Product information

mzr-7255 · Hermetic inert pump series

Description

The mzr-7255 micro annular gear pump of the hermetic and chemically inert series is, considering its almost universal suitability for aggressive and corrosive media, 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 media, 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
- Filling electrolytes into battery cells

Technical data

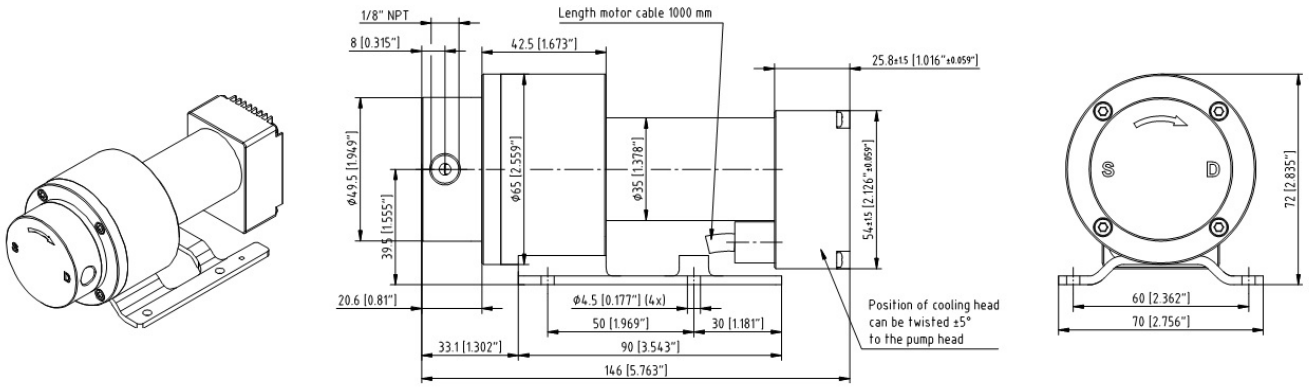
Flow rate	0.048 - 288 ml/min
Smallest dosage volume	30 µl
Displacement volume	48 µl
Maximum system pressure	80 bar (1160 psi) (inlet pressure + differential pressure)
Differential pressure range	0 – 40 bar
Liquid temperature range	-5 ... +60 °C (-20 ... +200 °C *)
Viscosity range	0.3 - 1000 mPas
Precision 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 TAZ composite ceramics, optional: tungsten carbide Ni-based
Coupling	8-pole 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. 1650 g
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. This document is subject to change without notice.

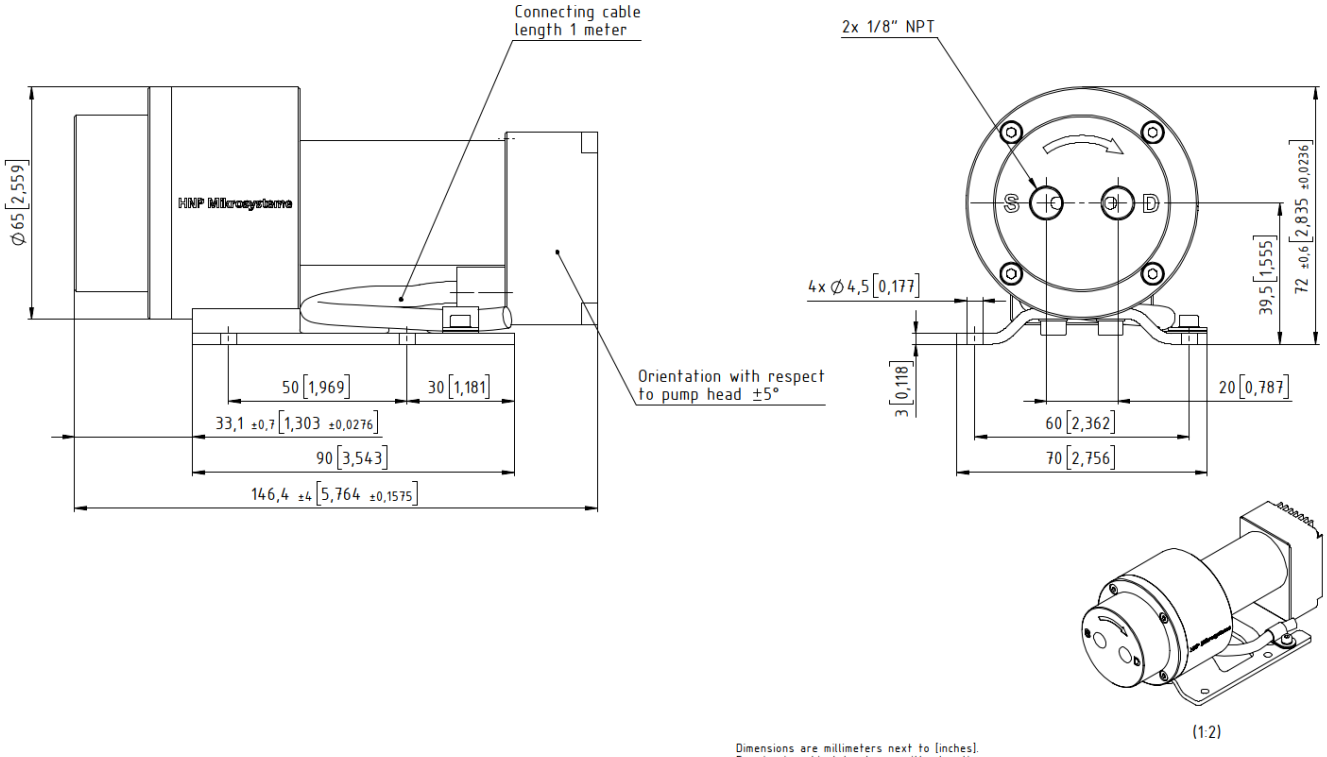
Accessories

- Heat insulation module
- Flange connection HYG
- mzr-Touch Control
- Electrical heating module
- Terminal box S-G05

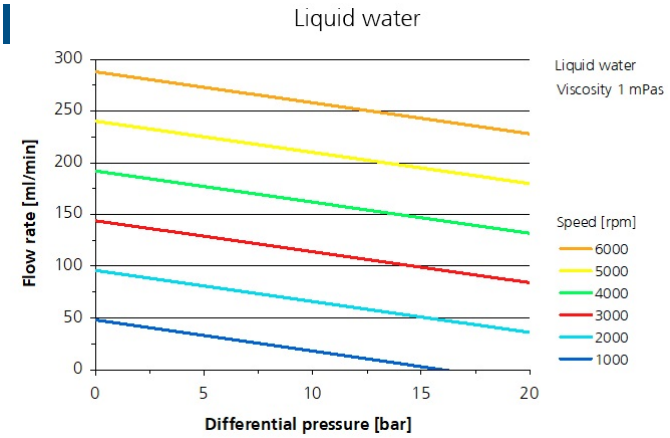
Dimensions mzr-7255 S (Fluid connection 1/8" NPT internal thread, lateral)

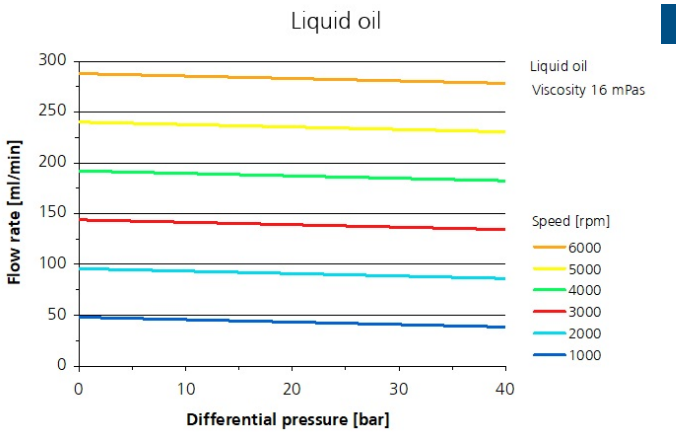


Dimensions mzr-7255 F (Fluid connection 1/8" NPT internal thread, frontal)



Dimensions are millimeters next to [inches].
Drawing is subject to change without notice.





Patents and trademarks

Our products are protected by the following national and international patents: DE 10 2018 129 631.2 B3; EP 3 884 162; CN 113 302 399 B; DE 10 2018 129 633.9 B3; EP 3 884 160; CN 113 272 553 B; DE 10 2018 129 634.7 B3; EP 3 884 527; DE 10 2018 129 635.5 B3; EP 3 762 165; DE 10146 793.1; EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 051 486 B4; EP 2 726 740 B1; US 9,404,492 B2; CN 103 732 921B; EP 2 640 977 B1; US 10,012,220 B2; CN 103 348 141 B; HK 1 185 648 B.
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