

Multi MDS Series for low to medium viscosity

precision dots •

VERMES

•••• MICRODISPENSING



INDEPENDENT & SIMULTANIOUS FOUR-VALVE MULTI DISPENSING
SIMPLIFYING & REDUCING DISPENSE VALVE SETUP AND OPERATION TIME

OPTIMAL SOLUTION FOR LOW & MEDIUM VISCOSITY APPLICATIONS

- Designed for flexible use with substances of low and medium viscosity
- Perfect for high parallel installations of low viscosity media in pharmaceutical, medical, biological applications, SMT (Surface-mount technology), electronics, semiconductors, photovoltaic modules and automotive production

INDEPENDENT MULTI VALVES CONTROL & LOW RACK SPACE

- Each Multi Micro Dispensing System is based on the control unit Multi MDC 3090⁺ that can be combined with up to four valves such as MDV 3010A, MDV 3020A, MDV 3010⁺ and MDV 3020⁺
- The multi valve controller operates the dispense valves independently and simultaneously simplifying and reducing valve set-up and operation time
- Extensive rack space savings are achieved with this four valve control unit



Recommended media	Alcohol like media, watery chemical and pharmaceutical solutions
Type of tappets	Monolithic ceramics, carbide metal, different shapes
Dispensing quantity	Min. 5 nl per pulse (depending on medium)
Dispensing viscosity	Multi MDS 3010 ⁺ up to 300 mPas Multi MDS 3020 ⁺ up to 8.000 mPas
Supply pressure	Supply pressure 0.1 – 8 bar (rel.), max. 30 bar
Dispensing pressure	1 – 300 bar (adjustable)
Maximal frequency	> 3000 Hz
Average dispensing frequency	450 Hz
Additional functionality	Several pattern scenarios can be saved from real-time experience
Valve operating modes	Burst Mode: predefined burst after trigger signal Single Shot Mode: path length dependent triggering Infinite Mode: number of shots controlled by external trigger External Mode: application controlled definable drop volume setting
Optional heating system	Regulated nozzle heating: 120° C, (higher upon request)
Memory for parameter sets	Internally: 40; extern: unlimited
Standard interface	RS-232C; 24V/5 V PLC, AUX
Dimensions	Valves: 103 mm H x 39,5 mm W x 10 mm D Control unit: 128 mm H x 214 mm W x 173 mm D (without cable) 3 RU x 42 HP for installation into 19" racks
Power connection	110/240 V AC, 50/60 Hz power socket (back side)

EASY ADAPTATION TO NEW CHALLENGES

- Flexible parameter setting and comprehensive choice of accessories are available, e.g. nozzle inserts, tappet shapes and supply units; the system can therefore be adapted to new challenges very easily and at any time without major investment

REDUCED COSTS

- One controller serves four valves and
- Interface plug-ins for the computer control unit are reduced

REPRODUCIBLE DISPENSING RESULTS

- The system allows for extremely high reproducible proportioning of identical single dots (min. 5 nl) or beads
- Coefficient of Variation (CV) is as low as 1%

ULTRA-PRECISE CONTACTLESS DISPENSING

- The system has been designed for ultra-precise contactless dispensing of fluids in a large range of viscosity (up to 8.000 mPas)

SPEED

- The system allows extremely fast opening and closing of valve with more than 3000 Hz

FLEXIBILITY

- Parameter settings are freely adjustable and enable customizing the jet progress to the requirements of the fluid properties
- Electronic control unit allows the change of dispensing parameters without delay

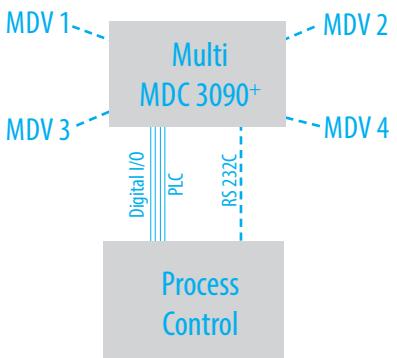
COPY MODE

- The Copy Mode is a special feature of a Multi MDC 3090⁺; the user can easily copy dispensing parameters and heater information from one channel to the others or to all at once

SELECT PIN / SCENARIO MODE

- Select pin or scenario mode, both allow an immediate change of drop size and speed at any time while dispensing

MULTI VALVE FUNCTIONALITY



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