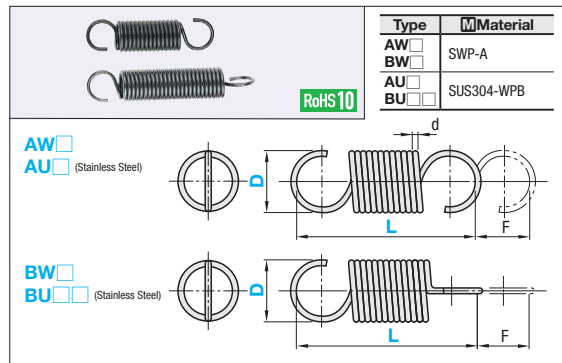


# Tension Springs

Extra Light Load / Light Load / Light Medium Load / Medium Load



## Extra Light Load

Part Number	Type	D-L	Wire Dia. dmm	Dynamic Load		(Initial Tension) N	(Spring Constant) N/mm	Unit Price	
				Max. Deflection Fmax. mm	Max. Load N			AWA	AUA
AWA AUA	2-10	15	0.2	6.7	0.69	0.13	0.083	0.047	
				11.8	0.047				
				17.2	0.032				
				22.8	0.025				
				28.5	0.020				
AWA AUA	3-10	20	0.25	10.4	1.27	0.15	0.049	0.031	
				15	0.049				
				23.0	0.031				
				35.9	0.024				
				47.9	0.020				
AWA AUA	4-15	25	0.35	14.6	2.26	0.25	0.062	0.047	
				21.1	0.062				
				32.5	0.047				
				42.7	0.039				
				51.2	0.033				
AWA AUA	5-15	30	0.45	15.5	3.24	0.49	0.18	0.13	
				21.5	0.13				
				29.4	0.093				
				35.0	0.078				
				43.0	0.064				
AWA AUA	6-20	35	0.55	16.2	6.08	0.64	0.34	0.13	
				25.2	0.22				
				34.7	0.16				
				42.7	0.13				
				50.4	0.11				
AWA AUA	8-25	40	0.7	18.1	8.53	1.08	0.28	0.21	
				27.1	0.28				
				36.2	0.21				
				44.7	0.17				
				54.2	0.14				
AWA AUA	10-30	45	0.9	13.4	10.8	2.06	0.65	0.41	
				18.5	0.47				
				24.0	0.36				
				29.6	0.29				
				35.6	0.25				
AWA AUA	12-35	50	1.1	17.8	19.6	2.94	0.94	0.67	
				25.0	0.67				
				31.0	0.54				
				37.7	0.44				
				44.7	0.37				

Part Number  
AWY\*10-50

## Light Load Type \* marked dimensions are for AWY and AUJ only.

Part Number	Type	D-L	Wire Dia. dmm	Dynamic Load		(Initial Tension) N	(Spring Constant) N/mm	Unit Price	
				Max. Deflection Fmax. mm	Max. Load N			AWY	AUJ
AWY AUJ	2-10	15	0.25	4.0	1.86	0.34	0.27	0.15	
				10.3	0.11				
				14.0	0.08				
				18.2	0.07				
				22.1	0.07				
AWY BWY AUJ BUY	3-10	20	0.3	8.7	2.25	0.29	0.12	0.09	
				16.6	0.09				
				25.0	0.08				
				33.3	0.06				
				40.0	0.05				
AWY BWY AUJ BUY	4-15	25	0.4	10.0	3.24	0.59	0.26	0.16	
				16.8	0.16				
				22.5	0.12				
				28.4	0.09				
				33.7	0.08				
AWY BWY AUJ BUY	5-15	30	0.5	11.7	4.22	0.88	0.49	0.28	
				17.0	0.20				
				21.2	0.16				
				26.1	0.13				
				34.0	0.10				
AWY BWY AUJ BUY	6-20	35	0.6	14.0	8.14	1.27	0.49	0.32	
				21.2	0.25				
				28.0	0.20				
				35.0	0.17				
				41.1	0.14				
AWY BWY AUJ BUY	8-25	40	0.8	15.1	12.75	2.35	0.69	0.51	
				21.2	0.49				
				26.5	0.39				
				33.1	0.31				
				39.2	0.26				
AWY BWY AUJ BUY	10-30	45	1.0	11.5	15.00	3.73	0.98	0.74	
				15.3	0.74				
				19.8	0.57				
				23.9	0.47				
				28.7	0.39				
AWY BWY AUJ BUY	12-35	50	1.1	11.5	15.00	3.73	0.98	0.74	
				15.3	0.74				
				19.8	0.57				
				23.9	0.47				
				28.7	0.39				
AWY AUJ	14-40	50	1.5	15.4	38.24	8.43	1.94	1.42	
				21.0	1.17				
				25.4	0.8				
				30.8	0.69				
				37.0	0.64				
AWY AUJ	16-45	55	1.6 (AWY)	15.8	43.15	9.12	2.16	1.62	
				21.0	1.32				
				25.7	1.08				
				31.5	0.95				
				35.8	0.83				
AWY	18-50	60	1.8	18.0	52.96	9.81	2.05	1.66	
				26.0	1.39				
				31.0	1.20				
				36.0	1.03				
				42.0	0.94				
AWY	20-60	70	2.0	20.0	78.45	12.75	2.26	1.57	
				29.1	1.57				
				41.8	1.23				
				53.6	0.98				
				67.0	0.83				

\* Initial tension and spring constant are for reference only. Load (kgf) = Load Nx0.101972

## Light Medium Load Type \* marked dimensions are for AWU and AUU only.

Part Number	Type	D-L	Wire Dia. dmm	Dynamic Load		(Initial Tension) N	(Spring Constant) N/mm	Unit Price	
				Max. Deflection Fmax. mm	Max. Load N			AWU	AUU
AWU AUU	2-10	15	0.28	4.0	2.45	0.49	0.49	0.29	
				10.0	0.20				
				13.3	0.15				
				16.6	0.11				
				20.0	0.09				
AWU BWU AUU BUU	3-10	20	0.35	4.6	3.33	0.66	0.59	0.29	
				9.1	0.19				
				14.3	0.14				
				19.5	0.11				
				24.8	0.09				
AWU BWU AUU BUU	4-15	25	0.45	7.5	4.81	0.98	0.51	0.31	
				12.2	0.23				
				16.9	0.18				
				21.7	0.15				
				26.0	0.13				
AWU BWU AUU BUU	5-15	30	0.55	5.7	6.37	1.37	0.89	0.51	
				9.8	0.51				
				14.2	0.35				
				18.9	0.26				
				24.3	0.21				
AWU BWU AUU BUU	6-20	35	0.7	9.6	12.94	1.67	1.47	0.78	
				14.4	0.56				
				20.2	0.39				
				28.8	0.37				
				30.3	0.32				
AWU BWU AUU BUU	8-25	40	0.9	10.0	18.63	3.92	1.47	1.03	
				14.3	1.03				
				18.8	0.62				
				23.8	0.52				
				28.3	0.45				
AWU BWU AUU BUU	10-30	45	1.1	9.9	23.24	4.71	1.87	1.32	
				14.0	1.03				
				18.0	0.83				
				22.3	0.71				
				26.3	0.59				
AWU BWU AUU BUU	12-35	50	1.4	11.7	47.7	10.49	3.14	2.35	
				15.5	1.86				
				19.6	1.57				
				23.3	1.27				
				28.7	1.13				
AWU AUU	14-40	45	1.6	12.8	58.84	13.73	3.53	2.7	
				16.7	2.16				
				21.0	1.77				
				25.5	1.57				
				28.7	1.37				
AWU AUU	16-45	50	1.8 (AWU)	13.7	70.61	16.67	3.92	3.04	
				17.7	2.45				
				22.0	2.06				
				26.0	1.77				
				30.5	1.57				
AWU	18-55	60	2.0	19.1	81.39	17.65	3.34	2.75	
				23.2	2.36				
				27.0	2.06				
				30.9	1.77				
				36.1	1.57				
AWU	20-60	70	2.3	16.0	98.07	22.56	3.34	2.65	
				22.6	2.06				
				28.5	1.77				
				36.6	1.58				
				42.7	1.28				

\* Initial tension and spring constant are for reference only. Load (kgf) = Load Nx0.101972

## Medium Load Type \* marked dimensions are for AWS and AUS only.

Part Number	Type	D-L	Wire Dia. dmm	Dynamic Load		(Initial Tension) N	(Spring Constant) N/mm	Unit Price	
				Max. Deflection Fmax. mm	Max. Load N			AWS	AUS
AWS AUS	2-10	15	0.3	3.8	3.53	0.69	0.75	0.42	
				6.2	0.30				
				9.6	0.23				
				12.6	0.18				
				15.6	0.15				
AWS AUS BWS BUSS	3-10	20	0.4	3.5	4.41	0.88	0.98	0.59	
				6.0	0.39				
				9.0	0.29				
				12.0	0.23				
				15.6	0.23				
AWS BWS AUS BUSS	4-15	25	0.5	6.5	6.37	1.18	0.78	0.49	
				10.2	0.49				
				13.9	0.39				
				17.5	0.29				
				20.3	0.26				
AWS BWS AUS BUSS	5-15	30	0.6	5.6	8.53	1.57	0.78	0.49	
				9.3	0.78				
				13.7	0.59				
				17.3	0.39				
				23.7	0.29				
AWS BWS AUS BUSS	6-20	35	0.8	6.7	17.26	3.53	2.06	1.47	
				9.3	1.47				
				12.7	0.88				
				15.6	0.68				
				18.7	0.57				
AWS BWS AUS BUSS	8-25	40	1.0	9.1	24.52	4.9	2.16	1.57	
				12.5	1.27				
				15.4	0.98				
				19.2	0.88				
				22.2	0.78				
AWS BWS AUS BUSS	10-30	45	1.2	10.4	30.99	5.49	2.45	1.86	
				13.7	1.47				
				17.3	1.27				
				20.0	0.98				
				24.8	0.78				
AWS BWS AUS BUSS	12-35	50	1.6	8.5	62.76	14.71	3.14	2.35	
				11.8	4.12				
				14.3	3.33				
				16.8	2.84				
				19.3	2.45				
AWS AUS	14-40	45	1.8	10.2	74.53	16.67	3.53	2.7	
				13.1	4.41				
				16.4	3.53				
				19.7	2.94				
				21.1	2.75				
AWS AUS	16-45	50	2.0 (AWS)	11.7	86.3	19.61	3.92	3.04	
				15.1	4.41				
				17.4	3.82				
				21.3	3.14				
				23.4	2.84				
AWS	18-50	60	2.3	12.5	115.72	27.46	4.41	3.53	
				15.0	5.88				
				17.3	5.10				
				20.0	4.41				
				22.5	3.92				
AWS	20-60	70	2.6	14.7	150.04	36.28	4.51	3.73	
				20.0	5.69				
				25.2	4.51				
				30.8	3.73				
				36.1	3.14				
AWS	24-70	80	3.2	20.7	225.55	56.88	5.69	4.12	
				24.9	6.77				
				29.7	5.69				
				34.1	4.12				
				38.3	3.4				

\* Initial tension and spring constant are for reference only. Load (kgf) = Load Nx0.101972