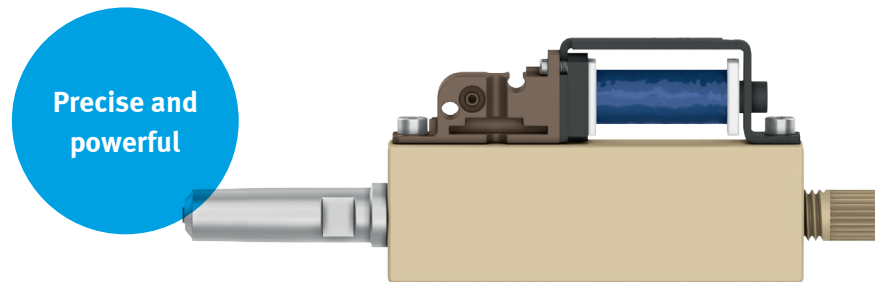


Pipetting system with pipette head DHOE

FESTO



Highly flexible!

Highlights

- Flexible pipetting system
- Individually configurable
- Flexible customizing options
- Media-resistant pipette head
- With pipette tips
- Easy integration
- Complete sub-system from a single source

The open pipetting system for the easy transport of liquids fits your needs as it is very easy to configure and extremely flexible. The system is compatible with a range of tip sizes, which are highly resistant to chemicals and suitable for a wide range of different viscosities. Even minute volumes as small as 5 µl can be pipetted with the greatest precision.

Pipette head: precise and adaptable

The precision of <5% for volumes as small as 5 µl is sufficient for many pipetting applications.

The pipetting speed can be individually varied to up to 3 ml/s and be adapted to different viscosities, even during the pipetting process.

The 9 mm pitch is suitable for microwell plates with 96 wells as well as for those with 384 and 1536 wells in combination with other automation solutions from Festo.

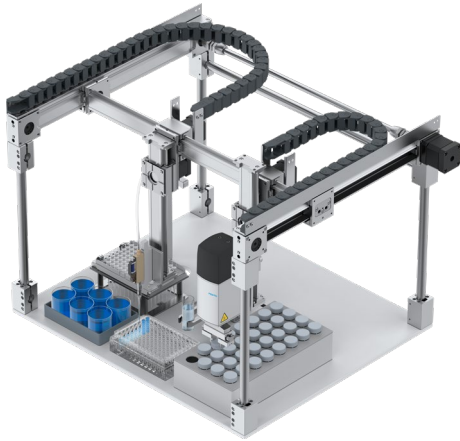
Reliable processes built in

Controlling the complete pipetting process is central to the design of the systems. With this pipetting system you can implement all the important process elements, and in addition detect fill levels or track the handling of the pipette tips.

We also offer an integrated monitoring function for the pipetting process to ensure the correct pipetting volume at all times. It allows you to detect obstructions due to particles or interrupted aspiration caused by air very quickly – and take appropriate action.

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Flexible pipetting system: the individual components and their functions



The pipette head DHOE can handle the most minute pipetting volumes as small as 5 µl with outstanding precision.

On-board supply



PGVA
Pressure-assisted pipetting requires only a small amount of compressed air. The supply can be generated locally with the pressure and vacuum generator PGVA.

Precise actuation



VAEM
The valve control module VAEM delivers total pipetting precision. It has a cycle time of just 0.2 ms for extremely precise adjustment of the pipetting volumes. It also features built-in holding current reduction to prevent heat transfer to the liquid.

Easy system integration



EXCL



EGSC

Easy integration with kinematics/handling systems like the planar surface gantry EXCL or electric linear drives EGSC ensures precise positioning of the pipette head.



EHMD



EHPS

The combination of rotary gripper module EHMD and parallel gripper EHPS is ideally suited to opening sample containers.

Perfect tip handling



SOOF

The fork light barrier SOOF makes it easy to detect whether the pipette tip is correctly seated on the pipette head.



DHAO-EJ

Once the pipetting process is complete, the used pipette tips can be removed and disposed of completely mechanically using the pipette tip ejector DHAO-EJ.

Pipetting functions



CECC



SFAH

The flow sensor SFAH can be used for pressure-based liquid level detection to ensure that pipetting always takes place under the same conditions, thereby ensuring consistent results.

Technical data

Characteristics	Value
Pipetting volume	5 µl ... 10000 µl (10 ml) (depending on the maximum size of the pipette tip)
Pipetting throughput	Up to 3000 µl/s (3 ml/s)
Pipetting accuracy	<5% CV for volumes under 10 µl <2% CV for volumes under 50 µl <1% CV for volumes under 500 µl <0.5% for volumes under 1000 µl
Pressure supply [bar]	-0.2 ... 0.65
Power supply	24 V DC (2 W)
Power connection	2 pins, open cables
Liquid connection	Female thread 1/4-28 UNF
Dimensions [mm]	8.1 x 76.2 x 30
Grid	9 mm (perfect for microwell plate with 96 wells, also suitable for plates with 384 and 1536 wells)
Pipette tip: Volume [µl]	20, 300, 1000
Pipette tip: Features	Filtered; sterilised
Pipette tip: Sales unit	960 tips (10 boxes with 96 tips each in racked or stacked packaging)

