

High performance series

Micro annular gear pump mZR®-4605

For industrial production and process technology



- **High dosage precision**
precision CV < 1 % at low volumes
- **High differential pressures**
achievable also for low viscosity liquids
- **Compact dimensions**
length 143 mm, including controller
- **Broad viscosity range**
methanol, water, solvents, adhesives, grease, gel
- **Pulseless delivery, low shear stress**
rotary micro annular gear technology
- **Long service life**
wear-resistant tungsten carbide
- **Precision motor and sophisticated control**
DC-servomotor with integrated microcontroller

The micro annular gear pump mZR-4605 covers the flow rate range 0.012-72 ml/min. To the main assets of the device belong high precision, pulseless, low volume dosage even of non-lubricating liquids or at high

pressures, compact design and an integrated microcontroller. The pump allows dosage in a broad viscosity range and shows small, economic dimensions. The mZR-4605 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.

Applications

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

Technical data

Flow rate	0.012 – 72 ml/min
Smallest dosage volume	2 µl
Displacement volume	12 µl
Differential pressure range	0–10 bar (145 psi) for water, 0–50 bar (725 psi) for oil
Max. inlet pressure	5 bar (73 psi)
Operating temperature range	-5 ... +60 °C (-20 ... +150 °C *)
Viscosity range	0.3 – 50,000 mPas
Precision	< 1 % Coefficient of Variation CV
Pulsation	< 6 %
Speed range	1 – 6000 rpm
Fluid connection	1/4"–28 UNF
Wetted parts	stainless steel 316L (1.4404, 1.4435), tungsten carbide Ni-based; shaft seal: graphite-reinforced Teflon®, 316L static seals: FPM Viton®, optional: EPDM, FFPM
Motor	DC-servomotor, 24 V DC, 44 W
Controller	integrated 16-bit microcontroller
Interface	0–10 V, RS-232, 1 digital input/output
Measurements (L x B x H)	143 x 45 x 65 mm
Weight	approx. 800 g

Customized solutions on request. * with accessories

Contact

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