

Product information

mzr-6355 · Hermetic inert pump series



Description

The mzr-6355 micro annular gear pump of the hermetic and chemically inert series is, considering its almost universal suitability for aggressive and corrosive liquids, a revolution in the pump technology. Its rotors and functional elements being made of ceramics, the pump shows the highest chemical resistance and an outstanding resistance to wear. Thanks to the use of SSiC (pressureless sintered silicon carbide) as bearing and shaft material, a magnetic coupling, and case components made out of alloy C22 (DIN 2.4602), this pump will take up any challenge in the chemical industry applications.

Advantages

- High resistance to corrosion
oxidizing and reducing liquids, acids and bases
- Long service life
wear-resistant ceramic components
- Hermetically sealed
magnetic coupling (NdFeB)
- Compact, chemically inert pump head
146 mm long, alloy C22, SSiC, Al₂O₃ and ZrO₂-ceramics
- Precision motor and user-friendly control
dynamic DC-servomotor with encoder and microcontroller,
- RS-232 or CAN-Bus, analog, I/O
- Precise dosage, low pulsation
rotary micro annular gear technology, no valves

Applications

- Mini plant technology
- Microreaction technology

Technical data

| | |
|-----------------------------|---|
| Flow rate | 0.024 - 144 ml/min |
| Smallest dosage volume | 15µl |
| Displacement volume | 24µl |
| Maximum system pressure | 80 bar (1160 psi) (inlet pressure + differential pressure) |
| Differential pressure range | 0 – 40 bar |
| Liquid temperature range | -5 ... +60 °C (-20 ... +200 °C *) |
| Viscosity range | 0.3 - 1000 mPas |
| Precision CV | < 1% (Coefficient of variation CV) |
| Velocity range | 1 - 6000 rpm |
| Fluid connection | 1/8" NPT internal thread, lateral optional: 1/8" NPT internal thread, frontal |
| Wetted parts | Pump case alloy C22 (2.4602), optional: stainless steel 316L; seals FFKM (Kalrez® Spectrum™ 6375), optional: FPM, EPDM; shaft/bearing sintered silicon carbide (SSiC); bearing and wetted functional parts Al2O3 ceramics; rotors partially stabilized ZrO2, op |
| Coupling | 8-pole connector NdFeB magnetic coupling |
| Motor | DC-servomotor, 24 V DC, 44 W, with microcontroller |
| Interface | 0–10 V, 0 (4) –20 mA, RS-232, 1 digital input/output, optional: CAN-Bus |
| Dimensions (L x W x H) | 146 x 70 x 72 mm |
| Weight | approx. 1650g |
| Remarks | * with optional heat insulation module, Customized solutions on request. |

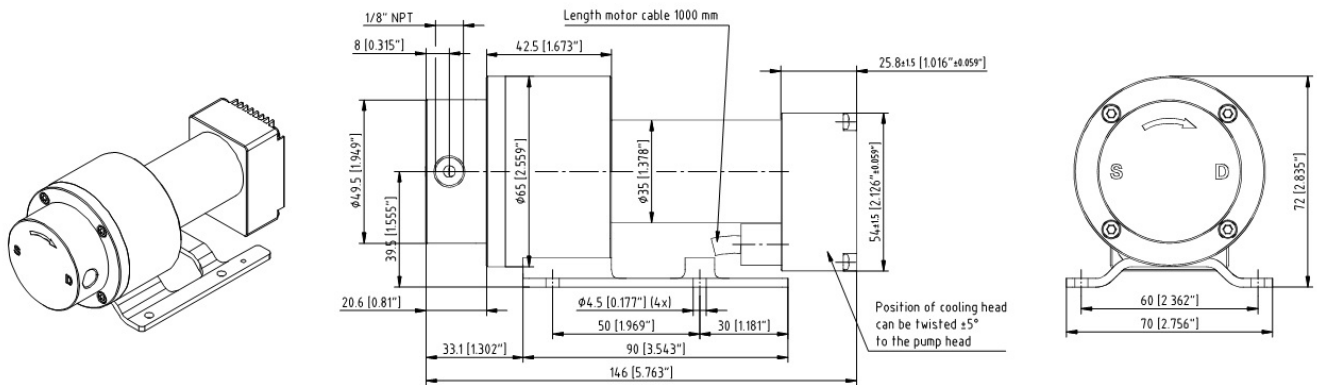
Notice

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.

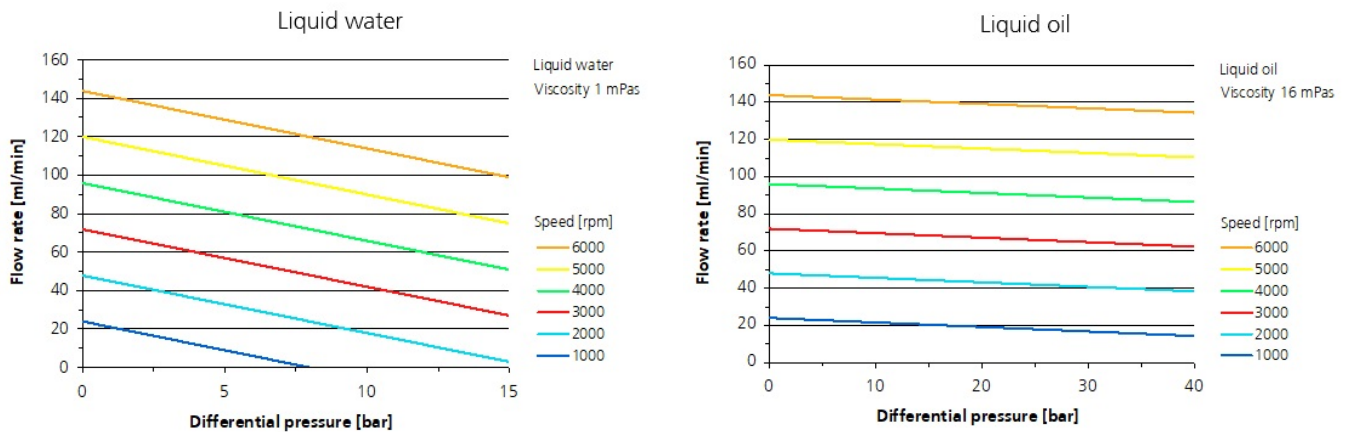
Accessories

- Heat insulation module
- Electrical heating module
- mZr-Touch Control

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. HNP M[®], mzt[®], MoDoS[®], μ -Clamp[®], μ Dispense[®], Centrifluidic Technologies[®], LiquiDoS[®], smartDoS[®], ColorDoS[®] are registered German trademarks of HNP Mikrosysteme GmbH.

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