# MAT Steel case and bezelring pressure gauges

Ø 40 - 50 - 63 - 80 - 100 mm

Conform to EN 837-1 standard, Pressure Directive PED 97/23/CE

Pressure gauges developed for OEM applications in compressed gases, lubricating circuits, hot or cold water networks, water distribution.

## Specifications (20°C)

<table>
<thead>
<tr>
<th>Ranges</th>
<th>From -1...0 to 0...400 bar. (see graduations overleaf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pressure</td>
<td>steady : 75% of full scale value short time : 100% of full scale value</td>
</tr>
<tr>
<td>Standard accuracy</td>
<td>± 2.5% of full scale</td>
</tr>
<tr>
<td>Standard degree of protection</td>
<td>IP 32 according to NF EN 60 529.</td>
</tr>
<tr>
<td>Sensing element</td>
<td>Cuprous metal BOURDON tube.</td>
</tr>
<tr>
<td>Connection</td>
<td>Brass, with 14 mm square.</td>
</tr>
<tr>
<td>Thread</td>
<td>G 1/8 (MAT Ø 40)</td>
</tr>
<tr>
<td></td>
<td>G 1/4 (MAT Ø 50, 63)</td>
</tr>
<tr>
<td></td>
<td>G 1/2 (MAT Ø 80, 100)</td>
</tr>
<tr>
<td>Tube connection assembly</td>
<td>Welded : Sn/Pb up to 40 bar</td>
</tr>
<tr>
<td></td>
<td>Sn/Ag greater than 40 bar</td>
</tr>
<tr>
<td>Gauge working process fluid</td>
<td>-20 ... 70°C</td>
</tr>
<tr>
<td>Temperature</td>
<td>Additional error when temperature of the pressure element deviates from +20°C (68°F) ±0.4% for every 10°C (18°F) rising or falling. Percentage of span.</td>
</tr>
<tr>
<td>Case</td>
<td>Black painted steel.</td>
</tr>
<tr>
<td>Bezelring</td>
<td>Steel bezelring crimped on case (except type F, Ø 40)</td>
</tr>
<tr>
<td>Window</td>
<td>Plastic (MAT Ø 80-100), Kostil (MAT Ø 40-50-63).</td>
</tr>
<tr>
<td>Dial</td>
<td>White ABS (MAT Ø 40-50-63 and P ≤ 40 bar) Aluminium alloy, black graduations and figures on white background (others).</td>
</tr>
<tr>
<td>Pointer</td>
<td>Knife-edge, aluminium alloy, black painted.</td>
</tr>
</tbody>
</table>

## Options

| Restrictor screw in connection. Code 0771 |
| Male thread out of standard |
| Special dial |
| Special graduations |
| Other mountings. |
### Dimensions (mm)

#### Ø 40, 50, 63

<table>
<thead>
<tr>
<th>Type</th>
<th>D/F</th>
<th>D</th>
<th>F</th>
<th>D/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 40</td>
<td>40</td>
<td>42</td>
<td>39.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Ø 50</td>
<td>50</td>
<td>53</td>
<td>48</td>
<td>50.5</td>
</tr>
<tr>
<td>Ø 63</td>
<td>63</td>
<td>63</td>
<td>54.5</td>
<td>48.5</td>
</tr>
</tbody>
</table>

#### Ø 80, 100

<table>
<thead>
<tr>
<th>Type</th>
<th>Ø</th>
<th>D</th>
<th>F</th>
<th>D/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 80</td>
<td>81</td>
<td>13</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Ø 100</td>
<td>81</td>
<td>10</td>
<td>30.5</td>
<td></td>
</tr>
</tbody>
</table>

### Codification - MAT

<table>
<thead>
<tr>
<th>Model</th>
<th>MATxxx0Bxx</th>
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</thead>
<tbody>
<tr>
<td>Pressure gauges</td>
<td>MAT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nominal diameter</th>
<th>4’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 40 mm</td>
<td>1</td>
</tr>
<tr>
<td>Ø 50 mm</td>
<td>2</td>
</tr>
<tr>
<td>Ø 63 mm</td>
<td>3</td>
</tr>
<tr>
<td>Ø 80 mm</td>
<td>4</td>
</tr>
<tr>
<td>Ø 100 mm</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of mounting</th>
<th>5’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>bottom connection</td>
<td>D</td>
</tr>
<tr>
<td>back connection</td>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hydraulic connection</th>
<th>6’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/8 (for Ø 40)</td>
<td>1</td>
</tr>
<tr>
<td>G 1/4 (for Ø 50-63)</td>
<td>2</td>
</tr>
<tr>
<td>G 1/2 (for Ø 80 -100)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liquid filling</th>
<th>7’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit of measurement</th>
<th>8’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>bar</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure range</th>
<th>9’...10’ digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>See codes in table</td>
<td>xx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight in g</th>
<th>Type 80</th>
<th>Type 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 40</td>
<td>55g</td>
<td>60g</td>
</tr>
<tr>
<td>Ø 50</td>
<td>94g</td>
<td>103g</td>
</tr>
<tr>
<td>Ø 63</td>
<td>120g</td>
<td>131g</td>
</tr>
</tbody>
</table>

### Weight in g

<table>
<thead>
<tr>
<th>Ø</th>
<th>Type 80</th>
<th>Type 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 40</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Ø 50</td>
<td>94</td>
<td>103</td>
</tr>
<tr>
<td>Ø 63</td>
<td>120</td>
<td>131</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Ø</th>
<th>40</th>
<th>50</th>
<th>63</th>
<th>80</th>
<th>100</th>
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</thead>
<tbody>
<tr>
<td>74</td>
<td>1</td>
<td>0.5</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>59</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>20</td>
<td>0</td>
<td>6</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>22</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>24</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>26</td>
<td>0</td>
<td>25</td>
<td>X</td>
<td>X</td>
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<tr>
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<td>100</td>
<td>X</td>
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</tr>
<tr>
<td>33</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>35</td>
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<td>250</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>38</td>
<td>0</td>
<td>400</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>