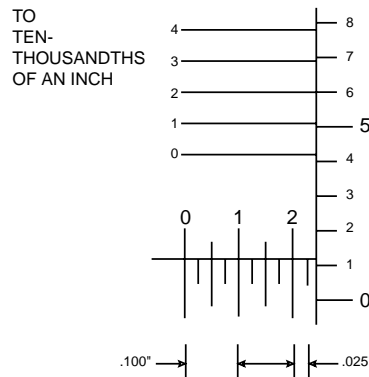
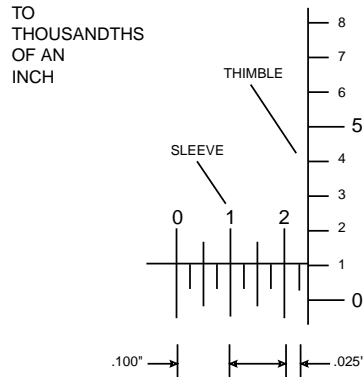


## How to Read Inch Micrometers



**Sleeve:** The Micrometer sleeve is divided into forty equal parts. Each part or division is indicated by a vertical line. Each vertical line represents one-fortieth of an inch or .025", and, each fourth line is marked by a longer line and a number which designates one hundred-thousandths.

More simply, the line marked "1" represents .100", the line marked "2" represents .200" and so forth.

**Thimble:** The thimble is divided into twenty-five equal parts, and, one complete rotation of the thimble coincides with the smallest division on the sleeve. Thus, the division on the thimble is one-twenty-fifth of .025" or .001".

### Reading Example:

- Note that the thimble has stopped at a point beyond "2" on the sleeve indicating .200" (see illustration above.)
- Note that one additional line is visible between the graduation numbered "2" and the edge of the thimble, indicating .025".
- The line numbered "1" on the thimble coincides with the center line of the sleeve. It means an additional one-thousandth of an inch.

(1) Reading on the Sleeve .....	.200"
(2) No. of lines between "2" and the edge of the thimble.....	.025"
(3) Thimble line corresponding to the center line of the sleeve .....	.001"
<b>TOTAL READING .....</b>	<b>.226"</b>

To read to one ten-thousandth requires an additional scale called the "Vernier" scale, named after the inventor, Pierre Vernier.

In the case of a regular micrometer, the vernier consists of ten divisions, marked on the sleeve, which are spaced within nine divisions of the thimble scale.

Each division on the vernier, therefore, is one-tenth shorter than that of the thimble's, thus representing .0001".

### Reading Example:

- Read to the thousandth of an inch in the same manner as shown on the left.
- The vernier on the sleeve reads to one-tenth of a thousandth of an inch, or .0001".
- To read the vernier, find which line on the vernier scale coincides with a line on the thimble and read the number off the vernier scale. It is important to note that when finding the vernier (ten-thousandth) reading, the correct figure is ALWAYS taken from the number at the vernier scale and NEVER from the thimble.
- Note that the vernier line numbered "2" coincides exactly with a thimble line indicating .0002".

(1) Reading on the sleeve .....	.200"
(2) No. of lines between "2" and the edge of the thimble .....	.025"
(3) Thimble has passed .001" line on the Sleeve .....	.001"
(4) Vernier line coincides exactly with a Thimble Line. ....	.0002"
<b>TOTAL READING .....</b>	<b>.2262"</b>