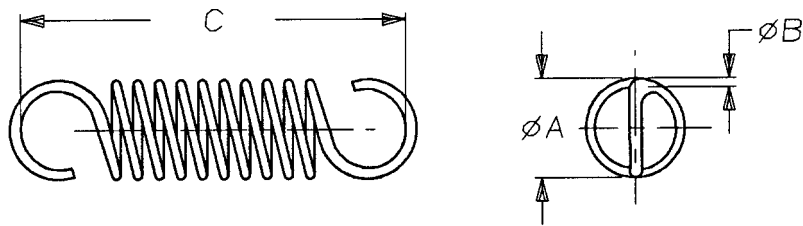


1. PART NUMBER AND CHARACTERISTICS



TE Part No	Rev	A	B	C	Max Load	Spring Rate	Initial Tension	Loops Offset	Mfr Part No
2030412-1	A	2.2	0.2	4.4	1.69 N	0.313 N/mm	0.1 N	180°	Z-004I
2030412-2	A	3.45	0.25	11.2	2.1 N	0.05 N/mm	0.1 N	180°	Z-008I
2030412-3	A	2.75	0.25	13.8	2.61 N	0.064 N/mm	0.18 N	180°	Z-012I
2030412-4	A	5.5	0.32	11.3	2.71 N	0.081 N/mm	0.08 N	180°	Z-015GI
2030412-5	A	4.32	0.32	10	3.43 N	0.145 N/mm	0.18 N	180°	Z-016I
2030412-6	A	4.32	0.32	14.2	3.43 N	0.068 N/mm	0.18 N	180°	Z-017I
2030412-7	A	2.82	0.32	7.6	5.17 N	0.594 N/mm	0.31 N	180°	Z-022I
2030412-8	A	4.4	0.4	10.9	6.38 N	0.354 N/mm	0.34 N	180°	Z-028I
2030412-9	A	4.4	0.4	22.1	6.38 N	0.103 N/mm	0.34 N	180°	Z-030I
1-2030412-0	A	3.6	0.4	14.8	7.72 N	0.325 N/mm	0.55 N	180°	Z-032I
1-2030412-1	A	4.6	0.63	35.6	21.98 N	0.552 N/mm	1.77 N	180°	Z-063AI
1-2030412-2	A	5	0.45	14.2	7.87 N	0.286 N/mm	0.44 N	180°	Z-036OI
1-2030412-3	A	4	0.5	20	13.05 N	0.521 N/mm	1 N	180°	Z-045FI
1-2030412-4	A	3.7	0.5	10.8	14.02 N	1.69 N/mm	1.11 N	180°	Z-046I
1-2030412-5	A	6	0.55	41.4	11.66 N	0.097 N/mm	0.88 N	180°	Z-051KI
1-2030412-6	A	5.6	0.63	23.3	18.3 N	0.534 N/mm	1.37 N	180°	Z-059I
1-2030412-7	A	10.8	0.8	47.5	19.1 N	0.106 N/mm	1.22 N	180°	Z-069I
1-2030412-8	A	7.1	0.8	19.2	28.55 N	1.451 N/mm	2.33 N	180°	Z-073I
1-2030412-9	A	7.1	0.8	29.6	28.55 N	0.681 N/mm	2.33 N	180°	Z-074I
2-2030412-0	A	6.4	0.8	36.4	31.46 N	0.689 N/mm	2.88 N	180°	Z-075FI
2-2030412-1	A	10	0.9	23	28.59 N	0.91 N/mm	1.99 N	270°	Z-081FX
2-2030412-2	A	6.3	0.9	22.5	44.12 N	2.739 N/mm	4.22 N	180°	Z-081MI
2-2030412-3	A	9.4	1	53	40.52 N	0.435 N/mm	3.44 N	180°	Z-089I
2-2030412-4	A	7.5	1.25	24.3	92.22 N	8.859 N/mm	8.33 N	180°	Z-113I
2-2030412-5	A	11.6	1.6	55	121.5 N	2.725 N/mm	9.88 N	180°	Z-126I
2-2030412-6	A	8	1.6	33.2	168.4 N	17.569 N/mm	17.77 N	180°	Z-130E-02I
2-2030412-7	B	5.4	0.4	17.7	5.23 N	0.084 N/mm	0.29 N	270°	Z-026X
2-2030412-8	B	6	0.55	22.1	11.66 N	0.233 N/mm	0.88 N	270°	Z-051HX
2-2030412-9	C	3	0.5	16.2	16.93 N	1.663 N/mm	1.22 N	180°	Z-050I
3-2030412-0	C	3	0.63	17.8	31.88 N	5.358 N/mm	3.11 N	180°	Z-066E-03I

COMMERCIALLY PURCHASED PRODUCT SPECIFICATION

LOC
B

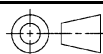
MATERIAL

Spring Steel

FINISH



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DIMENSIONS IN
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TITLE

SPRING, EXTENSION

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SHEET
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NO

2030412

REV
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REV ENGINEERING CHANGE

CHK

DATE

1. PART NUMBER AND CHARACTERISTICS (Continued)

TE Part No	Rev	A	B	C	Max Load	Spring Rate	Initial Tension	Loops Offset	Mfr Part No
3-2030412-1	C	3	0.2	8.6	1.26 N	0.036 N/mm	0.06 N	270°	Z-2051X
3-2030412-2	C	9.4	1	38	40.52 N	0.694 N/mm	3.44 N	270°	Z-088X
3-2030412-3	C	4.5	0.5	12.1	11.69 N	0.865 N/mm	0.88 N	180°	Z-043I
3-2030412-4	C	6.9	0.63	34.9	15 N	0.165 N/mm	0.98 N	180°	Z-057I
3-2030412-5	C	4.4	0.4	25	6.38 N	0.087 N/mm	0.34 N	270°	Z-030AX
3-2030412-6	C	5.6	0.63	23.3	18.3 N	0.528 N/mm	1.37 N	270°	Z-059X
3-2030412-7	C	9	1	24	42.22 N	1.693 N/mm	3.88 N	270°	Z-091X
3-2030412-8	C	4.8	0.8	37.9	40.84 N	1.651 N/mm	3.66 N	180°	Z-081I
3-2030412-9	C	3.52	0.32	8.7	4.19 N	0.283 N/mm	0.22 N	180°	Z-019I
4-2030412-0	C	5.8	0.63	15.1	18.3 N	1.113 N/mm	1.37 N	270°	Z-058X
4-2030412-1	C	5.8	0.8	28.3	34.46 N	1.309 N/mm	3.22 N	180°	Z-077I
4-2030412-2	C	13.7	1.25	50.5	52.74 N	0.526 N/mm	3.88 N	180°	Z-105I
4-2030412-3	C	6.9	0.63	43.6	15 N	0.122 N/mm	0.98 N	180°	Z-057BI
4-2030412-4	C	10.8	0.8	57.8	19.1 N	0.078 N/mm	1.22 N	180°	Z-069AI
4-2030412-5	C	2.5	0.36	6.8	8.05 N	1.838 N/mm	0.79 N	180°	Z-024ZI
4-2030412-6	C	6	0.36	14.6	3.5 N	0.062 N/mm	0.16 N	180°	Z-024OI
4-2030412-7	C	5	0.7	17.7	27.3 N	1.985 N/mm	2.77 N	180°	Z-066RI
4-2030412-8	C	5	0.7	17.7	27.3 N	1.953 N/mm	2.77 N	270°	Z-066RX
4-2030412-9	C	5.5	0.32	16.1	2.71 N	0.031 N/mm	0.08 N	180°	Z-015JI
5-2030412-0	C	8	0.8	26.5	25.5 N	0.604 N/mm	1.77 N	180°	Z-072FI
5-2030412-1	C	5.5	0.32	20.9	2.71 N	0.019 N/mm	0.08 N	180°	Z-015KI
5-2030412-2	C	9.2	1.25	27	76.72 N	4.304 N/mm	6.77 N	180°	Z-110I
5-2030412-3	C	8	0.7	28.8	17.54 N	0.254 N/mm	1.18 N	270°	Z-066HX
5-2030412-4	C	8	0.7	18.3	17.54 N	0.662 N/mm	1.18 N	180°	Z-066FI
5-2030412-5	D	9	1	74.2	42.22 N	0.324 N/mm	3.88 N	180°	Z-093CI
5-2030412-6	D	9	1	74.2	42.22 N	0.322 N/mm	3.88 N	270°	Z-093CX
5-2030412-7	D	2.75	0.25	21.3	2.61 N	0.037 N/mm	0.18 N	180°	Z-012DI
5-2030412-8	D	4.6	0.63	55.2	21.98 N	0.331 N/mm	1.77 N	180°	Z-063EI
5-2030412-9	D	6	0.8	25	33.4 N	1.38 N/mm	3.11 N	180°	Z-075KI
6-2030412-0	D	2.9	0.4	19.7	9.44 N	0.423 N/mm	0.77 N	180°	Z-036I
6-2030412-1	D	8	0.7	22.5	17.54 N	0.399 N/mm	1.18 N	270°	Z-066GX
6-2030412-2	D	7.3	1	79.5	51.3 N	0.586 N/mm	4.66 N	180°	Z-097DI
6-2030412-3	D	5.5	0.5	14.2	9.65 N	0.408 N/mm	0.66 N	180°	Z-040AI
6-2030412-4	D	2.9	0.4	13.7	9.44 N	0.681 N/mm	0.77 N	180°	Z-035I
6-2030412-5	D	8	1	42	47.15 N	0.966 N/mm	4.22 N	270°	Z-094X
6-2030412-6	D	2.2	0.25	9.2	3.22 N	0.219 N/mm	0.25 N	180°	Z-014I
6-2030412-7	D	4.5	0.5	26.1	11.69 N	0.252 N/mm	0.88 N	180°	Z-045I
6-2030412-8	D	5.4	0.4	17.7	5.23 N	0.085 N/mm	0.29 N	180°	Z-026I
6-2030412-9	D	6	0.55	22.1	11.66 N	0.235 N/mm	0.88 N	180°	Z-051HI
7-2030412-0	D	7.1	0.8	29.6	28.55 N	0.674 N/mm	2.33 N	270°	Z-074X
7-2030412-1	D	3.6	0.4	14.8	7.72 N	0.322 N/mm	0.55 N	270°	Z-032X
7-2030412-2	D	10	0.9	50	28.59 N	0.225 N/mm	1.99 N	180°	Z-081JI
7-2030412-3	D	8	1	42	47.15 N	0.974 N/mm	4.22 N	180°	Z-094I
7-2030412-4	D	10.8	0.8	35.5	19.1 N	0.169 N/mm	1.22 N	270°	Z-068X
7-2030412-5	D	8	0.7	39.3	17.54 N	0.158 N/mm	1.18 N	270°	Z-066JX



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SHEET
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NO

2030412

REV
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1. PART NUMBER AND CHARACTERISTICS (Continued)

TE Part No	Rev	A	B	C	Max Load	Spring Rate	Initial Tension	Loops Offset	Mfr Part No
7-2030412-6	D	2.2	0.25	5.9	3.22 N	0.467 N/mm	0.25 N	180°	Z-013I
7-2030412-7	D	7.1	0.8	41.6	28.55 N	0.420 N/mm	2.33 N	270°	Z-075X
7-2030412-8	E	4.2	0.25	16.2	17.3 N	0.016 N/mm	0.04 N	270°	Z-006EX
7-2030412-9	F	15	2.5	118	324.5 N	5.126 N/mm	29.41 N	270°	Z-162X
8-2030412-0	G	5.5	0.5	20.2	9.65 N	0.208 N/mm	0.66 N	180°	Z-041I
8-2030412-1	G	9.2	1.25	43.3	76.72 N	2.020 N/mm	6.77 N	180°	Z-111I
8-2030412-2	H	5.6	0.63	32.8	18.3 N	0.331 N/mm	1.37 N	180°	Z-060I
8-2030412-3	J	4.4	0.4	10.9	6.38 N	0.347 N/mm	0.34 N	270°	Z-028X
8-2030412-4	K	5.6	0.63	32.8	18.3 N	0.329 N/mm	1.37 N	270°	Z-060X
8-2030412-5	L	12	1.1	27.8	41.95 N	1.181 N/mm	2.99 N	270°	Z-100FX

1.1. All dimensions are nominal unless otherwise specified

2. MANUFACTURER
Gutekunst Federn
www.federnshop.com



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SHEET
3 OF 3

NO

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