Measuring Vibrations, Speed, Temperature and Belt Tension
Machine Control MC 1100

Applications

- Checking machine vibrations
- Evaluation of the condition of rolling bearings
- Checking rotational speed
- Measuring temperature (Option)
- Check of belt tension (Option)
- Identification of critical operational areas
- Early detection of failures

Description

The vibrometer MC 1100 is designed for simple and quick measurement of the vibration velocity $v_{RMS}$. This value is used for assessment of the vibration condition of rotating machinery acc. ISO 10816 - 1 to 6.

Alternatively the vibration acceleration can be measured. This value is used for example when estimating human vibrations.

MC 1100 evaluates the vibration values for three selectable frequency ranges. Therefore also machines rotating at slow or very high speeds can be well assessed.

The vibration spectrum of rolling bearings is being analysed by the MC 1100 with the $g_{SP}$-value according to the impact momentum method. Changes of the condition of rolling element bearings become evident by monitoring the $g_{SP}$-value's trend.

The functions of the MC 1100 can be extended with the functions „temperature measurement“ and „measuring the belt tension“ by applying the corresponding sensors (Options). MC 1100 then becomes a multifunctional measuring instrument for condition monitoring and machine maintenance.

Advantages

- Capturing all important measuring values with one instrument
- Integrated speed sensor
- Portable and ready-to-operate
- Easy operation
- Universal application
- Excellent cost / performance ratio

All information without obligation, subject to change without notice!
# Technical data

## MC 1100

### Measurement range

<table>
<thead>
<tr>
<th></th>
<th>Vibration velocity</th>
<th>Rolling bearing condition</th>
<th>Speed</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MC 1100</strong></td>
<td>0 to 999.9 mm/s&lt;sub&gt;eff&lt;/sub&gt; bzw. m/s&lt;sup&gt;2&lt;/sup&gt;&lt;sub&gt;eff&lt;/sub&gt;</td>
<td>0 to 999.9 g&lt;sub&gt;SP&lt;/sub&gt;</td>
<td>30 - 200,000 1/min / 0,5 - 3,333 Hz</td>
<td>0 to 200 °C / 32 to 392 °F</td>
</tr>
</tbody>
</table>

### Frequency range

<table>
<thead>
<tr>
<th></th>
<th>Vibration velocity</th>
<th>Rolling bearing condition</th>
<th>Belt frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MC 1100</strong></td>
<td>1-1,000/10-1,000/10-10,000 Hz</td>
<td>5 to 50 kHz</td>
<td>10 to 1,000 Hz</td>
</tr>
</tbody>
</table>

### Connections

<table>
<thead>
<tr>
<th></th>
<th>1 BNC connector</th>
<th>1 5-pin jack</th>
<th>1 low-voltage socket</th>
<th>Vibration sensor</th>
<th>Frequency-/Temperature sensor</th>
<th>Accumulator charger</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MC 1100</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Accelerometer

<table>
<thead>
<tr>
<th></th>
<th>122 x 32 pixel</th>
<th>80 mm x 160 mm x 40 mm</th>
<th>350 g</th>
<th>3 x 2700 mAh</th>
<th>6 hrs. / ca. 2 hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MC 1100</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Scope of supply

- Measuring unit MC 1100
- Accelerometer HMA 1140, cable length 1,5 m
- Probe
- Magnetic base
- Accumulator charger
- Operation manual
- Transport case

## Options

- Measurement of belt tension incl. frequency sensor
- Temperature sensor
- Bag
- Battery-charging box

---

**www.hofmann-global.com**