

## Magnetic Hermetic Series

### Micro annular gear pump mzm<sup>®</sup>-7265

Compact hermetic pump for continuous dosage



- **Hermetic pump design**  
pump without shaft seal
- **Magnetic drive**  
inner magnet system driven by rotating magnetic field
- **Integrated motion controller**  
programmable motion controller for speed and position control with RS-232 interface
- **Compact dimensions**  
length 84 mm
- **Long service life**  
wear-resistant, ultra-hard materials

The micro annular gear pump mzm-7265 is suitable for handling crystallizing, oxygen or moisture sensitive liquids, because the pump has no shaft seal. This functionality is made possible thanks to a liquid-separating cup surrounding the magnetic drive. The compact dimension of this

magnetic hermetic pump is achieved by a completely new product design and optimal matching with an integrated speed and position controller. The pump has a length of 84 mm and a weight of 580 g. The pump handles flow rates from 0,048 to 288 ml/min with a high precision

and low pulsation. The pump is suitable for applications where an avoidance of leakage and a long service life as well as low energy consumption are important requirements. The pump is supplied with a terminal box for speed control and LED status indicator.

#### Applications

- Fuel cells
- Dosing of AdBlue
- Biotechnology
- Marine technology
- Metering of liquefied gases
- Aerospace industry
- Mobile analytics

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.

#### Technical data

|                             |  |
|-----------------------------|--|
| Flow rate                   | 0,048 – 288 ml/min   |
| Smallest dosage volume      | 30 µl  |
| Displacement volume         | 48 µl  |
| Max. system pressure        | 30 bar (435 psi) * (inlet pressure + differential pressure)  |
| Differential pressure range | 0 – 15 bar (217 psi)   |
| Liquid temperature range    | -15 ... +60 °C   |
| Viscosity range             | 0.3 – 500 mPas   |
| Velocity range              | 1 – 6000 rpm   |
| Fluid connection            | manifold assembly M4   |
| Wetted parts                | stainless steel 316L, 318LN, ceramics, tungsten carbide<br>Ni-based, epoxy resin;<br>static seals: FPM, optional: EPDM, FFPM |
| Motor                       | canned BLDC-motor, 24 V DC, 21 W   |
| Controller                  | integrated 16-bit microcontroller  |
| Interface                   | 0–10 V, RS-232, 1 digital input/output, CANopen *  |
| Electrical connection       | 8-pole connector, Wago, cable length 1 m   |
| Dimensions (L x W x H)      | approx. 84x 52 40 mm   |
| Weight                      | approx. 580 g  |

\* Customized solution on request.

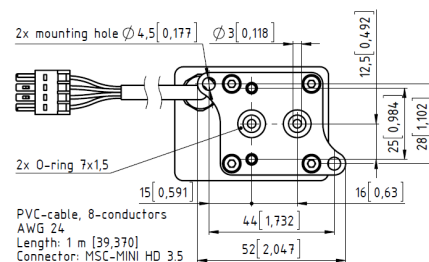
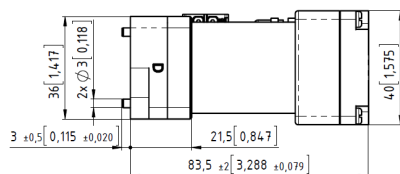
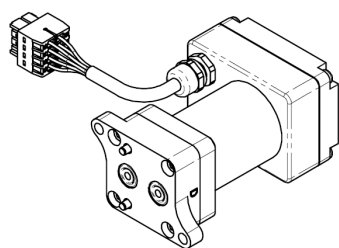
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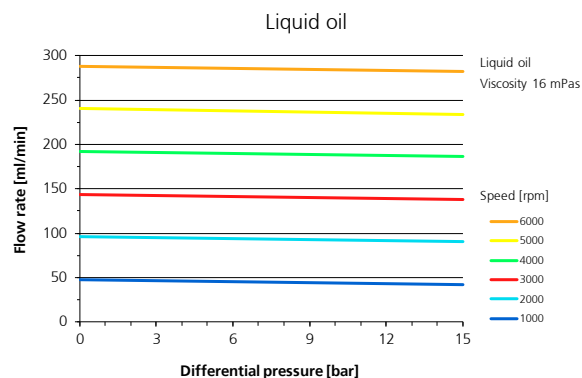
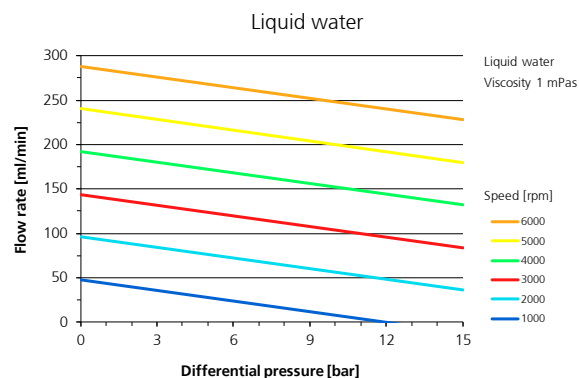
## Dimensions



Dimensions are millimeters next to [inches].

Subject to technical changes.

## Flow charts



## Terminal box S-G05



- compact plastic case
- comes with the micro annular gear pump m zr-7265
- connector for supply voltage 24 V (12 – 28 V DC)
- integrated protective circuit
- potentiometer for speed setting
- Standard interface 0 – 10 V, 0(4) – 20 mA
- Serial interface RS-232
- Two-colored LED status indicator

## Item number

14 01 30 02

Magnetic hermetic series pump m zr-7265 with canned BLDC-motor, manifold assembly M4, terminal box S-G05, null-modem cable and software »Motion Manager«

14 06 30 01

Fluid connection manifold assembly M4 for m zr-7265 M4, stainless steel 316L, fluid connection 1/8" NPT

## Accessories

*Liquid supply accessories*

tubes, filters etc.

Micro annular gear pumps (and housings) are protected by assigned patents: EP 1115979 B1, US 6,520,757 B1, EP 852674 B1, US 6,179,596 B1, EP 1354135, US 7,698,818 B2. Patents pending DE 10 2011 001 041.6, PCT/IB2011/055108, EP 11 81 3388.3, US 13/884,088, CN 2011 8006 5051.7, HK 13 11 2934.9, DE 10 2011 051 486.4, PCT/EP2012/061514, EP 12 728264.8, US 9,404,492 B2, CN 2012 8003 8326.2. In the US, Europe and China additional patents are pending. m zr®, MoDoS®, µ-Clamp®, HNPM® are registered German trademarks of HNP Mikrosysteme GmbH. Kalrez® Spectrum™ is a registered trademark of DuPont.