 90 | 22.9 (2.33) | 28.8 | 32.4 | | | | 90 |
| | | 100 | 20.6 (2.10) | 32.0 | 36.0 | | | | 100 |
| | | 125 | 16.5 (1.68) | 40.0 | 45.0 | | | | 125 |
| | | 150 | 13.7 (1.40) | 48.0 | 54.0 | | | | 150 |
| 175 | 11.8 (1.20) | 56.0 | 63.0 | 175 | | | | | |
| 200 | 10.3 (1.05) | 64.0 | 72.0 | 200 | | | | | |

| D | d | L | Spring constant | | F=L×32% | | F=L×36% | | Catalogue No. |
|-----------------|-------------|-------|-----------------|-------|--------------|------------|--------------|---------|---------------|
| | | | N/mm (kgf/mm) | Fmm | Load N (kgf) | Fmm | Load N (kgf) | | |
| Operation count | | | 1,000,000 | | 500,000 | | Type D-L | | |
| 40 | 20 | 40 | 132.0 (13.5) | 21.6 | 24.0 | 1694 (173) | 1905 (194) | X-SWL40 | 40 |
| | | 45 | 118.0 (12.0) | 25.8 | 28.8 | | | | 45 |
| | | 50 | 106.0 (10.8) | 27.0 | 30.6 | | | | 50 |
| | | 55 | 96.2 (9.81) | 31.6 | 35.8 | | | | 55 |
| | | 60 | 88.2 (8.99) | 32.4 | 36.6 | | | | 60 |
| | | 65 | 81.4 (8.30) | 37.3 | 41.6 | | | | 65 |
| | | 70 | 75.6 (7.71) | 37.8 | 42.2 | | | | 70 |
| | | 75 | 70.6 (7.20) | 43.1 | 47.8 | | | | 75 |
| | | 80 | 66.2 (6.75) | 45.9 | 50.8 | | | | 80 |
| | | 90 | 58.8 (6.00) | 48.6 | 54.6 | | | | 90 |
| | | 100 | 52.9 (5.40) | 54.0 | 60.6 | | | | 100 |
| | | 125 | 42.3 (4.32) | 67.5 | 75.6 | | | | 125 |
| | | 150 | 35.3 (3.60) | 81.0 | 90.6 | | | | 150 |
| | | 175 | 30.2 (3.08) | 94.5 | 105.6 | | | | 175 |
| | | 200 | 26.5 (2.70) | 108.0 | 120.6 | | | | 200 |
| | | 225 | 23.5 (2.40) | 122.0 | 138.6 | | | | 225 |
| 250 | 21.2 (2.16) | 135.0 | 153.6 | 250 | | | | | |
| 275 | 19.2 (1.96) | 149.0 | 168.6 | 275 | | | | | |
| 300 | 17.6 (1.80) | 172.2 | 198.0 | 300 | | | | | |

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

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

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

Delivery: SGP Stock

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

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