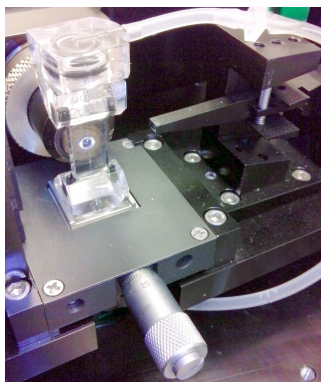
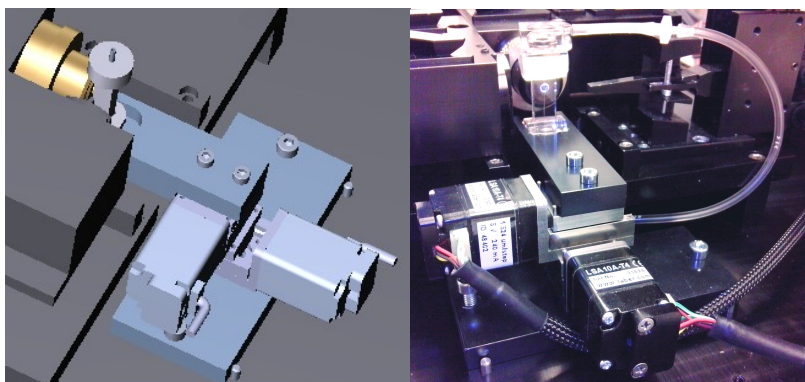


## GENERAL OVERVIEW

Mechanical XY-stage  
before upgrade

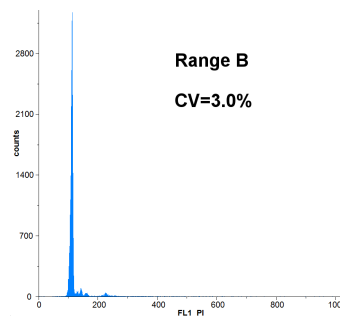
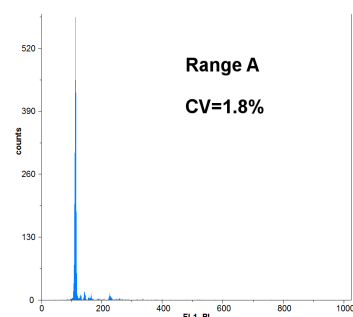
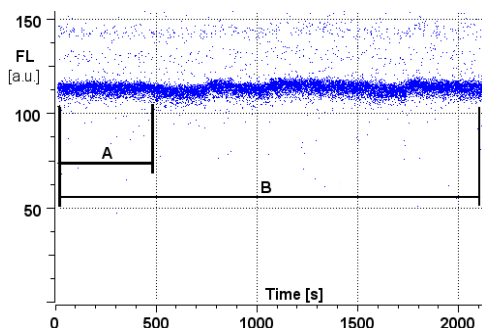


Motorized Cuvette Positioning (MCP) System  
after upgrade



## WHY TO UPGRADE?

- Have you observed similar fluctuations of fluorescence peak position within longer measurement?
- Have you noticed that a measurement of a good sample (see interval A with CV=1.8%) gets much worse only due to instrumental errors (see complete range B with CV=3.0%) ?
- One of the contributions to these fluctuations is the mechanical or thermal drift of the cuvette in the XY-stage.



→ this weak point of your cytometer **could be improved** with the **MCP upgrade kit** !

## KEY FEATURES OF MOTORIZED CUVETTE POSITIONING SYSTEM

- mechanically robust construction ensures that cuvette is kept in the same position, which improves reproducibility and stability within measurement series
- more precise in finding the optimal spot for the best CV
- as an optional add-on the whole MCP system is completely REMOVABLE (upgrade is warranty safe)
- exactly defined step in X and Y directions down to 5µm\*
- extended software functions for easier, safer and faster cuvette handling\*\*
  - „go home“ and „go back to measurement position“ for cuvette removal and reinserting
  - saving the position once you have found the optimum for your sample
  - multiple presets of optimal cuvette positions (user defined) for different samples

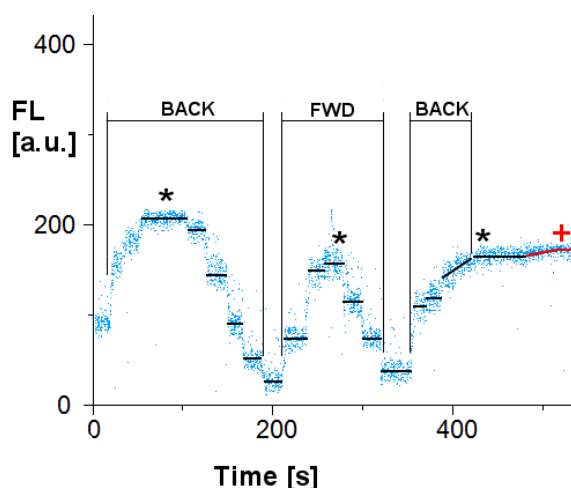
### Technical notes:

\* - MCP System is capable of even smaller steps down to 0.03µm, however, optical system can only distinguish steps larger than 2-3µm.

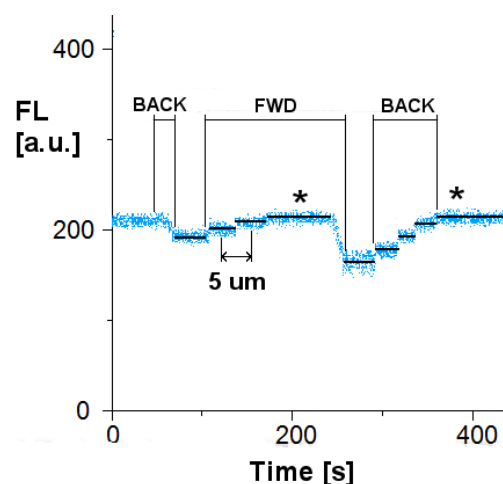
\*\* - Full set of software functions is available only in the „Professional“ configuration.

## FUNCTION DEMONSTRATION

Mechanical XY-stage  
your current option



MCP System  
your upgraded cytometer





The graphs above show the usual process of cuvette position fine adjustment before starting a measurement series. Flow cuvette was moved towards the objective (FWD) or away from it (BACK). The time trend of fluorescence signal most illustratively shows the difference between the conventional (mechanical XY-stage) and upgraded system (MCP).

In both graphs the asterisk symbol (\*) indicates the optimal measurement position with maximum fluorescence signal intensity.

It is clearly visible that the mechanical XY-stage cannot reach the same position again (after checking the nearest neighbourhood of this point). Moreover, on the right side of the graph, there is a small mechanical drift (even when the XY-stage was not touched anymore) - denoted by the (+) symbol.

The MCP system allows searching for the optimal cuvette position with much smaller steps (see the smaller fluorescence signal intensity variations for 5 um steps) and does this in a reproducible way, which means – the user can not only find this optimal position with confidence, but also return to this point easily. Due to the robust mechanical design, the MCP also holds to this point and therefore guarantees more stable and reproducible results of your measurements.

## PRICE LIST

Cat. no.	Description of components and functions	Delivery conditions	Price (€ excl. VAT)
MCP1-B	Basic configuration with: 2 microstep motors with 1cm motion range controller unit with <b>button interface</b> motor base plate holder cuvette holder (Partec cuvette compatible) connecting cables 	5-8 weeks	7.800,-
MCP1-A	Advanced configuration + <b>gamepad unit</b> for more comfortable control + basic software package 	6-10 weeks	9.800,-
MCP1-PRO	Professional configuration + full set of <b>extended software functions</b> (incl. advanced peak analysis, CV optimization, custom software functions) + possibility to add further functions on customer's requests	8-12 weeks	11.600,-



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 For question and comments please contact us at: [support@wolf-danniell.com](mailto:support@wolf-danniell.com)