Product information
mzr-7245 · Modular pump series

Description
The micro annular gear pump mzr-7245 of the modular pump series is suitable for dosing and metering in low to medium pressure and viscosity ranges. To the main assets of this series belong low pulsation, high precision low volume dosage of non-lubricating liquids, compact design with smallest dimensions and low price. These pumps are suitable for dosing and dispensing deionized water, aqueous solutions, solvents as well as low to highly viscous oils, lubricants or dyes.

Advantages
- Customized material selection
  - pump components in stainless steel/tungsten carbide, aluminium/tungsten carbide or alloy C22/ceramics
- High dosage precision
  - precision CV 1 % at low volumes
- Long service life
  - wear- and corrosion-resistant materials
- Compact dimensions
  - length 160 mm, including controller
- Dynamic smart drive and control
  - DC-servomotor with integrated microcontroller
- Low pulsation delivery, low shear stress
  - rotary micro annular gear technology, no valves

Applications
- Chemical processing
- Industrial and plant engineering
- Packaging
- Dispensing of adhesives
## Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow rate</td>
<td>0.048 - 288 ml/min</td>
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<tr>
<td>Smallest dosage volume</td>
<td>30 µl</td>
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<tr>
<td>Displacement volume</td>
<td>48 µl</td>
</tr>
<tr>
<td>Differential pressure range</td>
<td>0 - 5 bar (73 psi), max. 40 bar * (max. 580 psi *)</td>
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<tr>
<td>Maximum inlet pressure</td>
<td>1 bar (15 psi), max. 5 bar * (73 psi *)</td>
</tr>
<tr>
<td>Liquid temperature range</td>
<td>-5 ... +60 °C (+23 ... +140 °F)</td>
</tr>
<tr>
<td>Viscosity range</td>
<td>0.3 - 10,000 (50,000 *) mPas</td>
</tr>
<tr>
<td>Precision CV</td>
<td>1 % (Coefficient of variation CV)</td>
</tr>
<tr>
<td>Velocity range</td>
<td>1 - 6,000 rpm</td>
</tr>
<tr>
<td>Fluid connection</td>
<td>1/8&quot; NPT internal thread, lateral; optional: flanged connection with pipe socket, frontal</td>
</tr>
<tr>
<td>Wetted parts</td>
<td>Pump case: stainless steel 316L, optional: aluminium anodized, alloy C22; rotors: tungsten carbide Ni-based, optional: ceramics; bearing: ceramics, epoxy resin; shaft seal: graphite-reinforced PTFE, stainless steel 316L; static seals: FPM, optional: EPDM,</td>
</tr>
<tr>
<td>Motor</td>
<td>DC-servomotor 24 V DC, 44 W</td>
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<tr>
<td>Controller</td>
<td>integrated 16-bit microcontroller</td>
</tr>
<tr>
<td>Interface</td>
<td>0–10 V, RS-232, 1 digital input/output</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>approx. 160 x 42 x 60 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 980 g (Aluminum version approx. 600 g)</td>
</tr>
<tr>
<td>Remarks</td>
<td>* with optional additional axial bearing support, reduction gear; Customized solutions on request.</td>
</tr>
</tbody>
</table>

### Notice

Even if single parameters are within the indicated performance range of technical data, certain parameter combinations may not be achievable. Single parameters may exceed their indicated performance range under adequate circumstances. For detailed evaluation please contact HNP Mikrosysteme. Actual performance may vary. Specifications are subject to change without notice.

## Accessories

- Terminal box S-G05
- Reservoir Plastic
- mzr-Touch Control
- Additional axial bearing support

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