PRESSURE SENSOR ARRAY
MSP-32A

MSP-32 is intended for simultaneous pressure measurement in 32 different points. It consists of 32 precision semiconductor pressure sensors manufactured by Iso-Boron process, a built-in multiplexer and an instrumentation amplifier. Pressure sensors are built in a thermostatic chamber. The digitally controlled multiplexer enables up to 10,000 measurements per second in arbitrary order. MSP-32 is delivered fully tested, together with control software support. Sensor output signal is processed according to the polynomial $A_0 + A_1 U + A_2 U^2$. Auto-zeroing is executed after start.

FEATURES
- Very high accuracy
- High speed data collecting
- Built-in thermostatic chamber
- Built-in address decoder and amplifier

APPLICATIONS
- Aircraft industry
- Wind tunnels
PRESSURE SENSORS  52

ABSOLUTE MAXIMUMS

- Operating pressures range: 0.35/1/2.5/5 bara, differential
- Operating temperature range: (-20 to +50)°C, storage (-50 to +80)°C
- Pressure overload: 3x nominal; 5x for the range 1/2 bar
- Supply voltage: ±2V

SPECIFICATIONS

- Ambient temperature 22°C, unless otherwise stated

<table>
<thead>
<tr>
<th>Parameter</th>
<th>typical</th>
<th>min</th>
<th>max</th>
<th>Units</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Full scale output</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>V</td>
<td>Full scale voltage and offset voltage dispersion among channels</td>
</tr>
<tr>
<td>Temperature sensitivity, output</td>
<td>0.01</td>
<td>0.05</td>
<td>%/°C</td>
<td></td>
<td>Incl. polynomial data processing, 90 days guaranteed</td>
</tr>
<tr>
<td>Offset voltage</td>
<td>-1.5</td>
<td>+1.5</td>
<td>V</td>
<td></td>
<td>Full scale voltage and offset voltage dispersion among channels</td>
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<tr>
<td>Temperature sensitivity offset</td>
<td>0.01</td>
<td>0.025</td>
<td>% FS/°C</td>
<td></td>
<td>Including polynomial data processing, 90 days guaranteed</td>
</tr>
<tr>
<td>Hysteresis, nonlinearity</td>
<td>0.01</td>
<td>0.02</td>
<td>% FS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total error</td>
<td>0.02</td>
<td></td>
<td>% FS</td>
<td></td>
<td>24 hours after zeroing</td>
</tr>
</tbody>
</table>

Working fluid: Non-corrosive gas, humidity up to 95%
Power supply: +15V, 250mA max, -15V, 50mA

DIMENSIONS

[Diagram showing dimensions: ∅1.6, 112, 122]