

SPEC extension springs have a wide application for experimental, development, prototype and maintenance work and have been specified and designed to high precision standards.

All SPEC extension springs have uniform body diameter and are produced with full twist loops the same diameter as the body.

They are wound with initial tension, therefore some force is required before the coils are initially separated.

Material

Music wire to DIN 17223, Class C. No. 1,1200. BS5216 ND3 or HD3 - AMS 5112. Stainless steel wire to DIN 17224. No. 1,4310.- BS2056 EN58A. Commercial 302 AMS 5688 spring temper.

Ends

German loops closed. End position will vary.

Loads

Load values shown are for music wire.

Tolerances

All dimensions and forces to DIN 2097 (Grade 2).

Surface finish

Normal wire oiled. Shot-peened and plated finishes on request. Allow additional time for special finishes.

To determine the load at any working length use (rate x deflection) + initial tension.

1 lb = 4.448 Newtons

1 Newton = 0.225 lb.

Initial tension is for reference only and may vary.

Les ressorts de traction SPEC offrent de larges possibilités d'application pour les travaux expérimentaux, l'étude de prototypes et les travaux de maintenance. Ils ont été étudiés selon des critères de haute précision.

Tous les ressorts de traction SPEC possèdent un diamètre de corps uniforme et sont produits avec des boucles d'accrochage fermées et de même diamètre que le corps du ressort.

Ils sont enroulés avec une tension initiale, donc un certain effort est nécessaire avant que les spires ne se séparent.

Matériaux

Corde à piano conforme à la norme DIN 17223, Classe C. No. 1,1200. - BS5216 ND3 ou HD3 - AMS 5112. Fil en acier inoxydable suivant la norme DIN 17224. No. 1,4310, BS2056 EN58A. Commercial 302 AMS 5688 acier trempé pour ressorts.

Enroulement

A droite.

Extrémités

Boucles fermées allemandes. La position angulaire peut varier.

Tolérances

Toutes les dimensions et charges sont conformes à la norme DIN 2097 (catégorie 2).

Etat de surface

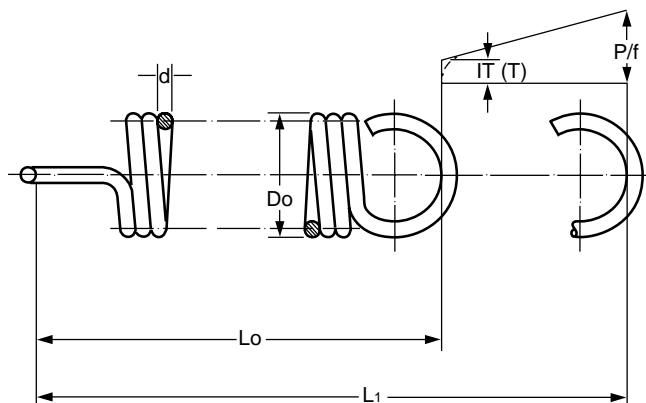
Fil standard huilé. Finition par grenailage et finition plaquée fournies à la demande. Prévoyez suffisamment de temps de livraison supplémentaire pour des états de surface spéciaux.

Pour déterminer la charge à toute longueur de fonctionnement utiliser la formule: (raideur x déflexion) + tension initiale.

1 kg = 9,80665N

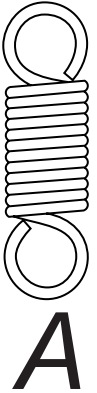
1 N = 0,10197 kg.

La tension initiale est approximative et peut varier.



Do = Outside diameter
d = Wire diameter
Lo = Free length (reference use only inside hooks)
L1 = Maximum extended length
P1 = Load at L1 Newtons
P/f = Rate N/mm
IT = Initial Tension

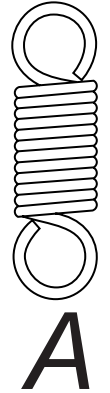
Do = Diamètre extérieur
d = Diamètre du fil
Lo = Longueur libre (à l'intérieur des accrochages, uniquement pour référence)
L1 = Longueur de l'extension maximum
P1 = Charge à L1, Newton
P/f = Raideur N/mm.
T = Tension initiale



MUSIC WIRE DIN 17223

STAINLESS STEEL DIN 17224

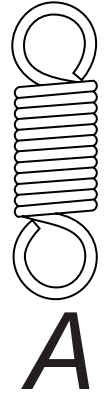
| Do Outside Dia mm | d Wire Dia mm | Lo Free Length mm | L1 Max Ext. Length mm | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group |
|-------------------------|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------|---------------------|----------|----------------|-------------------------|-----------------------|---------------------|----------|----------------|
| 2.50 | 0.50 | 7.90 | 9.61 | 2.45 | 16.10 | 7.98 | T30800 | B | 2.05 | 13.42 | 6.65 | T40800 | E |
| | | 10.90 | 13.64 | | | 4.98 | T30810 | B | | | 4.15 | T40810 | E |
| | | 15.40 | 19.68 | | | 3.19 | T30820 | B | | | 2.66 | T40820 | E |
| 3.50 | 0.50 | 9.50 | 13.82 | 1.77 | 12.00 | 2.35 | T30830 | B | 1.47 | 10.00 | 1.96 | T40830 | E |
| | | 12.50 | 19.41 | | | 1.47 | T30840 | B | | | 1.22 | T40840 | E |
| | | 17.00 | 27.80 | | | 0.94 | T30850 | B | | | 0.78 | T40850 | E |
| | | 24.50 | 41.80 | | | 0.59 | T30860 | B | | | 0.49 | T40860 | E |
| | | 290.00 | 500.00 | | | 0.05 | T30870 | B | | | 0.04 | T40870 | H |
| | | 12.70 | 25.80 | | | 0.51 | T30880 | B | | | 0.42 | T40880 | E |
| 5.50 | 0.50 | 15.70 | 36.60 | 2.50 | 7.80 | 0.31 | T30890 | B | 2.09 | 6.50 | 0.26 | T40890 | E |
| | | 20.20 | 52.90 | | | 0.21 | T30900 | B | | | 0.17 | T40900 | E |
| | | 27.70 | 80.00 | | | 0.31 | T30910 | B | | | 0.26 | T40910 | E |
| | | 37.70 | 116.10 | | | 0.09 | T30920 | B | | | 0.07 | T40920 | E |
| 2.80 | 0.55 | 8.80 | 10.78 | 2.79 | 19.00 | 8.18 | T30930 | B | 2.33 | 15.83 | 6.82 | T40930 | F |
| | | 12.10 | 15.27 | | | 5.11 | T30940 | B | | | 4.26 | T40940 | F |
| | | 17.00 | 21.96 | | | 3.27 | T30950 | B | | | 2.72 | T40950 | F |
| 3.50 | 0.55 | 9.90 | 13.58 | 2.38 | 15.70 | 3.63 | T30960 | B | 1.98 | 13.08 | 3.02 | T40960 | F |
| | | 13.20 | 19.09 | | | 2.27 | T30970 | B | | | 1.89 | T40970 | F |
| | | 18.10 | 27.30 | | | 1.45 | T30980 | B | | | 1.21 | T40980 | F |
| | | 26.40 | 41.10 | | | 0.90 | T30990 | B | | | 0.75 | T40990 | F |
| 6.00 | 0.55 | 13.90 | 28.00 | 1.09 | 9.50 | 0.58 | T31000 | B | 0.91 | 7.92 | 0.48 | T41000 | F |
| | | 17.20 | 39.70 | | | 0.36 | T31010 | B | | | 0.30 | T41010 | F |
| | | 22.10 | 57.20 | | | 0.23 | T31020 | B | | | 0.19 | T41020 | F |
| | | 30.40 | 86.60 | | | 0.15 | T31030 | B | | | 0.12 | T41030 | F |
| | | 41.40 | 125.70 | | | 0.11 | T31040 | B | | | 0.09 | T41040 | F |
| 3.00 | 0.63 | 9.70 | 11.55 | 4.19 | 26.20 | 12.10 | T31050 | C | 3.49 | 21.83 | 10.08 | T41050 | F |
| | | 13.50 | 16.46 | | | 7.51 | T31060 | C | | | 6.26 | T41060 | F |
| | | 19.20 | 23.82 | | | 4.81 | T31070 | C | | | 4.01 | T41070 | F |
| 4.50 | 0.63 | 12.10 | 17.75 | 2.61 | 18.30 | 2.77 | T31080 | C | 2.18 | 15.25 | 2.31 | T41080 | F |
| | | 15.90 | 24.94 | | | 1.73 | T31090 | C | | | 1.44 | T41090 | F |
| | | 21.60 | 35.70 | | | 1.11 | T31100 | C | | | 0.92 | T41100 | F |
| | | 31.00 | 53.60 | | | 0.70 | T31110 | C | | | 0.58 | T41110 | F |
| 7.00 | 0.63 | 16.10 | 32.70 | 1.67 | 12.20 | 0.62 | T31120 | C | 1.39 | 10.17 | 0.52 | T41120 | F |
| | | 19.90 | 46.50 | | | 0.39 | T31130 | C | | | 0.32 | T41130 | F |
| | | 25.60 | 67.20 | | | 0.25 | T31140 | C | | | 0.21 | T41140 | F |
| | | 35.00 | 101.50 | | | 0.16 | T31150 | C | | | 0.13 | T41150 | F |
| 47.60 | 147.30 | 0.11 | T31160 | C | 0.09 | T41160 | F | | | | | | |
| 3.50 | 0.70 | 11.10 | 13.46 | 4.47 | 30.70 | 11.10 | T31170 | C | 3.72 | 25.58 | 9.25 | T41170 | F |
| | | 15.30 | 19.08 | | | 6.95 | T31180 | C | | | 5.79 | T41180 | F |
| | | 21.60 | 27.50 | | | 4.44 | T31190 | C | | | 3.70 | T41190 | F |
| 5.00 | 0.70 | 13.50 | 19.75 | 3.39 | 22.60 | 3.07 | T31200 | C | 2.83 | 18.83 | 2.56 | T41200 | F |
| | | 17.70 | 27.70 | | | 1.92 | T31210 | C | | | 1.60 | T41210 | F |
| | | 24.00 | 39.60 | | | 1.23 | T31220 | C | | | 1.02 | T41220 | F |
| | | 34.50 | 59.50 | | | 0.77 | T31230 | C | | | 0.64 | T41230 | F |
| 7.50 | 0.70 | 17.50 | 34.40 | 2.18 | 15.40 | 0.78 | T31240 | C | 1.81 | 12.83 | 0.65 | T41240 | F |
| | | 21.70 | 48.70 | | | 0.49 | T31250 | C | | | 0.41 | T41250 | F |
| | | 28.00 | 70.20 | | | 0.31 | T31260 | C | | | 0.26 | T41260 | F |
| | | 38.50 | 106.00 | | | 0.20 | T31270 | C | | | 0.17 | T41270 | F |
| | | 52.50 | 153.50 | | | 0.13 | T31280 | C | | | 0.11 | T41280 | F |
| 4.00 | 0.80 | 12.60 | 15.26 | 5.96 | 39.90 | 12.70 | T31290 | C | 4.96 | 33.25 | 10.58 | T41290 | F |
| | | 17.40 | 21.66 | | | 8.00 | T31300 | C | | | 6.67 | T41300 | F |
| | | 24.60 | 31.26 | | | 5.10 | T31310 | C | | | 4.25 | T41310 | F |
| 5.50 | 0.80 | 15.00 | 21.40 | 4.79 | 30.20 | 4.00 | T31320 | C | 3.99 | 25.17 | 3.33 | T41320 | F |
| | | 19.80 | 30.00 | | | 2.50 | T31330 | C | | | 2.08 | T41330 | F |
| | | 27.00 | 43.00 | | | 1.60 | T31340 | C | | | 1.33 | T41340 | F |
| | | 39.00 | 64.60 | | | 1.00 | T31350 | C | | | 0.83 | T41350 | F |
| | | 290.00 | 515.00 | | | 0.11 | T31360 | F | | | 0.09 | T41360 | L |
| 9.00 | 0.80 | 20.60 | 42.00 | 2.73 | 19.00 | 0.76 | T31370 | C | 2.28 | 15.83 | 0.63 | T41370 | F |
| | | 25.40 | 59.70 | | | 0.47 | T31380 | C | | | 0.39 | T41380 | F |
| | | 32.60 | 86.10 | | | 0.30 | T31390 | C | | | 0.25 | T41390 | F |
| | | 44.60 | 130.20 | | | 0.19 | T31400 | C | | | 0.16 | T41400 | F |
| | | 60.60 | 188.60 | | | 0.13 | T31410 | C | | | 0.11 | T41410 | F |
| 4.50 | 0.90 | 14.20 | 17.15 | 7.45 | 49.70 | 14.30 | T31420 | D | 6.20 | 41.42 | 11.92 | T41420 | F |
| | | 19.60 | 24.32 | | | 8.96 | T31430 | D | | | 7.47 | T41430 | F |
| | | 27.70 | 35.08 | | | 5.73 | T31440 | D | | | 4.77 | T41440 | F |
| 6.30 | 0.90 | 17.10 | 24.53 | 5.58 | 37.10 | 4.23 | T31450 | D | 4.66 | 30.92 | 3.52 | T41450 | F |
| | | 22.50 | 34.40 | | | 2.65 | T31460 | D | | | 2.21 | T41460 | F |
| | | 30.60 | 49.20 | | | 1.70 | T31470 | D | | | 1.42 | T41470 | F |
| | | 44.10 | 73.80 | | | 1.06 | T31480 | D | | | 0.88 | T41480 | F |
| | | 23.00 | 46.10 | | | 0.88 | T31490 | D | | | 0.73 | T41490 | F |
| 10.00 | 0.90 | 28.40 | 65.30 | 3.46 | 24.00 | 0.55 | T31500 | D | 2.89 | 20.00 | 0.46 | T41500 | F |
| | | 36.50 | 94.10 | | | 0.35 | T31510 | D | | | 0.29 | T41510 | F |
| | | 50.00 | 142.20 | | | 0.23 | T31520 | D | | | 0.19 | T41520 | F |
| | | 68.00 | 206.00 | | | 0.15 | T31530 | D | | | 0.12 | T41530 | F |
| | | 15.80 | 19.05 | | | 15.90 | T31540 | D | | | 13.25 | T41540 | F |
| 5.00 | 1.00 | 21.80 | 27.00 | 7.52 | 60.80 | 9.90 | T31550 | D | 6.27 | 50.66 | 8.25 | T41550 | F |
| | | 30.8 | 38.90 | | | 6.37 | T31560 | D | | | 5.30 | T41560 | F |
| | | 19.00 | 27.17 | | | 4.71 | T31570 | D | | | 3.92 | T41570 | F |
| | | 25.00 | 38.10 | | | 2.94 | T31580 | D | | | 2.45 | T41580 | F |
| | | 34.00 | 54.40 | | | 1.83 | T31590 | D | | | 1.52 | T41590 | F |
| | | 49.00 | 81.70 | | | 1.18 | T31600 | D | | | 0.98 | T41600 | F |
| 11.00 | 1.00 | 290.00 | 510.00 | 4.18 | 29.60 | 0.18 | T31610 | G | 3.49 | 24.67 | 0.15 | T41610 | L |
| | | 25.40 | 50.20 | | | 1.02 | T31620 | D | | | 0.85 | T41620 | F |
| | | 31.40 | 71.00 | | | 0.64 | T31630 | D | | | 0.53 | T41630 | F |
| | | 40.40 | 102.30 | | | 0.41 | T31640 | D | | | 0.34 | T41640 | F |
| | | 55.40 | 154.40 | | | 0.26 | T31650 | D | | | 0.22 | T41650 | F |
| 5.50 | 1.00 | 75.40 | 224.40 | 10.77 | 72.80 | 0.17 | T31660 | D | 8.97 | 60.66 | 0.14 | T41660 | F |
| | | 17.40 | 20.94 | | | 17.50 | T31670 | D | | | 14.58 | T41670 | G |
| | | 24.00 | 29.66 | | | 11.00 | T31680 | D | | | 9.17 | T41680 | G |



MUSIC WIRE DIN 17223

STAINLESS STEEL DIN 17224

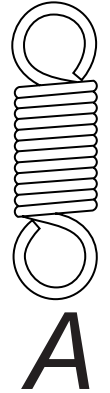
| Do Outside Dia mm | d Wire Dia mm | Lo Free Length mm | L1 Max Ext. Length mm | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group |
|-------------------------|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------|---------------------|----------|----------------|-------------------------|-----------------------|---------------------|----------|----------------|
| 5.50 | | 33.90 | 42.74 | 10.77 | 72.80 | 7.00 | T31690 | D | 8.97 | 60.66 | 5.83 | T41690 | G |
| 7.50 | 1.10 | 20.60 | 28.90 | 8.25 | 55.50 | 5.69 | T31700 | D | 6.87 | 46.25 | 4.74 | T41700 | G |
| | | 27.20 | 40.50 | | | 3.55 | T31710 | D | | | 2.96 | T41710 | G |
| | | 37.10 | 57.90 | | | 2.28 | T31720 | D | | | 1.90 | T41720 | G |
| | | 53.60 | 86.80 | | | 1.42 | T31730 | D | | | 1.18 | T41730 | G |
| | | 27.80 | 54.20 | | | 1.15 | T31740 | D | | | 0.96 | T41740 | G |
| 12.00 | 1.10 | 34.40 | 76.70 | 5.26 | 35.80 | 0.72 | T31750 | D | 4.38 | 29.83 | 0.60 | T41750 | G |
| | | 44.30 | 110.40 | | | 0.46 | T31760 | D | | | 0.38 | T41760 | G |
| | | 60.80 | 166.80 | | | 0.28 | T31770 | D | | | 0.23 | T41770 | G |
| | | 82.80 | 241.80 | | | 0.20 | T31780 | D | | | 0.17 | T41780 | G |
| | | 19.00 | 22.80 | | | 19.10 | T31790 | E | | | 15.92 | T41790 | G |
| 6.00 | 1.10 | 26.20 | 32.28 | 12.63 | 85.30 | 12.00 | T31800 | E | 10.52 | 71.08 | 10.00 | T41800 | G |
| | | 37.00 | 46.50 | | | 7.63 | T31810 | E | | | 6.36 | T41810 | G |
| | | 23.00 | 32.85 | | | 5.43 | T31820 | E | | | 4.52 | T41820 | G |
| | | 30.20 | 46.00 | | | 3.39 | T31830 | E | | | 2.82 | T41830 | G |
| 8.50 | 1.20 | 41.00 | 65.60 | 9.22 | 62.80 | 2.17 | T31840 | E | 7.68 | 52.33 | 1.81 | T41840 | G |
| | | 59.00 | 98.60 | | | 1.35 | T31850 | E | | | 1.12 | T41850 | G |
| | | 290.00 | 515.00 | | | 0.24 | T31860 | H | | | 0.20 | T41860 | M |
| | | 30.20 | 58.10 | | | 1.28 | T31870 | E | | | 1.07 | T41870 | G |
| | | 37.40 | 82.10 | | | 0.80 | T31880 | E | | | 0.67 | T41880 | G |
| 13.00 | 1.20 | 48.20 | 118.00 | 6.56 | 42.20 | 0.51 | T31890 | E | 5.47 | 35.17 | 0.42 | T41890 | G |
| | | 66.20 | 178.20 | | | 0.32 | T31900 | E | | | 0.27 | T41900 | G |
| | | 90.20 | 258.20 | | | 0.21 | T31910 | E | | | 0.17 | T41910 | G |
| | | 22.10 | 26.46 | | | 22.30 | T31920 | E | | | 18.58 | T41920 | H |
| | | 30.50 | 37.48 | | | 13.90 | T31930 | E | | | 11.58 | T41930 | H |
| 7.00 | 1.40 | 43.10 | 54.00 | 16.88 | 114.00 | 8.91 | T31940 | E | 14.07 | 95.00 | 7.42 | T41940 | H |
| | | 26.90 | 38.50 | | | 6.14 | T31950 | E | | | 5.12 | T41950 | H |
| | | 35.30 | 53.80 | | | 3.83 | T31960 | E | | | 3.19 | T41960 | H |
| | | 47.90 | 76.80 | | | 2.46 | T31970 | E | | | 2.05 | T41970 | H |
| | | 68.90 | 115.10 | | | 1.54 | T31980 | E | | | 1.28 | T41980 | H |
| 10.00 | 1.40 | 290.00 | 510.00 | 12.66 | 83.60 | 0.32 | T31990 | J | 10.55 | 69.66 | 0.27 | T41990 | N |
| | | 34.90 | 66.10 | | | 1.55 | T32000 | E | | | 1.29 | T42000 | H |
| | | 43.30 | 93.30 | | | 0.97 | T32010 | E | | | 0.81 | T42010 | H |
| | | 55.90 | 134.00 | | | 0.62 | T32020 | E | | | 0.52 | T42020 | H |
| | | 76.90 | 201.90 | | | 0.39 | T32030 | E | | | 0.32 | T42030 | H |
| 15.00 | 1.40 | 105.00 | 292.00 | 8.50 | 57.10 | 0.26 | T32040 | E | 7.09 | 47.58 | 0.22 | T42040 | J |
| | | 25.30 | 30.18 | | | 25.40 | T32050 | E | | | 21.17 | T42050 | H |
| | | 34.90 | 42.71 | | | 15.90 | T32060 | E | | | 13.25 | T42060 | H |
| | | 49.30 | 61.50 | | | 10.20 | T32070 | E | | | 8.50 | T42070 | H |
| | | 30.10 | 41.80 | | | 8.04 | T32080 | E | | | 6.70 | T42080 | H |
| 8.00 | 1.60 | 39.70 | 58.40 | 21.81 | 146.00 | 5.02 | T32090 | E | 18.17 | 121.66 | 4.18 | T42090 | H |
| | | 54.10 | 83.40 | | | 3.22 | T32100 | E | | | 2.68 | T42100 | H |
| | | 78.10 | 124.90 | | | 2.01 | T32110 | E | | | 1.67 | T42110 | H |
| | | 39.70 | 74.00 | | | 1.82 | T32120 | E | | | 1.52 | T42120 | H |
| | | 49.30 | 104.10 | | | 1.14 | T32130 | E | | | 0.95 | T42130 | H |
| 11.00 | 1.60 | 63.70 | 149.30 | 16.91 | 111.00 | 0.73 | T32140 | E | 14.09 | 92.50 | 0.61 | T42140 | H |
| | | 87.70 | 224.70 | | | 0.46 | T32150 | E | | | 0.38 | T42150 | J |
| | | 120.00 | 325.00 | | | 0.30 | T32160 | E | | | 0.25 | T42160 | K |
| | | 28.40 | 33.77 | | | 28.60 | T32170 | F | | | 23.83 | T42170 | H |
| | | 39.20 | 47.79 | | | 17.80 | T32180 | F | | | 14.83 | T42180 | H |
| 17.00 | 1.60 | 55.40 | 68.80 | 26.47 | 180.00 | 11.50 | T32190 | F | 22.06 | 149.99 | 9.58 | T42190 | H |
| | | 33.20 | 45.10 | | | 10.10 | T32200 | F | | | 8.42 | T42200 | H |
| | | 44.00 | 63.00 | | | 6.28 | T32210 | F | | | 5.23 | T42210 | H |
| | | 60.20 | 89.90 | | | 4.02 | T32220 | F | | | 3.35 | T42220 | H |
| | | 87.20 | 134.80 | | | 2.52 | T32230 | F | | | 2.10 | T42230 | H |
| 12.00 | 1.80 | 290.00 | 465.00 | 21.43 | 141.00 | 0.68 | T32240 | J | 17.86 | 117.50 | 0.57 | T42240 | N |
| | | 46.00 | 87.90 | | | 1.78 | T32250 | F | | | 1.48 | T42250 | H |
| | | 56.80 | 123.80 | | | 1.11 | T32260 | F | | | 0.92 | T42260 | H |
| | | 73.00 | 178.00 | | | 0.71 | T32270 | F | | | 0.59 | T42270 | L |
| | | 100.00 | 267.00 | | | 0.44 | T32280 | F | | | 0.37 | T42280 | M |
| 20.00 | 1.80 | 136.00 | 387.00 | 13.05 | 87.00 | 0.29 | T32290 | F | 10.87 | 72.50 | 0.24 | T42290 | M |
| | | 31.60 | 37.46 | | | 31.80 | T32300 | K | | | 26.50 | T42300 | N |
| | | 43.60 | 52.98 | | | 19.90 | T32310 | K | | | 16.58 | T42310 | N |
| | | 61.60 | 76.30 | | | 12.80 | T32320 | K | | | 10.67 | T42320 | N |
| | | 38.00 | 52.70 | | | 9.42 | T32330 | K | | | 7.85 | T42330 | N |
| 10.00 | 2.00 | 50.00 | 73.60 | 32.94 | 220.00 | 5.88 | T32340 | K | 27.45 | 183.33 | 4.90 | T42340 | N |
| | | 68.00 | 104.90 | | | 3.77 | T32350 | K | | | 3.14 | T42350 | N |
| | | 98.00 | 157.00 | | | 2.35 | T32360 | K | | | 1.96 | T42360 | N |
| | | 50.80 | 95.50 | | | 2.03 | T32370 | K | | | 1.69 | T42370 | N |
| | | 62.80 | 134.30 | | | 1.27 | T32380 | K | | | 1.06 | T42380 | N |
| 14.00 | 2.00 | 80.80 | 192.80 | 25.25 | 164.00 | 0.81 | T32390 | K | 21.04 | 136.66 | 0.67 | T42390 | N |
| | | 111.00 | 290.00 | | | 0.51 | T32400 | K | | | 0.42 | T42400 | N |
| | | 151.00 | 419.00 | | | 0.34 | T32410 | K | | | 0.28 | T42410 | O |
| | | 34.80 | 41.10 | | | 35.00 | T32420 | K | | | 29.17 | T42420 | O |
| | | 48.00 | 58.10 | | | 21.90 | T32430 | K | | | 18.25 | T42430 | O |
| 22.00 | 2.00 | 67.80 | 83.60 | 16.11 | 107.00 | 14.00 | T32440 | K | 13.43 | 89.16 | 11.67 | T42440 | O |
| | | 41.20 | 56.00 | | | 11.40 | T32450 | K | | | 9.50 | T42450 | O |
| | | 54.40 | 78.10 | | | 7.10 | T32460 | K | | | 5.92 | T42460 | O |
| | | 74.20 | 111.20 | | | 4.55 | T32470 | K | | | 3.79 | T42470 | O |
| | | 107.00 | 166.20 | | | 2.84 | T32480 | K | | | 2.37 | T42480 | O |
| 11.00 | 2.20 | 55.60 | 102.70 | 38.04 | 259.00 | 2.31 | T32490 | K | 31.70 | 215.82 | 1.92 | T42490 | O |
| | | 68.80 | 144.10 | | | 1.44 | T32500 | K | | | 1.20 | T42500 | O |
| | | 88.60 | 206.60 | | | 0.92 | T32510 | K | | | 0.77 | T42510 | O |
| | | 122.00 | 310.00 | | | 0.58 | T32520 | K | | | 0.48 | T42520 | O |
| | | 166.00 | 448.00 | | | 0.38 | T32530 | K | | | 0.32 | T42530 | P |
| 15.00 | 2.20 | 40.30 | 48.14 | 29.63 | 198.00 | 34.30 | T32540 | L | 24.69 | 164.99 | 28.58 | T42540 | O |
| | | 55.30 | 67.80 | | | 21.50 | T32550 | L | | | 17.92 | T42550 | O |
| | | 77.80 | 97.40 | | | 13.70 | T32560 | L | | | 11.42 | T42560 | O |
| | | 48.30 | 67.20 | | | 34.90 | T32570 | L | | | 29.08 | T42570 | O |
| | | 18.00 | 2.50 | | | 237.00 | 10.70 | | | | | | |



MUSIC WIRE DIN 17223

STAINLESS STEEL DIN 17224

| Do Outside Dia mm | d Wire Dia mm | Lo Free Length mm | L1 Max Ext. Length mm | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group | |
|-------------------------|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------|---------------------|----------|----------------|-------------------------|-----------------------|---------------------|----------|----------------|--------|
| 18.00 | 2.50 | 63.30 | 93.60 | 34.90 | 237.00 | 6.67 | T32580 | L | 29.08 | 197.49 | 5.56 | T42580 | O | |
| | | 85.80 | 133.10 | | | 4.27 | T32590 | L | | | 3.56 | T42590 | O | |
| | | 123.00 | 198.70 | | | 2.67 | T32600 | L | | | 2.22 | T42600 | O | |
| 28.00 | 2.50 | 64.30 | 119.90 | 23.79 | 157.00 | 2.39 | T32610 | L | 19.82 | 130.83 | 1.99 | T42610 | O | |
| | | 79.30 | 168.20 | | | 1.50 | T32620 | L | | | 1.25 | T42620 | O | |
| | | 102.00 | 241.00 | | | 0.96 | T32630 | L | | | 0.80 | T42630 | O | |
| | | 139.00 | 361.00 | | | 0.60 | T32640 | L | | | 0.50 | T42640 | P | |
| | | 189.00 | 522.00 | | | 0.40 | T32650 | L | | | 0.33 | T42650 | R | |
| | | 44.20 | 51.85 | | | 58.85 | 400.00 | 44.60 | | | T32660 | L | 49.04 | 333.32 |
| 61.00 | 73.20 | 27.90 | T32670 | L | 23.25 | | | T42670 | P | | | | | |
| 86.20 | 105.30 | 17.90 | T32680 | L | 14.92 | | | T42680 | P | | | | | |
| 20.00 | 2.80 | 53.80 | 74.10 | 44.09 | 293.00 | 12.30 | T32690 | L | 36.74 | 244.16 | 10.25 | T42690 | P | |
| | | 70.60 | 103.00 | | | 7.68 | T32700 | L | | | 6.40 | T42700 | P | |
| | | 95.80 | 146.40 | | | 4.91 | T32710 | L | | | 4.09 | T42710 | P | |
| | | 138.00 | 219.00 | | | 3.07 | T32720 | L | | | 2.56 | T42720 | P | |
| 30.00 | 2.80 | 69.80 | 124.50 | 29.46 | 200.00 | 3.11 | T32730 | L | 24.55 | 166.66 | 2.59 | T42730 | P | |
| | | 86.60 | 174.20 | | | 1.94 | T32740 | L | | | 1.62 | T42740 | P | |
| | | 112.00 | 249.00 | | | 1.25 | T32750 | L | | | 1.04 | T42750 | P | |
| | | 154.00 | 373.00 | | | 0.78 | T32760 | L | | | 0.65 | T42760 | R | |
| | | 210.00 | 538.00 | | | 0.52 | T32770 | M | | | 0.43 | T42770 | T | |
| 16.00 | 3.20 | 50.60 | 59.12 | 76.44 | 510.00 | 50.90 | T32780 | M | 63.70 | 424.98 | 42.41 | T42780 | Q | |
| | | 69.80 | 83.40 | | | 31.80 | T32790 | M | | | 26.50 | T42790 | Q | |
| | | 98.60 | 119.90 | | | 20.40 | T32800 | M | | | 17.00 | T42800 | Q | |
| 22.00 | 3.20 | 60.20 | 80.70 | 57.01 | 386.00 | 16.10 | T32810 | M | 47.50 | 321.65 | 13.42 | T42810 | Q | |
| | | 79.40 | 112.10 | | | 10.00 | T32820 | M | | | 8.33 | T42820 | Q | |
| | | 108.00 | 159.10 | | | 6.48 | T32830 | M | | | 5.40 | T42830 | Q | |
| | | 156.00 | 237.80 | | | 4.02 | T32840 | M | | | 3.35 | T42840 | R | |
| 36.00 | 3.20 | 82.60 | 151.00 | 36.45 | 243.00 | 3.02 | T32850 | M | 30.38 | 202.49 | 2.52 | T42850 | P | |
| | | 102.00 | 211.00 | | | 1.89 | T32860 | M | | | 1.57 | T42860 | Q | |
| | | 131.00 | 302.00 | | | 1.21 | T32870 | M | | | 1.01 | T42870 | S | |
| | | 179.00 | 453.00 | | | 0.76 | T32880 | M | | | 0.63 | T42880 | T | |
| | | 243.00 | 653.00 | | | 0.50 | T32890 | N | | | 0.42 | T42890 | V | |
| 18.00 | 3.60 | 56.90 | 66.25 | 94.11 | 630.00 | 57.20 | T32900 | M | 78.42 | 524.98 | 47.66 | T42900 | P | |
| | | 78.50 | 93.50 | | | 35.80 | T32910 | M | | | 29.83 | T42910 | P | |
| | | 111.00 | 134.40 | | | 22.90 | T32920 | M | | | 19.08 | T42920 | P | |
| 25.00 | 3.60 | 68.10 | 91.10 | 70.96 | 473.00 | 17.50 | T32930 | M | 59.14 | 394.15 | 14.58 | T42930 | P | |
| | | 89.70 | 126.50 | | | 10.90 | T32940 | M | | | 9.08 | T42940 | P | |
| | | 122.00 | 179.60 | | | 6.98 | T32950 | M | | | 5.82 | T42950 | P | |
| | | 176.00 | 268.10 | | | 4.37 | T32960 | N | | | 3.64 | T42960 | Q | |
| 40.00 | 3.60 | 92.10 | 165.00 | 45.79 | 304.00 | 3.54 | T32970 | M | 38.16 | 253.32 | 2.95 | T42970 | P | |
| | | 114.00 | 231.00 | | | 2.22 | T32980 | M | | | 1.85 | T42980 | P | |
| | | 146.00 | 328.00 | | | 1.42 | T32990 | N | | | 1.18 | T42990 | Q | |
| | | 200.00 | 492.00 | | | 0.88 | T33000 | N | | | 0.73 | T43000 | S | |
| | | 272.00 | 709.00 | | | 0.59 | T33010 | O | | | 0.49 | T43010 | U | |
| 20.00 | 4.00 | 63.20 | 73.30 | 114.29 | 757.00 | 63.60 | T33020 | M | 95.24 | 630.81 | 53.00 | T43020 | P | |
| | | 87.20 | 103.40 | | | 39.70 | T33030 | M | | | 33.08 | T43030 | P | |
| | | 123.00 | 148.30 | | | 25.40 | T33040 | M | | | 21.17 | T43040 | P | |
| 28.00 | 4.00 | 76.00 | 101.40 | 84.57 | 564.00 | 18.80 | T33050 | M | 70.47 | 469.98 | 15.67 | T43050 | P | |
| | | 100.00 | 140.70 | | | 11.80 | T33060 | M | | | 9.83 | T43060 | P | |
| | | 136.00 | 199.60 | | | 7.54 | T33070 | M | | | 6.28 | T43070 | P | |
| | | 196.00 | 298.00 | | | 4.71 | T33080 | N | | | 3.92 | T43080 | R | |
| | | 103.00 | 184.20 | | | 3.78 | T33090 | M | | | 3.15 | T43090 | P | |
| 45.00 | 4.00 | 127.00 | 257.00 | 54.48 | 361.00 | 2.36 | T33100 | M | 45.40 | 300.82 | 1.97 | T43100 | P | |
| | | 163.00 | 366.00 | | | 1.51 | T33110 | N | | | 1.26 | T43110 | S | |
| | | 223.00 | 548.00 | | | 0.94 | T33120 | O | | | 0.78 | T43120 | U | |
| | | 303.00 | 790.00 | | | 0.63 | T33130 | P | | | 0.52 | T43130 | W | |
| | | 70.30 | 80.70 | | | 142.11 | 951.00 | 77.90 | | | T33140 | M | 118.42 | 792.47 |
| 97.30 | 113.90 | 48.70 | T33150 | M | 40.58 | | | T43150 | P | | | | | |
| 138.00 | 163.90 | 31.20 | T33160 | M | 26.00 | | | T43160 | Q | | | | | |
| 32.00 | 4.50 | 86.30 | 115.30 | 101.49 | 685.00 | 20.10 | T33170 | M | 84.57 | 570.81 | 16.75 | T43170 | P | |
| | | 113.00 | 159.40 | | | 12.60 | T33180 | M | | | 10.50 | T43180 | Q | |
| | | 154.00 | 226.60 | | | 8.03 | T33190 | N | | | 6.69 | T43190 | R | |
| | | 221.00 | 337.00 | | | 5.01 | T33200 | M | | | 4.17 | T43200 | Q | |
| 50.00 | 4.50 | 115.00 | 201.40 | 68.25 | 451.00 | 4.43 | T33210 | M | 56.87 | 375.82 | 3.69 | T43210 | Q | |
| | | 142.00 | 280.00 | 68.74 | | 2.77 | T33220 | N | | | 57.28 | 2.31 | T43220 | R |
| | | 183.00 | 399.00 | 1.78 | | T33230 | O | 1.48 | | | T43230 | S | | |
| | | 250.00 | 596.00 | 1.11 | | T33240 | P | 0.92 | | | T43240 | W | | |
| | | 340.00 | 858.00 | 0.74 | | T33250 | Q | 0.62 | | | T43250 | X | | |
| 25.00 | 5.00 | 79.00 | 90.90 | 165.06 | 1110.00 | 79.50 | T33260 | M | 137.55 | 924.96 | 66.25 | T43260 | P | |
| | | 109.00 | 128.00 | | | 49.70 | T33270 | M | | | 41.42 | T43270 | P | |
| | | 154.00 | 183.70 | | | 31.80 | T33280 | N | | | 26.50 | T43280 | R | |
| 36.00 | 5.00 | 96.60 | 128.80 | 120.62 | 808.00 | 21.40 | T33290 | M | 100.52 | 673.31 | 17.83 | T43290 | Q | |
| | | 127.00 | 178.50 | | | 13.30 | T33300 | N | | | 11.08 | T43300 | R | |
| | | 172.00 | 252.40 | | | 8.54 | T33310 | N | | | 7.12 | T43310 | R | |
| | | 247.00 | 376.00 | | | 5.34 | T33320 | P | | | 4.45 | T43320 | U | |
| 55.00 | 5.00 | 127.00 | 217.60 | 82.28 | 543.00 | 5.09 | T33330 | N | 68.56 | 452.48 | 4.24 | T43330 | R | |
| | | 157.00 | 302.00 | | | 3.18 | T33340 | O | | | 2.65 | T43340 | S | |
| | | 202.00 | 428.00 | | | 2.04 | T33350 | P | | | 1.70 | T43350 | U | |
| | | 277.00 | 589.00 | | | 1.28 | T33360 | Q | | | 1.07 | T43360 | W | |
| | | 377.00 | 921.00 | | | 0.84 | T33370 | R | | | 0.70 | T43370 | X | |
| 40.00 | 6.00 | 140.00 | 200.00 | 164.00 | 1368.30 | 22.81 | TH33380 | | | | | | | |
| | | 400.00 | 630.00 | 162.00 | 1195.00 | 5.90 | TH33390 | | | | | | | |
| 50.00 | 6.00 | 140.00 | 225.00 | 123.01 | 1908.00 | 12.14 | TH33400 | | | | | | | |
| | | 400.00 | 785.00 | 93.40 | 845.40 | 2.44 | TH33410 | | | | | | | |
| | | 876.00 | 1836.00 | 92.00 | 1059.84 | 1.20 | TH33420 | | | | | | | |
| 46.30 | 6.30 | 760.00 | 1410.00 | 90.50 | 1417.50 | 2.32 | TH33430 | | | | | | | |
| 51.00 | 6.50 | 300.00 | 525.00 | 78.80 | 1235.16 | 5.84 | TH33440 | | | | | | | |
| 60.00 | | 900.00 | 2100.00 | 58.20 | 1105.80 | 0.97 | TH33450 | | | | | | | |
| 40.00 | 7.00 | 160.00 | 205.00 | 116.10 | 1832.40 | 43.32 | TH33460 | | | | | | | |



PRICE ON APPLICATION

MUSIC WIRE DIN 17223

STAINLESS STEEL DIN 17224

| Do Outside Dia mm | d Wire Dia mm | Lo Free Length mm | L1 Max Ext. Length mm | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group | T Initial Tension | P1 Load at L1 N | P/f Rate N/mm | Part No. | Price Group |
|-------------------------|---------------------|-------------------------|-----------------------------|-------------------------|-----------------------|---------------------|----------|----------------------|-------------------------|-----------------------|---------------------|----------|----------------|
| 40.00 | 7.00 | 350.00 | 475.00 | 120.90 | 1894.10 | 16.12 | TH33470 | PRICE ON APPLICATION | | | | | |
| 45.00 | | 145.00 | 195.00 | 121.10 | 1896.45 | 40.35 | TH33480 | | | | | | |
| 50.00 | | 160.00 | 235.00 | 94.01 | 1472.75 | 20.89 | TH33490 | | | | | | |
| | | 350.00 | 555.00 | 91.70 | 1437.50 | 7.46 | TH33500 | | | | | | |
| 60.00 | 160.00 | 255.00 | 73.40 | 1149.29 | 12.87 | TH33510 | | | | | | | |
| | 350.00 | 645.00 | 61.60 | 1171.45 | 4.18 | TH33520 | | | | | | | |
| 50.00 | 8.00 | 180.00 | 240.00 | 137.20 | 2156.74 | 38.24 | TH33530 | | | | | | |
| | | 400.00 | 565.00 | 135.20 | 2118.07 | 13.66 | TH33540 | | | | | | |
| 60.00 | | 180.00 | 265.00 | 110.00 | 1725.04 | 21.59 | TH33550 | | | | | | |
| | | 400.00 | 655.00 | 112.70 | 1766.59 | 7.37 | TH33560 | | | | | | |
| 70.00 | 9.00 | 180.00 | 290.00 | 98.10 | 1536.52 | 14.86 | TH33570 | | | | | | |
| | | 400.00 | 770.00 | 99.10 | 1551.19 | 4.46 | TH33580 | | | | | | |
| 50.00 | | 1000.00 | 2550.00 | 62.70 | 1632.90 | 1.62 | TH33590 | | | | | | |
| | | 320.00 | 420.00 | 211.30 | 3315.38 | 35.27 | TH33600 | | | | | | |
| 50.00 | 10.00 | 350.00 | 440.00 | 301.00 | 4729.14 | 55.90 | TH33610 | | | | | | |
| 60.00 | | 300.00 | 395.00 | 215.00 | 3301.03 | 37.73 | TH33620 | | | | | | |
| 70.00 | | 300.00 | 430.00 | 178.00 | 2794.70 | 22.87 | TH33630 | | | | | | |
| 80.00 | | 300.00 | 470.00 | 154.00 | 2416.60 | 15.12 | TH33640 | | | | | | |

