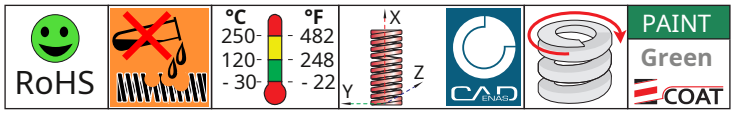
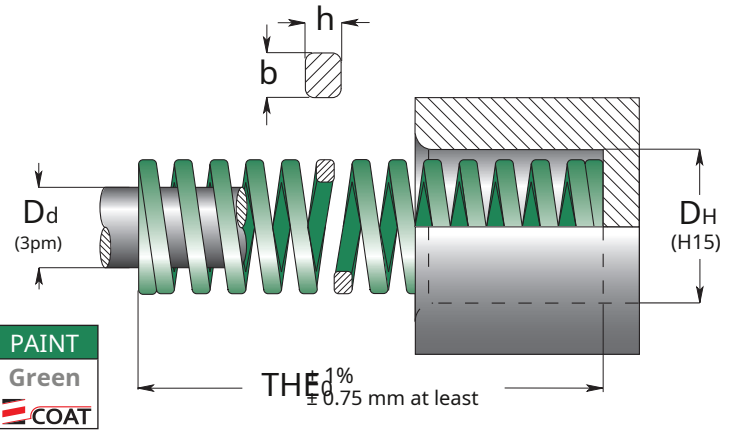
V SERIES

ISO 10243
Rectangular Wire

IT Light load springs
EN Light load springs
FRONDE Federn für normal Spannung
FR Ressorts charge légère
ES Muelles carga ligera
PT Molas carga leve





Code	D_H Hole Diameter	D_d Rod Diameter	THE Free Length	R Spring Constant	TO 25%THE 0		B 30%THE 0		C 35%THE 0		D 40%THE 0		AND approx. do not use	
	bxh			± 10%	+ 3,000,000		~ 1,500,000		300 - 500,000		100 - 200,000			
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N	mm	Pcs
V 10 - 025			25	11.0	6.3	69.3	7.5	82.5	8.8	96.8	10.0	110.0	13.5	50
V 10 - 032			32	8.5	8.0	68.0	9.6	81.6	11.2	95.2	12.8	108.8	17.5	50
V 10 - 038			38	6.8	9.5	64.6	11.4	77.5	13.3	90.4	15.2	103.4	20.8	50
V 10 - 044	10	5	44	6.0	11.0	66.0	13.2	79.2	15.4	92.4	17.6	105.6	23.9	50
V 10 - 051			51	5.0	12.8	64.0	15.3	76.5	17.9	89.5	20.4	102.0	28.9	25
V 10 - 064			64	4.1	16.0	65.6	19.2	78.7	22.4	91.8	25.6	105.0	36.1	25
V 10 - 076			76	3.6	19.0	68.4	22.8	82.1	26.6	95.8	30.4	109.4	43.2	25
V 10 - 305	1.7 x 1.1		305	0.9	76.3	68.7	91.5	82.4	106.8	96.1	122.0	109.8	178.0	10
V 13 - 025			25	21.0	6.3	132.3	7.5	157.5	8.8	184.8	10.0	210.0	13.2	50
V 13 - 032			32	16.4	8.0	131.2	9.6	157.4	11.2	183.7	12.8	209.9	18.0	50
V 13 - 038			38	13.6	9.5	129.2	11.4	155.0	13.3	180.9	15.2	206.7	21.0	50
V 13 - 044			44	12.1	11.0	133.1	13.2	159.7	15.4	186.3	17.6	213.0	24.0	25
V 13 - 051	12.5	6.3	51	10.3	12.8	131.8	15.3	157.6	17.9	184.4	20.4	210.1	28.7	25
V 13 - 064			64	7.6	16.0	121.6	19.2	145.9	22.4	170.2	25.6	194.6	35.8	25
V 13 - 076			76	6.3	19.0	119.7	22.8	143.6	26.6	167.6	30.4	191.5	42.7	25
V 13 - 089			89	5.4	22.3	120.4	26.7	144.2	31.2	168.5	35.6	192.2	50.4	20
V 13 - 102			102	4.1	25.5	104.6	30.6	125.5	35.7	146.4	40.8	167.3	58.4	10
V 13 - 305	2.4 x 1.4		305	1.6	76.3	122.1	91.5	146.4	106.8	170.9	122.0	195.2	172.0	10
V 16 - 025			25	29.0	6.3	182.7	7.5	217.5	8.8	255.2	10.0	290.0	12.6	50
V 16 - 032			32	22.9	8.0	183.2	9.6	219.8	11.2	256.5	12.8	293.1	16.4	50
V 16 - 038			38	19.3	9.5	183.4	11.4	220.0	13.3	256.7	15.2	293.4	19.7	25
V 16 - 044			44	17.1	11.0	188.1	13.2	225.7	15.4	263.3	17.6	301.0	22.5	25
V 16 - 051	16	8	51	14.0	12.8	179.2	15.3	214.2	17.9	250.6	20.4	285.6	26.3	25
V 16 - 064			64	10.7	16.0	171.2	19.2	205.4	22.4	239.7	25.6	273.9	33.3	25
V 16 - 076			76	9.0	19.0	171.0	22.8	205.2	26.6	239.4	30.4	273.6	40.2	20
V 16 - 089			89	7.3	22.3	162.8	26.7	194.9	31.2	227.8	35.6	259.9	47.6	20
V 16 - 102			102	6.8	25.5	173.4	30.6	208.1	35.7	242.8	40.8	277.4	55.4	20
V 16 - 115			115	6.6	28.8	190.1	34.5	227.7	40.3	266.0	46.0	303.6	60.8	10
V 16 - 305	3.2 x 1.5		305	2.3	76.3	175.5	91.5	210.5	106.8	245.6	122.0	280.6	165.0	10
V 20 - 025			25	55.8	6.3	351.5	7.5	418.5	8.8	491.0	10.0	558.0	12.1	50
V 20 - 032			32	45.0	8.0	360.0	9.6	432.0	11.2	504.0	12.8	576.0	15.3	50
V 20 - 038			38	36.0	9.5	342.0	11.4	410.4	13.3	478.8	15.2	547.2	18.9	25
V 20 - 044			44	30.0	11.0	330.0	13.2	396.0	15.4	462.0	17.6	528.0	21.5	25
V 20 - 051			51	24.5	12.8	313.6	15.3	374.9	17.9	438.6	20.4	499.8	25.0	25
V 20 - 064			64	19.2	16.0	307.2	19.2	368.6	22.4	430.1	25.6	491.5	31.1	25
V 20 - 076	20	10	76	16.0	19.0	304.0	22.8	364.8	26.6	425.6	30.4	486.4	37.3	25
V 20 - 089			89	14.0	22.3	312.2	26.7	373.8	31.2	436.8	35.6	498.4	44.5	20
V 20 - 102			102	12.0	25.5	306.0	30.6	367.2	35.7	428.4	40.8	489.6	51.1	20
V 20 - 115			115	10.9	28.8	313.9	34.5	376.1	40.3	439.3	46.0	501.4	58.2	10
V 20 - 127			127	9.5	31.8	302.1	38.1	362.0	44.5	422.8	50.8	482.6	64.9	10
V 20 - 139			139	8.4	34.8	292.3	41.7	350.3	48.7	409.1	55.6	467.0	71.5	10
V 20 - 152			152	7.5	38.0	285.0	45.6	342.0	53.2	399.0	60.8	456.0	78.8	10
V 20 - 178			178	7.1	44.5	316.0	53.4	379.1	62.3	442.3	71.2	505.5	89.0	10
V 20 - 305	4.0 x 2.1		305	4.0	76.3	305.2	91.5	366.0	106.8	427.2	122.0	488.0	157.0	10
V 25 - 025			25	105.0	6.3	661.5	7.5	787.5	8.8	924.0	10.0	1050.0	11.9	50
V 25 - 032			32	80.3	8.0	642.4	9.6	770.9	11.2	899.4	12.8	1027.8	16.0	25
V 25 - 038	25	12.5	38	62.0	9.5	589.0	11.4	706.8	13.3	824.6	15.2	942.4	18.3	25
V 25 - 044			44	52.9	11.0	581.9	13.2	698.3	15.4	814.7	17.6	931.0	21.4	25
V 25 - 051			51	44.0	12.8	563.2	15.3	673.2	17.9	787.6	20.4	897.6	24.9	25

How to order: V 50 - 152 (Series D_H -)THE$_0$

1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm)

ISO 10243
Rectangular Wire

SERIES V

Code	D_H Hole Diameter	D_d Rod Diameter	THER Free Length	Spring Rate	TO 25%THE 0		B 30%THE 0		C 35%THE 0		D 40%THE 0		AND approx. do not use	
	bxh			± 10%	+ 3,000,000		~ 1,500,000		300 - 500,000		100 - 200,000			
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N	mm	Pcs
V 25 - 064	25	12.5	64	35.2	16.0	563.2	19.2	675.8	22.4	788.5	25.6	901.1	31.4	25
V 25 - 076			76	28.0	19.0	532.0	22.8	638.4	26.6	744.8	30.4	851.2	37.5	20
V 25 - 089			89	24.0	22.3	535.2	26.7	640.8	31.2	748.8	35.6	854.4	43.5	20
V 25 - 102			102	21.1	25.5	538.1	30.6	645.7	35.7	753.3	40.8	860.9	51.1	20
V 25 - 115			115	18.7	28.8	538.6	34.5	645.2	40.3	753.6	46.0	860.2	58.1	10
V 25 - 127			127	16.7	31.8	531.1	38.1	636.3	44.5	743.2	50.8	848.4	64.1	10
V 25 - 139			139	15.3	34.8	532.4	41.7	638.0	48.7	745.1	55.6	850.7	70.4	10
V 25 - 152			152	14.0	38.0	532.0	45.6	638.4	53.2	744.8	60.8	851.2	77.1	10
V 25 - 178			178	12.5	44.5	556.3	53.4	667.5	62.3	778.8	71.2	890.0	93.1	10
V 25 - 203			203	10.4	50.8	528.3	60.9	633.4	71.1	739.4	81.2	844.5	103.0	10
V 25 - 305	5.4 x 2.7		305	7.0	76.3	534.1	91.5	640.5	106.8	747.6	122.0	854.0	156.0	5
V 32 - 038	32	16	38	98.0	9.5	931	11.4	1117	13.3	1303	15.2	1490	18.3	20
V 32 - 044			44	79.5	11.0	875	13.2	1049	15.4	1224	17.6	1399	21.5	20
V 32 - 051			51	67.0	12.8	858	15.3	1025	17.9	1199	20.4	1367	25.5	20
V 32 - 064			64	53.0	16.0	848	19.2	1018	22.4	1187	25.6	1357	31.9	20
V 32 - 076			76	44.0	19.0	836	22.8	1003	26.6	1170	30.4	1338	38.6	20
V 32 - 089			89	37.2	22.3	830	26.7	993	31.2	1161	35.6	1324	46.5	10
V 32 - 102			102	32.0	25.5	816	30.6	979	35.7	1142	40.8	1306	53.2	10
V 32 - 115			115	29.0	28.8	835	34.5	1001	40.3	1169	46.0	1334	60.0	10
V 32 - 127			127	25.0	31.8	795	38.1	953	44.5	1113	50.8	1270	66.7	10
V 32 - 139			139	23.0	34.8	800	41.7	959	48.7	1120	55.6	1279	71.8	10
V 32 - 152			152	21.5	38.0	817	45.6	980	53.2	1144	60.8	1307	78.5	10
V 32 - 178			178	18.2	44.5	810	53.4	972	62.3	1134	71.2	1296	94.4	5
V 32 - 203			203	15.8	50.8	803	60.9	962	71.1	1123	81.2	1283	107.0	5
V 32 - 254			254	12.5	63.5	794	76.2	953	88.9	1111	102.0	1275	136.0	5
V 32 - 305	6.8 x 3.3		305	10.3	76.3	786	91.5	942	106.8	1100	122.0	1257	163.0	5
V 40 - 051	40	20	51	92.0	12.8	1178	15.3	1408	17.9	1647	20.4	1877	25.5	20
V 40 - 064			64	73.0	16.0	1168	19.2	1402	22.4	1635	25.6	1869	31.4	10
V 40 - 076			76	63.0	19.0	1197	22.8	1436	26.6	1676	30.4	1915	37.8	10
V 40 - 089			89	51.0	22.3	1137	26.7	1362	31.2	1591	35.6	1816	44.3	10
V 40 - 102			102	45.0	25.5	1148	30.6	1377	35.7	1607	40.8	1836	50.7	10
V 40 - 115			115	39.6	28.8	1140	34.5	1366	40.3	1596	46.0	1822	58.1	10
V 40 - 127			127	36.0	31.8	1145	38.1	1372	44.5	1602	50.8	1829	64.6	5
V 40 - 139			139	32.0	34.8	1114	41.7	1334	48.7	1558	55.6	1779	70.1	5
V 40 - 152			152	28.0	38.0	1064	45.6	1277	53.2	1490	60.8	1702	76.6	5
V 40 - 178			178	25.2	44.5	1121	53.4	1346	62.3	1570	71.2	1794	90.4	5
V 40 - 203			203	21.8	50.8	1107	60.9	1328	71.1	1550	81.2	1770	102.0	5
V 40 - 254			254	17.0	63.5	1080	76.2	1295	88.9	1511	102.0	1734	129.0	2
V 40 - 305	8.1 x 4.0		305	14.8	76.3	1129	91.5	1354	106.8	1581	122.0	1806	156.0	2
V 50 - 064	50	25	64	156.0	16.0	2496	19.2	2995	22.4	3494	25.6	3994	31.0	5
V 50 - 076			76	125.0	19.0	2375	22.8	2850	26.6	3325	30.4	3800	37.2	5
V 50 - 089			89	109.0	22.3	2431	26.7	2910	31.2	3401	35.6	3880	43.6	5
V 50 - 102			102	94.0	25.5	2397	30.6	2876	35.7	3356	40.8	3835	50.3	5
V 50 - 115			115	81.0	28.8	2333	34.5	2795	40.3	3264	46.0	3726	58.1	5
V 50 - 127			127	71.0	31.8	2258	38.1	2705	44.5	3160	50.8	3607	63.7	5
V 50 - 139			139	66.5	34.8	2314	41.7	2773	48.7	3239	55.6	3697	69.5	5
V 50 - 152			152	60.0	38.0	2280	45.6	2736	53.2	3192	60.8	3648	76.5	2
V 50 - 178			178	52.0	44.5	2314	53.4	2777	62.3	3240	71.2	3702	91.9	2
V 50 - 203			203	44.0	50.8	2235	60.9	2680	71.1	3128	81.2	3573	105.0	2
V 50 - 254			254	35.0	63.5	2223	76.2	2667	88.9	3112	102.0	3570	131.0	2
V 50 - 305	10.9 x 5.3		305	28.5	76.3	2175	91.5	2608	106.8	3044	122.0	3477	155.0	2
V 63 - 076	63	38	76	189.0	19.0	3591	22.8	4309	26.6	5027	30.4	5746	36.5	5
V 63 - 089			89	158.0	22.3	3523	26.7	4219	31.2	4930	35.6	5625	43.4	5
V 63 - 102			102	131.0	25.5	3341	30.6	4009	35.7	4677	40.8	5345	49.7	5
V 63 - 115			115	116.0	28.8	3341	34.5	4002	40.3	4675	46.0	5336	55.6	5
V 63 - 127			127	103.0	31.8	3275	38.1	3924	44.5	4584	50.8	5232	62.7	2
V 63 - 152			152	84.3	38.0	3203	45.6	3844	53.2	4485	60.8	5125	77.1	2
V 63 - 178			178	71.5	44.5	3182	53.4	3818	62.3	4454	71.2	5091	92.2	2
V 63 - 203			203	61.7	50.8	3134	60.9	3758	71.1	4387	81.2	5010	103.0	2
V 63 - 254			254	47.0	63.5	2985	76.2	3581	88.9	4178	102.0	4794	130.0	2
V 63 - 305			305	38.2	76.3	2915	91.5	3495	106.8	4080	122.0	4660	157.0	2
V 63 - 315			315	38.0	78.75	2992.5	94.5	3591	110.25	4189.5	126.0	4788	140.0	2
* **V 63 - 350**			350	34.0	87.5	2975	105	3570	122.5	4165	140.0	4760	165.0	2
* * **V 63 - 400**	11.0 x 7.8		400	28.8	100.0	2880	120	3456	140	4032	160.0	4608	185.0	2

* **new sizes:** no ISO 10243

How to order: V 50 - 152 (Series D_H -)TH E_0 1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm)