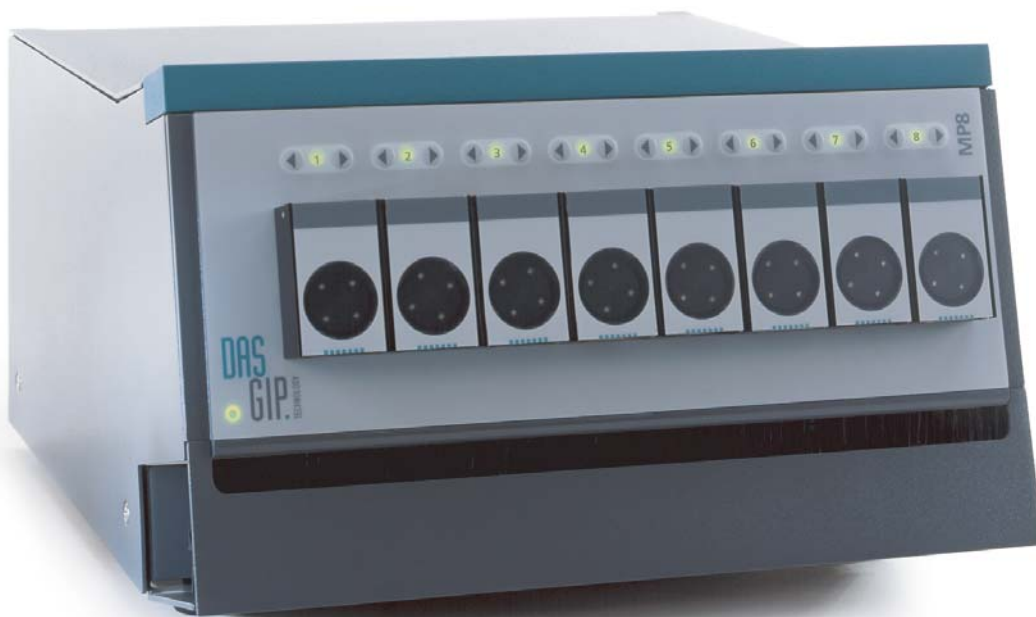


# MP8

## 8 fold Parallel Micro Dosing Pump.



## The Concept

The Multi Pump Module **MP8** provides eight high precision controlled miniature pumps while needing little space.

### ■ Parallel, Highly Precise and Compact

The speed of each individual pump is controlled electronically. Both speed and flow set points are exactly maintained.

### ■ Flow Rates Between 0 and 400mL/h

Using variable tube types, flow rates between 0 and 420mL/h are possible. The inbuilt calibration insures reproducible results.

### ■ Continuous or Dispense Mode

Choose the operation mode corresponding to your needs: continuous operation with preset flow rates or dispense mode with a preset volume and freely selectable flow rate.

### ■ Simple Powerful PC Software

The **MP8** Module has its own microprocessor. One or more modules can be operated with a PC using the **DASGIP-EasyAccess** Software, which is included in the delivery.

**MP8** Modules are tried and tested components of the **DASGIP Cultivation Systems fedbatch-pro®** and **cell-ferm-pro®** for microbiology and cell culture.

## The Applications

The **MP8** Module has been developed especially for laboratory applications in microbiology and cell culture.

### ■ Microbiology and Cell Culture

Parallel and compact design plus the high precision make the **MP8** Module perfect for all applications where several liquid media have to be dosed with high precision at low flow rates or with small volumina.

### ■ Chemistry, Foods, Cosmetics, ...

The **MP8** Module is perfect for various applications in the chemical, foods and cosmetics industries and many other sectors.

### ■ Laboratory, Production, Quality Assurance

Whether the **MP8** Module is used in the laboratory, production or as part of quality assurance - it easily meets the set demands.

### The Advantages

The parallel, modular design requires only a minimum of space at the installation site. Furthermore, up to three modules can be stacked.

- **Variable Dosing Rates**

Variable pump tube diameters facilitate a wide spectrum of possible dosing rates in the range of 0 to 420ml/h.

- **Highest Precision**

The automatic switching to clogged dispensing with lowest possible flow rates below approx. 1ml/h facilitate highest precision even for very low flow rates.

- **Graphical Display of All Measurement Data\***

The inbuilt microprocessor and the serial interface facilitate a straightforward PC support. Using the software DASGIP-EasyAccess, all pumps can be individually calibrated and all measurement values can be displayed graphically and numerically. The **DASGIP-EasyAccess** Software is delivered with the MP8 Module at no extra charge.

**DASGIP-EasyAccess** is the uniform operation interface for all DASGIP Modules. Based on the web pages of the Microsoft Internet Explorer®, the software can be operated intuitively and no special training is needed - as effortless as surfing on the internet.

- **Logging All Measurement Data\***

In addition to the graphical display, all measurement values can be continually logged on the PC. The saved data are immediately accessible for evaluation using e.g. Microsoft Excel® and are available for quality assurance or documentation.

- **Software Integration**

The included ActiveX®/COM® and .Net® programming libraries support all established programming languages. Furthermore, Labview®, the leading product of the lab automatization, is supported.

\*the PC is not part of the delivery

Tech. Specifications	MP8
<b>Module</b>	
Dimensions (BxDxW)	300 x 320 x 190 mm
Ambient conditions	5 .. 40 °C; max. 80% rF
max. Altitude	2000m over NN
Electrical supply	115 .. 230 VAC, 50/60Hz
Power supply	max. 120VA typ. 45VA@230, 32VA@115V
Weight	approx. 9 kg
Interface	RS232 / RS485
<b>Pumpen</b>	
Count	8
Type	Speed controlled drive with planetary gear 1 : 33
Speed range	0; 2,1 .. 71 rpm
Operating Modes	Continuous / Dispense
Features	Autom. switching to pulse mode when speed is lower than min. continuous speed
<b>Tubes</b>	
Materials	Maprene®, Pharmed®
Wall thickness	1,0 mm; 0,8 mm
Inner diameter	0,25 mm: (0,4 ml/h .. 9,5 ml/h)
(cont. flow rate)	0,5 mm: (1,3 ml/h .. 42 ml/h)
	1 mm: (4 ml/h .. 120 ml/h)
	2 mm: (13 ml/h .. 420 ml/h)