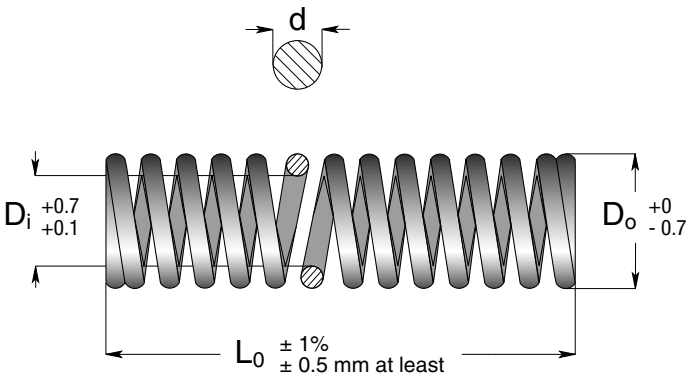
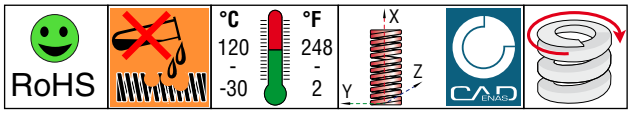
Round Wire

IT Molle non colorate con oliatura antiruggine.
EN Not painted with anti-rust lubricant.
DE Unlackierte Federn mit Rostschutzölung.
FR Ressorts non-peints avec huilage antirouille.
ES Muelles no pintados con lubricación antióxido.
PT Molas não coloridas com oleamento anti-ferrugem.





D_o diametro esterno della molla.
spring outside diameter.
Außendurchmesser Feder.
diamètre extérieur du ressort.
diámetro externo del muelle.
diâmetro exterior da mola.

D_i diametro interno della molla.
spring inside diameter.
Innendurchmesser Feder.
diamètre interièur du ressort.
diámetro interior del muelle.
diâmetro interno da mola.

d diametro del filo.
wire diameter.
Drahtdurchmesser.
diamètre du fil.
diámetro del hilo.
diâmetro de fio.

L_0 lunghezza libera della molla.
spring free length.
Länge der unbelasteten Feder.
longueur libre du ressort.
longitud libre del muelle.
comprimento livre da mola.

R carico (N) necessario per deflettere la molla di 1 mm.
spring rate, load (N) required for 1 mm deflection.
Federrate, erforderliche Spannung für 1 mm Federweg.
charge (N) exigée pour comprimer le ressort 1mm.
carga (N) necesaria para desviar el muelle de 1 milímetro.
carga (N) necessária para defletir a mola de 1 milímetro.

A deflessione consigliata per una lunga durata della molla.
advised working deflection for long spring life.
Empfohlener Federweg für eine lange Lebensdauer der Feder.
course conseillée pour une longue durée du ressort.
deflexión aconsejada para una larga duración del muelle.
deflecção recomendado para uma longa duração da mola.

B deflessione consigliata per una media durata della molla.
advised working deflection for medium spring life.
Empfohlener Federweg für eine mittlere Lebensdauer der Feder.
course conseillée pour durée moyenne du ressort.
deflexión aconsejada para una media duración del muelle.
deflecção recomendado para uma média duração da mola.

C deflessione massima consentita.
maximum operating deflection.
Maximaler Federweg.
course maximale pour le fonctionnement.
deflexión máxima permitida.
deflexão máxima.

Code	D_o Outside Diameter	D_i Inside Diameter	L_0 Free Length	R Spring Constant	A 16% L_0		B 24% L_0		C 32% L_0	
	d			± 10%	+ 3.000.000		+ 3.000.000		100 - 200.000	
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N
L 3 - 010	3	2	10	2.94	1.6	4.4	2.4	6.62	3.2	8.8
L 3 - 015			15	1.96	2.4	4.4	3.6	6.62	4.8	8.8
L 3 - 020			20	0.98	3.2	4.4	4.8	6.62	6.4	8.8
L 3 - 025	0.4		25	0.98	4.0	4.4	6.0	6.62	8.0	8.8
L 4 - 010	4	2.6	10	4.9	1.6	7.8	2.4	11.6	3.2	15.7
L 4 - 015			15	2.94	2.4	7.8	3.6	11.6	4.8	15.7
L 4 - 020			20	2.94	3.2	7.8	4.8	11.6	6.4	15.7
L 4 - 025			25	1.96	4.0	7.8	6.0	11.6	8.0	15.7
L 4 - 030	0.6		30	1.96	4.8	7.8	7.2	11.6	9.6	15.7
L 6 - 015	6	4	15	7.85	2.4	17.7	3.6	26.5	4.8	35.5
L 6 - 020			20	5.88	3.2	17.7	4.8	26.5	6.4	35.5
L 6 - 025			25	4.90	4.0	17.7	6.0	26.5	8.0	35.5
L 6 - 030			30	3.92	4.8	17.7	7.2	26.5	9.6	35.5
L 6 - 035	0.9		35	2.94	5.6	17.7	8.4	26.5	11.2	35.5

1 N = 0.1 daN = 0.102 kgf

Load (N) = R (N/mm) x Deflection (mm)

L 14 - 070 (Series D_H - L_0)

Code	D_o Outside Diameter	D_i Inside Diameter	L_0 Free Length	R Spring Constant	A 16% L_0		B 24% L_0		C 32% L_0	
	d			± 10%	+ 3.000.000		+ 3.000.000		100 - 200.000	
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N
L 8 - 015			15	12.75	2.4	31.4	3.6	47.1	4.8	62.8
L 8 - 020			20	9.81	3.2	31.4	4.8	47.1	6.4	62.8
L 8 - 025	8	5.4	25	7.85	4.0	31.4	6.0	47.1	8.0	62.8
L 8 - 030			30	6.86	4.8	31.4	7.2	47.1	9.6	62.8
L 8 - 035			35	5.88	5.6	31.4	8.4	47.1	11.2	62.8
L 8 - 040	1.2		40	4.90	6.4	31.4	9.6	47.1	12.8	62.8
L 10 - 025			25	12.75	4.0	49.0	6.0	73.6	8.0	98
L 10 - 030			30	9.81	4.8	49.0	7.2	73.6	9.6	98
L 10 - 035	10	6.5	35	8.83	5.6	49.0	8.4	73.6	11.2	98
L 10 - 040			40	7.85	6.4	49.0	9.6	73.6	12.8	98
L 10 - 045			45	6.86	7.2	49.0	10.8	73.6	14.4	98
L 10 - 050	1.5		50	5.88	8.0	49.0	12.0	73.6	16.0	98
L 12 - 025			25	17.65	4.0	70.6	6.0	106.9	8.0	141.2
L 12 - 030			30	14.71	4.8	70.6	7.2	106.9	9.6	141.2
L 12 - 035			35	12.75	5.6	70.6	8.4	106.9	11.2	141.2
L 12 - 040	12	8	40	10.79	6.4	70.6	9.6	106.9	12.8	141.2
L 12 - 045			45	9.81	7.2	70.6	10.8	106.9	14.4	141.2
L 12 - 050			50	8.83	8.0	70.6	12.0	106.9	16.0	141.2
L 12 - 055			55	7.85	8.8	70.6	13.2	106.9	17.6	141.2
L 12 - 060	1.8		60	7.85	9.6	70.6	14.4	106.9	19.2	141.2
L 14 - 025			25	24.52	4.0	96.1	6.0	144.2	8.0	192.2
L 14 - 030			30	19.61	4.8	96.1	7.2	144.2	9.4	192.2
L 14 - 035			35	17.65	5.6	96.1	8.4	144.2	11.2	192.2
L 14 - 040			40	14.71	6.4	96.1	9.6	144.2	12.8	192.2
L 14 - 045	14	9.3	45	13.73	7.2	96.1	10.8	144.2	14.4	192.2
L 14 - 050			50	11.77	8.0	96.1	12.0	144.2	16.0	192.2
L 14 - 055			55	10.79	8.8	96.1	13.2	144.2	17.6	192.2
L 14 - 060			60	9.81	9.6	96.1	14.4	144.2	19.2	192.2
L 14 - 065			65	8.83	10.4	96.1	15.6	144.2	20.8	192.2
L 14 - 070	2.2		70	8.83	11.2	96.1	16.8	144.2	22.4	192.2
L 16 - 025			25	31.38	4.0	125.5	6.0	188.3	8.0	251.1
L 16 - 030			30	26.48	4.8	125.5	7.2	188.3	9.4	251.1
L 16 - 035			35	22.56	5.6	125.5	8.4	188.3	11.2	251.1
L 16 - 040			40	19.61	6.4	125.5	9.6	188.3	12.8	251.1
L 16 - 045			45	17.65	7.2	125.5	10.8	188.3	14.4	251.1
L 16 - 050	16	10.7	50	15.69	8.0	125.5	12.0	188.3	16.0	251.1
L 16 - 055			55	14.71	8.8	125.5	13.2	188.3	17.6	251.1
L 16 - 060			60	12.75	9.6	125.5	14.4	188.3	19.2	251.1
L 16 - 065			65	11.77	10.4	125.5	15.6	188.3	20.8	251.1
L 16 - 070			70	10.79	11.2	125.5	16.8	188.3	22.4	251.1
L 16 - 075			75	10.79	12.0	125.5	18.0	188.3	24.0	251.1
L 16 - 080	2.4		80	9.81	12.8	125.5	19.2	188.3	25.6	251.1
L 18 - 025			25	40.21	4.0	158.9	6.0	238.3	8.0	317.7
L 18 - 030			30	33.34	4.8	158.9	7.2	238.3	9.4	317.7
L 18 - 035			35	28.44	5.6	158.9	8.4	238.3	11.2	317.7
L 18 - 040			40	24.52	6.4	158.9	9.6	238.3	12.8	317.7
L 18 - 045			45	22.56	7.2	158.9	10.8	238.3	14.4	317.7
L 18 - 050	18	12	50	19.61	8.0	158.9	12.0	238.3	16.0	317.7
L 18 - 055			55	17.65	8.8	158.9	13.2	238.3	17.6	317.7
L 18 - 060			60	16.67	9.6	158.9	14.4	238.3	19.2	317.7
L 18 - 065			65	15.69	10.4	158.9	15.6	238.3	20.8	317.7
L 18 - 070			70	14.71	11.2	158.9	16.8	238.3	22.4	317.7
L 18 - 075			75	13.73	12.0	158.9	18.0	238.3	24.0	317.7
L 18 - 080			80	12.75	12.8	158.9	19.2	238.3	25.6	317.7
L 18 - 090	2.8		90	10.79	14.4	158.9	21.6	238.3	28.8	317.7
L 20 - 025			25	49.03	4.0	196.1	6.0	294.2	8.0	392.3
L 20 - 030			30	41.19	4.8	196.1	7.2	294.2	9.4	392.3
L 20 - 035			35	35.30	5.6	196.1	8.4	294.2	11.2	392.3
L 20 - 040			40	30.40	6.4	196.1	9.6	294.2	12.8	392.3
L 20 - 045			45	27.46	7.2	196.1	10.8	294.2	14.4	392.3
L 20 - 050			50	24.52	8.0	196.1	12.0	294.2	16.0	392.3
L 20 - 055	20	13.5	55	22.56	8.8	196.1	13.2	294.2	17.6	392.3
L 20 - 060			60	20.59	9.6	196.1	14.4	294.2	19.2	392.3
L 20 - 065			65	18.63	10.4	196.1	15.6	294.2	20.8	392.3
L 20 - 070			70	17.65	11.2	196.1	16.8	294.2	22.4	392.3
L 20 - 075			75	16.67	12.0	196.1	18.0	294.2	24.0	392.3
L 20 - 080			80	15.69	12.8	196.1	19.2	294.2	25.6	392.3
L 20 - 090			90	13.73	14.4	196.1	21.6	294.2	28.8	392.3
L 20 - 100	3		100	12.75	16.0	196.1	24.0	294.2	32.0	392.3

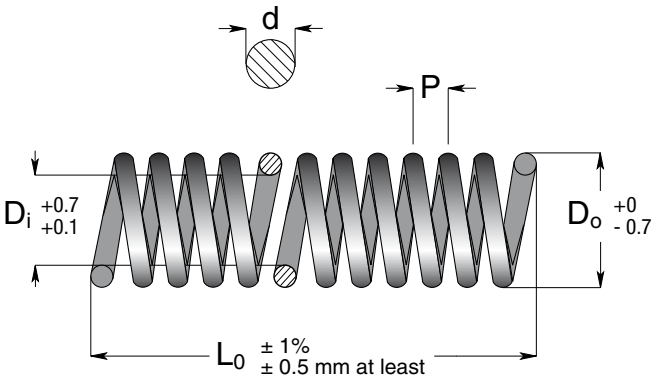
1 N = 0.1 daN = 0.102 kgf

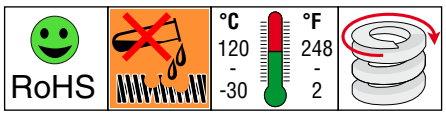
Load (N) = R (N/mm) x Deflection (mm)

L 14 - 070 (Series D_H - L_0)

Code	D_o Outside Diameter	D_i Inside Diameter	L_0 Free Length	R Spring Constant	A 16% L_0		B 24% L_0		C 32% L_0	
	d			± 10%	+ 3.000.000		+ 3.000.000		100 - 200.000	
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N
L 22 - 025	22	14.7	25	59.82	4.0	237.3	6.0	356	8.0	474.6
L 22 - 030			30	49.03	4.8	237.3	7.2	356	9.4	474.6
L 22 - 035			35	42.17	5.6	237.3	8.4	356	11.2	474.6
L 22 - 040			40	37.27	6.4	237.3	9.6	356	12.8	474.6
L 22 - 045			45	33.34	7.2	237.3	10.8	356	14.4	474.6
L 22 - 050			50	29.42	8.0	237.3	12.0	356	16.0	474.6
L 22 - 055			55	27.46	8.8	237.3	13.2	356	17.6	474.6
L 22 - 060			60	24.52	9.6	237.3	14.4	356	19.2	474.6
L 22 - 065			65	22.56	10.4	237.3	15.6	356	20.8	474.6
L 22 - 070			70	21.57	11.2	237.3	16.8	356	22.4	474.6
L 22 - 075			75	19.61	12.0	237.3	18.0	356	24.0	474.6
L 22 - 080			80	18.63	12.8	237.3	19.2	356	25.6	474.6
L 22 - 090			90	16.67	14.4	237.3	21.6	356	28.8	474.6
L 22 - 100	3.4		100	14.71	16.0	237.3	24.0	356	32.0	474.6
L 25 - 025	25	17	25	76.49	4.0	307	6.0	459.9	8.0	613.9
L 25 - 030			30	63.74	4.8	307	7.2	459.9	9.6	613.9
L 25 - 035			35	54.92	5.6	307	8.4	459.9	11.2	613.9
L 25 - 040			40	48.05	6.4	307	9.6	459.9	12.8	613.9
L 25 - 045			45	42.17	7.2	307	10.8	459.9	14.4	613.9
L 25 - 050			50	38.25	8.0	307	12.0	459.9	16.0	613.9
L 25 - 055			55	35.30	8.8	307	13.2	459.9	17.6	613.9
L 25 - 060			60	32.36	9.6	307	14.4	459.9	19.2	613.9
L 25 - 065			65	29.42	10.4	307	15.6	459.9	20.8	613.9
L 25 - 070			70	27.46	11.2	307	16.8	459.9	22.4	613.9
L 25 - 075			75	25.50	12.0	307	18.0	459.9	24.0	613.9
L 25 - 080			80	23.54	12.8	307	19.2	459.9	25.6	613.9
L 25 - 090			90	21.57	14.4	307	21.6	459.9	28.8	613.9
L 25 - 100	3.8		100	19.61	16.0	307	24.0	459.9	32.0	613.9
L 30 - 050	30	20	50	51.94	8.0	414	12.0	621	16.0	828
L 30 - 060			60	44.10	9.6	414	14.4	621	19.2	828
L 30 - 070			70	37.24	11.2	414	16.8	621	22.4	828
L 30 - 080			80	32.34	12.8	414	19.2	621	25.6	828
L 30 - 090			90	28.42	14.4	414	21.6	621	28.8	828
L 30 - 100			100	25.48	16.0	414	24.0	621	32.0	828
L 30 - 125	4.5		125	20.58	20.0	414	30.0	621	40.0	828

IT Spezzoni con terminali aperti
EN Long size open ends
DE Meterware
FR Ressorts avec longueur ébauché
ES Piezas desmochadas con terminales abiertos
PT Pontas de refugo com terminais abertos





Code	D_o Outside Diameter	D_i Inside Diameter	d Wire Diameter	L_0 Free Length	P Pitch
	mm	mm	mm	mm	mm
L 03 - 300	3	2.0	0.4	300	1.04
L 04 - 300	4	2.6	0.6	300	1.50
L 06 - 300	6	4.0	0.9	300	2.00
L 08 - 300	8	5.4	1.2	300	2.80
L 10 - 300	10	6.5	1.5	300	3.50
L 12 - 300	12	8.0	1.8	300	4.30
L 14 - 300	14	9.3	2.2	300	4.80
L 16 - 300	16	10.7	2.4	300	5.50
L 18 - 300	18	12.0	2.8	300	5.30
L 20 - 300	20	13.5	3.0	300	6.80
L 22 - 300	22	14.7	3.4	300	6.70
L 25 - 300	25	17.0	3.8	300	8.20

1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm) L 30 - 125 (Series D_H - L_0)