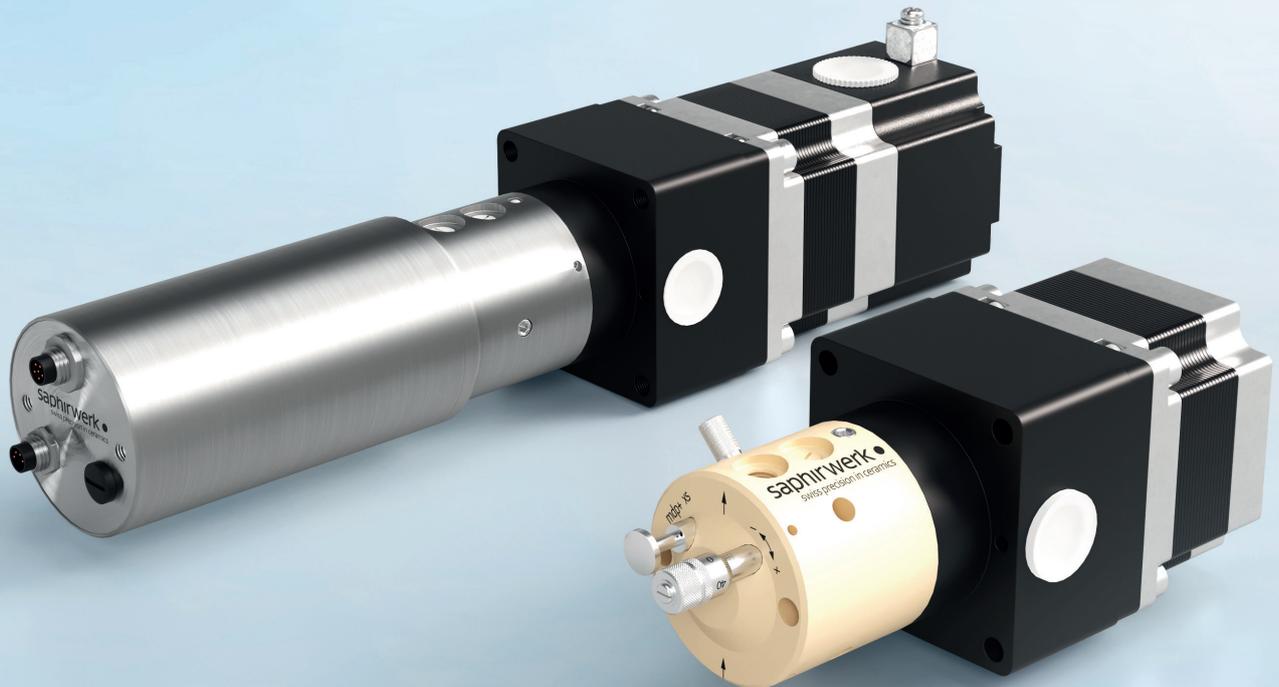
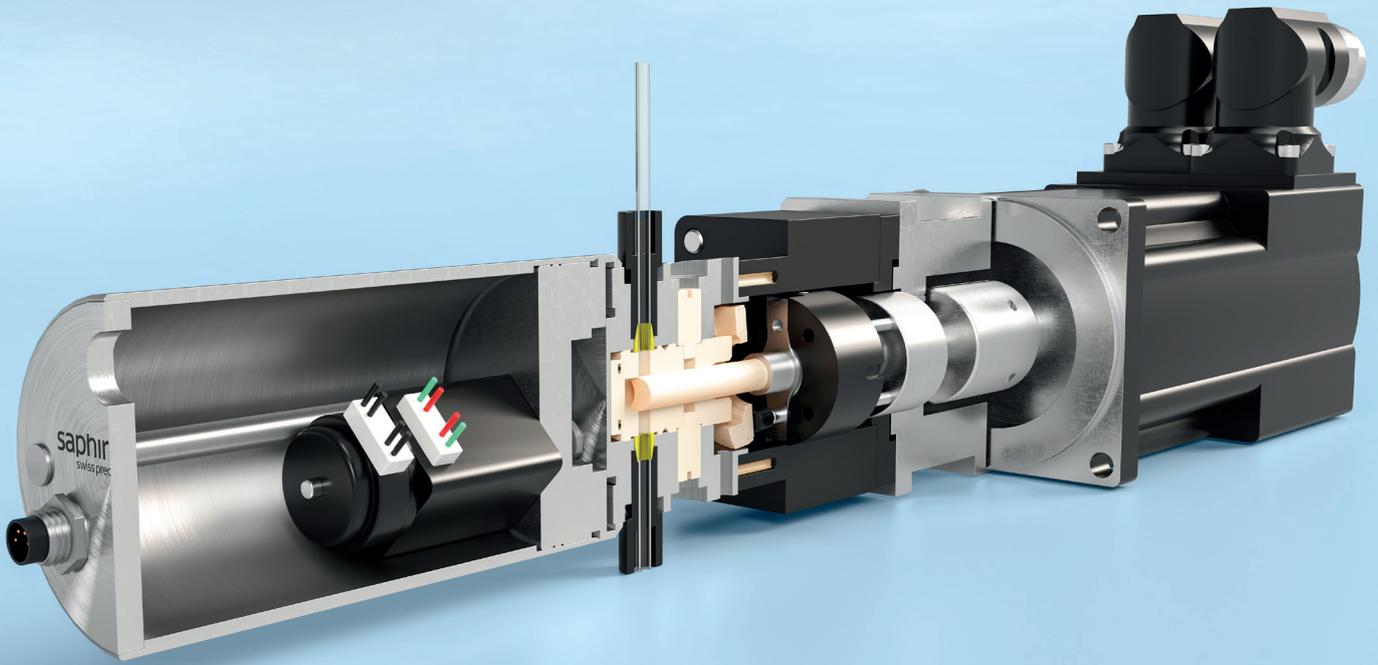
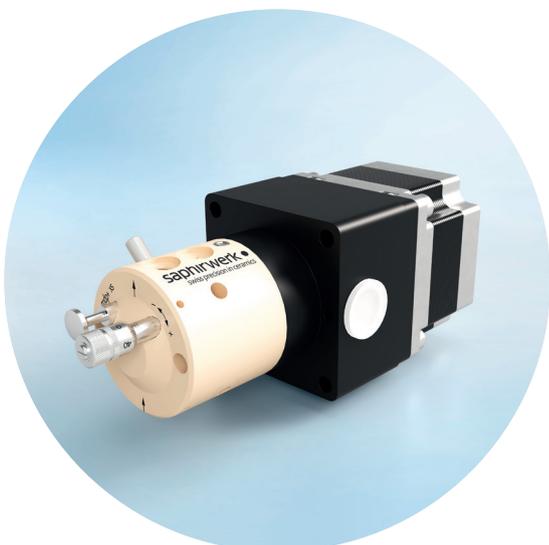


# Micro-dosing pumps





Micro-dosing  
pump (mdp)



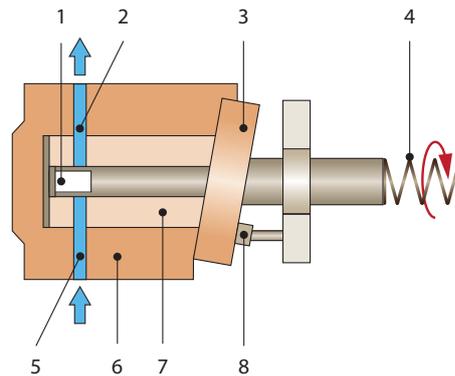
The (mdp) micro-dosing pump meets the highest standards of precision, reliability and compactness and is therefore ideal – essential, even – for dosing applications involving all types of liquid in the analytical, chemical and pharmaceutical industries.

It is robust, hard-wearing, easy to maintain and suitable for superheated steam sterilisation applications.

### Operating principle of a mdp+

- 1 Piston with bevel
- 2 Outlet port
- 3 Sliding disk
- 4 Pressure spring
- 5 Inlet port
- 6 Pump head
- 7 Cylinder
- 8 Sliding block

- Rotating parts
- Fixed parts



We offer a wide range of different pump designs.

1. Dosing volumes from 0.1 to 160 µl per stroke (see table)
2. Adjustable dosing: fixed, manual or automatic
3. Flushing function
4. Pumping drive system
5. Position detection sensors

### Dosing range

Single dosing (in µl)	Pumping (in ml/min) by 300 U/min	Accuracy	Type
0.1 – 6.0	0.03 – 1.8	5%	xs
3.0 – 36.0	0.9 – 10.8	3%	s
8.0 – 80.0	2.4 – 24.0	3%	m
15.0 – 160.0	4.5 – 48.0	3%	l

### Pump designs

Design	Dosing range	Dosing system	Flushing function	Pumping drive	Sensor of position
mdp+	xs, s, m, l	fix, manually	manually	Step motor <sup>1</sup>	1 or 2
mdp pro	xs, s, m, l	automatically	automatically	Step motor <sup>1</sup>	1 or 2

<sup>1</sup> Optional with servo motor

We would be delighted to assemble the right pump for your particular application on request.



# saphirwerk ●

swiss precision in ceramics

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