

# Maxima Series

Electronic Metering Pumps





## ROBUST AND VERSATILE

The entire range of **MAXIMA** pumps is made with a fiberglass reinforced PP plastic casing, which guarantees great resistance to impact and chemical attack, and an **IP65 protection degree**.

## FAST AND PRECISE

The **MAXIMA** range of pumps work at a maximum frequency of **240 strokes/min**, which, combined with stroke adjustment, allows high precision dosing and a wide range of settings.

With just few models it is possible to put a range of flow rates together, optimising stocks and after-sales service.

## EASY TO INSTALL

The various mounting options make installation extremely simple.

**MAXIMA** is the only pump that offers 3 fixing options:

- wall mounting (via fixing bracket)
- on water meter
- on a horizontal base (with or without bracket)

# ANALOGUE Version

## USER INTERFACE

The knobs on the control panel are used for easy adjustment of both the volume dosed for each stroke and the percentage frequency.

This double adjustment, along with the pump's high frequency, makes this a high-precision product. The two LEDs on the panel indicate that the pump is working properly and when the product is finished.

The adjustment panel and electrical connections are separate from the hydraulic section, avoiding any contact between the chemical product dosed and the parts of the pump used for adjusting it and the input signals (power supply and level).

This makes **MAXIMA** very simple and safe to use both during installation and when carrying out maintenance.



### MAXIMA MXL

- Hydraulic characteristics: from 1.8 to 63 l/h, max. pressure 18 bar
- Continuous percentage frequency adjustment (recommended 10-100%)
- Manual bleeding valve
- Continuous stroke length adjustment 0-100% (recommended 30-100%)
- Switch to reduce maximum frequency to 1/10
- Input signal for 1 (alarm) or 2 (pre-alarm - alarm) stage level control probe

# DIGITAL Version

## USER INTERFACE

The LCD display and six-button keyboard make the digital version of **MAXIMA** a highly technological product, without changing the fact that it is easy for the client to handle. The information that appears on the display gives full information on the pump's operating status both during programming and during dosing.

In this version too **MAXIMA** retains the safety and practicality characteristics that distinguish this range of dosing pumps, making installation (programming) and subsequent maintenance easy for the client.

## MODELS

The digital version of **MAXIMA** covers all the hydraulic configurations (see technical data) and models with constant or proportional flow rates. The proportional model is able to work with both digital signals, dividing input impulses (n:1 operation) or multiplying them (1:n or 1:c operation), and analogue signals (0/4...20 mA or 20...4 mA operation). In addition the pump allows the user to set the flow rate precisely, in order to provide high-precision dosage.



### MAXIMA MDL

- Hydraulic characteristics: from 1.8 to 63 l/h, max. pressure 18 bar
- Continuous stroke length adjustment 0-100% (recommended 30-100%)
- Frequency adjustment with digital precision and LCD display
- Manual bleed valve
- Input signal for 1 (alarm) or 2 (pre-alarm - alarm) stage level control probe
- Flow rate calibration



### MAXIMA MPG

- Hydraulic characteristics: from 1.8 to 63 l/h, max. pressure 18 bar
- Continuous stroke length adjustment 0-100% (recommended 30-100%)
- Frequency adjustment with digital precision and LCD display
- Manual bleed valve
- Input signal for 1 (alarm) or 2 (pre-alarm - alarm) stage level control probe
- Input for external digital signal (e.g. water meter pulse sender) with pulses multiplier / divider
- Input for external analogic signal 0/4-20 mA (or 20-4 mA)
- Flow rate calibration

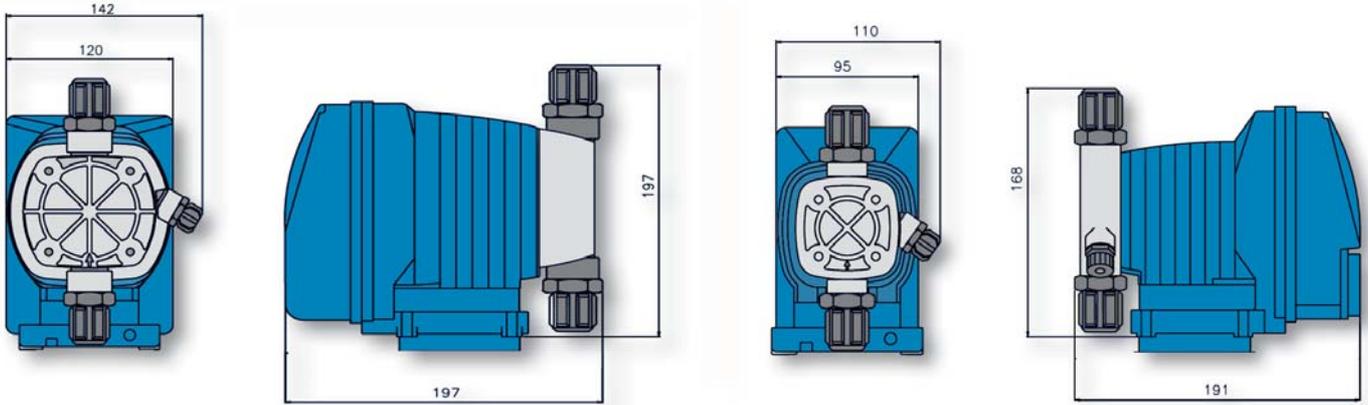


### MAXIMA MPZ

- Hydraulic characteristics: from 1.8 to 63 l/h, max. pressure 18 bar
- Continuous stroke length adjustment 0-100% (recommended 30-100%)
- Frequency adjustment with digital precision and LCD display
- Manual bleed valve
- Input signal for 1 (alarm) or 2 (pre-alarm - alarm) stage level control probe
- Input for external digital signal (e.g. thrust water meter pulse sender) with pulses multiplier / divider
- Flow rate calibration

# Technical Characteristics

## DIMENSIONS



## MATERIALS

### MATERIALS IN CONTACT WITH THE LIQUID

		MATERIALS IN CONTACT WITH THE LIQUID				
		Pump casing	Couplings	Balls	Gaskets	Membrane
PUMP HEAD	SC	PP	PP	Ceramic	PTFE	PTFE
	VC	PVC	PVC	Ceramic	PTFE	PTFE
	HC	PVDF	PVDF	Ceramic	PTFE	PTFE

## ORDERING CODES

Pump Type	Function	Model	Power Supply	Pump Head	Seal Materials	Stroke length regulation
<b>M</b>	<b>PG</b>	<b>9II</b>	<b>A</b>	<b>SC</b>	<b>O</b>	<b>M</b>
M= MAXIMA range with manual stroke adjustment	XL= constant with adjustment DL= constant with digital adjustment PG= proportional general PZ= proportional with digital signals	See "Materials" table	A= 230 Vac 50-60 Hz B= 24 Vac 50-60 Hz(*) C= 115 Vac 50-60 Hz(*)	See "Technical Information" table	0= FPM 1= EPDM	M= manual A= automatic

(\*) Contact us if available



## RELIABILITY

ALL SEKO PUMPS ARE TESTED USING MODERN TECHNOLOGY.

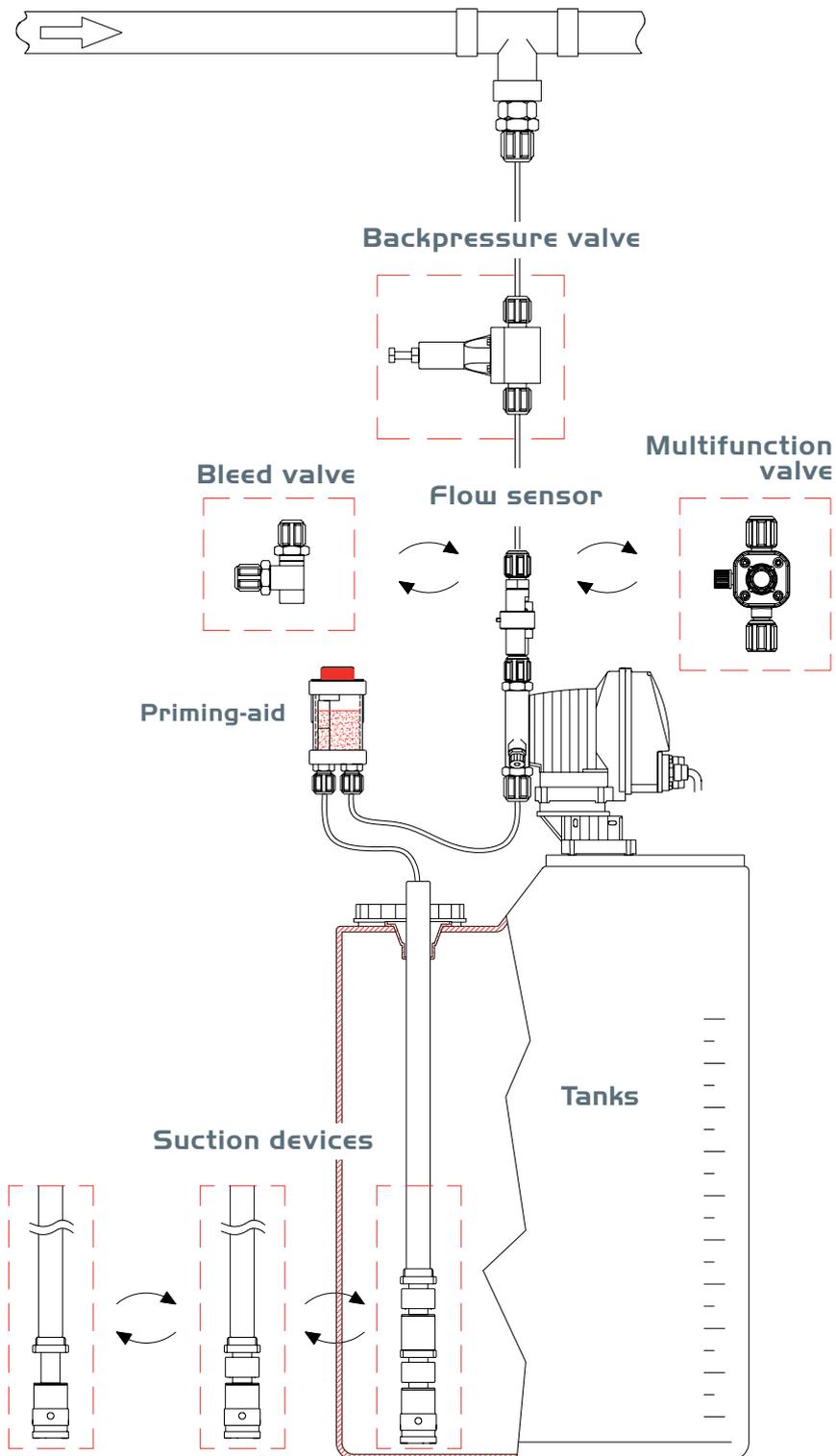
RELIABILITY IS GUARANTEED BY THE QUALITY OF THIS PRODUCT, THE MATERIALS USED, AND A LONG OPERATING TEST BEFORE COMPUTERISED TESTING.

## Technical Information

Model	Pressure (Bar)	Flow Rate (l/h)	Q.ty/Stroke (cc max)	Strokes/min.	Weight (kg)
611	10	1,8	0,13	240	1,7
	6	2,0	0,14		
	3	2,2	0,15		
612	7	5	0,35	240	1,7
	4	5,5	0,38		
	1	8,4	0,58		
911	18	4,5	0,31	240	3,1
	16	5	0,35		
	11	5,6	0,39		
912	10	8,5	0,59	240	3,1
	6	9,8	0,68		
	2	11	0,76		
913	5	15	1,39	180	3,2
	4	18	1,67		
	3	20	1,85		
914	2	35	2,43	240	3,2
	1	44	3,06		
	0	63	4,38		

Characteristics measured with water at ambient temperature and a suction height of 1,5 metres. For installations outdoors, exposed to direct sunlight, we recommend using a black delivery pipe.

# Installation



## TANKS AND PVC REINFORCEMENT



## WATER METER PULSE-SENDER



## MIXERS



## SUCTION DEVICES



## SAFETY VALVES



## BACKPRESSURE VALVES



## PULSATION DAMPNERS



# Accessories

## MULTIFUNCTION VALVE

The precision of electronic pumps is affected by fluctuations in pressure at the intake, especially between 0 and 1 bar. In addition, dosing with a backpressure avoids siphoning from occurring in the pump. When the pump doses with a back pressure, it may be necessary to protect it against excessive pressures as these could cause both the pump and the plant to malfunction or break down. Our multifunction valve is designed to resolve problems of this kind by using a single accessory with a compact design that is extremely easy to install on the pump. Multifunction valve acts as:

- back pressure valve
- anti-siphoning valve
- safety valve
- priming valve
- delivery drain valve (for maintenance)

Multifunction valve is fitted directly on the delivery valve on the dosing pump.



MATERIALS		CONNECTIONS
VALVE BODY	MEMBRANE	
PP	PTFE	4/6 – 8/12
PVC	PTFE	4/6 – 8/12
PVDF	PTFE	4/6 – 8/12

### TECHNICAL DATA

Safety valve pressure: 5, 10, 15 bar  
 Back pressure valve: 1,5 bar  
 Maximum temperature of liquid: 40°C

## BLEED VALVE

Gas inside the pump casing could compromise the correct functioning of dosing pump. The bleed valve is used to automatically eliminate gas that has built up inside the pump casing. The bleed valve is fitted directly on the delivery of dosing pump.

MATERIALS		CONNECTIONS
VALVE BODY	MEMBRANE	
PP	PTFE	4/6
PP	PTFE	8/12
PVDF	PTFE	4/6
PVDF	PTFE	8/12

### TECHNICAL DATA

Maximum temperature of liquid: 40°C



## PRIMING-AID

Priming problems may occur on dosing pumps with a low flow rate, and also in case of excessive suction heights in relation to the pump's capacity. This accessory is able to resolve these problems. Where possible it is fitted at the same height as the pump's intake valve and a short distance from it.

MATERIALS		CONNECTIONS	MODEL
CASING	SEALS		
PVC	FPM	4/6 - 8/12	300 ml.

### TECHNICAL DATA

Maximum temperature of liquid: 40°C



## FLOW SENSOR

In order to assess the actual dosing phase, the flow sensor can be used to detect the pump's pulsations during the delivery phase. In addition to checking that the pump is working properly, the sensor can also be used to determine the actual dosing flow rate. Using dosing pumps fitted with specific electronics makes it possible to automatically detect and assess the signals sent by the sensor. This flow sensor is fitted directly on the delivery valve on the dosing pump.

MATERIALS		CONNECTIONS
CASING	SEALS	
PVC	FPM	4/6
PVC	FPM	8/12

### TECHNICAL DATA

Maximum pressure: 10 bar  
 Maximum temperature of liquid: 40°C



## BACKPRESSURE VALVE

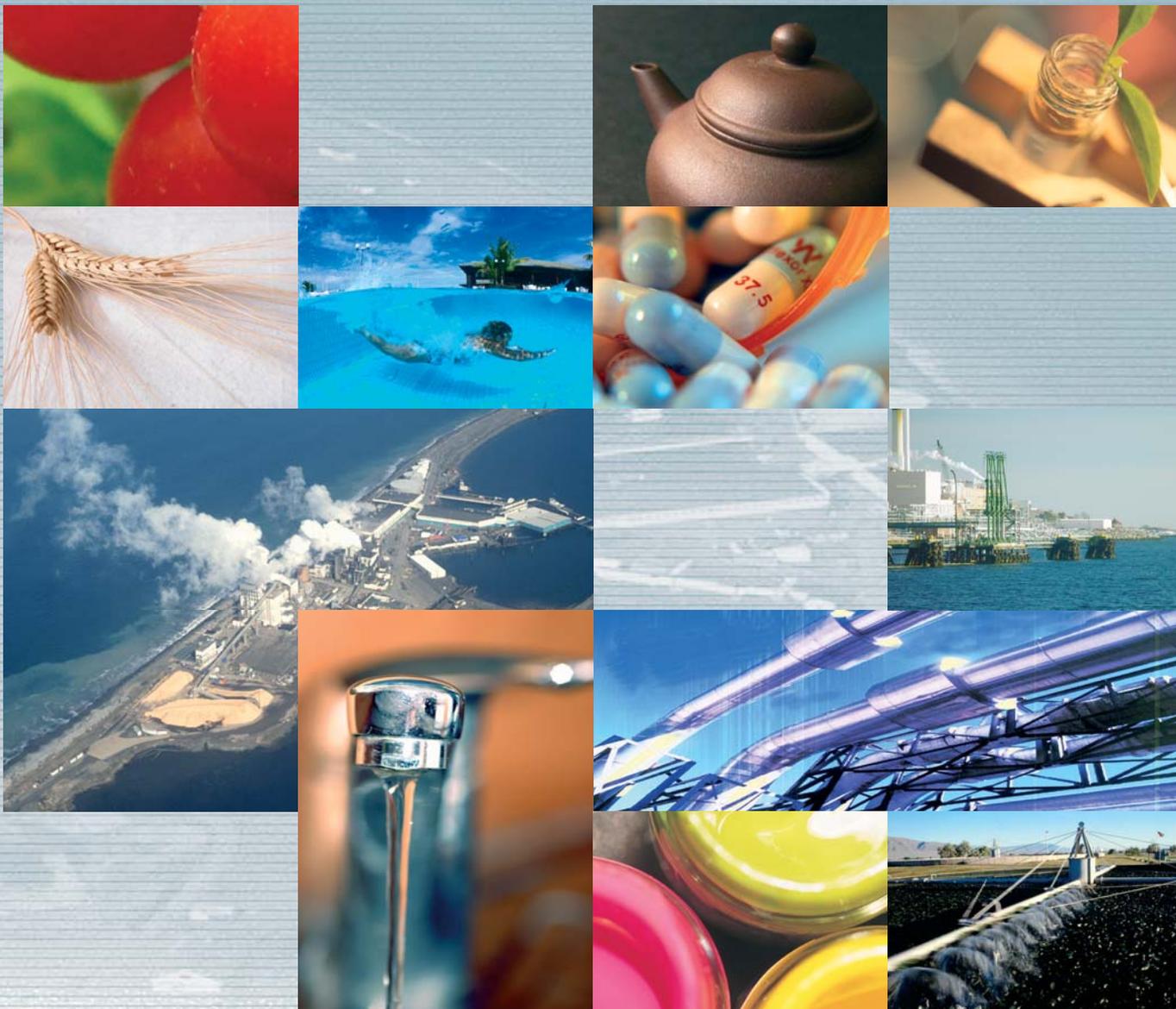
The backpressure valve keeps a constant pressure inside the pipeline during the dosage.

DESCRIPTION
PVC BODY, PTFE DIAPHRAGM, FPM SEALS, Ø 4/6 - 8/12 TUBE CONNECTIONS
PVC BODY, PTFE DIAPHRAGM, EPDM SEALS, Ø 4/6 - 8/12 TUBE CONNECTIONS

### TECHNICAL DATA

Max pressure: 10 bar  
 Min pressure: 0,5 bar  
 Max flow rate: 500 l/h





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