PERISTALTIC PUMP WITH VARIOUS HEADS

Model D25VT2i and D25VT4i

Codes 1.9733.04/16/17/41
1.9734.10/11/12

INSTRUCTION MANUAL

April 2025

CE

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1- GENERAL INTRODUCTION

The following considerations are intended to ensure proper reception and use of the device, as well as user safety. To this end, we recommend reading this manual carefully before unpacking the device and using it.

-This manual must be kept at all times within reach of the user of the equipment.

- Carefully unpack the appliance, checking that the contents match the packing list.
  Report any eventuality immediately.

-For the correct conservation of the device it is necessary to avoid its installation in areas with atmospheres corrosive or exposed to liquid splashes.

-Avoid using the device when there is a possibility of generating explosive gas mixtures and flammable.

-In accordance with European regulations 89/655/EEC, the lack of adequate maintenance and the alteration or change of any component, exempts the manufacturer from any responsibility for the damages that may occur.

-The devices sent to *DINKO Instruments technical services* must be in perfect condition. **clean and disinfected** . Otherwise they will be rejected and returned at the expense of the owner.

2- PACKING LIST

Description Code	Quantity	
D25VT2i Peristaltic Pump	Codes 1.9733.14 or 16 or 17 or 41	1
either		
D25VT4i Peristaltic Pump	Codes 1.9734.10 or 11 or 12	1
Power cable		1
Warranty		1
Connection set		1
Seal set		1
Instruction Manual		1

3- RECEPTION

To ensure proper reception and use of the device, and user safety, we recommend reading this manual carefully before unpacking the device and subsequent use, especially the following points:

3.1- THE MANUAL

This manual must be kept at all times within reach of the user of the equipment.

3.2- UNPACKING

Unpack the appliance, checking that the contents match the packing list.
Report any eventuality immediately.

3.3- EXPLOSIVE MIXTURES

Avoid using the device when there is a possibility of generating explosive gas mixtures and flammable. The ATEX Directive is not covered.

3.4- RESPONSIBILITY

According to European regulation 89/655/EEC, the lack of adequate maintenance and the alteration of component, exempts the manufacturer from any liability for any damage that may occur.

3.5- REPAIRS

The devices to be sent to DINKO technical services *must* be **clean and disinfected** .
Otherwise they will be rejected and returned with postage at the owner's expense.

3.6- SIGNS AND SYMBOLS

Always heed the hazard warning signs and symbols that appear in this manual or on labels attached to the pump body, such as those shown below.

SIGN/SYMBOL	INTERPRETATION-MEANING
	Avoid contact of fingers with moving parts
	Danger-Risk-Caution
Before opening DISCONNECT the network cable Before removing cover PULL-OUT plug 	Before accessing the inside of the Pump, disconnect the power cable from the mains.
	Possible overheating - Do not touch
110-230V AC 50/60Hz	Alternating current supply voltage
110V AC 60Hz	Alternating current supply voltage
12V DC or 24V DC	DC supply voltage
	Disposal of waste electrical and electronic equipment by users within the European Union. It is not disposable as household waste. Deliver to the agency for recycling electronic equipment. Contact your local office, the store where you purchased the equipment, or your local waste disposal service. Recycling helps conserve natural resources. Make sure it is recycled while protecting human health and the environment.

4- DESCRIPTION

The D25V2i or D25V4i peristaltic pumps are equipped with heads that allow easy access to the tube for removal when it needs to be replaced due to wear or sterilization.

They accept various tube sizes which, combined with electronic speed regulation, provide a wide variety of flow rates, as can be seen in the indicative flow rate tables in the manual.

On the back they incorporate a connector for a pedal (foot switch) and remote control operation, a power socket with a fuse box and a main ON/OFF switch.

On the front, there are switches to change the direction of flow and stop, as well as potentiometers for percentage speed regulation, per channel.

Pumps are manufactured with the number of heads requested or with other heads with higher performance.

FRONTAL

Includes:

2 or 4 easy tube loading heads

1 Stop and change of direction switch for each head

1 Dial potentiometer 0-99% for each head

1 Cyclic timer

Pilot lights

LATER

Includes:

Main switch with fuse box and power supply. Internal fan outlet.

HEADS

2 or 4 heads from those shown below

DESCRIPTION

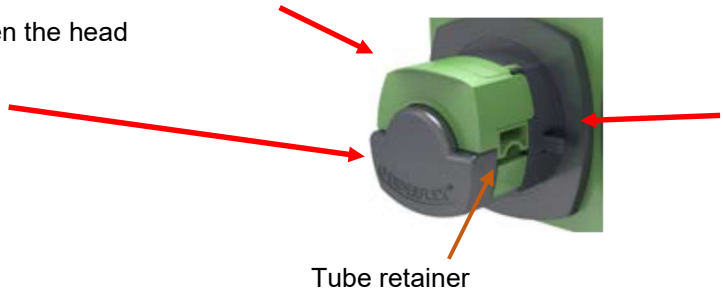
CFG1 pump head , three-roller rotor, 1 channel, for medium flow rates and low.

The head is shown open. The arrow points to the head opening control.

CFG2 pump head, three-roller rotor, 2 channels, for low flow rates

Open head with 2-tube outlet (2 channels) shown

CFV-4r pump head. Rotor with 4 rollers.



Open head

Included with the pump are 4 pairs of tube seals for the 6 usable tube sizes:
0.5 - 0.8 / 1.6 / 3.2 and 4.8 mm.

PUMP HEAD REPLACEMENT

Remove the pump head by pressing the release lever and turning the head counterclockwise 45°.

Push and turn until the lever clicks. Remove the head.

Release lever

Offer the new head to the backplate at an angle that positions the motor shaft to the rotor shaft inside the backplate at approximately 45º, facing the lugs on the housing.

INSTALLING THE TUBE

1

2

3

4

The tube seals for the CFV-4r head vary depending on the tube size being installed.

To insert the tube retainers:

1-Lift the head cover by pulling it upwards.

2-Place the tube retainer horizontally to the head body.

3-4. Turn the tube retainer by inserting it into the side guides, pushing down until it clicks into place. You will hear a click indicating it has been secured.

CHANGING TUBE SEALS

1 2 3 4

To change the tube seals:

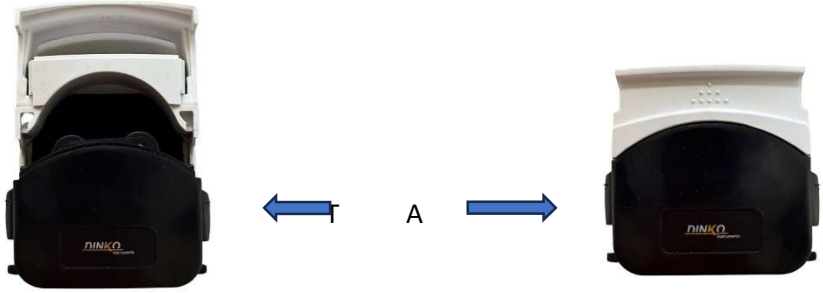
1. Gently insert a small flat-blade screwdriver (maximum size 5 mm) into the gap at the base of the tube retainer.
2. Turn the screwdriver to overcome the guide.
3. Make sure the tube is aligned with the gap in the tube retainers and is not damaged.
4. Remove the tube retainers by lifting and turning.

CF-4r Pump head , 4-roller rotor.

Pump head opening and adjustment.
For proper operation of the head and to prevent unnecessary noise, it is very important to properly adjust the two internal tube diameter settings on both sides of the head.

Below we detail how they should be adjusted:

Here we show the front view of the head:



Open head Closed head

In the figure we have marked the adjustment wheels with the letter A.

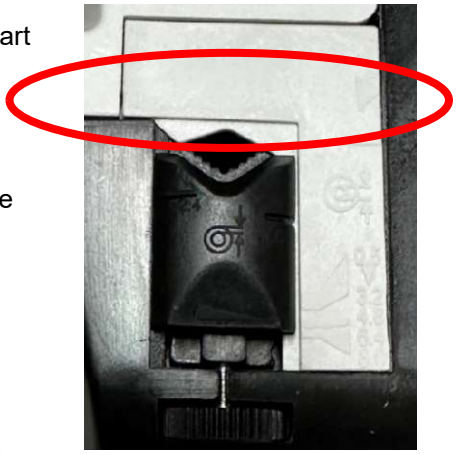
Let's take an example for a tube with an internal diameter of 4.8 mm and a wall of 1.6 mm.

With the head closed, turn the wheel until the mark on the bottom of the moving part is at the height of the 4.8 mm mark, as shown in the following images:

Side view:

Open head Closed head

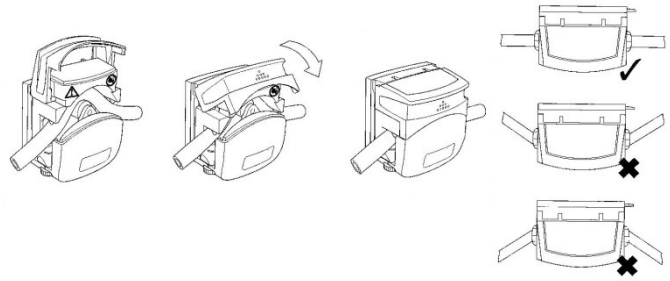
In red we can see the correct position of how the mark on the moving part should look with the head closed. Check, by applying a little pressure, that the moving part is in the lowest possible position.



This operation must be performed on both wheels, both on the right side and the left side.

Once checked, we can now place the tube inside the head.

Loading of tubes .



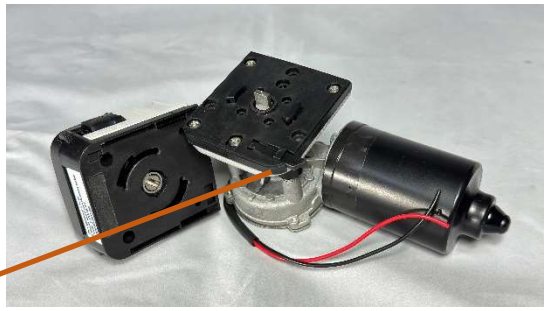
X - Incorrect position

V - Proper position

CF-4r Pump head Release

To replace the CF-4r head or to wash it, it is possible to detach it from its attachment to the pump cabinet.

P



P- Release lever

To remove the pump head, press the image release lever while turning the head to the left and then pull it towards the operator.

5- START-UP

Mount the selected tube on each head. See “Changing Tubes.”

Ensure that the mains voltage is between 100 and 230 V.

Connect the power cable to the rear socket and to the mains.

In process installations or assemblies that include a *DINKO Pump* , they must not be put into service before checking that the safety standards of the European Machinery Directive 2006/42/EC are met.

Press the ON switch.

The speed control is a potentiometer with a numerical revolution counter from 1 to 10.

The dial consists of numbers 1 to 10 for each turn so the regulation is 0-100%, in increments of 1% and repeatability of 100%.

Each head has its own speed regulator and flow direction and stop switch.

If you want to stop a head from working, act on the individual direction and stop switch instead of setting the regulator to 0% to avoid any small motor rotation due to residual currents.

6 - TIMER

When the device is connected, the timer turns on and remains on standby. To start it, press the ▲ (6) key.

5 6 7 8

1- OUT Indicator contact open/closed - red light

2 - Measured time (red)

3 - Scheduled time (green)

4 - Time units (hour-minute-second) H/M/S-green light

5- **SET** button

6- Increment button

7- Scroll button

8- Reset button

The timer allows for different working methods, depending on the selected menus.

6.1 Menu Selection

Pressing **SET** for more than 3 seconds enters the Menu function. After selecting or modifying a parameter, press **SET** and you will move on to the next one. If you hold it for more than 10 seconds without touching anything, you will return to the original screen.

Ç

Menu sequence – Factory programming

 Press **SET**	**rAn1** Select the units of **HM/S** time and time maximum for **t.Off** .	Pressing ▲ selects the decimals and whether they are **H/M/S** or **H/M** or **M/S** **H** from 99.99 to 9999 **M** from 99.99 to 9999 **S** from 99.99 to 9999 **H/M** 99.59 **M/S** 99.59
 Press **SET**	**rAn2** Same for **t.on**	Idem
 Press **SET**	**U-d** Select the way to counting time	Pressing ▲ selects **U-** Crescent mode **d** – Decreasing mode

Menu sequence – Factory programming

 Press **SET**	**i nt** Select time of answer.	Pressing ▲ selects 1 mS 20ms
 Press **SET**	**out** Select the menu you want use Description of the different modes in the **Modes of use section**	Pressing ▲ selects **n** (N Mode) → **F** (F Mode) **C** (C Mode) **r** R Mode)
	**stA** Select the start-up: manual or automatic.	Pressing ▲ select **YES** - (When the team must press ▲ to that the start is put into operation first time (manual)

Press **SET**		**No-** When connected it puts into motion automatically.
 Press **SET**	**HoLd** Select that if the cut is made current, when restarted, follow the menu where it was cut or started again.	Pressing ▲ selects **Yes** – Continue ↕ **no -** Start over
 Press **SET**	**LoCy** Pressing ▲ selects ways to lock the menu	► **LO** - Nothing ↓ **L-1** Lock Reset ↓ **L - 2** Lock function time and menu ↓ **L-3 -** Block all

6-2 Selection of running and stopping time.

The timer has 2 programming times **t.oFF** and **t.on that** indicate the status of the timer contacts.

t.oFF will always be the first to count and then **t.on will start** .

N, F modes we can only program the **t.oFF,** however in **R mode** , we must configure the **t.oFF** and the **t.on.**

To enter the time selection menu, press ►. The first digit from the left will flash. ▲ will change the value. ► will move to the next position, continuing until all four digits are reached.

When all four digits have been selected, press **SET** to confirm the selection.

Menu sequence

 Press **SET**	**t.oFF** Indicates that the contacts are closed and allow the equipment operation	Time parameters of 0.015 – 9999 H were selected in the **rAn1 function** of the menu.
 Press **SET**	**t.on.** Indicates that the contacts are open and do not allow the operation of the equipment. It is indicated by a red light. **R** and **C** menu only .	The time parameters of 0.01S – 9999H They were selected in the **rAn2 function** of the menu.

6.3 Modes of use

The pump has a timing mode selector with two positions, **O** and **I, on the front of the Control Module.**

In position **O** , when the timer is started (pressing the ▲ key on the timer will start counting the programmed times), the head will run for the time programmed as **t.oFF.**

In position **I** , when the timer is started (by pressing the ▲ key on the timer, it will start counting the programmed times), the head will remain off for the time programmed as **t.oFF.**

6.3.a - Mode N

This working mode is used for:

- When you want to program a single dosage, the unit will run for the programmed time and then stop when the timer is activated.

  Programming:

  Timing mode selector in position O

  Engine rotation direction selector in position "0" (◄ or ►)

  Turn the unit off and then back on. With the unit on, press ▲ and check the programmed **t.oFF time** (green display at the bottom). If it needs to be changed, see section 7-2 Selecting the on and off time.

  Position the rotation direction selector to the desired position so that the head rotates clockwise or counterclockwise.

  To start the head, press the **RST key**, and if the pedal is connected, press the pedal.

  The head starts up for the time programmed as **t.oFF** .

  In green we will see the programmed time as **t.oFF** and in red we will see how the time increases from 0 to **t.oFF.**

  Once the **t.oFF time has elapsed,** both the red and green displays will show at the same time, the counting will stop and the head will stop.

  To perform another dosage, press the **RST key** , or if the pedal is connected, press the pedal. If the pedal is connected, dosage can be started using either the RST key or the pedal.

RST key

  It is the factory programming.

- When you want to program a single delayed dosage; that is, when the timer is activated, it will count the programmed time with the head stopped, and when that time is up, the head will start working until the equipment is stopped.
-

  Programming:

  Timing mode selector in position I

  Engine rotation direction selector in position "0" (◄ or ►)

  Turn the unit off and then on again. With the unit on, press ▲ and check the programmed delay time **t.oFF (green lower display). If it needs to be changed, see 7-2** Selecting the on and off time.

  To start the equipment press the **RST key** , and if the pedal is connected, press the pedal.

  Position the rotation direction selector in the desired position so that the head rotates clockwise or counterclockwise when the **t.oFF ends.**

The head will remain stopped for the time programmed as **t.oFF** .

In green we will see the programmed time as **t.oFF** and in red we will see how the time increases from 0 to **t.oFF.**

Once the **t.oFF time has elapsed,** both the red and green displays will show at the same time, the counting will stop and the head will start.

To perform another delayed dosage, press the **RST key** , or if the pedal is connected, press the pedal. If the pedal is connected, the cycle can be started using either the RST key or the pedal.

← **RST** key

6.3.b - **Mode F**

Same as **Mode N**, but:

Once the **t.oFF time has elapsed,** the green display will show **t.oFF time** and the red display will continue counting the time.

6.3.c- R Mode

Asymmetric cyclic mode, in which an operating time and a stopping time are programmed to be repeated indefinitely.

This working mode is used for:

- When we want to perform repetitive dosing of a specific volume, with a pause between each dosing to transfer the rubber to another container for another dosing. (Filling containers with the same volume)

t.oFF will be the first half and **t.on** will be the second half.

In the timer programming we will select:

out r ~~(R Mode)~~

Sta no ——►

Hold ~~no~~ ——►

Timing mode selector in position O.

Engine rotation direction selector in position "0" (◄ or ►)

The first half will be a march and the second a stoppage.

March ..…Stop……. March ……Stop……. March ……

t.oFF t.on

Timing mode selector in position I

Engine rotation direction selector in position "0" (◄ or ►)

The first half will be a stoppage and the second half will be a march.

……..Stop……. March ……...Stop……. March

t.oFF t.on

Once the working mode has been selected, turn off the pump and remove the external connector.

When the pump is started, the cycle we have selected will begin.

Note: To use the pump without the timer:

To be able to use the peristaltic pump without taking into account the timer, that is, the pump head starts when we turn on the pump and stops when we turn it off.

For the equipment to work like this, it is necessary to program the timer as follows:

- Pressing SET for more than 3 seconds enters the Menu function. After selecting or modifying a parameter, press SET to move on to the next one. If you hold down SET for more than 10 seconds without touching anything, you'll return to the original screen.
- In the timer menu, set the Sta section to YES. 
- Timing mode selector in position O.
- Engine rotation direction selector in position “0” (◄ or ►)
- Turn off the equipment and turn it on.
- Set the direction of rotation selector to the desired position (◄ or ►)
- The motor will run and the timer will remain on without starting to count.
- To set the timer to count, you would have to press ▲

IT IS THE FACTORY PROGRAMMING.

7- CHANGING TUBE

Press the OFF switch. Remove the tube according to the instructions in the “Description” and “Heads” sections.

When installing the new tube, it must be centered over the rollers to prevent the rotor from pinching it.

In general, new tubes may stretch during the first 30 minutes of operation. If this occurs, the tubes must be reseated. To detect stretching or insufficient tube attachment to the head, it is helpful to properly mark the tube with a marker.

A set of tubes is supplied with each pump.

The pump feed and discharge pipes can have any wall thickness, but not the pipe installed in the head, which must have a wall thickness of 1.6 mm.

The silicone tubing supplied is medical/food grade according to FDA and USP standards, autoclavable at 120ºC and medium-durable for use with peristaltic pumps.

AVAILABLE MATERIALS

The most mechanically resistant tubes are PHARMA, TYGON A-60, TYGON A-60-G and, for medium duration, SILICONE, but durability also depends largely on the chemical nature of the pumped liquid, the pressure, existing temperature and, of course, the engine revolutions.

Proper selection of the inner diameter of the tube avoids the need for higher revolutions of the peristaltic pump motor with a small diameter tube and the reduction of the tube's life.

PHARMA
Autoclavable multiple times. Sterilizable by ETO and Gamma .
Medical-food grade, Class VI USP, 21CFR 177.2600 and FDA. Non-hemolytic.
Excellent resistance to chemicals.
ISO 10993. Low permeability and good abrasion resistance.
Long duration.
Use temperature, -51ºC to 132ºC .
Beige color.

SILICONE
Autoclavable.
The most versatile tube. Platinum Cure quality silicone.
Average duration.
Medical/food grade. Excellent biocompatibility.
Maximum temperature: 140ºC.
Translucent.

TYGON A-60-C ®
Autoclavable multiple times. Food grade. Long-lasting.
Resistant to acids, alkalis, oxidizing agents.
Use temperature: -59ºC to 135ºC.
Beige color.

TYGON A-60-G ®
Autoclavable
Compatible with Ozone, UV light and disinfectants.
High resistance to fatigue and abrasion.
Resistant to acids, alkalis and alcohols.
Use temperature -59ºC to 135ºC.
Black color.

VITON ® Autoclavable
Suitable for acids and non-acetone solvents.
Maximum temperature 300ºC.
Black color.

8- ORDERING INFORMATION

Pump Codes and Flow Rates per Channel

Code ▼	Model	Heads	Tempori-zador	Caudal ml/min	Engine rpm
1.9733.14	D25V2i	2 x CFG1-3r	No	5.0 to 565	300
1.9733.15	D25V2i	2 x CFG2-3r		0.5 to 175	300
1.9733.40	D25V2i	2 x CF-4r		2.0 to 1100	350
1.9733.13	D25V2i	2 x CFV-4r		0.2 to 30	30
				0.5 to 80	80
				2.0 to 220	240
1.9733.16	D25VT2i	2 x CFG1-3r	Yes	5.0 to 565	300
1.9733.17	D25VT2i	2 x CFG2-3r		0.5 to 175	300
1.9733.41	D25VT2i	2 x CF-4r		2.0 to 1100	350
1.9733.04	D25VT2i	2 x CFV-4r		0.2 to 30	30
				0.5 to 80	80
				2.0 to 220	240
1.9734.01	D25V4i	4 x CFG1-3r	No	5.0 to 565	300
1.9734.02	D25V4i	4 x CFG2-3r		0.5 to 175	300
1.9734.08	D25V4i	4 x CFV-4r		0.2 to 30	30
				0.5 to 80	80
				2.0 to 220	240
1.9734.11	D25VT4i	4 x CFG1-3r	Yes	5.0 to 565	300
1.9734.12	D25VT4i	4 x CFG2-3r		0.5 to 175	300
1.9734.10	D25VT4i	4 x CFV-4r		0.2 to 30	30
				0.5 to 80	80
				2.0 to 220	240

Dimensions: with 2 heads, 32 x 26 x 14 cm. Weight: 5 kg. With 4 heads, 26 x 34 x 27 cm. Weight: 7 kg.

9- MAINTENANCE-SPARE PARTS

Before proceeding with any examination or repair of the appliance, disconnect the power supply.

Every initiative must be carried out by qualified personnel to avoid major problems.

Entrust your device to a technical service authorized by *DINKO Instruments.*

LUBRICATED

The engine and its block do not require lubrication, so they are maintenance-free.

The rotor bearings are self-lubricating, but it is advisable to lightly lubricate them and the rollers with silicone grease ref. 8.0030.03 or similar from time to time, especially if they have been washed.

TUBES

The head tube must be replaced periodically and systematically to avoid the inconvenience of it breaking while the pump is in operation.

WASHING

After finishing using the pump, it's a good idea to purge the contents of the tubes to prevent solidification that could clog them, especially in small-diameter tubes. It's also advisable to pump an inert, compatible liquid to complete the flush. Be careful to avoid splashing.

SPARE PARTS

Dial for 10-turn potentiometer. Code 1.0062.07
Digital cyclic timer. Code 1.0045.13
Fan. Code 1.0042.01
Flow direction switch. Code 1.0025.01
Flow direction and stop switch. Code 1.0015.05
Foot switch. Code 1.9740.01
Main control circuit. Code 1.0060.03
Motor, 24V DC 240 rpm. Code 1.0077.01
Motor, 24V DC 80 rpm. Code 1.0077.10
Motor, 24V DC 30 rpm. Code 1.0077.24
Motor, 24V DC 350 rpm. Code 1.0080.01
Power supply. Code 1.8093.16
Pump head CFG1-3r, with 300 rpm motor. Code 1.0078.74
Pump head CFG2-3r, with 300 rpm motor. Code 1.0078.75
Pump head CFV-4r. Code 1.0078.34
Pump head CF-4r. Code 1.0078.01
Push-button switch. Code 1.0015.09
10-Turn potentiometer. Code 1.0062.06

1.6mm wall calibrated tube codes, 1 meter

Tube inside Ø ► ▼.Identifier►	0.5 mm	0.8 mm 13≠	1.6 mm 14≠	2.4 mm 19≠	3.2 mm 16≠	4.0 mm	4.8 mm 25≠	6.4 mm 17≠
PHARMA		1.8801.08	1.8801.16		1.8801.32		1.8801.48	1.8801.64
Tygon A-60-C ®			1.8740.16		1.8740.32			
Tygon A-60-G ®			1.8750.16				1.8750.48	1.8750.64
Silicone	1.8760.05	1.8760.08	1.8760.16		1.8760.32	1.8760.40	1.8760.48	1.8760.64
Viton ®		1.8790.08	1.8790.16		1.8790.32		1.8790.48	1.8790.64

10- ACCESSORIES

10.1 Scales for flow and dosage calibration

To measure the dosed quantity in the calibration process of peristaltic pumps, it is very effective to use a precision scale with digital reading.

If the liquid to be pumped has a density of "1," there will be no difference between grams and milliliters. Otherwise, calculate the density by weighing a quantity of the liquid with a measuring cylinder, for example, 25 ml, and then tare it on the scale.

Divide the weight indicated on the digital reader of the scale in grams by the milliliters contained in the test tube to obtain the density according to the ratio, D = M / V.

There is always the option to calibrate the pump directly based on weight. instead of volume.

Reproducibility 0.1 g. Capacity 600 g. Code 8.9812.02
Reproducibility 0.01 g. Capacity 500 g. Code 1.9812.04

8.9812.02

Characteristics:

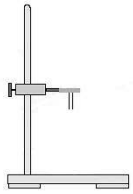
♦ Single digital readout plate, with high visibility backlit LCD screen.
♦ Easy to use and highly robust with ABS housing and membrane keyboard airtight, moisture-proof.
♦ Stainless steel plate, 157x128 mm (8.9812.02); Stainless steel plate 133x182 cm (Code 1.9812.04).
♦ External self-calibration.
♦ Units of measurement: grams, pounds, and ounces
♦ Continuous tare up to 600g (Code 8.9812.02), 500g (Code 1.9812.04)
♦ Power supply 230V 50/60Hz
♦ Non-slip rubber feet
♦ Working temperature: +5ºC to +40ºC. Maximum operating humidity: 80% RH

1.9812.04

10-2 Graduated cylinder, 25 ml. Code 1.9808.20
10-3 Silicone Grease, 50 g. Lubrication of peristaltic tubes. Code 8.0030.03
10-4 Foot support. Code 1.8003.08

Useful as a dosing tube/tip holder. Base: 150 x 70 cm. Bar, height 70 cm. Support slide for dosing tip.

10-5 Cyclic timer, stop/run. Code 1.8119.00



Cyclic timer 1.8119.00 Foot support 1.8003.00

CONNECTORS FOR PERISTALTIC TUBES

10.6 Reducing connectors - splice / equal ends, polypropylene

For tubes with 1.6 mm inner Ø. Code1.0080.15
For 3.2 mm inner diameter tubes. Code 1.0080.18
For 4.8 mm inner diameter tubes. Code 1.0080.05
For 6.4/8 mm inner diameter tubes. Code 1.0080.14
For 9/12 mm inner diameter tubes. Code 1.0080.20

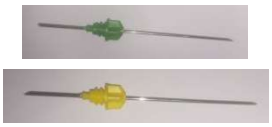
10.7 Y-shaped connectors, polypropylene

Y-shaped connector, 6 mm Ø. Code 1.0120.26
Y-shaped connector, 8 mm Ø. Code 1.0120.48
Y-shaped connector, 10 mm Ø. Code 1.0120.32
Y-shaped connector, 12 mm Ø. Code 1.0120.33

10.8 316 Stainless Steel Tube Connectors - Splicing and Dosing

Straight splice 40 mm length
Tube for peristaltic tubes 0.5 and 0.8 mm Ø, 25 Units. Code 8.0056.14
Tube for peristaltic tubes 1.6 mm Ø, 25 Units. Code 8.0056.06
Tube for peristaltic tubes 3.2 mm Ø, 25 Units. Code 8.0056.08
Tube for peristaltic tubes 4.8 mm Ø, 25 Units. Code 8.0056.10
Tube for peristaltic tubes 6.4 mm Ø, 25 Units. Code 8.0056.12

Dosage 130 mm length with a bevel
Dosing tube for peristaltic tubes 0.5 and 0.8 mm Ø, 10 units. Code 8.0056.15
Dosing tube for peristaltic tubes 1.6 mm Ø, 10 units. Code 8.0056.07
Dosing tube for peristaltic tubes 3.2 mm Ø, 10 units. Code 8.0056.09
Dosing tube for peristaltic tubes 4.8 mm Ø, 10 units. Code 8.0056.11
Dosing tube for peristaltic tubes 6.4 mm Ø, 10 pcs. Code 8.0056.13



Length 38mm
Micro-tube 0.8 mm outer diameter, 10 pcs. Code 1.0077.23
Micro-tube 0.9 mm outer diameter, 10 pcs. Code 1.0077.26

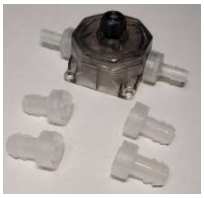
Clamping flange P. Code 1.0120.01
Clamping flange G. Code 1.0120.12

10.9 Anti-float 304 stainless steel for suction pipes

For peristaltic tubes with 1.6 and 3.2 mm inner diameter. Code1.0303.10
For peristaltic tubes with an inner diameter of 4.8 mm. Code 1.0303.11
For peristaltic tubes with an inner diameter of 6.4 mm. Code 1.0303.12
For peristaltic tubes with an inner diameter of 8.0 mm. Code 1.0303.13
For peristaltic tubes with an inner diameter of 9.6 mm. Code 1.0303.14
For peristaltic tubes with an inner diameter of 12.7 mm. Code 1.0303.15

10.10: Stainless steel dosing tubes with non-return valve

For 3.2 and 4.8 mm inner diameter tubes . Stainless steel tip, 4 mm outer diameter, 1 mm wall thickness. Code 1.0302.10
For 4.8 and 6.4 mm inner diameter tubes . Stainless steel tip 6 mm outer diameter, 1 mm wall thickness. Code 1.0302.11
For 6.4 and 8 mm inner diameter tubes . Stainless steel tip, 8 mm outer diameter, 1 mm wall thickness. Code 1.0302.12
For 8 and 9.6 mm inner diameter tubes . 10 mm stainless steel tip, 1 mm outer diameter wall. Code 1.0302.13



10.11: Peristaltic pump pulse damper - Code 1.0078.80

10.12: Adapter hose and connector for pulse dampener

For 24# tube. Code 1.0078.81
For 35# pipe. Code 1.0078.82
For 36# pipe. Code 1.0078.83

11-TROUBLESHOOTING

The following table of faults, their causes and possible solutions does not purport to cover all possibilities.

However, user inconveniences that actually have easily avoidable causes can be avoided.

PROBLEM	CAUSE	SOLUTION
It does not start and the pilot lights do not light up.	Lack of nutrition Blown fuse Unknown	Check cable and plugs Change fuse Request Technical Service
The head rotor does not rotate, but the pilot lights are on.	Broken tube that prevents it Faulty engine	Change the tube Request Technical Service
The rotor turns, the tube is not broken, but it does not pump	Exhausted, worn out tube Insufficient tube wall Empty feed tank Chemical incompatibility of the tube	Change tube Install suitable pipe Load the tank Choosing the right tube
Flow rate below theoretical	High viscosity Over-pumping circuit Internal obstruction in the tube Insufficient tube wall High discharge back pressure Chemical incompatibility of the tube	Use a larger tube Ø Short circuit Clean Install suitable pipe Lower back pressure Choosing the right tube
The head tube moves	Small tube diameter Faulty tube installation	Choosing a suitable tube Check the fixings

12- CHANGING FUSES

The fuse box is part of the power supply base located on the rear of the pump. See figure.

Main switch

Fuse box

Power base

Pry the fuse box between the center of the fuse box and the top of the power supply base with a screwdriver to remove it.

The box remains in place without being completely removed. There are two fuses.

Press the box inwards to restore its original position.

13- FLOW TABLES

Table of indicative flow rate ranges for regulation by pipe size in mm internal Ø. CFV-4r, CF-4r, CFG1-3r and CFG2-3r heads.

Pump head	rpm	0.5	0.8	1.6	2.4	3.2	4.8	6.4	◄Tube Ø mm
Identifier	-	-	13≠	14≠	19≠	16≠	25≠	17≠	
CFV-4r	30		0.2-2	0.6-6	1.5-15	2-20	3.30		
CFV-4r	80	No	0.5-5	2.0-15	4.0-32	5.0-50	8-80	No	Caudal ml/min. ◄
CFV-4r	240		2.0-15	5.0-50	10-100	15-150	22-220		
CFG1-3r	300	No		5.0-45	8-85	15-175	35-370	50-565	
CFG2-3r	300	0.5-5	1.0-10	5.0-45	8-85	15-175	No		
CF-4r	350	No	2.0-20	9-90	15-150	30-300	60-600	100-1100	

Values obtained with water and silicone tubing under normal conditions. Several factors influence expected flow rates, such as tubing diameter tolerances, the viscosity of the pumped products, and any variations in tubing travel from loading to discharge.

14- WARRANTY

DURATION:

The warranty is established for a period of 1 year from the date of commissioning of the appliance, provided that the warranty card is returned to us within 8 days of said commissioning.

Without this condition the warranty will not be valid.

SCOPE OF WARRANTY:

The warranty is given against manufacturing and material defects for an average work week of 40 hours.

The guarantee is reduced proportionally to the increase in working hours.

Repairs will be carried out at our factory.

Otherwise, the warranty will only include the replacement of defective elements.

DINKO will not be responsible for transportation costs or for any consequences resulting from the immobilization of the device.

Parts replaced free of charge remain our property, and we reserve the right to request their return, postage-free to our address.

Repairs or replacement of parts during the warranty period do not extend the initial warranty.

Our liability is limited to the attached warranty and not to possible accidents to persons or other things.

Any alteration of the device by the user voids the warranty.

15 - "CE" DECLARATION OF CONFORMITY

DINTER SA *DINKO Instruments* c/ Encarnació, 123-125 / 08024- Barcelona

Declares that the articles mentioned in the attached list, to which this declaration refers, comply with the essential safety requirements of the applicable European Directive:

- Low Voltage Directive, Directive 2014/35/EEC of 26 February 2014 and applicable since 2016 in accordance with the recommendations of the LVD Directive.

- Essential requirements of Annex I of the Machinery Directive 2006/42/EEC of the May 17, 2006

- *Electromagnetic compatibility EC relating to the* Electromagnetic Compatibility Directive 2014/30/EEC in accordance with EMC recommendations.

- Safety for electrical measuring, control and laboratory equipment. Requirements relating to the EMC. EN 61326

- Safety rules for electrical measuring, control, and laboratory devices. Part I. General requirements EN 61010-1

However, the user must observe the assembly and connection instructions given in the technical instruction catalogues.

Name	Joan A. Bravo	Josep X. Sensada
Position:	Technical Director,	Quality Manager
Signature		

Model: D-25VTXi Peristaltic Pump

OTHER *DINKO* APPLIANCES

-Blenders-Homogenizers

-Colorimeters

- Conductimeters

- Dosing Pumps

- Extractor for mince analysis

- Heater Plates

Kits for water analysis

- Magnetic Stirrers

- Metallic Block Heaters

- Microscopes

- Nephelometers

- Orbital Shakers

-Oxygen Meters

- Peristaltic Pumps

- pH meters

- Photometers

-Respirometers

- Rod Stirrers

- Rotary Stirrers / R otary Stirrers

- Sand Baths / Sand Baths

- Spectrophotometers

- Temperature Controllers

- Timers

-Trichinoscopes

- Turbidimeters

- Turn plates

- Vacuum Pumps

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