

# The Revolutionary series

MEMDOS - Motor-driven diaphragm dosing pumps 4 – 1020 l/h up to 16 bar



## Reliable dosing of chemicals

The motor-driven diaphragm dosing pump MEMDOS stands for robust quality and reliable dosing results.

Due to the variety of different motors it can be used in almost every field. From simple applications to the integration of complex systems, pumps are available. There are different variants of MEMDOS series which make working in explosive risk areas possible.

Two sizes of the MEMDOS series are available. The performance ranges from 0 – 4 up to 0 – 156 l/h for the first size, and 0 – 114 up to 0 – 1020 l/h for the second size.

Thanks to the sturdy tappet drive with manual or automatic capacity adjustment, the conveyed media such as acids, lyes, coagulants and flocculants are dosed reliably and precisely. The MEMDOS can be additionally equipped with a double-diaphragm-system. Then uncontrolled leakage of media is avoided even if the dosing diaphragm wears out.

## Versatile and flexible

Optionally, the MEMDOS LP is available with an ethernet interface with MODBUS. It is used when the integration of the pump into controls or control circuits or the integration into demanding automation networks is required.

## Overview of functions

MEMDOS	LB	LA	LP
Graphic display with multi-language menu	-	-	•
Password protection	-	-	•
Supply amount displayed in various units	-	-	•
Calibration function	-	-	•

Operating modes	LB	LA	LP
Manual with stroke length adjustment 0 – 100%	•	-	-
Manual speed control 0 – 100%	-	•	•
External control via standard signal 0/4 – 20 mA	-	•	•
External control with pulse increase and reduction	-	-	•
External control with pulse water meter, PPM u. PERC	-	-	•
Batch dosing with interval and timer functions	-	-	•

Inputs and outputs	LB	LA	LP
Release input (external start/stop)	-	•	•
Level input with low level alert and *main alarm	-	•*	•
Stroke feedback output	-	•	•
Alarm relay output	-	•	•
Analogue output with standard signal 0/4 – 20 mA	-	•	•
Input for flow control	-	-	•
Diaphragm rupture detection (optional)	-	-	•

## Technical data

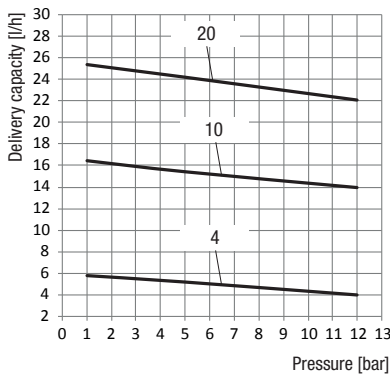
MEMDOS		4	4-HP	10	10-HP	20	20-HP	35	60	80	150	
Delivery capacity at max. backpressure	l/h	4	8.4	14	24	22	36		63	90	156	
Max. delivery pressure	bar	12	16	12	16	12	16	10		5		
Nominal stroke frequency	rpm	26		72		120		72	120	72	120	
Suction lift for non-gassing media	mWS	9					8		7			
Max. supply pressure	mbar	500										
Diameter of diaphragm	mm	52					64			90		
Valve size		DN4					DN6			DN10		
Voltage supply		115 V o. 230 V o. 400 V / 115 V o. 230 V / 230 V										
Protection class		IP55 / IP65 (with covering caps on the connections)										
Materials		PVC, PP, PVDF and stainless steel (1.4571)										
Weight	PVC	kg	11.4					11.5		12.9		
	PP		11.6					11.7		13.3		
	PVDF		11.7					11.8		13.7		
	Stainless steel (1.4571)		13.9					14.4		18.6		
Approved ambient temperature	°C	5 – 45 (with PVC components 5 – 40)										
Approved media temperature	°C	80 (with PVC parts, 35; with PP parts 60)										

MEMDOS		110	160	210	260	310	400	510	760	1010	
Delivery capacity at max. backpressure	l/h	114	144	210	264	294	390	504	744	1020	
Max. delivery pressure	bar	10		8	7	6	4.5	4		3	
Nominal stroke frequency	rpm	96	120	96	120	96	120	53	76	107	
Suction lift for non-gassing media	mWS	7		6		4.5		1			
Max. supply pressure	mbar	500									
Diameter of diaphragm	mm	90		120		150		185			
Valve size		DN10		DN15				DN25			
Voltage supply		115 V o. 230 V o. 400 V / 115 V o. 230 V / 230 V									
Protection class		IP55 / IP65 (with covering caps on the connections)									
Materials		PVC, PP, PVDF and stainless steel (1.4571)									
Weight	PVC	kg	19.3		20		21.7		28.4		
	PP		19.7		20.7		22.6		30.5		
	PVDF		20		21.2		23.4		32.2		
	Stainless steel (1.4571)		24.9		29.3		34.4		52		
Approved ambient temperature	°C	5 – 45 (with PVC components 5 – 40)									
Approved media temperature	°C	80 (with PVC parts, 35; with PP parts 60)									

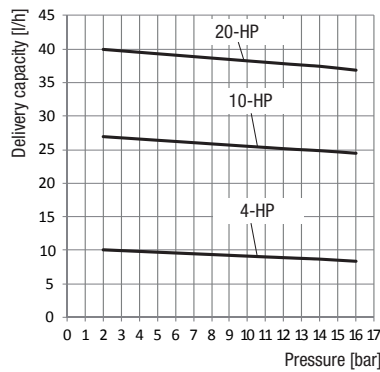
## Delivery characteristic curves

These delivery capacities were determined on the manufacturer's test stands. They apply at 20 °C (68 °F) for water, at 100 % stroke frequency. The delivery capacity depends on the medium (density and viscosity) and temperature. Since these conditions vary at every installation location, you should calibrate the dosing pump.

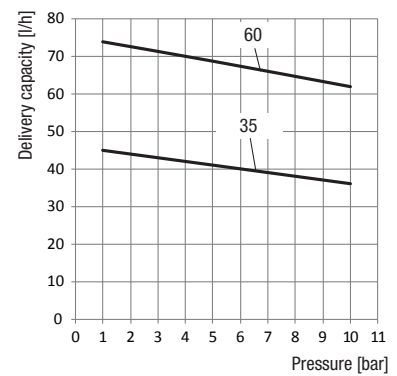
MEMDOS 4, 10, 20



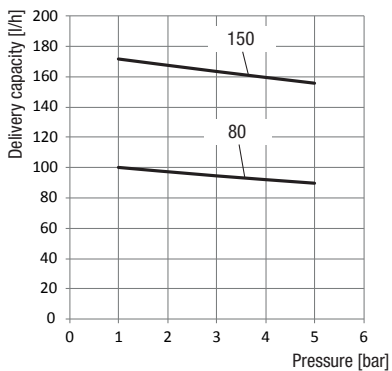
MEMDOS 4-HP, 10-HP, 20-HP



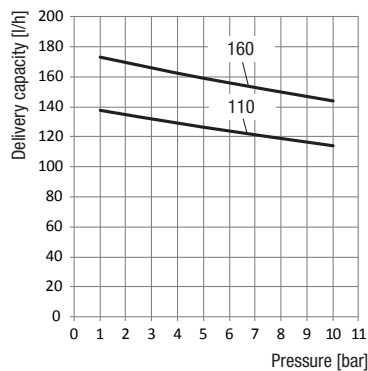
MEMDOS 35, 60



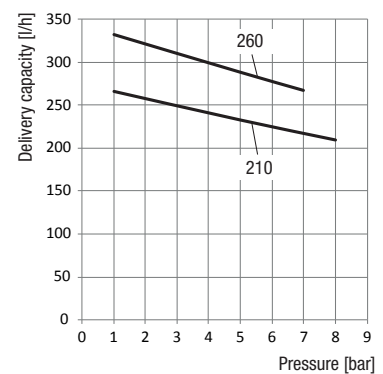
MEMDOS 80, 150



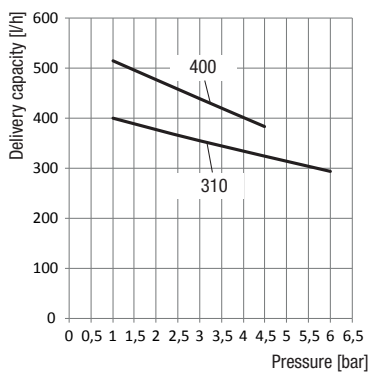
MEMDOS 110, 160



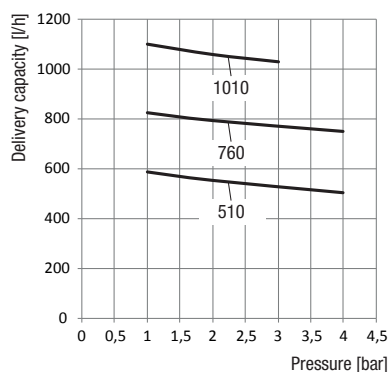
MEMDOS 210, 260



MEMDOS 310, 400



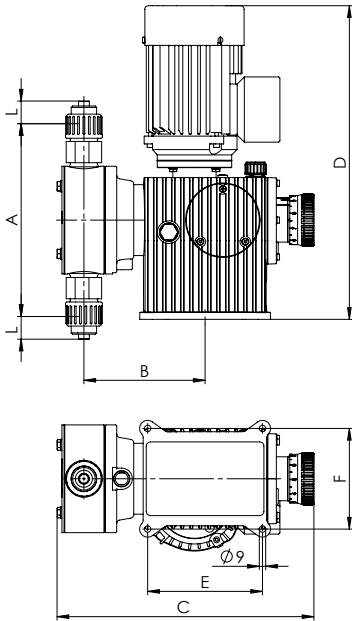
MEMDOS 510, 760, 1010



## Dimensions

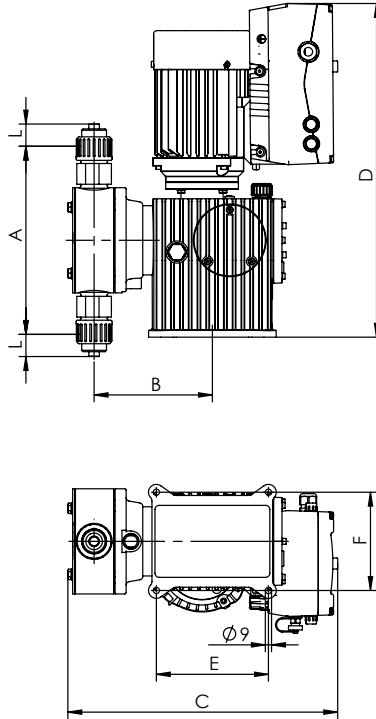
### MEMDOS LB

All dimensions in mm



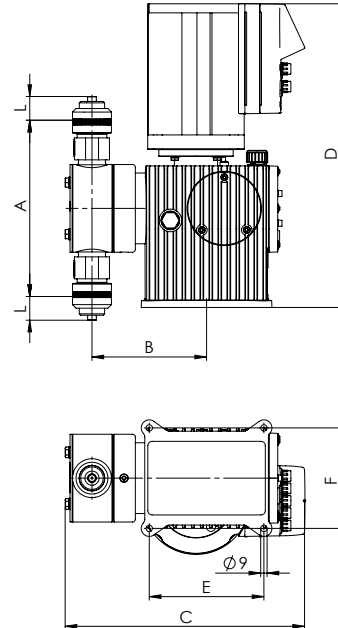
### MEMDOS LA

All dimensions in mm



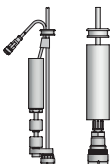
### MEMDOS LP

All dimensions in mm



Scale	4 – 20	35 – 60	80, 150	110, 160	210 – 260	310 – 400	510 – 1010
A	126	149	249	249	268	312.5	352
B	116	121.5	133	160	170	175	208
C	LB/LA/LP 249/306/276	256/312/283	280/323/307	346/375/325	357/385/335	362/390/340	402/455/402
D	LB/LA/LP 389/440/372	389/440/372	389/440/372	437/480/430	437/480/430	437/480/430	450/538/466
E	120	120	120	162	162	162	162
F	112	112	112	142	142	142	142
L	Depends on the connection type and size						

## MEMDOS standard - accessories



### Suction lines

Type SL-2 with ceramic reinforcement piece, cable length 3,000 mm, tube length 2,500 mm. Level monitoring and pre-alarm with 2 switching points, switching distance approx. 50 mm. Switching function: Closer on rising level, electrical connection to dosing pump via plug connector M12x1.

Flexible suction line, SA model with foot valve and load part made from ceramic and 2500 mm tube length.



### Injection nozzles

To connect the dosing line to the dosing point.

Injection nozzle type R, spring loaded, opening pressure 0.1 bar.



### Suction and pressure tube

Permissible operating pressure at 20 °C in accordance with DIN EN ISO 7751, chemical resistance and correct connection are assumed.