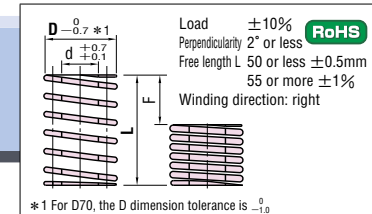
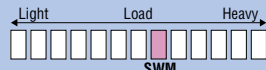


# COIL SPRINGS

## -SWM-



D	d	L	Spring constant			Catalog No.	Base unit price	
			F=LX25.6%	F=LX28.8%	F=LX32%			
Operation count			1,000,000	500,000	300,000	Type D-L	1~19 pieces	
6	3	15	20.4 (2.08)	3.8	4.3	4.8	<b>SWM6-15</b>	
		20	15.3 (1.56)	5.1	5.8	6.4	<b>20</b>	
		25	12.3 (1.25)	6.4	7.2	8.0	<b>25</b>	
		30	10.2 (1.04)	7.7	8.6	9.6	<b>30</b>	
		35	8.8 (0.89)	9.0	10.1	11.2	<b>35</b>	
		40	7.7 (0.78)	10.2	11.5	12.8	<b>40</b>	
		45	6.8 (0.69)	11.5	13.0	14.4	<b>45</b>	
		50	6.1 (0.63)	12.8	14.4	16.0	<b>50</b>	
		55	5.6 (0.57)	14.1	15.8	17.6	<b>55</b>	
		60	5.1 (0.52)	15.4	17.3	19.2	<b>60</b>	
8	4	10	42.9 (4.37)	2.6	2.9	3.2	<b>SWM8-10</b>	
		15	28.6 (2.91)	3.8	4.3	4.8	<b>15</b>	
		20	21.5 (2.18)	5.1	5.8	6.4	<b>20</b>	
		25	17.2 (1.75)	6.4	7.2	8.0	<b>25</b>	
		30	14.3 (1.46)	7.7	8.6	9.6	<b>30</b>	
		35	12.2 (1.25)	9.0	10.1	11.2	<b>35</b>	
		40	10.7 (1.09)	10.2	11.5	12.8	<b>40</b>	
		45	9.5 (0.97)	11.5	13.0	14.4	<b>45</b>	
		50	8.6 (0.87)	12.8	14.4	16.0	<b>50</b>	
		55	7.8 (0.79)	14.1	15.8	17.6	<b>55</b>	
10	5	10	61.3 (6.25)	2.6	2.9	3.2	<b>SWM10-10</b>	
		15	40.9 (4.17)	3.8	4.3	4.8	<b>15</b>	
		20	30.6 (3.13)	5.1	5.8	6.4	<b>20</b>	
		25	24.5 (2.50)	6.4	7.2	8.0	<b>25</b>	
		30	20.4 (2.08)	7.7	8.6	9.6	<b>30</b>	
		35	17.5 (1.79)	9.0	10.1	11.2	<b>35</b>	
		40	15.3 (1.56)	10.2	11.5	12.8	<b>40</b>	
		45	13.6 (1.39)	11.5	13.0	14.4	<b>45</b>	
		50	12.3 (1.25)	12.8	14.4	16.0	<b>50</b>	
		55	11.1 (1.14)	14.1	15.8	17.6	<b>55</b>	
12	6	10	59.2 (6.04)	3.8	4.3	4.8	<b>SWM12-15</b>	
		15	44.4 (4.53)	5.1	5.8	6.4	<b>20</b>	
		20	35.5 (3.63)	6.4	7.2	8.0	<b>25</b>	
		25	30.9 (3.02)	7.7	8.6	9.6	<b>30</b>	
		30	25.4 (2.59)	9.0	10.1	11.2	<b>35</b>	
		35	22.2 (2.27)	10.2	11.5	12.8	<b>40</b>	
		40	19.7 (2.01)	11.5	13.0	14.4	<b>45</b>	
		45	17.8 (1.81)	12.8	14.4	16.0	<b>50</b>	
		50	16.2 (1.65)	14.1	15.8	17.6	<b>55</b>	
		55	14.8 (1.51)	15.4	17.3	19.2	<b>60</b>	
14	7	10	59.8 (6.09)	5.1	5.8	6.4	<b>SWM14-20</b>	
		15	47.9 (4.88)	6.4	7.2	8.0	<b>25</b>	
		20	39.9 (4.08)	7.7	8.6	9.6	<b>30</b>	
		25	34.2 (3.48)	9.0	10.1	11.2	<b>35</b>	
		30	29.9 (3.05)	10.2	11.5	12.8	<b>40</b>	
		35	26.6 (2.71)	11.5	13.0	14.4	<b>45</b>	
		40	23.9 (2.44)	12.8	14.4	16.0	<b>50</b>	
		45	21.8 (2.22)	14.1	15.8	17.6	<b>55</b>	
		50	19.9 (2.03)	15.4	17.3	19.2	<b>60</b>	
		55	18.4 (1.88)	16.6	18.7	20.8	<b>65</b>	

D	d	L	Spring constant			Catalog No.	Base unit price	
			F=LX25.6%	F=LX28.8%	F=LX32%			
Operation count			1,000,000	500,000	300,000	Type D-L	1~19 pieces	
16	8	20	78.1 (7.97)	5.1	5.8	6.4	<b>SWM16-20</b>	
		25	62.5 (6.38)	6.4	7.2	8.0	<b>25</b>	
		30	52.1 (5.31)	7.7	8.6	9.6	<b>30</b>	
		35	44.7 (4.55)	9.0	10.1	11.2	<b>35</b>	
		40	39.1 (3.98)	10.2	11.5	12.8	<b>40</b>	
		45	34.7 (3.54)	11.5	13.0	14.4	<b>45</b>	
		50	31.3 (3.19)	12.8	14.4	16.0	<b>50</b>	
		55	28.4 (2.90)	14.1	15.8	17.6	<b>55</b>	
		60	26.0 (2.66)	15.4	17.3	19.2	<b>60</b>	
		65	24.0 (2.45)	16.6	18.7	20.8	<b>65</b>	
18	9	20	99.6 (10.2)	5.1	5.8	6.4	<b>SWM18-20</b>	
		25	79.7 (8.13)	6.4	7.2	8.0	<b>25</b>	
		30	66.4 (6.77)	7.7	8.6	9.6	<b>30</b>	
		35	56.9 (5.80)	9.0	10.1	11.2	<b>35</b>	
		40	49.8 (5.08)	10.2	11.5	12.8	<b>40</b>	
		45	44.3 (4.51)	11.5	13.0	14.4	<b>45</b>	
		50	39.8 (4.06)	12.8	14.4	16.0	<b>50</b>	
		55	36.2 (3.69)	14.1	15.8	17.6	<b>55</b>	
		60	33.2 (3.39)	15.4	17.3	19.2	<b>60</b>	
		65	30.6 (3.13)	16.6	18.7	20.8	<b>65</b>	
20	10	20	123 (12.5)	5.1	5.8	6.4	<b>SWM20-20</b>	
		25	98.0 (10.0)	6.4	7.2	8.0	<b>25</b>	
		30	81.7 (8.33)	7.7	8.6	9.6	<b>30</b>	
		35	70.0 (7.14)	9.0	10.1	11.2	<b>35</b>	
		40	61.3 (6.25)	10.2	11.5	12.8	<b>40</b>	
		45	54.4 (5.55)	11.5	13.0	14.4	<b>45</b>	
		50	49.0 (5.00)	12.8	14.4	16.0	<b>50</b>	
		55	44.5 (4.55)	14.1	15.8	17.6	<b>55</b>	
		60	40.8 (4.17)	15.4	17.3	19.2	<b>60</b>	
		65	37.7 (3.85)	16.6	18.7	20.8	<b>65</b>	
22	11	20	119 (12.1)	6.4	7.2	8.0	<b>SWM22-25</b>	
		25	99.1 (10.1)	7.7	8.6	9.6	<b>30</b>	
		30	84.9 (8.66)	9.0	10.1	11.2	<b>35</b>	
		35	74.3 (7.58)	10.2	11.5	12.8	<b>40</b>	
		40	66.1 (6.74)	11.5	13.0	14.4	<b>45</b>	
		45	59.5 (6.06)	12.8	14.4	16.0	<b>50</b>	
		50	54.0 (5.51)	14.1	15.8	17.6	<b>55</b>	
		55	49.5 (5.05)	15.4	17.3	19.2	<b>60</b>	
		60	45.7 (4.66)	16.6	18.7	20.8	<b>65</b>	
		65	42.5 (4.33)	17.9	20.2	22.4	<b>70</b>	

Order **Catalog No.** **SWM 20-80**

Days to Ship **Quotation**

Price **Quotation**

D	d	L	Spring constant			Catalog No.	Base unit price	
			F=LX25.6%	F=LX28.8%	F=LX32%			
Operation count			1,000,000	500,000	300,000	Type D-L	1~19 pieces	
25	12.5	25	153 (15.6)	6.4	7.2	8.0	<b>SWM25-25</b>	
		30	128 (13.0)	7.7	8.6	9.6	<b>30</b>	
		35	109 (11.2)	9.0	10.1	11.2	<b>35</b>	
		40	95.7 (9.77)	10.2	11.5	12.8	<b>40</b>	
		45	85.1 (8.68)	11.5	13.0	14.4	<b>45</b>	
		50	76.6 (7.81)	12.8	14.4	16.0	<b>50</b>	
		55	69.6 (7.10)	14.1	15.8	17.6	<b>55</b>	
		60	63.8 (6.51)	15.4	17.3	19.2	<b>60</b>	
		65	58.9 (6.01)	16.6	18.7	20.8	<b>65</b>	
		70	54.7 (5.58)	17.9	20.2	22.4	<b>70</b>	
27	13.5	25	179 (18.3)	6.4	7.2	8.0	<b>SWM27-25</b>	
		30	149 (15.2)	7.7	8.6	9.6	<b>30</b>	
		35	128 (13.0)	9.0	10.1	11.2	<b>35</b>	
		40	112 (11.4)	10.2	11.5	12.8	<b>40</b>	
		45	99.4 (10.1)	11.5	13.0	14.4	<b>45</b>	
		50	89.4 (9.13)	12.8	14.4	16.0	<b>50</b>	
		55	81.3 (8.30)	14.1	15.8	17.6	<b>55</b>	
		60	74.5 (7.60)	15.4	17.3	19.2	<b>60</b>	
		65	68.8 (7.02)	16.6	18.7	20.8	<b>65</b>	
		70	63.9 (6.52)	17.9	20.2	22.4	<b>70</b>	
30	15	25	221 (22.5)	6.4	7.2	8.0	<b>SWM30-25</b>	
		30	184 (18.8)	7.7	8.6	9.6	<b>30</b>	
		35	158 (16.1)	9.0	10.1	11.2	<b>35</b>	
		40	138 (14.1)	10.2	11.5	12.8	<b>40</b>	
		45	123 (12.5)	11.5	13.0	14.4	<b>45</b>	
		50	110 (11.3)	12.8	14.4	16.0	<b>50</b>	
		55	100 (10.2)	14.1	15.8	17.6	<b>55</b>	
		60	91.9 (9.38)	15.4	17.3	19.2	<b>60</b>	
		65	84.9 (8.65)	16.6	18.7	20.8	<b>65</b>	
		70	78.8 (8.04)	17.9	20.2	22.4	<b>70</b>	
35	17.5	25	221 (22.5)	6.4	7.2	8.0	<b>SWM35-40</b>	
		30	184 (18.8)	7.7	8.6	9.6	<b>30</b>	
		35	158 (16.1)	9.0	10.1	11.2	<b>35</b>	
		40	138 (14.1)	10.2	11.5	12.8	<b>40</b>	
		45	123 (12.5)	11.5	13.0	14.4	<b>45</b>	
		50	110 (11.3)	12.8	14.4	16.0	<b>50</b>	
		55	100 (10.2)	14.1	15.8	17.6	<b>55</b>	
		60	91.9 (9.38)	15.4	17.3	19.2	<b>60</b>	
		65	84.9 (8.65)	16.6	18.7	20.8	<b>65</b>	
		70	78.8 (8.04)	17.9	20.2	22.4	<b>70</b>	

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

● Product guide **P.1396** ● Load graph **P.1432**  
 ● Instructions and precautions for the use of coil springs **P.1397**  
 ● Clearance of D dim. and counterbore hole, and of d dim. and shaft **P.1397**

D	d	L	Spring constant			Catalog No.	Base unit price	
			F=LX25.6%	F=LX28.8%	F=LX32%			
Operation count			1,000,000	500,000	300,000	Type D-L	1~19 pieces	
40	20	40	245 (25.0)	10.2	11.5	12.8	<b>SWM40-40</b>	
		45	218 (22.2)	11.5	13.0	14.4	<b>45</b>	
		50	196 (20.0)	12.8	14.4	16.0	<b>50</b>	
		55	178 (18.2)	14.1	15.8	17.6	<b>55</b>	
		60	163 (16.7)	15.4	17.3	19.2	<b>60</b>	
		65	151 (15.4)	16.6	18.7	20.8	<b>65</b>	
		70	140 (14.3)	17.9	20.2	22.4	<b>70</b>	
		75	131 (13.3)	19.2	21.6	24.0	<b>75</b>	
		80	123 (12.5)	20.5	23.0	25.6	<b>80</b>	
		90						