

# Extension springs **DIN 2097**



## ET Ø0,5-Ø0,8

## Stainless steel piano wire

### - Materials:

Piano springs: Stainless steel conforming to DIN17224, Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to DIN 2097. Position may vary.

- Tolerances: All the dimensions and load values given conform to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

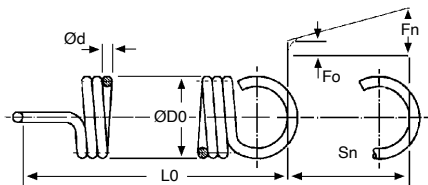
- These springs are recommended for static or medium dynamic loads

### Info.

- Springs should not be stretched greater than the maximum elongation value or permanent damage may result.

- For custom made springs, please contact us (Minimum quantity may apply)

**250+ pieces  
Contact us.**



### DISCOUNTS

|       |      |      |      |      |            |
|-------|------|------|------|------|------------|
| Qty   | 1+   | 5+   | 25+  | 50+  | 100+       |
| Disc. | List | -10% | -20% | -30% | On request |

| Part number | Wire Ød | External Ø D0 | Free length L0 | Rate C N/mm | Max. deflection (mm) | Max. load (N) | Stock* | Price each 1 to 4 |
|-------------|---------|---------------|----------------|-------------|----------------------|---------------|--------|-------------------|
| ET4080      | 0,50    | 2,50          | 7,90           | 6,85        | 1,70                 | 14,00         | ✓      | 8,35 €            |
| ET4081      | 0,50    | 2,50          | 10,90          | 4,28        | 2,70                 | 14,00         | -      | 8,35 €            |
| ET4082      | 0,50    | 2,50          | 15,40          | 2,74        | 4,30                 | 14,00         | -      | 8,35 €            |
| ET4083      | 0,50    | 3,50          | 9,50           | 2,02        | 4,30                 | 10,00         | ✓      | 8,35 €            |
| ET4084      | 0,50    | 3,50          | 12,50          | 1,26        | 6,90                 | 10,00         | ✓      | 8,35 €            |
| ET4085      | 0,50    | 3,50          | 17,00          | 0,81        | 10,80                | 10,00         | -      | 8,35 €            |
| ET4086      | 0,50    | 3,50          | 24,50          | 0,51        | 17,30                | 10,00         | ✓      | 8,35 €            |
| ET4087      | 0,50    | 3,50          | 290,00         | 0,04        | 210,00               | 10,00         | ✓      | 8,35 €            |
| ET4088      | 0,50    | 5,50          | 12,70          | 0,44        | 13,10                | 7,00          | ✓      | 8,35 €            |
| ET4089      | 0,50    | 5,50          | 15,70          | 0,27        | 20,90                | 7,00          | ✓      | 9,15 €            |
| ET4090      | 0,50    | 5,50          | 20,20          | 0,18        | 32,70                | 7,00          | ✓      | 8,35 €            |
| ET4091      | 0,50    | 5,50          | 27,70          | 0,11        | 52,30                | 7,00          | ✓      | 8,35 €            |
| ET4092      | 0,50    | 5,50          | 37,70          | 0,08        | 78,40                | 7,00          | ✓      | 8,35 €            |

\*Depending on availability - Dimensions in mm

| Part number | Wire Ød | External Ø D0 | Free length L0 | Rate C N/mm | Max. deflection (mm) | Max. load (N) | Stock* | Price each 1 to 4 |
|-------------|---------|---------------|----------------|-------------|----------------------|---------------|--------|-------------------|
| ET4093      | 0,55    | 2,80          | 8,80           | 7,03        | 2,00                 | 16,00         | -      | 9,71 €            |
| ET4094      | 0,55    | 2,80          | 12,10          | 4,39        | 3,20                 | 16,00         | -      | 9,71 €            |
| ET4095      | 0,55    | 2,80          | 17,00          | 2,81        | 5,00                 | 16,00         | -      | 9,71 €            |
| ET4096      | 0,55    | 3,50          | 9,90           | 3,12        | 3,70                 | 13,00         | -      | 9,71 €            |
| ET4097      | 0,55    | 3,50          | 13,20          | 1,95        | 5,90                 | 13,00         | -      | 9,71 €            |
| ET4098      | 0,55    | 3,50          | 18,10          | 1,25        | 9,20                 | 13,00         | -      | 9,71 €            |
| ET4099      | 0,55    | 3,50          | 26,40          | 0,77        | 14,70                | 13,00         | ✓      | 9,71 €            |
| ET4100      | 0,55    | 6,00          | 13,90          | 0,50        | 14,10                | 8,00          | ✓      | 9,71 €            |
| ET4101      | 0,55    | 6,00          | 17,20          | 0,31        | 22,50                | 8,00          | ✓      | 9,71 €            |
| ET4102      | 0,55    | 6,00          | 22,10          | 0,20        | 35,10                | 8,00          | ✓      | 9,71 €            |
| ET4103      | 0,55    | 6,00          | 30,40          | 0,13        | 56,20                | 8,00          | ✓      | 9,71 €            |
| ET4104      | 0,55    | 6,00          | 41,40          | 0,09        | 84,30                | 8,00          | ✓      | 9,71 €            |
| ET4105      | 0,63    | 3,00          | 9,70           | 10,39       | 1,90                 | 22,00         | -      | 9,71 €            |
| ET4106      | 0,63    | 3,00          | 13,50          | 6,45        | 3,00                 | 22,00         | -      | 9,71 €            |
| ET4107      | 0,63    | 3,00          | 19,20          | 4,13        | 4,60                 | 22,00         | -      | 9,71 €            |
| ET4108      | 0,63    | 4,50          | 12,10          | 2,38        | 5,70                 | 15,00         | ✓      | 9,71 €            |
| ET4109      | 0,63    | 4,50          | 15,90          | 1,49        | 9,00                 | 15,00         | ✓      | 9,71 €            |
| ET4110      | 0,63    | 4,50          | 21,60          | 0,95        | 14,11                | 15,00         | ✓      | 9,71 €            |
| ET4111      | 0,63    | 4,50          | 31,00          | 0,60        | 22,60                | 15,00         | ✓      | 9,71 €            |
| ET4112      | 0,63    | 7,00          | 16,10          | 0,53        | 16,60                | 10,00         | ✓      | 9,71 €            |
| ET4113      | 0,63    | 7,00          | 19,90          | 0,33        | 26,60                | 10,00         | ✓      | 9,71 €            |
| ET4114      | 0,63    | 7,00          | 25,60          | 0,21        | 41,60                | 10,00         | ✓      | 9,71 €            |
| ET4115      | 0,63    | 7,00          | 35,00          | 0,14        | 66,50                | 10,00         | ✓      | 9,71 €            |
| ET4116      | 0,63    | 7,00          | 47,60          | 0,09        | 99,70                | 10,00         | ✓      | 9,71 €            |
| ET4117      | 0,70    | 3,50          | 11,10          | 9,53        | 2,40                 | 26,00         | -      | 9,71 €            |
| ET4118      | 0,70    | 3,50          | 15,30          | 5,97        | 3,80                 | 26,00         | -      | 9,71 €            |
| ET4119      | 0,70    | 3,50          | 21,60          | 3,81        | 5,90                 | 26,00         | -      | 9,71 €            |
| ET4120      | 0,70    | 5,00          | 13,50          | 2,64        | 6,30                 | 19,00         | -      | 9,71 €            |
| ET4121      | 0,70    | 5,00          | 17,70          | 1,65        | 10,00                | 19,00         | ✓      | 9,71 €            |
| ET4122      | 0,70    | 5,00          | 24,00          | 1,06        | 15,60                | 19,00         | -      | 9,71 €            |
| ET4123      | 0,70    | 5,00          | 34,50          | 0,66        | 25,00                | 19,00         | ✓      | 9,71 €            |
| ET4124      | 0,70    | 7,50          | 17,50          | 0,67        | 16,90                | 13,00         | ✓      | 9,71 €            |
| ET4125      | 0,70    | 7,50          | 21,70          | 0,42        | 27,00                | 13,00         | ✓      | 9,71 €            |
| ET4126      | 0,70    | 7,50          | 28,00          | 0,27        | 42,20                | 13,00         | ✓      | 9,71 €            |
| ET4127      | 0,70    | 7,50          | 38,50          | 0,17        | 67,50                | 13,00         | ✓      | 9,71 €            |
| ET4128      | 0,70    | 7,50          | 52,50          | 0,11        | 101,00               | 13,00         | ✓      | 9,71 €            |
| ET4129      | 0,80    | 4,00          | 12,60          | 10,91       | 2,70                 | 34,00         | ✓      | 9,71 €            |
| ET4130      | 0,80    | 4,00          | 17,40          | 6,87        | 4,30                 | 34,00         | -      | 9,71 €            |
| ET4131      | 0,80    | 4,00          | 24,60          | 4,38        | 6,70                 | 34,00         | -      | 9,71 €            |
| ET4132      | 0,80    | 5,50          | 15,00          | 3,44        | 6,40                 | 26,00         | -      | 9,71 €            |
| ET4133      | 0,80    | 5,50          | 19,80          | 2,15        | 10,20                | 26,00         | ✓      | 9,71 €            |
| ET4134      | 0,80    | 5,50          | 27,00          | 1,37        | 16,00                | 26,00         | ✓      | 9,71 €            |
| ET4135      | 0,80    | 5,50          | 39,00          | 0,86        | 25,60                | 26,00         | ✓      | 9,71 €            |
| ET4136      | 0,80    | 5,50          | 290,00         | 0,09        | 225,00               | 26,00         | ✓      | 17,43 €           |

\*Depending on availability - Dimensions in mm

# Extension springs **DIN 2097**



## ET Ø0,8-Ø1

## Stainless steel piano wire

### - Materials:

Piano springs: Stainless steel conforming to DIN17224,

Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to DIN 2097. Position may vary.

- Tolerances: All the dimensions and load values given conform

to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

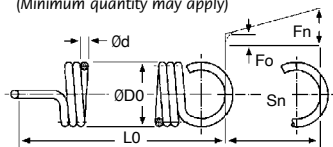


### Info.

- Springs should not be stretched greater than the maximum elongation value or permanent damage may result.

- For custom made springs, please contact us (Minimum quantity may apply)

**250+ pieces  
Contact us.**



### DISCOUNTS

| Qty   | 1+   | 5+   | 25+  | 50+  | 100+       |
|-------|------|------|------|------|------------|
| Disc. | List | -10% | -20% | -30% | On request |

| Part number | Wire Ød | External Ø D0 | Free length L0 | Rate C N/mm | Max. deflection (mm) | Max. load (N) | Stock* | Price each 1 to 4 |
|-------------|---------|---------------|----------------|-------------|----------------------|---------------|--------|-------------------|
| ET4137      | 0,80    | 9,00          | 20,60          | 0,65        | 21,40                | 16,00         | ✓      | 9,71 €            |
| ET4138      | 0,80    | 9,00          | 25,40          | 0,40        | 34,30                | 16,00         | ✓      | 9,71 €            |
| ET4139      | 0,80    | 9,00          | 32,60          | 0,26        | 53,50                | 16,00         | ✓      | 9,71 €            |
| ET4140      | 0,80    | 9,00          | 44,60          | 0,16        | 85,60                | 16,00         | ✓      | 9,71 €            |
| ET4141      | 0,80    | 9,00          | 60,60          | 0,11        | 128,00               | 16,00         | ✓      | 9,71 €            |
| ET4142      | 0,90    | 4,50          | 14,20          | 12,28       | 3,00                 | 42,00         | ✓      | 9,71 €            |
| ET4143      | 0,90    | 4,50          | 19,60          | 7,70        | 4,70                 | 42,00         | -      | 9,71 €            |
| ET4144      | 0,90    | 4,50          | 27,70          | 4,92        | 7,40                 | 42,00         | -      | 9,71 €            |
| ET4145      | 0,90    | 6,30          | 17,10          | 3,63        | 7,40                 | 31,00         | -      | 9,71 €            |
| ET4146      | 0,90    | 6,30          | 22,50          | 2,28        | 11,90                | 31,00         | ✓      | 9,71 €            |
| ET4147      | 0,90    | 6,30          | 30,60          | 1,46        | 18,60                | 31,00         | ✓      | 9,71 €            |
| ET4148      | 0,90    | 6,30          | 44,10          | 0,91        | 29,70                | 31,00         | ✓      | 9,71 €            |
| ET4149      | 0,90    | 10,00         | 23,00          | 0,76        | 23,10                | 20,00         | ✓      | 9,71 €            |
| ET4150      | 0,90    | 10,00         | 28,40          | 0,47        | 36,90                | 20,00         | ✓      | 9,71 €            |
| ET4151      | 0,90    | 10,00         | 36,50          | 0,30        | 57,60                | 20,00         | ✓      | 9,71 €            |
| ET4152      | 0,90    | 10,00         | 50,00          | 0,20        | 92,20                | 20,00         | ✓      | 9,71 €            |
| ET4153      | 0,90    | 10,00         | 68,00          | 0,13        | 138,00               | 20,00         | ✓      | 9,71 €            |
| ET4154      | 1,00    | 5,00          | 15,80          | 13,66       | 3,30                 | 51,00         | -      | 9,71 €            |
| ET4155      | 1,00    | 5,00          | 21,80          | 8,50        | 5,20                 | 51,00         | ✓      | 9,71 €            |
| ET4156      | 1,00    | 5,00          | 30,80          | 5,47        | 8,10                 | 51,00         | ✓      | 9,71 €            |
| ET4157      | 1,00    | 7,00          | 19,00          | 4,05        | 8,20                 | 38,00         | ✓      | 9,71 €            |
| ET4158      | 1,00    | 7,00          | 25,00          | 2,53        | 13,10                | 38,00         | ✓      | 9,71 €            |
| ET4159      | 1,00    | 7,00          | 34,00          | 1,57        | 20,40                | 38,00         | ✓      | 9,71 €            |

\*Depending on availability - Dimensions in mm

**- Materials:**

Piano springs: Stainless steel conforming to DIN17224, Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to DIN 2097. Position may vary.

- Tolerances: All the dimensions and load values given conform to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

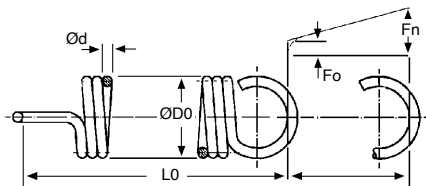
**75+ pieces  
Contact us.**



**Info.**

- Springs should not be stretched greater than the maximum elongation value or permanent damage may result.

- For custom made springs, please contact us (Minimum quantity may apply)



**DISCOUNTS**

|              |      |     |      |            |
|--------------|------|-----|------|------------|
| <b>Qty</b>   | 1+   | 5+  | 10+  | 25+        |
| <b>Disc.</b> | List | -5% | -20% | On request |

| Part number | Wire Ød | External Ø D0 | Free length L0 | Rate C N/mm | Max. deflection (mm) | Max. load (N) | Stock* | Price each 1 to 4 |
|-------------|---------|---------------|----------------|-------------|----------------------|---------------|--------|-------------------|
| ET4160      | 1,00    | 7,00          | 49,00          | 1,01        | 32,70                | 38,00         | -      | 7,26 €            |
| ET4161      | 1,00    | 7,00          | 290,00         | 0,16        | 220,00               | 38,00         | -      | 9,18 €            |
| ET4162      | 1,00    | 11,00         | 25,40          | 0,88        | 24,80                | 25,00         | ✓      | 7,26 €            |
| ET4163      | 1,00    | 11,00         | 31,40          | 0,55        | 39,60                | 25,00         | ✓      | 7,26 €            |
| ET4164      | 1,00    | 11,00         | 40,40          | 0,35        | 61,90                | 25,00         | ✓      | 7,26 €            |
| ET4165      | 1,00    | 11,00         | 55,40          | 0,22        | 99,00                | 25,00         | ✓      | 7,26 €            |
| ET4166      | 1,00    | 11,00         | 75,40          | 0,15        | 149,00               | 25,00         | ✓      | 7,26 €            |
| ET4167      | 1,10    | 5,50          | 17,40          | 15,03       | 3,50                 | 61,00         | -      | 7,26 €            |
| ET4168      | 1,10    | 5,50          | 24,00          | 9,45        | 5,70                 | 61,00         | -      | 7,26 €            |
| ET4169      | 1,10    | 5,50          | 33,90          | 6,01        | 8,80                 | 61,00         | ✓      | 7,26 €            |
| ET4170      | 1,10    | 7,50          | 20,60          | 4,89        | 8,30                 | 47,00         | -      | 7,26 €            |
| ET4171      | 1,10    | 7,50          | 27,20          | 3,05        | 13,30                | 47,00         | ✓      | 7,26 €            |
| ET4172      | 1,10    | 7,50          | 37,10          | 1,96        | 20,80                | 47,00         | ✓      | 7,26 €            |
| ET4173      | 1,10    | 7,50          | 53,60          | 1,22        | 33,20                | 47,00         | -      | 7,26 €            |

\*Depending on availability - Dimensions in mm

# Extension springs **DIN 2097**



## ET Ø1,1-Ø1,8

## Stainless steel piano wire

### - Materials:

Piano springs: Stainless steel conforming to  
DIN17224, Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to  
DIN 2097. Position may vary.

- Tolerances: All the dimensions and load  
values given conform to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or  
medium dynamic loads

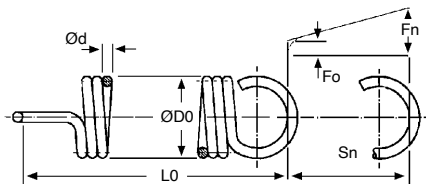


**75+ pieces  
Contact us.**

### Info.

- Springs should not be stretched greater than  
the maximum elongation value or permanent  
damage may result.

- For custom made springs,  
please contact us  
(Minimum quantity may apply)



### DISCOUNTS

| Qty   | 1+   | 5+  | 10+  | 25+        |
|-------|------|-----|------|------------|
| Disc. | List | -5% | -20% | On request |

| Part number | Free Wire Ød | Rate Ø D0 | Max length L0 | Max C N/mm | deflection (mm) | load (N) | Stock <sup>1</sup> | Price each 1 to 4 |
|-------------|--------------|-----------|---------------|------------|-----------------|----------|--------------------|-------------------|
| ET4174      | 1,10         | 12,00     | 27,80         | 0,99       | 26,40           | 30,00    | -                  | 7,26 €            |
| ET4175      | 1,10         | 12,00     | 34,40         | 0,62       | 42,30           | 30,00    | ✓                  | 7,26 €            |
| ET4176      | 1,10         | 12,00     | 44,30         | 0,40       | 66,10           | 30,00    | ✓                  | 7,26 €            |
| ET4177      | 1,10         | 12,00     | 60,80         | 0,24       | 106,00          | 30,00    | ✓                  | 7,26 €            |
| ET4178      | 1,10         | 12,00     | 82,80         | 0,17       | 159,00          | 30,00    | ✓                  | 7,26 €            |
| ET4179      | 1,20         | 6,00      | 19,00         | 16,40      | 3,80            | 72,00    | -                  | 7,26 €            |
| ET4180      | 1,20         | 6,00      | 26,20         | 10,31      | 6,10            | 72,00    | -                  | 7,26 €            |
| ET4181      | 1,20         | 6,00      | 37,00         | 6,55       | 9,50            | 72,00    | -                  | 7,26 €            |
| ET4182      | 1,20         | 8,50      | 23,00         | 4,66       | 9,90            | 53,00    | ✓                  | 7,97 €            |
| ET4183      | 1,20         | 8,50      | 30,20         | 2,91       | 15,80           | 53,00    | ✓                  | 7,97 €            |
| ET4184      | 1,20         | 8,50      | 41,00         | 1,86       | 24,60           | 53,00    | ✓                  | 7,97 €            |
| ET4185      | 1,20         | 8,50      | 59,00         | 1,16       | 39,60           | 53,00    | -                  | 7,97 €            |
| ET4186      | 1,20         | 8,50      | 290,00        | 0,21       | 225,00          | 53,00    | -                  | 8,94 €            |

<sup>1</sup>Depending on availability - Dimensions in mm

| Part number | Free Wire Ød | Rate Ø D0 | Max length L0 | Max C N/mm | deflection (mm) | load (N) | Stock* | Price each 1 to 4 |
|-------------|--------------|-----------|---------------|------------|-----------------|----------|--------|-------------------|
| ET4187      | 1,20         | 13,00     | 30,20         | 1,10       | 27,90           | 36,00    | -      | 7,97 €            |
| ET4188      | 1,20         | 13,00     | 37,40         | 0,69       | 44,70           | 36,00    | -      | 7,97 €            |
| ET4189      | 1,20         | 13,00     | 48,20         | 0,44       | 69,80           | 36,00    | ✓      | 7,97 €            |
| ET4190      | 1,20         | 13,00     | 66,20         | 0,27       | 112,00          | 36,00    | ✓      | 7,97 €            |
| ET4191      | 1,20         | 13,00     | 90,20         | 0,18       | 168,00          | 36,00    | -      | 7,97 €            |
| ET4192      | 1,40         | 7,00      | 22,10         | 19,15      | 4,40            | 95,00    | -      | 7,97 €            |
| ET4193      | 1,40         | 7,00      | 30,50         | 11,94      | 7,00            | 95,00    | -      | 7,97 €            |
| ET4194      | 1,40         | 7,00      | 43,10         | 7,65       | 10,90           | 95,00    | ✓      | 7,97 €            |
| ET4195      | 1,40         | 10,00     | 26,90         | 5,27       | 11,60           | 70,00    | -      | 7,97 €            |
| ET4196      | 1,40         | 10,00     | 35,30         | 3,29       | 18,50           | 70,00    | -      | 7,97 €            |
| ET4197      | 1,40         | 10,00     | 47,90         | 2,11       | 28,90           | 70,00    | ✓      | 7,97 €            |
| ET4198      | 1,40         | 10,00     | 68,90         | 1,32       | 46,20           | 70,00    | -      | 7,97 €            |
| ET4199      | 1,40         | 10,00     | 290,00        | 0,27       | 220,00          | 70,00    | -      | 9,18 €            |
| ET4200      | 1,40         | 15,00     | 34,90         | 1,33       | 31,20           | 48,00    | -      | 7,97 €            |
| ET4201      | 1,40         | 15,00     | 43,30         | 0,83       | 50,00           | 48,00    | ✓      | 7,97 €            |
| ET4202      | 1,40         | 15,00     | 55,90         | 0,53       | 78,10           | 48,00    | ✓      | 7,97 €            |
| ET4203      | 1,40         | 15,00     | 76,90         | 0,33       | 125,00          | 48,00    | ✓      | 7,97 €            |
| ET4204      | 1,40         | 15,00     | 105,00        | 0,22       | 187,00          | 48,00    | ✓      | 8,42 €            |
| ET4205      | 1,60         | 8,00      | 25,30         | 21,82      | 4,90            | 122,00   | -      | 7,97 €            |
| ET4206      | 1,60         | 8,00      | 34,90         | 13,66      | 7,80            | 122,00   | -      | 7,97 €            |
| ET4207      | 1,60         | 8,00      | 49,30         | 8,76       | 12,20           | 122,00   | ✓      | 7,97 €            |
| ET4208      | 1,60         | 11,00     | 30,10         | 6,91       | 11,70           | 93,00    | -      | 7,97 €            |
| ET4209      | 1,60         | 11,00     | 39,70         | 4,31       | 18,70           | 93,00    | -      | 7,97 €            |
| ET4210      | 1,60         | 11,00     | 54,10         | 2,77       | 29,30           | 93,00    | ✓      | 7,97 €            |
| ET4211      | 1,60         | 11,00     | 78,10         | 1,73       | 46,80           | 93,00    | ✓      | 7,97 €            |
| ET4212      | 1,60         | 17,00     | 39,70         | 1,56       | 34,30           | 63,00    | -      | 7,97 €            |
| ET4213      | 1,60         | 17,00     | 49,30         | 0,98       | 54,80           | 63,00    | -      | 7,97 €            |
| ET4214      | 1,60         | 17,00     | 63,70         | 0,63       | 85,60           | 63,00    | -      | 7,97 €            |
| ET4215      | 1,60         | 17,00     | 87,70         | 0,40       | 137,00          | 63,00    | ✓      | 7,97 €            |
| ET4216      | 1,60         | 17,00     | 120,00        | 0,26       | 205,00          | 63,00    | -      | 8,42 €            |
| ET4217      | 1,80         | 9,00      | 28,40         | 24,56      | 5,40            | 152,00   | -      | 7,97 €            |
| ET4218      | 1,80         | 9,00      | 39,20         | 15,29      | 8,60            | 152,00   | -      | 7,97 €            |
| ET4219      | 1,80         | 9,00      | 55,40         | 9,88       | 13,40           | 152,00   | -      | 7,97 €            |
| ET4220      | 1,80         | 12,00     | 33,20         | 8,67       | 11,90           | 119,00   | -      | 7,97 €            |
| ET4221      | 1,80         | 12,00     | 44,00         | 5,39       | 19,00           | 119,00   | ✓      | 7,97 €            |
| ET4222      | 1,80         | 12,00     | 60,20         | 3,45       | 29,70           | 119,00   | ✓      | 7,97 €            |
| ET4223      | 1,80         | 12,00     | 87,20         | 2,16       | 47,60           | 119,00   | ✓      | 7,97 €            |
| ET4224      | 1,80         | 12,00     | 290,00        | 0,58       | 175,00          | 119,00   | -      | 8,78 €            |
| ET4225      | 1,80         | 20,00     | 46,00         | 1,53       | 41,90           | 73,00    | -      | 7,97 €            |
| ET4226      | 1,80         | 20,00     | 56,80         | 0,95       | 67,00           | 73,00    | ✓      | 7,97 €            |
| ET4227      | 1,80         | 20,00     | 73,00         | 0,61       | 105,00          | 73,00    | ✓      | 8,17 €            |
| ET4228      | 1,80         | 20,00     | 100,00        | 0,38       | 167,00          | 73,00    | -      | 8,42 €            |
| ET4229      | 1,80         | 20,00     | 136,00        | 0,25       | 251,00          | 73,00    | -      | 8,42 €            |

\*Depending on availability - Dimensions in mm

# Extension springs **DIN 2097**



## ET Ø2-Ø3,2

## Stainless steel piano wire

### - Materials:

Piano springs: Stainless steel conforming to DIN17224, Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to DIN 2097. Position may vary.

- Tolerances: All the dimensions and load values given conform to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

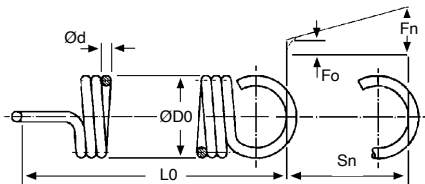


**75+ pieces  
Contact us.**

### Info.

- Springs should not be stretched greater than the maximum elongation value or permanent damage may result.

- For custom made springs, please contact us (Minimum quantity may apply)



### DISCOUNTS

| Qty   | 1+   | 5+  | 10+  | 25+        |
|-------|------|-----|------|------------|
| Disc. | List | -5% | -20% | On request |

| Part number | Free Wire Ød | Rate Ø D0 | Max length L0 | Max C N/mm | deflection (mm) | load (N) | Stock* | Price each 1 to 4 |
|-------------|--------------|-----------|---------------|------------|-----------------|----------|--------|-------------------|
| ET4230      | 2,00         | 10,00     | 31,60         | 27,31      | 5,90            | 185,00   | -      | 8,78 €            |
| ET4231      | 2,00         | 10,00     | 43,60         | 17,09      | 9,40            | 185,00   | -      | 8,78 €            |
| ET4232      | 2,00         | 10,00     | 61,60         | 10,99      | 14,70           | 185,00   | -      | 8,78 €            |
| ET4233      | 2,00         | 14,00     | 38,00         | 8,09       | 14,70           | 138,00   | -      | 8,78 €            |
| ET4234      | 2,00         | 14,00     | 50,00         | 5,05       | 23,60           | 138,00   | -      | 8,78 €            |
| ET4235      | 2,00         | 14,00     | 68,00         | 3,24       | 36,90           | 138,00   | -      | 8,78 €            |
| ET4236      | 2,00         | 14,00     | 98,00         | 2,02       | 59,00           | 138,00   | -      | 8,78 €            |
| ET4237      | 2,00         | 22,00     | 50,80         | 1,74       | 44,70           | 90,00    | ✓      | 8,94 €            |
| ET4238      | 2,00         | 22,00     | 62,80         | 1,09       | 71,50           | 90,00    | ✓      | 8,94 €            |
| ET4239      | 2,00         | 22,00     | 80,80         | 0,70       | 112,00          | 90,00    | -      | 8,94 €            |
| ET4240      | 2,00         | 22,00     | 111,00        | 0,44       | 179,00          | 90,00    | ✓      | 8,94 €            |
| ET4241      | 2,00         | 22,00     | 151,00        | 0,29       | 268,00          | 90,00    | -      | 9,18 €            |

\*Depending on availability - Dimensions in mm

| Part number | Free Wire Ød | Rate Ø D0 | Max length L0 | Max C N/mm | deflection (mm) | load (N) | Stock <sup>1</sup> | Price each 1 to 4 |
|-------------|--------------|-----------|---------------|------------|-----------------|----------|--------------------|-------------------|
| ET4242      | 2,20         | 11,00     | 34,80         | 30,06      | 6,30            | 220,00   | -                  | 8,94 €            |
| ET4243      | 2,20         | 11,00     | 48,00         | 18,81      | 10,10           | 220,00   | -                  | 8,94 €            |
| ET4244      | 2,20         | 11,00     | 67,80         | 12,02      | 15,80           | 220,00   | -                  | 8,94 €            |
| ET4245      | 2,20         | 15,00     | 41,20         | 9,79       | 14,80           | 168,00   | ✓                  | 8,94 €            |
| ET4246      | 2,20         | 15,00     | 54,40         | 6,10       | 23,70           | 168,00   | ✓                  | 8,94 €            |
| ET4247      | 2,20         | 15,00     | 74,20         | 3,91       | 37,00           | 168,00   | -                  | 8,94 €            |
| ET4248      | 2,20         | 15,00     | 107,00        | 2,44       | 59,20           | 168,00   | ✓                  | 8,94 €            |
| ET4249      | 2,20         | 24,00     | 55,60         | 1,98       | 47,10           | 108,00   | -                  | 8,94 €            |
| ET4250      | 2,20         | 24,00     | 68,80         | 1,24       | 75,30           | 108,00   | -                  | 8,94 €            |
| ET4251      | 2,20         | 24,00     | 88,60         | 0,79       | 118,00          | 108,00   | ✓                  | 8,94 €            |
| ET4252      | 2,20         | 24,00     | 122,00        | 0,50       | 188,00          | 108,00   | ✓                  | 8,94 €            |
| ET4253      | 2,20         | 24,00     | 166,00        | 0,33       | 282,00          | 108,00   | -                  | 9,47 €            |
| ET4254      | 2,50         | 13,00     | 40,30         | 29,46      | 7,80            | 270,00   | -                  | 8,94 €            |
| ET4255      | 2,50         | 13,00     | 55,30         | 18,47      | 12,50           | 270,00   | -                  | 8,94 €            |
| ET4256      | 2,50         | 13,00     | 77,80         | 11,77      | 19,60           | 270,00   | -                  | 8,94 €            |
| ET4257      | 2,50         | 18,00     | 48,30         | 9,19       | 18,90           | 200,00   | -                  | 8,94 €            |
| ET4258      | 2,50         | 18,00     | 63,30         | 5,73       | 30,30           | 200,00   | ✓                  | 8,94 €            |
| ET4259      | 2,50         | 18,00     | 85,80         | 3,67       | 47,30           | 200,00   | ✓                  | 8,94 €            |
| ET4260      | 2,50         | 18,00     | 123,00        | 2,29       | 75,70           | 200,00   | -                  | 8,94 €            |
| ET4261      | 2,50         | 28,00     | 64,30         | 2,05       | 55,60           | 133,00   | -                  | 8,94 €            |
| ET4262      | 2,50         | 28,00     | 79,30         | 1,29       | 88,90           | 133,00   | -                  | 8,94 €            |
| ET4263      | 2,50         | 28,00     | 102,00        | 0,82       | 139,00          | 133,00   | -                  | 8,94 €            |
| ET4264      | 2,50         | 28,00     | 139,00        | 0,52       | 222,00          | 133,00   | -                  | 9,18 €            |
| ET4265      | 2,50         | 28,00     | 189,00        | 0,34       | 333,00          | 133,00   | -                  | 9,47 €            |
| ET4266      | 2,80         | 14,00     | 44,20         | 38,31      | 7,70            | 340,00   | -                  | 8,94 €            |
| ET4267      | 2,80         | 14,00     | 61,00         | 23,96      | 12,20           | 340,00   | -                  | 8,94 €            |
| ET4268      | 2,80         | 14,00     | 86,20         | 15,37      | 19,10           | 340,00   | -                  | 8,94 €            |
| ET4269      | 2,80         | 20,00     | 53,80         | 10,56      | 20,30           | 250,00   | -                  | 8,94 €            |
| ET4270      | 2,80         | 20,00     | 70,60         | 6,60       | 32,40           | 250,00   | ✓                  | 8,94 €            |
| ET4271      | 2,80         | 20,00     | 95,80         | 4,22       | 50,60           | 250,00   | ✓                  | 8,94 €            |
| ET4272      | 2,80         | 20,00     | 138,00        | 2,64       | 81,00           | 250,00   | -                  | 8,94 €            |
| ET4273      | 2,80         | 30,00     | 69,80         | 2,67       | 54,70           | 170,00   | -                  | 8,94 €            |
| ET4274      | 2,80         | 30,00     | 86,60         | 1,67       | 87,60           | 170,00   | -                  | 8,94 €            |
| ET4275      | 2,80         | 30,00     | 112,00        | 1,07       | 137,00          | 170,00   | -                  | 8,94 €            |
| ET4276      | 2,80         | 30,00     | 154,00        | 0,67       | 219,00          | 170,00   | -                  | 9,47 €            |
| ET4277      | 2,80         | 30,00     | 210,00        | 0,45       | 328,00          | 170,00   | -                  | 9,95 €            |
| ET4278      | 3,20         | 16,00     | 50,60         | 43,72      | 8,50            | 435,00   | -                  | 8,94 €            |
| ET4279      | 3,20         | 16,00     | 69,80         | 27,31      | 13,60           | 435,00   | -                  | 8,94 €            |
| ET4280      | 3,20         | 16,00     | 98,60         | 17,52      | 21,30           | 435,00   | -                  | 8,94 €            |
| ET4281      | 3,20         | 22,00     | 60,20         | 13,83      | 20,50           | 330,00   | -                  | 9,18 €            |
| ET4282      | 3,20         | 22,00     | 79,40         | 8,59       | 32,70           | 330,00   | -                  | 9,18 €            |
| ET4283      | 3,20         | 22,00     | 108,00        | 5,57       | 51,10           | 330,00   | -                  | 9,18 €            |
| ET4284      | 3,20         | 22,00     | 156,00        | 3,45       | 81,80           | 330,00   | -                  | 9,47 €            |

<sup>1</sup>Depending on availability - Dimensions in mm



# Extension springs **DIN 2097**



## ET Ø3,2-Ø5

## Stainless steel piano wire

### - Materials:

Piano springs: Stainless steel conforming to DIN17224, Stainless steel 12CrNi17.7

- Ends: Closed German loops conforming to DIN 2097. Position may vary.

- Tolerances: All the dimensions and load values given conform to DIN2097 (Grade 2)

- Initial tension  $F_0 = \text{Max load} \times 0.08$

- These springs are recommended for static or medium dynamic loads

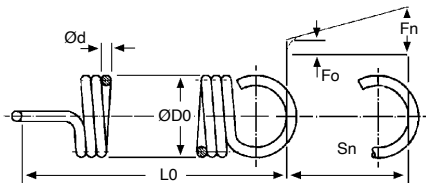
**75+ pieces  
Contact us.**



### Info.

- Springs should not be stretched greater than the maximum elongation value or permanent damage may result.

- For custom made springs, please contact us (Minimum quantity may apply)



### DISCOUNTS

|       |      |     |      |            |
|-------|------|-----|------|------------|
| Qty   | 1+   | 5+  | 10+  | 25+        |
| Disc. | List | -5% | -20% | On request |

| Part number | Free Wire Ød | Rate Ø D0 | Max. length L0 | Max. C N/mm | deflection (mm) | load (N) | Price each 1 to 4 |
|-------------|--------------|-----------|----------------|-------------|-----------------|----------|-------------------|
| ET4285      | 3,20         | 36,00     | 82,60          | 2,59        | 68,40           | 205,00   | 9,18 €            |
| ET4286      | 3,20         | 36,00     | 102,00         | 1,62        | 109,00          | 205,00   | 9,18 €            |
| ET4287      | 3,20         | 36,00     | 131,00         | 1,04        | 171,00          | 205,00   | 9,47 €            |
| ET4288      | 3,20         | 36,00     | 179,00         | 0,65        | 274,00          | 205,00   | 9,79 €            |
| ET4289      | 3,20         | 36,00     | 243,00         | 0,43        | 410,00          | 205,00   | 14,07 €           |
| ET4290      | 3,60         | 18,00     | 56,90          | 49,13       | 9,40            | 540,00   | 16,10 €           |
| ET4291      | 3,60         | 18,00     | 78,50          | 30,75       | 15,00           | 540,00   | 16,10 €           |
| ET4292      | 3,60         | 18,00     | 111,00         | 19,67       | 23,40           | 540,00   | 16,10 €           |
| ET4293      | 3,60         | 25,00     | 68,10          | 15,03       | 23,00           | 405,00   | 16,10 €           |
| ET4294      | 3,60         | 25,00     | 89,70          | 9,36        | 36,80           | 405,00   | 16,10 €           |
| ET4295      | 3,60         | 25,00     | 122,00         | 6,00        | 57,60           | 405,00   | 16,10 €           |
| ET4296      | 3,60         | 25,00     | 176,00         | 3,75        | 92,10           | 405,00   | 16,76 €           |

Dimensions in mm

| Part number | Free Wire Ød | Rate Ø D0 | Max. length L0 | Max. C N/mm | deflection (mm) | load (N) | Price each 1 to 4 |
|-------------|--------------|-----------|----------------|-------------|-----------------|----------|-------------------|
| ET4297      | 3,60         | 40,00     | 92,10          | 3,04        | 72,90           | 260,00   | 16,10 €           |
| ET4298      | 3,60         | 40,00     | 114,00         | 1,91        | 117,00          | 260,00   | 16,10 €           |
| ET4299      | 3,60         | 40,00     | 146,00         | 1,22        | 182,00          | 260,00   | 16,76 €           |
| ET4300      | 3,60         | 40,00     | 200,00         | 0,76        | 292,00          | 260,00   | 16,76 €           |
| ET4301      | 3,60         | 40,00     | 272,00         | 0,51        | 437,00          | 260,00   | 17,20 €           |
| ET4302      | 4,00         | 20,00     | 63,20          | 54,63       | 10,10           | 650,00   | 16,76 €           |
| ET4303      | 4,00         | 20,00     | 87,20          | 34,10       | 16,20           | 650,00   | 16,76 €           |
| ET4304      | 4,00         | 20,00     | 123,00         | 21,82       | 25,30           | 650,00   | 16,76 €           |
| ET4305      | 4,00         | 28,00     | 76,00          | 16,15       | 25,40           | 480,00   | 16,76 €           |
| ET4306      | 4,00         | 28,00     | 100,00         | 10,13       | 40,70           | 480,00   | 16,76 €           |
| ET4307      | 4,00         | 28,00     | 136,00         | 6,48        | 63,60           | 480,00   | 17,01 €           |
| ET4308      | 4,00         | 28,00     | 196,00         | 4,05        | 102,00          | 480,00   | 17,20 €           |
| ET4309      | 4,00         | 45,00     | 103,00         | 3,25        | 81,20           | 310,00   | 17,20 €           |
| ET4310      | 4,00         | 45,00     | 127,00         | 2,03        | 130,00          | 310,00   | 17,20 €           |
| ET4311      | 4,00         | 45,00     | 163,00         | 1,30        | 203,00          | 310,00   | 18,15 €           |
| ET4312      | 4,00         | 45,00     | 223,00         | 0,81        | 325,00          | 310,00   | 21,28 €           |
| ET4313      | 4,00         | 45,00     | 303,00         | 0,54        | 487,00          | 310,00   | 26,05 €           |
| ET4314      | 4,50         | 22,00     | 70,30          | 66,91       | 10,40           | 810,00   | 17,20 €           |
| ET4315      | 4,50         | 22,00     | 97,30          | 41,83       | 16,60           | 810,00   | 18,15 €           |
| ET4316      | 4,50         | 22,00     | 138,00         | 26,80       | 25,90           | 810,00   | 18,15 €           |
| ET4317      | 4,50         | 32,00     | 86,30          | 17,26       | 29,00           | 580,00   | 18,15 €           |
| ET4318      | 4,50         | 32,00     | 113,00         | 10,82       | 46,40           | 580,00   | 18,15 €           |
| ET4319      | 4,50         | 32,00     | 154,00         | 6,90        | 72,60           | 580,00   | 18,93 €           |
| ET4320      | 4,50         | 32,00     | 221,00         | 4,30        | 116,00          | 580,00   | 19,52 €           |
| ET4321      | 4,50         | 50,00     | 115,00         | 3,80        | 86,40           | 380,00   | 18,15 €           |
| ET4322      | 4,50         | 50,00     | 142,00         | 2,38        | 138,00          | 380,00   | 18,93 €           |
| ET4323      | 4,50         | 50,00     | 183,00         | 1,53        | 216,00          | 380,00   | 19,52 €           |
| ET4324      | 4,50         | 50,00     | 250,00         | 0,95        | 346,00          | 380,00   | 21,28 €           |
| ET4325      | 4,50         | 50,00     | 340,00         | 0,64        | 518,00          | 380,00   | 22,40 €           |
| ET4326      | 5,00         | 25,00     | 79,00          | 68,28       | 11,90           | 940,00   | 18,15 €           |
| ET4327      | 5,00         | 25,00     | 109,00         | 42,69       | 19,00           | 940,00   | 18,15 €           |
| ET4328      | 5,00         | 25,00     | 154,00         | 27,31       | 29,70           | 940,00   | 17,20 €           |
| ET4329      | 5,00         | 36,00     | 96,60          | 18,38       | 32,20           | 685,00   | 18,15 €           |
| ET4330      | 5,00         | 36,00     | 127,00         | 11,42       | 51,50           | 685,00   | 17,20 €           |
| ET4331      | 5,00         | 36,00     | 172,00         | 7,33        | 80,40           | 685,00   | 17,20 €           |
| ET4332      | 5,00         | 36,00     | 247,00         | 4,59        | 129,00          | 685,00   | 21,28 €           |
| ET4333      | 5,00         | 55,00     | 127,00         | 4,37        | 90,60           | 460,00   | 18,93 €           |
| ET4334      | 5,00         | 55,00     | 157,00         | 2,73        | 145,00          | 460,00   | 19,52 €           |
| ET4335      | 5,00         | 55,00     | 202,00         | 1,75        | 226,00          | 460,00   | 21,28 €           |
| ET4336      | 5,00         | 55,00     | 277,00         | 1,10        | 362,00          | 460,00   | 22,40 €           |
| ET4337      | 5,00         | 55,00     | 377,00         | 0,72        | 544,00          | 460,00   | 24,14 €           |

Dimensions in mm

## Our other products



UGCG

Actuator guide kit,  
Long housing



ACL-APB

Closing system for  
aluminium profile,  
Magnetic door stop



Q6

Deep groove ball  
bearing, Steel



BSM\_LOK

Long-Lok spring  
plunger with internal  
hexagonal socket,  
LONG-LOK - s...



PR125

Articulated foot Ø123,  
Ø 123



H1

Crossed helical gear  
crossed axis at 90°,  
Steel 20NCD2



MEB

Moulded plastic bevel  
gear (nylon), 1:1



PRF1932

Standard aluminium  
profile, 19 x 32 mm



PTKFss

Fixable foot for the  
food industry,  
Ø 123



MSP23

Masterplate®  
glueable insert Ø23,  
Steel 20NCD2



UTKpwcr

Utilittrak® 3 wheels  
carriage, Polymer



DOMI30

Accessories, Plate

## Complementary products



T39\_T49

Extension spring in  
metre length steel, by  
the metre



T39\_T49

Extension spring in  
metre length stainless  
steel, by the metre