

## Frequency meters

<b>Application</b>	Frequency meters serve for measuring the mains frequency 50 Hz, 60 Hz, or 400 Hz. As measuring range just a selected partial range is used preferably.
<b>Measuring systems</b>	<p>Vibrating reed meter:</p> <ul style="list-style-type: none"> <li>● Vibrating reed movement</li> </ul> <p>Pointer frequency meter:</p> <ul style="list-style-type: none"> <li>● Core magnet moving-coil measuring system</li> <li>● Integrated microcontroller</li> <li>● Independent of waveform</li> <li>● Large voltage range</li> </ul>
<b>Design</b>	<p>Frequency meters are manufactured according to DIN EN 60 051 as well as according to the other relevant VDE and DIN regulations.</p> <p>The accuracy amounts to 0.5 % referred to the full scale. The energy consumption lies between 1 VA and 4 VA depending on the rated voltage, measuring range and type. The measuring voltage may fluctuate between <math>\pm 20\%</math> of the rated values without affecting the measured value indication. Pointer frequency meters offer two significant advantages over vibrating reed instruments:</p> <ul style="list-style-type: none"> <li>● clear readability</li> <li>● large voltage range, <math>\pm 20\%</math> of rated voltage</li> </ul> <p>The linear scale characteristic is perfectly linear and starts at 5% of the scale length above the mechanical zero point.</p> <p>The temperature influence amounts to <math>&lt; 0.1\%</math> with 10 K within a temperature range of <math>-25^{\circ}</math> to <math>+60^{\circ}\text{C}</math>. The auxiliary voltage for the supply of the electronics is gained from the measuring voltage. The current draw is approx. 10 mA.</p> <p>Pointer and vibrating reed meters are resistant to a 1.2-fold overload, temporarily up to a 2-fold overload, DIN EN 60 051 applies.</p> <p>The connection is made using M4 screws (back-of-hand-proof).</p>

## Special versions

<b>Measuring voltage</b>	<p>Vibrating reed meters</p> <p>400 V 500 V 600 V</p> <p>Pointer frequency meters</p> <p>between 12 V and 100 V 400 V 500 V 600 V</p>
<b>Auxiliary voltage</b>	Pointer frequency meters with separate auxiliary voltage for measuring voltages 0-100 %, 230 V or 110 V $\pm 15\%$ 45-65 Hz 2 VA (not for size 72)
<b>Measuring range</b>	Pointer frequency meters other than for standard measuring ranges e.g. 0-100 Hz