

## Thread Measuring Wires: 52-485-048

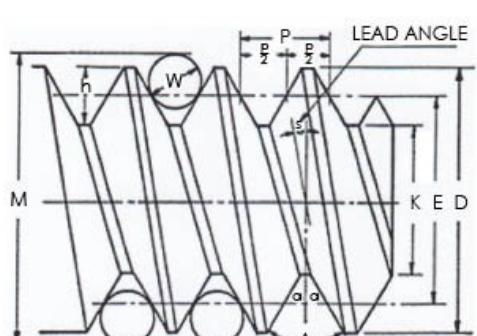
Page: 1 of 2



| Thread Measuring Wire Set includes:  |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
|--|-----------|----------|-----------------|-----------|-----------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 16 Sizes, each with 3 wires per size   |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| Diameter Sizes: Inch   |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| <table border="1"> <tr> <td>0.018"</td> <td>0.024"</td> <td>0.029"</td> <td>0.032"</td> <td>0.040"</td> <td>0.045"</td> </tr> <tr> <td>0.055"</td> <td>0.063"</td> <td>0.072"</td> <td>0.081"</td> <td>0.092"</td> <td>0.108"</td> </tr> <tr> <td>0.120"</td> <td>0.127"</td> <td>0.143"</td> <td>0.185"</td> <td>-----</td> <td>-----</td> </tr> </table> | 0.018"    | 0.024"   | 0.029"          | 0.032"    | 0.040"          | 0.045"    | 0.055" | 0.063" | 0.072" | 0.081" | 0.092" | 0.108" | 0.120" | 0.127" | 0.143" | 0.185" | ----- | ----- |
| 0.018"   | 0.024"    | 0.029"   | 0.032"          | 0.040"    | 0.045"          |           |        |        |        |        |        |        |        |        |        |        |       |       |
| 0.055"   | 0.063"    | 0.072"   | 0.081"          | 0.092"    | 0.108"          |           |        |        |        |        |        |        |        |        |        |        |       |       |
| 0.120"   | 0.127"    | 0.143"   | 0.185"          | -----     | -----           |           |        |        |        |        |        |        |        |        |        |        |       |       |
| Accuracy:  |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| <table border="1"> <thead> <tr> <th>Sizes</th> <th>Accuracy</th> </tr> </thead> <tbody> <tr> <td>0.018" – 0.108"</td> <td>± 0.0004"</td> </tr> <tr> <td>0.120" – 0.185"</td> <td>± 0.0005"</td> </tr> </tbody> </table>  | Sizes     | Accuracy | 0.018" – 0.108" | ± 0.0004" | 0.120" – 0.185" | ± 0.0005" |        |        |        |        |        |        |        |        |        |        |       |       |
| Sizes  | Accuracy  |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| 0.018" – 0.108"  | ± 0.0004" |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| 0.120" – 0.185"  | ± 0.0005" |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| Measures all U.S. 60° threads from 3 – 48 TPI.   |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |
| Laminated conversion chart for 60° metric threads included with each set   |           |          |                 |           |                 |           |        |        |        |        |        |        |        |        |        |        |       |       |

## Packed Weight and Dimensions

| Code       | Description            | Weight g | W mm | H mm | L mm |
|------------|------------------------|----------|------|------|------|
| 52-485-048 | Thread Measuring Wires | 130      | 90   | 8    | 90   |



|   |
|---|
| <b>M</b> Measurement over wires<br><b>E</b> Pitch diameter of thread<br><b>D</b> Basic Major diameter (Outside Diameter)<br><b>W</b> Wire diameter<br><b>P</b> Thread Pitch |
| Measured Pitch Diameter (E) equals measurement over wires (M) minus decimal in "CONST" column   |
| Note:   |
| Basic Pitch diameter = Basic Major diameter + decimal in "ADD" column – decimal in "CONST" column   |

## Instructions: Using Thread Wire Holders 52-016-707



|   |
|---|
| Select the correct set of wires to suit the thread to be measured<br>Select the holder to suit the wire size<br>Assemble 2 wires into the oval slot<br>Fit the holder to the micrometer anvil<br>With the holder and wires in place, hold the micrometer in one hand and the third wire in the other hand.<br>Operate the micrometer bringing the spindle and anvil together to touch the 3 wires which should be seated in the thread to be measured. Use the micrometer ratchet to achieve the final measurement<br><br>Measured Pitch diameter = M - CONST |
|---|

## Thread Measuring Wires

Page: 2 of 2

## Thread Chart for all U.S. 60° Threads

| Threads per Inch | Wire Size D | ADD     | CONST   |
|------------------|-------------|---------|---------|
| 48               | 0.018       | 0.02243 | 0.03596 |
| 44               | 0.018       | 0.01956 | 0.03432 |
| 40               | 0.018       | 0.01611 | 0.03235 |
| 36               | 0.018       | 0.01190 | 0.02994 |
| 32               | 0.024       | 0.02464 | 0.04494 |
| 28               | 0.024       | 0.01787 | 0.04107 |
| 27               | 0.024       | 0.01587 | 0.03993 |
| 24               | 0.029       | 0.02385 | 0.05092 |
| 20               | 0.029       | 0.01122 | 0.04370 |
| 18               | 0.032       | 0.01180 | 0.04789 |
| 16               | 0.040       | 0.02528 | 0.06587 |
| 14               | 0.040       | 0.01175 | 0.05814 |
| 13               | 0.045       | 0.01842 | 0.06838 |
| 12               | 0.055       | 0.03870 | 0.09283 |
| 11 ½             | 0.055       | 0.03321 | 0.08969 |
| 11               | 0.055       | 0.02722 | 0.08627 |
| 10               | 0.055       | 0.01345 | 0.07840 |
| 9                | 0.063       | 0.02061 | 0.09277 |
| 8                | 0.072       | 0.02656 | 0.10775 |
| 7 ½              | 0.081       | 0.04093 | 0.12753 |
| 7                | 0.081       | 0.02649 | 0.11928 |
| 6                | 0.092       | 0.02341 | 0.13166 |
| 5 ½              | 0.108       | 0.04845 | 0.16654 |
| 5                | 0.120       | 0.05689 | 0.18679 |
| 4 ½              | 0.127       | 0.04421 | 0.18855 |
| 4                | 0.143       | 0.05011 | 0.21249 |
| 3 ½              | 0.185       | 0.12199 | 0.30756 |
| 3                | 0.185       | 0.04982 | 0.26632 |

## Conversion Chart for 60° Metric Threads

| Pitch mm | Wire Size mm | Wire Size Inch | ADD mm | ADD Inch | CONST mm | CONST Inch |
|----------|--------------|----------------|--------|----------|----------|------------|
| 0.5      | 0.4572       | 0.018          | 0.6138 | 0.02417  | 0.9386   | 0.03695    |
| 0.6      | 0.4572       | 0.018          | 0.4623 | 0.01820  | 0.8520   | 0.03354    |
| 0.7      | 0.4572       | 0.018          | 0.3107 | 0.01223  | 0.7654   | 0.03013    |
| 0.75     | 0.4572       | 0.018          | 0.2349 | 0.00925  | 0.7221   | 0.02843    |
| 0.8      | 0.6096       | 0.024          | 0.6164 | 0.02427  | 1.1360   | 0.04472    |
| 1.0      | 0.6096       | 0.024          | 0.3133 | 0.01233  | 0.9628   | 0.03790    |
| 1.25     | 0.7366       | 0.029          | 0.3154 | 0.01242  | 1.1273   | 0.04438    |
| 1.5      | 1.0160       | 0.040          | 0.7747 | 0.03050  | 1.7490   | 0.06886    |
| 1.75     | 1.0160       | 0.040          | 0.3958 | 0.01558  | 1.5324   | 0.06033    |
| 2.0      | 1.1430       | 0.045          | 0.3979 | 0.01567  | 1.6969   | 0.06681    |
| 2.5      | 1.3970       | 0.055          | 0.4021 | 0.01583  | 2.0259   | 0.07976    |
| 3.0      | 1.6002       | 0.063          | 0.2540 | 0.01000  | 2.2025   | 0.08671    |
| 3.5      | 2.0574       | 0.081          | 0.8678 | 0.03416  | 3.1411   | 0.12367    |
| 4.0      | 2.3368       | 0.092          | 0.9482 | 0.03733  | 3.5463   | 0.13962    |
| 4.5      | 2.7432       | 0.108          | 1.4096 | 0.05550  | 4.3325   | 0.17057    |
| 5.0      | 2.7432       | 0.108          | 0.6519 | 0.02566  | 3.8995   | 0.15352    |
| 5.5      | 3.0480       | 0.120          | 0.8085 | 0.03183  | 4.3808   | 0.17247    |
| 6.0      | 3.2258       | 0.127          | 0.5841 | 0.02300  | 4.4812   | 0.17643    |