

The Revolutionary series

MEMDOS LP - motor-driven diaphragm dosing pumps 4 – 1,020 l/h, up to 16 bar



Reliable dosing of chemicals

The motor-driven diaphragm dosing pump MEMDOS LP sets standards in drive technology and ease of use with its innovative motor. Even today, the MEMDOS LP meets the demands of the future and achieves energy efficiency class IE4.

Two sizes of the MEMDOS LP 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 – 1,020 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.

On request, the MEMDOS LP pumps can also be supplied with a double-diaphragm system. Then uncontrolled leakage of media is avoided even if the dosing diaphragm wears out.

Versatile and flexible

The MEMDOS LP is used when the integration of the pump into controls or control circuits is required. For integration into demanding automation networks, a version with an Ethernet-based MODBUS interface is available.

If required, the dosing pump can be controlled via an analogue or pulse input. To react to any variations in the control circuit, the pump has many additional functions; stroke remote reporting, external operation consent, level monitoring, fault reporting via a relay as well as diaphragm rupture monitoring.

Functions

- Output range from 4 – 1,020 l/h, up to 16 bar
- Power supply 230 V, $\pm 5\%$, 50/60 Hz
- Material finishes PVC, PP, PVDF and stainless steel
- Stroke frequency can be precisely adjusted via the keyboard
- Precise pump adjustment via the keyboard
- Graphic display with multi-language menu
- Analogue input 0/4 – 20 mA
- Pulse input (increase and reduction)
- Level input with early warning and main alarm
- Release input for external start/stop
- Supply amount displayed in various units
- Maximum delivery rate can be limited
- Stroke feedback output
- Batch dosing with interval and timer functions
- Dosing control input
- Alarm relay output
- Analogue output 0/4 – 20 mA
- Diaphragm rupture detection and reporting (optional)
- Double-diaphragm system (optional)
- Ethernet interface (optional)

Technical specifications

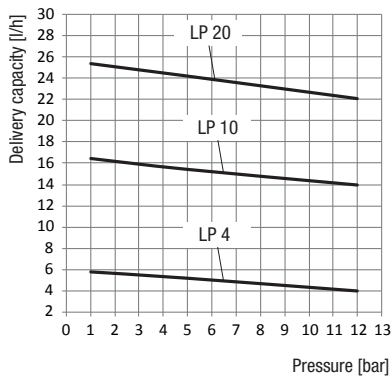
MEMDOS LP		4	4-HP	10	10-HP	20	20-HP	35	60	80	150	
Delivery capacity at max. back pressure	l/h	4	8.4	14	24	22	36		63	90	156	
Max. delivery pressure	bar	12	16	12	16	12	16	10		5		
Nominal stroke frequency	RPM	26		72		120		72	120	72	120	
Suction lift for non-gassing media	mWS	9					8		7			
Max. supply pressure	mbar	500										
Diameter of diaphragm	mm	52					64		90			
Valve size		DN4					DN6		DN10			
Voltage supply		230 V										
Protection class		IP55										
Insulation class		F										
Material		PVC, PP, PVDF, 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		
Permitted ambient temperature	°C	5 – 45 (with PVC parts 5 – 40)										
Permitted media temperature	°C	80 (with PVC parts 35; with PP parts 60)										

MEMDOS LP		110	160	210	260	310	400	510	760	1010	
Delivery capacity at max. back pressure	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		230 V									
Protection class		IP55									
Insulation class		F									
Material		PVC, PP, PVDF, 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		
Permitted ambient temperature	°C	5 – 45 (with PVC parts 5 – 40)									
Permitted media temperature	°C	80 (with PVC parts 35; with PP parts 60)									

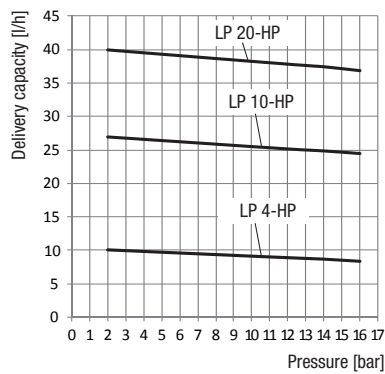
Delivery characteristic curves

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.

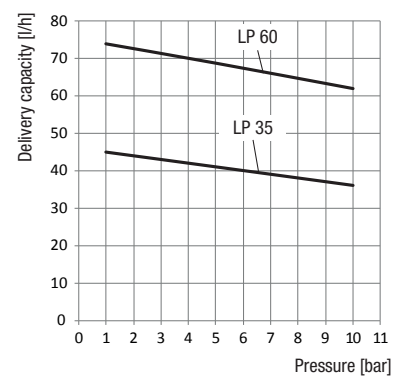
MEMDOS LP 4, 10, 20



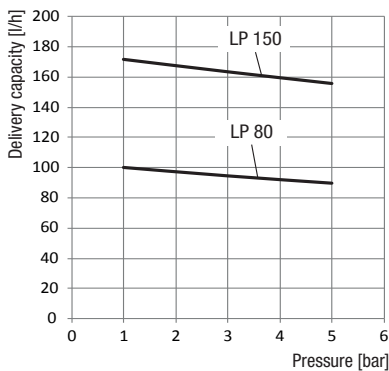
MEMDOS LP 4-HP, 10-HP, 20-HP



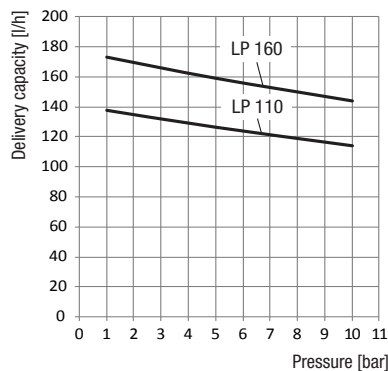
MEMDOS LP 35, 60



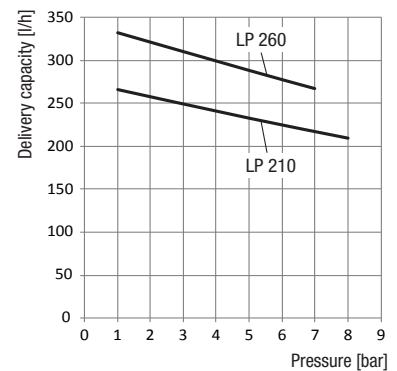
MEMDOS LP 80, 150



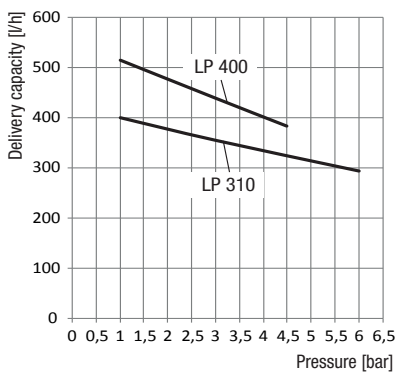
MEMDOS LP 110, 160



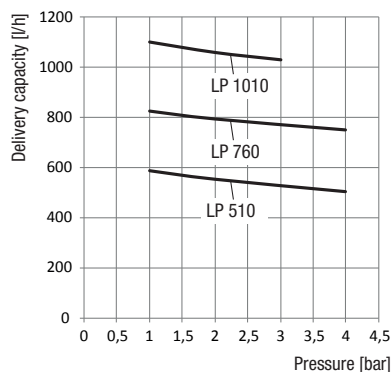
MEMDOS LP 210, 260



MEMDOS LP 310, 400



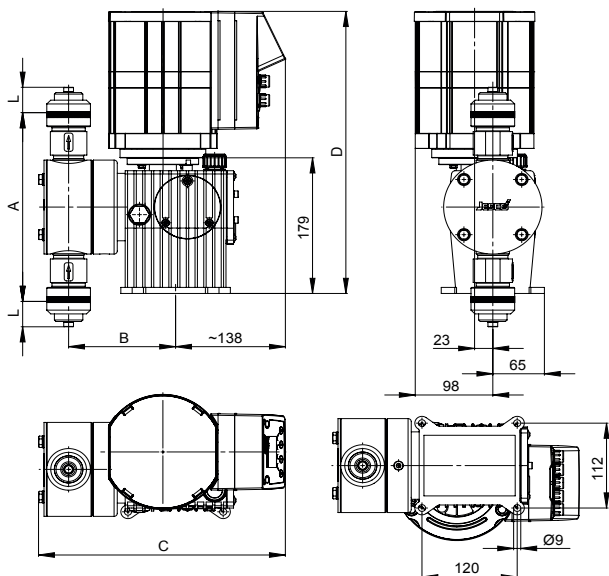
MEMDOS LP 510, 760, 1010



Dimensions

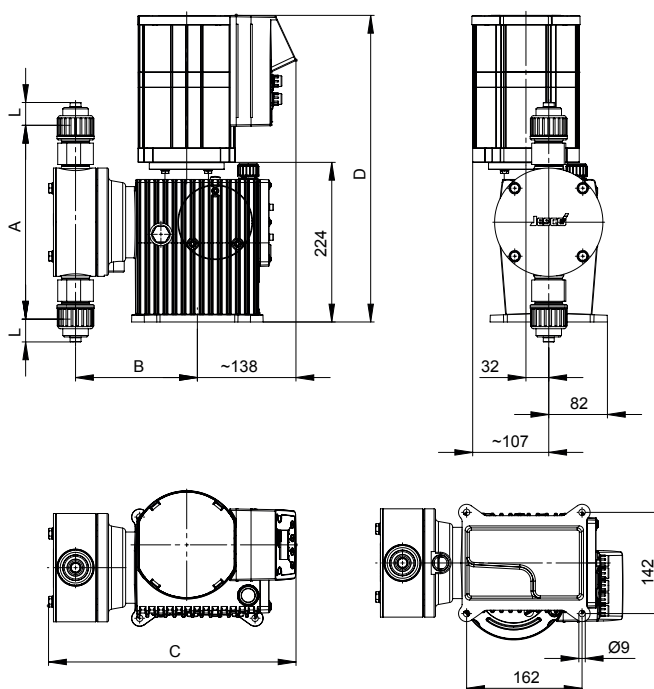
MEMDOS LP 4 – 80 and 150

All dimensions in mm



MEMDOS LP 110, 160 – 1010

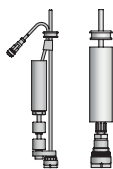
All dimensions in mm



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 (*194.3)
C	276	283	307	325	335	340	402 (*375.5)
D	372	372	372	430	430	430	466
L	Depends on the connection type and size						

*) Dosing head made of stainless steel

MEMDOS LP 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 2,500 mm hose length.



Injection nozzles

From the connection of 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.