Product information

Dosage Module · Dosage Module

Description

The dosage module for the mzr-2505 (S/F), mzr-2905 (S/F) and mzr-4605 (S/F) pumps can be used for volumetric dosage of adhesives like UV cure adhesive, epoxy resin, screw fixing varnish, lubricants and silicon. The dosage module suits the dispensing of smallest amounts of liquids requiring highly precise handling (small beads or spots) and the absence of afterrun. The liquid can be supplied from a 30 or 55 ml disposable cartridge which is directly connected to the pump. For liquids with higher viscosity, pressure of up to 5 bar may be applied to the cartridge. An air discharge screw enables to bleed the system after cartridge exchange or to supply flushing liquid for cleaning. The dosing needles can be directly connected to the Luer-Lock male adapter of the pump. With the fixing bracket the module may be mounted onto the handling device.

Advantages

- High dosage precision precision CV <1% at low volumes
- Exchangeable reservoir for cartridges 30 and 55 ml
- Constant precision pump parts made of tungsten carbide
- Broad viscosity range adhesives, oil, grease, polymers, gel
- Compact dimensions 120 x 60 x 200 mm (S/F-version: 117 x 69 x 237 mm), including controller and cartridge
- Precision motor and sophisticated control DC-servomotor with integrated microcontroller
- Dosage of small amounts discrete dosage and continuous delivery

Applications

- Bead dispense
- Filling technology
- Assembly stations
- Backfill of electronic components
- Labeling
- Oil dispensing
- Adhesive dispensing
- Grease dispensing
- Silicon dispensing

Technical data

Smallest dosage volume	0.25 - 2 * µl
Differential pressure range	0 - 50 bar (725 psi) *
Initial pneumatic pressure	0 - 5 bar (73 psi)
Viscosity range	up to 50,000 * mPas
Precision CV	< 1 % (Coefficient of variation CV)
Dosing needle connection	Luer-Lock male
Cartridge connection	Luer-Lock female
Wetted parts	stainless steel 316L, Ni-based tungsten carbide, shaft seal: graphite-reinforced PTFE, PEEK, 316L; static seals: FPM, optional: FFPM, EPDM
Motor	DC-servomotor, 24 V DC, 44 W
Interface	0–10 V, RS-232, 1 digital input/output
Controller	integrated 16-bit microcontroller with 7936 Bytes program memory for dosage tasks
Dimensions (L x W x H)	120 x 64 x 230 mm (S/F-version: 117 x 69 x 237 mm)
Weight	approx. 1,200 g
Remarks	* depending on the size of the micro ring gear pump.

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

- mzr-2505
- mzr-4605
- mzr-2905

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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