

# DOSER

## Powder Dosing

LAMBDA 



### POWDER DOSER

The LAMBDA DOSER is a unique programmable pump for free-flowing solid substances. It allows the automatic or continuous addition of powders, powdery and crystalline substances without a spoon.

This laboratory instrument, consisting of a dosing unit coupled to a digitally controlled stepping motor, allows the constant and reproducible dosing of solids. As the DOSER offers different control options, it can also be used in automatically controlled processes.

The LAMBDA DOSER will modernize your laboratory.

# Properties of the LAMBDA DOSER powder dosing instrument

## Dosing rate

The digital dosing speed range from 0-999 allows a precise and reproducible solid flow rate (e.g. 50 mg/min to 50 g/min for NaCl).

## Programmable

30 pairs of dosing speeds and dosing times can be easily programmed.

## Capacity

Approx. 200 ml glass vessel (corresponding to 250 g NaCl, 200 g NaHCO<sub>3</sub> or 150 g sucrose). This capacity is optimal for most laboratory applications. A larger vessel of approx. 1l volume is also available.

## Safety

With the DOSER the additions of powdery chemicals become reproducible, safe and conform to modern safety and quality rules (GLP), as it is required for the laboratory manipulation of chemicals. The hermetic construction of the DOSER allows safe handling of dangerous and toxic solid substances.

## Assembly and cleaning

The dosing apparatus has been constructed for easy assembly and cleaning. The DOSER can be coupled to all common glass recipients having standard ground fittings NS 29/32 or SVL threaded connectors. All parts in contact with the powdery substances are made of chemically resistant materials.

## Small dimensions and robust construction

Special attention has been paid to minimizing the dimensions of all parts of the powder DOSER. The DOSER can be adapted easily to complex laboratory installations. The robust construction and the use of high quality materials assure a long lifetime of the DOSER.

## Controlled atmosphere

Several seals make the DOSER air-tight and it can be used with a slight over- or under-pressure. The glass vessel can also be flushed by a neutral gas, if it is necessary for a given reaction.

## Economical

Automatic dosage frees technicians for other works. Due to better reproducibility and elimination of errors the number of experiments can be reduced. The DOSER offers an excellent price-performance ratio.

## Remote controls

The speed of addition can be remotely controlled over the whole range by applying a voltage of 0 to 10 V and switch-ON/OFF is controlled through an external contact or 12 V signal. The RS-485 or RS-232 interface (optional) allows for enhanced PC control (variable flow rates, dosing gradients, etc.). A PC control software PNet is also available (optional).

## Quantification of the dosed substances

The DOSER can be connected to the LAMBDA INTEGRATOR, which allows the quantification of the amount of powder added as a function of time. This provides important information on the processes or reactions, e.g. when the DOSER is controlled by a controller (pH-stat, thermostat, etc.)

## Technical data

Control unit:	6 x 7 x 13 cm (H x W x D)
Dosing part:	30 x 12 x 5 cm (H x W x D)
Weight:	950 g
Power supply:	12 VDC/5 W, using plug-in power supply (100-240V, 50-60 Hz)
Safety:	Meets CE and IEC 1010/1 norms for laboratory instruments
Remote control:	0-10 VDC (dosing speed control), 3-12 VDC (ON/OFF control); RS-485 or 232 (optional)
Software:	PC control software PNet (optional)
Warranty:	2 years

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