

- **Single phase motor with winding protection, standard**
- **PP plastic material for pump head and valves, standard**
- **Plastic external housing, metal internal housing**
- **High delivery capacity at low number of strokes**
- **Electronics with display and mode switch for simple pre-selection of menu**
- **Safety diaphragm as a standard feature, signalling of fractures in diaphragm as a standard feature of electronic version**
- **Evaluation unit for signalling of fractures in diaphragm, standard feature of electronic version**
- **Selectable error signal relay, standard feature of electronic version**
- **Mechanical stroke adjustment**
- **Empty signal report and level pre-warning**
- **Empty signal and stroke signal output**
- **Pulse control**
- **Pulse multiplication and division**
- **Pulse storage**
- **Stroke frequency regulation**
- **Standard signal drive**
- **External metering stop**
- **Single stroke control**
- **Metering regulator (readjustment of metering output) in combination with an oval gear meter**



The ELADOS® EMP IV series of metering pumps is based on the building block principle. Devices of this series comprise the drive unit, the gear, the metering pump head and the electronics. Different electronic control variants guarantee that the pump

may be adapted to any processing sequence for proportional or quantity metering. The scope of delivery is rounded off by practical accessories, so forming a complete range of equipment for all metering applications.

# Diaphragm Pump EMP IV

## Type 04500 – 07500



### Technical Data:

#### Mechanical Data:

Pump capacity [l/h]:	450	630	750
Metering back-pressure [bar]:	6	4	3
Delivering capacity per stroke [cm <sup>3</sup> ]:	62,5	87,5	87,5
Reproductivity:	<± 3 %		
Suction height:	2 mWs, suction height with clean, slightly wet valves		
Metering frequency max:	122 / 122 / 146 1/min		
Pressure valve:	without spring		
Suction valve:	without spring		
Ambient temp. max.:	40° C		
All information relates to water at 20° C			

#### Materials:

Housing:	thermoplastic polyester
Pump head:	polypropylene <b>PP</b> <b>optional:</b> PVDF or stainless steel 1.4571
Diaphragm:	PTFE - EPDM compound diaphragm
Seals:	FPM 602 (Viton B) <b>optional:</b> EPDM or Kalrez
Valve balls:	ceramics <b>optional:</b> PTFE or stainless steel 1.4401
Weight [kg]	approx. 25
Colour:	blue RAL 5007

Special versions on request

All values at 50 Hz. All data refer to water temperature of 20° C according to the instructions of the technical manual, subject to!

#### Electrical Data:

Connection:	230 V / 50 Hz 400 V / 50/60 Hz (only with E00)
Note:	At a mains frequency of 60 Hz delivery capacity increases by 20 % and back-pressure decreases by 20 %. Special voltages on request
Current consumption [A]:	2,3 (50 Hz)
Power output [kW]:	0,37 (50 Hz)
Safety type:	IP 55
Insulation class:	F

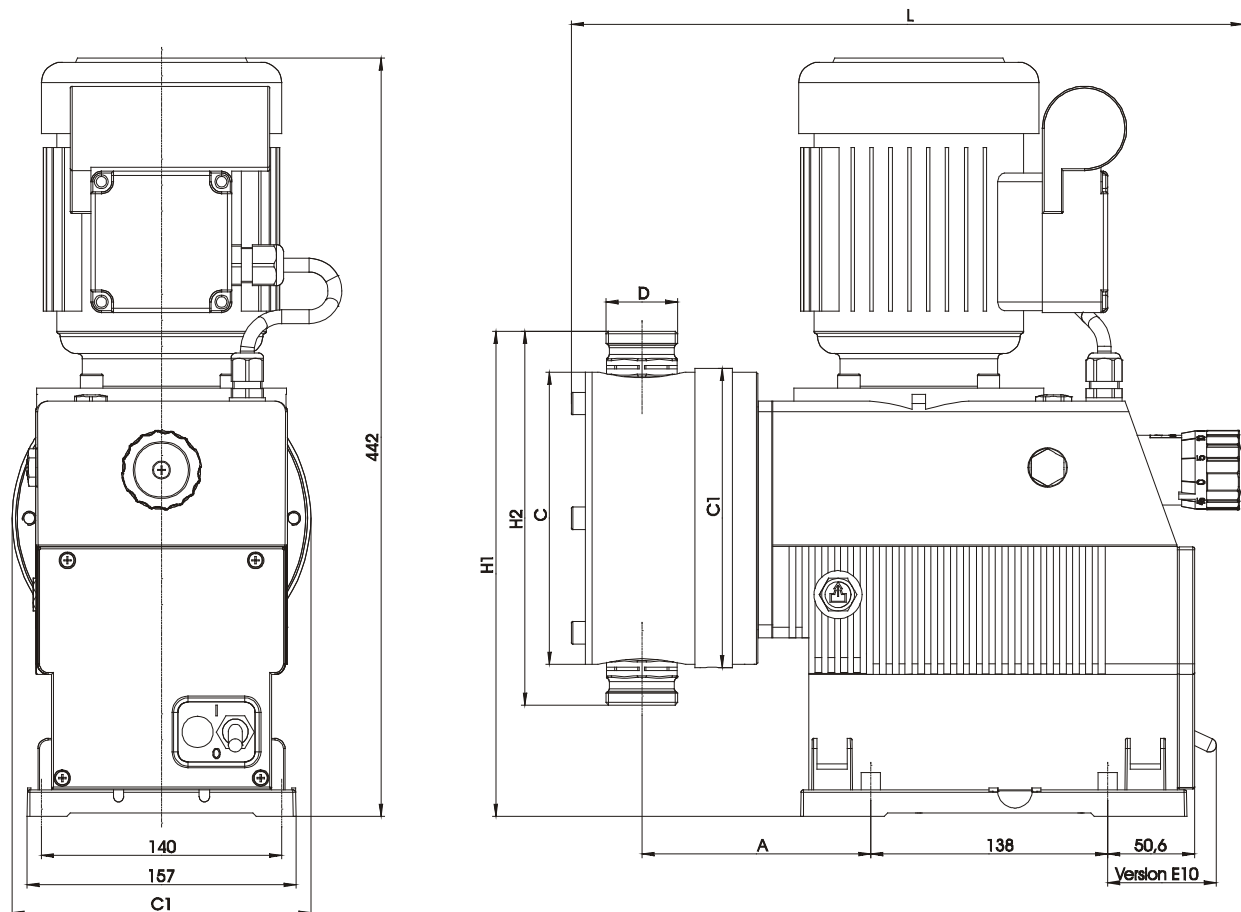
**Notice:** To guarantee the newest state of our products, we reserve the rights for single technical changes.

# Diaphragm Pump EMP IV Type 04500 – 07500



## Dimensions:

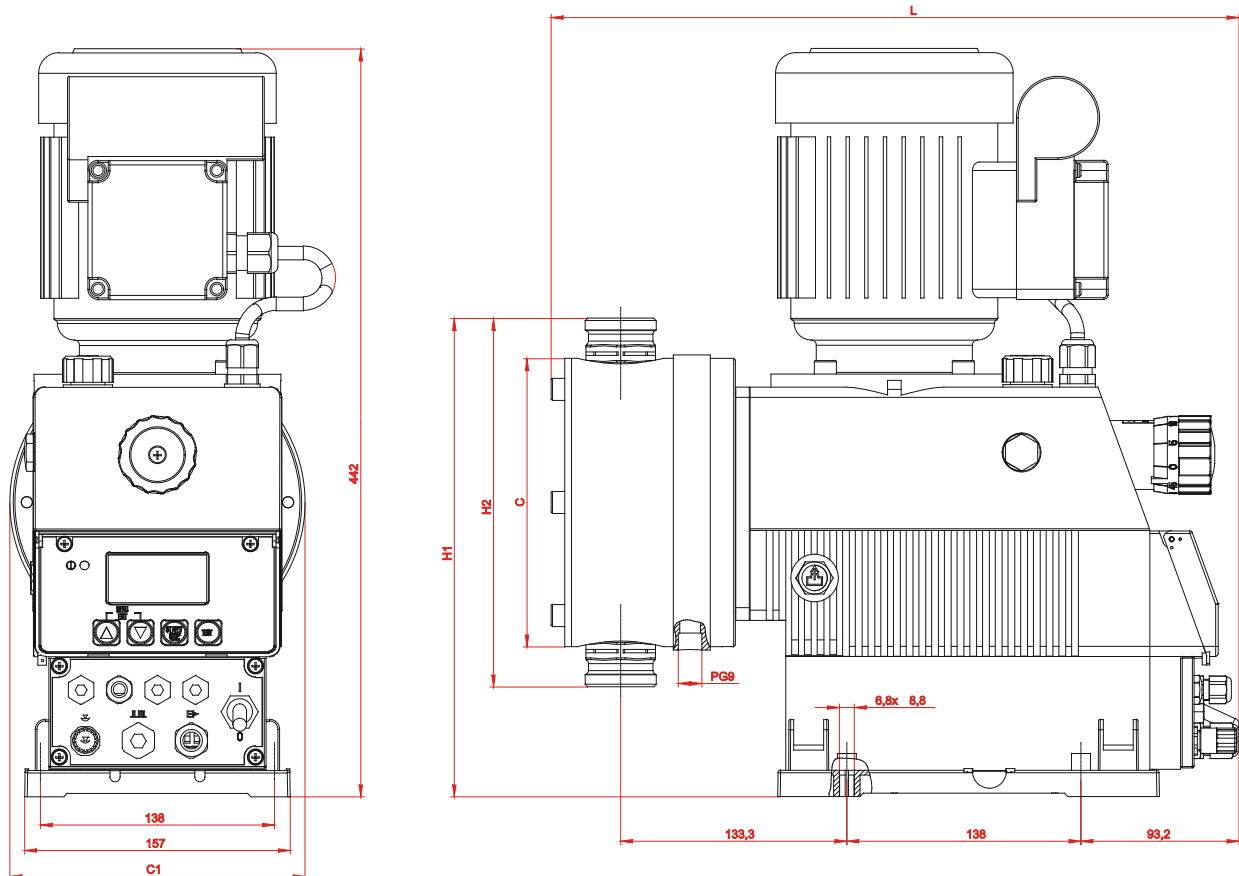
Version E 00



Capacity l / h	Dimensions in mm						
	A	C	C1	L	H1	H2	D
450	142,5	190	194	412	303,5	263	2"
630	142,5	220	225	412	318,5	293	2"
750	142,5	220	225	412	318,5	293	2"

# Diaphragm Pump EMP IV Type 04500 – 07500

Version E 60



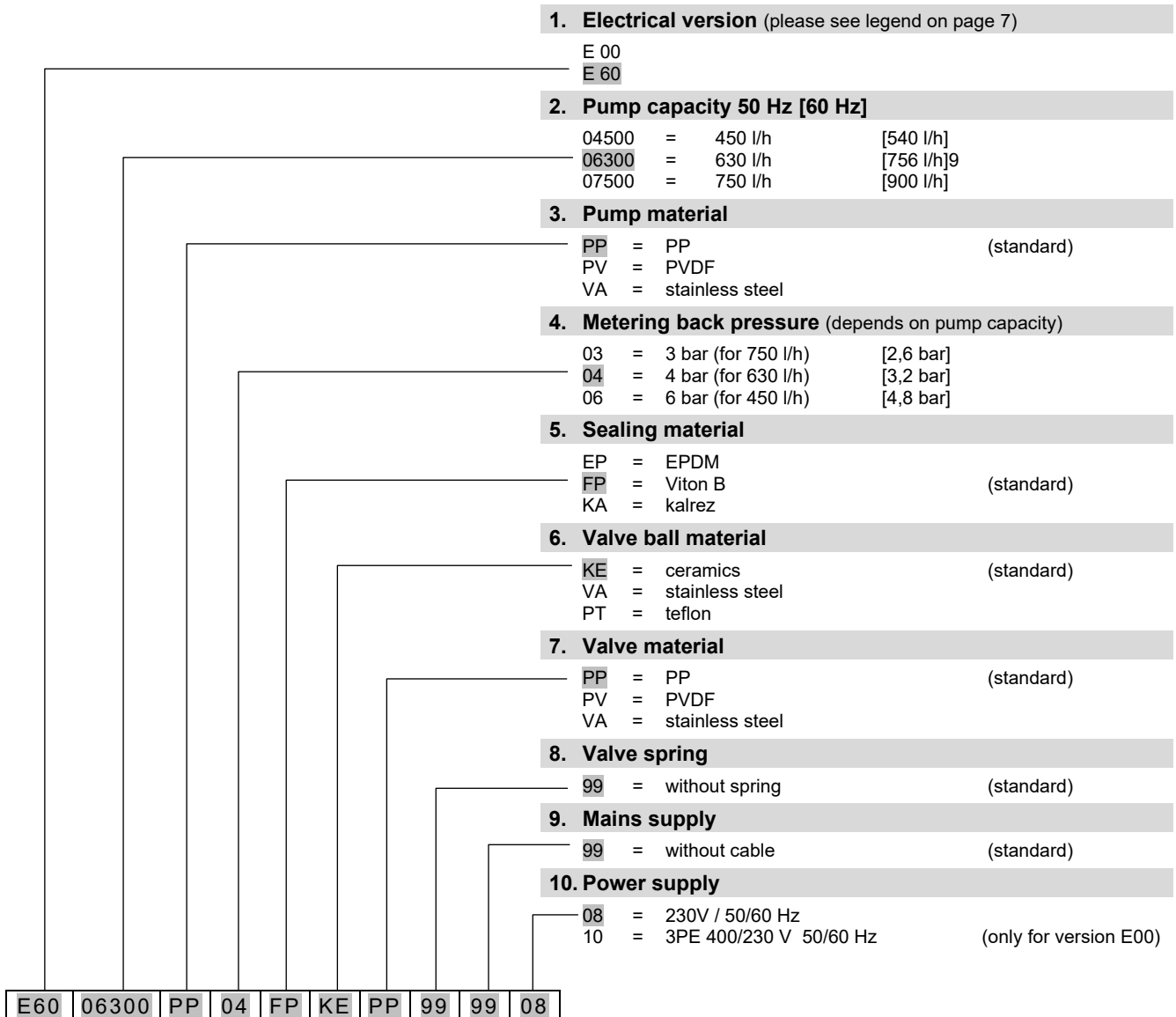
Capacity l / h	Dimensions in mm				
	C	C1	L	H1	H2
450	190	194	412	303,5	263
630	220	225	412	318,5	293
750	220	225	412	318,5	293

# Diaphragm Pump EMP IV

## Type 04500 – 07500

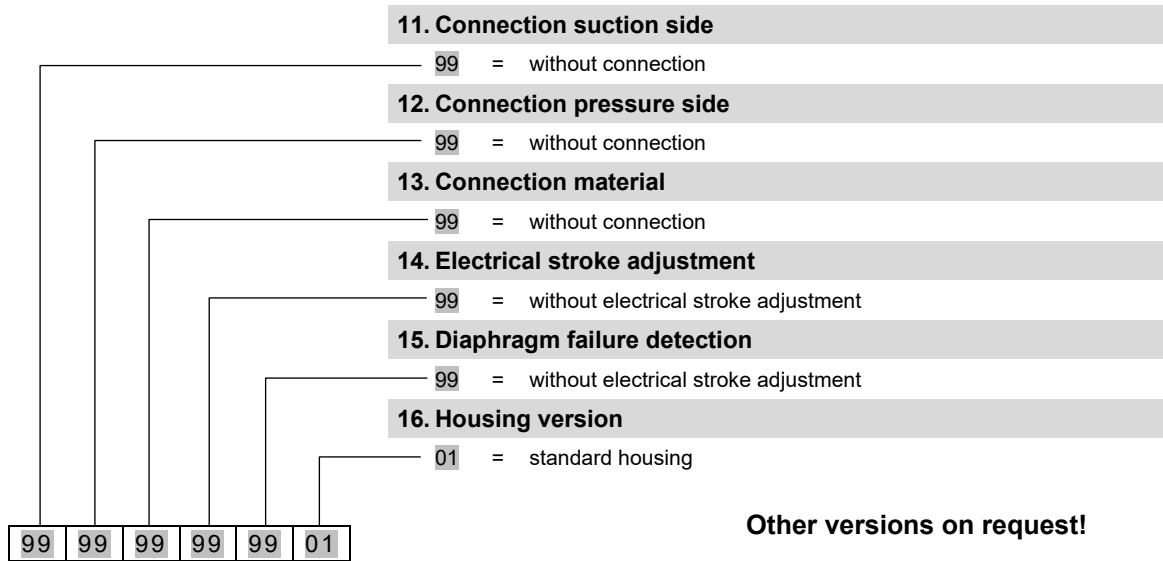


### Pump code – part 1

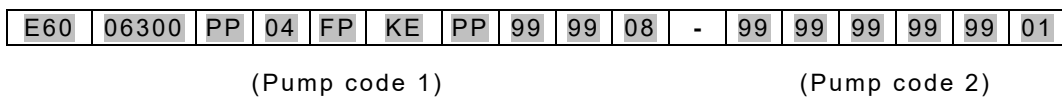


Other versions on request!

**Pump code – part 2**



Example of a complete pump code of a standard pump:



## **Electrical versions**

**E 00** Mechanical stroke adjustment

- E 60**
- On / off switch
  - Mechanical stroke adjustment
  - Back-lit graphic display, 4 operating keys
  - Single stroke control (each stroke is completely executed)
  - Metering monitoring via stroke-signal output or via external metering-monitoring system (e.g. liquid level switch) possible
  - Registration of operating and consumption data (calculative)
  - Calibration function
  - Diaphragm failure detection

### Selectable operating modes:

#### **Internal mode**

Selection of metering rate/metering frequency via:

- Strokes/min
- Percent
- Liter/h (or gallon/h)

#### **External mode**

- Pulse mode (actuation via pulses)
  - Pulse multiplication (one incoming pulse = n metering strokes)
  - Pulse division (n incoming pulses = 1 metering stroke)
- Standard signal mode (actuation via external standard signal 0/4-20 mA or 20-0/4 mA)
- Charge mode (a previously selected quantity is metered, with initiation via an external initiation pulse)

#### **Inputs:**

- Level monitoring, package vessel (reserve and empty signal)
- Pulse
- Standard signal
- Enable (metering interlock)
- Metering control

#### **Outputs:**

- Level monitoring package vessel / malfunction
- Stroke signal

# Diaphragm Pump EMP IV

## Type 04500 – 07500



### Ordering data – standard pumps:

Article	Pump code	Material-No.
ELADOS® EMP IV	E00 04500 PP 06 FP KE PP 99 99 08 - 99 99 99 99 01	150301
	E00 04500 PP 06 FP KE PP 99 99 10 - 99 99 99 99 01	150341
	E00 06300 PP 04 FP KE PP 99 99 08 - 99 99 99 99 01	150401
	E00 06300 PP 04 FP KE PP 99 99 10 - 99 99 99 99 01	150441
	E00 07500 PP 03 FP KE PP 99 99 08 - 99 99 99 99 01	150501
	E00 07500 PP 03 FP KE PP 99 99 10 - 99 99 99 99 01	150541

**Extent of supply:** Terminal box on motor,  
operating instructions  
**without** hose connection material  
**without** connector cable

ELADOS® EMP IV	E60 04500 PP 06 FP KE PP 99 99 08 - 99 99 99 99 01	150360
	E60 06300 PP 04 FP KE PP 99 99 08 - 99 99 99 99 01	150460
	E60 07500 PP 03 FP KE PP 99 99 08 - 99 99 99 99 01	150560

**Extent of supply:** Terminal box on motor,  
operating instructions  
**without** hose connection material  
**without** connector cable

**Connection material see page 16**