

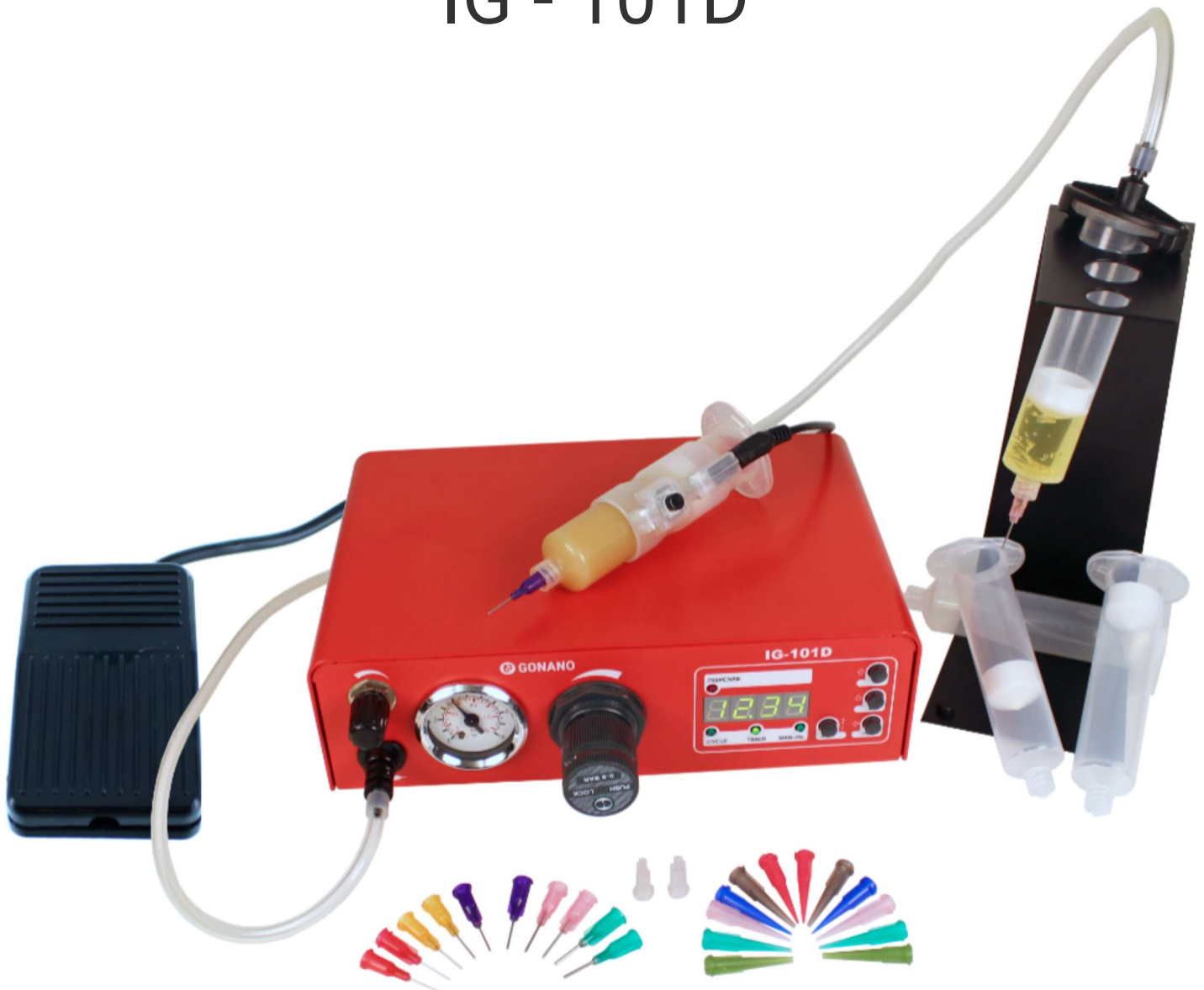


# GONANO

DOSIERTECHNIK GMBH

## Operating Instructions

### Digital Dispenser IG - 101D





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## 1 General information

Dear customer,

Thank you for choosing our model IG-101D dispensing controller. To ensure proper operation, please carefully read the following pages for correct operating and maintenance instructions. Keep these instructions handy for future reference. If you require further information or if you have any questions please contact us directly.

### 1.1 The IG-101D

The IG-101D dispensing controller series consists of two models which have an output pressure of 0-1 and 0-7 bar respectively, with no other differences. For this reason, only the model IG-101D is referred to below. The IG-101D is used for the precise dispensing of various liquids and pastes. The operation is achieved by using compressed air along with utilizing dispensing systems, such as small barrels containing 3 to 75 cc of material. With the units compressed air regulator, the dispensing pressure can be applied to the material and can be adjusted exactly to dispense the correct amount of material.

In conjunction with the unit precise timer, distinct and precise amounts of material can be dispensed. A digital pressure monitor controls the inlet pressure. The process accuracy and reliability is additionally increased with an adjustable minimum pressure device.

### 1.2 Intended Use

The device is designed and constructed for commercial use. It is only to be used for dispensing liquid and paste materials such as adhesives, lubricants, various pastes, grease, oil, silicone and other similar materials. Any other use is considered improper. If this device is used for other purposes, personal injury or damage to property may result. The manufacturer assumes no responsibility for consequences resulting from improper use of the unit.

#### **Non-intended use, which would also void the warranty, includes:**

- Changes to the device not expressly recommended in the operating instructions
- Modifications to the unit and its components
- Use of incompatible or damaged spare parts
- Use of non-approved accessories or auxiliary equipment
- Exceeding the approved and recommended pressures

## 2 Scope of delivery



Dispensing Controller IG-101D



Input power cord 230V AC



Compressed air connection hose



Barrel stand (Art-Nr.: IG-DISP-SS)



Foot switch (Art-Nr.:IG-DISP-F)



Finger switch (Art-Nr.:IG-DISP-HS)



Barrel adapter 30/55cc (Art-Nr.: IG-TEAE30/55B-6.20)



## Accessories 0-7 Bar

Quantity	Designation	Size
5	Syringe barrel clear, angled bottom	30cc
5	Piston PE white, angled bottom	30/55cc
<u>Tapered tip set consisting of:</u>		
2	Tapered tip/light green	10 gauge
2	Tapered tip/light orange	11 gauge
2	Tapered tip/light blue	13 gauge
2	Tapered tip/olive	14 gauge
2	Tapered tip/gray	16 gauge
2	Tapered tip /green	18 gauge
2	Barrel tip cap/clear	needle-sided
<u>Dispensing tip set 1/2" standard consisting of:</u>		
2	Dispensing tip/green	18 gauge
2	Dispensing tip/pink	20 gauge
2	Dispensing tip/violett	21 gauge
2	Dispensing tip/orange	23 gauge
2	Dispensing tip/red	25 gauge

## Accessories 0-1 Bar

Quantity	Designation	Size
5	Syringe barrel clear, angled bootom	30cc
5	Piston PE white, angled bottom	30/55cc
<u>Tapered tip set consisting of:</u>		
2	Tapered tip/gray	16 gauge
2	Tapered tip/green	18 gauge
2	Tapered tip/pink	20 gauge
2	Tapered tip/blue	22 gauge
2	Tapered tip/red	25 gauge
2	Tapered tip/clear	27 gauge
2	Barrel tip cap/clear	needle-sided
<u>Dispensing tip set 1/2" standard consisting of:</u>		
2	Dispensing tip/red	25 gauge
2	Dispensing tip/clear	27 gauge
2	Dispensing tip/lavender	30 gauge
2	Dispensing tip/yellow	32 gauge
2	Dispensing tip/light green	34 gauge



## **3 Safety instructions**

### **3.1 General safety information**

If this device is used for purposes other than those described in this operating manual, personal injury or damage to property may result. Only use the device in accordance with the enclosed instructions.

### **3.2 Dangers for the operator**

- Read the operating instructions carefully before use.
- Always wear suitable protective clothing and eye wear.
- Smoking or open flames are strictly prohibited when dispensing any type of flammable liquid or paste.
- This device is intended for indoor use only.

### **3.3 Electrical safety instructions**

- Before opening the dispensing unit, disconnect it from the power supply by disconnecting the input power cord.
- Failure to disconnect input power may risk electrical shock.
- The unit may only be opened by a trained and authorized electrical personnel.
- Operate the device exclusively within the maximum permitted rated power / settings.

### **3.4 Safety Instructions for Auxiliary- and Operating Materials**

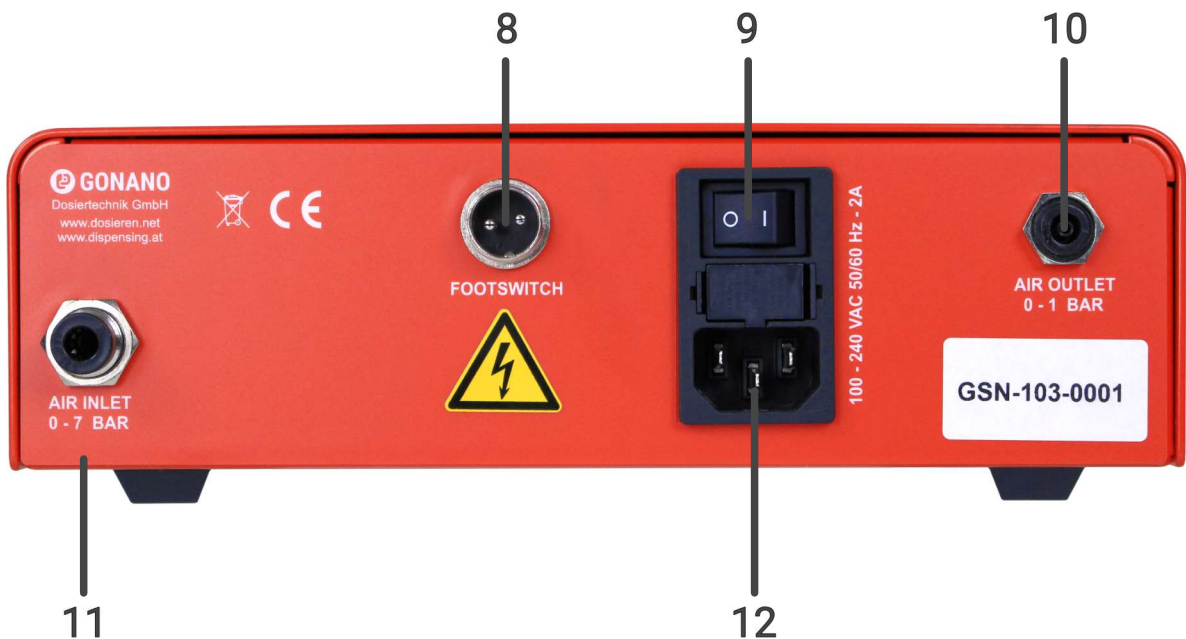
For details on proper handling and safety precautions, for materials to be dispensed ALWAYS check the Material Safety Data Sheet (MSDS).



## 4 About your dispensing unit



- |                      |                                 |                        |
|----------------------|---------------------------------|------------------------|
| 1 Vacuum regulator   | 5 Compressed air output         | 9 Main power switch    |
| 2 Pressure gauge     | 6 Status LEDs                   | 10 Exhaust             |
| 3 Pressure regulator | 7 Operating controls            | 11 Compressed airinput |
| 4 Digital display    | 8 Connection finger/foot switch | 12 Main Power input    |





## 5 Commissioning

### 5.1 Connecting the device

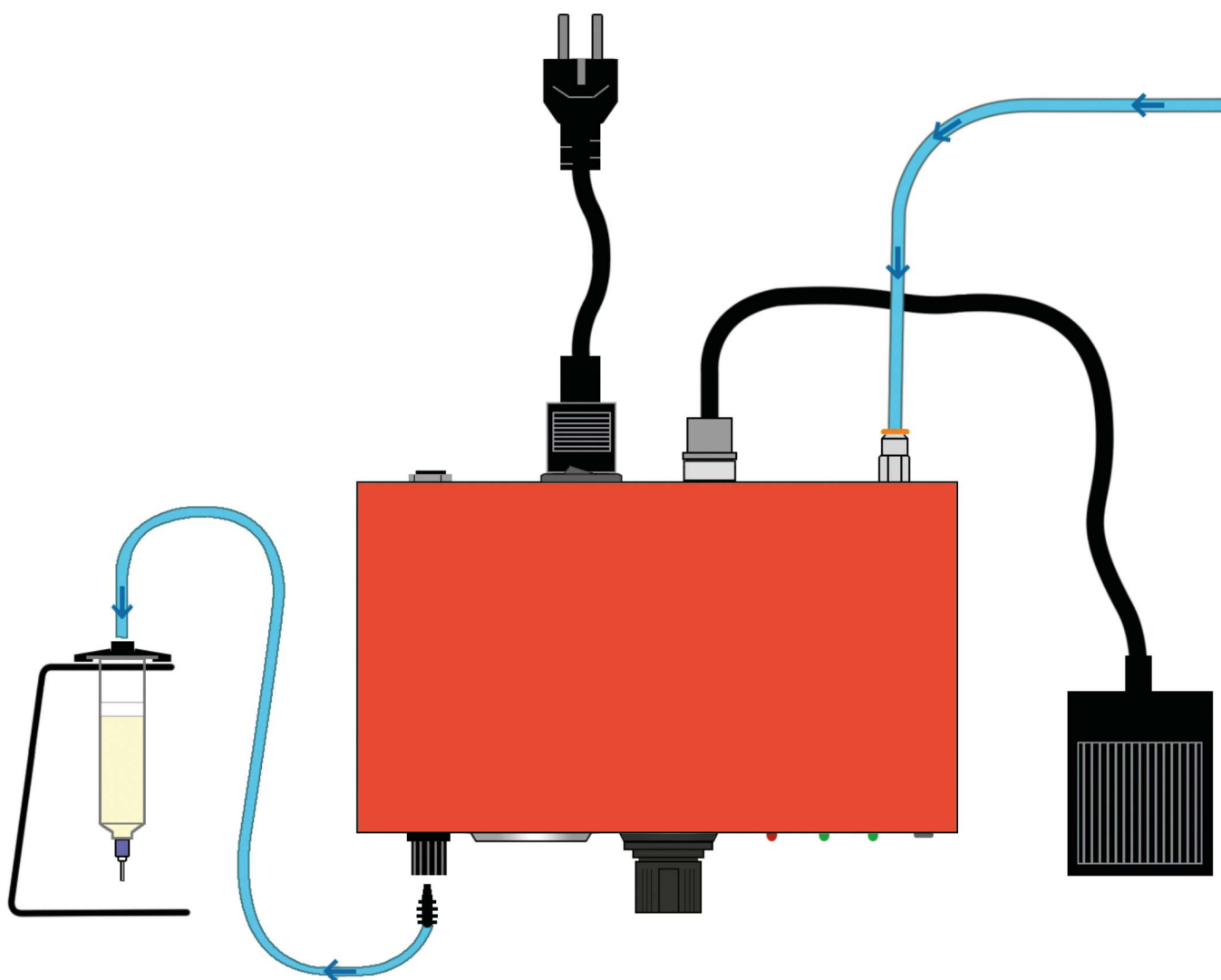
- Unpack the dispensing controller and set it up on a worktable where it will be used. Preferably in a dry location.
- Using the airline hose supplied with the unit, connect the compressed air inlet [11] on the back of the dispensing unit to your compressed air supply. Make sure to supply the device with clean dry air only.
- Connect the power cable to the power connection [12] on back of the unit. The unit can be operated either by finger switch, foot switch or a control cable, if the dispensing controller is to be integrated with a dispensing robot. All these cables are inserted into the socket for the foot switch on the back of the unit. [8]
- Switch on the controller. First all LEDs on the front of the unit will light up briefly. [6] Once only one of the mode LEDs is lit up, the unit is ready for operation.
- Seal a barrel filled with dispensing material using the barrel adapter by placing the adapter across the barrel and then locking it with a 90° turn.
- Select a suitable luer lock dispensing needle and attach it onto the barrel.
- Connect the hose of the barrel adapter to the compressed air outlet [5] of the IG-101D and set the pressure with the pressure regulator [3]. Select a low dispensing pressure at the beginning and then increase it step by step.
- Test your setup by pressing the MODE button several times until the MANUAL LED lights up and then press the PURGE button. If everything is connected correctly, the set dispensing pressure now pushes material out of the front of the dispensing needle, until you release the PURGE button.





## 5.2 Connection diagram

If you have connected all your air lines and wiring correctly your system setup will look something like this:





## 6 Operation

### 6.1 The different operating modes

The IG-101D has three different operating modes, which can be selected with the MODE button.

The mode that is set is indicated by an illuminated status LED.

#### **MANUAL Mode**

In the manual mode (MANUAL) you control the dispensing unit with the foot switch or finger switch (optional) or by pressing the PURGE key . The unit dispenses the material as long as you hold down the switch or the button.

#### **TIMER Mode**

In the time control mode (TIMER), the device dispenses the material for the duration of a preset time. This mode is useful if you want to dispense the same amount of material several times in the operation.

#### **CYCLE Mode**

In the cycle mode (CYCLE), the dispensing device continuously carries out a sequence of dispensing and wait "steps". The CYCLE mode can be used if the work piece has to be changed or the material is to be dispensed to another location.

In the cycle mode the dispenser waits a specified time before resuming the dispensing of the material. First, the duration of the dispensing is set in the TIMER operating mode. In the CYCLE mode, the wait time is then defined .



### 6.2 Setting the dispensing time

Press the MODE button to switch to the TIMER mode. To set a dispensing time, press the SET button.

The right most digit of the 4-digit display will start to flash.

Then set the desired numerical value with the arrow up (↑) and arrow down (↓) keys. The next decimal place can be reached by pressing the Arrow-left key (←).

Set all four digits of the display as desired. You can then change the position of the decimal point by pressing the left arrow key (←) to select. Use the arrow-up and arrow-down keys to change its positions. (123 seconds thus become 12 .3 or 1 .23 or 0 .123 seconds)

Exit the settings by pressing the EXIT button

### 6.3 Saving the dispensing time

Press and hold the MEM button for 2 seconds. The display changes to "Ld 1" and the letters Ld flash briefly.

Press the MEM button again to switch to the memory locations. The display shows "Sv 1".

Use the arrow up (↑) and arrow down (↓) keys to select one of nine memory locations. (Sv 1 to Sv 9)

Press the EXIT key to save the dispensing time and return to the TIMER mode.



It often makes sense to save a manually determined dispensing time as a program. To do this, simply press the foot switch in MANUAL mode until the desired amount of material has been dispensed. At this point, the digital display shows the elapsed dispensing time. This is displayed by pressing the MEM button in the TIMER mode. Now this setting can be saved in a specific memory location.

### 6.4 Setting the waiting time

Press the MODE button to switch to CYCLE mode.

To set a waiting time, press the SET button at which point the right most digit of the 4-digit of the digital display will start to flash.

Set the desired numerical value with the arrow up (↑) and arrow down (↓) keys.<sup>6</sup>

The next decimal place can be reached by pressing the Arrow-left key (←).

Set all four digits of the display as desired.

You can then change the position of the decimal point by pressing the left arrow key (⇐) to select. Use the arrow-up and arrow-down keys to change its positions. (123 seconds thus become 12 .3 or 1 .23 or 0 .123 seconds)

Exit the settings by pressing the EXIT button .



### 6.5 Saving the waiting time

Press and hold the MEM button for 2 seconds. The display changes to "Ld 1" and the letters Ld flash briefly.

Press the MEM button again to switch to the memory locations. The display shows "Sv 1"

The IG-101D has a total of nine memory locations. It is important to store the "waiting time" setting in a different memory location than the "dispensing time" setting.

Select one of the nine memory locations (Sv 1 to Sv 9) with the arrow up (↑) and arrow down (↓) keys.

With the EXIT key you save the waiting time and return to the CYCLE mode.

### 6.6 Loading the dispensing and waiting time

To load a dispensing time from the memory, switch to the TIMER mode with the MODE button. Press and hold the MEM button for 2 seconds.

The display changes to "Ld 1" and the letters Ld flash briefly.

Select one of the nine memory locations (Ld1 to Ld9) with the arrow up (↑) and arrow down (↓) keys. With the key EXIT the value is loaded. The instrument returns to the TIMER mode.

To load a waiting time from the memory, switch to CYCLE mode with the MODE button.

When loading the waiting time, proceed as for loading the dispensing time.

Press the EXIT key to load the value. The instrument returns to TIMER mode.



### 6.7 Starting the dispensing process

The dispensing process can be started in various ways.

In the MANUAL mode, press and hold the foot switch, finger switch or PURGE button for the desired dispensing duration.

In the TIMER and the CYCLE modes, start the dispensing process by pressing the foot switch, finger switch or PURGE key once.

A dispensing operation in the CYCLE mode must be stopped again as it is a cycle of the dispensing time and waiting time . (see 6.8)

### 6.8 Ending the dispensing operation

In the MANUAL and TIMER operating modes, the dispensing process is stopped by releasing the previously selected switch or the button.

In CYCLE mode, the cycle is stopped during the set pause time by pressing the foot or finger switch or by pressing the PURGE key. Using the MODE key, it is possible to stop the CYCLE mode during the set dosing time.





## 7 Pressure monitoring

Your dispensing unit is equipped with a monitoring device for the input air pressure. If there is a drop in pressure or if the pressure falls below the preset pressure level, the device does not allow any further dispensing operations and the message "P-AL" (Pressure Alarm) appears on the digital display.

In this way, incorrect dispensing can be avoided.

Only after the minimum pressure has been reached, can dispensing be resumed.

The pressure monitoring can be set to values between 0 .1 and 9 .9 bar or 0 and 143 PSI.

### 7.1 Calling up the pressure monitoring menu

To access the pressure monitoring menu, while the instrument is switched on, press and hold the SET and MEM buttons.

The digital display now shows the unit for the pressure indication ("bar" or "PSI").

### 7.2 Setting the pressure display unit

Use the arrow up (↑) and arrow down (↓) keys to set the desired unit for pressure.

Press the PURGE key to accept the value. You can now continue to set a pressure limit.

Pressing the EXIT key the values are accepted and the device restarts.



### 7.3 Setting the minimum pressure for pressure monitoring

After confirming the pressure, you can set a value for the minimum pressure with the arrow up (↑) and arrow down (↓) keys.

Press the EXIT key to accept the value and restart the instrument.

In order to deactivate the pressure alarm, the minimum pressure can be set to 0.0.

## 8 Different Variants

### Variant 0-7bar:

- For medium to high viscosity materials
- For bigger dispensing amounts
- Materials: silicones, thermal paste, PU, etc.

### Variant 0-1 bar:

- For low viscosity materials
- For smaller dispensing amounts
- Materials: cyanoacrylate, anaerobic glue, oils, uv-glue, SMD-glue



## **9 Maintenance and Cleaning**

The dispensing controller is maintenance-free. Any needed repairs must be performed by the manufacturer.

To clean the unit and the housing, use only dry or damp cloths and never use cleaning fluids such as petrol, thinners or any other flammable or corrosive liquid.

## **10 Disposal**

At the end of its service life, dispose of the controller in accordance with the applicable local regulations.

Electrical parts cannot be disposed of with household waste.

According to Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE), electrical equipment must be returned to the collection points set up for this purpose in order to be reused.



## 11 Technical data

Outer dimensions (D x W x H)	235 x 210 x 75 mm incl. Pressure regulator
Weight	ca.1,30 kg
Power supply	85 – 264 V AC 50/60 Hz
Internal voltage	24 V DC
Dispensing duration	0,01 bis 9999 seconds
Compressed air input	0 - 7 bar
Compressed air Output	0 - 7 bar / 0 - 1 bar
Digital display	7 segment display 4-digit
Programs	9 memory slots
Operation mode	manual / timer
Vacuum retention	yes
Available models	0 - 1 bar, 0 - 7bar



## 12 Declaration of Conformity

Product: **Dispensing Controller**  
Modell: **IG-101D**  
**IG-101D-0-1-BAR**  
Parameter: **85-264V AC, 50/60Hz, 15W**

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We confirm that the design and construction of the above-mentioned products comply with the provisions of the European Community directives listed below and the requirements for obtaining a CE mark.

**EC Directive Electromagnetic Compatibility 2014/30/EU**  
**EN 61000-6-3: 2007/A1: 2011/AC: 2012**  
**EN 61000-6-2: 2015**

**EC Low Voltage Directive 2014/35/EU**

This declaration is made responsible for the following importer:

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Breitstetten, 14.02.2022

Doris Holda, Managing Director