Data sheet

Measurement Amplifier
Series CFA 225-P

Benefits/Application
- Accuracy class 0,0025
- Small size with highest precision
- Intuitive handling
- 5V, 225 Hz Measurement amplifier for Strain gauge transducer
- Suitable for mobile and stationary use
- RS232 interface with common communication protocol

Options/Accessories
- Including wall bracket
- Including shock protection
- Includes stand for desktop
- Measuring amplifier will be delivered in transport case
# Technical data

<table>
<thead>
<tr>
<th><strong>Accuracy class</strong></th>
<th>ppm</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nonlinearity</strong></td>
<td>ppm</td>
<td>±5</td>
</tr>
<tr>
<td><strong>Reproducibility</strong></td>
<td>ppm</td>
<td>±5</td>
</tr>
<tr>
<td><strong>Temperature drift:</strong></td>
<td>ppm/K</td>
<td>&lt; ±5</td>
</tr>
<tr>
<td><strong>Zero point sensitivity</strong></td>
<td>ppm/K</td>
<td>&lt; ±5</td>
</tr>
<tr>
<td><strong>Drift after 1 h when switched on</strong></td>
<td>ppm</td>
<td>&lt; ±10</td>
</tr>
<tr>
<td><strong>Short time drift (10 min.)</strong></td>
<td>ppm</td>
<td>&lt; ±10</td>
</tr>
<tr>
<td><strong>Long time drift (24 h)</strong></td>
<td>ppm</td>
<td>&lt; ±20</td>
</tr>
<tr>
<td><strong>Long term stability</strong></td>
<td>ppm/a</td>
<td>&lt; ±25</td>
</tr>
<tr>
<td><strong>Connector</strong></td>
<td></td>
<td>9-pin Sub-D female</td>
</tr>
<tr>
<td><strong>Connection technique</strong></td>
<td></td>
<td>6-wire</td>
</tr>
<tr>
<td><strong>Max. recommended cable length to sensor</strong></td>
<td>m</td>
<td>5 (0,25 mm²)</td>
</tr>
<tr>
<td><strong>standard measuring cable</strong></td>
<td>m</td>
<td>50 (0,25 mm²)</td>
</tr>
<tr>
<td><strong>Pairshielded cable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sensor type</strong></td>
<td></td>
<td>DMS-full bridge</td>
</tr>
<tr>
<td><strong>Bridge resistance</strong></td>
<td>Ω</td>
<td>180...5000</td>
</tr>
<tr>
<td><strong>Input signal Range</strong></td>
<td>mV</td>
<td>±15</td>
</tr>
<tr>
<td><strong>Maximum input voltage</strong></td>
<td>V</td>
<td>6</td>
</tr>
<tr>
<td><strong>Excitation voltage</strong></td>
<td></td>
<td>5 V / 225 Hz</td>
</tr>
<tr>
<td><strong>Filter characteristic</strong></td>
<td>ms</td>
<td>Sinc⁸ low-pass</td>
</tr>
<tr>
<td><strong>Maximum resolution</strong></td>
<td></td>
<td>±300,000</td>
</tr>
<tr>
<td><strong>Noise (3σ-value)</strong></td>
<td>ppm</td>
<td>±5</td>
</tr>
<tr>
<td><strong>Supply voltage</strong></td>
<td></td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td><strong>mains operation</strong></td>
<td></td>
<td>4,5 V; 3 x AA</td>
</tr>
<tr>
<td><strong>battery operation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating time in battery mode</strong></td>
<td>h</td>
<td>ca. 7</td>
</tr>
<tr>
<td><strong>Connection to PC</strong></td>
<td></td>
<td>Interface: RS 232</td>
</tr>
<tr>
<td><strong>Protection (DIN EN 60529)</strong></td>
<td></td>
<td>IP50</td>
</tr>
<tr>
<td><strong>Rated temperature range</strong></td>
<td>°C</td>
<td>15...30</td>
</tr>
<tr>
<td><strong>Operating temperature range</strong></td>
<td>°C</td>
<td>0...40</td>
</tr>
<tr>
<td><strong>Dimensions (W<em>H</em>D)</strong></td>
<td>mm</td>
<td>95 * 200 * 40</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>kg</td>
<td>ca. 0,3</td>
</tr>
</tbody>
</table>
Sensor connection

<table>
<thead>
<tr>
<th>Connection</th>
<th>Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage (+)</td>
<td>U_{in+}</td>
</tr>
<tr>
<td>Supply voltage (-)</td>
<td>U_{in-}</td>
</tr>
<tr>
<td>Measurement signal (+)</td>
<td>U_{out+}</td>
</tr>
<tr>
<td>Measurement signal (-)</td>
<td>U_{out-}</td>
</tr>
<tr>
<td>Sense (+)</td>
<td>Sense+</td>
</tr>
<tr>
<td>Sense (-)</td>
<td>Sense-</td>
</tr>
<tr>
<td>Shielding</td>
<td>Housing</td>
</tr>
</tbody>
</table>

1) View too weldingside

RS232 Interface

<table>
<thead>
<tr>
<th>Connection</th>
<th>Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive Data</td>
<td>RX</td>
</tr>
<tr>
<td>Transmit Data</td>
<td>TX</td>
</tr>
<tr>
<td>Ground</td>
<td>GND</td>
</tr>
<tr>
<td>Shielding</td>
<td>Housing</td>
</tr>
</tbody>
</table>

1) View too weldingside