

## Reliable dosing of chemicals

The compact stepper motor pump, coupled with its intelligent drive concept, combines the big advantages of a solenoid-driven diaphragm dosing pump with the precision of a motor-driven diaphragm dosing pump.

The MEMDOS SMART LD series is available in six sizes for metering applications ranging to 8.10 gph against pressures of up to 290 psig.

Several different materials and connections are available for suction and discharge side, depending on the specific applications. A coordinated accessory set consisting of hoses, injection nozzles and suction lines enables fast installation, while achieving optimum results.

## Wide range of applications

The MEMDOS SMART LD's drive is fully adjustable. The stepper motor with its wear-free tooth belt drive, ensures a particularly homogeneous and gentle dosing process. This produces an almost constant supply stream, which gives a low-pulsation dosing.

The MEMDOS SMART LD doesn't just impress with its elegant design; the display, with a graphical menu, as well as the dosing pump's operation using the integrated keyboard, simplifies its use.

Using position detection in the pump, after an unexpected shut down of the pump, overdosing can be prevented and downtime resulting from this can be excluded.



## In Short

- Capacity range to 8.10 gph, up to 290 psig
- Wide-range power supply 110 - 240 V AC, -10% / +5%, 50/60 Hz, 25 W
- Precise pump adjustments using the keypad
- Infinitely variable stroke frequency from 0 to 100%
- External control with impulse increase and reduction
- Fully controllable stepper-motor drive
- Accurate dosing thanks to the double-ball valves
- Materials: PVC, PP, PVDF and Stainless Steel
- Compact design, low space requirement
- Integrated dosing head venting device (only MEMDOS SMART LD 2, LD 5 and LD 10 with dosing head made of plastic)
- Wall and floor mounting without a bracket
- Supplied with connection sets (plastic version)
- Material consistency from pumps to accessories
- CSA and UL certified

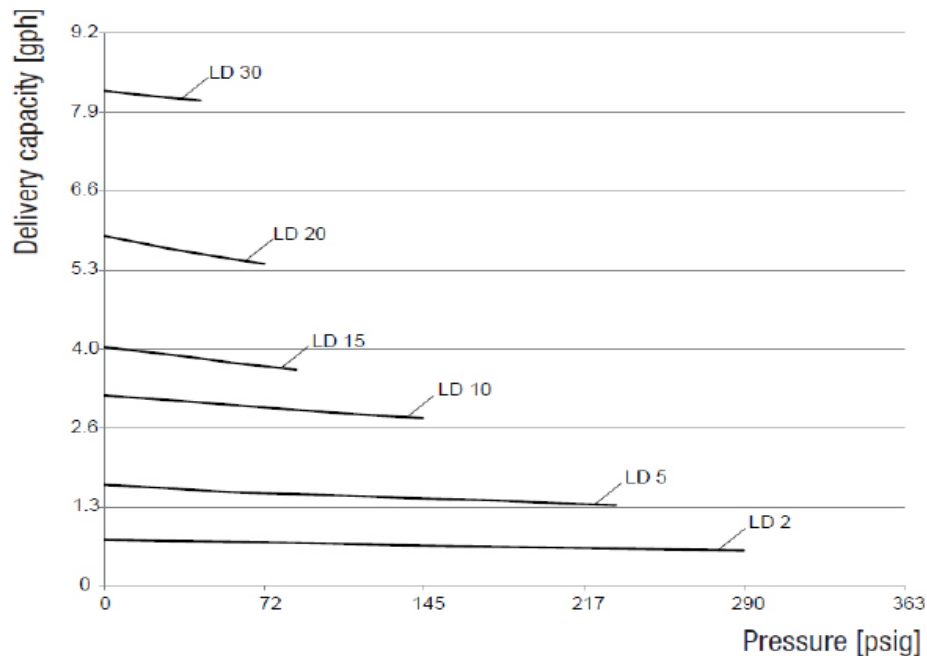
## Technical Data

MEMDOS SMART LD		2	5	10	15	20	30
Delivery capacity at max. pressure	gph	0.68	1.4	2.85	3.75	5.4	8.10
Max. supply pressure	psig	290 (232)*	232	145	88	74	44
Delivery capacity at medium pressure	gph	0.7	1.59	2.98	3.88	5.6	8.2
Average back pressure	psig	145	116	72	44	36	22
Max. stroke frequency	SPM	150					
Suction head for non-gassing media	ft. H <sub>2</sub> O	9.8					
Max. supply pressure	psig	11.6 PSI					
Nominal valve width		DN4					
Voltage supply		110 to 240 V AC, - 10%/+5%, 50/60 Hz					
Power consumption	W	25					
Protection class		IP 65 (with covering caps on the connections)					
Insulation class		F					
Weight	PVC, PP, PVDF	~ 4.85					
	1.4571	~7.27					
Max. ambient temperature	°F	with 316SS/PVDF 113° (104° with PVC parts)					
Max. temperature of the medium	°F	with 316SS/PVDF 176° (with PVC parts 95°; with PP parts 140°)					

\*PVC version

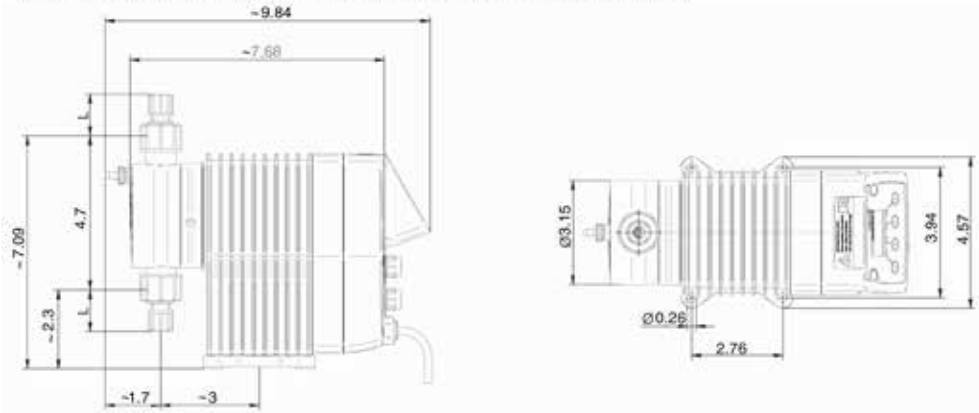
## Flow curves

The flow curves are valid for 68°F (20°C) for water at 100% stroke frequency. The delivery capacity depends on the medium (density and viscosity) and temperature.

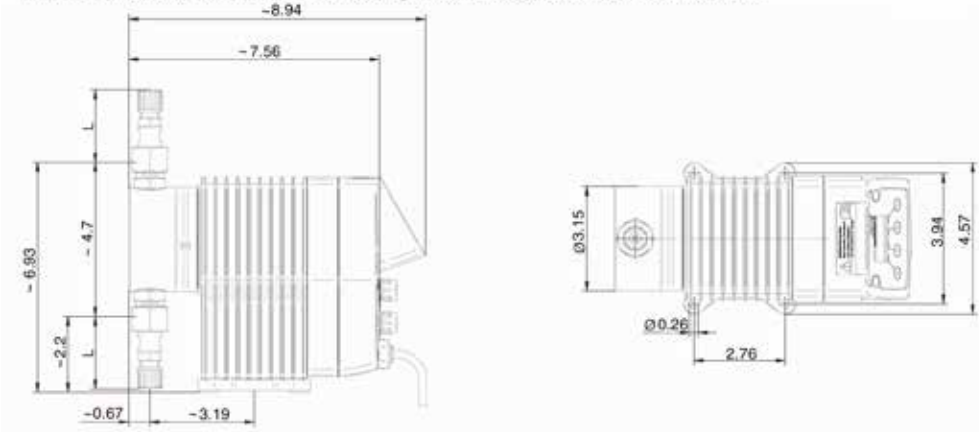


## Dimensions

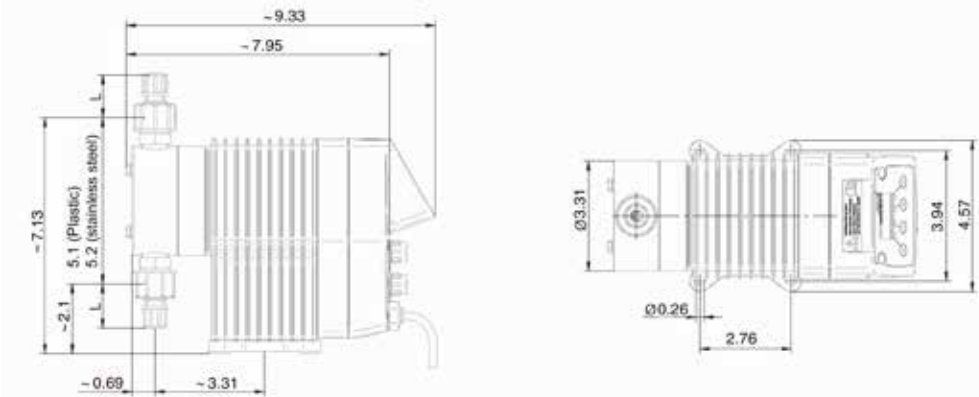
MEMDOS SMART LD 2, 5, 10 with dosing head made of PVC, PP or PVDF



MEMDOS SMART LD 2, 5, 10 with dosing head made of stainless steel 1.4571



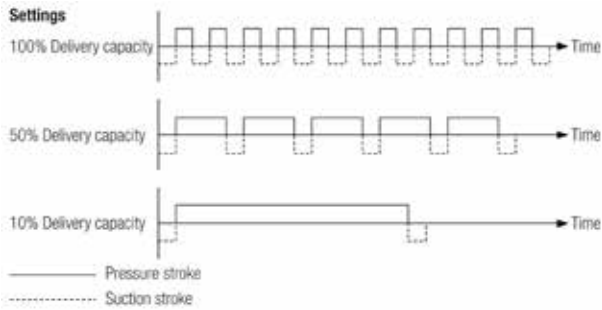
MEMDOS SMART LD 15, 20, 30 with dosing head made of PVC, PP, PVDF or stainless steel 1.4571



All dimensions in inches

Material	Size	Nominal diameter	L
PVC, PP, PVDF	4/6 mm	DN4	1.22"
	1/4" x 3/8"	1/4"	1.34"
	1/4" x 7/16"	DN6	1.34"
316 SS / PVDF	1/4" FNPT	DN4	1.96"
	1/4" FNPT	DN6	2.12"

## Conveying Characteristics



The MEMDOS SMART LD dosing pump is designed to run the pressure stroke and suction stroke at different speeds. For low supply rates, for example, the dosing pump performs the suction stroke at the maximum speed and adjusts the speed of the pressure stroke to match the desired supply rate. This produces a constant supply stream, which gives you low-pulsation, smooth dosing.

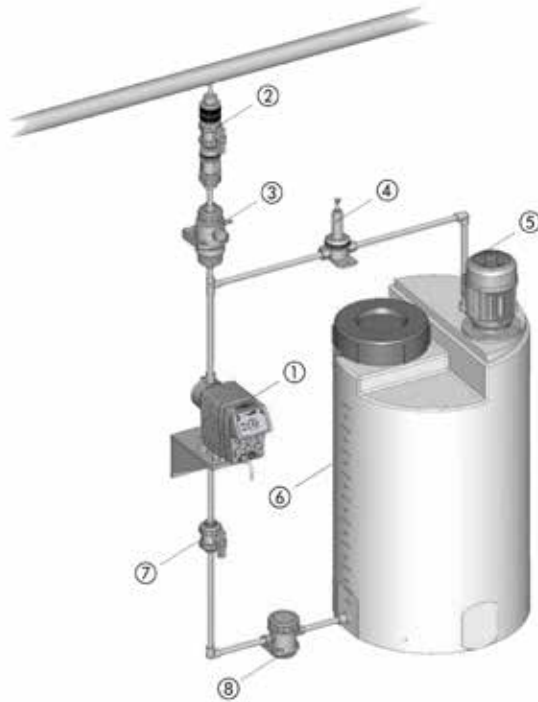
## Accessories

Even the best pump can be improved – simply by the addition of appropriate accessories.

Suitable sets of accessories, consisting of suction/discharge tubing, foot valve and injection nozzle, are available for the dosing pumps.

To turn your dosing pump into an efficient dosing system, we recommend using the following accessories:

- Injection nozzles - to dose the medium into the main line and to prevent it from flowing back into the pressure line.
- Back pressure and pressure relief valves - to increase dosing accuracy or to protect the system against excessive pressure.
- Pulsation dampener - to dampen supply flow as well as to reduce discharge flow pulsations.
- Priming aids - to significantly ease priming of dosing pumps with low supply volumes per stroke, for large suction heights, highly viscous dosing media, for initial priming or when priming after the system has been idle.
- Suction pressure regulator - to prevent medium flow when the dosing pump is not running or to prevent a vacuum being formed in the event of a pipe failure.



Please contact us for more information on accessories and metering pump systems.

### Legend

- |  |                              |
|--|------------------------------|
| ① MEMDOS SMART LD                      | ④ Pressure relief valve      |
| ② Injection nozzle with shut-off valve | ⑤ Electrical agitator        |
| ③ Pulsation dampener                   | ⑥ Dosing tank                |
|  | ⑦ Shut-off valve             |
|  | ⑧ Suction pressure regulator |