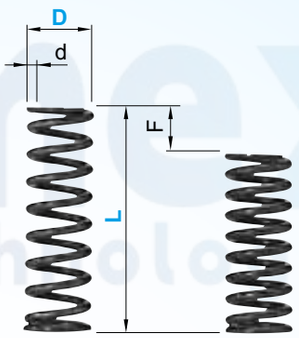
ROUND WIRE COIL SPRINGS
DWM (35% Deflection)

Dymex Technologies

■Spring constant

D \ Type	DWY	DWR	DWF	DWL	DWT	DWM	DWH	DWB
2				0.5 {0.05}	1.5 {0.15}	2.0 {0.2}	2.9 {0.3}	3.9 {0.4}
3								4.9 {0.5}
4	N/mm 0.1 {kgf/mm} {0.01}						N/mm 9.8 {kgf/mm} {0.6}	N/mm 9.8 {kgf/mm} {1.0}
5								
6		N/mm 0.3 {kgf/mm} {0.03}	N/mm 0.5 {kgf/mm} {0.05}	N/mm 1.0 {kgf/mm} {0.1}	N/mm 2.0 {kgf/mm} {0.2}	N/mm 2.9 {kgf/mm} {0.3}		
8	N/mm 0.2 {kgf/mm} {0.02}						N/mm 9.8 {kgf/mm} {1.0}	N/mm 19.6 {kgf/mm} {0.2}
10								
12								29.4 {3.0}
13								
14								
16								
18								
20		N/mm 0.5 {kgf/mm} {0.05}	N/mm 1.0 {kgf/mm} {0.1}	N/mm 2.9 {kgf/mm} {0.3}	N/mm 3.9 {kgf/mm} {0.4}	N/mm 4.9 {kgf/mm} {0.5}	N/mm 14.7 {kgf/mm} {1.5}	N/mm 29.4 {kgf/mm} {3.0}
22								
27								
Fmax.	F=L×75%	F=L×60%	F=L×45%	F=L×40%	F=L×40%	F=L×35%	F=L×30%	F=L×25%



Spring constant ± 10%
Outer dia. D φ 10 or less $^{0}_{-0.5mm}$
φ 12 or more $^{0}_{-0.8mm}$
Free length L 50 or less ± 1.5mm
55 or more ± 2mm

M~SWP~A

● DWM : Fmax.（Maximum Allowable Deflection）= L x 35%

Part No. Type D-L		d	Height Solid	F max.	Load N{kgf} max.
DWM2 -	5	0.2	1.7	2	0.98 {0.1}
	10	0.26	5.2	4	2.0 {0.2}
	15	0.26	5.2	6	2.9 {0.3}
	20	0.29	9	8	3.9 {0.4}
	25	0.29	9	10	4.9 {0.5}
	30	0.3	10.8	12	5.9 {0.6}
DWM3 -	5*	0.3	2.1	2	2.0 {0.2}
	10*	0.35	3.9	4	3.9 {0.4}
	15*	0.4	6.5	6	5.9 {0.6}
	20*	0.4	6.5	8	7.8 {0.8}
	25*	0.45	13	10	9.8 {1.0}
	30*	0.45	13	12	11.8 {1.2}
	35*	0.45	13	14	13.7 {1.4}
	40*	0.5	21	16	15.7 {1.6}
DWM4 -	5*	0.35	2.1	2	2.0 {0.2}
	10*	0.45	5	4	3.9 {0.4}
	15*	0.45	5	6	5.9 {0.6}
	20	0.5	9	8	7.8 {0.8}
	25	0.5	9	10	9.8 {1.0}
	30	0.55	13.9	12	11.8 {1.2}
	35	0.55	13.9	14	13.7 {1.4}
	40	0.6	21.6	16	15.7 {1.6}
	45	0.6	21.6	18	17.7 {1.8}
	50	0.6	21.6	20	19.6 {2.0}
	55	0.6	21.6	22	21.6 {2.2}
	60	0.65	33	24	23.5 {2.4}
DWM5 -	5*	0.4	2.3	2	2.0 {0.2}
	10*	0.45	3.4	4	3.9 {0.4}
	15*	0.5	5	6	5.9 {0.6}
	20	0.55	7.7	8	7.8 {0.8}
	25	0.6	10.8	10	9.8 {1.0}
	30	0.6	10.8	12	11.8 {1.2}
	35	0.65	15.6	14	13.7 {1.4}
	40	0.65	15.6	16	15.7 {1.6}
	45	0.7	20	18	17.7 {1.8}
	50	0.7	20	20	19.6 {2.0}
	55	0.7	23.1	22	21.6 {2.2}
	60	0.75	33	24	23.5 {2.4}
	65	0.75	32.3	26	25.5 {2.6}
	70	0.75	32.3	28	27.5 {2.8}
DWM6 -	5*	0.45	2.5	2	2.0 {0.2}
	10	0.55	4.7	4	3.9 {0.4}
	15	0.55	4.7	6	5.9 {0.6}
	20	0.65	9	8	7.8 {0.8}
	25	0.65	9	10	9.8 {1.0}
	30	0.7	13.7	12	11.8 {1.2}
	35	0.7	13.7	14	13.7 {1.4}
	40	0.7	13.7	16	15.7 {1.6}
	45	0.75	18.9	18	17.7 {1.8}
	50	0.75	18.9	20	19.6 {2.0}
	55	0.75	18.9	22	21.6 {2.2}
	60	0.8	26.4	24	23.5 {2.4}
	65	0.8	26.4	26	25.5 {2.6}
	70	0.85	30.6	28	27.5 {2.8}
	80	0.85	34.9	32	31.4 {3.2}

Part No. Type D-L		d	Height Solid	F max.	Load N{kgf} max.
DWM8 -	10	0.65	4.7	4	3.9 {0.4}
	15	0.75	8.5	6	5.9 {0.6}
	20	0.75	8.5	8	7.8 {0.8}
	25	0.75	8.5	10	9.8 {1.0}
	30	0.8	11.2	12	11.8 {1.2}
	35	0.8	11.2	14	13.7 {1.4}
	40	0.8	11.2	16	15.7 {1.6}
	45	0.85	15.3	18	17.7 {1.8}
	50	0.85	15.3	20	19.6 {2.0}
	55	0.85	15.3	22	21.6 {2.2}
	60	0.9	19.4	24	23.5 {2.4}
	65	0.9	19.4	26	25.5 {2.6}
	70	1.0	31	28	27.5 {2.8}
	80	1.0	31	32	31.4 {3.2}
DWM10 -	10	0.75	5.3	4	3.9 {0.4}
	15	0.8	6.4	6	5.9 {0.6}
	20	0.8	6.4	8	7.8 {0.8}
	25	0.9	10.8	10	9.8 {1.0}
	30	0.9	10.8	12	11.8 {1.2}
	35	0.9	10.8	14	13.7 {1.4}
	40	0.9	10.8	16	15.7 {1.6}
	45	1.0	17	18	17.7 {1.8}
	50	1.0	17	20	19.6 {2.0}
	55	1.0	17	22	21.6 {2.2}
	60	1.0	17	24	23.5 {2.4}
	65	1.1	24	26	25.5 {2.6}
	70	1.1	24	28	27.5 {2.8}
	80	1.1	24.2	32	31.4 {3.2}
DWM12 -	10	0.8	4.8	4	4.0 {0.4}
	15	0.9	7.2	6	5.9 {0.6}
	20	0.9	7.2	8	7.8 {0.8}
	25	0.9	7.2	10	9.8 {1.0}
	30	1.0	10.5	12	11.8 {1.2}
	35	1.0	10.5	14	13.7 {1.4}
	40	1.0	10.5	16	15.7 {1.6}
	45	1.1	15.4	18	17.7 {1.8}
	50	1.1	15.4	20	19.6 {2.0}
	55	1.1	15.4	22	21.6 {2.2}
	60	1.2	22.8	24	23.5 {2.4}
	65	1.2	22.8	26	25.5 {2.6}
	70	1.2	22.8	28	27.5 {2.8}
	80	1.3	34.5	32	31.4 {3.2}
DWM13 -	10	0.85	5.1	4	4.0 {0.4}
	15	0.9	6.3	6	5.9 {0.6}
	20	1.0	8.7	8	7.8 {0.8}
	25	1.0	8.7	10	9.8 {1.0}
	30	1.1	13.2	12	11.8 {1.2}
	35	1.1	13.2	14	13.7 {1.4}
	40	1.1	13.2	16	15.7 {1.6}
	45	1.1	13.2	18	17.7 {1.8}
	50	1.1	13.2	20	19.6 {2.0}
	55	1.1	13.2	22	21.6 {2.2}
	60	1.1	13.2	24	23.5 {2.4}
	65	1.2	18.6	26	25.5 {2.6}
	70	1.2	18.6	28	27.5 {2.8}
	80	1.4	37.8	32	31.4 {3.2}
	90	1.4	37.8	36	35.3 {3.6}
DWM14 -	15	1.0	7.5	6	5.9 {0.6}
	20	1.0	7.5	8	7.8 {0.8}
	25	1.0	7.5	10	9.8 {1.0}
	30	1.1	11	12	11.8 {1.2}
	35	1.1	11	14	13.7 {1.4}
	40	1.1	11	16	15.7 {1.6}
	45	1.2	15.6	18	17.7 {1.8}
	50	1.2	15.6	20	19.6 {2.0}
	55	1.2	15.6	22	21.6 {2.2}
	60	1.2	15.6	24	23.5 {2.4}
	65	1.3	22.1	26	25.5 {2.6}
	70	1.3	22.1	28	27.5 {2.8}
	80	1.3	22.1	32	31.4 {3.2}
	90	1.5	43.5	36	35.3 {3.6}

Part No. Type D-L		d	Height Solid	F max.	Load N{kgf} max.
DWM16 -	15	1.1	8.2	6	5.9 {0.6}
	20	1.1	8.2	8	7.8 {0.8}
	25	1.2	10	10	9.8 {1.0}
	30	1.2	10	12	11.8 {1.2}
	35	1.2	10	14	13.7 {1.4}
	40	1.2	10	16	15.7 {1.6}
	45	1.4	21	18	17.7 {1.8}
	50	1.4	21	20	19.6 {2.0}
	55	1.4	21	22	21.6 {2.2}
	60	1.4	21	24	23.5 {2.4}
	65	1.5	29.7	26	25.5 {2.6}
	70	1.5	29.7	28	27.5 {2.8}
	80	1.5	29.7	32	31.4 {3.2}
	90	1.6	40	36	35.3 {3.6}
DWM18 -	20	1.5	10	8	23.5 {2.4}
	25	1.6	12	10	29.4 {3.0}
	30	1.6	12	12	35.3 {3.6}
	35	1.7	16.2	14	41.2 {4.2}
	40	1.7	16.2	16	47.1 {4.8}
	45	1.8	19.8	18	53.0 {5.4}
	50	1.8	19.8	20	58.8 {6.0}
	55	1.8	19.8	22	64.7 {6.6}
	60	1.8	19.8	24	70.6 {7.2}
	65	2.0	32	26	76.5 {7.8}
	70	2.0	32	28	82.4 {8.4}
	80	2.0	32	32	94.1 {9.6}
	90	2.2	43	36	105.9 {10.8}
	80	2.2	43	40	117.7 {12.0}
DWM20 -	20	1.6	10.4	8	23.5 {2.4}
	25	1.6	10.4	10	29.4 {3.0}
	30	1.7	12.8	12	35.3 {3.6}
	35	1.7	12.8	14	41.2 {4.2}
	40	1.8	15.8	16	47.1 {4.8}
	45	1.8	15.8	18	53.0 {5.4}
	50	1.8	15.8	20	58.8 {6.0}
	55	1.8	15.8	22	64.7 {6.6}
	60	2.0	24	24	70.6 {7.2}
	65	2.0	24	26	76.5 {7.8}
	70	2.0	24	28	82.4 {8.4}
	80	2.2	37.4	32	94.1 {9.6}
	70	2.2	37.4	36	105.9 {10.8}
	100	2.2	37.4	40	117.7 {12.0}
DWM22 -	20	1.7	10.8	8	23.5 {2.4}
	25	1.8	13.3	10	29.4 {3.0}
	30	1.8	13.3	12	35.3 {3.6}
	35	1.8	13.3	14	41.2 {4.2}
	40	2.0	20	16	47.1 {4.8}
	45	2.0	20	18	53.0 {5.4}
	50	2.0	20	20	58.8 {6.0}
	55	2.0	20	22	64.7 {6.6}
	60	2.2	28.6	24	70.6 {7.2}
	65	2.2	28.6	26	76.5 {7.8}
	70	2.2	28.6	28	82.4 {8.4}
	80	2.2	28.6	32	94.1 {9.6}
	90	2.3	34.5	36	105.9 {10.8}
	100	2.3	34.5	40	117.7 {12.0}
DWM27 -	30	2.1	14	12	35.3 {3.6}
	35	2.1	14	14	41.2 {4.2}
	40	2.3	19	16	47.1 {4.8}
	45	2.3	19	18	53.0 {5.4}
	50	2.3	19	20	58.8 {6.0}
	55	2.3	19	22	64.7 {6.6}
	60	2.5	28	24	70.6 {7.2}
	65	2.5	28	26	76.5 {7.8}
	70	2.6	34.5	28	82.4 {8.4}
	80	2.6	34.5	32	94.1 {9.6}
	90	2.8	46.7	36	105.9 {10.8}
	100	2.8	46.7	40	117.7 {12.0}

Load calculation method: Load=Spring constant×Deflection

(SI units) N=N/mm×Fmm

kgf=kgf/mm×Fmm

(kgf=N×0.101972)

- No grinding on either end of WL types marked with*
- The solid height values are for reference only. There may be some variation between lots.
- Operation count: 1 million
- Instructions and precautions for the use of coil springs

ORDERING GUIDE

Part Number

DWM 13 - 60

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