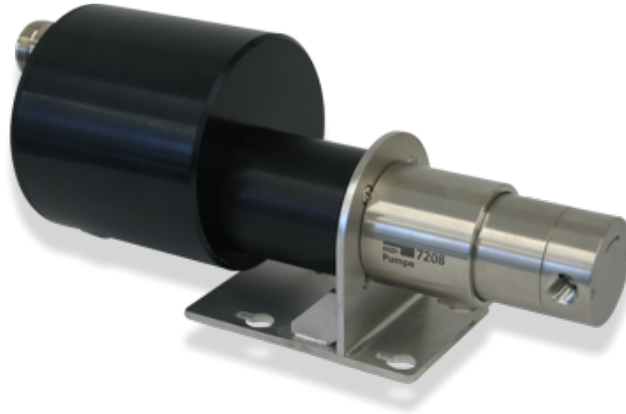


## Product information

### mzr-7208 · High performance pump series



#### Description

The micro annular gear pump mzr-7208 covers the flow rate range 0.048-288 ml/min. To the main assets of the device belong high precision, low pulsation, low volume dosage even of non-lubricating liquids or at high pressures. Driven by a high-power DC-servomotor the pump allows dosage in a broad viscosity range and shows small, economic dimensions. The mzr-7208 targets applications in industrial production and process technology. The pump has been designed for continuous delivery and discrete dosage of water, watery solutions, solvents, methanol, oil, lubricants, adhesives, inks and paints as well as other high viscosity liquids.

#### Advantages

- High dosage precision  
precision CV < 1% at low volumes
- High differential pressures  
achievable even for low viscosity liquids
- Long service life  
wear-resistant tungsten carbide
- Broad viscosity range  
methanol, water, solvents, adhesives, grease, gel
- Compact dimensions  
length 211 mm
- Dynamic precision motor  
brushless DC-motor with encoder
- Low pulsation delivery, low shear stress  
rotary micro annular gear technology

#### Applications

- Chemical processing
- Industrial and plant engineering
- Packaging
- Medical and pharmaceutical industry
- Mini plant technology
- Spraying
- Dispensing of adhesives
- Ink and paint dosage
- Vacuum applications

## Technical data

Flow rate	0.048 - 288 ml/min
Smallest dosage volume	30µl
Displacement volume	48µl
Differential pressure range	0 – 150 bar (2,175 psi)
Maximum inlet pressure	5 bar (73 psi)
Liquid temperature range	-5 ... +60 °C (-20 ... +150 °C *) +23 ... +140 °F (-4 ... +302 °F *)
Viscosity range	0.3 – 1,000,000mPas
Precision CV	< 1% (Coefficient of variation CV)
Velocity range	1 - 6,000 rpm
Fluid connection	1/8" NPT internal thread, lateral optional: 1/8" NPT internal thread, frontal
Wetted parts	stainless steel 316L (1.4404, 1.4435), tungsten carbide Ni-based; shaft seal: graphite-reinforced PTFE, stainless steel 316L; static seals: FPM, optional: EPDM, FFPM
Motor	brushless DC-servomotor, IP 54, winding 36 V DC, output power 201 W, max. continuous torque 192 mNm
Encoder	500 counts per turn, type HEDL 5640
Dimensions (L x W x H)	211 x 84 x 93 mm
Weight	approx. 2100g
Remarks	* depending on accessories, Customized solutions on request.

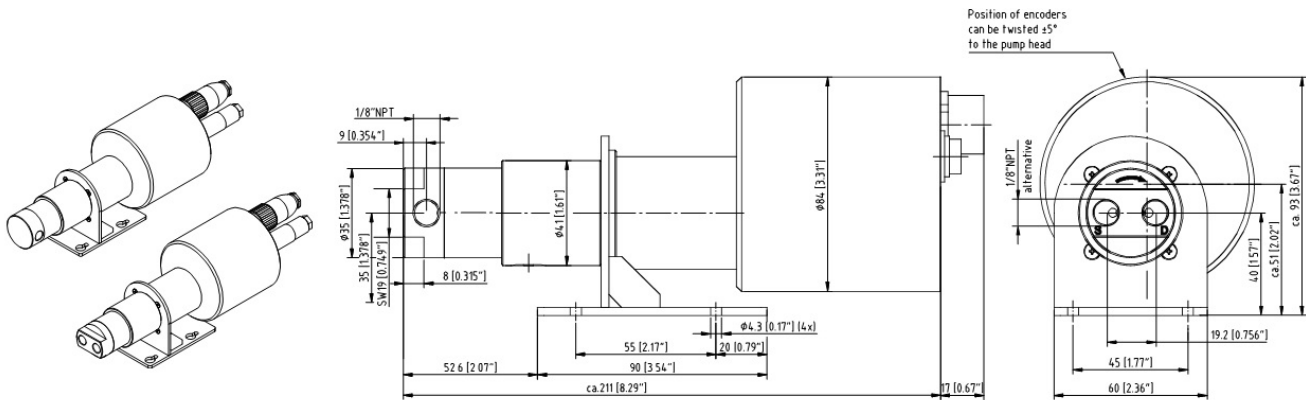
### Notice

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.

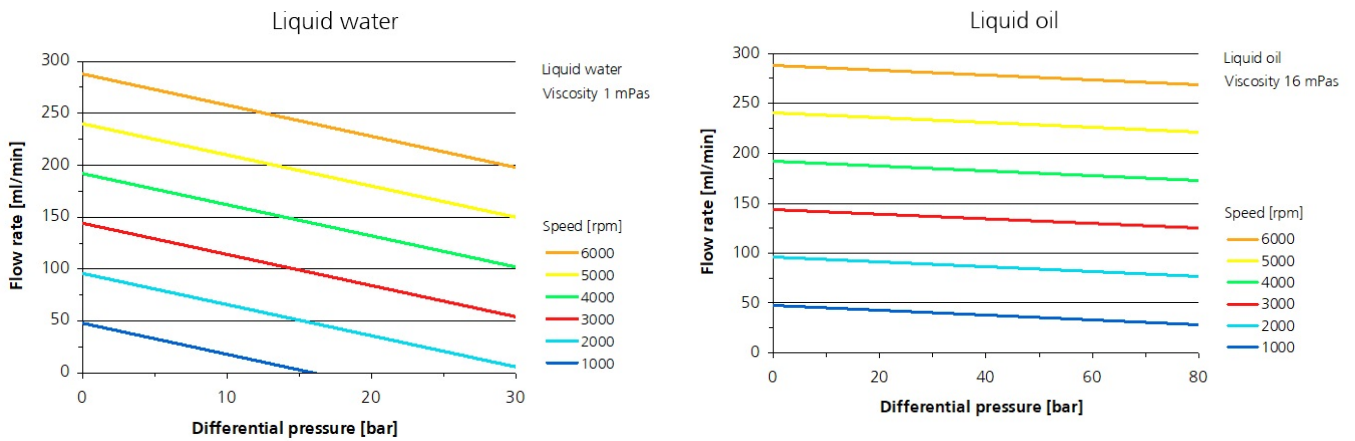
## Accessories

- Heat insulation module
- Electrical heating module
- S-HP-E
- Reservoir Plastic
- Double shell heating module

## Dimensions



## Flow charts



## Patents and trademarks

Micro annular gear pumps (and housings) are protected by assigned patents: EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 001 041 B4; CN 103 348 141 B; US 10,012,220 B2; CN 103 732 921 B; US 9,404,492 B2; US 6,520,757 B1.  
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