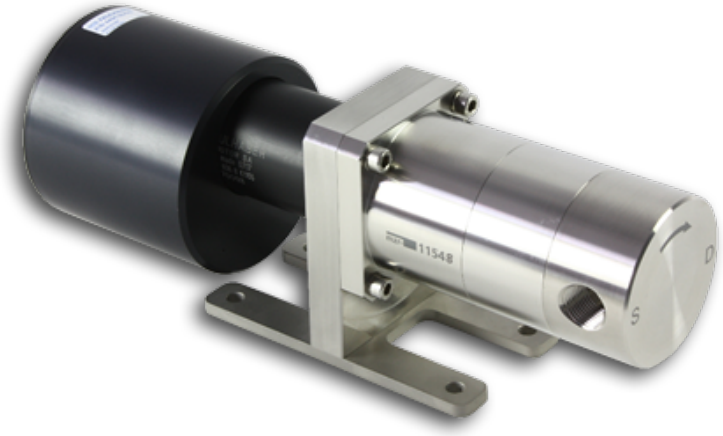
Product information

mzr-11548X1 · Modular pump series



Description

Micro annular gear pump mzr-11540 of the modular pump series operates with high dynamics, low pulsation and excellent precision in delivery as well as high repeatability in metering. The pump is suitable for low to high viscosity liquids and a dif-ferential pressure of up to 15 bar. It allows accurate displacement volumes starting at 100 µl in a metering time of 200 milliseconds. It also covers a flow rate range of 0.2 to 1,152 ml/min. The pump comes with lateral fluid connections or with a manifold version with frontal fluid connections.

Advantages

- High precision in metering and delivery
- Dynamic drive technology in regards to requirements with BLCD drive, BLCD drive with electronic module, stepper motor
- Broad viscosity range solvents, adhesives, water, grease, gel, colors
- Long service life wear-resistant tungsten carbide
- Low pulsation delivery, low shear stress rotary micro annular gear technology, no valves

Applications

- Mechanical engineering
- Chemical and pharmaceutical industry
- Process engineering
- Adhesives and sealants applications
- Spray-coating technology
- Coating technology
- Metering of different additives
- Filling technology
- Dosing of inks and colors

Technical data

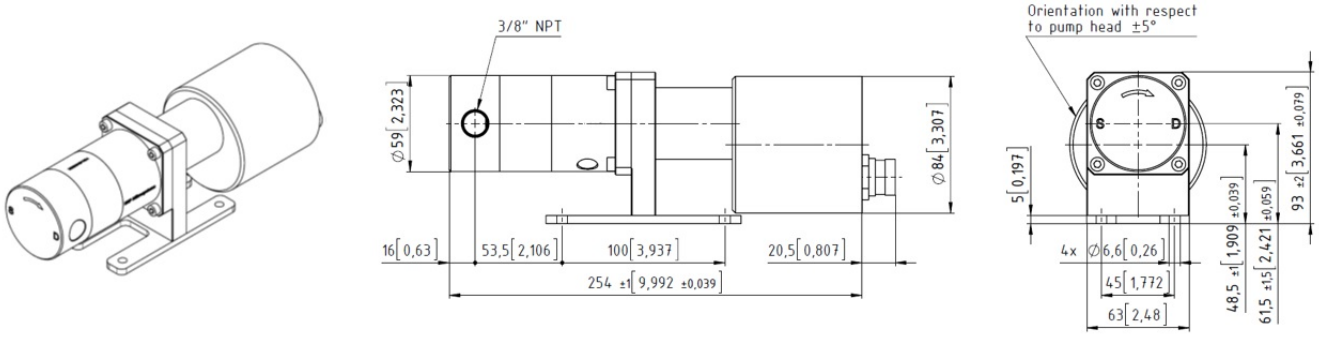
Drive version	DC-servomotor, brushless
Flow rate	1.92 - 1,152 ml/min
Smallest dosage volume	100 µl
Displacement volume	192 µl
Differential pressure range	0 - 10 bar (145 psi)
Maximum inlet pressure	15 bar (217.5 psi)
Liquid temperature range	-5 ... +60 °C (+23 ... +140 °F)
Ambient temperature range	-5 ... +60 (+23 ... +140 °F) °C
Viscosity range	0.3 – 10,000 mPas
Precision CV	1 % (Coefficient of variation CV)
Fluid connection	3/8" NPT, lateral; optional: manifold assembly M4
Wetted parts	stainless steel 316 L, tungsten carbide Ni-based; sshaft sealing: glass reinforced PTFE, stainless steel 316L; static sealing: FKM, optional: EPDM, FFKM
Motor	DC-servomotor, brushless; rated voltage 36 V DC, power output 201 W, torque 192 mNm, IP 54
Velocity range	10 - 6,000 rpm
Positioning	1000 pulses/rev., analog hall sensors
Motor protection	motor current monitoring
Interface	6-pole plug for motor winding, 5-pole plug for hall sensors
Cable length	2 m
Dimensions (L x W x H)	254 x 84 x 93 mm
Weight	approx. 3.9 kg
Remarks	* Customized solutions on request.

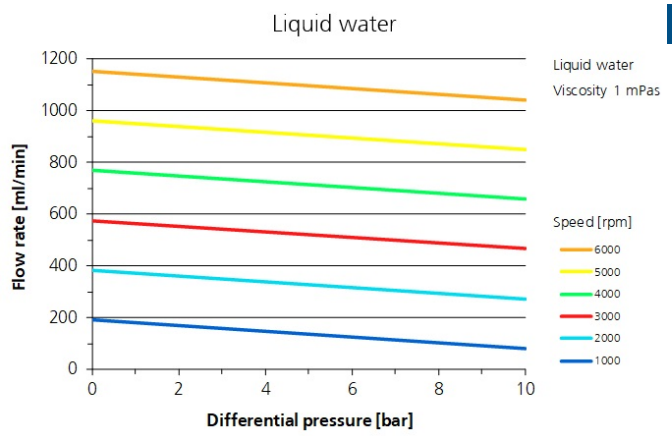
Notice
Even if single parameters are within the indicated performance range of technical data, certain parameter combinations may not be achievable. Single parameters may exceed their indicated performance range under adequate circumstances. For detailed evaluation please contact HNP Mikrosysteme. Actual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

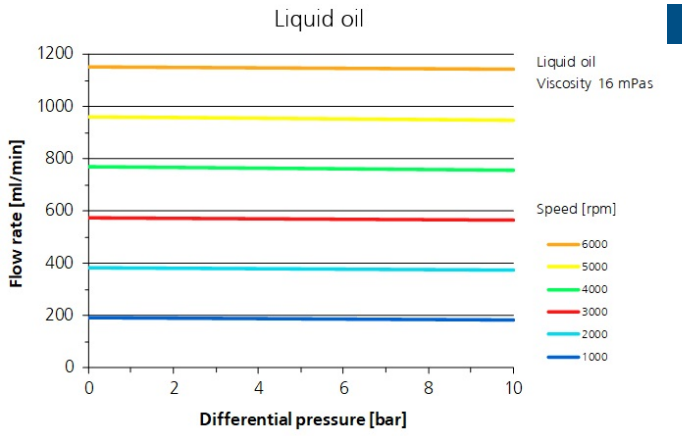
Accessories

- Reservoir Plastic
- Electrical heating module
- Terminal box S-G05
- S-F10
- Heat insulation module
- Flange connection HYG
- mzr-Touch Control
- S-BL

Dimensions







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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