seko

# Peristaltic
## Pumps


Your Choice,
Our Commitment

# Peristaltic Pumps operating principles and advantages

Peristaltic Pumps were introduced in the mid 50's of last century. In the first years after their introduction, these products didn't encounter a big success because the hoses used at that time were subject to quick damages and ruptures. When alternative and high performance plastic materials used for tubes were found, the peristaltic pumps began to have a huge diffusion in many kind of processes.

Their operating principle is very simple: a fluid is pumped up through the suction action created by the alternate compression and relaxation of a flexible hose, executed by apposite rollers. Upon restitution of the hose or tube a strong vacuum is formed drawing product into the pump. The medium to be pumped does not come into contact with any moving part and is totally contained within a flexible hose.

## Benefits

Peristaltic pumps provide excellent solutions to solve pumping problems, especially when the product being pumped is particularly abrasive, corrosive or viscous.

### Low maintenance costs

Their lack of valves, seals and glands makes them inexpensive to maintain; the only maintenance item is the hose or tube, a relatively low cost item that can be easily changed in a short time.

### Dry running and self-priming

Peristaltic pumps do not require pumped fluid to be continually present.

The recovery of the hose or tube creates a powerful self-priming action and allows the pumps to move liquids containing entrapped air or that can off gas.

### Reversible

Peristaltic pumps are reversible if driven by apposite programmed circuits.

### Accurate dosing

The pumps are accurate in dosing; they have a repeatability of ±3% and metering capabilities of ±5%.

### No slip

The pumps have no internal backflow giving accurate dosing without slip.

### Hygienic

The pumps, if provided with specific hose FDA compliant, can be used in food, beverages and pharmaceutical industry, because the dosed medium doesn't come in contact with parts different from the hose.

### Low cost of ownership

Their cost of ownership is definitely lower than the one of other kind of pumps.

# Peristaltic Pumps fields of application

The typical fields of application of the peristaltic pumps are in the Cleaning & Hygiene world, particularly in the ware washing and in the laundries, where these pumps are used as single systems or integrated in combined systems to dose the chemicals used for Glass/Dish or clothing cleaning. Seko is already a leading company in these fields with its wide range of pumps born for these purposes.

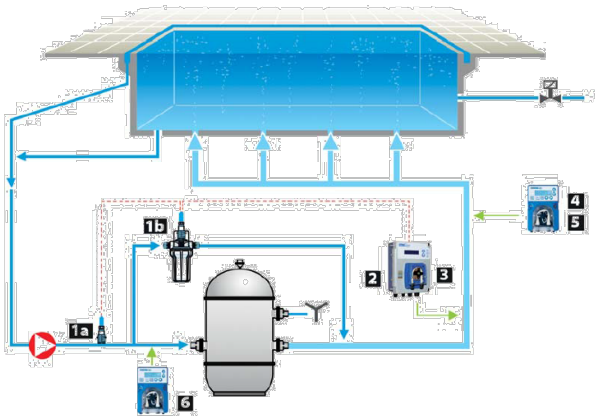
This catalogue shows the range of Seko's single pumps that can be used (and already are) in the Water Treatment field and in many other Industrial Processes.

Here following some examples of Water treatment and Industrial processes were Seko's peristaltic pumps are already widely used:

## Swimming Pools

The quality of the water from a health, aesthetic, and safety point of view is the main characteristic in dealing with swimming pools.

In this application peristaltic pumps are mainly used to dose pH inhibitors, chlorine inhibitors, algae inhibitors or flocculants inhibitors. The pumps we can offer for this application vary from the basic PE pumps to the Analogue or digital DYNAMIC pumps (these two mainly for residential pools), to the very high range KRONOS 50 and 65 pumps, equipped with stepper motors for total speed regulation (used also in public swimming pools or in waterparks).




### Key

**1** Probe holder **a** standard - **b** on demand

**2** Mesuring Instruments

**3** Dosing pump for pH inhibitor

**4** Dosing pump for chlorine inhibitor

**5** Dosing pump for algae inhibitor

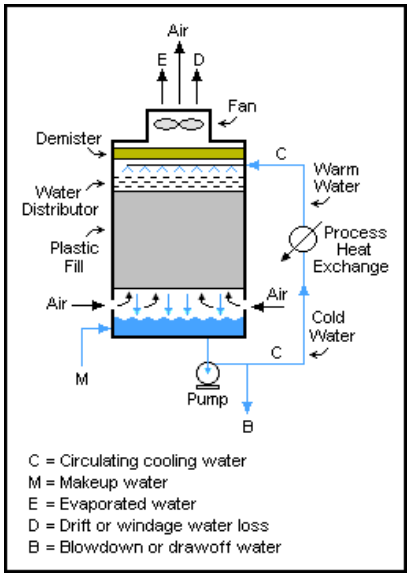
**6** Dosing pump for flocculant inhibitor

## Cooling Towers

Cooling towers are heat removal devices used to transfer process waste heat to the atmosphere, using cold water as heat removal medium. The cool water absorbs heat from the hot process streams which need to be cooled or condensed, and the absorbed heat warms the circulating water (C).

The warm water returns to the top of the cooling tower and trickles downward over the fill material inside the tower.

The cooling water has to be anyway treated and the Dosing Pumps in this case are used for Biocide, Algaecides, Chlorine chemical products and for Anti Scale Products, in combination with Seko's control instruments for pH, ORP, EC measuring.w



# Peristaltic Pumps fields of application

## Drinking Water

The quality of the water coming from surface sources or from ground has to be checked and consequently adapted to National public health ministers requirements before coming to public fountains and houses.

In this application peristaltic pumps are mainly used to dose chlorine inhibitors, algae inhibitors to make water potable as for law requirements. DYNAMIC and KRONOS pumps are suitable for this job if activated by water meter pulse senders or chlorine measuring instruments.

## Other Possible Applications In Industrial Processes

### Oenology: Wine Additives/Wine Filtration Tanks Cleaning Systems

Dosage of enzymes and additives in the wine treatment process.

Dosage of chemicals for wine filtration tanks cleaning.

### Car Washing Equipment

Dosage of detergents and other washing additives.

### Printing Industry

Dosage of UV and water based inks into flexographic machines; The adjustability of the flow rate, the possibility of pumping also inks with solids pigments, the low speed handling of the peristaltic pump make it the ideal solution for this application.

### Aquariums

Dosage of salt water into calcium reactors, dosage of enzymes and nutrients for fishes, dosage of additives to maintain the pure water quality necessary for aquariums' life.

### Agriculture

Dosage of disinfectants, enzymes and fertilizers in agricultural business.

### Laboratories

Dosage of cleaning agents for medical equipment.

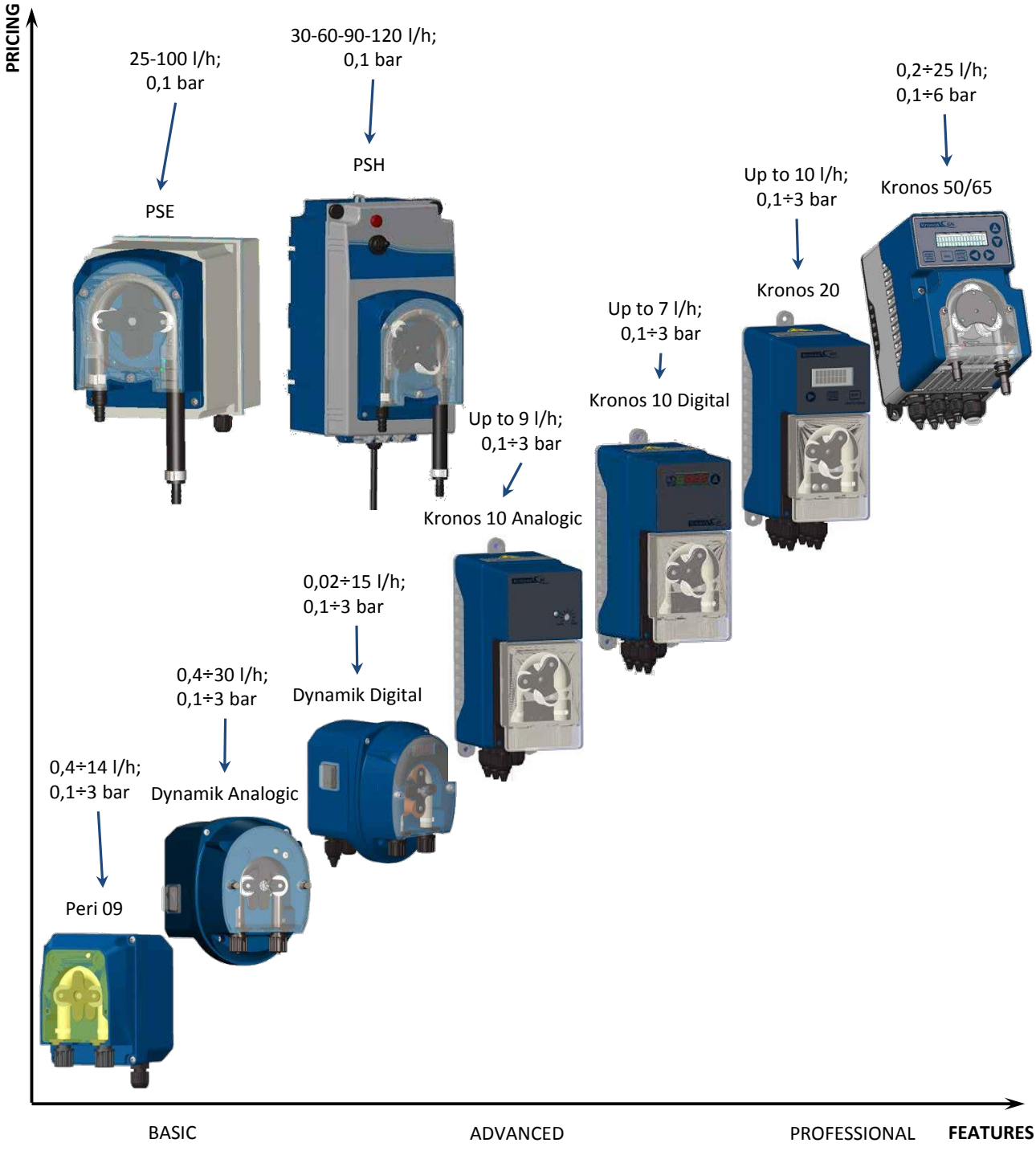
### Waste Water Treatment On Board Of Vessels

Dosage of chemicals to treat the waste waters generated on board of small vessels.

The previous are only some examples of application fields between the many possibilities to use Seko peristaltic pumps in industrial processes.

# Seko Full Range of Pumps

Here following an overview on Seko range of Peristaltic Pumps that can be used in Water Treatment and Industrial Applications:



# Peri 09 Pumps

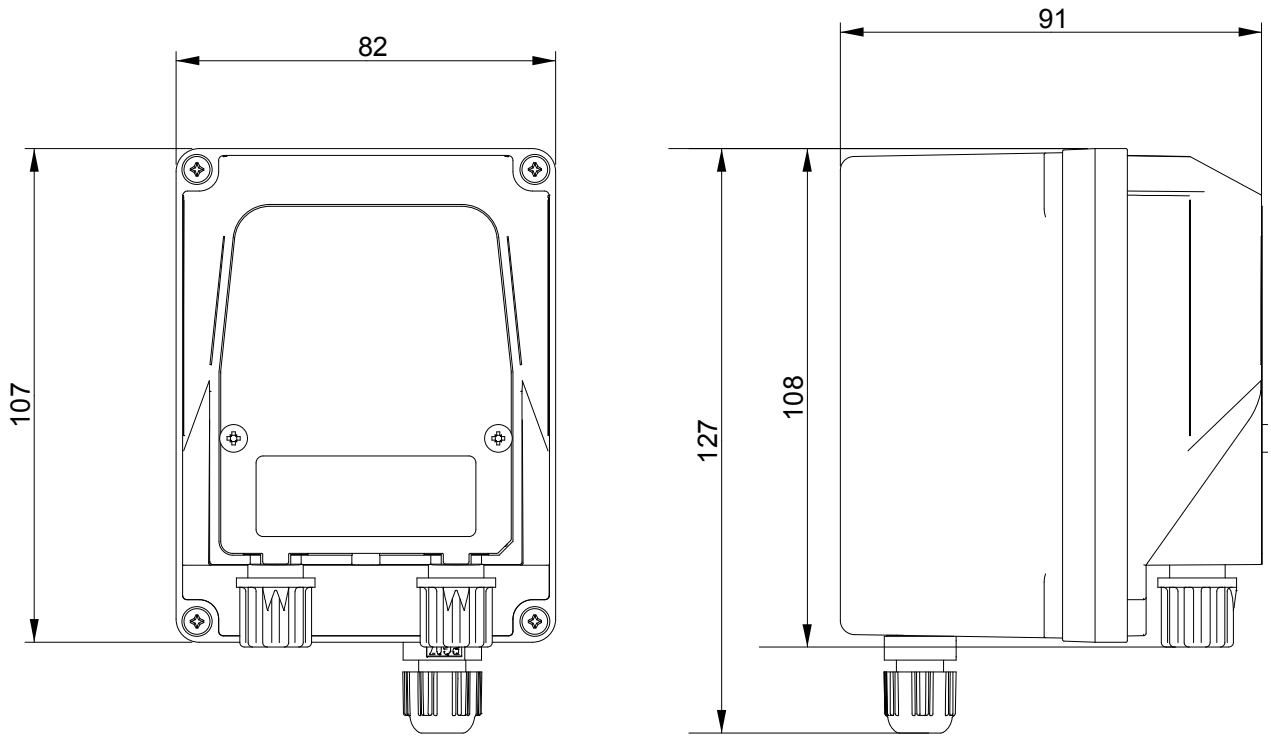
Family of Pumps with the following General Features:

- Analogue Interface (but the pump is always controlled by micro)
- IP65 protection degree guaranteed by its enclosure in PP with fiber glass.
- Insulation Class 2 (no need of grounding connection).
- Compact design makes it suitable to all kind of applications.
- It can be provided with fixing wall bracket for quick installation.
- Wide range of Power Supply, Flow Rates, Tubes to fit all the needs.
- It can be equipped with PTFE rollers for special applications such as Chlorine Dosage in swimming pools.
- Available on request with transaxle technology to assure longer motor and tubing life.

## Applications:

Often used for dosage of Chlorine in Domestic Above Ground pools (from 1 to 110 m.c.).

**DIMENSIONAL DRAWING**



# Peri 09 Pumps

**KEY CODE**

| 1, 2, 3 | Family, Function |
|---|---|
| PPE | Peri09 peristaltic pumps, Fixed Flow rate |
| PPR | Peri09 peristaltic pumps, Speed Regulation |
| PPM | Peri09 peristaltic pumps, Timed Dosing |

| 4, 5 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 0H | 0,5 bar |
| 1H | 1,5 bar |
| 03 | 3 bar |

| 6, 7 | Flow Rate |
|---|---|
| 0H | 0,4 l/h (6,6 ml/min) |
| 1H | 1,5 l/h (25 ml/min) |
| 2H | 2,5 l/h (41,6 ml/min) |
| 03 | 3 l/h (50 ml/min) |
| 04 | 4 l/h (67 ml/min) |
| 05 | 5 l/h (83,3 ml/min) |
| 06 | 6 l/h (100 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 10 | 10 l/h (166,6 ml/min) |
| 14 | 14 l/h (233,3 ml/min) |
| 18 | 18 l/h (300 ml/min) |

| 8 | Power Supply |
|---|---|
| A | 230 Vac |
| B | 24 Vac |
| D | 24 VDC |
| M | 100÷240 Vac |

| 9 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 2 | Sekobrill |
| 3 | Sekoflex |
| 5 | Sekoextra |
| 6 | Sekomed |
| 8 | Sekofort |
| 9 | Sekolast |

| 10, 11, 12 | Customization |
|---|---|
| 000 | No customization |

| PPM | 03 | 1H | A | 1 | 000 |
|---|---|---|---|---|---|

# Peri 09 Pumps

## Available Models

### PPE

Models with Fixed Flow Rate.
2 Rollers.
Motors: Synchronous AC motors or Brushed DC motors.
Flow Rates: from 0,4 l/h up to 14 l/h.
Tubes: Santoprene or Sekobrill (other materials on request).
Power Supply: 230 Vac 50/60 Hz, 24 Vac, 24 V DC

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| PPE | 00 | 0H | A | 1 | 0,1 (1,5) | 0,4 (6,6) | 230 Vac | Santoprene |
| PPE | 00 | 1H | A | 1 | 0,1 (1,5) | 1,5 (25) | 230 Vac | Santoprene |
| PPE | 00 | 03 | A | 1 | 0,1 (1,5) | 3 (50) | 230 Vac | Santoprene |
| PPE | 00 | 04 | D | 1 | 0,1 (1,5) | 4 (67) | 24 VDC | Santoprene |
| PPE | 00 | 05 | A | 1 | 0,1 (1,5) | 5 (83,3) | 230 Vac | Santoprene |
| PPE | 00 | 06 | A | 1 | 0,1 (1,5) | 6 (100) | 230 Vac | Santoprene |
| PPE | 00 | 07 | D | 1 | 0,1 (1,5) | 7 (116,7) | 24 VDC | Santoprene |
| PPE | 00 | 14 | D | 1 | 0,1 (1,5) | 14 (233,3) | 24 VDC | Santoprene |
| PPE | 1H | 1H | A | 2 | 1,5 (22) | 1,5 (25) | 230 Vac | Sekobrill |
| PPE | 03 | 0H | A | 2 | 3 (45) | 0,4 (6,66) | 230 Vac | Sekobrill |
| PPE | 03 | 1H | A | 2 | 3 (45) | 1,5 (25) | 230 Vac | Sekobrill |

### PPM

Models with Dosing Time Adjustable through a potentiometer from 0s to 30s.
2 Rollers.
Motors: Brushed DC motors.
Max Flow Rates: from 0,4 l/h up to 10 l/h.
Tubes: Santoprene, Sekobrill (other materials on request).
Power Supply: 230 Vac 50/60 Hz or 24 Vac.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| PPM | 00 | 0H | A | 2 | 0,1 (1,5) | 0,7 (11,7) | 230 Vac | Sekobrill |
| PPM | 00 | 03 | A | 1 | 0,1 (1,5) | 3 (50) | 230 Vac | Santoprene |
| PPM | 00 | 10 | A | 1 | 0,1 (1,5) | 10 (166,7) | 230 Vac | Santoprene |
| PPM | 03 | 0H | A | 2 | 3 (45) | 0,4 (6,66) | 230 Vac | Sekobrill |
| PPM | 03 | 1H | A | 2 | 3 (45) | 1,5 (25) | 230 Vac | Sekobrill |
| PPM | 03 | 2H | A | 2 | 3 (45) | 2,6 (43) | 230 Vac | Sekobrill |

# Peri 09 Pumps

## PPR

Models with Flow Rate Adjustable through a potentiometer from 12% to 100%
2 Rollers.
Power Supply: 230 Vac 50/60 Hz, 24 Vac, 24 V DC.
Motors: Brushed DC motors.
Max Flow Rates: from 1 l/h up to 18 l/h.
Tubes: Santoprene, Sekobrill, Sekolast, Sekoextra (other materials on request).
Power Supply: 100-240 Vac 50/60 Hz, 230 Vac 50/60 Hz, 24 Vac, 24 V DC

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Max Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| PPR | 00 | 04 | A | 1 | 0,1 (1,5) | 4 (67) | 230 Vac | Santoprene |
| PPR | 00 | 04 | M | 1 | 0,1 (1,5) | 4 (67) | 24÷240 Vac | Santoprene |
| PPR | 00 | 07 | A | 1 | 0,1 (1,5) | 7 (116,7) | 230 Vac | Santoprene |
| PPR | 00 | 07 | A | 1 | 0,1 (1,5) | 7 (116,7) | 24÷240 Vac | Santoprene |
| PPR | 00 | 18 | A | 1 | 0,1 (1,5) | 18 (300) | 230 Vac | Santoprene |
| PPR | 00 | 18 | M | 1 | 0,1 (1,5) | 18 (300) | 24÷240 Vac | Santoprene |
| PPR | 0H | 01 | M | 2 | 3 (45) | 1 (16,67) | 100÷240 Vac | Sekobrill |
| PPR | 03 | 01 | A | 2 | 3 (45) | 1 (16,67) | 230 Vac | Sekobrill |
| PPR | 03 | 01 | M | 2 | 3 (45) | 1 (16,67) | 24÷240 Vac | Sekobrill |
| PPR | 03 | 03 | A | 9 | 3 (45) | 3 (50) | 230 Vac | Sekolast |
| PPR | 03 | 1H | M | 2 | 3 (45) | 1,5 (25) | 100÷240 Vac | Sekobrill |

# PSE Pumps

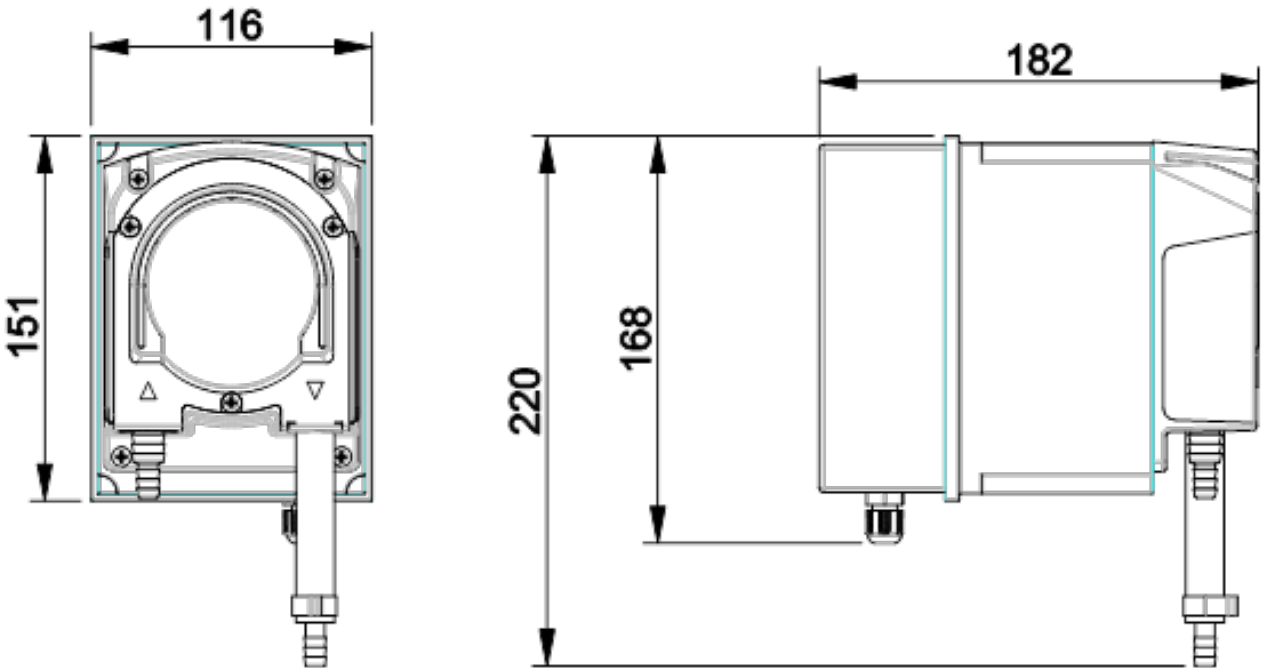
Family of Pumps with the following General Characteristics:

- Bigger Pump size (bell diameter 85 mm) for high flow rate.
- Analogue Interface.
- IP54 protection degree.
- Fixing bracket available for quick wall fixing.
- 230 Vac Power Supply, 66 W Power Consumption.
- Constant Dosage, continuous run not admitted.
- Flow Rates 25 or 100 l/h.
- It can be equipped with PTFE rollers for special applications. such as Chlorine Dosage in swimming pools.

## Applications:

PSE peristaltic pumps are mainly used for condensate removal. They are particularly suitable for air conditioners, evaporators, refrigerated display cases.

## DIMENSIONAL DRAWING




## AVAILABLE MODELS

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| PSE | 00 | 25 | A | 1 | 0,1 (15) | 25 (416,7) | 230 Vac | Santoprene |
| PSE | 00 | 25 | A | 2 | 0,1 (15) | 25 (416,7) | 230 Vac | Sekobrill |
| PSE | 0 | 100 | A | 1 | 0,1 (15) | 100 (1667) | 230 Vac | Santoprene |

# PSH Pumps

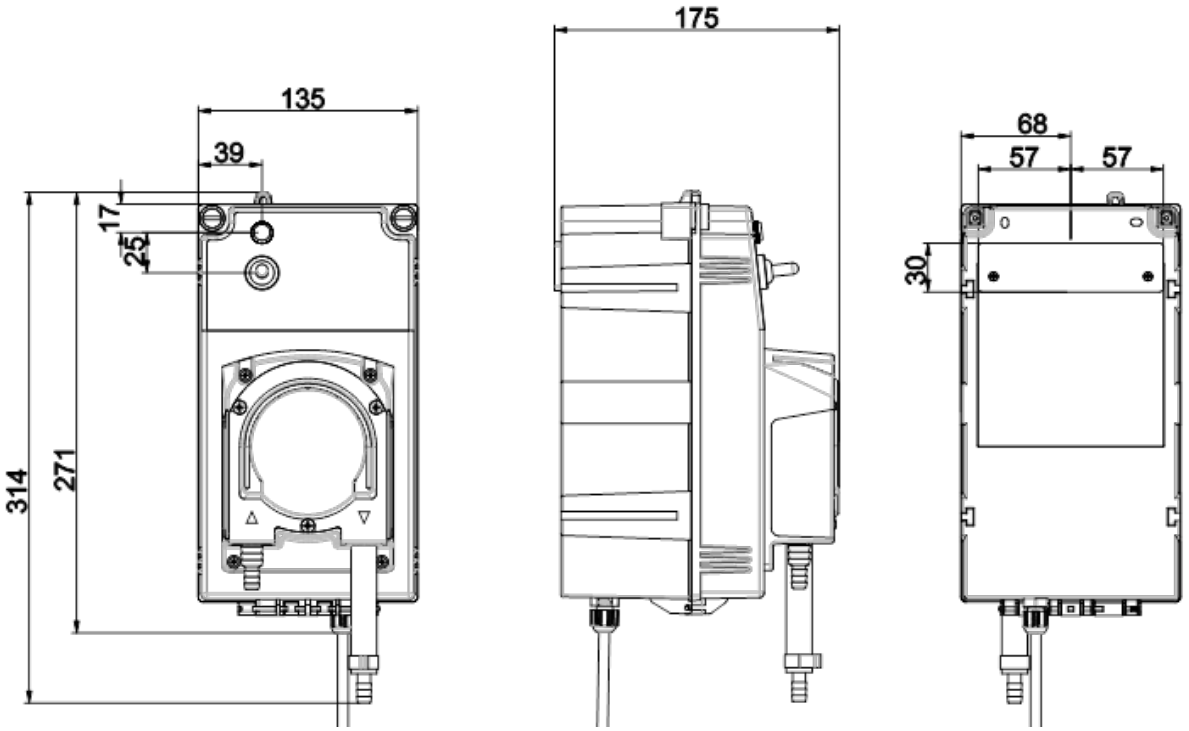
Family of Pumps with the following General Characteristics:

- Bigger Pump size (bell diameter 85 mm) for high flow rates.
- Analogue Interface (but the pump is always controlled by micro).
- IP65 protection degree guaranteed by its enclosure in PP.
- Fixing bracket available for quick wall fixing.
- Multi Power Supply 100÷240 Vac @ 50/60 Hz.
- Constant Dosage with selectable speed.
- Selectable Flow Rate via jumper on circuit board (30-60-90 or 120 l/h).
- It can be equipped with PTFE rollers for special applications such as Chlorine Dosage in swimming pools.

## Applications:

All kind of applications where high flow rates are needed, without strong backpressures at delivery.

**DIMENSIONAL DRAWING**




**AVAILABLE MODELS**

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| PSH | 00 | 0H | M | 1 | 0,1 (15) | 30-60-90-120 | 100÷240 Vac | Santoprene |
| PSH | 00 | 0H | M | 2 | 0,1 (15) | 30-60-90-120 | 100÷240 Vac | Sekobrill |
| PSH | 00 | 0H | M | 3 | 0,1 (15) | 30-60-90-120 | 100÷240 Vac | Sekoflex |

# Dynamik Analogue Pumps

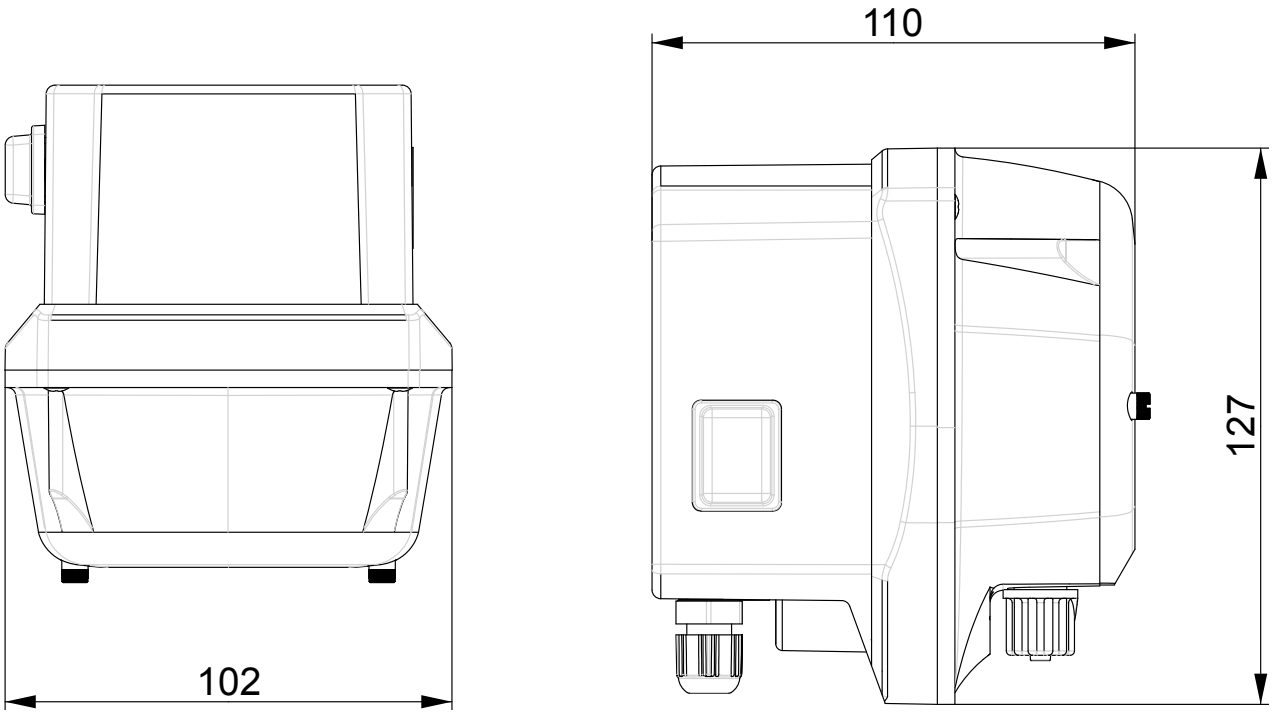
Family of Pumps with the following General Features:

- Analogue Interface (but the pump is always controlled by micro)
- IP65 protection degree guaranteed by its enclosure in PP with fiber glass.
- Insulation Class 2 (no need of grounding connection).
- Compact design makes it suitable to all kind of applications.
- Equipped with built in ON/OFF Switch.
- It can be provided with fixing wall bracket for quick installation.
- Wide range of Power Supply, Flow Rates, Tubes to fit all the needs.
- It can be equipped with PTFE rollers for special applications such as Chlorine Dosage in swimming pools.
- Available on request with transaxle technology to assure longer motor and tubing life.

## Applications:

often used for dosage of Chlorine in Domestic Above Ground pools (from 1 to 110 m.c.).

**DIMENSIONAL DRAWING**



# Dynamik Analogue Pumps

**KEY CODE**

| 1, 2, 3 | Family, Function |
|---|---|
| NPE | Dynamik peristaltic pumps, Fixed Flow rate |
| NPR | Dynamik peristaltic pumps, Speed Regulation |
| NPM | Dynamik peristaltic pumps, Timed Dosing |
| NTS | Dynamik "Season" peristaltic pumps, Time/Speed regulation |

| 4, 5 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 0H | 0,5 bar |
| 1H | 1,5 bar |
| 03 | 3 bar |

| 6, 7 | Flow Rate |
|---|---|
| 0H | 0,4 l/h (6,6 ml/min) |
| 1H | 1,5 l/h (25 ml/min) |
| 2H | 2,5 l/h (41,6 ml/min) |
| 01 | 1 l/h (16,7 ml/min) |
| 04 | 4 l/h (67 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 18 | 18 l/h (3000 ml/min) |
| 28 | 28 l/h (466,7 ml/min) |
| 30 | 30 l/h (500 ml/min) |

| 8 | Power Supply |
|---|---|
| A | 230 Vac |
| B | 24 Vac |
| D | 24 VDC |
| M | 100÷240 Vac |

| 9 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 2 | Sekobrill |
| 3 | Sekoflex |
| 5 | Sekoextra |
| 6 | Sekomed |

| 10, 11, 12 | Customization |
|---|---|
| 000 | No customization |

| NPE | 00 | 1H | A | 3 | 000 |
|---|---|---|---|---|---|

**AVAILABLE MODELS**

## NPM

Models with Dosage Adjustable through a potentiometer from 0s to 30 s.
2 Rollers.
Power Supply: 230 Vac 50/60 Hz, 24 Vac, 24 V DC.
Motors: Brushed DC motors.
Max Flow Rates: from 1,5 l/h up to 2,6 l/h.
Tubes: Sekobrill (other materials on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| NPM | 03 | 1H | M | 2 | 3 (45) | 1,5 (25) | 100÷240 Vac | Sekobrill |
| NPM | 03 | 2H | A | 2 | 3 (45) | 2,6 (43,3) | 230 Vac | Sekobrill |

# Dynamik Analogue Pumps

## NPE

Models with Fixed Flow Rate.
2 Rollers.
Power Supply: 230 Vac 50/60 Hz, 100÷240 Vac 50/60 Hz.
Motors: Synchronous AC motors or Brushed DC motors.
Flow Rates: from 0,4 l/h up to 28 l/h.
Tubes: Santoprene, Sekoflex or Sekobrill (other materials on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| NPE | 00 | 03 | A | 3 | 0,1 (1,5) | 3 (50) | 230 Vac | Sekoflex |
| NPE | 00 | 1H | A | 3 | 0,1 (1,5) | 1,5 (25) | 230 Vac | Sekoflex |
| NPE | 00 | 28 | A | 2 | 0,1 (1,5) | 28 (467) | 100÷240 Vac | Sekobrill |
| NPE | 03 | 0H | A | 2 | 3 (45) | 0,4 (6,66) | 230 Vac | Sekobrill |
| NPE | 1H | 1H | A | 1 | 1,5 (22) | 1,5 (25) | 230 Vac | Santoprene |

## NPR

Models with Flow Rate Adjustable through a potentiometer from 12% to 100%
2 Rollers.
Motors: Brushed DC motors.
Max Flow Rates: from 0,5 l/h up to 30 l/h.
Tubes: Santoprene, Sekobrill, Sekoflex (other materials on request).
Power Supply: 100-240 Vac 50/60 Hz, 230 Vac 50/60 Hz, 24 Vac, 24 V DC

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| NPR | 00 | 04 | A | 1 | 0,1 (1,5) | 4 (66,7) | 230 Vac | Santoprene |
| NPR | 00 | 04 | M | 3 | 0,1 (1,5) | 4 (66,7) | 100÷240 Vac | Sekoflex |
| NPR | 00 | 07 | M | 3 | 0,1 (1,5) | 7 (116,7) | 100÷240 Vac | Sekoflex |
| NPR | 00 | 18 | M | 1 | 0,1 (1,5) | 28 (467) | 100÷240 Vac | Santoprene |
| NPR | 00 | 30 | M | 1 | 0,1 (1,5) | 30 (500) | 100÷240 Vac | Santoprene |
| NPR | 03 | 01 | A | 2 | 3 (45) | 1 (16,7) | 230 Vac | Sekobrill |
| NPR | 03 | 01 | M | 2 | 3 (45) | 1 (16,7) | 100÷240 Vac | Sekobrill |
| NPR | 0H | 0H | M | 2 | 0,5 (7,5) | 0,5 (8,8) | 100÷240 Vac | Sekobrill |

## NTS (Dynamik "Season")

Model with Double Regulation: 1 potentiometer for Dosing Time adjustment (from 1 to 20 min), 1 selector for Flow Rate Selection (1 l/h Winter Season, 2 l/h Mid Season, 4 l/h in Summer Season). The pump repeats the set dosage every 24 hours.
2 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz.
Motors: Brushed DC motor.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Max. Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| NTS | 1H | 04 | M | 1 | 0,1 (1,5) | 4 (66,7) | 100÷240 Vac | Santoprene |

# Dynamik Digital Pumps

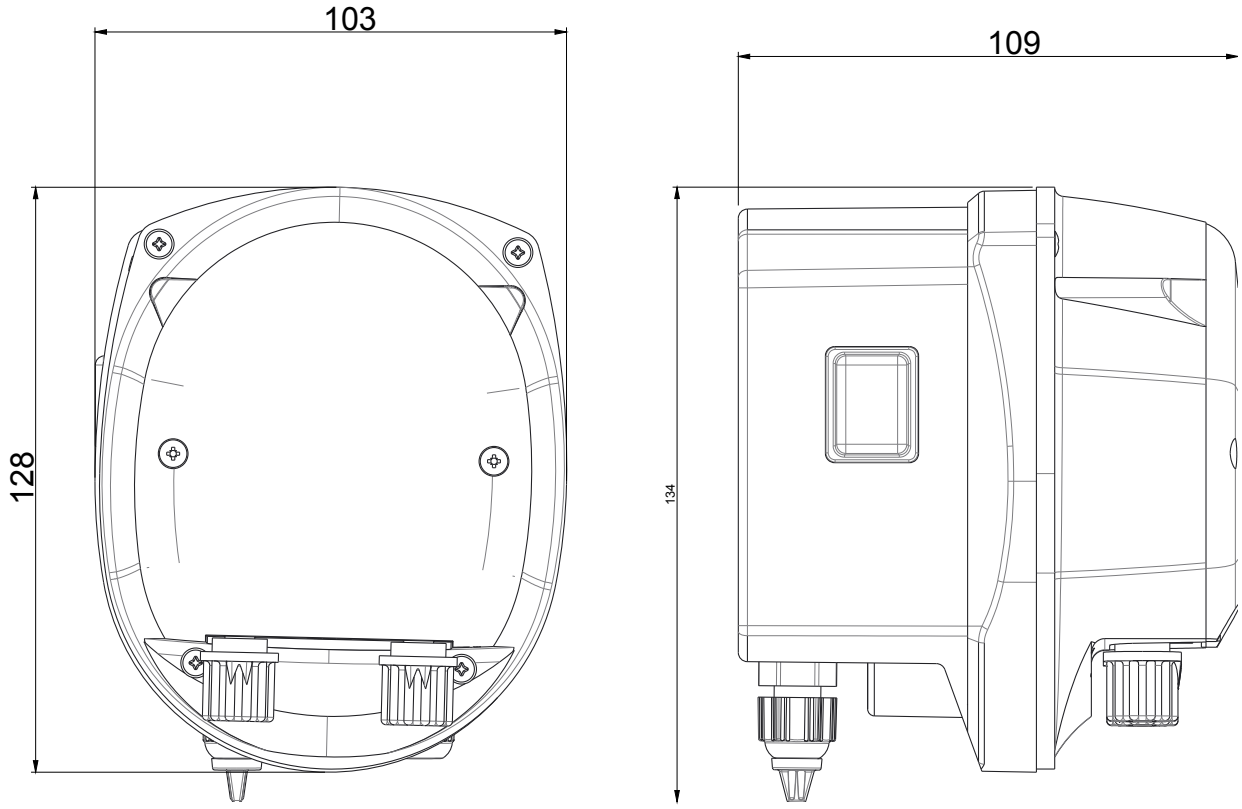
Family of Pumps with the following General Features:

- Digital Interface with 7 segment display.
- IP65 protection degree guaranteed by its enclosure in PP with fiber glass.
- Insulation Class 2 (no need of grounding connection).
- Compact design makes it suitable to all kind of applications.
- Equipped with built in ON/OFF/Priming Button.
- Provided with fixing wall bracket for quick installation.
- Wide range of Power Supply, Flow Rates, Tubes to fit all the needs.
- It can be equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.
- Transaxle technology to assure longer motor and tubing life.
- Level control input on most models.

## Applications:

Advanced peristaltic pumps for dosing of essences, chlorine or other chemicals for application in shower foot, SPA pools and many others.

**DIMENSIONAL DRAWING**



# Dynamik Digital Pumps

**KEY CODE**

| 1, 2, 3, 4 | Family, Function |
|---|---|
| SKCK | Dynamik Digital peristaltic pumps, Timed Dosing |
| SKCR | Dynamik Digital peristaltic pumps, Conductivity Control Input |
| SKFK | Dynamik Digital peristaltic pumps, micro dosing with speed regulation |
| SKLR | Dynamik Digital peristaltic pumps, Timed dosing with external trigger |
| SKPH | Dynamik Digital peristaltic pumps, pH control Input |
| SKRX | Dynamik Digital peristaltic pumps, Redox control Input |

| 5, 6 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 1H | 1,5 bar |
| 03 | 3 bar |

| 7, 8 | Flow Rate |
|---|---|
| 0H | 0,4 l/h (6,6 ml/min) |
| 1H | 1,5 l/h (25 ml/min) |
| 2H | 2,5 l/h (41,6 ml/min) |
| 01 | 1 l/h (16,7 ml/min) |
| 04 | 4 l/h (67 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 10 | 10 l/h (166,6 ml/min) |
| 15 | 15 l/h (250 ml/min) |

| 9 | Power Supply |
|---|---|
| A | 230 Vac |
| B | 24 Vac |
| D | 24 VDC |
| M | 100÷240 Vac |
| Z | 24÷240 Vac |

| 10 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 2 | Sekobrill |
| 3 | Sekoflex |
| 5 | Sekoextra |
| 6 | Sekomed |

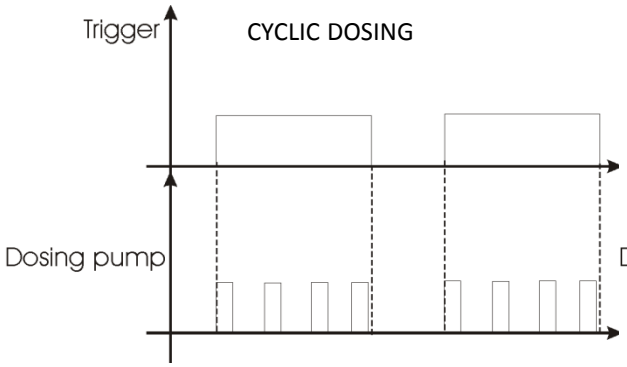
| 11, 12, 13 | Customization |
|---|---|
| 000 | No customization |

| NPE | 00 | 1H | A | 3 | 000 |
|---|---|---|---|---|---|

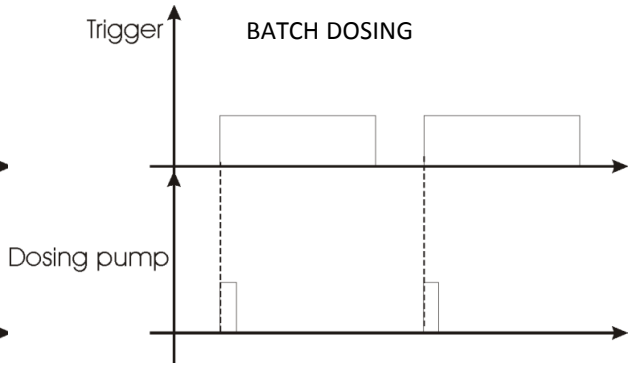
# Dynamik Digital Pumps

## SKCK

Models with Activation Time (A) and Pause Time (P) Adjustable by software.
Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF).
2 Rollers.
Motors: Brushed DC motors.
Flow rate: different flow rates selectable by programming menu.
Tubes: Santoprene, Sekobrill, Sekoextra (other materials on request).
The pump waits for a trigger and the display shows "A_on" flashing. When the pump receives a trigger, it starts to dose until the trigger is on according to the set A and P times; if P is set to 0 the pump will run only for the Activation time and then will stop; for example:
Power Supply: 100-240 Vac 50/60 Hz, 24 Vac.




**A= 5 and P=8**




**A= 5 and P=0**

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKCK | 1H | 1H | M | 5 | 1,5 (22) | 1,2 (20) | 100÷240 Vac | Sekoextra |
| SKCK | 1H | 40 | M | 1 | 1,5 (22) | 4 (66,7) | 100÷240 Vac | Santoprene |
| SKCK | 1H | 70 | M | 1 | 1,5 (22) | 7 (116,7) | 100÷240 Vac | Santoprene |

## SKCR

Models with dosage depending on detected conductivity.
Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF).
2 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz, 24 Vac 50/60 Hz upon request.
Optional Level Control Input.
OFA Alarm buzzer (optional level) and signals on Set Point.
Reading Range 0.2 mS - 10 mS with +/-10% tolerance.
Motors: Brushed DC motors.
Flow rate: different flow rates selectable by programming menu.
Tubes: Sekoflex, Sekobrill, Sekoextra (other materials on request).
The pump doses at maximum speed (100%) if the reading is at least 10 SU less than Set Point (1 SU = 0.098 mS) When the conductivity value is exceeded, the SKCR gradually reduces its speed until it stops near the Set Point.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKCR | 00 | 07 | M | 3 | 0,1 (1,5) | 7 (116,7) | 100÷240 Vac | Sekoflex |
| SKCR | 00 | 10 | M | 3 | 0,1 (1,5) | 10 (66,7) | 100÷240 Vac | Sekoflex |

# Dynamik Digital Pumps

## SKFK

Models with adjustable speed, expressly realized for micro dosage of essences in SPA and Pools.
3 positions Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF).
2 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz.
Flow rates from 2,5 ml/h up to 9,7 l/h.
Level Control Input.
External trigger 20÷240 Vac (Non Stop Dosage when the Trigger is ON).
Motors: Brushed DC motors.
Tubes: Santoprene, Sekoflex, Sekobrill (other materials on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKFK | 1H | 01 | M | 1 | 1,5 (22) | 0,025 (0,42) | 100÷240 Vac | Santoprene |
| SKFK | 1H | 02 | M | 1 | 1,5 (22) | 0,15 (2,5) | 100÷240 Vac | Santoprene |
| SKFK | 1H | 03 | M | 1 | 1,5 (22) | 1,5 (25) | 100÷240 Vac | Santoprene |
| SKFK | 1H | 04 | M | 1 | 1,5 (22) | 5,4 (90) | 100÷240 Vac | Santoprene |
| SKFK | 1H | 05 | M | 1 | 1,5 (22) | 9,7 (161,7) | 100÷240 Vac | Santoprene |
| SKFK | 30 | 05 | M | 2 | 3 (45) | 9,7 (161,7) | 100÷240 Vac | Sekobrill |

## SKLR

Models with adjustable dosing time, delay time and lockout time; originally created for laundry equipment, they can be used also in any other application where a trigger input is available.
3 positions Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF)
2 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz or 24 Vac 50/60 Hz upon request.
Max Flow rate: 15 l/h Optional Level Control Input. External trigger 20÷240 Vac .
Motors: Brushed DC motors.
Tubes: Sekoflex, Sekobrill (other materials on request).
Fixed Filter time (5 s), programmable delay time (0-999 seconds), dosing time (0-999 seconds), lock-out time (0-999 minutes).
The pump does not dose during the lock-out time, even if it receives another signal on the signal cable.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKLR | 00 | 15 | M | 2 | 0,1 (1,5) | 15 (250) | 100÷240 Vac | Sekobrill |
| SKLR | 00 | 15 | M | 3 | 0,1 (1,5) | 15 (250) | 100÷240 Vac | Sekoflex |

# Dynamik Digital Pumps

## SKPH

Models with dosage depending on measured pH value, created for use in Swimming Pools.
Dosage method ON-OFF ( Set Point adjustable).
3 positions Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF) .
Bnc connection for probe pH.
Measure Range pH: 6÷8 pH (resolution: 0.1 pH).
Calibration method pH 1 Point.
Power Supply: 100÷240 Vac 50/60 Hz.
Flow rates from 1,5 to 5 l/h
Motors: Brushed DC motors.
Tubes: Santoprene (other materials on request).
2 Rollers in Bronze filled PTFE suitable to swimming pool application.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKPH | 00 | 05 | M | 1 | 0,1 (1,5) | 5 (83,3) | 100÷240 Vac | Santoprene |
| SKPH | 0H | 1H | M | 1 | 0,5 (7,5) | 1,5 (25) | 100÷240 Vac | Santoprene |
| SKPH | 1H | 1H | M | 1 | 1,5 (22) | 1,5 (25) | 100÷240 Vac | Santoprene |

## SKRX

Models with dosage depending on measured Rx value, created for use in Swimming Pools.
Dosage method ON-OFF ( Set Point adjustable).
3 positions Switch to select Priming Mode (MOM), Run Mode (ON) or Stand By Mode (OFF).
Bnc connection for ORP probe.
Measure Range ORP: 600÷1000 mV (resolution: 10 mV).
Calibration method: ORP 1 Point (740 mV set point by default).
Power Supply: 90÷265 Vac 50/60 Hz.
Flow rate: 1,5 l/h. Motors: Brushed DC motors.
Tubes: Santoprene (other materials on request).
2 Rollers in Bronze filled PTFE suitable to swimming pool application.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| SKRX | 0H | 1H | M | 1 | 0,5 (7,5) | 1,5 (25) | 100÷240 Vac | Santoprene |
| SKRX | 1H | 1H | M | 1 | 1,5 (22,5) | 1,5 (25) | 100÷240 Vac | Santoprene |

# Kronos 10 Analogue Pumps

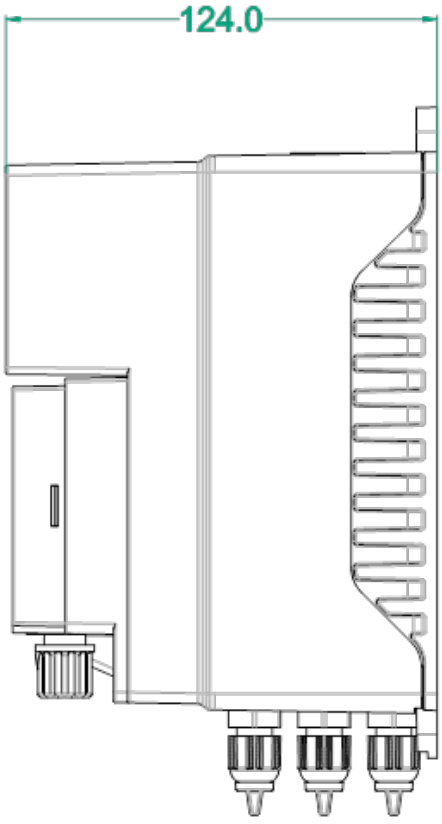
Family of Pumps with the following General Features:

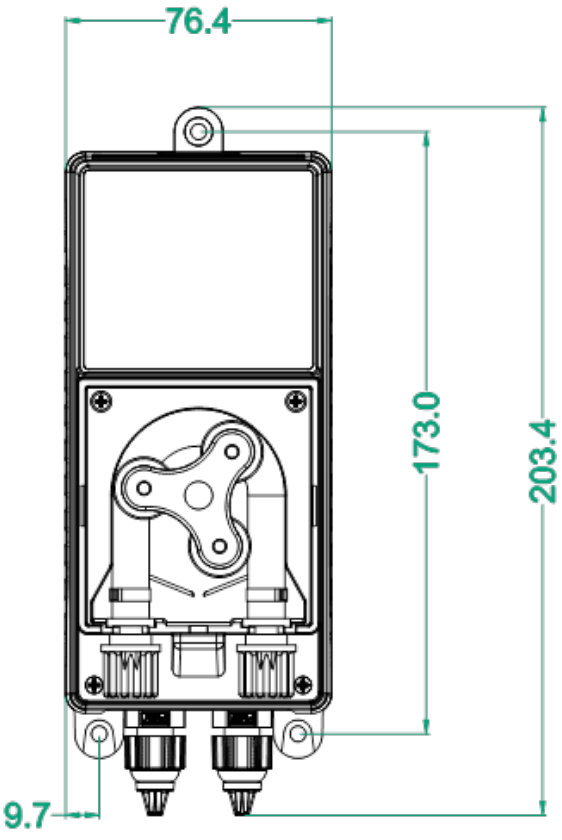
- Analogue Interface with micro controller.
- IP65 protection degree with a square and technical enclosure in PP with fiber glass.
- Both external eyelets for direct wall fixing and brackets with "snap in" feature.
- Snap in transparent frontal cover.
- Always three rollers, for a more constant dosing and an extended tube life.
- Wheels holder always mounted on a ball bearing, to ensure longer life of the whole pump.
- Optionally equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.
- Motors with extended lifetime.

## Applications:

General Purpose Intermediate Range pump for low duty applications

**DIMENSIONAL DRAWING**



# Kronos 10 Analogue Pumps

**KEY CODE**

| 1, 2, 3, 4 | Family, Function |
|---|---|
| KXPR | Kronos Analogic peristaltic pumps, Adjustable Speed |
| KXPA | Kronos Analogic peristaltc pump, Conductivity Control Input |

| 5, 6 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 03 | 3 bar |

| 7, 8 | Flow Rate |
|---|---|
| 01 | 1 l/h (16,7 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 09 | 9 l/h (150 ml/min) |

| 9 | Power Supply |
|---|---|
| D | 24 VDC |
| M | 100÷240 Vac |

| 10 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 2 | Sekobrill |

| 11, 12, 13 | Customization |
|---|---|
| 000 | No customization |

| KXPR | 00 | 07 | M | 1 | 000 |
|---|---|---|---|---|---|

## KXPA

Models with Speed Regulation by potentiometer and Conductivity control Input with conductive probe.
Power Supply: 100÷240 Vac 50/60 Hz.
ON/OFF Switch, 3 Rollers, Brushed DC motors.
Flow rate: 9 l/h, adjustable in the range 16%÷100%
Tubes: Santoprene (other materials on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| KXPA | 00 | 09 | M | 1 | 0,1 (15) | 9 (150) | 100÷240 Vac | Santoprene |

## KXPR

Models with Speed Regulation by potentiometer.
Power Supply: 100÷240 Vac 50/60 Hz, 24 VDC.
ON/OFF Switch, 3 Rollers, Brushed DC motors.
Optional Level Control Input.
Flow rate: 1 l/h and 7 l/h, adjustable in the range 16%÷100%
Tubes: Santoprene, Sekobrill (other materials on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| KXPR | 03 | 01 | M | 2 | 3 (45) | 1 (16,7) | 100÷240 Vac | Sekobrill |
| KXPR | 00 | 07 | M | 1 | 0,1 (1,5) | 7 (116,7) | 100÷240 Vac | Santoprene |

# Kronos 10 Digital Pumps

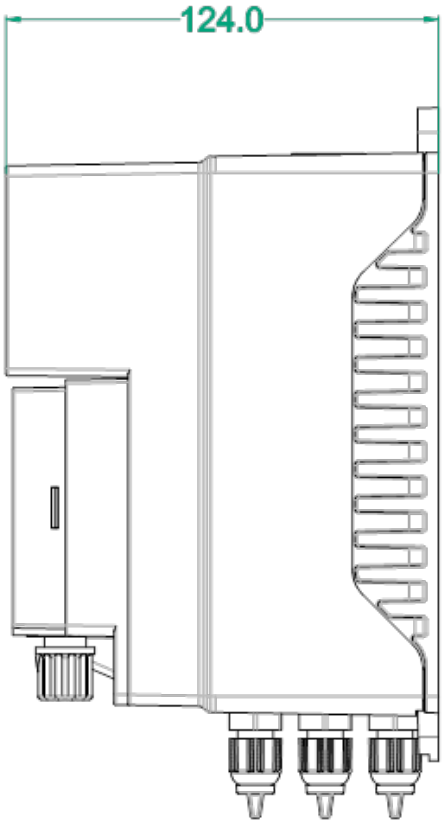
Family of Pumps with the following General Features:

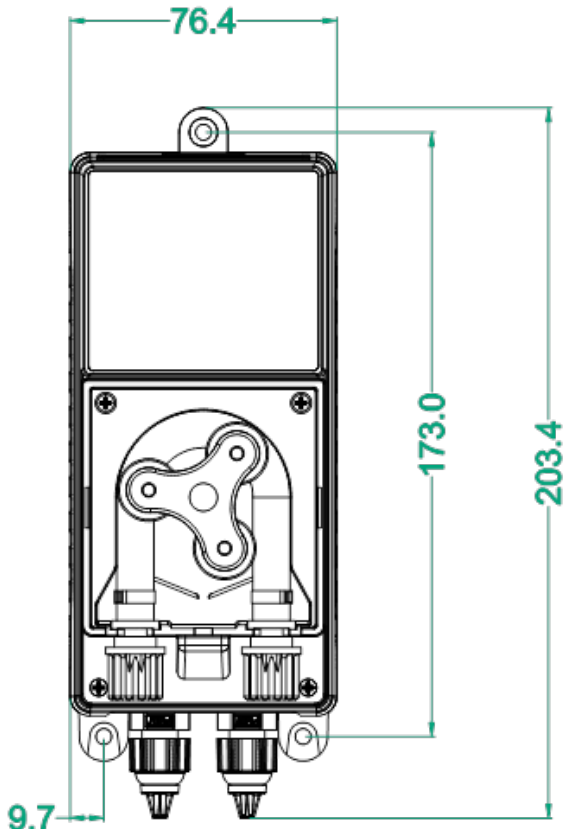
- Digital interface with 7 segments display.
- IP65 protection degree with a square and technical enclosure in PP with fiber glass.
- Both external eyelets for direct wall fixing and brackets with "snap in" feature.
- Snap in transparent frontal cover.
- Always three rollers, for a more constant dosing and an extended tube life.
- Wheels holder always mounted on a ball bearing, to ensure longer life of the whole pump.
- Optionally equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.
- DC Motors with extended lifetime.
- Optionally equipped with ModBus connection for remote control.

## Applications:

General Purpose Intermediate Range pump for low-medium duty applications.

**DIMENSIONAL DRAWING**



# Kronos 10 Digital Pumps

**KEY CODE**

| 1, 2, 3, 4 | Family, Function |
|---|---|
| KXDR | Kronos 10 Digital, Speed regulation |
| KXCR | Kronos 10 Digital, Conductivity Control Input |

| 5, 6 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 03 | 3 bar |

| 7, 8 | Flow Rate |
|---|---|
| 01 | 1 l/h (16,7 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 10 | 10 l/h (166,7 ml/min) |

| 9 | Power Supply |
|---|---|
| M | 100÷240 Vac |

| 10 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 2 | Sekobrill |
| 3 | Sekoflex |
| 5 | Sekoextra |
| 6 | Sekomed |

| 11 | Communication |
|---|---|
| 0 | No Communication |
| I | Isolated ModBus |
| M | Not Isolated ModBus |

| 12, 13 | Customization |
|---|---|
| 00 | No customization |

| KXCR | 00 | 07 | M | 1 | 0 | 00 |
|---|---|---|---|---|---|---|

## KXCR

Models with Conductivity control Input and proportional reaching of the set point (100% until 80% of the set point and 20% with speed gradually decreasing).
Equipped with conductive probe (200 µS – 15 mS).
ON/OFF Switch and Priming Function.
3 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz.
Motors: Brushed DC motors.
Max Flow rate: 7 l/h, adjustable in the range 16%÷100%.
Tubes: Santoprene (other materials on request).

## KXDR

Models with possibility of speed regulation and trigger input signal.
ON/OFF switch and priming function.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| KXCR | 00 | 07 | M | 1 | 0,1 (15) | 7 (116,7) | 100÷240 Vac | Santoprene |
| KXDR | 00 | 07 | M | 1 | 0,1 (15) | 7(116,7) | 100÷240 Vac | Santoprene |

# Kronos 20 Digital Pumps

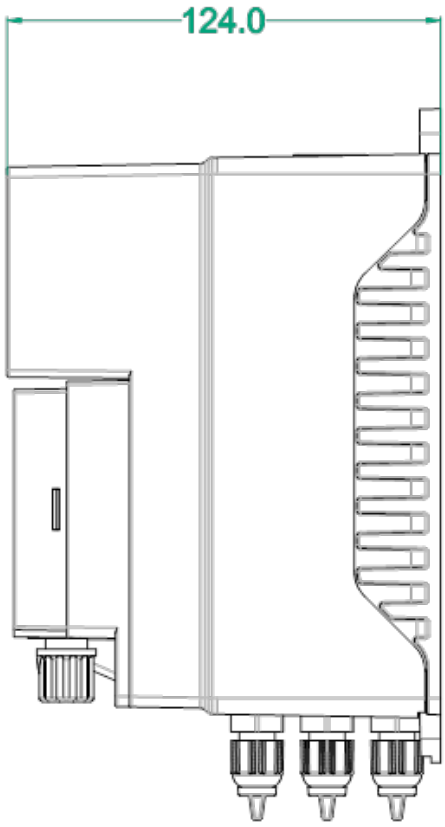
Family of Pumps with the following General Features:

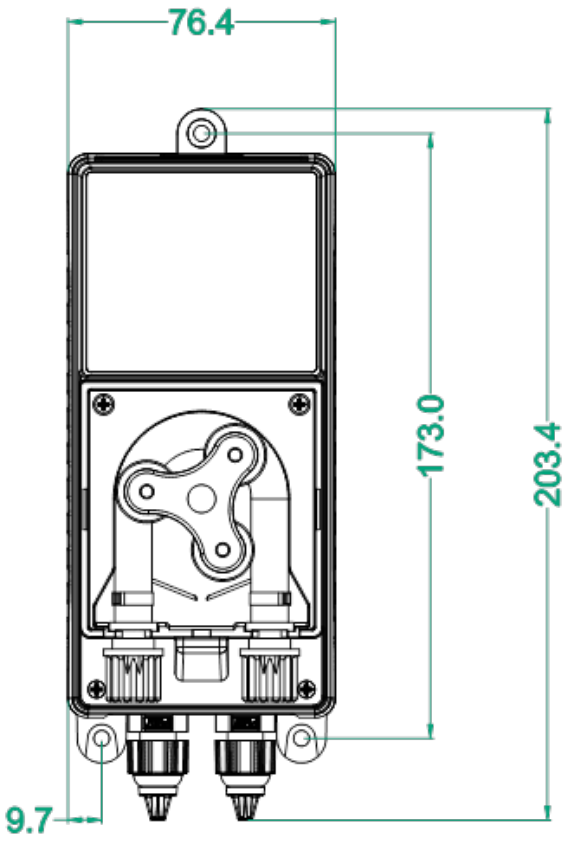
- Digital interface with 2 x 8 Characters LCD Display with backlight
- IP65 protection degree with a square and technical enclosure in PP with fiber glass.
- Both external eyelets for direct wall fixing and brackets with "snap in" feature.
- Snap in transparent frontal cover.
- Always three rollers, for a more constant dosage and an extended tube life.
- Wheels holder always mounted on a ball bearing, to ensure longer life of the whole pump.
- Optionally equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.
- DC Motors with extended lifetime, available with encoders on board, for better dosing accuracy.
- Optionally equipped with ModBus connection for remote control.

## Applications:

Intermediate Range pump for medium duty applications

**DIMENSIONAL DRAWING**



# Kronos 20 Digital Pumps

**KEY CODE**

| 1, 2, 3, 4 | Family, Function |
|---|---|
| KTDR | Kronos 20 Digital, Constant Dosage with Speed Regulation |
| KTCR | Kronos 20 Digital, Conductivity Control Input |

| 5, 6 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 03 | 3 bar |

| 7, 8 | Flow Rate |
|---|---|
| 01 | 1 l/h (16,7 ml/min) |
| 07 | 7 l/h (116,7 ml/min) |
| 10 | 10 l/h (166,7 ml/min) |

| 9 | Power Supply |
|---|---|
| M | 100÷240 Vac |

| 10 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 5 | Sekoextra |
| 6 | Sekomed |

| 11 | Communication |
|---|---|
| 0 | No Communication |
| I | Isolated ModBus |
| M | Not Isolated ModBus |

| 12, 13 | Customization |
|---|---|
| 00 | No customization |

| KTCR | 00 | 10 | M | 1 | 0 | 00 |
|---|---|---|---|---|---|---|

## KTCR

Models with Conductivity control Input and proportional reaching of the set point (*)
Equipped with conductive probe (200 µS – 15 mS).
ON/OFF Switch and Priming Function.
3 Rollers.
Power Supply: 100÷240 Vac 50/60 Hz. Motors: Brushed DC motors.
Max Flow rate: 10 l/h, adjustable in the range 16%÷100%
Tubes: Santoprene (other materials can be supplied upon request).
(*)The conductivity pump is intended to dose until the conductivity in the recipient where the pump is dosing reaches a programmed set point. The pump is therefore equipped with a conductive probe with a built-in temperature probe to compensate its readings.
A Proportional Band (like 80%-20% or 50%-50%) can be programmed in the menu of the pump: the pump will dose at its maximum flow rate until reaching the first programmed percentage of the set point, to then linearly decrease its speed down to 0% when the set point is reached, in order to avoid over dosage.

## KTDR

Models with possibility of speed regulation and trigger input signal.
Max Flow rate: 7 l/h, adjustable in the range 16%÷100%.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| KTCR | 00 | 10 | M | 1 | 0,1 (15) | 10 (166,7) | 100÷240 Vac | Santoprene |
| KTDR | 00 | 07 | M | 1 | 0,1 (15) | 7 (116,7) | 100÷240 Vac | Santoprene |

# Kronos 50 Digital Pumps

The Kronos 50 family is the best among Seko's range of peristaltic pumps. It is equipped with a Stepper motor, that makes the dosage infinitely adjustable (0,1…100%) and silent. Due to the advanced technology and materials used, the various models can reach flow rates up to 15 l/h (@0,1 bar) and can dose at back pressures up to 6 bar with a special Sekotech tube.

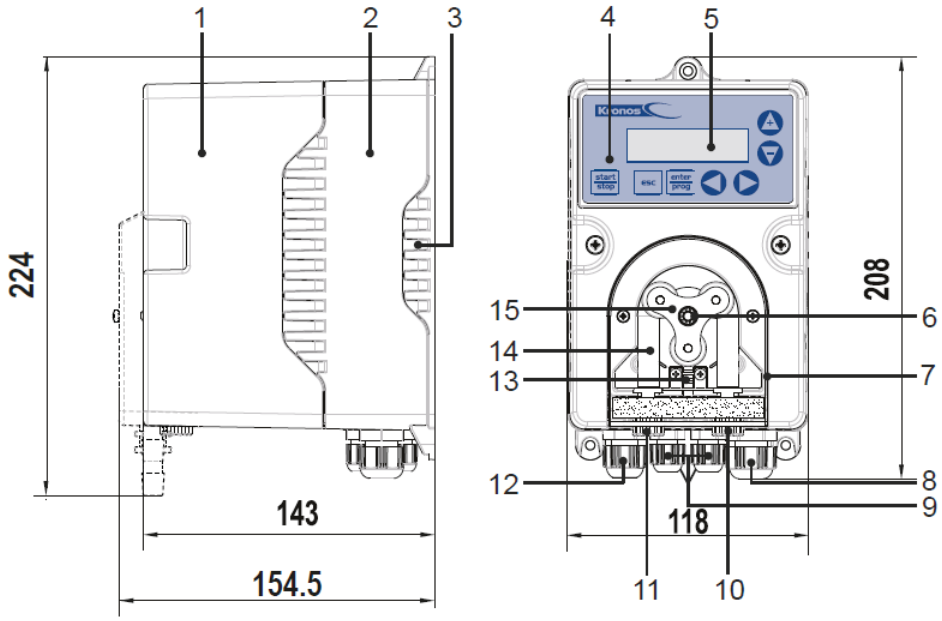
General Features:

- Digital interface with 2 x 16 Characters LCD Display.
- Multi Power Supply 100÷240 Vac @50/60 Hz.
- IP65 protection degree with a professional looking enclosure made of shock proof and resistant ABS.
- Both external eyelets for direct wall fixing and brackets with "snap in" feature.
- The Stepper Motor guarantee a very accurate, adjustable and silent (< 35 dB) dosing.
- Always three rollers, for a more constant dosing and an extended tube life.
- Wheels holder always mounted on a ball bearing, to ensure longer life of the whole pump.
- Optionally equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.
- Different models available with various functions (constant dosage, proportional dosage, conductivity mode).


## Applications:

Very High Range pump for all kinds of heavy duty applications, especially in Cooling Towers, Water parks, Large Swimming Pools.

**DIMENSIONAL DRAWING**




| | | | |
|---|---|---|---|
| 1 | Housing: upper section | 9 | PCBs 7 |
| 2 | Housing: central section | 10 | Discharge connector |
| 3 | Housing: bottom section | 11 | Suction connector |
| 4 | Control keys | 12 | PCB 9 |
| 5 | LCD display | 13 | Hose rupture monitoring |
| 6 | Ball bearing | 14 | Pump hose |
| 7 | Transparent cover | 15 | Rotor |
| 8 | PCB 11 | | |

# Kronos 50 Digital Pumps

**KEY CODE**

| 1, 2, 3, 4 | Family, Function |
|---|---|
| KRFM | Kronos 50 Digital peristaltic pump, Full Mode |
| KRFF | Kronos 50 Digital peristaltic pump, Full Full |
| KRIR | Kronos 50 peristaltic pump, Inductive Conductivity Mode Set Point Dosing |
| KRCR | Kronos 50 peristaltic pump, Conductivity Mode Set Point Dosing |
| KREC | Kronos 50 peristaltic pump, Cooling Towers |
| KKFM | Kronos 50 Digital peristaltic pump, Full Mode |
| KSFM | Kronos 65 Digital peristaltic pump, Full Mode |

| 5, 6 | Back pressure |
|---|---|
| 00 | 0,1 bar |
| 1H | 1,5 bar |
| 02 | 2 bar |
| 03 | 3 bar |
| 04 | 4 bar |
| 06 | 6 bar |

| 7, 8 | Flow Rate |
|---|---|
| 02 | 2 l/h (33,3 ml/min) |
| 04 | 4 l/h (66 ml/min) |
| 08 | 8 l/h (133,3 ml/min) |
| 10 | 10 l/h (166,7 ml/min) |
| 15 | 15 l/h (250 ml/min) |
| 25 | 25 l/h (416,7 ml/min) |

| 9 | Power Supply |
|---|---|
| M | 100÷240 Vac |

| 10 | Membrane tubes |
|---|---|
| 1 | Santoprene |
| 3 | Sekoflex |
| 5 | Sekoextra |
| 6 | Sekomed |
| 7 | Sekotech |
| 8 | Sekofort |
| A | Pharmapure |

| 11 | Communication |
|---|---|
| 0 | No Communication |
| I | Isolated ModBus |
| M | Not Isolated ModBus |

| 12, 13 | Customization |
|---|---|
| 00 | No customization |

| KRFM | 02 | 10 | M | 1 | 0 | 00 |
|---|---|---|---|---|---|---|

# Kronos 50 Digital Pumps

## KRFM

Kronos FM pump has a multi-function setting; there are six different configurations, as following:

Manual Mode - Constant dosage (with possibility to insert a ON, OFF and delay time)
mA Mode - Dosage Proportional to (0) 4÷20 mA or 20÷4(0) mA Analogue signal;
PPM Mode - Dosage amount calculated to maintain the selected Concentration of chemical, starting from its density;
1:N Mode - Pump doses following the pulses number to the related input. One input pulse generates 1 second of dosing at set speed % (N);
N:1 Mode - Pump doses following the pulses number to the related input. N input pulses generate 1 second of dosing at 1% of max speed;
Batch Mode - Pump doses the selected quantity when UP button is pressed or when a pulse is read on input, within the selected dosing time.

Reversible direction.
Tube break alarm system integrated.
Flow rates: 0,02÷15 l/h, @3÷0,1 bar.
Tubes: Santoprene, Sekomed, Sekoextra (others on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KRFM | 00 | 15 | M | 1 | 0,1 bar | 15 (250,0) | 100÷240 Vac | Santoprene |
| KRFM | 02 | 10 | M | 6 | 2 bar | 10 (166,7) | 100÷240 Vac | Sekomed |
| KRFM | 03 | 02 | M | 5 | 3 bar | 2 (33,3) | 100÷240 Vac | Sekoextra |
| KRFM | 1H | 10 | M | 5 | 1,5 bar | 10 (166,7) | 100÷240 Vac | Sekoextra |

## KRFF

Kronos FF pump has a multi-function setting; there are seven different configurations, as following:

Manual Mode - Constant dosage (with possibility to insert a ON, OFF and delay time);
mA Mode - Dosage Proportional to (0) 4÷20 mA or 20÷4(0) mA Analogue signal;
PPM Mode - Dosage amount calculated to maintain the selected Concentration of chemical;
1:N Mode - Pump doses following the pulses number to the related input. One input pulse generates 1 second of dosing at set speed % (N);
N:1 Mode - Pump doses following the pulses number to the related input. N input pulses generate 1 second of dosing at 1% of max speed;
Batch Mode - Pump doses the selected quantity when UP button is pressed or when a pulse is read on input, within the selected dosing time;
0-10V Mode - The pump doses proportionally to a signal of 0-10V; it's possible to set the V (Volt) input value corresponding to 0% dosing and the V input value corresponding to the pump maximum flow rate.

Reversible direction.
Remote Stop Possibility.
Tube break alarm system integrated.
Flow rates: 0,010 ÷ 10 l/h @ 2bar or 0,002 ÷ 2 l/h @ 3bar
Tubes: Sekomed, Sekoextra (others on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KRFF | 02 | 10 | M | 6 | 2 bar | 10 (166,7) | 100÷240 Vac | Sekomed |
| KRFF | 03 | 02 | M | 5 | 3 bar | 2 (33,3) | 100÷240 Vac | Sekoextra |

# Kronos 50 Digital Pumps

## KRIR

Kronos IR pump has a accurate dosing adjustment, either manually or externally by means of the conductivity inductive probe signal:

Cond Mode - The pump doses proportionally to a signal of 0.20 – 50.00 mS; The pump doses @ 100% if conductivity is lower than a programmable Set Point percent (default 80%); If mS value is higher than fixed percent, the pump proportionally decreases the speed down to 0%.

Priming function (full speed).
Reversible direction.
Tube breakage detection system integrated.
Flow rates: 0,010 ÷ 10 l/h @ 2bar
Tubes: Sekomed (others on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KRIR | 02 | 10 | M | 6 | 2 bar | 10 (166,7) | 100÷240 Vac | Sekomed |

## KRCR

Kronos CR pump has a accurate dosing adjustment, either manually or externally by means of the conductivity probe signal:

Cond Mode - The pump doses proportionally to a signal of 0.10 – 14.99 mS. It's possible to set the mS Set Point corresponding to 0% dosing (desired conductivity). The pump doses @100% if conductivity is lower than a programmable Set Point percent (default 80%). If mS value is higher than fixed percentage, the pump proportionally decreases the speed down to 0% (at the programmed Set Point).

Infinite adjustment of the metering output either manually or externally via 0/4-20 mA signals.
Priming function (full speed).
Reversible direction.
Tube breakage detection system integrated.
Over Flow Alarm function available.
Temperature probe compensation.
Flow rates: 0,010 ÷ 10 l/h @ 2bar.
Tubes: Sekomed (others on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KRCR | 02 | 10 | M | 6 | 2 bar | 10 (166,7) | 100÷240 Vac | Sekomed |

# Kronos 50 Digital Pumps

## KREC

Kronos EC-Cond pump has been specifically designed for application in cooling towers; 3 operating modes are selectable:

PPM Dosing - Dosage amount calculated to maintain the selected Concentration of chemical;

Batch Mode - Pump doses the selected quantity when UP button is pressed or when a pulse is read on input, within the selected dosing time

Timer Dosing Mode - The pump doses in Time without external trigger (ON/OFF Time selectable)

Infinite adjustment of the metering output either manually or externally via 0/4-20 mA signals.
Dosing by relay action.
Conductivity Measures 0,1÷15,0 mS, Accuracy ±0.1 mS
Priming function (full speed).
Reversible direction.
Tube breakage detection system integrated.
Over Flow Alarm function available.
Temperature probe compensation.
Flow rates: 0,010 ÷ 10 l/h @ 2bar
Tubes: Sekomed (others on request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KREC | 02 | 10 | M | 6 | 2 bar | 10 (166,7) | 100÷240 Vac | Sekomed |

## KKFM

Kronos KK FM pump is a special version of Kronos 50 pump; it has the six different following configurations:

Manual Mode - Constant dosage (with possibility to insert a ON, OFF and delay time);

mA Mode - Dosage Proportional to (0) 4÷20 mA or 20÷4(0) mA Analogue signal;

PPM Mode - Dosage amount calculated to maintain the selected Concentration of chemical;

1:N Mode - Pump doses following the pulses number to the related input. One input pulse generates 1 second of dosing at set speed % (N);

N:1 Mode - Pump doses following the pulses number to the related input. N input pulses generate 1 second of dosing at 1% of max speed;

Batch Mode - Pump doses the selected quantity when UP button is pressed or when a pulse is read on input, within the selected dosing time;

Reversible direction.
Tube breakage detection system integrated.
Flow rates: 2l/h @ 2bar, 2 l/h @6 bar , 8 l/h @3 bar, 4 l/h @4 bar.
Tubes: Sekotech (allows secure operation in harsh conditions), Sekofort, Pharmapure.

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| **Family** | **Back Pressure** | **Flow Rate** | **Power Supply** | **Tube** | **Back Pressure bar (psi)** | **Flow Rate l/h (ml/min)** | **Power Supply** | **Tube Material** |
| KKFM | 03 | 08 | M | 7 | 3 bar | 8 l/h | 100÷240 Vac | Sekotech |
| KKFM | 06 | 02 | M | 7 | 6 bar | 2 l/h | 100÷240 Vac | Sekotech |
| KKFM | 03 | 02 | M | 8 | 3 bar | 2 l/h | 100÷240 Vac | Sekofort |
| KKFM | 04 | 04 | M | A | 4 bar | 4 l/h | 100÷240 Vac | Pharmapure |

# Kronos 65 Digital Pumps

The Kronos 65 family is equipped with a Stepper motor, that makes the dosage infinitely adjustable (0,1…100%) and silent. The Kronos 65 has a bigger head size (65 mm vs 50 mm), and due to the advanced technology and materials used, it can reach flow rates up to 25 l/h (@0,1 bar) and can dose at back pressures up to 3 bar always in safe operation.

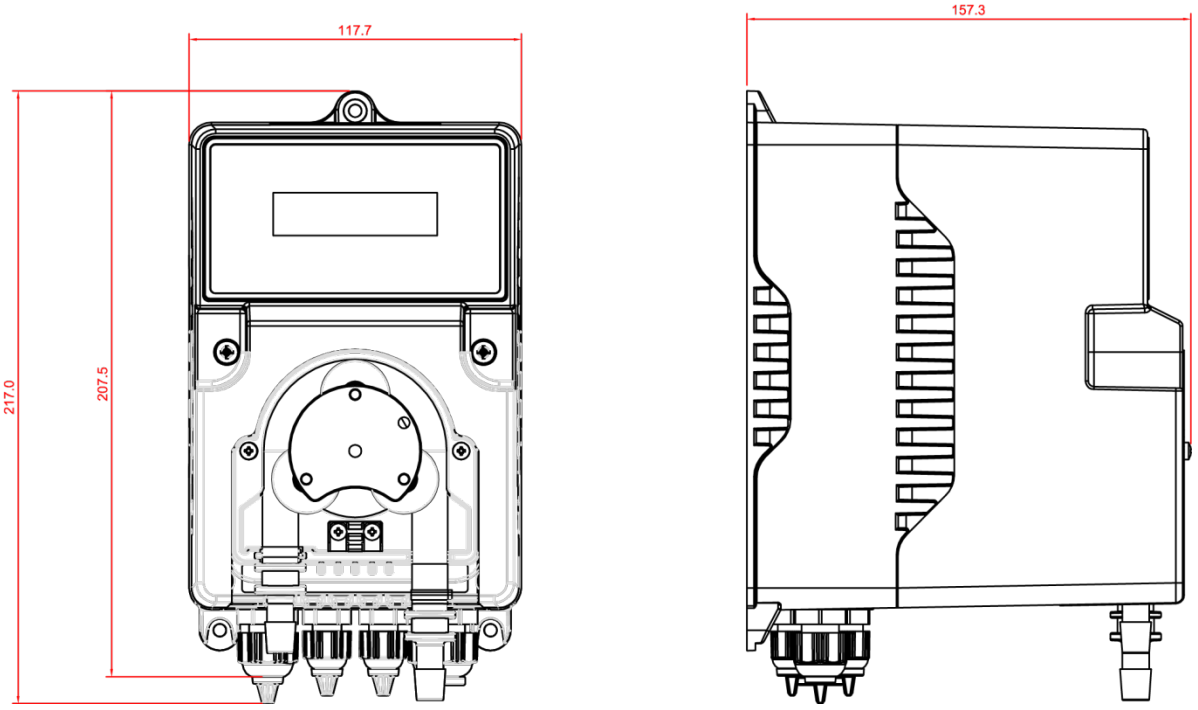
General Features:

- Digital Interface with 2 x 16 characters LCD display.
- Multi power supply 100÷240 Vac @50/60 Hz , stepper motor, 3 rollers.
- Flow rate up to 25 l/h (@ 0,1 bar).
- Speed regulation 0,1…100%.
- Back Pressures up to 3 bar.
- Sekoflex tubing 6,35 x 12,7
- Tube breakage detection system.
- Optionally equipped with PTFE Bronze filled rollers for special applications such as Chlorine Dosage in swimming pools.

## Applications:

Very High Range pump for all kinds of heavy duty applications, especially in Cooling Towers, Water parks, Large Swimming Pools.

**DIMENSIONAL DRAWING**




## KSFM

Six different configuration modes:
Manual Mode , mA Mode, PPM Mode , 1:N Mode, N:1 Mode, Batch Mode.
Integrated Tube breakage detection system.
Flow rates: safely up to 25 l/h @0,1 bar.
Tubes: Sekoflex (other tubes can be supplied upon request).

| CODE | | | | | VALUES | | | |
|---|---|---|---|---|---|---|---|---|
| Family | Back Pressure | Flow Rate | Power Supply | Tube | Back Pressure bar (psi) | Flow Rate l/h (ml/min) | Power Supply | Tube Material |
| KSFM | 00 | 25 | M | 3 | 0,1 bar | 25 (416,7) | 100÷240 Vac | Sekoflex |

# Your Choice, Our Commitment

In the modern Globalised world, being a privately owned Company has significant benefits especially for our Customers, our Partners. For over 40 years, SEKO has developed a Global organisation able to take the longer view, manage the pressure of the now, and to plan for the long term, delivering true Partnership for our Customers, with transparency and mutual respect for each other.

Whether it's for our reknown flexibility, our attention to detail, the high-quality products, or just the way we do business, we understand that it's Your Choice to do business with us. It is Our Commitment to fulfill your needs wherever you, our Customers are.

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