

## Dispensing controller





# Dispensing controller

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## EDG50®

**Digital dosing control system configurable in time and pressure.**

### Description

The **EDG50®** is a digital, configurable dispensing controller for industrial applications in research, development and production. It enables precise time- and pressure-based dosing of low- to high-viscosity products. Equipped with a microprocessor, the device supports operating modes such as teach-in and automatic time for flexible dosing processes. Thanks to the vacuum removal function, product drips are minimised. The unit is easy to use, with a digital display, programmable dosing parameters and optional add-on modules such as a two-valve module and an IO module. It is designed for an inlet pressure of up to 10 bar and a dosing pressure of up to 8 bar. **EDG50®** is CE certified, robust and low maintenance, making it ideal for continuous use in demanding environments.

### Operation

The **EDG50®** operates with an electromagnetic valve that releases compressed air at the preset dosing pressure for a programmable time. Dosing can be carried out using either the built-in teach-in function or the automatic timer. An additional vacuum retraction function prevents the product from dripping. The device can be triggered using a foot pedal, finger switch or external control systems.

### Product Features

- **Digital control with microprocessor**
- **Dosing modes: learning and automatic time mode**
- **Vacuum retraction function to prevent dripping (Venturi principle)**
- **Long service life (>5 million switching cycles)**
- **Intuitive user interface**
- **Optional 2-valve module and I/O available**
- **Complies with IEC 60721-3-3 and EN 61000-6-1 standards**

## Technical data

Supply voltage:	110 V-230 V, 50/60 Hz
Power:	50 W
Inlet pressure:	max. 10 bar (oil-free, dust-free, dry)
Dosing pressure:	0-8 bar
Time setting:	0.01 s - 99.99 s
Temperature range:	10-40 °C
Type of protection:	IP20
Weight:	~2 kg
Fittings:	Push-In for 6/4 mm pneumatic hose (inlet), bayonet type BG3000832 (outlet)

## Safety information

**Protective measures:** Wear protective goggles, hand protection and suitable protective clothing when working with compressed air or chemicals.

**Power cable:** Only use the original power cable from H. Sigrist & Partner AG (BG100043).

**Operational safety:** the device may only be used in a dry, dust-free environment.

**Maintenance:** only by qualified personnel. Do not open the device.

**Service:** In the event of malfunction, return the appliance to H. Sigrist & Partner AG for servicing.

Subject to technical modifications.

Attention:

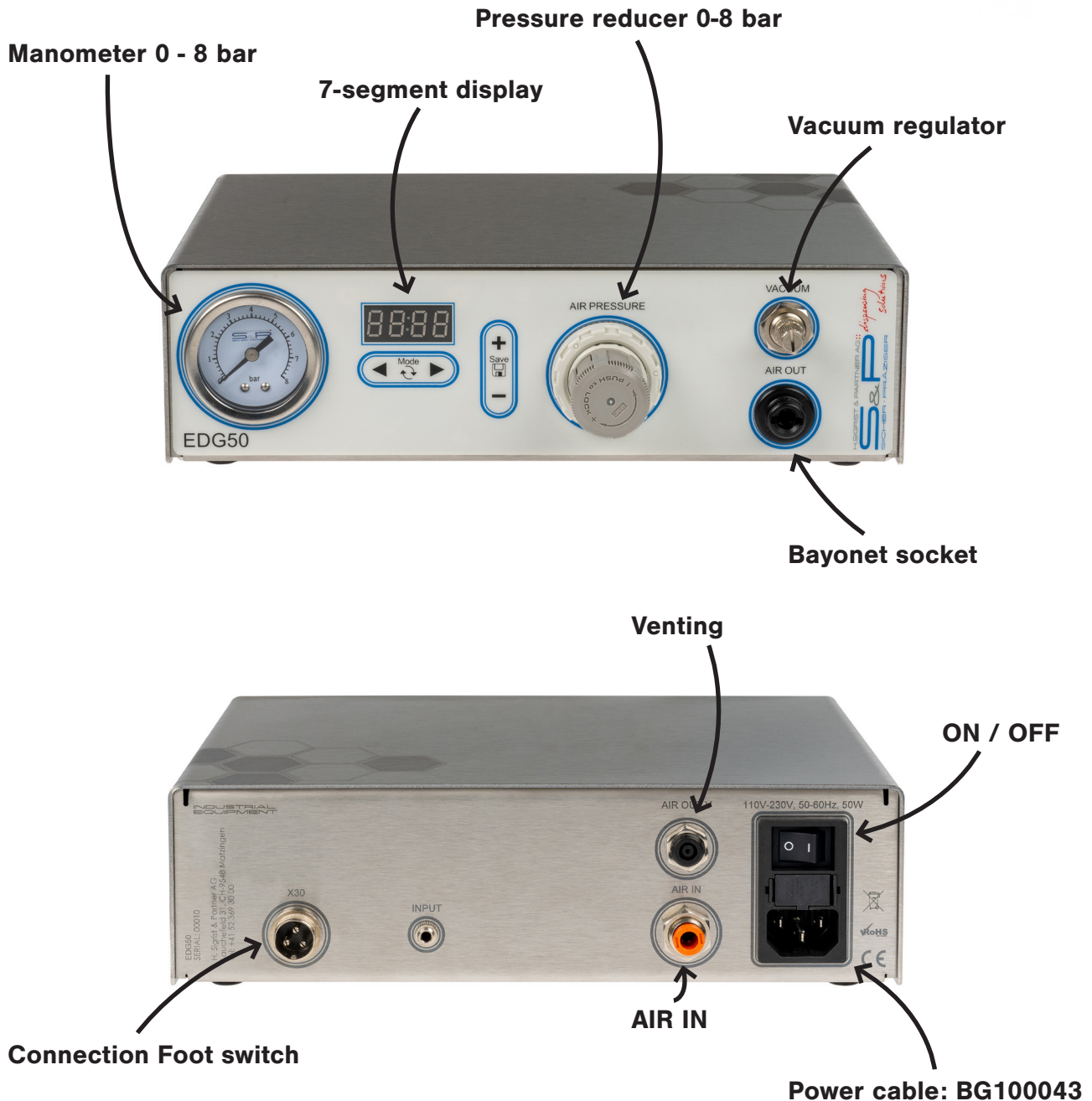
For adaptation to dosing robots, request robot-specific cable!

\* Pressure build-up and dismantling must be observed! Cf. dimensions of the dosing needle, viscosity of the medium

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## EDG50®

Standard version





## EDG50®

### Variants

#### EDG50®

Digital dosing control configurable for time and pressure.

#### Article number

#### description

D3900050

Pressure range of 0 to 8 bar



D3900052

Pressure range of 0 to 1 bar

Precision pressure reducer



D3900051

Pressure range of 0 to 2 bar

Precision pressure reducer



D3900054

Pressure range of 0 to 8 bar

Precision pressure reducer



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## EDG50<sup>®</sup> Plus

The EDG50<sup>®</sup> Plus is an extended version of the EDG50<sup>®</sup>.

In addition to the basic EDG50<sup>®</sup> functions, the following modules can be integrated:

- The 2-valve module enables the control of two valves for more complex dosing processes.
- The extended I/O module offers additional digital inputs and outputs for more flexibility in mechanical engineering.

Application examples:

- Higher-level control
- Control panel lock
- Query status information

With the EDG50<sup>®</sup> Plus, users benefit from a future-proof platform with expandable functionality. The modules mentioned above can be retrofitted flexibly and independently of each other at any time.

I/O Connector

Output Ventil 2



Two valve variants available



## EDG50®

### Optionally available accessories

#### Numéro d'article

#### description

BG3000741

Foot switch, round, 12.5 mm, 3-pole, cable 1.8 m



BG3800005

Cartridge stand, INOX (1.4301)



PN9000256

Lock with key, 3 mm

Lock for pressure reducer

- for D3900050



EB9005023

Cable socket for X10 built-in plug

- for **EDG50® Plus**



EB9005108

X10 - Cable terminal block (female)

for device connector type PC

- for **EDG50® Plus**



EB9005107

X10 - Housing for terminal block type PC

- for **EDG50® Plus**



Further accessories can be found in our detailed catalogs under:

<https://www.dosiersysteme.ch/en/download-dispensing-mixing/>



## D3PPSD-04

### High-precision peristaltic pump



### Description

The precision peristaltic pump D3PPSD-04 is suitable for dosing without compressed air and is therefore frequently used for low-viscosity media. This dosing unit is controlled by a foot pedal. At the customer's request, dosing styli with finger switches and corresponding adapter cables for connection to dosing robots are available. With this dosing unit, the desired dosing time, dosing speed and withdrawal quantity are set via the front keypad\*. The conveying direction can be easily selected at the push of a button. In the „Remote“ mode, dosing lasts as long as the user leaves the trigger activated. Cleaning and maintenance are easy. As the dosing medium does not come into contact with the system, this precision hose ramp is suitable for dosing cyanoacrylates, UV acrylates, electrolytes and solvents. The hose can be emptied at any time by reversing the pump direction. By a defined material retraction the dripping of low viscous media can be reduced.

#### Attention:

For adaptation to dosing robots, request robot-specific cable!

\* Pressure build-up and dismantling must be observed! Cf. dimensions of the dosing needle, viscosity of the medium

## Product features

- **Metering application for low viscosity liquids**  
(e.g. cyanoacrylates, UV-acrylates, electrolytes, solvents etc.)
- **Dosing without compressed air**
- **Adjustable conveying speed**
- **Digital setting of parameters**
- **Dosage directly from the container**

## Technical data

**Weight [kg]: 3.5**

**Dimensions [WxDxH][mm]: 190x184x94**

**Speed [rpm]: 0-160**

**Vacuum function available**

**Input voltage: 110/120 V AC 50/60 Hz**

**Viscosity of the medium [mPas]: <200 (approx.)**

Subject to technical modifications.

## Safety information

- **For the longest possible service life, ensure adequate lubrication.**  
the pump unit with conditioner.
- **Replace the material hose regularly before it is worn out.**  
Otherwise the unit may be damaged.
- **Important: Install new hoses according to the short instructions.**

<https://www.youtube.com/watch?v=CuNr3Z-iw9o&t=3s>



- **Test the product for correct function before each use.**
- **Before each installation of an adhesive cartridge, carry out a brief functional check of the**  
by touching the foot pedal. Possible penetration of the solenoid valve by a  
Adhesive could stick the valve together and massively change the dosing behaviour.

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## D3PPSD-04

### Scope of delivery and optional accessories available

Scope of delivery:

Article number	amount	description
_DL100048	1	Routine test IEC EN 61010
BG100043	1	Power cable 3 x 1 mm with plug type 12
BG3000821	1	Foot switch
CH3500006	1	Conditioner white, 1 cc syringe complete

Optional accessories available:

Article number	description
EB3250015	Finger switch for 10 cc cartridges and dispensing pen type
BG3800005	Syringe stand V1
BG3000000	Dispensing tip assortment big
BG3250025	Dispensing pen type, M14
BG3250016	Holder dispensing pen
BG3000231	Universal mount
BG300100	Single-use cup 30 ml
CH3500005	Conditioner white, syringe complete 10 cc

Material hose for precision peristaltic pump

Article number	diameter	colour	material
BG3000200	i - Ø 0.2 mm, o - Ø 0.4 mm	transparent	PTFE
BG3000201	i - Ø 0.5 mm, o - Ø 1.0 mm	transparent	PTFE
BG3000202	i - Ø 1.0 mm, o - Ø 1.6 mm	transparent	PTFE
BG3000203	i - Ø 2.0 mm, o - Ø 2.6 mm	transparent	PTFE
BG3000204	i - Ø 2.4 mm, o - Ø 3.0 mm	transparent	PTFE
BG3000205	i - Ø 3.8 mm, o - Ø 4.6 mm	transparent	PTFE
BG3000206	i - Ø 0.2 mm, o - Ø 0.4 mm	black, ESD	PTFE
BG3000207	i - Ø 0.5 mm, o - Ø 0.7 mm	black, ESD	PTFE
BG3000208	i - Ø 1.0 mm, o - Ø 1.6 mm	black, ESD	PTFE
BG3000209	i - Ø 2.0 mm, o - Ø 2.6 mm	black, ESD	PTFE
BG3000210	i - Ø 2.4 mm, o - Ø 3.0 mm	black, ESD	PTFE

# Dispensing hand tool 1K

Dispensing hand tool

Article number	description
BG3000884	suitable for 10cc cartridges
BG3000883	suitable for 30cc cartridges
BG3000882	suitable for 55cc cartridges



## Dispensing hand tool 2K

Dispensing hand tool 2K

Article number	description
BG3000899	for double cartridges 50ml mixing ratio: 1:1, 2:1, 10:1



Pneumatic hand gun 2K

Article number	description
BG3000896	for double cartridges 50ml mixing ratio 1:1 and 2:1



Accessories:

Double cartridge, complete with plunger and closure (bayonet)

Article number	description
BG3000900	50ml, mixing ratio 1:1
BG3000901	50ml, mixing ratio 2:1
BG3000902	50ml, mixing ratio 4:1
BG3000903	50ml, mixing ratio 10:1



## D3PDSA-02

### Time-based analog dispensing controller



#### Description

The dosing unit D3PDSA-02 with analog automatic timing is a simple variant to dose a medium directly from different cartridges. This dosing unit is controlled by a foot pedal. At the customer's request, finger switches and corresponding adapter cables are available for connection to dosing robots.

With this dosing unit, an automatic timer is activated in „AUTO“ mode. By actuating the foot pedal, the dosing is triggered with the set pressure and the adjusted dosing time. In the „MAN“ mode, dosing lasts as long as the user leaves the trigger activated. The dosing time corresponds to the activation time of the trigger\*. An adjustable „vacuum“ can reduce the dripping of the medium.

#### Attention:

For adaptation to dosing robots, request robot-specific cable!

\* Pressure build-up and dismantling must be observed! Cf. dimensions of the dosing needle, viscosity of the medium



## D3PDSD-02

### Appareil de dosage digital avec affichage du temps



#### Description

The dosing device D3PDSD-02 with digital automatic timer is a simple variant to dose a medium directly from different cartridges. This dosing unit is controlled by a foot pedal. At the customer's request, finger switches and corresponding adapter cables are available for connection to dosing robots.

With this dosing unit, the desired dosing time is preselected accordingly on the switchgear. If no time is programmed, the manual dosing time is shown on the digital display. With this function, the user can easily determine the required setting time for a dosing process. The dosing time corresponds to the actuation time of the trigger\*. An adjustable „vacuum“ can reduce the dripping of the medium.

In addition to the manual and time-controlled dosing mode, there is also a cycle mode which enables cycle operation during dosing.

#### Attention:

For adaptation to dosing robots, request robot-specific cable!

\* Pressure build-up and dismantling must be observed! Cf. dimensions of the dosing needle, viscosity of the medium

## D3PDVA-02

### Valve control apparatus with analog automatic time



#### Description

The D3PDVA-02 valve controller with analog automatic timer is a simple variant for controlling a medium using of a dosing valve. This dosing device is controlled by foot pedal. On customer request Finger buttons and corresponding adapter cables for connection to dosing robots are available. With this dosing unit, an automatic timer is activated in „AUTO“ mode. By pressing the foot pedal, the valve-controlled dosing is triggered for a defined time with the help of the control air. In the „MAN“ mode, dosing lasts as long as the user leaves the trigger activated. The dosing time corresponds to the time the trigger is activated\*.

#### Attention:

For adaptation to dosing robots, request robot-specific cable!

\* Pressure build-up and dismantling must be observed! Cf. dimensions of the dosing needle, viscosity of the medium

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