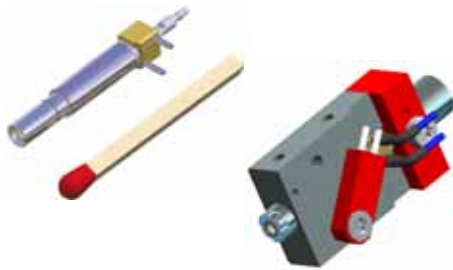


INLINE MICRO-JET VALVES – FAST-SWITCHING

Switching speed up to 4000 Hz
Contactless dosing of fluid up to 15000 mPa.s viscosity

Inline Micro-Jet valves



- Dosing media: water, reagents, oils, UV glue, pastes, etc.
- Fast switching: dosing speed up to 4000 Hz
- Hard sealing valve structure with sapphire and ruby
- Optimised for contactless dosing
- Dosage amount below 10 nL possible
- High reproducibility
- Grid width from 4 mm



SPECIFICATIONS

ZJ6 – Low cost version with FKM (EPDM) seal.

	ZJ6	SMLD 300	SMLD 300G
Operating pressure range	up to 8 bar	up to 20 bar	up to 50 bar
Life-time	up to 500 Mio. Cycles ^{*1}		
Viscosity range	1 - 400 mPa.s	1 - 200 mPa.s	1 - 1000 mPa.s ^{*2}
Maximum flow (water, 1 bar)	Nozzle Ø 0.15 mm: 11 ml/min Nozzle Ø 0.3 mm: 48 ml/min	Nozzle Ø 0.1 mm: 3.3 ml/min Nozzle Ø 0.15 mm: 8 ml/min Nozzle Ø 0.2 mm: 15 ml/min	Nozzle Ø 0.1 mm: 3.3 ml/min Nozzle Ø 0.15 mm: 8 ml/min Nozzle Ø 0.2 mm: 15 ml/min Nozzle Ø 0.3 mm: 38 ml/min Nozzle Ø 0.45 mm: 75 ml/min
Minimal dispensing volume	100 nL	below 10 nL possible	
Internal volume	37 µL	25 µL	65 µL
Nozzle diameter	Ø 0.15 mm Ø 0.3 mm	Ø 0.1 mm Ø 0.15 mm Ø 0.2 mm	Ø 0.1 Ø 0.15 Ø 0.2 mm Ø 0.3 mm Ø 0.45 mm Ø 0.6 mm
Valve stroke	Due to valve parameters	0.03 mm 0.06 mm	0.03 mm 0.06 mm 0.1 mm 0.15 mm
Built-in filter	Filter 37 µm (on request)	Filter 17 µm (on request)	Filter 37 µm (on request)
Seal material	FKM EPDM	Rubin	
Wetted materials	Saphir, PEEK, Stainless steel 316L and 1.4105 IL	Stainless steel types: 1.4305, 1.4301, 1.4310, 1.4113 IM / PEEK, Sapphire	
Typical response time	400 µs ^{*1}	200 µs ^{*1}	400 µs ^{*1}
Maximum dispensing frequency	up to 1500 Hz ^{*1}	up to 4000 Hz ^{*1}	up to 3000 Hz ^{*1}
Weight	approx. 1.9 g	approx. 1.9 g	approx. 3.1 g
Repeat accuracy	< 2% at 5 µL water ^{*1}	< 5% CV ^{*1}	
Minimum pattern width	6.35 mm	4 mm	6 mm

^{*1} Depending on: Configuration, ambient condition and application

^{*2} With heating up to 15000 mPa.s (depending on the medium)