P.841 <spec. table>

Part Number	C-LD-201HB
Body Material	A3
Handle Material	PVC
Surface Treatment	Blue Zinc Electroplating
Closing Pressure (N)	MAX 400
Mass (g)	48
Arm Open-Close Angle	90°
Handle Open-Close Angle	75°
Accessories	Rubber Head Bolt
Bolt	M5

Actual product color may be a bit different from photo.

P.845 <spec. table>

Part Number	C-LD-204GB
Body Material	A3
Handle Material	PVC
Surface Treatment	Blue Zinc Electroplating
Closing Pressure (N)	MAX 6300
Mass (g)	1134
Arm Open-Close Angle	103°
Handle Open-Close Angle	84°
Accessories	Steel Hexagon Flat Head Bolt
Bolt	M12

Actual product color may be a bit different from photo.

Part Number	C-LD-22185
Body Material	A3
Handle Material	PVC
Surface Treatment	Blue Zinc Electroplating
Closing Pressure (N)	MAX 2500
Mass (g)	338
Arm Open-Close Angle	93°
Handle Open-Close Angle	87°
Accessories	Rubber Head Bolt
Bolt	M8

Actual product color may be a bit different from photo.

P.852 <spec. table>

Part Number	C-LD-301AM
Body Material	A3
Handle Material	PVC
Body Surface Treatment	Blue Zinc Electroplating
Shaft Surface Treatment	None
Closing Pressure (N)	MAX 450
Mass (g)	40
Arm Open-Close Angle	-
Handle Open-Close Angle	185°
Accessories	Nylon Bolt
Bolt	M4

Actual product color may be a bit different from photo.

P.864 <spec.>

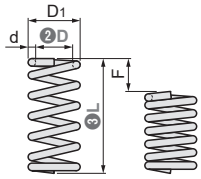
03 Coil Springs P.868

Coil I.D. 8mm
Free Length 20mm
Spring Constant 2.94N/mm
C-VUM8-20

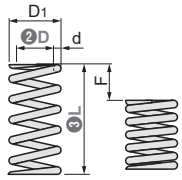
25
THB/pcs

Quantity	Unit price	Total price
50	25	1,250
70	22	1,540

P.867 <spec. table, ordering example>



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

I.D. D	ϕ8 or Less	+0.6mm +0.1mm
	ϕ10 or More	+0.8mm +0.1mm
Free Length L	50 or Less	±1mm
	60 or more	±2mm

Material: SUS304-WPB (Imported from Japan)

■Spring Constant 0.29N/mm: Fmax. (Allowable Deflection)=L×60%

(?)I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D- ❸Free Length L	O.D. D1	Wire Dia d	F max.	N{kgf} max.		Reference		
							Pitch	Solid Length	Total Number of Coils
C-VUR	5-15*	5.9	0.45	9	2.65	{0.27}	1.7	5	10
	20*	5.9	0.45	12	3.53	{0.36}	2.2	5	10
	25*	6	0.50	15	4.41	{0.45}	1.9	7.5	14
	30*	6	0.50	18	5.29	{0.54}	2.3	7.5	14
	6-15*	7	0.50	9	2.65	{0.27}	1.9	5	9
	20*	7.1	0.55	12	3.53	{0.36}	2.0	6.6	11
	25*	7.1	0.55	15	4.41	{0.45}	2.5	6.6	11
	30*	7.1	0.55	18	5.29	{0.54}	3.0	6.6	11
	35*	7.2	0.60	21	6.17	{0.63}	2.7	9	14
	40*	7.2	0.60	24	7.06	{0.72}	3.0	9	14
	45*	7.3	0.65	27	7.94	{0.81}	2.4	13.2	19.5
	50*	7.3	0.65	30	8.82	{0.90}	2.7	13.2	19.5
	60*	7.4	0.70	36	10.59	{1.08}	2.5	18.2	25
	8-20*	9.3	0.65	12	3.53	{0.36}	2.4	6.8	9.5
	25*	9.3	0.65	15	4.41	{0.45}	2.9	6.8	9.5
	30*	9.4	0.70	18	5.29	{0.54}	2.7	9.1	12
	35*	9.4	0.70	21	6.17	{0.63}	3.2	9.1	12
	40*	9.4	0.70	24	7.06	{0.72}	3.6	9.1	12
	60*	9.6	0.80	36	10.58	{1.08}	3.2	16.8	20
	10-20*	11.4	0.70	12	3.53	{0.36}	3.3	5.6	7
	25*	11.5	0.75	15	4.41	{0.45}	3.1	7.5	9
	30*	11.6	0.80	18	5.29	{0.54}	2.7	10.4	12
	35*	11.6	0.80	21	6.17	{0.63}	3.2	10.4	12
	40*	11.6	0.80	24	7.06	{0.72}	3.6	10.4	12
	12-25*	13.6	0.80	15	4.41	{0.45}	3.6	7.2	8
	16-35*	18	1.00	21	6.17	{0.63}	4.7	9.5	8.5
	40*	18	1.00	24	7.06	{0.72}	5.3	9.5	8.5

■Spring Constant 0.49N/mm: Fmax. (Allowable Deflection)=L×45%

(?)I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D- ❸Free Length L	O.D. D1	Wire Dia d	F max.	N{kgf} max.		Reference		
							Pitch	Solid Length	Total Number of Coils
C-VUF	5-15*	6.0	0.5	6.8	3.33	{0.34}	2.3	4.3	7.5
	6-15	7.2	0.6	6.8	3.33	{0.34}	1.9	6.0	9.0
	20	7.2	0.6	9.0	4.41	{0.45}	2.5	6.0	9.0
	25	7.2	0.6	11.3	5.49	{0.56}	3.1	6.0	9.0
	30	7.2	0.6	13.5	6.57	{0.67}	3.8	6.0	9.0
	35	7.4	0.7	15.8	7.64	{0.78}	2.7	10.5	14.0
	8-20	9.4	0.7	9.0	4.41	{0.45}	3.1	6.0	7.5
	10-40	11.8	0.9	18.0	8.82	{0.90}	4.4	9.9	10.0
	16-50	18.4	1.2	22.5	10.98	{1.12}	6.7	11.4	8.5

(?)Both ends marked with ＊ are not ground.

Load (kgf) = Load N × 0.101972

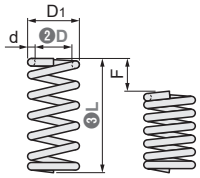
(?)The values of solid length are for reference only. There may be some variations depending on the lot. And if it is used under the limit condition of solid length, the spring may be deformed, or damaged after using only a limited number of cycles.

(?)Always use within the allowable deflection Fmax.(mm).

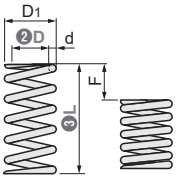
Ordering Example

Please order after selecting part number and parameters according to the selection steps ❶ to ❸.

Part Number (❶Type · ❷Coil I.D. D)	-	❸Free Length L
C-VUR5	-	15



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

I.D. D	ϕ8 or Less	+0.6mm +0.1mm
	ϕ8.5 or More	+0.8mm +0.1mm
Free Length L	50 or Less	±1mm
	60 or more	±2mm

Material: SUS304-WPB (Imported from Japan)

■Spring Constant 0.98N/mm: Fmax. (Allowable Deflection)=L×40%

I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D-❸Free Length L	O.D. D_1	Wire Dia. d	F max.	N{kgf} max.		Reference Pitch	Reference Solid Length	Reference Number of Coils
C-VUL	5-15	6.2	0.6	6	5.88	{0.60}	2.5	4.8	7
	20	6.2	0.6	8	7.84	{0.80}	3.3	4.8	7
	25	6.4	0.7	10	9.80	{1.00}	2.3	9.1	12
	6-15	7.4	0.7	6	5.88	{0.60}	2.1	6.3	8
	20	7.4	0.7	8	7.84	{0.80}	2.9	6.3	8
	25	7.6	0.8	10	9.80	{1.00}	2.3	10.4	12
	30	7.6	0.8	12	11.76	{1.20}	2.7	10.4	12
	35	7.6	0.8	14	13.72	{1.40}	3.2	10.4	12
	40	7.8	0.9	16	15.68	{1.60}	2.5	16.2	17
	8-20	9.8	0.9	8	7.84	{0.80}	2.4	9.5	9.5
	25	9.8	0.9	10	9.80	{1.00}	2.9	9.5	9.5
	30	10.0	1.0	12	11.76	{1.20}	2.5	14.0	13
	35	10.0	1.0	14	13.72	{1.40}	2.9	14.0	13
	60	10.4	1.2	24	23.52	{2.40}	2.7	28.8	23
	10-20	12.0	1.0	8	7.84	{0.80}	3.1	8.5	7.5
	25	12.0	1.0	10	9.80	{1.00}	3.8	8.5	7.5
	30	12.2	1.1	12	11.76	{1.20}	3.2	12.7	10.5
	35	12.2	1.1	14	13.72	{1.40}	3.7	12.7	10.5
	40	12.2	1.1	16	15.68	{1.60}	4.2	12.7	10.5
	12-25	14.4	1.2	10	9.80	{1.00}	2.9	12.6	9.5
	35	14.4	1.2	14	13.72	{1.40}	4.1	12.6	9.5
	55	14.8	1.4	22	21.56	{2.20}	4.1	21.7	14.5

■Spring Constant 2.94N/mm: Fmax. (Allowable Deflection)=L×35%

I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D-❸Free Length L	O.D. D_1	Wire Dia. d	F max.	N{kgf} max.		Reference Pitch	Reference Solid Length	Reference Number of Coils
C-VUM	5-15	6.6	0.8	5.3	15.39	{1.57}	2.3	6.8	7.5
	20	6.8	0.9	7.0	20.58	{2.10}	1.8	11.7	12
	40	7.0	1.0	14.0	41.16	{4.20}	3.2	14.5	13.5
	6-15	7.8	0.9	5.3	15.39	{1.57}	2.3	7.7	7.5
	20	7.8	0.9	7.0	20.58	{2.10}	3.0	7.7	7.5
	25	8.0	1.0	8.8	25.68	{2.62}	2.8	11	10
	30	8.0	1.0	10.5	30.87	{3.15}	3.3	11	10
	8-20	10.2	1.1	7.0	20.58	{2.10}	3.3	8.8	7
	25	10.2	1.1	8.8	25.68	{2.62}	4.2	8.8	7
	30	10.2	1.1	10.5	30.87	{3.15}	5.0	8.8	7
	35	10.6	1.3	12.3	35.97	{3.67}	3.5	15.6	11
	40	10.6	1.3	14.0	41.16	{4.20}	4.0	15.6	11
	10-20	12.4	1.2	7.0	20.58	{2.10}	4.0	8.4	6
	25	12.6	1.3	8.8	25.68	{2.62}	4.2	10.4	7
	30	12.6	1.3	10.5	30.87	{3.15}	5.0	10.4	7
	40	13.0	1.5	14.0	41.16	{4.20}	3.8	18.8	11.5
	12-25	14.8	1.4	8.8	25.68	{2.62}	5.0	9.8	6
	16-35	19.6	1.8	12.3	35.97	{3.67}	5.8	14.4	7

■NWL: Fmax. (Allowable Compression)=L×40%

I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D-❸Free Length L	O.D. D_1	Wire Dia. d	F max.	N{kgf} max.	Spring Constant N/mm {kgf/mm}	Reference Compression Length
C-NWL	6.5-30*	8.1	0.8	12	13.7{1.4}	1.1{0.12}	9.6
	35*	8.1	0.8	14	13.7{1.4}	1.0{0.10}	10.8
	40*	8.1	0.8	16	13.7{1.4}	0.9{0.09}	12
	45*	8.1	0.8	18	13.7{1.4}	0.8{0.08}	13.2
	50*	8.1	0.8	20	13.7{1.4}	0.7{0.07}	14.4
	8.5-35*	10.5	1	14	20.6{2.1}	1.5{0.15}	10.8
	40*	10.5	1	16	20.6{2.1}	1.3{0.13}	12
	45*	10.5	1	18	20.6{2.1}	1.1{0.12}	13
	16.6-60*	19.8	1.6	24	27.5{2.8}	1.1{0.12}	20

■NWM: Fmax. (Allowable Compression)=L×32%

I.D. Referenced Type is manufactured giving priority to the inner diameter, with the outer diameter for reference only

❶Type	❷Coil I.D. D-❸Free Length L	O.D. D_1	Wire Dia. d	F max.	N{kgf} max.	Spring Constant N/mm {kgf/mm}	Reference Compression Length
C-NWM	6.5-40*	8.5	1	12.8	20.6{2.1}	1.6{0.16}	17.5
	45*	8.5	1	14.4	20.6{2.1}	1.4{0.15}	19.5
	50*	8.5	1	16	20.6{2.1}	1.3{0.13}	21
	13.5-35*	16.8	1.6	11.2	34.3{3.5}	3.1{0.31}	14.4
	50*	16.8	1.6	16	34.3{3.5}	2.1{0.22}	18.4
	60*	16.8	1.6	19.2	34.3{3.5}	1.8{0.18}	20.8

● Calculation method of coils (reference value):
Total number of coils = solid length ÷ Wire diameter (d)-1
Effective coils = Total number of coils-2

* The number of coils is a reference value. There may be some variations depending on the lot.

The values of solid length are for reference only. There may be some variations depending on the lot. And if it is used under the limit condition of solid length, the spring may be deformed, or damaged after using only a limited number of cycles.

Always use within the allowable deflection Fmax.(mm).

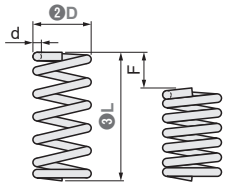
Both ends marked with ＊ are not ground.

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load {kgf} = Load N × 0.101972

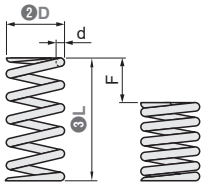
Ordering Example

Please order after selecting part number and parameters according to the selection steps ❶ to ❸.

Part Number (❶Type · ❷Coil I.D. D)	-	❸Free Length L
C-VUL5	-	15



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

I.D. D	ϕ10 or Less	0 -0.5mm
	ϕ12 or More	0 -0.8mm
Free Length L	50 or Less	±1.5mm
	60 or more	±2.5mm

Material: SUS304-WPB (Imported from Japan)

■Spring Constant 0.05N/mm: Fmax. (Allowable Deflection)=L×Fa%

㊟O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UV	3- 5*	0.15	1.1	3.5	0.18	{0.018}	70
	10*	0.18	2.5	7	0.35	{0.036}	
	15*	0.18	2.5	10.5	0.53	{0.054}	
	20*	0.20	3.3	14	0.7	{0.071}	
	25*	0.23	6.2	17.5	0.88	{0.089}	
	30*	0.23	6.2	21	1.05	{0.107}	
	4- 5*	0.18	1.2	3.5	0.18	{0.018}	
	10*	0.20	1.7	7	0.35	{0.036}	
	15*	0.23	3.0	10.5	0.53	{0.054}	
	20*	0.29	4.5	14	0.70	{0.071}	
	5- 5*	0.20	1.2	3.5	1.18	{0.018}	
	10*	0.23	1.8	7	0.35	{0.036}	
	15*	0.26	2.9	10.5	0.53	{0.054}	
	20*	0.23	3.0	14	0.70	{0.071}	
	6-10*	0.26	2.0	7	0.35	{0.036}	
	15*	0.30	3.3	10.5	0.53	{0.054}	
	20*	0.30	3.3	14	0.7	{0.071}	
	8-10*	0.30	1.9	7	0.35	{0.036}	
	15*	0.35	3.2	10.5	0.53	{0.054}	
	20*	0.35	3.2	14	0.70	{0.071}	
	25*	0.40	5.6	17.5	0.88	{0.089}	
	30*	0.40	5.6	21	1.05	{0.107}	
	40*	0.45	9.3	28	1.40	{0.143}	
	50*	0.45	9.3	35	1.75	{0.179}	

Load (kgf) = Load N × 0.101972

■Spring Constant 0.098~0.2N/mm: Fmax. (Allowable Deflection)=L × Fa%

㊟O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UY	2- 5*	0.13	1.5	3.0	0.15	{0.015}	60
	10*	0.13	1.5	6.0	0.29	{0.03}	
	15*	0.15	2.7	9.0	0.44	{0.045}	
	20*	0.15	2.7	12.0	0.59	{0.06}	
	25*	0.18	6.3	15.0	0.74	{0.076}	
	30*	0.18	6.3	18.0	0.88	{0.089}	
	3- 5*	0.16	0.92	3.75	0.37	{0.0378}	75
	10*	0.20	2.0	7.5	0.74	{0.075}	
	15*	0.23	3.45	11.25	1.1	{0.1125}	
	20*	0.23	3.45	15.0	1.47	{0.15}	
	4- 5*	0.20	1.05	3.75	0.37	{0.0375}	
	10*	0.23	1.84	7.5	0.74	{0.075}	
	15*	0.26	2.86	11.25	1.1	{0.1125}	
	20*	0.29	4.64	15.0	1.47	{0.15}	
	25*	0.30	5.4	18.75	1.84	{0.1875}	
	30*	0.30	5.4	22.5	2.26	{0.23}	
	5- 5*	0.23	1.15	3.75	0.37	{0.0378}	
	10*	0.26	1.82	7.5	0.74	{0.075}	
	15*	0.30	3.15	11.25	1.1	{0.1125}	
	20*	0.30	3.15	15.0	1.47	{0.15}	
	25*	0.32	4.16	18.75	1.84	{0.1875}	
	6- 5*	0.26	1.24	3.5	0.34	{0.035}	70
	10*	0.30	2.1	7.5	0.74	{0.075}	75
	15*	0.32	2.64	11.25	1.1	{0.1125}	
	20*	0.35	3.85	15.0	1.47	{0.15}	
	25*	0.38	5.32	18.75	1.84	{0.1875}	
	30*	0.40	6.8	22.5	2.21	{0.225}	
	40*	0.40	6.8	30	2.94	{0.3}	
	8-10*	0.35	2.19	7.5	0.74	{0.075}	
	15*	0.40	3.4	11.25	1.1	{0.1125}	
	20*	0.40	3.4	15.0	1.47	{0.15}	
	25*	0.45	5.4	18.75	1.84	{0.1875}	
	30*	0.45	5.4	22.5	2.21	{0.225}	
	40*	0.50	8.3	30.0	2.94	{0.3}	
	10-10*	0.50	3.25	6.0	1.18	{0.1204}	60
	15*	0.50	3.25	11.25	2.21	{0.225}	75
	20*	0.55	4.4	15.0	2.94	{0.3}	
	25*	0.55	4.4	18.75	3.68	{0.375}	
	30*	0.60	6.15	22.5	4.41	{0.45}	
	35*	0.60	6.3	26.25	5.1	{0.52}	
	12-15*	0.55	3.3	11.25	2.206	{0.225}	

㊟Both ends marked with ＊ are not ground.

● Calculation method of coils (reference value):
Total number of coils = solid length ÷ Wire diameter (d)-1
Effective coils = Total number of coils-2

* The number of coils is a reference value. There may be some variations depending on the lot.

㊟The values of solid length are for reference only. There may be some variations depending on the lot.
And if it is used under the limit condition of solid length, the spring may be deformed, or damaged after using only a limited number of cycles.

㊟Always use within the allowable deflection Fmax.(mm).

■Spring Constant 0.29N/mm: Fmax. (Allowable Deflection)=L×Fa%

※O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UR	2- 5*	0.18	2.0	2.5	0.49	{0.05}	50
	10*	0.18	2.0	5	0.98	{0.1}	
	15*	0.23	6.0	7.5	1.5	{0.15}	
	20*	0.23	6.0	10	2.0	{0.2}	
	3- 5*	0.23	1.6	3	0.9	{0.09}	60
	10*	0.25	2.1	6	1.8	{0.18}	
	15*	0.30	4.5	9	2.6	{0.27}	
	20*	0.30	4.5	12	3.5	{0.36}	
	25*	0.32	6.4	15	4.4	{0.45}	
	30*	0.32	6.4	18	5.3	{0.45}	
	4- 5*	0.26	1.4	3	0.9	{0.09}	
	10*	0.29	2.0	6	1.8	{0.18}	
	15*	0.32	3.0	9	2.6	{0.27}	
	20*	0.38	6.1	12	3.5	{0.36}	
	25*	0.38	6.1	15	4.4	{0.45}	
	30*	0.40	8.0	18	5.3	{0.54}	
	45*	0.45	14.4	27	7.9	{0.81}	
	5-10*	0.35	2.71	6	1.8	{0.18}	
	15*	0.38	3.61	9	2.6	{0.27}	
	20*	0.38	3.61	12	3.5	{0.36}	
	25*	0.45	7.43	15	4.4	{0.45}	
	30*	0.45	7.43	18	5.3	{0.54}	
	35*	0.50	12.25	21	6.2	{0.63}	
	6- 5*	0.32	1.5	3	0.9	{0.09}	
	10*	0.40	3.0	6	1.8	{0.18}	
	15*	0.40	3.0	9	2.6	{0.27}	
	20*	0.50	7.0	12	3.5	{0.36}	
	25*	0.50	7.0	15	4.4	{0.45}	
	30*	0.50	7.0	18	5.3	{0.54}	
	8-10*	0.45	2.6	6	1.8	{0.18}	
	15*	0.50	3.6	9	2.6	{0.27}	
	20*	0.50	3.6	12	3.5	{0.36}	
	25*	0.55	5.9	15	4.4	{0.45}	
	30*	0.65	10.4	18	5.3	{0.54}	
	35*	0.65	10.4	21	6.2	{0.63}	
	40*	0.70	15.4	24	7.1	{0.72}	
	60*	0.80	27.6	31.2	10.6	{1.08}	52
	10-10*	0.55	3.3	6	1.8	{0.18}	60
	15*	0.60	4.2	9	2.6	{0.27}	
	20*	0.65	6.2	12	3.5	{0.36}	
	25*	0.65	6.2	15	4.4	{0.45}	
	30*	0.70	8.4	18	5.3	{0.54}	
	12-60*	0.90	16.2	36	10.6	{1.08}	
	16-20*	0.80	5.4	12	3.5	{0.36}	

■Spring Constant 0.49N/mm: Fmax. (Allowable Deflection)=L×45%

※O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UF	2- 5*	0.2	2.35	2.25	0.66	{0.068}	45
	10*	0.2	2.35	4.5	1.3	{0.14}	
	3- 5*	0.26	1.8	2.25	1.1	{0.11}	
	10*	0.32	4.5	4.5	2.2	{0.22}	
	15*	0.32	4.5	6.7	3.2	{0.33}	
	20*	0.35	6.3	9.0	4.4	{0.45}	
	25*	0.35	6.3	11.2	5.5	{0.56}	
	4- 5*	0.32	2.0	2.25	1.1	{0.11}	
	10*	0.35	3.0	4.5	2.2	{0.22}	
	15*	0.4	5.2	6.7	3.2	{0.33}	
	20*	0.4	5.2	9.0	4.4	{0.45}	
	25*	0.45	9.5	11.2	5.5	{0.56}	
	30*	0.45	9.5	13.5	6.6	{0.67}	
	5-10*	0.4	3.2	4.5	2.2	{0.23}	
	15*	0.4	3.2	6.75	3.3	{0.34}	
	20*	0.45	4.95	9.0	4.4	{0.45}	
	25*	0.45	4.95	11.25	5.5	{0.56}	
	30*	0.5	7.75	13.5	6.7	{0.68}	
	35*	0.5	7.75	15.75	7.7	{0.79}	
	6-10*	0.5	5.0	4.5	2.2	{0.22}	
	15*	0.55	7.7	6.7	3.2	{0.33}	
	20*	0.55	7.7	9.0	4.4	{0.45}	
	25	0.6	10.8	11.2	5.5	{0.56}	
	30	0.65	15.6	13.5	6.6	{0.67}	
	8-10	0.6	5.4	4.5	2.2	{0.22}	
	15	0.65	7.2	6.7	3.2	{0.33}	
	20	0.7	10.5	9.0	4.4	{0.45}	
	25	0.7	10.5	11.2	5.5	{0.56}	
	30	0.75	13.5	13.5	6.6	{0.67}	
	35	0.75	13.5	15.7	7.6	{0.78}	
	40	0.8	18.4	18	8.8	{0.89}	
	10-15	0.65	4.6	6.7	3.2	{0.33}	
	20	0.8	9.6	9.0	4.4	{0.45}	
	25	0.8	9.6	11.2	5.5	{0.56}	
	30	0.85	12.8	13.5	6.6	{0.67}	
	12-15	0.8	6.8	6.7	3.2	{0.33}	
	20	0.8	6.8	9.0	4.4	{0.45}	
	25	0.8	6.8	11.2	5.5	{0.56}	
	16-35	1.1	12.1	15.7	7.6	{0.78}	
	20-20	1.2	7.2	9.0	8.8	{0.89}	
	25	1.3	9.1	11.3	11.1	{1.13}	
	70	1.7	26.4	31.5	30.9	{3.15}	

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load (kgf) = Load N × 0.101972

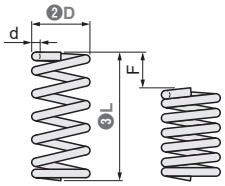
※Both ends marked with ＊ are not ground.
※The values of solid length are for reference only. There may be some variations depending on the lot.
※Always use within the allowable deflection Fmax.(mm).

Ordering Example

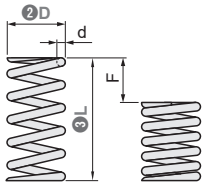
Please order after selecting part number and parameters according to the selection steps ❶ to ❸.

Part Number (❶Type · ❷Coil O.D. D)	-	❸Free Length L
C-UV3	-	5

P.871 <spec. table>



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

I.D. D	φ10 or Less	0 -0.5mm
	φ12 or More	0 -0.8mm
Free Length L	50 or Less	±1mm
	60 or more	±2mm

Material: SUS304-WPB (Imported from Japan)

■Spring Constant 0.98~2.9N/mm: Fmax. (Allowable Deflection)=L×40%

※O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

①Type	②Coil O.D. D - ③Free Length L	d	Solid Length	F max.	N{kgf} max.	
C-UL	2- 5*	0.2	1.65	2	0.98	{0.1}
	10*	0.26	5.07	4	1.96	{0.2}
	15*	0.26	5.07	6	2.94	{0.3}
	3- 5*	0.3	2	2	2.0	{0.2}
	10*	0.35	3.7	4	3.9	{0.4}
	15*	0.4	6.6	6	5.9	{0.6}
	20*	0.4	6.6	8(6)	7.8	{0.8}
	25*	0.45	11.7	10	9.8	{1}
	30*	0.45	11.7	12	11.8	{1.2}
	4- 5*	0.35	2.1	2	2.0	{0.2}
	10*	0.45	5.3	4	3.9	{0.4}
	15*	0.45	5.3	6	5.9	{0.6}
	20*	0.5	8	8	7.8	{0.8}
	25*	0.5	8	10	9.8	{1 }
	30*	0.55	12.7	12(10)	11.8	{1.2}
	40	0.6	19.8	16	15.7	{1.6}
	5- 5*	0.4	2.2	2	2.0	{0.2}
	10*	0.5	4.75	4	3.9	{0.4}
	15*	0.5	4.75	6	5.9	{0.6}
	20*	0.55	6.88	8	7.8	{0.8}
	25*	0.55	6.88	10	9.8	{1}
	30	0.65	14.95	12	11.8	{1.2}
	40	0.65	14.95	16	15.7	{1.6}

※Both ends marked with ＊ are not ground.

● Calculation method of coils (reference value):
Total number of coils = solid length ÷ Wire diameter (d)-1
Effective coils = Total number of coils-2

* The number of coils is a reference value. There may be some variations depending on the lot.

※The values of solid length are for reference only. There may be some variations depending on the lot.
And if it is used under the limit condition of solid length, the spring may be deformed, or damaged after using only a limited number of cycles.

※Always use within the allowable deflection Fmax.(mm).

①Type	②Coil O.D. D - ③Free Length L	d	Solid Length	F max.	N{kgf} max.	
C-UL	6- 5*	0.45	2.3	2	2.0	{0.2}
	10*	0.55	4.4	4	3.9	{0.4}
	15*	0.55	4.4	6	5.9	{0.6}
	20	0.65	8.5	8	7.8	{0.8}
	25	0.65	8.5	10	9.8	{1 }
	30	0.7	12.6	12	11.8	{1.2}
	35	0.7	12.6	14	13.7	{1.4}
	8-10	0.65	4.6	4	3.9	{0.4}
	15	0.75	8.3	6	5.9	{0.6}
	20	0.75	8.3	8	7.8	{0.8}
	25	0.75	8.3	10	9.8	{1 }
	30	0.8	10.4	12	11.8	{1.2}
	35	0.8	10.4	14	13.7	{1.4}
	40	0.8	10.4	16	15.7	{1.6}
	45	0.85	14.5	18	17.7	{1.8}
	10-10	0.75	4.7	4	3.9	{0.4}
	15	0.8	6.2	6	5.9	{0.6}
	20	0.8	6.2	8	7.8	{0.8}
	25	0.9	9.5	10	9.8	{1 }
	30	0.9	9.5	12	11.8	{1.2}
	35	0.9	9.5	14	13.7	{1.4}
	50	1.0	15.5	20	19.6	{2 }
	60	1.1	23.7	24	23.5	{2.4}
	12-15	0.9	6.75	6	5.9	{0.6}
	20	1.0	10	8	7.8	{0.8}
	25	1.0	10	10	9.8	{1.0}
	40	1.2	21.6	16	15.7	{1.6}
	13-20	1.0	8.25	8	7.8	{0.8}
	30	1.1	12.1	12	11.8	{1.2}
	40	1.1	12.1	16	15.7	{1.6}
	16-15	1.1	7.7	6	5.9	{0.6}
	25	1.2	10.8	10	9.8	{1 }
	20-30	1.7	12.8	12	35.3	{3.6}

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load (kgf) = Load N × 0.101972

P.872 <spec. table>

■Spring Constant 1.5~2.0N/mm: Fmax. (Allowable Deflection)=L×Fa%

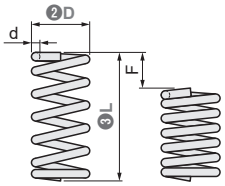
※O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UTT	3- 5*	0.35	2.8	2	2.9	{0.3}	40
	10*	0.4	4.8	4	5.9	{0.6}	
	15*	0.45	8.3	6	8.8	{0.9}	
	20*	0.45	8.3	8(6)	8.8	{0.9}	30
	4- 5*	0.4	2.6	2	2.9	{0.3}	40
	10*	0.45	3.9	4	5.9	{0.6}	
	15*	0.5	6	6	8.8	{0.9}	
	20*	0.55	9.4	8	11.8	{1.2}	
	30	0.6	14.4	12(10)	14.7	{1.5}	33
	5- 5*	0.45	2.6	2	2.9	{0.3}	40
	10*	0.5	3.6	4	5.9	{0.6}	
	15	0.6	7.5	6	8.8	{0.9}	
	20	0.6	7.5	8	11.8	{1.2}	
	25	0.65	10.7	10	14.7	{1.5}	
	30	0.7	15.4	12	17.7	{1.8}	
	6- 5*	0.5	2.4	2	3.9	{0.4}	
	10	0.6	4.2	4	7.8	{0.8}	
	15	0.7	7.4	6	11.8	{1.2}	
	20	0.7	7.4	8	15.7	{1.6}	
	25	0.8	13.6	10	19.6	{2.0}	
	30	0.8	13.6	12	23.5	{2.4}	
	35	0.85	17.5	14	27.5	{2.8}	
	40	0.9	23.4	16	31.4	{3.2}	
	45	0.9	23.4	18	35.3	{3.6}	

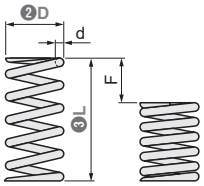
※Both ends marked with * are not ground.
※The values of solid length are for reference only. There may be some variations depending on the lot.
※The number of coils is a reference value. There may be some variations depending on the lot.
※Always use within the allowable deflection Fmax.(mm).

❶Type	❷Coil O.D. D - ❸Free Length L	d	Solid Length	F max.	N{kgf} max.		Fa%
C-UTT	8-10	0.75	5.3	4	7.8	{0.8}	40
	15	0.75	5.3	6	11.8	{1.2}	
	20	0.9	10.4	8	15.7	{1.6}	
	25	0.9	10.4	10	19.6	{2.0}	
	30	1.0	17	12	23.5	{2.4}	
	35	1.0	17	14	27.5	{2.8}	
	40	1.0	17	16	31.4	{3.2}	
	45	1.1	25.3	18	35.3	{3.6}	
	70	1.2	39.6	28	54.9	{5.6}	
	10-10	0.85	5.1	4	7.8	{0.8}	
	15	0.85	5.1	6	11.8	{1.2}	
	20	1.0	9.5	8	15.7	{1.6}	
	25	1.0	9.5	10	19.6	{2.0}	
	30	1.1	14.3	12	23.5	{2.4}	
	35	1.1	14.3	14	27.5	{2.8}	
	40	1.2	20.4	16	31.4	{3.2}	
	45	1.2	20.4	18	35.3	{3.6}	
	60	1.3	29.9	24	47.1	{4.8}	
	13-15	1.0	5.75	6	11.8	{1.2}	
	20	1.2	10.5	8	15.7	{1.6}	
	25	1.2	10.5	10	19.6	{2.0}	
	30	1.3	15	12	23.5	{2.4}	
	35	1.3	15	14	27.5	{2.8}	
	40	1.4	20.3	16	31.4	{3.2}	
	45	1.4	20.3	18	35.3	{3.6}	
	50	1.5	27.8	20	39.2	{4.0}	
	16-15	1.2	7.2	6	11.8	{1.2}	
	20	1.3	9.1	8	15.7	{1.6}	
	25	1.3	9.1	10	19.6	{2.0}	
	30	1.4	12.3	12	23.5	{2.4}	
	35	1.5	16.5	14	27.5	{2.8}	
	40	1.6	21.6	16	31.4	{3.2}	
	20-30	1.8	12.6	12	47.1	{4.8}	
	50	2.2	27.5	20	78.5	{8.0}	

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load (kgf) = Load N × 0.101972



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

O.D. D	ϕ10 or Less	$^{0}_{-0.5}$mm
	ϕ12 or More	$^{0}_{-0.8}$mm
Free Length L	50 or Less	±1mm
	60 or more	±2mm

Material: SUS304-WPB (Imported from Japan)

■Spring Constant 2.0~4.9N/mm: Fmax. (Allowable Deflection)=L×Fa%

㊟O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	Wire Dia. d	Solid Length	F max.	N{kgf} max.		Fa%
C-UM	4- 5*	0.4	2.2	1.75	3.4	{0.35}	35
	10*	0.5	4.9	3.5	6.8	{0.7}	
	15	0.55	7.5	5.25	10.3	{1.05}	
	20	0.6	11.1	7.0	13.7	{1.4}	
	5- 5*	0.45	2.25	1.75	3.4	{0.35}	
	10*	0.5	3.13	3.5	6.8	{0.7}	
	15	0.65	8.45	5.25	10.3	{1.05}	
	20	0.65	8.45	7.0	13.7	{1.4}	
	30	0.7	11.9	10.5	24.0	{2.45}	
	35	0.75	16.5	12.25	20.6	{2.1}	
	6- 5*	0.55	2.7	1.7	4.9	{0.5}	
	10	0.7	5.6	3.5	10.8	{1.1}	
	15	0.75	7.4	5.2	15.7	{1.6}	
	20	0.75	7.4	7.0	20.6	{2.1}	
	25	0.85	12.8	8.7	25.5	{2.6}	
	30	0.85	12.8	10.5	31.4	{3.2}	
	35	0.9	16.7	12.2	36.3	{3.7}	
	40	0.9	16.8	14.0	41.2	{4.2}	
	8-10	0.85	6.4	3.5	10.8	{1.1}	
	15	0.9	7.9	5.3	15.7	{1.6}	
	20	0.9	7.9	7.0	20.6	{2.1}	
	25	0.9	7.9	8.8	25.5	{2.6}	
	30	1.0	12.0	10.5	31.4	{3.2}	
	35	1.0	12.0	12.3	36.3	{3.7}	
	10-10	0.9	5.2	3.5	10.8	{1.1}	
	15	1.0	7.3	5.3	15.7	{1.6}	
	20	1.0	7.3	7.0	20.6	{2.1}	
	25	1.1	10.5	8.8	25.5	{2.6}	
	30	1.1	10.5	10.5	31.4	{3.2}	
	13-15	1.2	8.4	5.3	15.7	{1.6}	
	20	1.3	11.1	7.0	20.6	{2.1}	
	25	1.3	11.1	8.8	25.5	{2.6}	
	40	1.4	15.1	14	41.2	{4.2}	
	20-30	1.9	13.3	10.5	52.0	{5.3}	

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load (kgf) = Load N × 0.101972

■Spring Constant 2.9~9.8N/mm: Fmax. (Allowable Deflection)=L×Fa%

㊟O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D - ❸Free Length L	Wire Dia. d	Solid Length	F max.	N{kgf} max.		Fa%
C-UH	4- 5*	0.45	2.7	1.5	4.4	{0.45}	30
	10*	0.5	3.8	3.0	8.8	{0.9}	
	15	0.6	8.1	4.5	13.2	{1.35}	
	5- 5*	0.55	3.3	1.5	4.4	{0.45}	
	10	0.6	4.65	3.0	8.8	{0.9}	
	15	0.6	4.65	4.5	13.2	{1.35}	
	25	0.75	11.81	7.5	22.1	{2.25}	
	6- 5*	0.65	3.2	1.5	8.8	{0.9}	
	10	0.7	3.9	3.0	17.7	{1.8}	
	15	0.85	7.7	4.5	26.5	{2.7}	
	20	0.9	9.7	6.0	35.3	{3.6}	
	25	1.0	15.5	7.5	44.1	{4.5}	
	30	1.0	15.5	9.0	53.0	{5.41}	
	8-10	0.9	5.3	3.0	17.7	{1.8}	
	15	0.9	5.3	4.5	26.5	{2.7}	
	20	1.1	11	6.0	35.3	{3.6}	
	25	1.1	11	7.5	44.1	{4.5}	
	30	1.2	15.9	9.0	53.0	{5.4}	
	10-15	1.1	6.9	4.5	26.5	{2.7}	
	20	1.2	9.3	6.0	35.3	{3.6}	
	25	1.2	9.3	7.5	44.1	{4.5}	
	30	1.3	12.7	9.0	53.0	{5.4}	
	35	1.4	17.5	10.5	61.8	{6.3}	
	13-15	1.5	9.2	4.5	44.1	{4.5}	
	20	1.5	9.2	6.0	58.8	{6}	
	25	1.5	9.2	7.5	73.5	{7.5}	
	30	1.8	18	9.0	88.3	{9}	
	50	2.0	28.5	15.0	147.0	{15}	
	16-45	2.2	25.1	13.5	132.4	{13.51}	
	20-30	2.3	13.8	9.0	132.4	{13.51}	
	35	2.5	18.8	10.5	154.9	{15.81}	
	40	2.5	18.8	12.0	176.5	{18.01}	
	45	2.8	29.4	13.5	199.1	{20.32}	

㊟Both ends marked with ＊ are not ground.

● Calculation method of coils (reference value):
Total number of coils = solid length ÷ Wire diameter (d)-1
Effective coils = Total number of coils-2

* The number of coils is a reference value. There may be some variations depending on the lot.

㊟The values of solid length are for reference only. There may be some variations depending on the lot.
And if it is used under the limit condition of solid length, the spring may be deformed, or damaged after using only a limited number of cycles.

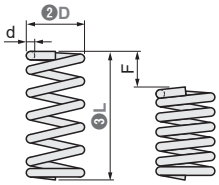
㊟Always use within the allowable deflection Fmax.(mm).

Ordering Example

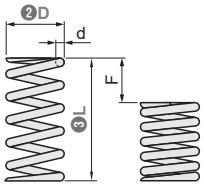
Please order after selecting part number and parameters according to the selection steps ❶ to ❸.

Part Number (❶Type · ❷Coil O.D. D)	-	❸Free Length L
C-UM4	-	5

P.874 <spec. table, ordering example>



Closed Ends
(＊Both Ends Not Ground)



Closed Ends
(Both Ends Ground)

O.D. D	ϕ10 or Less	0 -0.5mm
	ϕ12 or More	0 -0.8mm
Free Length L	50 or Less	±1.5mm
	60 or more	±2.5mm

Material: SUS304-WPB (Imported from Japan)

■Fmax. (Allowable Deflection)=L×Fa%

℗O.D. Referenced Type is manufactured giving priority to the outer diameter, with the inner diameter for reference only.

❶Type	❷Coil O.D. D- ❸Free Length L	Wire Dia. d	Solid Length	F max.	N{kgf} max.		Fa%
C-UBB	4-10	0.65	7.0	2.5	12.3	{1.3}	25
	15	0.7	10.3	3.75	18.4	{1.9}	
	20	0.75	14.4	5.0	24.5	{2.5}	
	5- 5	0.6	2.9	1.25	6.1	{0.63}	
	10	0.75	6.9	2.5	12.3	{1.3}	
	15	0.8	9.8	3.75	18.4	{1.9}	
	20	0.85	13.4	5.0	24.5	{2.5}	
	25	0.9	17.8	6.25	30.6	{3.12}	
	6-10	0.9	6.8	2.5	24.5	{2.5}	
	15	1.0	10.5	3.75	36.8	{3.8}	
	20	1.1	14.6	5.0	49.0	{5.0}	
	25	1.1	17.9	6.25	61.3	{6.26}	
	8-10	1.1	6.9	2.5	24.5	{2.5}	
	15	1.2	9.9	3.75	36.8	{3.8}	
	20	1.3	14.0	5.0	49.0	{5.0}	
	25	1.3	14.5	6.25	61.3	{6.3}	
	10-10	1.3	7.2	2.5	24.5	{2.5}	
	15	1.4	10.2	3.75	36.8	{3.8}	
	20	1.5	13.9	5.0	49.0	{5.0}	
	25	1.5	16.1	6.25	61.3	{6.3}	
	30	1.6	20.4	7.5	73.5	{7.5}	
	12-15	1.5	9.4	3.75	36.8	{3.8}	
	20	1.6	12.4	5.0	49.0	{5.0}	
	30	1.8	20.3	7.5	73.5	{7.5}	
	13-15	1.8	9.5	3.75	73.5	{7.5}	
	20	1.9	12.9	5.0	98.1	{10.01}	
	25	2.0	17.0	6.25	123.0	{12.55}	
	30	2.1	20.5	7.5	147.0	{15.0}	
	40	2.3	28.2	10.0	196.0	{20.0}	
	16-20	2.1	12.1	5.0	98.1	{10.01}	
	30	2.4	21.0	7.5	147.0	{15.0}	
	20-25	2.9	16.7	6.25	184.0	{18.8}	
	60	3.5	44.6	12.0	353.0	{36.02}	

℗The values of solid length are for reference only. There may be some variations depending on the lot.
℗Always use within the allowable deflection Fmax.(mm).
℗The number of coils is a reference value. There may be some variations depending on the lot.

kgf (Load)=N/mm (Spring Constant) × 0.101972 × F (Deflection)
Load (kgf) = Load N × 0.101972

Ordering Example

Please order after selecting part number and parameters according to the selection steps ❶ to ❸.

Part Number (❶Type · ❷Coil O.D. D)	-	❸Free Length L
C-UBB4	-	10

P.877 <spec. table>

■Light load

❶Type	❷Coil O.D. D - ❸Free Length L	Wire Dia. d mm	Under dynamic load: Max. Displacement Fmax. Mm	Under dynamic load: Max. Load N	(Initial Tension) N	(Spring Constant) N/mm
C-AWY (Spring Steel) C-AUY (SUS304-WPB)	3- 10	0.3	8.7	2.25	0.29	0.23
	15		16.6			0.12
	20		25			0.08
	25		33.3			0.06
	4- 15	0.4	10	3.24	0.59	0.26
	20		16.8			0.16
	25		22.5			0.12
	30		28.4			0.09
	35		33.7			0.08
	40		38.5	3.24	0.59	0.07
	5- 15	0.5	6.8	4.22	0.88	0.49
	20		11.7			0.28
	25		17			0.2
	30		21.2			0.16
	35		26.1			0.13
	40		34			0.1
	45		37.7			0.09
	6- 20	0.6	14	8.14	1.27	0.49
	25		21.2			0.32
	30		28			0.25
	35		35			0.2
	40		41.1			0.17
	45		50			0.14
	50		53.8			0.13
	8- 25	0.8	15.1	12.75	2.35	0.69
	30		21.2			0.49
	35		26.5			0.39
	40		33.1			0.31

Load {kgf} = Load N × 0.101972

Please visit MISUMI website for details of the models available for sale.

P.886 <material, spec. table>

Type	Material	Surface Treatment	Hardness
E-SRBN	50CrVA	Phosphating	42~52HRC
E-SSRBN	SUS304	-	37~46HRC

Part Number		
❶Type	❷O.D. (D) mm	❸Load Type
E-SRBN (50CrVA) E-SSRBN (SUS304)	8	A
		B
	10	A
		B
	12.5	A
		B
	14	A
		B
	16	A
		B
	18	A
		B
	20	A
		B
	22.5	A
		B
	25	A
		B
	28	A
		B
	31.5	A
		B
	35.5	A
		B
	40	A
		B
	45	A
		B
	50	A
		B